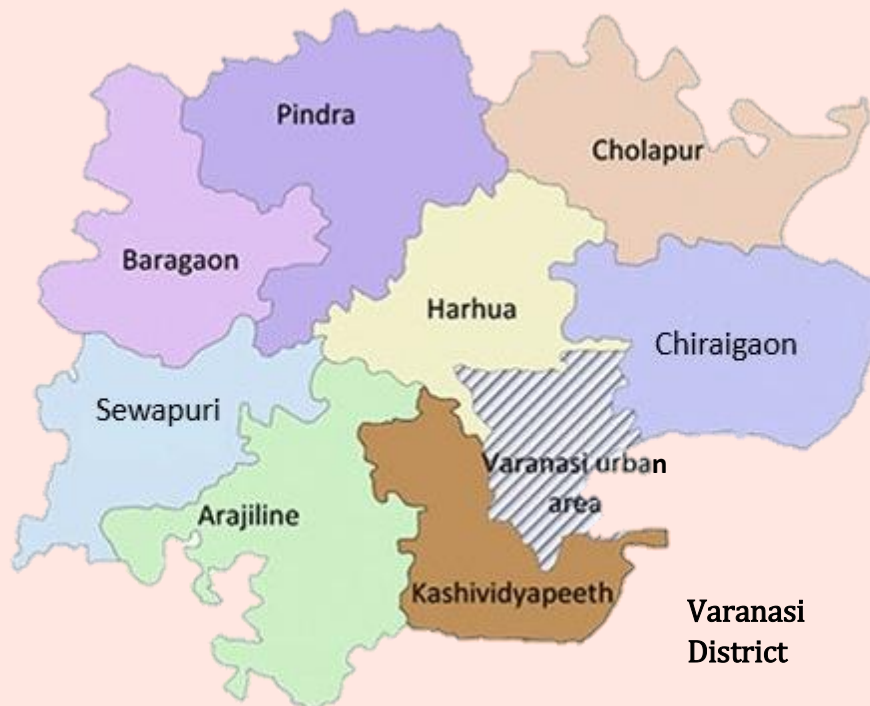


Cancer Incidence and Mortality in Varanasi District, Uttar Pradesh, India: 2020-2021

Population-Based Cancer Registry (PBCR) Report



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Advanced Centre for Treatment, Research and Education in Cancer, Kharghar, India
Homi Bhabha Cancer Hospital (HBCH) & Mahamana Pandit Madan Mohan
Malaviya Cancer Centre (MPMMCC), Varanasi, Uttar Pradesh, India
Tata Memorial Centre (TMC), Mumbai, India
(A Grant-in-Aid Institution under Department of Atomic Energy, Government of India)
Homi Bhabha National Institute (HBNI), Mumbai, India

Population-Based Cancer Registry (PBCR) Report



Homi Bhabha Cancer Hospital (HBCH), Varanasi, Uttar Pradesh, India



**Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC),
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I. Highlights

- ❖ Varanasi population based cancer registry is the first cancer registry in the Uttar Pradesh (UP) state of India. The registry was established by Centre for Cancer Epidemiology, Tata Memorial Centre (TMC), Mumbai on 1st April 2017. This is third report of PBCR Varanasi for the years 2020 and 2021.
- ❖ The registry covers around 4.1 million population of the district (urban area and 1,295 villages from 8 blocks of the district). The 53% population of the district is rural.
- ❖ The cancer registry staff has collected the cancer cases data from all cancer centres, private hospitals, and laboratories in Varanasi and adjacent regions as well as government hospitals and primary health centres. There are more than 100 sources of cancer registration.
- ❖ The registry staff has interacted with more than 7,500 community leaders to gather the cancer cases information.
- ❖ In the year 2020 and 2021, the cancer registry registered 4,446 cancer incidence cases (2,514 [56.5%] males and 1,932 [43.5%] females).
- ❖ The main source of information is from Mahamana Pandit Madan Mohan Malaviya Cancer Centre and Homi Bhabha Cancer Hospital, Varanasi and through village visits by community interaction.
- ❖ The age adjusted incidence rate for males is 67.7 per 100,000 population and for females, it is 54.7 per 100,000 population.
- ❖ 1 in 13 males and 1 in 16 female are at risk of developing cancer in Varanasi district.
- ❖ Mouth, tongue and gall bladder cancer are predominant cancer among males in this population.
- ❖ We have registered 665 (26.5%) mouth cancer, 225 (8.9%) tongue and 163 (6.5%) gall bladder cancer cases in males during the period 2020 and 2021.
- ❖ Mouth cancer incidence in males is high in this population (AAR 17.8 per 100,000). 1 in 51 males is at risk of developing the disease.
- ❖ In this population 51.2% and 14.2% of cancer cases are due to tobacco consumption respectively in males and females.
- ❖ Breast, gall bladder and cervix uteri cancer are the predominant cancer among females in this population.
- ❖ We have registered 449 (23.2%) breast cancer, 274 (14.2%) gallbladder cancer and 172 (8.9%) cervix uteri cancer cases in females during the period 2020 and 2021.

- ❖ Breast cancer incidence is 12.4 per 100,000 population, which is low as compared to other urban registries in India. 1 in 76 females are at risk of developing breast cancer.
- ❖ Gall bladder cancer is the second leading cancer site in females. The incidence is 7.9 per 100,000 population. 1 in 107 females are at risk of developing gall bladder cancer in this population.
- ❖ Of the total cancer cases registered, 2.4% of cases are in paediatric age group. The age adjusted incidence for boys is 72.7 per million and 39.9 per million for girls. The leading cancer sites in boys are lymphoid leukaemia, leukaemia unspecified, non-hodgkin lymphoma while in girls lymphoid leukaemia, kidney, and Hodgkin disease.
- ❖ There is a difference in the cancer pattern between rural and urban areas. The cervix and gall bladder cancer burden is higher in rural areas as compared to urban areas.
- ❖ The COVID-19 pandemic has badly hampered the registry working. There may be under reporting in the urban area as compared to the rural area. The incidence rate reported in the year 2020-2021 is low as compare to 2018-2019.
- ❖ Varanasi PBCR has submitted the data for the years 2017, 2018, 2019, 2020, and 2021 to National Cancer Registry Programme, Indian Council of Medical Research (ICMR), Bengaluru.
- ❖ Recent publication by ICMR in the JAMA Network Open used the Varanasi cancer registry data to estimate the cancer burden in India for the year 2024.
- ❖ PBCR has published nine research articles in the national and international journals. The registry staff has also presented scientific posters in the International Association of Cancer Registry (IACR) meeting 2024 held at Beijing, China (5 – 7 November 2024).
- ❖ Few hospitals and laboratories have not provided the cancer patients data to the cancer registry.
- ❖ The major cancer burden in Varanasi district is due to mouth, tongue, breast, gall bladder and cervix cancer. We need to raise awareness in the population about the signs, symptoms and risk factors of the disease. It is recommended that there should be easy access to diagnosis for symptomatic/likely cancer cases. The confirmed cancer cases should be provided timely treatment.
- ❖ As the tobacco-related cancers is high in this population, we need to effectively implement the tobacco control program in this district. The awareness of Tobacco Quit Line toll-free number 1800-11-2356 is required.
- ❖ The population based cancer registry in the Varanasi district will be used to monitor the cancer trends and cancer control activities.
- ❖ The cancer registry will act as a foundation for epidemiological studies of common cancer in these areas.

II. Executive summary

Background

Tata Memorial Centre (TMC), Mumbai an autonomous institute under the Department of Atomic Energy, Government of India, started a population-based cancer registry in Varanasi district on April 1, 2017, with the help of Sir Sunderlal Hospital, Banaras Hindu University, and district health authority of Varanasi district. The objective of the cancer registry is to measure the burden of cancer in terms of incidence and mortality and to know the patterns of cancer in the district. This is the first population-based cancer registry in the Uttar Pradesh state. The cancer registry has published the 2017 and 2018-2019 reports. The registry data will be useful in planning cancer control activities and strengthening cancer care services in the Varanasi district. **We are presenting here the report for the years 2020 and 2021.**

Population covered

The cancer registry covers the eight blocks and urban areas of the district – Arajilina, Baragaon, Chiraigaon, Cholaipur, Harhua, Kashividyapeeth, Pindra, and Sewapuri blocks including urban areas covering a population of 3,676,841 as per census 2011. **The registry covers urban areas (90 wards) Ramnagar (Nagar Palika Parishad), 39 census town, Gangapur Nyay Panchayat (10 wards), Cantonment board, Maruadih railway settlement as well as 1,295 villages of the district. Approximately 53% population of the district is covered under rural area.**

Registration method

Trained field investigators of the cancer registry regularly visit the villages as well as different hospitals, pathology laboratories, diagnostic centres, medical colleges, cancer control cells, and the birth and death registrar office to collect cancer incidence and death cases. The registry staff interacts with the village sarpanch, Auxiliary Nurse Midwife (ANM), Accredited Social Health Activist (ASHA) workers, and primary health centre staff periodically to know the cancer cases diagnosed in the area as well as cancer deaths that have occurred in the village. With the help of ASHA workers, the registry staff interacts with the patient's relative and they note down the information available.

In the urban area, the staff interacts with the local municipal corporators and local leaders to get information about the cancer cases diagnosed in the community. The information received from ASHA workers/patients' relatives/local leaders is further confirmed at the patient's treating hospital.

After confirming the patient's residence (resident of the district for at least one year) and duplicate checking by senior staff, the case is registered in the prescribed format. The data entry is carried out in *CanReg5* software.

Patients from this area travel to Prayagraj, Lucknow, Kanpur, Delhi, Chandigarh, and Mumbai for cancer treatment and also they receive the treatment at Sir Sunderlal (SS) Hospital, Banaras Hindu University (BHU), Varanasi, and other private hospitals.

Tata Memorial Centre (TMC) Mumbai started two cancer centres including Homi Bhabha Cancer Hospital (HBCH), Lahartara and Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC), BHU in Varanasi city. Both centres are well functioning in cancer care and treatment services. Centres are following the TMC treatment and follow-up protocol. From 2018, more than 1,40,000 cancer patients have been registered.

Results

This report is based on the cancer registry data for the years 2020 and 2021. In the year 2020 and 2021, the cancer registry recorded 4,446 incidence cancer cases including 2,514 males (56.5%) and 1,932 females (43.5%). The age-adjusted incidence rate for males is 67.7 per 100,000 population and for females, it is 54.7 per 100,000 population. The cumulative risk for the age group 0-74 in males is 7.7% (**1 in 13 males are at risk of developing cancer**) and in females, it is 6.1% (**1 in 16 females are at risk of developing cancer**).

For the years 2020 and 2021, the cancer registry recorded 3,045 cancer deaths including 1,739 deaths among males (57.1%) and 1,306 deaths among females (42.9%). The age-adjusted mortality rate for males is 47.3 per 100,000 population and for females, it is 37.3 per 100,000 population. The cumulative risk of death due to cancer in the age group 0-74 in males is 5.6% and for females, it is 4.3% (**1 in 18 males and 1 in 23 females are at risk of death due to cancer**).

Leading cancer sites

Among males; mouth, tongue, gallbladder, lung, prostate, liver, NHL, larynx, oesophagus and stomach are the leading cancer sites. Among females; breast, gallbladder, cervix uteri, ovary, lung, mouth, liver, corpus uteri, stomach, and tongue are the leading cancer sites. The leading cancer sites are mentioned in table I and II.

Table I: Leading cancer sites in males for the period 2020-2021

ICD 10	Sites	Number	%	CR	AAR	TR	Risk 1 in
C03-C06	Mouth	665	26.5	15.5	17.8	45.8	51
C01-C02	Tongue	225	8.9	5.2	5.8	13.7	172
C23-C24	Gall bladder	163	6.5	3.8	4.5	9.5	188
C33-C34	Trachea, bronchus and lung	150	6.0	3.5	4.2	6.1	185
C61	Prostate	113	4.5	2.6	3.2	3.6	231

CR: Crude Incidence Rate per 100,000, AAR: Age-Adjusted Rate per 100,000, TR: Truncated Incidence Rate per 100,000 Population

Table II: Leading cancer sites in females for the period 2020-2021

ICD 10	Sites	Number	%	CR	AAR	TR	Risk 1 in
C50	Breast	449	23.2	11.4	12.4	29.7	76
C23-C24	Gall bladder	274	14.2	7.0	7.9	18.1	107
C53	Cervix uteri	172	8.9	4.4	5.0	12.1	179
C56	Ovary	143	7.4	3.6	3.9	9.4	252
C33-C34	Trachea, bronchus and lung	86	4.5	2.2	2.5	5.0	315

CR: Crude Incidence Rate per 100,000, AAR: Age-Adjusted Rate per 100,000, TR: Truncated Incidence Rate per 100,000 Population

Primary unknown (C80) cases

This year we have noticed an improvement in the cancer case registration due to continuous interaction with the clinician by the registry staff as well as improvement in the infrastructure. The percentage of primary unknown cases has slightly decreased for males from 3.9 % to 2.4% and in females from 1.4 to 1.6 %, no major change was observed as compared to the year 2018-2019.

Late registration of 2018-2019 incidence cases

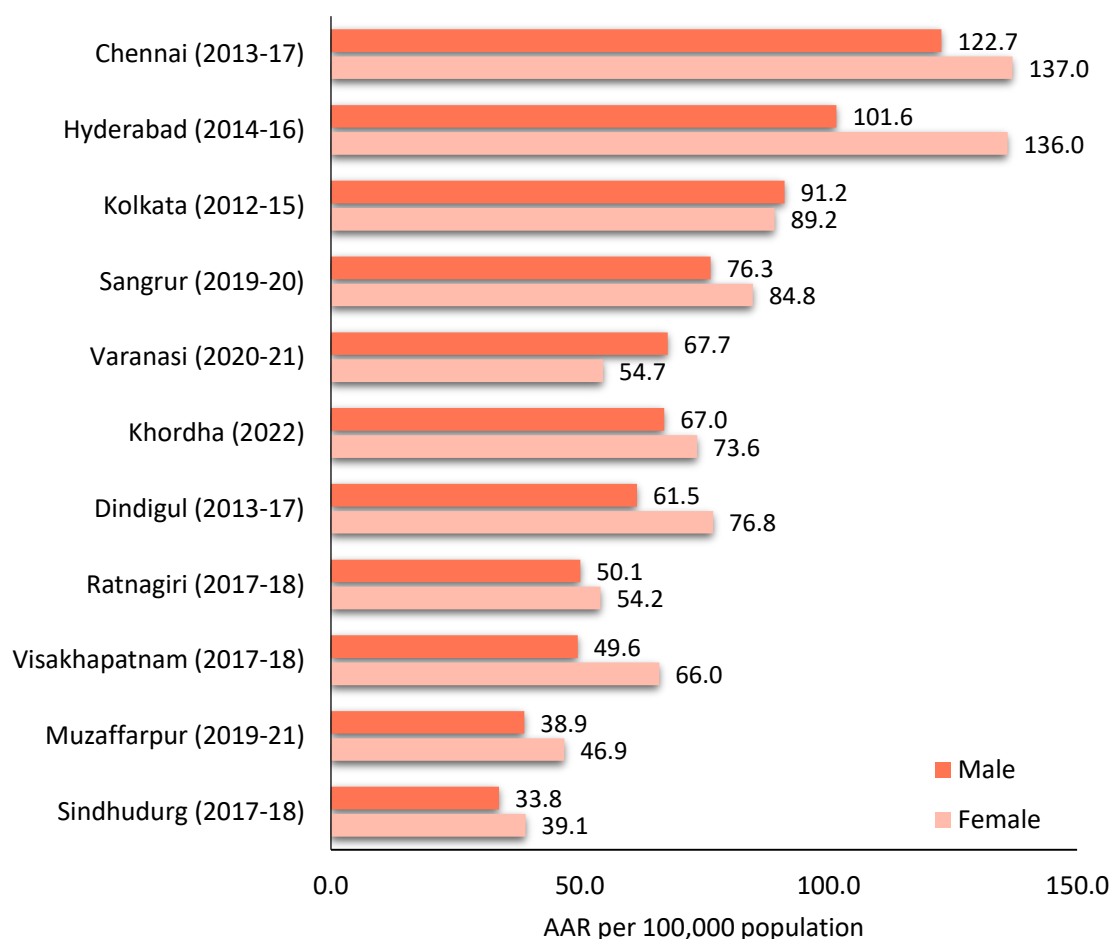
In the second-year report of the population-based cancer registry, we have noted the under-reporting of the cases. Few private laboratories, as well as leading hospitals, were reluctant in providing the cancer patient's data in the Varanasi district. Due to continuous interaction with the community leaders/patient's relatives to gather the information, we have registered a few cancer cases after the report (2018-2019) release, which will be considered as late registration.

The registry has noted late-registration incidence cases for the year 2018-2019 after removing few cases during data checking. The revised age-adjusted incidence rate for males for the year 2018-2019 was 74.4 and for females, it was 60.2 per 100,000.

Comparison of cancer registry rate with other registries in India

As compared to the other parts of India, cancer incidence rates are lower and comparable with other parts of India.

Figure I: All site cancer incidence rate



Cancer patterns in urban and rural areas

The Varanasi cancer registry covers 57% of rural area and 43% of urban areas. The cancer incidence rate in urban and rural areas for males is 76.5 and 59.3 per 100,000 population respectively. For females, the cancer incidence rate in urban and rural areas is 62.5 and 48.7 per 100,000 population. The urban area cancer incidence rates are higher compared to the rural area. Mouth cancer is the leading cancer site in both urban and rural males with an age-adjusted incidence rate 21.6 and 14.2 per 100,000 population respectively. For females, breast, gall bladder and cervix uteri are the top three leading cancer sites. The breast cancer incidence for rural areas is low than that of the urban areas. **Due to COVID-19 pandemic we have limited access to the urban area hospital. We may have missed the cases from the urban area however due to community interaction chances of under reporting is low in rural area however there may be under diagnosis.**

Paediatric cancer burden

The Varanasi PBCR is monitoring the paediatric cancer burden in the district. Registry has maintained the data of the paediatric cancer cases as per the ICC-3 standard. The paediatric cancer incidence in boys is 72.7 per million and for girls it is 39.9 per million.

Cancer control activities in the Varanasi district/ recommendation

The cancer registry data has estimated the risk of developing cancer in males 7.7% and in females 6.1%. The major cancer burden in the Varanasi district is due to mouth, tongue, breast, gall bladder, and cervix uteri cancers. These cancers are preventable. Mouth cancer incidence rates are higher in the Varanasi district as compared to other cancer registries. In males 51.2% cases are due to tobacco use. The gall bladder cancer is the second leading cancer site in females and third leading cancer sites in males. We need to create awareness about the risk factors about the disease (such as food habit – effect of consumption of adulterated mustard oil and risk of gall bladder cancer as well protective factors such as leafy vegetables, fruits).

This report recommends initiation of the awareness programs on tobacco hazards, risk factors signs and symptoms of cancer in schools, colleges, work place and communities as well as for the primary health centre workers, and government medical officers. It is also recommended that there should be ease of access to diagnosis of symptomatic/ likely cases and the confirmed cancer cases should be provided timely treatment at the cancer centres.

The public health department of the Uttar Pradesh state should implement these activities with technical support from the TMC Varanasi. The population-based cancer registry in the Varanasi district will be used to monitor cancer trends and cancer control activities. The cancer registry will act as a foundation for epidemiological studies of common cancers in these areas.

1. Uttar Pradesh state profile

Uttar Pradesh state is located in the northern region of India. The state shares its borders with states Himachal Pradesh, Rajasthan, Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, and Haryana. The state also borders the capital of India- New Delhi along with the newly formed state of Uttarakhand. It is bordered by Nepal in the north. Uttar Pradesh has been one of the oldest states in the country and in every single way reflects the life and culture of India as a whole. The total area of the state is 240,928 Km². The population of the state is 199,812,341⁽¹⁾. Lucknow is the capital of Uttar Pradesh.

As per the 2011 census, Uttar Pradesh has a total population of 199,812,341 out of which 104,480,510 (52.3%) are males and 95,331,831 (47.7%) are females. The population density of Uttar Pradesh is 829 people per Km²; it is the highest populated state in India.

The state is spread over an area of about 240,928 Km² making it the 5th largest state in the country in terms of area. The state has a growth rate of about 20.23%, which is higher than the national average of 17.6%. The population of the state is rising considerably due to rapid efforts toward development and progress. The literacy rate in the state is about 67.7%. The Uttar Pradesh state population, literacy, and area are mentioned in table 1.

Table 1: Uttar Pradesh state population, literacy and area

Sr. No.	Characteristics	Unit	Value
1.	Area (i) Rural-area (ii) Urban area	Km ²	240,928.0 2,33,365.7 7,562.3
2.	Total population (Census 2011) (i) Urban population (ii) Rural Population	Number	199,812,341 44,495,063 (22.3%) 155,317,287 (77.7%)
3.	District	Number	75
4.	Density	Km ²	829
5.	Female per 1000 male	Number	912
6.	Literacy rate	%	67.7

2. Varanasi district profile

Varanasi, or Benaras, (also known as Kashi) is one of the oldest living cities in the world. Varanasi's prominence in Hindu mythology is virtually unrevealed. Mark Twain, the English author and literature, who was enthralled by the legend and sanctity of Benaras, once wrote: "Benaras is older than history, older than tradition, older even than legend and looks twice as old as all of them put together." The Ganges is said to have its origins in the tresses of Lord Shiva and Varanasi, it expands to the mighty river that we know of. The city is a centre of learning and civilization for over 3000 years. With Sarnath, the place where Buddha preached his first sermon after enlightenment, just 10 km away, Varanasi has been a symbol of the Hindu renaissance ⁽²⁾.

It is surrounded by Mirzapur district, Jaunpur district, Ghazipur district, Chandauli and Sant Ravidas Nagar district. According to the 2011 Census of India, Varanasi district ranks 18th in Uttar Pradesh with a population of 3,676,841 which is 1.8% of the total population of 199,812,341 of Uttar Pradesh State. Varanasi district has a population density of 2,395 persons per sq.km. which is more than the state average of 829 persons per sq. km ⁽¹⁾.

The location of the Varanasi district is presented in figure 1. Varanasi district health blocks and the number of villages are presented in table 2.

Figure 1: Location of Varanasi district, Uttar Pradesh



Table 2: Blocks under Varanasi district

Sr. No.	Block	Number of villages
1	Arajiline	220
2	Baragaon	139
3	Chiraigaon	133
4	Cholapur	148
5	Harhua	173
6	Kashividyapeeth	106
7	Pindra	191
8	Sewapuri	185
Total		1295

Health infrastructure of Varanasi district

Varanasi district has five district hospitals and five sub-district hospitals with basic diagnostic and surgical facilities. The district has 30 block primary health centres, 8 community health centres, and more than 300 sub-centres. Primary health care is offered at these hospitals. Detailed information about the hospital and PHC is presented in Table 3.

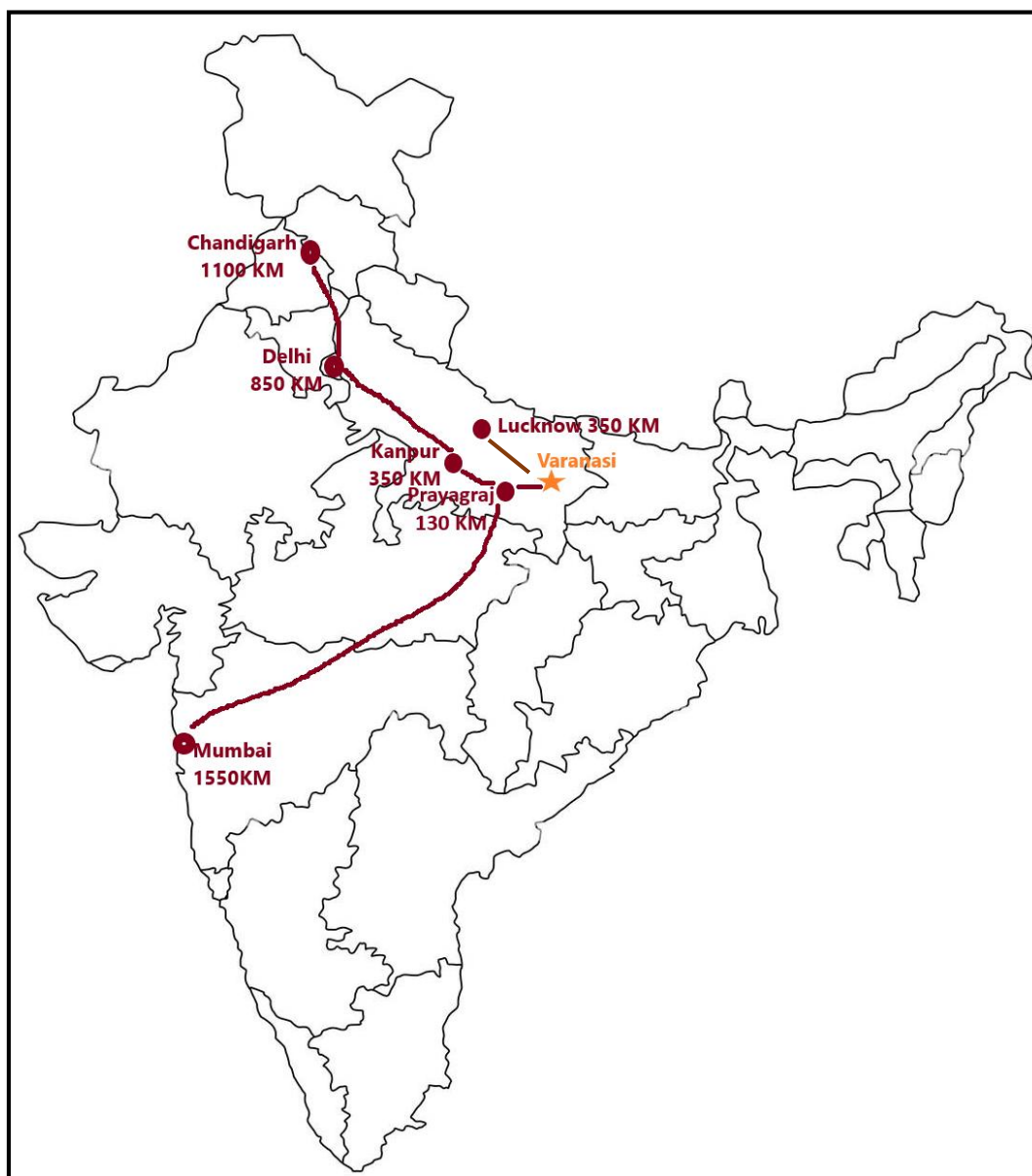
Table 3: Major Health Facilities in Varanasi district

Sr. No.	Institute	Number
1.	Central government hospital	3
2.	District hospital (DH)	5
3.	Sub-district hospital (SDH)	5
4.	Community health centre	8
5.	Block primary health centre (PHC)	30
6.	Sub-Centre (SC)	312
7.	Maternity welfare centre	41
8.	Maternity welfare sub-centre	306
9.	Rural hospital (RH)	
	(a) Allopathic	37
	(b) Ayurvedic	26
	(c) Homeopathic	15
	(d) Unani	1
	(e) T.B. centre	2

Tata Memorial Centre, Mumbai – an autonomous unit of the Department of Atomic Energy, Government of India with the help of the Government of Uttar Pradesh and BHU, Varanasi has started the Homi Bhabha Cancer Hospital (HBCH) and Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) in Varanasi. The HBCH and MPMMCC have surgical, radiotherapy and medical oncology facilities. From 2018, more than 1,40,000 cancer patients have been registered. The hospital is listed in the various government-sponsored schemes for cancer treatment.

The cancer treatment facility is also available in SS Hospital, BHU Varanasi. The patient from Varanasi district travel to Prayagraj, Lucknow, Kanpur, Delhi, Chandigarh, and Mumbai for cancer treatment. The distance from Varanasi to different cancer treatment centres is presented in figure 2.

Figure 2: The distance from Varanasi to different cancer treatment centres



3. Administrative orders

The Chief Medical Officer (CMO), District Public Health Department of the Varanasi district has issued an administrative order to all the government and private hospitals to provide data of all cancer patients to the population-based cancer registry. The Director of Institute of Medical Sciences, BHU also issued the letter to all the departments of SS hospital to support the cancer registry staff in cancer cases data collection. Due to administrative support from the government of Varanasi, we have very good co-operation from the government institute.

प्रेषक,
मुख्य चिकित्सा अधिकारी,
वाराणसी।

सेवा में,
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सामुदायिक/प्राथमिक स्वास्थ्य केंद्र-वाराणसी।

पत्रांक: आईईओसी/विधि/टाटा/मेडि/कैंसर रजि/2020/ दिनांक 01-12-2020
विषय: जनसंख्या वाराणसी में पापुलेशन बेस्ड कैंसर रजिस्ट्री।

महोदय,
प्रो. आर.ए. बड़वे, निदेशक, टाटा मेमोरियल सेन्टर, मुम्बई के पत्र संख्या-CCCN. 037/29-5-17/TMC दिनांक 30 मई, 2017 द्वारा अवगत कराया गया है कि उनके सेन्टर/पापुलेशन बेस्ड कैंसर रजिस्ट्री स्टाफ द्वारा बीएचएमएस के सहयोग से जनसंख्या के सेन्टर स्टाफ एवं निजी चिकित्सालयों में भ्रमण कर सम्बन्धित चिकित्सालयों के अभिलेखों के आधार पर जनसंख्या में कैंसर रोगियों की संख्या एवं कैंसर के कारणों से मृत्यु के आंकड़ों को तैयार करवा जायेगा।
कृपया अनुरोध है कि पापुलेशन बेस्ड कैंसर रजिस्ट्री स्टाफ द्वारा कर रहे कम्युनिटी सर्वे में जो हेल्थ वर्कर एवं कम्युनिटी लीडर कैंसर रजिस्ट्री सर्वे में आवश्यक सहयोग करें।

भवदीय
मुख्य चिकित्सा अधिकारी
वाराणसी।
तद्विनांक।
पत्रांक: आईईओसी/विधि/टाटा/मेडि/कैंसर रजि/2020/ दिनांक 01-12-2020
प्रतिनिधि-
स्थानीय प्रतिनिधि-पापुलेशन बेस्ड कैंसर रजिस्ट्री, टाटा मेमोरियल सेन्टर, मुम्बई।
मुख्य चिकित्सा अधिकारी
वाराणसी।

CMO letter for government hospitals

प्रेषक,
मुख्य चिकित्सा अधिकारी,
वाराणसी।

सेवा में,
समस्त प्रमुख/संचालक,
1. निजी नर्सिंग होम/हॉस्पिटल
2. निजी दैव/पैथालॉजी
3. निजी कैंसर हॉस्पिटल
4. निजी रेडियो डायग्नोस्टिक सेन्टर
जनसंख्या-वाराणसी।

पत्रांक: आईईओसी/विधि/टाटा/मेडि/कैंसर रजि/2020/ दिनांक 01-12-2020
विषय: जनसंख्या वाराणसी में पापुलेशन बेस्ड कैंसर रजिस्ट्री।

महोदय,
प्रो. आर.ए. बड़वे, निदेशक, टाटा मेमोरियल सेन्टर, मुम्बई के पत्र संख्या-CCCN. 037/29-5-17/TMC दिनांक 30 मई, 2017 के क्रम में आप सभी को अवगत कराया जा चुका है कि उनके सेन्टर/पापुलेशन बेस्ड कैंसर रजिस्ट्री स्टाफ द्वारा बीएचएमएस के सहयोग से जनसंख्या के सेन्टर स्टाफ एवं निजी चिकित्सालयों में भ्रमण कर सम्बन्धित चिकित्सालयों के अभिलेखों के आधार पर जनसंख्या में कैंसर रोगियों की संख्या एवं कैंसर के कारणों से मृत्यु के आंकड़ों को तैयार करवा जायेगा।
कृपया अनुरोध है कि पापुलेशन बेस्ड कैंसर रजिस्ट्री स्टाफ द्वारा कर रहे कम्युनिटी सर्वे में जो हेल्थ वर्कर एवं कम्युनिटी लीडर कैंसर रजिस्ट्री सर्वे में आवश्यक सहयोग करें।

भवदीय
मुख्य चिकित्सा अधिकारी
वाराणसी।
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मुख्य चिकित्सा अधिकारी
वाराणसी।

CMO letter for private centres

वाराणसी हिन्दू विश्वविद्यालय BANARAS HINDU UNIVERSITY
विश्वविद्यालय के अध्यक्ष का कार्यालय
सर सुन्दरलाल चिकित्सालय
Office of the Medical Superintendent
SR. SUNDERLAL HOSPITAL

Ref.No.SSH/F. PS to MS/2019-20/4648 Dated: 20.02.2020

The Head, Department of Radiology/Pathology/
General Medicine (Hematology),
Institute of Medical Sciences,
Banaras Hindu University

Dear Sir/Madam,

This is to inform you that the Mahatma Pandit Madan Mohan Malaviya Cancer Centre has established Population Based Cancer Registry in Varanasi District to know about the burden of cancer in the district. To plan the cancer care services in the Varanasi District, the cancer registry staff will collect the patient's data.

All are requested to kindly cooperate with the cancer registry staff to collect the data for its optimum use.

Thanking you.

Yours faithfully,

MEDICAL SUPERINTENDENT

Copy for information to:-
1. The Director, IMS
2. Dr. Divya Khanna, Assistant Professor, Preventive Oncology/Incharge, PBCR
MPMMCC, TMC, Varanasi

MEDICAL SUPERINTENDENT

IMS BHU

4. Population covered by cancer registry

Varanasi district is divided into urban area and eight rural blocks: Baragaon, Harhua, Pindra, Arajiline, Chiraigaon, Cholaipur, Kashividyapeeth, and Sewapuri. As per the 2011 census, the total population of Varanasi district is 3,676,841. Of the total population, 2,079,790 (56.6%) is rural and 1,597,051 (43.4%) is urban. Of the total population, 52.3% are males and 47.7% are females. The population as per the 2011 census is mentioned in table 4.⁽¹⁾

Table 4: Varanasi district population as per census 2011

Area	Male	Female	Total
Rural	1,076,526	1,003,264	2,079,790 (56.6%)
Urban	845,331	751,720	1,597,051 (43.4%)
Total	1,921,857 (52.3%)	1,754,984 (47.7%)	3,676,841 (100%)

Estimated population of Varanasi district: 2020-2021

The registry population for 2020 and 2021 was estimated by the ratio method by using the 2001 to 2011 census population. As a result, average population of year 2020-2021 is 41,16,181 in which 21,49,860 males (52.2%) and 19,66,319 females (47.8%). The estimated average population for 2020-2021 is presented in table 5. The population pyramid of the Varanasi district is shown in figure 3.

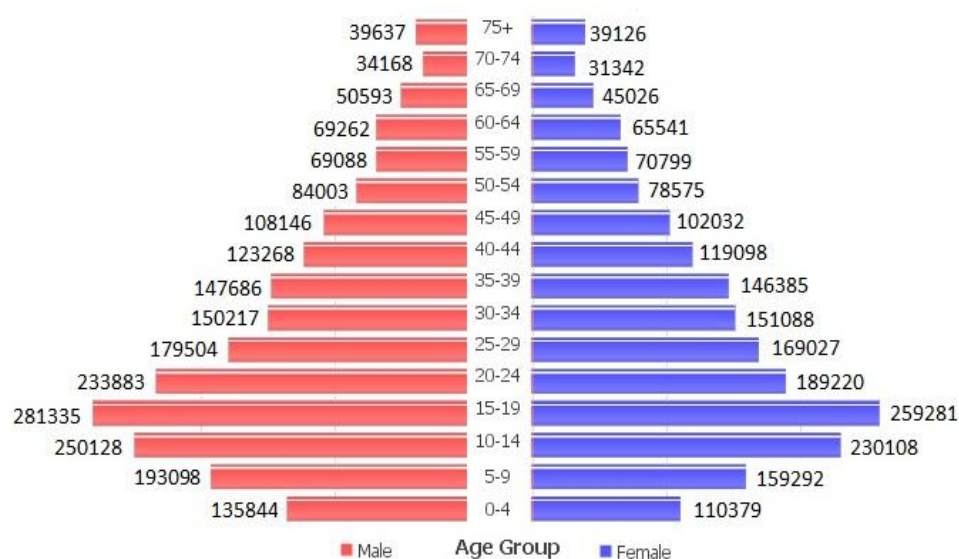


Figure 3: Population pyramid of Varanasi district 2020-2021

Table 5: Estimated average population of Varanasi district: 2020-2021

Age Group	Male		Female		Total	
	Number	%	Number	%	Number	%
00-04	135844	6.3	110379	5.6	246222	6.0
05-09	193098	9.0	159292	8.1	352390	8.6
10-14	250128	11.6	230108	11.7	480236	11.7
15-19	281335	13.1	259281	13.2	540616	13.1
20-24	233883	10.9	189220	9.6	423103	10.3
25-29	179504	8.3	169027	8.6	348531	8.5
30-34	150217	7.0	151088	7.7	301305	7.3
35-39	147686	6.9	146385	7.4	294071	7.1
40-44	123268	5.7	119098	6.1	242367	5.9
45-49	108146	5.0	102032	5.2	210178	5.1
50-54	84003	3.9	78575	4.0	162579	3.9
55-59	69088	3.2	70799	3.6	139887	3.4
60-64	69262	3.2	65541	3.3	134803	3.3
65-69	50593	2.4	45026	2.3	95620	2.3
70-74	34168	1.6	31342	1.6	65510	1.6
75+	39637	1.8	39126	2.0	78763	1.9
Total	21,49,860	100	19,66,319	100	41,16,181	100

5. Cancer registration method

Staff selection and training

The field investigators, field supervisors, and data entry operators were selected from the district and they were provided training in cancer registry operation at the Centre for Cancer Epidemiology, Tata Memorial Centre, Mumbai. To observe the cancer registry working, the recruited cancer registry staff were deputed to Homi Bhabha Cancer Hospital, Sangrur, and Chandigarh PBCR.

Periodically training programs were conducted by the Centre for Cancer Epidemiology, Tata Memorial Centre, Mumbai either in person or virtual.

Cancer incidence cases

Trained field investigator of the registry visits the allotted villages periodically (in a period of 6 to 8 months) to gather information regarding the cancer cases diagnosed in the area and the cancer deaths documented in the village administrative office. The field investigator interacts with the village Sarpanch, Auxiliary Nurse Midwives (ANMs), Anganwadi workers, Accredited Social Health Activist (ASHA) workers, and the medical officer of the primary health centre and collects the information regarding cancer cases diagnosed in the village as well as any cancer death that has occurred in the village. The social worker takes the detailed information of the cancer case and visits the patient's house, along with the ASHA workers. The field investigator interacts with the patient/patient's relative and asks the following questions:

- When was the patient diagnosed with cancer?
- Does the patient have a case file number with the treating hospital?
- Does the patient have any discharge report, biopsy report, or CT scan report?

The social worker notes down the available information. As per the information provided by the patient/patient's relative, the field investigator communicates with the treating cancer centre, collects the clinical details of the patient, and registers the cancer case in the prescribed proforma. In case of inaccessibility to the medical records of the patient, staff registers the case based on the information provided by the patient/patient's relatives.

During the second visit, the field investigator updates the status of the cancer cases. Field investigator also identifies any new cancer case/death in the village and repeats the same procedure mentioned above. This is a continuous process of village visits.

Cancer death cases

During the village visit, the social worker inquires about cancer deaths that have happened in the village and also collects the death case information from the village panchayat death register as well as birth and death registrar's office. In the same manner as the cancer incidence cases, the field investigator interacts with the patient's relative and collects information regarding cancer death. Based on the information provided by the relatives and by matching the information with the medical records available in the cancer registry, the cancer death is registered.

Cancer prevalence cases

During the field visit, sometimes field investigator may come across the cases diagnosed before 2018. In this situation, the field investigator collects detailed information on the cancer case from the patient's relative and maintains the data in the registry office. During the second visit, field investigator updates the status of the cancer cases. If there is any death of the prevalent case in that year, then the cancer death is registered after matching the information with the registry record.

Data checking and quality control

All the cases collected by field investigator from the villages, wards, diagnostic centres as well as from the cancer treating hospitals are scrutinized by the senior staff member. After residence confirmation, the cancer case information is documented in a prescribed format. The primary site and histology are coded based on the International Classification of Diseases for Oncology – Third Edition, Geneva, 2000 (ICD-O3)⁽³⁾. The preventive oncology consultant checks all the data and ICD coding as well the difficult cases were discussed with the clinician/pathologist. CCE-TMC team regularly visits the project office for quality control.

Data entry

The data entry is carried out in *CanReg5* software developed by the International Agency for Research on Cancer (IARC), Lyon, France.⁽⁴⁾

After duplicate checking and other quality measures, the cancer incidence and death cases are registered. The cancer registration process of the registry is presented in figure 5.

Cancer cases data collection from different hospitals

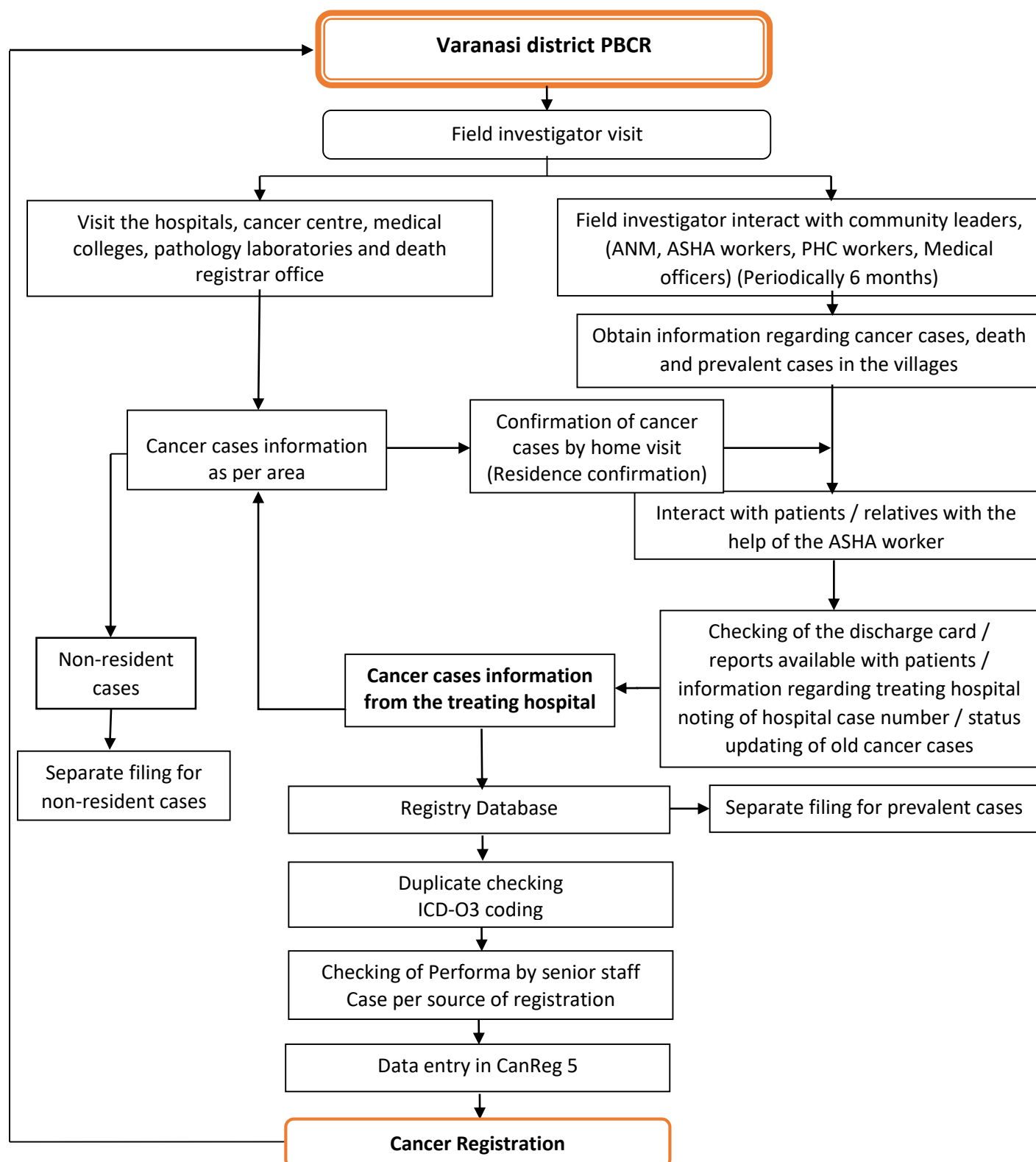
The registry staff regularly visits the following centres to collect information on the cancer cases and death cases in Varanasi district. The different sources of data collection are mentioned in table 6.

Table 6: Different sources of data collection

Sr. No.	Institution name	Place
1	Sir Sunderlal Hospital, Banaras Hindu University	Varanasi
2	Homi Bhabha Cancer Hospital & MPMCC	Varanasi
3	Anant Hospital	Varanasi
4	Apex Hospital and Diagnostic Centre	Varanasi
5	Arihant Diagnostic Centre	Varanasi
6	Block Development Office Arajiline	Varanasi
7	Block Development Office Baragaon	Varanasi
8	Block Development Office Chiraigaon	Varanasi
9	Block Development Office Cholapur	Varanasi
10	Block Development Office Haruha	Varanasi
11	Block Development Office Kashividyapeeth	Varanasi
12	Block Development Office Pindra	Varanasi
13	Block Development Office Sewapuri	Varanasi
14	Cantonment Hospital, Sadar	Varanasi
15	Chandpur Diagnostic Centre	Varanasi
16	Community Health Centre Arajiline Block	Varanasi
17	Community Health Centre Baragaon Block	Varanasi
18	Community Health Centre Chiraigaon Block	Varanasi
19	Community Health Centre Cholapur Block	Varanasi
20	Community Health Centre Harhua Block	Varanasi
21	Community Health Centre Kashividyapeeth Block	Varanasi
22	Community Health Centre Pindra Block	Varanasi
23	Community Health Centre Sewapuri Block	Varanasi
24	D S Research center	Varanasi
25	Dabur Oncquest, Lanka	Varanasi
26	Death Record Office Arajiline Block	Varanasi
27	Death Record Office Baragaon Block	Varanasi
28	Death Record Office Chiraigaon Block	Varanasi
29	Death Record Office Cholapur Block	Varanasi
30	Death Record Office Harhua Block	Varanasi
31	Death Record Office Pindra Block	Varanasi
32	Death Record Office Sewapuri Block	Varanasi
33	Death Record Office Kashividyapeeth Block	Varanasi
34	Death Registration Office Nagar Nigam	Varanasi
35	Dinesh Pathology	Varanasi
36	Dirghayu Hospital and Surgical Centre, Sarnath	Varanasi

Sr. No.	Institution name	Place
37	Dr Lal Path, Lanka	Varanasi
38	Dr Mohan Kumar Lab, Lanka	Varanasi
39	ECHS Hospital	Varanasi
40	Galaxy Hospital Mahmoorganj	Varanasi
41	Ganga Sewa Sadan Hospital	Varanasi
42	Heritage Hospital, Lanka	Varanasi
43	Heritage Institute of Medical Sciences, Bhadawar	Varanasi
44	Janta Hospital, Rewari Talab	Varanasi
45	Karauli Diagnostics, Bhojubeer	Varanasi
46	Mata Anandamayee Hospital	Varanasi
47	Medicadre Diagnosis, Mahmoorganj	Varanasi
48	Noble Star Diagnostic & Interventional center	Varanasi
49	Opal Hospital	Varanasi
50	Pt Deen Dayal Upadhyay Government Hospital	Varanasi
51	Popular Hospital	Varanasi
52	Prakashdeep Hospital	Varanasi
53	Primary Health Centre Arajiline Block	Varanasi
54	Primary Health Centre Baragaon Block	Varanasi
55	Primary Health Centre Chiraigaon Block	Varanasi
56	Primary Health Centre Cholapur Block	Varanasi
57	Primary Health Centre Harhua Block	Varanasi
58	Primary Health Centre Kashi Vidya Peeth Block	Varanasi
59	Primary Health Centre Pindra Block	Varanasi
60	Primary Health Centre Sewapuri	Varanasi
61	Ragini Diagnostic	Varanasi
62	Rastogi Diagnostic Clinic	Varanasi
63	Rays Diagno Interventions Pvt. Ltd.	Varanasi
64	S G Lab	Varanasi
65	Sampurna Clinic, Pt. Deen Dayal Upadhyay Hospital	Varanasi
66	Shree Ram Krishna Mission Hospital, Luxa	Varanasi
67	Shubham Hospital	Varanasi
68	Sirgona Diagnosis Center, Maqbool Alam Road	Varanasi
69	SRL Diagnosis Centre	Varanasi
70	Suvidha Diagnosis, Jawahar Nagar Bhelupur	Varanasi
71	Trimurti Cancer Hospital	Varanasi
72	Urban Primary Health Care Centre Adampur	Varanasi
73	Urban Primary Health Care Centre Anandmayi	Varanasi

Sr. No.	Institution name	Place
74	Urban Primary Health Care Centre Asfaq Nagar	Varanasi
75	Urban Primary Health Care Centre Bajardiha	Varanasi
76	Urban Primary Health Care Centre Bari Bazar	Varanasi
77	Urban Primary Health Care Centre Benia	Varanasi
78	Urban Primary Health Care Centre Bhelupur	Varanasi
79	Urban Primary Health Care Centre Cantonment	Varanasi
80	Urban Primary Health Care Centre Chauka Ghat	Varanasi
81	Urban Primary Health Care Centre Durgakund	Varanasi
82	Urban Primary Health Care Centre Jaitpura	Varanasi
83	Urban Primary Health Care Centre Konia	Varanasi
84	Urban Primary Health Care Centre Lallapur	Varanasi
85	Urban Primary Health Care Centre Madanpura	Varanasi
86	Urban Primary Health Care Centre Madhopur	Varanasi
87	Urban Primary Health Care Centre Mandudih	Varanasi
88	Urban Primary Health Care Centre Ordely Bazar	Varanasi
89	Urban Primary Health Care Centre Pandeypur	Varanasi
90	Urban Primary Health Care Centre Rajghat	Varanasi
91	Urban Primary Health Care Centre Sadar Bazar	Varanasi
92	Urban Primary Health Care Centre SevaSadan	Varanasi
93	Urban Primary Health Care Centre Shivpur	Varanasi
94	Urban Primary Health Care Centre Sikraul	Varanasi
95	Urban Primary Health Care Centre Townhall	Varanasi
96	Vimta Labs, Lanka	Varanasi
97	Tata Memorial Hospital	Mumbai
98	Dr. Ram Manohar Lohia Hospital	Lucknow
99	Sahara Hospital	Lucknow
100	Sanjay Gandhi Postgraduate Institute of Medical Sciences	Lucknow
101	Kamala Nehru Memorial Hospital	Prayagraj
102	Kriti Scanning Centre	Prayagraj
103	Motilal Nehru Divisional Hospital	Prayagraj
104	Ganesh Shankar Vidyarthi Memorial Medical College	Kanpur
105	J.K. Cancer Institute	Kanpur
106	Lala Lajpat Rai Hospital	Kanpur
107	Rama Dental College & Hospital	Kanpur

Figure 4: Cancer registration method

6. Community involvement in the cancer registration process

The cancer patients from the Varanasi district travel to different cities for cancer treatment. It is practically difficult for the registry staff to visit these centres regularly. Few hospitals and private laboratories are reluctant in providing cancer patient's data of the district. To overcome this problem, we started community interaction. The primary health centre staff, ASHA workers, and Anganwadi workers cooperated by providing information on newly diagnosed cancer/cancer deaths that occurred in the village. The trained field investigator from the registry continuously interacts with these community members to obtain information regarding cancer cases in the villages. In the urban area, we have interacted with municipal corporators and the local leaders.

The community interaction confirmed the residence information of the cancer cases. Interaction with the patient/ patient's relatives provides demographic information such as education, income, religion, etc. Regular village visits and interaction with the community have enabled the registry to update the status of cancer patients, which will be utilized for cancer survival analysis. Initially, various centres were reluctant to provide data on cancer cases. To tackle this, field visits and interactions with community leaders enabled the registry to acquire information about the cancer cases from the villages after contacting patients / their relatives through these community leaders. In 2020 and 2021, registry staff interacted with more than 7,700 community leaders which included Sarpanch, Municipal corporator, Medical officer, ANM and ASHA workers. Registry staff interacted with community leaders and primary health centre staff to collect information about diagnosed cancer cases. The detail of the same by blocks is presented in table 7.

Table 7: Community leaders/ primary health centre staff involved in the cancer registration process

Block Name	Total No. of Villages/ Ward *	Sarpanch/ Panch/ Parshad (Sabhasad)	SMO	MO	HEO	ANM	ASHA Workers	Anganwadi workers	MPH W	Total
Varanasi urban	120	100	6	43	0	110	610	932	4	1805
Arajiline	220	130	1	5	1	46	374	494	2	1053
Baragaon	139	80	1	5	1	43	232	299	2	663
Chiraigaon	116	76	1	5	1	39	244	320	7	693
Cholapur	148	89	1	3	1	37	210	274	3	618
Harhua	142	75	1	2	1	42	215	297	2	635
Kashividyapeeth	88	66	1	2	1	49	296	530	4	949
Pindra	191	104	1	2	1	49	292	318	1	768
Sewapuri	185	87	1	3	0	46	240	226	4	607
Total	1349	807	14	70	7	461	2,713	3,690	29	7,791

SMO: Senior Medical Officer, MO: Medical Officer, HEO: Health Education Officer, MPH W: Multipurpose Health Worker, ANM: Auxiliary Nurse Midwife, ASHA: Accredited Social Health Activist

Recently 84 gram merge in Municipal Corporation and NCT Sujabad & Village Domri merge to create nagar panchayat Sujabad. (i.e. Ward 100, NCT 15, Nagar Panchyat 2, cantonment 2, and Nagar Parisad 1)

Cancer awareness program

While interacting with ANM/ASHA workers, a need of a cancer awareness program for ANM/ASHA and school teachers was observed. In the awareness meetings, emphasis was laid on the awareness of cancer signs and symptoms, risk factors and preventive measures especially on mouth, breast and cervix uteri cancers. Health education program explaining cancer registry activities, role of school teachers/ students and family members in the cancer registry program was also conducted.

Due to the cancer awareness program, the registry received valuable cooperation from ANM/ASHA workers in identifying the cancer cases in the community. The cancer awareness program conducted by the registry staff is mentioned in table 8.

Table 8: Cancer awareness program conducted by the registry staff during

Date	Place/ Location	Beneficiary
8 th Mar, 2021	Arya Mahila P G College, Varanasi	Principal, Teachers, staffs and students and special guest SDM, Varanasi
16 th Mar, 2021	Rajkiya Women Degree College, Varanasi	Principal, Teachers, staffs and students
15 th Dec, 2021	Mahamana Malviya Inter College, Bachhawn	Principal, Teachers, staffs and students
17 th Dec, 2021	National Inter College, Block Pindra	Principal, Teachers, staffs and students
8 th Mar, 2022	Government Girls Polytechnic, Varanasi	Principal, Teachers, staffs and students
31 st May, 2022	Government ITI college, Varanasi	Principal, Teachers, staffs and students
31 st May, 2022	MPMMCC, Varanasi	Patient attended and Hospital staffs
31 st May, 2022	HBCH, Varanasi	Patient attended and Hospital staffs
2 nd Jun, 2022	Government Girls Polytechnic, Varanasi	Principal, Teachers, staffs and students
23 rd – 28 th Aug, 2022	DAE iconic week: Azadi ka Amrit Mahotsav	Government schools, in hospitals, Nagar Nigam, NDRF, Airport authorities, and police-line employees

7. Cancer cases registered by source of registration: First source of information

HBCH/ MPMMCC served as a primary source of information for identifying newly diagnosed cancer cases whereas village visits as a major source to update the vital status of the cancer patients. More than 70% of incidence cases are registered from HBCH/ MPMMCC as the first source of information. Also, the registry has registered 21.2% incidence cases from village/ house visit due to effective interaction with the community. HBCH/ MPMMCC and village/ house visit are the major sources for the data collection. The cancer incidence and death cases registered by the source of registration are mentioned in table 9.

Table 9: Cancer cases information by the first source of cancer registration: 2020-2021

Sr. No.	Source of registration	Male	%	Female	%	Total	%
1	Homi Bhabha Cancer Hospital/ MPMMCC, Varanasi	1833	72.9	1418	73.4	3251	73.1
2	Village visit & Field visit	538	21.4	396	20.5	934	21.0
3	Dr. Lal Pathology Centre, Varanasi	37	1.5	43	2.2	80	1.8
4	Apex Hospital, Varanasi	48	1.9	29	1.5	77	1.7
5	Tata Memorial Centre, Mumbai	31	1.2	18	0.9	49	1.1
6	Kamala Nehru Memorial Hospital, Allahabad	3	0.1	5	0.3	8	0.2
7	Popular Hospital, Varanasi	4	0.2	3	0.2	7	0.2
8	Prakash Pathology, Varanasi	1	0.0	3	0.2	4	0.1
9	Other	19	0.8	17	0.9	36	0.8
Total		2,514	100	1,932	100	4,446	100

8. Quality control

Mortality to incidence ratio

The mortality-incidence or MI ratio is an indicator of the completeness and accuracy of cancer registry data. In the year 2020-2021, 4,446 incident cancer cases 2,514 males (56.5%) and 1,932 females (43.5%) have been registered by PBCR Varanasi. For the same period, 3,045 cancer deaths have been registered (1,739 males (57.1%) and 1,306 females (42.9%). The overall mortality to incidence ratio is 0.68 (males 0.69 and females 0.68). The MI ratio is low as compare to other established rural PBCRs in India this may be due under reporting during COVID-19 pandemic. ⁽⁵⁾

Reabstraction of the cases

A quality control exercise was carried out for the improvement of the records and to retrain the staff, if required. The CCE-TMC team checked all cancer case data. During the quality control exercise, a need was observed to retrain the registry staff in the abstraction of cases of the primary site unknown, metastatic, and lymphoma leukaemia. Based on the results, the staff was retrained by CCE-TMC, Mumbai. The data was modified and re-entered.

Incidence rates of childhood cancers

In the year 2020-2021, PBCR has registered 71 cancer cases in boys and 34 in girls. The age-specific rates reported the paediatric cancer are mentioned in table 10.

Table 10: Incidence rate of paediatric cancer cases in Varanasi district: 2020-2021

Age group	Boys		Girls	
	Number of Cases	Age-Specific Rate	Number of Cases	Age-Specific Rate
0 – 4	31	114.1	13	58.9
5 – 9	21	54.4	10	31.4
10 – 14	19	38.0	11	23.9
Age Adjusted Rate per 1,000,000 (AAR per million)	72.7		39.9	

The age-adjusted incidence rate for the paediatric age group (0-14) was 72.7 per million for boys and 39.9 per million for girls. As per the International Incidence of Childhood Cancer volume III, the incidence rate for girls is less than 60 per million.⁽⁶⁾ There is under-reporting of the paediatric cancer cases diagnosed in the district. The underreporting is more in girls as compared to boys. We need to undertake studies to find out the reason for the under-

reporting of paediatric cancer cases among girls. Of the total cases registered, 2.4% of them belong to paediatric cancer.

The microscopic confirmation was 91.5% in boys and 85.3% in girls.

Microscopic verification of the cases

In the year 2020-2021, out of 2,513 male cases, 1,908 cases (75.9%) were diagnosed with microscopic verification. 9.8% of cases were diagnosed based on radiological findings and 4.8% of cases were diagnosed clinically. Around 9% cases were based on verbal autopsy i.e. relative's remark (eg. Primary site unknown cases).

In females, out of 1,926 cases, we have 1,441 cases (74.8%) diagnosed with microscopic verification. 12.7% and 3.9% of cases were diagnosed on radiological and clinically findings respectively.

Cases registered based on narrations by the patient's relatives

While interacting with the community in the villages as well as in the urban areas, it was observed that patient's relatives burned the medical records after the death of the patient. In some cases, even after consulting the oncologist/ cancer centre, patients have not completed the prescribed treatment due to social/financial issues. Many of these patients also burned their pathology/ CT scan/ discharge summary paper. In this case, we have interacted with the patient's relatives and we have asked the following questions:

1. Where was the patient diagnosed? Which hospital did the patient visit?
2. What was the opinion of the treating consultants?
3. Whether the patient has taken any chemotherapy/ radiotherapy
4. Where did the patients undergo an MRI/CT scan/USG?

The registry tried identifying evidence based on the patient's/ patient's relatives' narration; like, verbally giving the date of biopsy or patient mentioning the received chemotherapy/radiotherapy/surgery or the name of the medical/ surgical/ radiation oncologist that patient was taking treatment from. We register the cancer case based on the information gathered through these narrations.

The registry staff also follow-back these cases in the treating hospital. However, a majority of times, the staff do not get the medical records from the treating hospital.

Such a cancer registration approach was used by the Barshi, Sangrur, and Mansa registries as well as by the Gadchiroli cancer registry. In the coming years, due to awareness in the population and due to the health insurance scheme, we may get the medical record from the cancer centres or government health insurance scheme office.

Death Certificate Only (DCO) Cases

We have registered 237 (9.4%) cases in males and 165 (8.5%) cases in females under the DCO/Other categories. The death cases have been registered based on the narration/relative's remarks/discharge summary available with the patient's relative. In principle, they are not registered based on the death certificate only because the death certificate does not have the documentation as a cancer death.

Per source case registration

The number of sources per incidence case registered was noted. The cases were counted as per source notification. In Varanasi, the average number of sources per case registered is 2.7. Due to field interactions, the coverage is satisfactory.

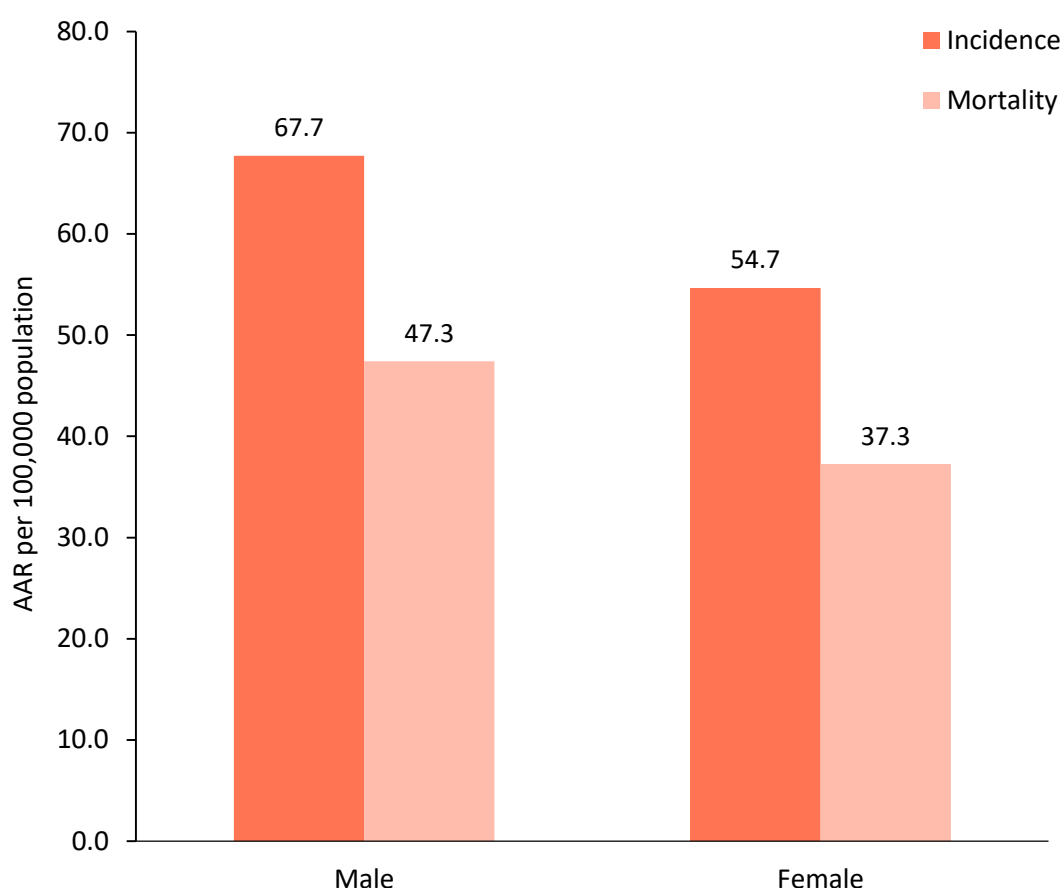
Source	Number of cases confirm
Source 1	412
Source 2	3212
Source 3	5076
Source 4	2388
Source 5	525
Source 6	150
Source 7	42
Source 8	16
Source 9	9
Total sources	11,830
Per source of registration	2.7 (11,830/4,446)

9. Cancer incidence and mortality: all sites

In the year 2020-2021, the cancer registry registered 4,446 cancer cases. There were 2,514 male (56.5%) cases and 1,932 female (43.5%) cases. The age-adjusted incidence rate for males was 67.7 per 100,000 population and for females, it was 54.7 per 100,000 population.

In the year 2020-2021, the cancer registry registered 3,045 cancer deaths of which 1,739 were male (57.1%) deaths and 1,306 were female (42.9%) deaths. The age-adjusted mortality rate for males was 47.3 per 100,000 population and for females, it was 37.3 per 100,000 population. The cancer incidence and mortality rates for all sites for males and females are presented in figure 5.

Figure 5: All sites cancer incidence and mortality rate by sex: 2020-2021 (Varanasi district)



10. Leading cancer sites by gender

Among males; mouth, tongue, gallbladder, lung, prostate, liver, non-hodgkin lymphoma, larynx, oesophagus, and stomach were the leading cancer sites. The top ten leading cancer sites for males are presented in figure 6. Among females; breast, gallbladder, cervix uteri, ovary, lung, mouth, liver, corpus uteri, stomach, and tongue were the leading cancer sites. The top ten leading cancer sites for females are presented in figure 7.

Figure 6: Leading cancer sites in males: 2020-2021

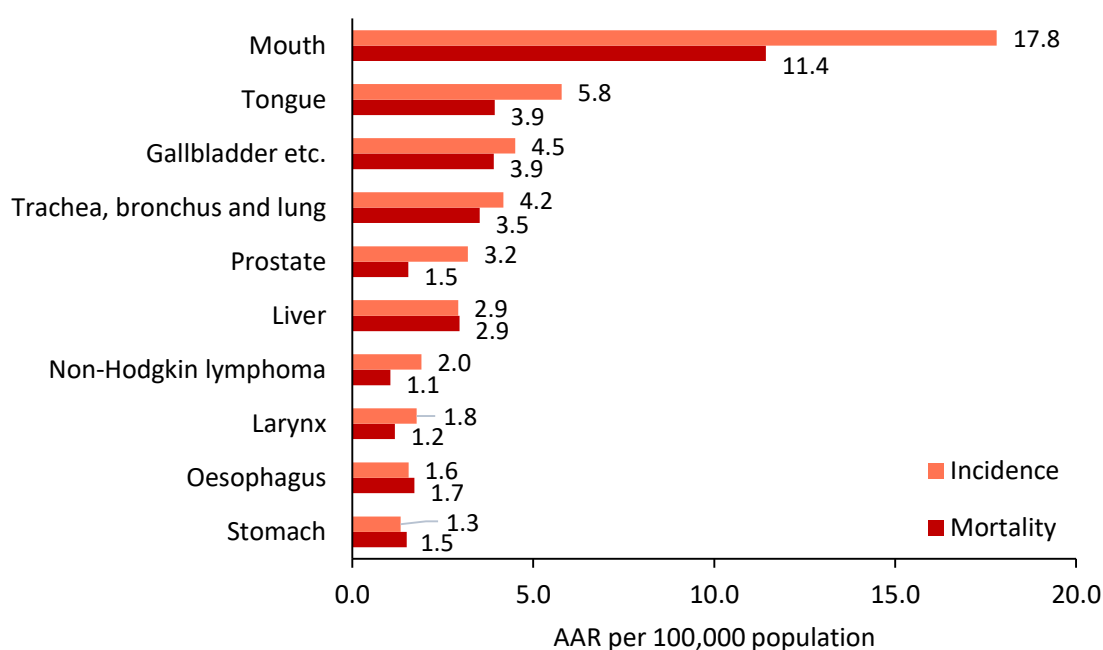
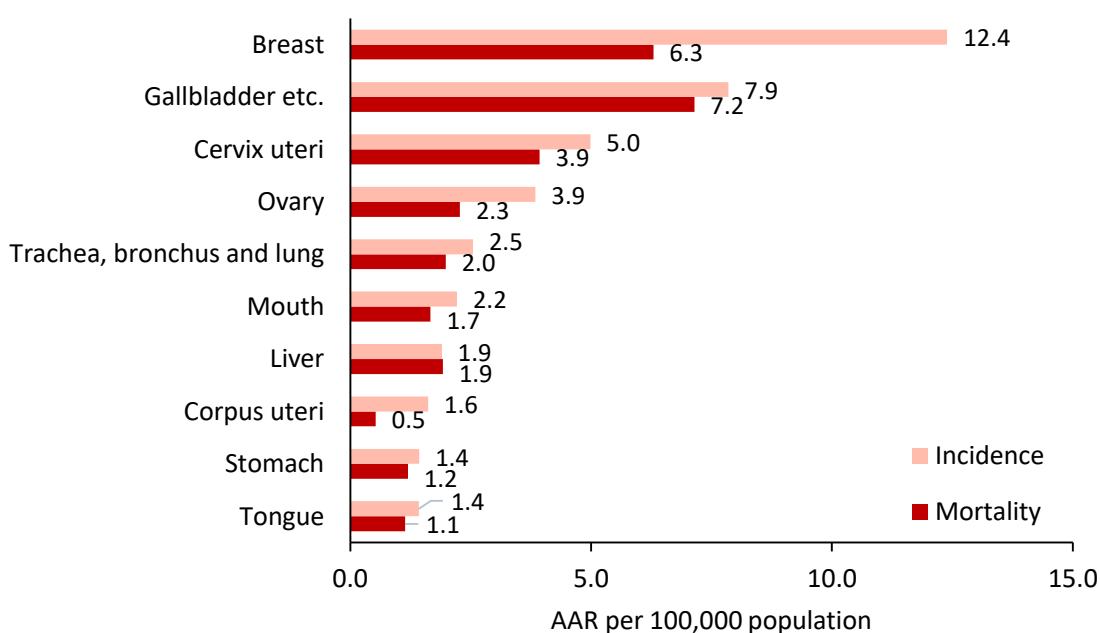


Figure 7: Leading cancer sites in females: 2020-2021



Comparison of leading cancer sites with other Indian registries

The site-wise cancer cases details are shown in respective tables below with crude rate, age-adjusted incidence rate, and truncated rate. The age-specific incidence rate for males and females for each site, as well as comparisons with other Indian registries, are also depicted in the respective figures below.

Cancer of mouth (C03-C06)

	Male	Female
Number of cases	665	76
% of total cases	26.5	3.9
Crude Incidence Rate per 100,000	15.5	1.9
Age-Adjusted Incidence Rate per 100,000	17.8	2.2
Truncated Rate per 100,000	45.8	5.5

Figure 8: Age-specific incidence rate of cancer of mouth: 2020-2021 (Varanasi district)

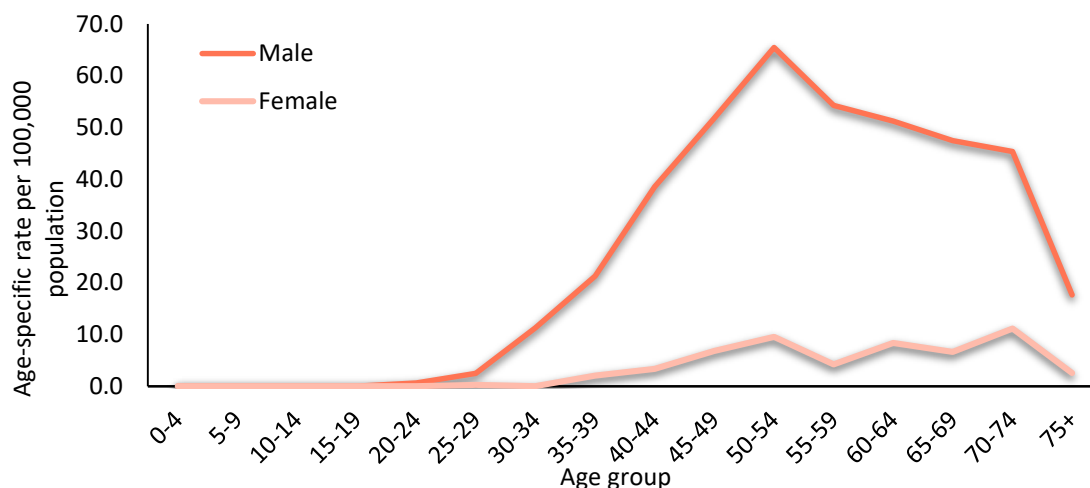
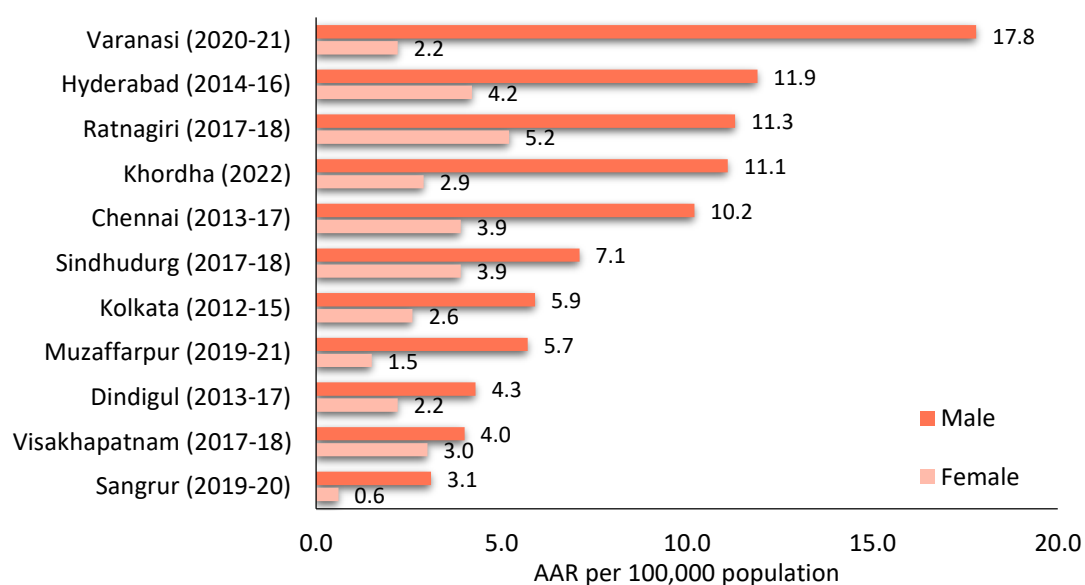


Figure 9: Comparison of mouth cancer incidence rate with other Indian registries



Cancer of tongue (C01-C02)

	Male	Female
Number of cases	225	50
% of total cases	8.9	2.6
Crude Incidence Rate per 100,000	5.2	1.3
Age-Adjusted Incidence Rate per 100,000	5.8	1.4
Truncated Rate per 100,000	13.7	3.1

Figure 10: Age-specific incidence rate of cancer of tongue: 2020-2021 (Varanasi district)

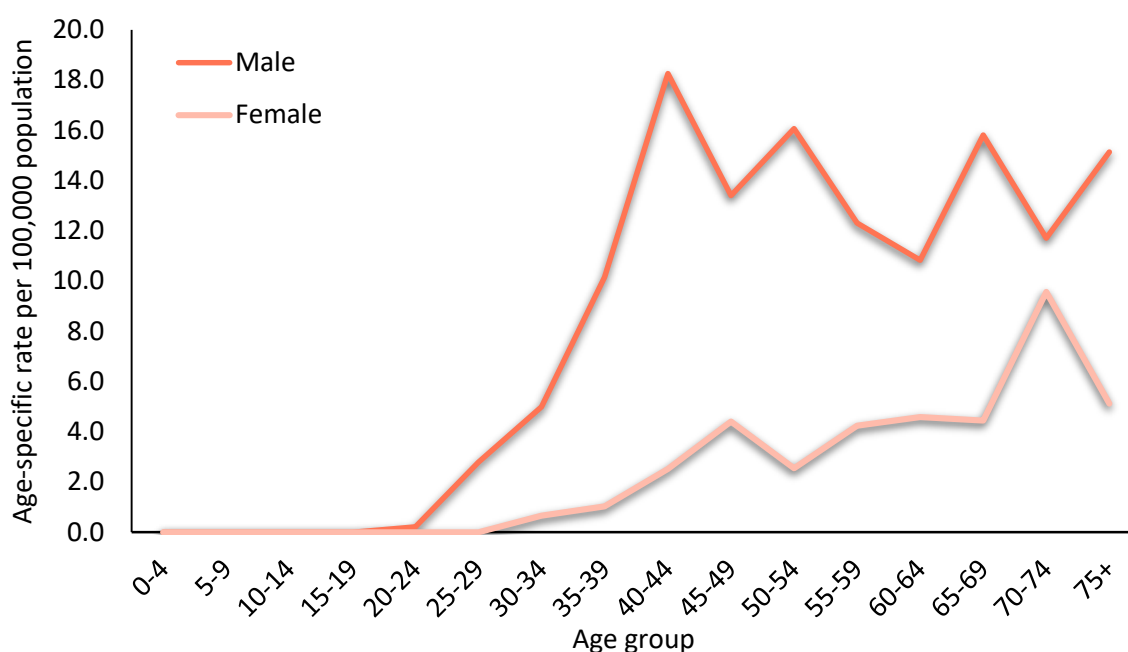
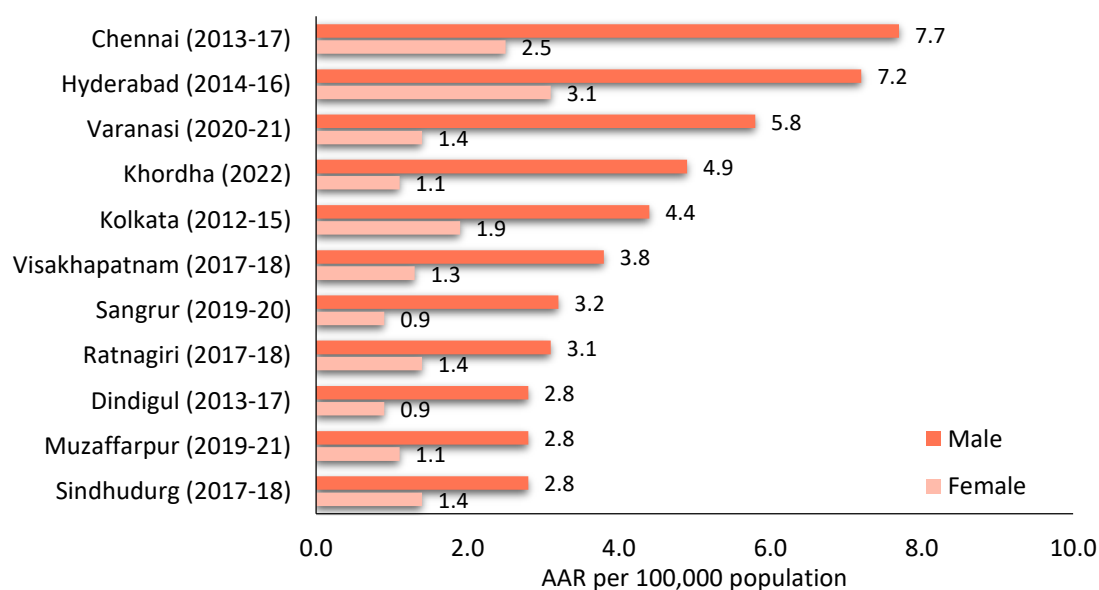


Figure 11: Comparison of tongue cancer incidence rate with other Indian registries



Cancer of gall bladder (C23-C24)

	Male	Female
Number of cases	163	274
% to total cases	6.5	14.2
Crude Incidence Rate per 100,000	3.8	7.0
Age Adjusted Incidence Rate per 100,000	4.5	7.9
Truncated Rate per 100,000	9.5	18.1

Figure 12: Age-specific incidence rate of cancer of gall bladder: 2020-2021 (Varanasi district)

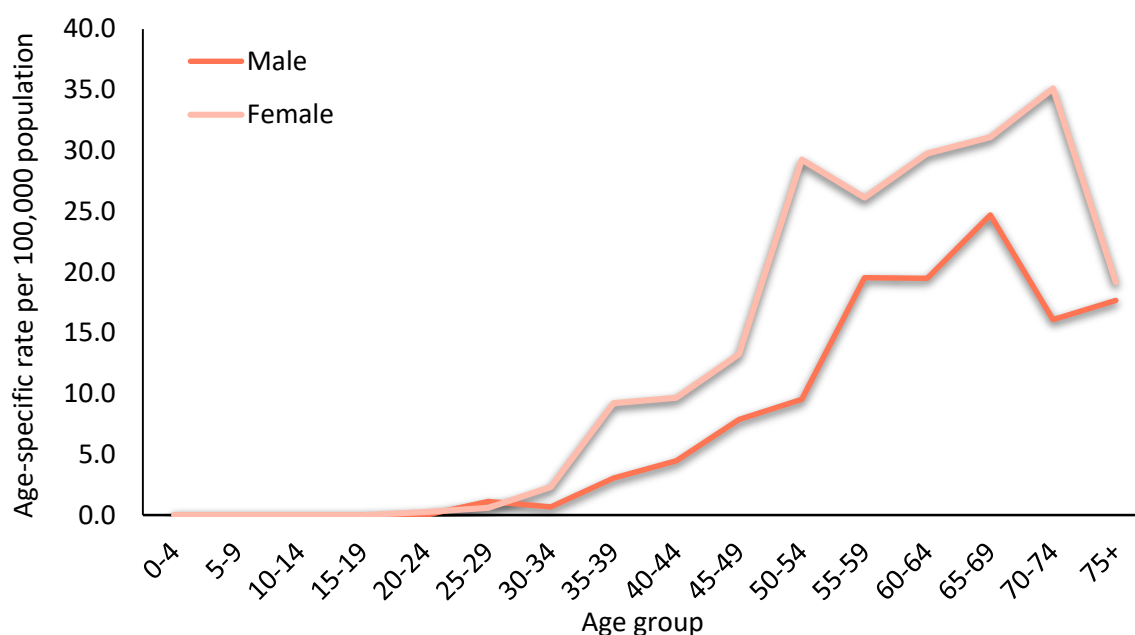
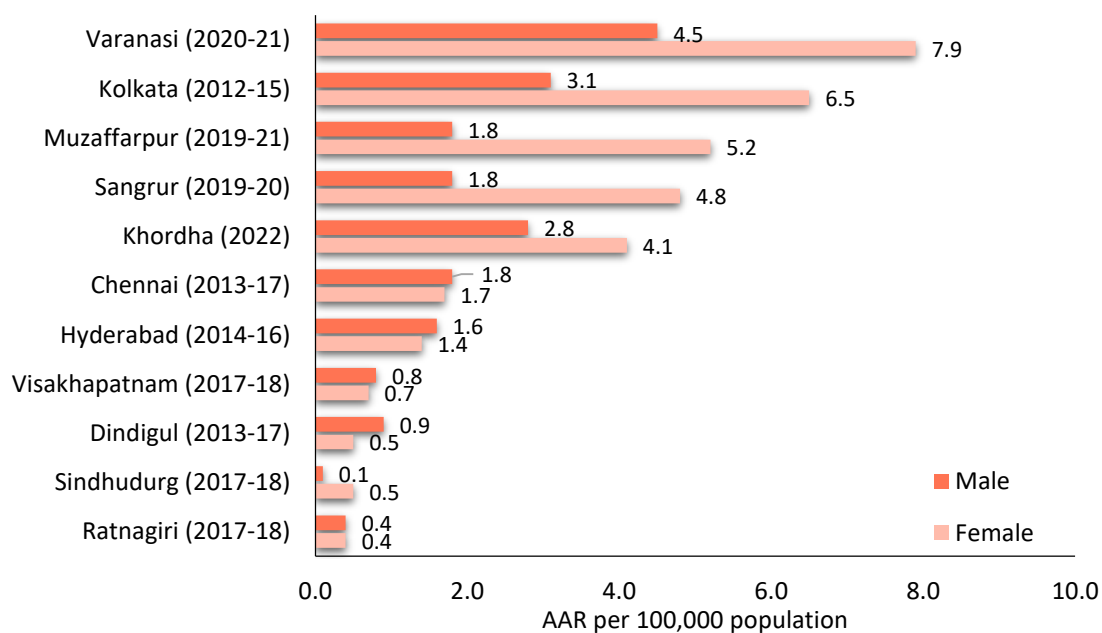


Figure 13: Comparison of gall bladder cancer incidence rate with other Indian registries



Cancer of trachea, bronchus and lung (C33-C34)

	Male	Female
Number of cases	150	86
% to total cases	6.0	4.5
Crude Incidence Rate per 100,000	3.5	2.2
Age Adjusted Incidence Rate per 100,000	4.2	2.5
Truncated Rate per 100,000	6.1	5.0

Figure 14: Age-specific incidence rate of cancer of trachea, bronchus and lung: 2020-2021 (Varanasi district)

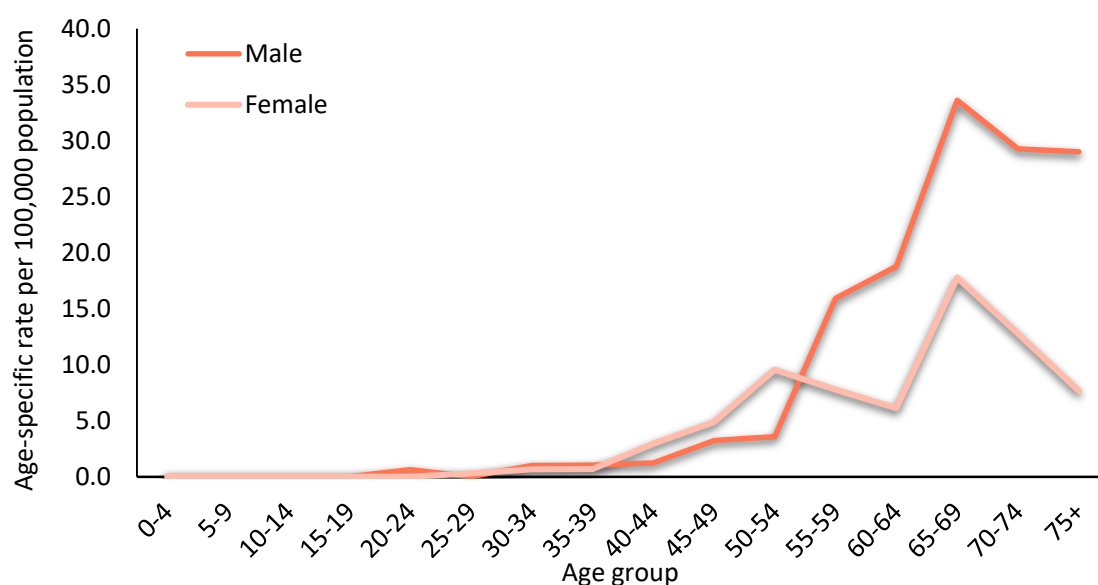
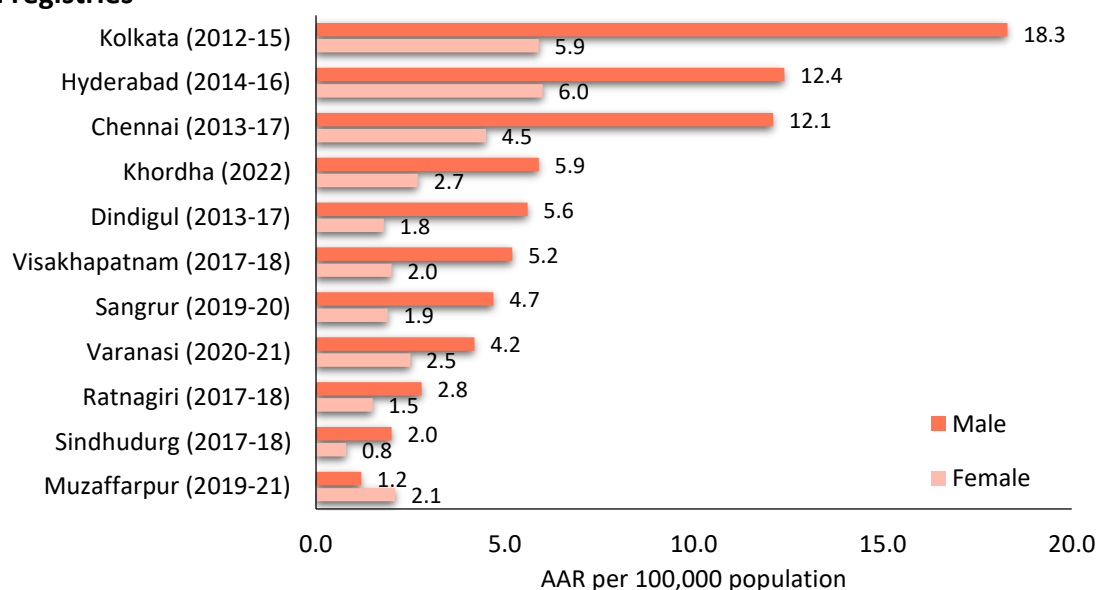


Figure 15: Comparison of trachea, bronchus and lung cancer incidence rate with other Indian registries



Cancer of liver (C22)

	Male	Female
Number of cases	106	64
% of total cases	4.2	3.3
Crude Incidence Rate per 100,000	2.5	1.6
Age-Adjusted Incidence Rate per 100,000	2.9	1.9
Truncated Rate per 100,000	4.3	4.1

Figure 16: Age-specific incidence rate of cancer of liver: 2020-2021 (Varanasi district)

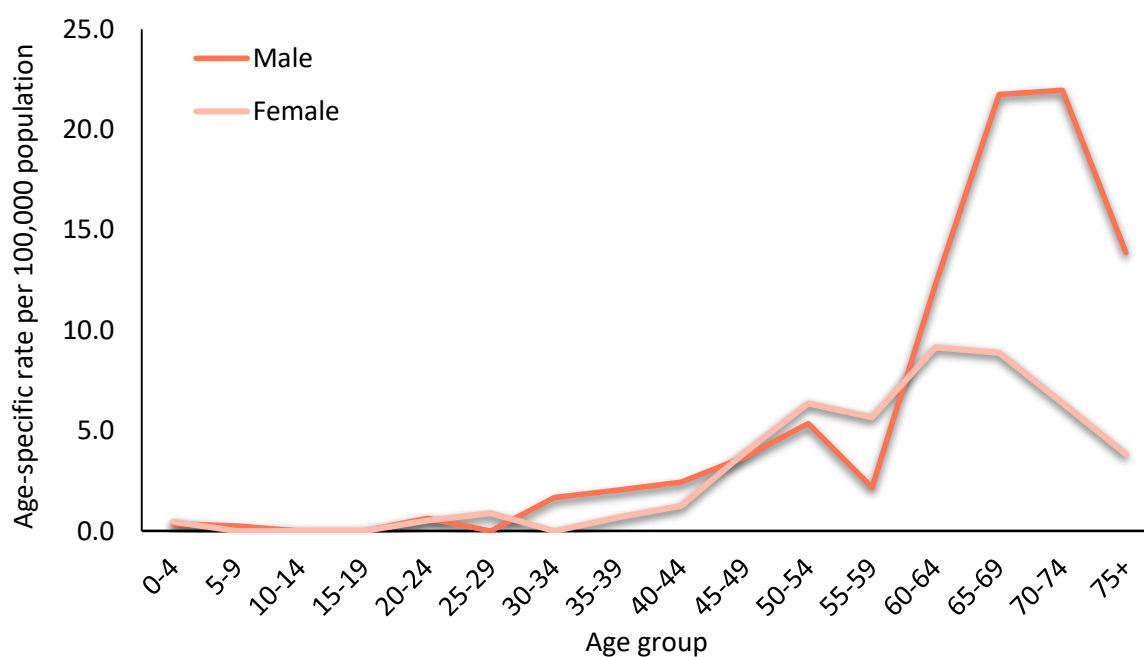
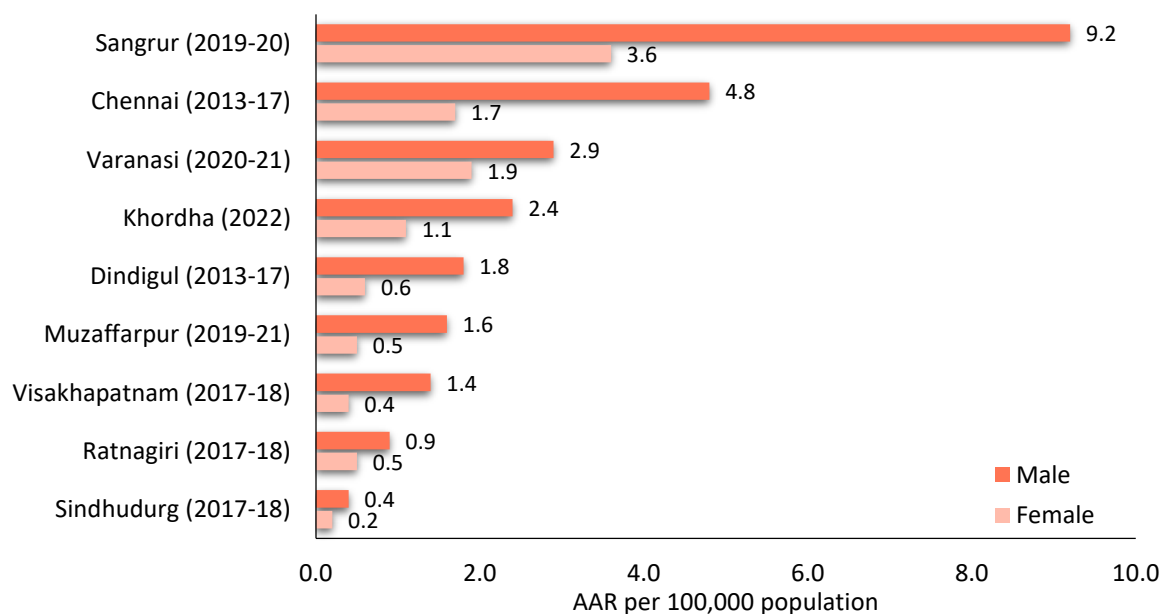
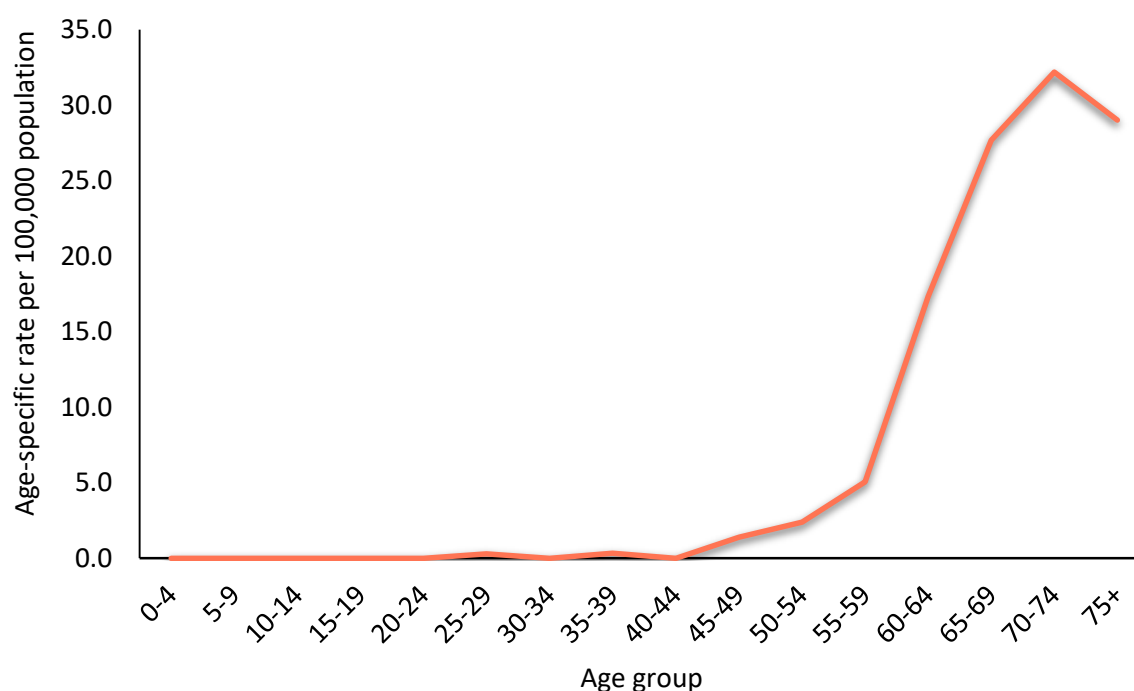
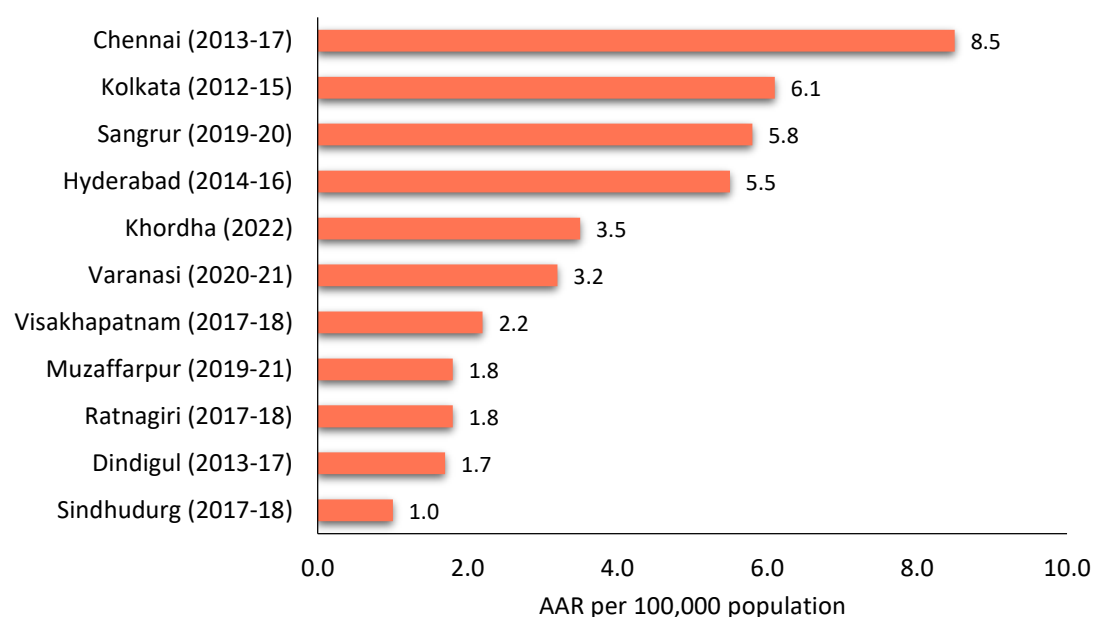


Figure 17: Comparison of liver cancer incidence rate with other Indian registries



Cancer of prostate (C61)

Number of cases	113
% of total cases	4.5
Crude Incidence Rate per 100,000	2.6
Age-Adjusted Incidence Rate per 100,000	3.2
Truncated Rate per 100,000	3.6

Figure 18: Age-specific incidence rate of cancer of prostate: 2020-2021 (Varanasi district)**Figure 19: Comparison of prostate cancer incidence rate with other Indian registries**

Cancer of breast (C50)

	Female
Number of cases	449
% of total cases	23.2
Crude Incidence Rate per 100,000	11.4
Age-Adjusted Incidence Rate per 100,000	12.4
Truncated Rate per 100,000	29.7

Figure 20: Age-specific incidence rate of cancer of breast: 2020-2021 (Varanasi district)

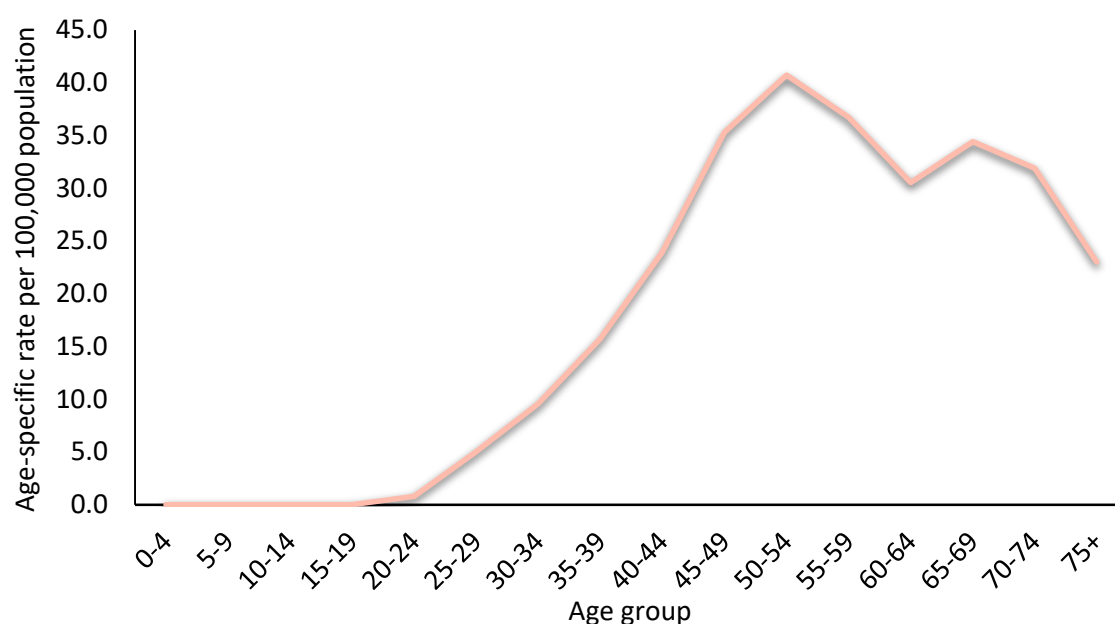
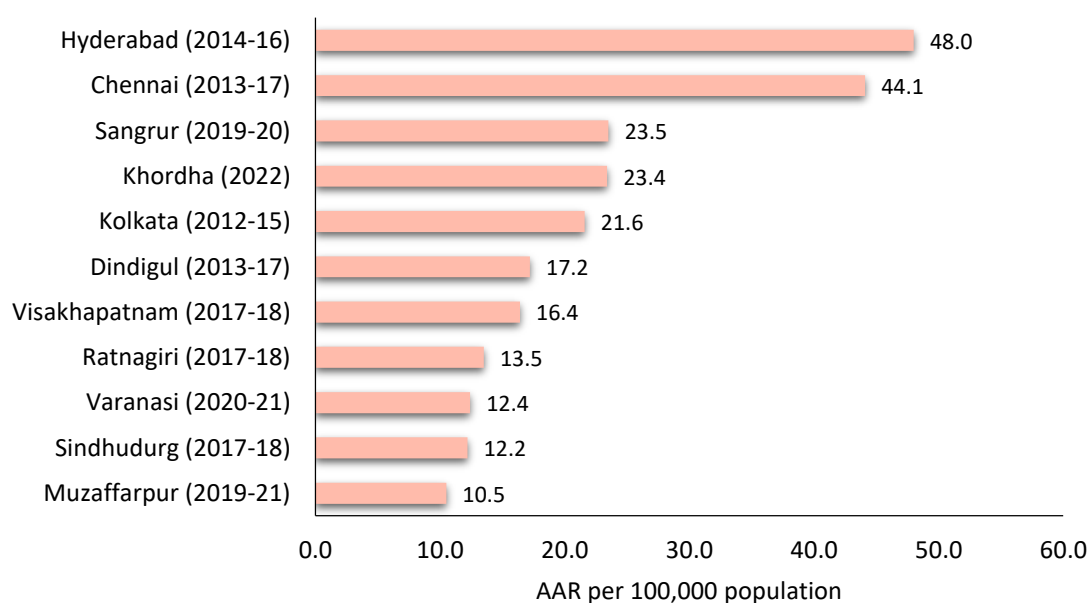


Figure 21: Comparison of breast cancer incidence rate with other Indian registries



Cancer of cervix uteri (C53)

Number of cases	172
% of total cases	8.9
Crude Incidence Rate per 100,000	4.4
Age-Adjusted Incidence Rate per 100,000	5.0
Truncated Rate per 100,000	12.1

Figure 22: Age-specific incidence rate of cancer of cervix uteri: 2020-2021 (Varanasi district)

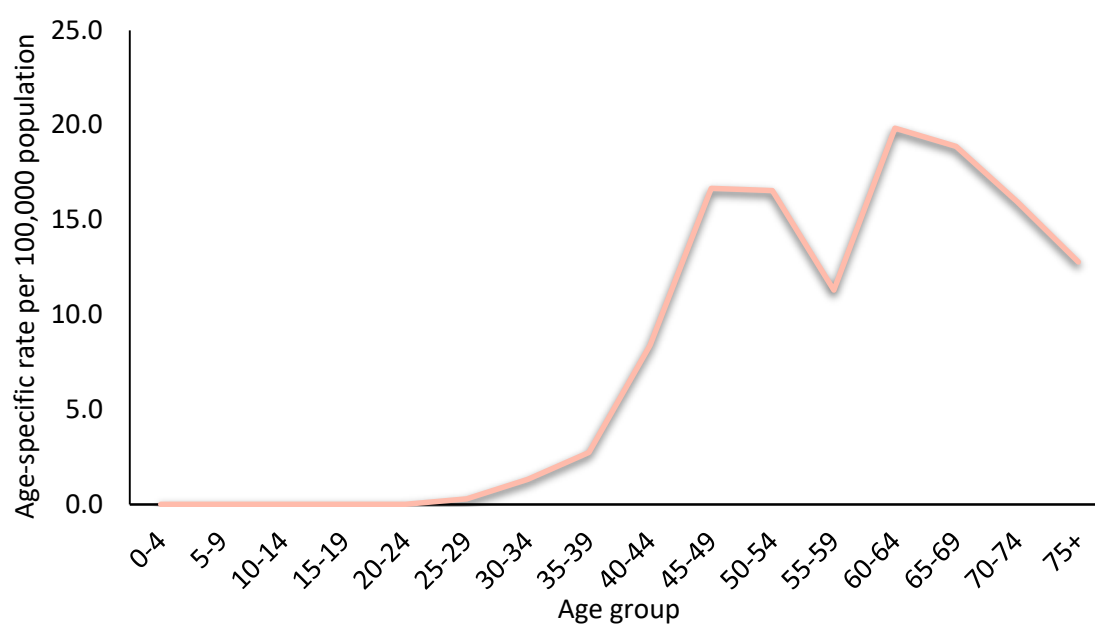
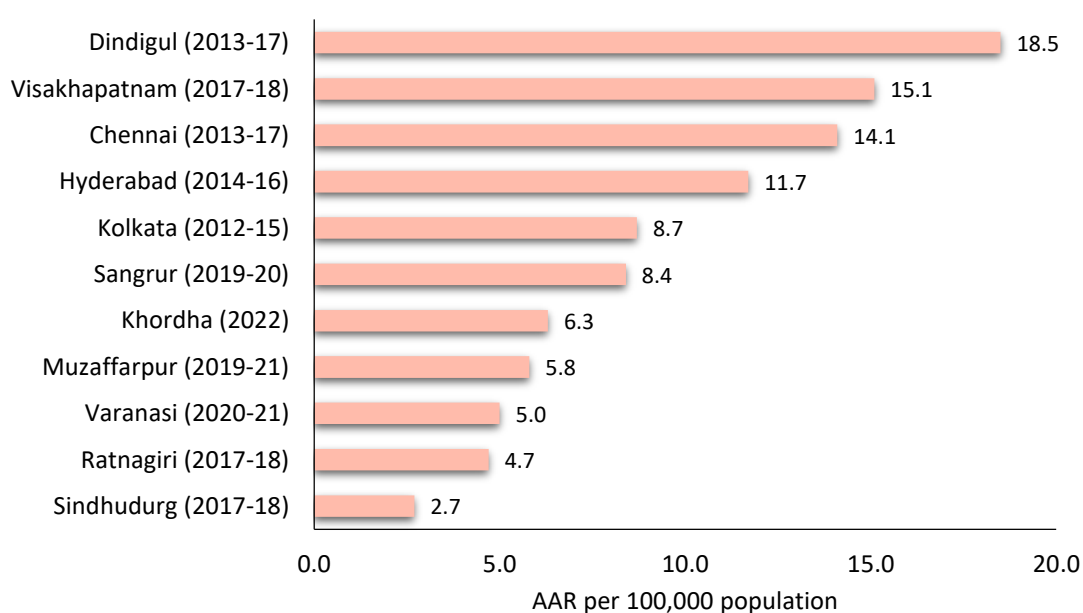


Figure 23: Comparison of cervix uteri cancer incidence rate with other Indian registries



Cancer of ovary (C56)

Number of cases	143
% to total cases	7.4
Crude Incidence Rate per 100,000	3.6
Age Adjusted Incidence Rate per 100,000	3.9
Truncated Rate per 100,000	9.4

Figure 24: Age-specific incidence rate of cancer of ovary: 2020-2021 (Varanasi district)

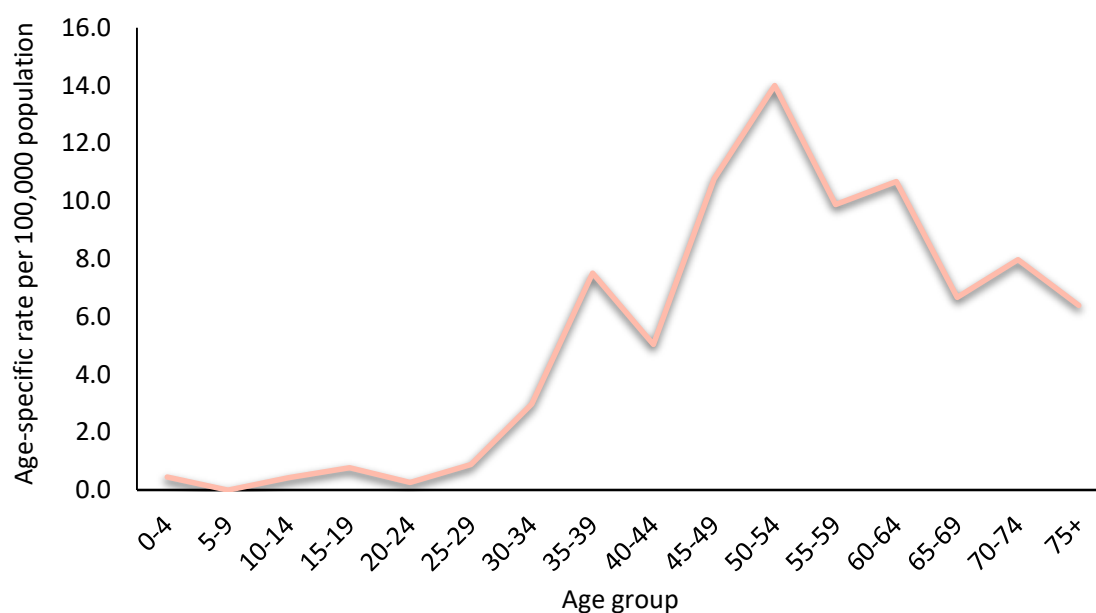


Figure 25: Comparison of ovary cancer incidence rate with other Indian registries

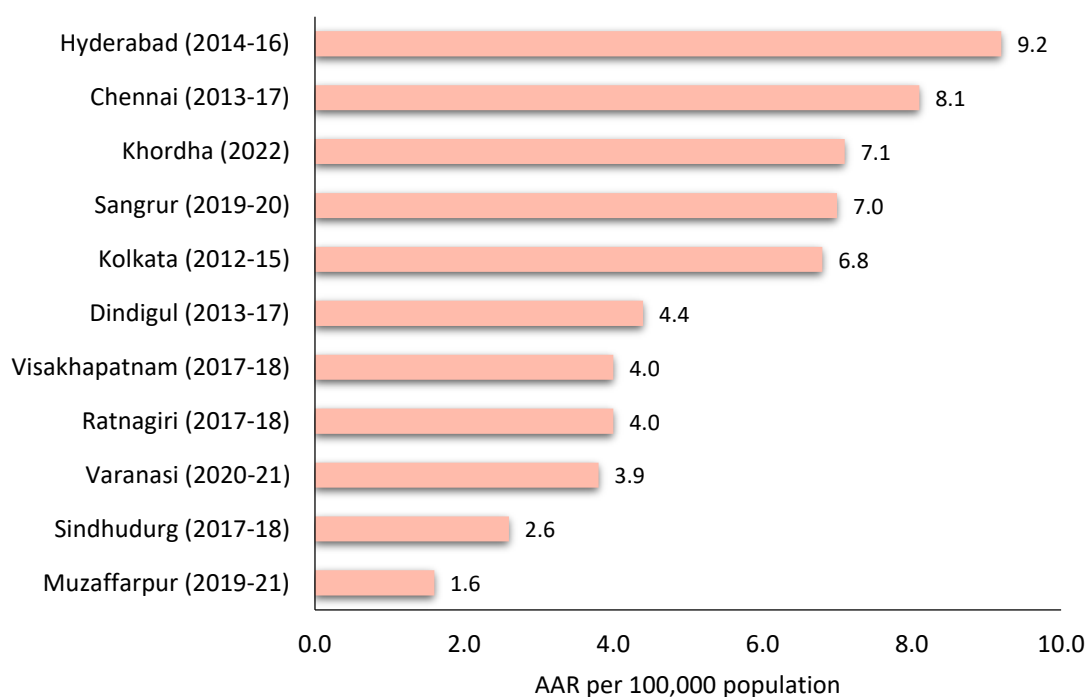
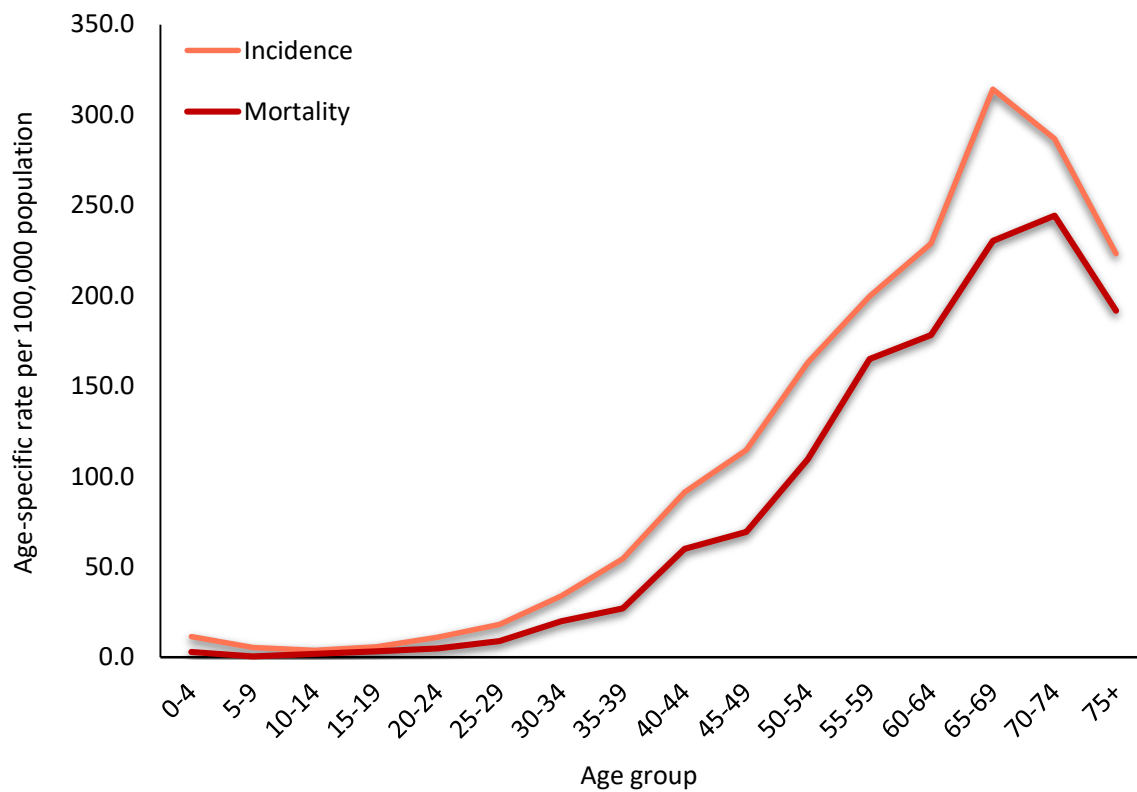
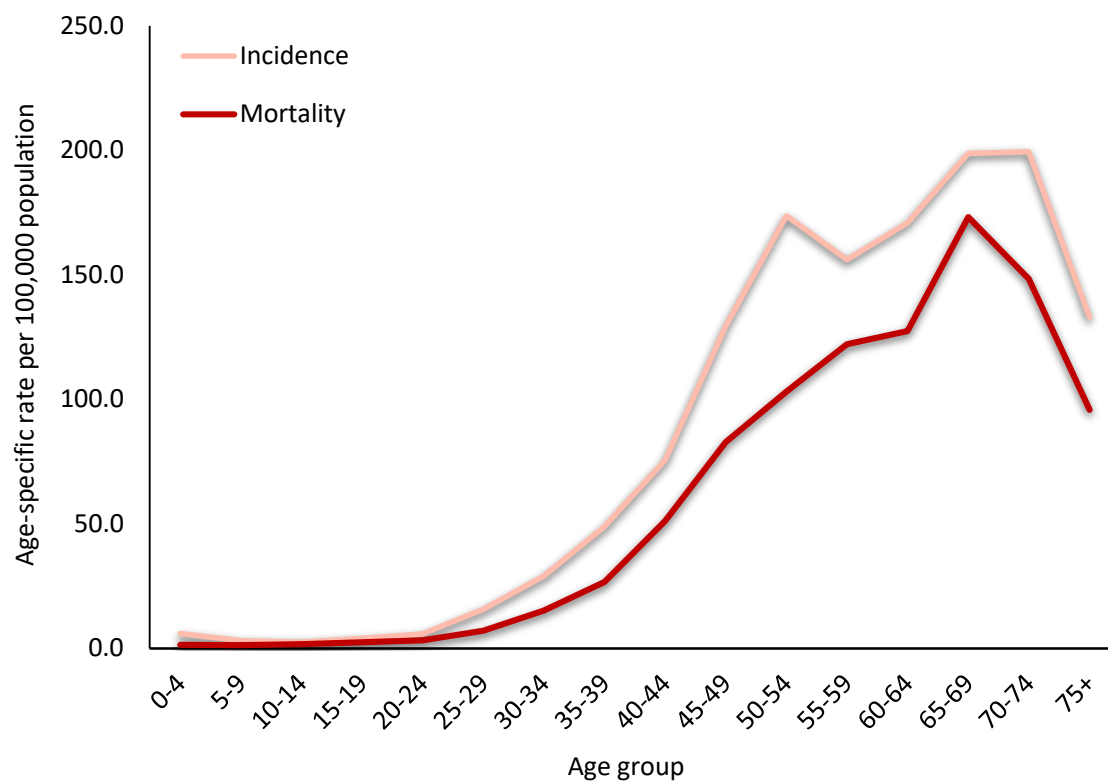


Figure 26: Age specific incidence and mortality rate – male all sites**Figure 27: Age specific incidence and mortality rate – female all sites**

Other and unspecified Sites

The other and unspecified cancer sites refer to the following cancer types:

C26	Other and Ill-Defined Digestive Organ	C77	Secondary and Unspecified Malignant Neoplasm of Lymph Node
C39	Other and Ill-Defined Sites Within Respiratory Systems and Intra thoracic Organ	C78	Secondary Malignant Neoplasm of Respiratory and Digestive Organs,
C48	Retro Peritoneum and Peritoneum,	C79	Secondary Malignant Neoplasm of Other and Unspecified Sites
C76	Other and Ill-Defined, Secondary and Unspecified sites	C80	Malignant Neoplasm Without Specification of Site
C97	Malignant Neoplasm of Independent (Primary) Multiple sites		

In males, out of 2,514 cases, 132 (5.25%) cases were of other and unspecified sites. The predominant cases were of C80 – primary unknown (2.4%), followed by C76 – other and ill-defined, secondary and unspecified sites (1.9%), and other sites (1.2%). In females, out of 1,932 cases, 74 (3.9%) cases were of other and unspecified sites. The predominant cases were of C80 – primary unknown (1.6%), followed by C76 – other and ill-defined, secondary and unspecified sites (1.7%), and other sites (0.7%). The details are presented in Table 11.

In the coming years, it is anticipated that the percentage of the primary site unknown will decrease due to improvements in the diagnostic and treatment facility.

Table 11: Other and unspecified cases by sex

ICD 10	Male		Female	
	Number	%	Number	%
C26	14	0.6	8	0.4
C76	47	1.9	32	1.7
C77	11	0.4	3	0.2
C80	60	2.4	31	1.6
Total	132/2514	5.3	74/1932	3.8

Cancer of other and unspecified (C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

	Male	Female
Number of cases	132	74
% to total cases	5.3	3.8
Crude Incidence Rate per 100,000	3.1	1.9
Age Adjusted Incidence Rate per 100,000	3.6	2.1
Truncated Rate per 100,000	5.9	4.0

Figure 28: Age-specific incidence rate of cancer of other and unspecified: 2020-2021 (Varanasi district)

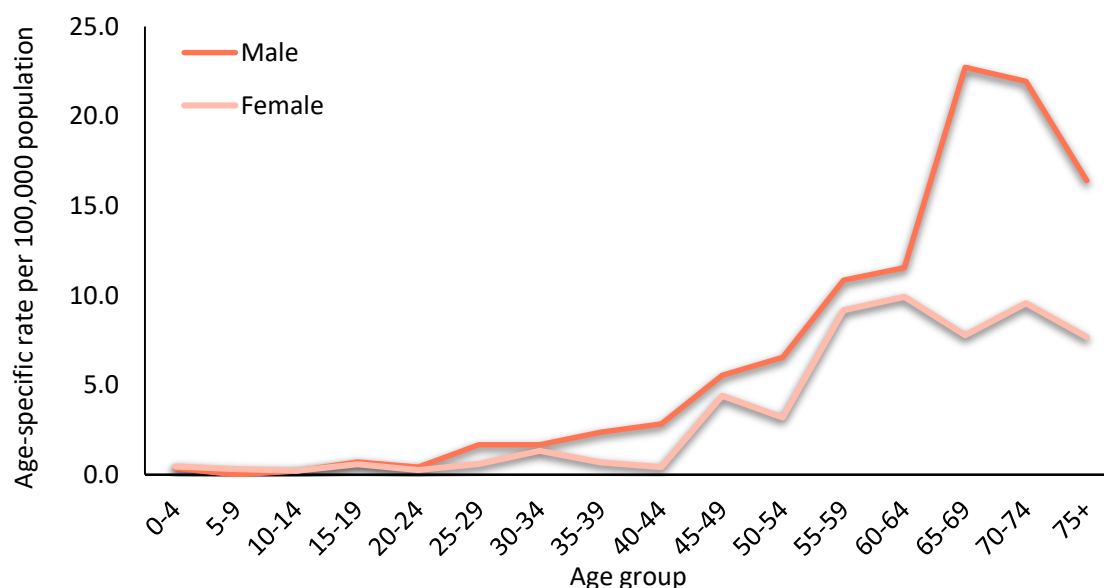
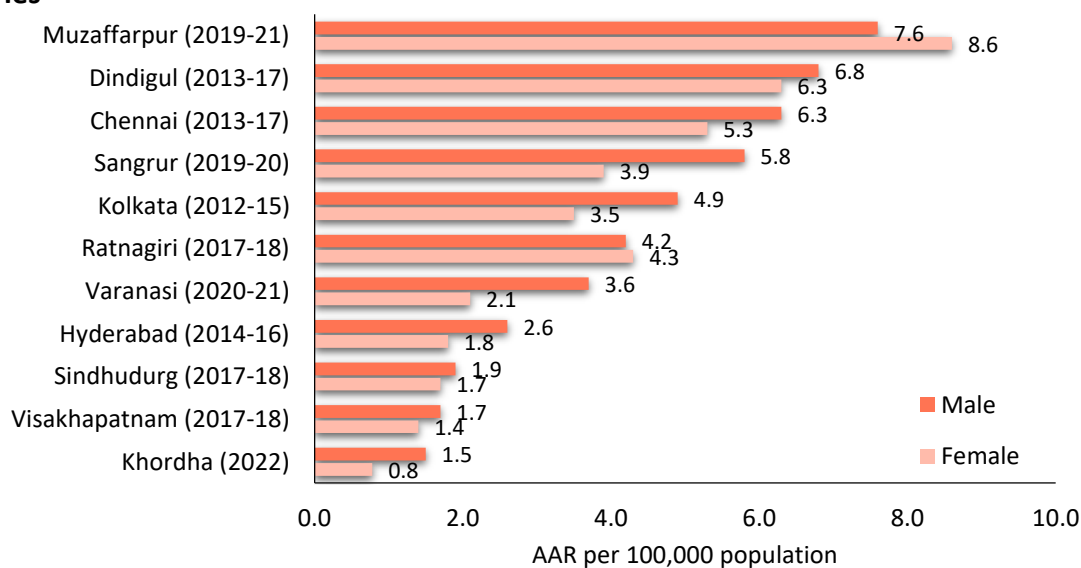


Figure 29: Comparison of other and unspecified cancer incidence rate with other Indian registries



11. Cancer pattern in urban and rural areas

The cancer registry covers 53% of rural areas and 47% of urban areas. The estimated population for the year 2020-2021 for urban area is 19,17,829 (male: 10,16,076, female: 9,01,733) and rural area is 21,99,369 (male: 11,37,478, female: 10,61,891). We have observed the difference in the cancer incidence rate in urban and rural areas. The urban area cancer incidence rate in males was 76.5 per 100,000 population whereas it was 59.3 per 100,000 population in rural areas. In females, the urban area cancer incidence rates was 62.5 and rural rate was 48.7 per 100,000 population. The cancer incidence rate by the area and sex is mentioned in figure 30. All site cancer mortality by area and sex is mentioned in figure 31.

Figure 30: All sites cancer incidence rate by area and sex: 2020-2021 (Varanasi district)

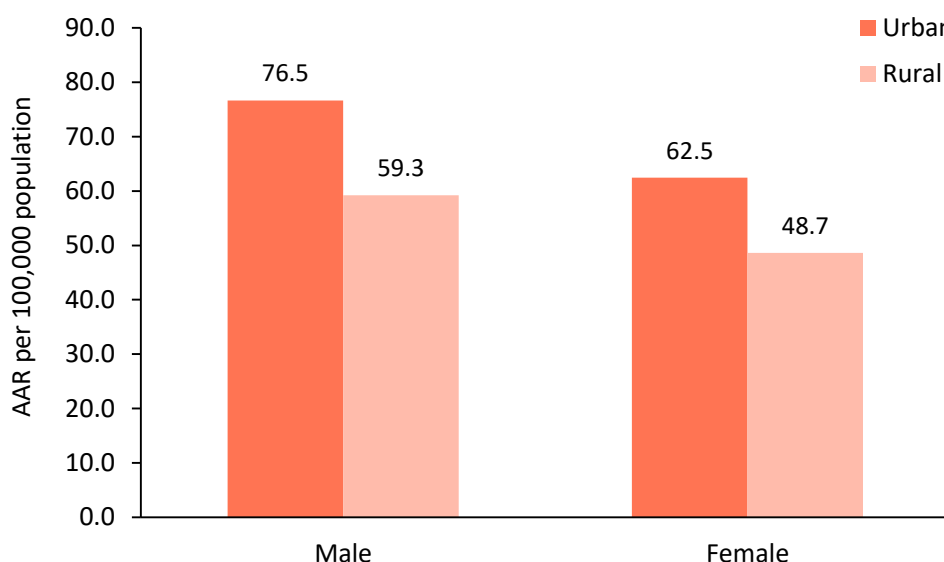
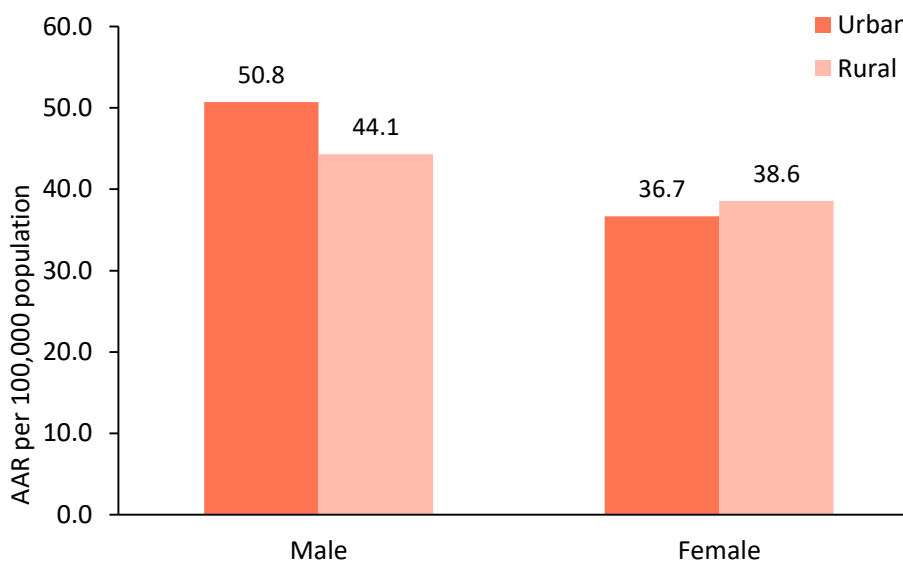


Figure 31: All site cancer mortality rate by area and sex: 2020-2021 (Varanasi district)



Leading cancer sites in rural and urban area

In males, mouth cancer incidence rates are higher in urban (21.6 per 100,000 population) as compare to rural (14.2 per 100,000 population) areas. For males, mouth cancer incidence rate in urban population is 53% higher than rural population (RR (Rate Ratio) 1.53, 95% CI 1.31-1.78). However, in females the mouth cancer rates in urban area is 80% higher than rural.

Among females, the breast cancer incidence rate in Varanasi urban population is 70% higher than rural population (RR 1.70, 95% CI 1.40-2.06). Whereas, the cervical cancer incidence rate in Varanasi urban female population is 26% higher than rural population (RR 1.26, 95% CI 0.93-1.70).

The gall bladder is the second leading cancer sites in rural and urban female population. For females, the gall bladder cancer incidence rates for Varanasi urban population is 26% lower than rural female population (RR 0.74, 95% CI 0.58-0.94).

The difference in the cancer burden and patterns in the rural and urban area may be due to different lifestyles, food habits, education levels, and access to the diagnostic and treatment facilities. In this period due to the lockdown during the COVID-19 pandemic, we had limited access to travel, and we may have missed the cases in rural areas. The leading cancer sites by sex and area are presented in figures 32 to 35.

Figure 32: Leading cancer sites in urban area: male (2020-2021)

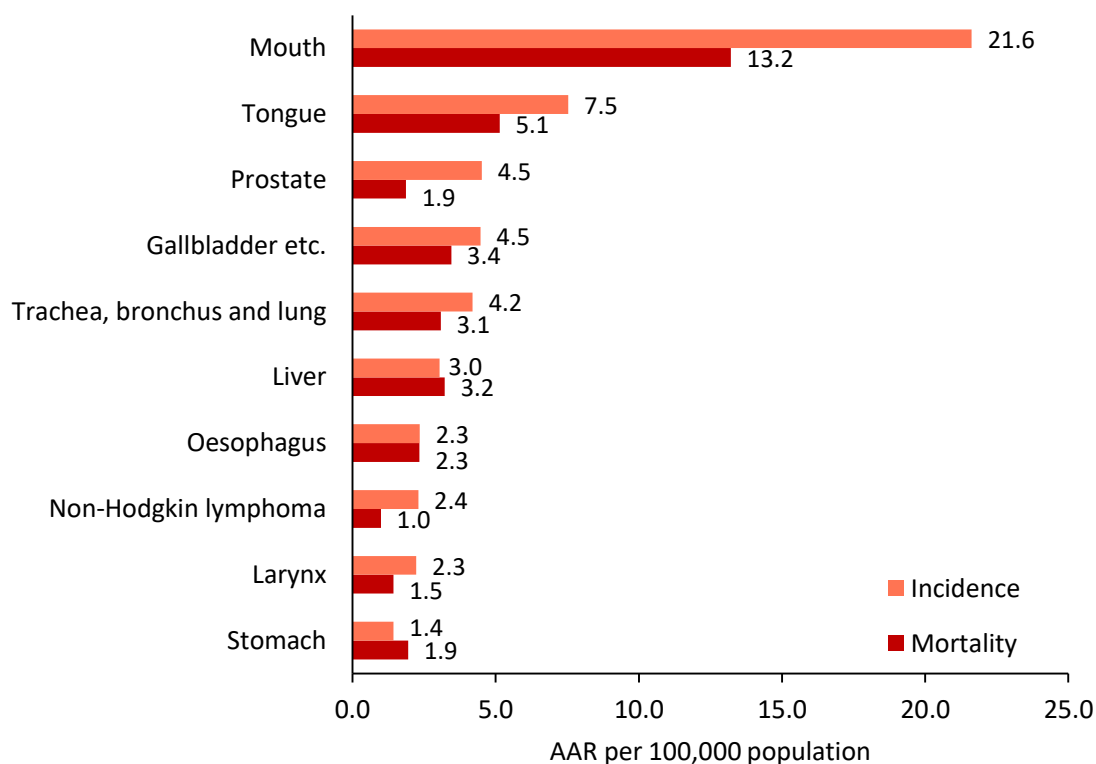
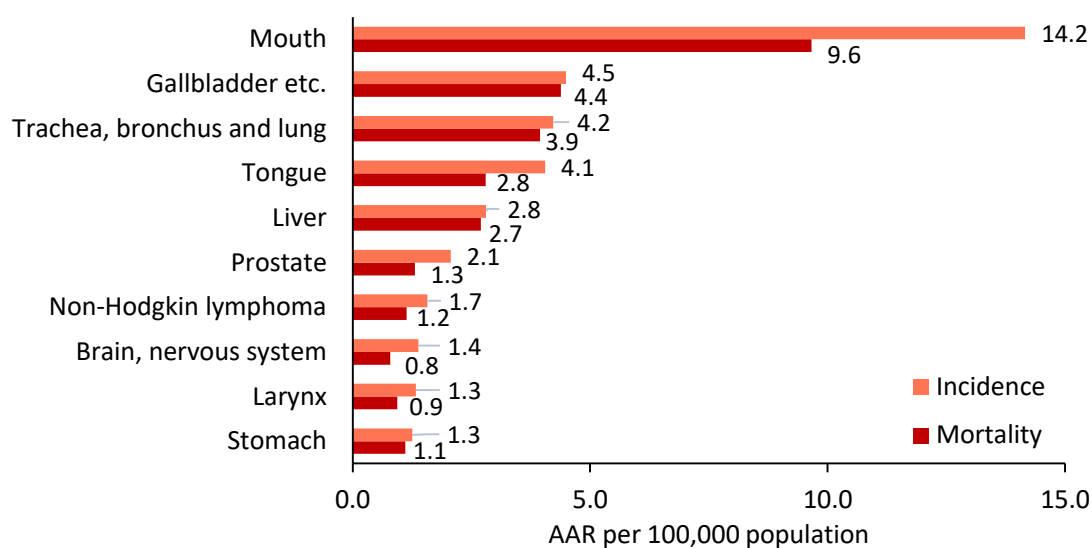
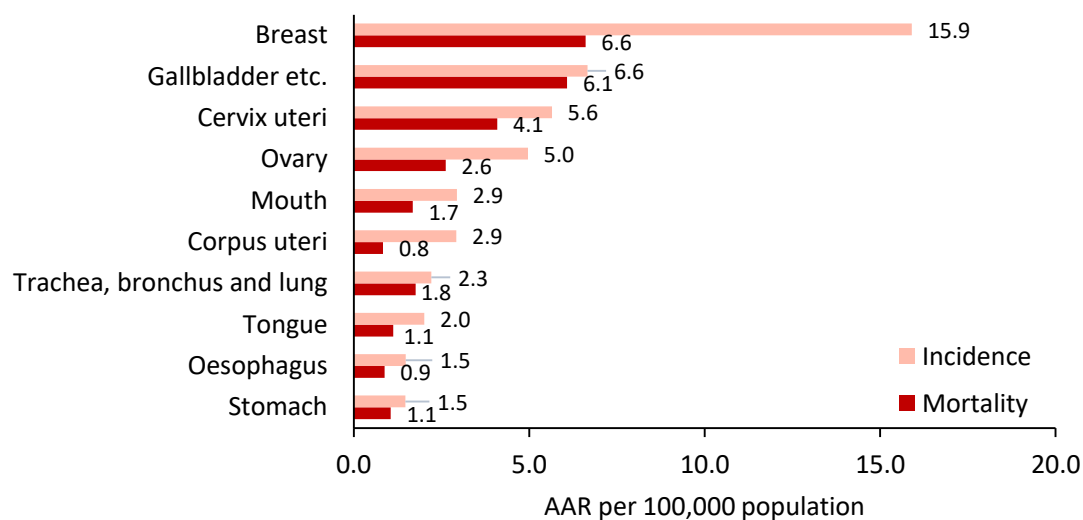
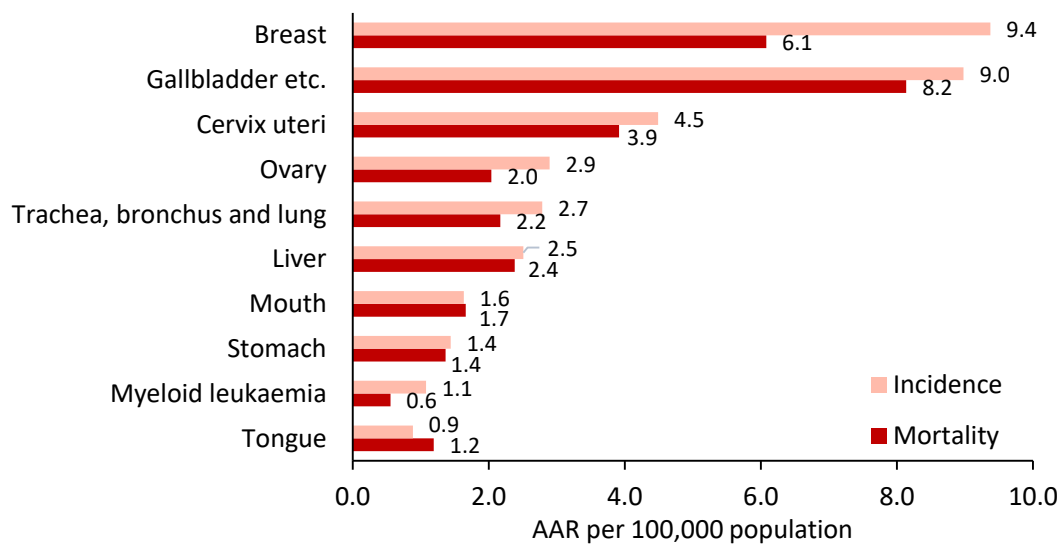


Figure 33: Leading cancer sites in rural area: male (2020-2021)**Figure 34: Leading cancer sites in urban area: female (2020-2021)****Figure 35: Leading cancer sites in rural area: female (2020-2021)**

12. Cancer pattern in paediatric age-group

In the year 2020-2021, out of 4,446 registered cancer cases 105 (2.4%) paediatric cases (0-14 age group) were noted. The age-adjusted incidence for boys is 72.7 per million and 39.9 per million for girls.

The top five leading cancer sites in boys are lymphoid leukaemia, leukaemia unspecified, non-hodgkin lymphoma, brain, and eye. While in girls lymphoid leukaemia, kidney, hodgkin disease, ovary, and brain are the top five leading cancer sites. Leading cancer sites are mentioned below in figure 36 and 37.

Figure 36: Leading cancer sites in boys: 2020-2021

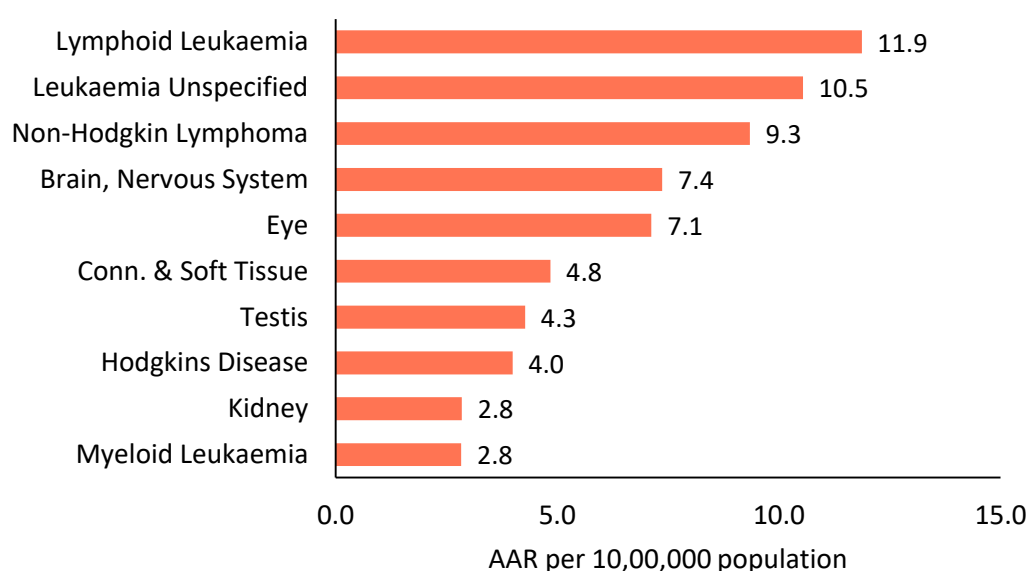
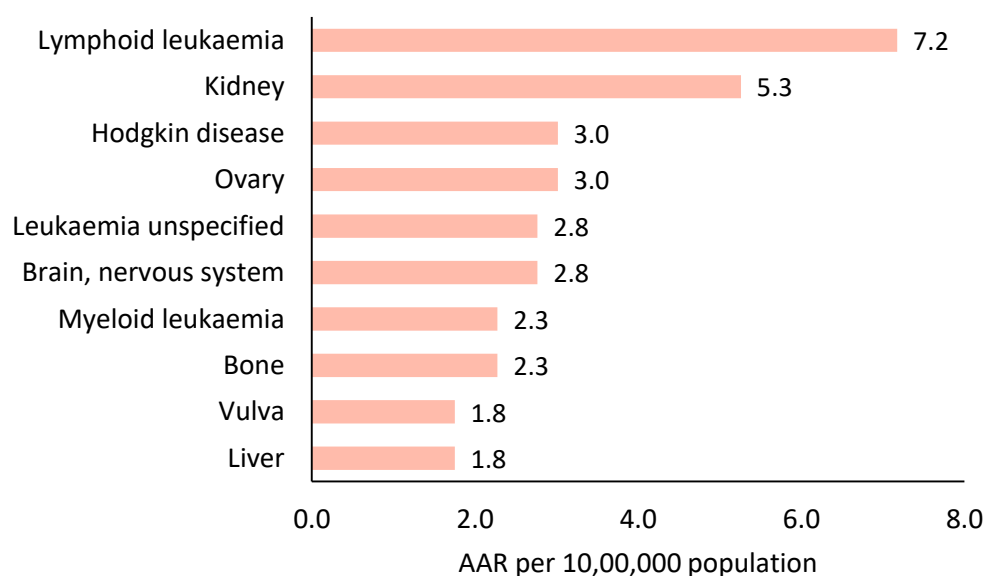


Figure 37: Leading cancer sites in girls: 2020-2021



International Classification of Childhood Cancer, 3rd edition (ICCC-3) has mentioned the separate coding to know the cancer burden in children according to appropriate diagnostic groups. ICCC-3 having 12 main groups and further these are divided in to subgroups and division of selected subgroups. The age-adjusted incidence rate as per subgroups in boys and girls per million population is mentioned in Table 12. **The paediatric cancer burden as per ICCC-3 standard is mentioned separately in Table 36 and 37. ⁽⁷⁾**

Proportion of paediatric cancer cases by 12 main diagnostic group as per ICCC-3 standard is presented in figure 38.

Figure 38: Proportion of paediatric cancer cases by age-group: Both sex (Varanasi district)

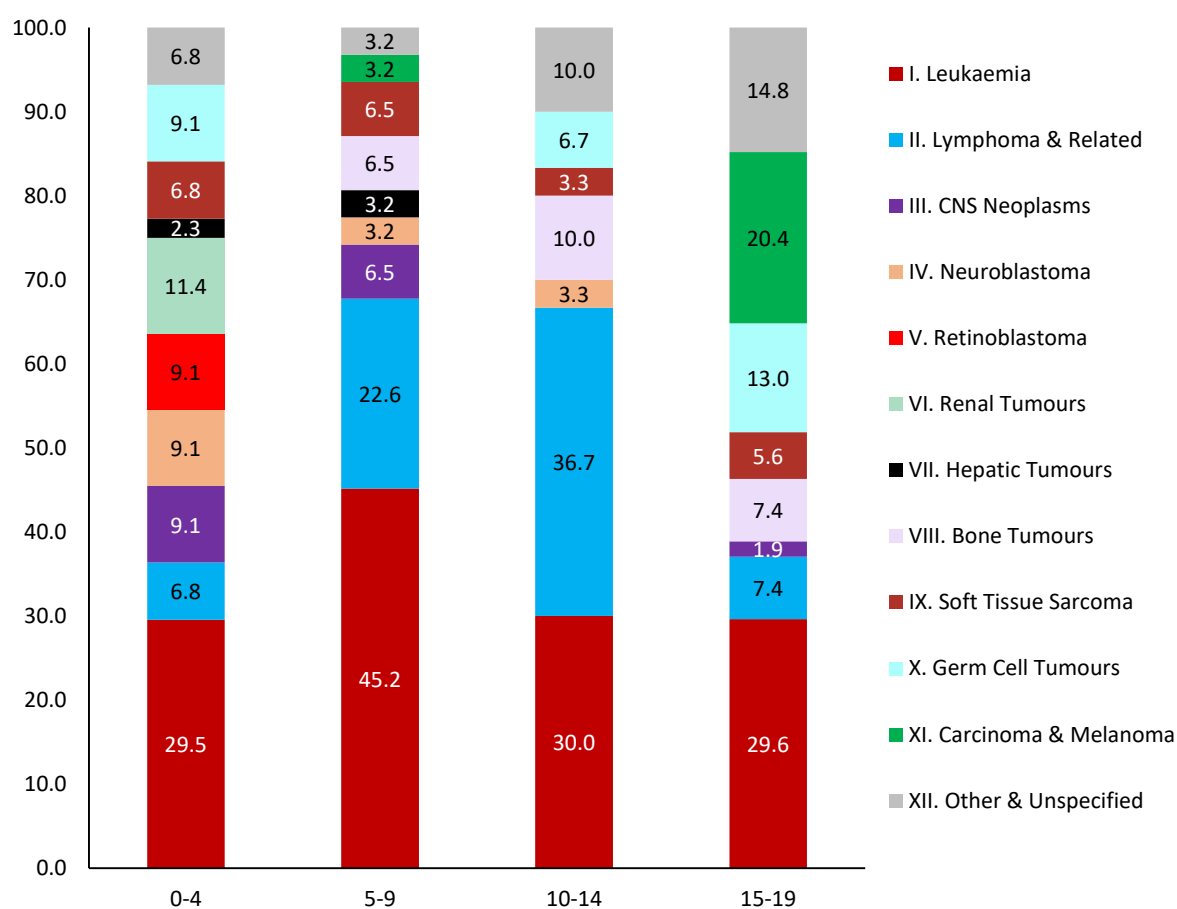


Table 12: Number of cancer case, percentage and age-adjusted incidence rate per million population: Varanasi district (2020-2021)

ICCC Code	Site	Boys			Girls		
		Number	%	AAR*	Number	%	AAR*
1a	Lymphoid leukaemia	12	16.9	11.9	6	17.6	7.2
1b	Acute myeloid leukaemia	2	2.8	1.4	1	2.9	0.6
1c	Chronic myeloproliferative diseases	2	2.8	1.4	2	5.9	1.6
1e	Unspecified and other specified leukaemia	9	12.7	10.5	2	5.9	2.8
2a	Hodgkin lymphomas	6	8.5	4.0	3	8.8	3.0
2b	Non-Hodgkin lymphomas (except Burkitt lymphoma)	7	9.9	5.4	1	2.9	0.6
2c	Burkitt lymphoma	1	1.4	0.8	-	-	-
2d	Miscellaneous lymphoreticular neoplasms	1	1.4	1.4	-	-	-
2e	Unspecified lymphomas	2	2.8	1.7	-	-	-
3a	Ependymomas and choroid plexus tumor	2	2.8	2.8	-	-	-
3b	Astrocytomas	2	2.8	2.3	1	2.9	1.0
3f	Unspecified intracranial and intraspinal neoplasms	-	-	-	1	2.9	1.8
4a	Neuroblastoma and ganglioneuroblastoma	5	7.0	6.5	-	-	-
4b	Other peripheral nervous cell tumours	1	1.4	0.6	-	-	-
5	Retinoblastoma	3	4.2	4.3	1	2.9	1.8
6a	Nephroblastoma and other nonepithelial renal tumor	2	2.8	2.8	3	8.8	5.3
7a	Hepatoblastoma and mesenchymal tumours of liver	-	-	-	1	2.9	1.8
7c	Unspecified malignant hepatic tumours	1	1.4	0.8	-	-	-
8a	Osteosarcomas	-	-	-	3	8.8	2.3
8c	Ewing tumor and related sarcomas of bone	2	2.8	1.4	-	-	-
9a	Rhabdomyosarcomas	2	2.8	2.8	2	5.9	2.8
9e	Unspecified soft tissue sarcomas	2	2.8	1.4	-	-	-
10b	Malignant extra cranial and extra gonadal germ cell tumor	1	1.4	1.4	-	-	-
10c	Malignant gonadal germ cell tumor	2	2.8	2.8	2	5.9	2.4
10e	Other and unspecified malignant gonadal tumours	-	-	-	1	2.9	0.6
11a	Adrenocortical carcinomas	-	-	-	1	2.9	1.0
12b	Other unspecified malignant tumor	4	5.6	4.0	3	8.8	3.4
Total		71	100.0	72.7	34	100.0	39.9

13. Tobacco-related cancer

The use of tobacco has severe effects on health. Tobacco is one of the major causes of non-communicable diseases. The anatomical sites are included to calculate the tobacco-related cancer burden based on the guidelines of the International Agency for Research on Cancer (IARC), WHO, Lyon, France.⁽⁸⁾ Lip (C00), tongue (C01-C02), mouth (C03-C06), pharynx (C10, C12-C14), oesophagus (C15), larynx (C32), lung (C33-C34) and urinary bladder (C67) are associated with the use to tobacco.

As per the Varanasi registry data, the tobacco-related cancer burden is 51.2% in males (1 out of two cancer cases is tobacco-related) while it is 14.2% in females (1 out of seven cancer cases is tobacco-related). The leading site under tobacco-related cancer are mouth, tongue, lung, larynx, and oesophagus in males; and in females, lung, mouth, and tongue.

In the male out of 1,287; 512 (39.8%) were farmers, 224 (17.4%) clerical shop-owners, and 138 (10.7%) are government employees. In the female out of 274; 216 (78.8%) are housewives. If we consider the educational level of this population, 30.8% males and while 33.2% females were had primary education (1-7 std). Where as 31.0% females and 13.8% males were illiterate.

Table 13: Tobacco-related cancer in male: 2020-2021

ICD10	Site	Number	%	CR	AAR	TR
C00	Lip	45	1.8	1.0	1.2	3.1
C01-C02	Tongue	225	8.9	5.2	5.8	13.7
C03-C06	Mouth	665	26.5	15.5	17.8	45.8
C10	Other oropharynx	12	0.5	0.3	0.3	0.5
C12-C13	Hypopharynx	25	1.0	0.6	0.7	1.1
C14	Pharynx unspecified	3	0.1	0.1	0.1	0.1
C15	Oesophagus	54	2.1	1.3	1.6	3.1
C32	Larynx	63	2.5	1.5	1.8	3.3
C33-C34	Trachea, bronchus and lung	150	6.0	3.5	4.2	6.1
C67	Urinary bladder	45	1.8	1.0	1.3	2.2
C00-C06, C10, C12-C15, C32-C34 & C67	Tobacco-related cancer	1287	51.2	29.9	34.7	79.0

Table 14: Tobacco-related cancer in female: 2020-2021

ICD10	Site	Number	%	CR	AAR	TR
C00	Lip	6	0.3	0.2	0.2	0.4
C01-C02	Tongue	50	2.6	1.3	1.4	3.1
C03-C06	Mouth	76	3.9	1.9	2.2	5.5
C10	Other oropharynx	-	-	-	-	-
C12-C13	Hypopharynx	2	0.1	0.1	0.1	0.2
C14	Pharynx unspecified	0	0.0	0.0	0.0	0.0
C15	Oesophagus	31	1.6	0.8	0.9	1.7
C32	Larynx	11	0.6	0.3	0.3	0.3
C33-C34	Trachea, bronchus and lung	86	4.5	2.2	2.5	5.0
C67	Urinary bladder	12	0.6	0.3	0.4	0.5
C00-C06, C10, C12-C15, C32-C34 & C67	Tobacco-related cancer	274	14.2	7.0	8.0	16.7

Table 15: Tobacco-related cancer cases by sex and occupation

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Professional	31	2.4	-	-	31	2.0
Semi-professional	67	5.2	3	1.1	70	4.5
Clerical, Shop-owner	224	17.4	8	2.9	232	14.9
Farmer	512	39.8	33	12.0	545	34.9
Skilled worker	26	2.0	1	0.4	27	1.7
Semi-skilled worker	82	6.4	1	0.4	83	5.3
Unskilled worker	62	4.8	3	1.1	65	4.2
Unemployed	19	1.5	-	-	19	1.2
Student	5	0.4	-	-	5	0.3
House-wife	-	-	216	78.8	216	13.8
Govt. Employee	138	10.7	4	1.5	142	9.1
Private Employee	51	4.0	1	0.4	52	3.3
Other	66	5.1	4	1.5	70	4.5
Unknown/No information	4	0.3	-	-	4	0.3
Total	1287	100.0	274	100.0	1561	100.0

Table 16: Tobacco-related cancer cases by sex and education

Education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	178	13.8	85	31.0	263	16.8
Literate	125	9.7	35	12.8	160	10.2
Primary (1 st to 7 th std)	397	30.8	91	33.2	488	31.3
Secondary (8 th to 10 th std)	288	22.4	36	13.1	324	20.8
Technical after 10 th	34	2.6	2	0.7	36	2.3
College	153	11.9	20	7.3	173	11.1
Post Graduate	102	7.9	5	1.8	107	6.9
Other	8	0.6	-	-	8	0.5
Unknown/No information	2	0.2	-	-	2	0.1
Total	1287	100	274	100	1561	100

Table 17: Tobacco-related cancer cases by sex and religion

Religion	Male		Female		Total	
	Number	%	Number	%	Number	%
Hindu	1127	87.6	249	90.9	1376	88.1
Muslim	159	12.4	22	8.0	181	11.6
Sikh	-	-	1	0.4	1	0.1
Other	1	0.1	2	0.7	3	0.2
Total	1287	100	274	100	1561	100

14. Cancer burden as per anatomical system

For males, the reported majority of cancer cases involved the sites from head and neck region (43.4%), followed by the digestive tract organs (20.0%) with highest AAR 29.1 and 13.7 per 100,000 population respectively. Other leading sites were respiratory and intra thoracic sites (9.2%), lymphoid and haematopoietic tissue (9.2%) and male genital organ (6.4%). In head and neck region, the leading site was of mouth cancer (C03-C06) with AAR 17.8 per 100,000 population. In digestive tract organs, gall bladder (C23-C24) was the leading cancer site with AAR 4.5 per 100,000 population. Among male genitalia cancer cases, the leading site was prostate (C61) with AAR 3.2 per 100,000 population.

For females, the reported majority of cancer cases involved the sites from digestive organ region (25.3%), followed by the breast (23.2%) and female genital organs (21.1%) with AAR 14.0, 12.4, and 11.7 per 100,000 population respectively. Other leading sites were head and neck region (9.9%), lymphoid and haematopoietic tissue (6.5%) and respiratory and intra thoracic organ (5.1%). Among the digestive organs, the leading site was gall bladder (C23-24) with AAR 7.9 per 100,000 population. For female genitalia organs, the leading site is cervix uteri (C53) with AAR 5.0 per 100,000 population. The details are presented in figure 39, tables 18 and 19.

Figure 39: Cancer rates by different anatomical sites in Varanasi district: 2020-2021

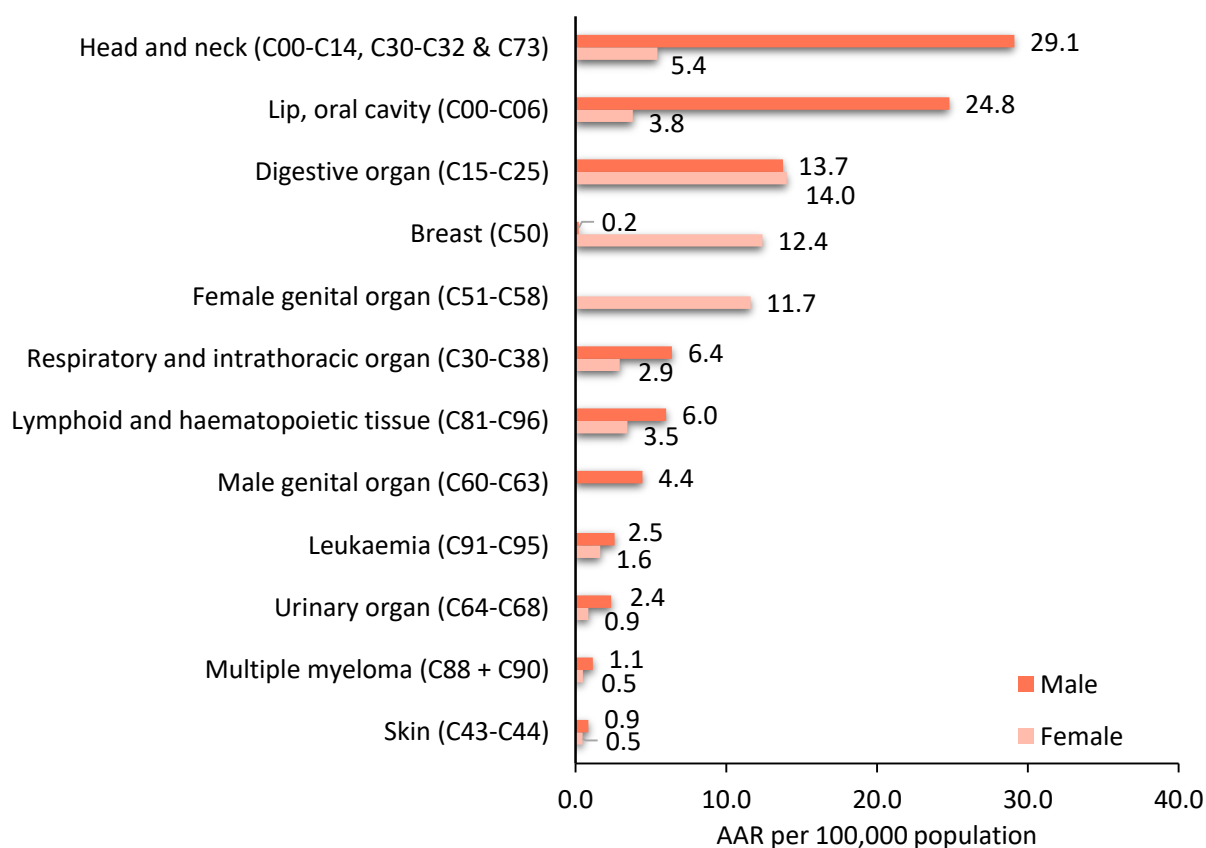


Table 18: Cancer burden as per the various anatomical system in male: 2020-2021

ICD10	Site	Number	%	CR	AAR	TR
C00-C14, C30-C32 & C73	Head and Neck	1092	43.4	25.4	29.1	70.4
C00-C06	Lip, Oral Cavity	935	37.2	21.7	24.8	62.6
C15-C25	Digestive Organ	504	20.0	11.7	13.7	25.9
C30-C38	Respiratory and Intra thoracic Organ	231	9.2	5.4	6.4	10.3
C81-C96	Lymphoid and Haematopoietic tissue	231	9.2	5.4	6.0	8.8
C60-C63	Male Genital Organ	161	6.4	3.7	4.4	5.1
C91-C95	Leukaemia	99	3.9	2.3	2.5	2.8
C64-C68	Urinary Organ	84	3.3	2.0	2.4	4.2
C88 + C90	Multiple Myeloma	40	1.6	0.9	1.1	2.4
C43-C44	Skin	31	1.2	0.7	0.9	1.5
C50	Breast	8	0.3	0.2	0.2	0.4

Table 19: Cancer burden as per the various anatomical system in female: 2020-2021

ICD10	Site	Number	%	CR	AAR	TR
C15-C25	Digestive Organ	488	25.3	12.4	14.0	30.7
C50	Breast	449	23.2	11.4	12.4	29.7
C51-C58	Female Genital Organ	409	21.2	10.4	11.7	27.0
C00-C14, C30-C32 & C73	Head and Neck	191	9.9	4.9	5.4	11.4
C00-C06	Lip, Oral Cavity	132	6.8	3.2	3.8	9.1
C81-C96	Lymphoid and Haematopoietic tissue	126	6.5	3.4	3.5	6.1
C30-C38	Respiratory and Intra thoracic Organ	99	5.1	2.5	2.9	5.5
C91-C95	Leukaemia	61	3.2	1.6	1.6	2.8
C64-C68	Urinary Organ	27	1.4	0.7	0.9	1.3
C88 + C90	Multiple Myeloma	17	0.9	0.4	0.5	1.1
C43-C44	Skin	16	0.8	0.4	0.5	1.1

15. Socio-demographic information

The Varanasi district cancer registry staff interacted with cancer patients or their relatives and gathered socio-demographic information. Based on the information collected, in the Varanasi district, cancer cases were highest among the Hindu community (90.1%). Moreover, cancer cases were more in the population having educational level primary (1-7 std) [Male: 29.3%, Female: 31.4%]. Furthermore, in terms of occupation, cancer cases were more commonly found among farmers (39%) in males and housewives (77.6%) in females. The number of cancer cases was more among the population with an income range of Rs. 7,500/- to Rs. 11,500/- per month.

Table 20: Cancer cases by education and sex

Education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	320	12.7	547	28.3	867	19.5
Literate	227	9.0	198	10.2	425	9.6
Primary (1 to 7std)	739	29.4	608	31.5	1347	30.3
Secondary (8 to 10 std)	539	21.4	270	14.0	809	18.2
Technical after 10 th	66	2.6	18	0.9	84	1.9
College	340	13.5	172	8.9	512	11.5
Post Graduate	231	9.2	98	5.1	329	7.4
Other	16	0.6	6	0.3	22	0.5
Not applicable to children	32	1.3	14	0.7	46	1.0
Unknown / No Information	4	0.2	1	0.1	5	0.1
Total	2514	100	1932	100	4446	100

Table 21: Cancer cases by religion and sex

Religion	Male		Female		Total	
	Number	%	Number	%	Number	%
Hindu	2244	89.3	1761	91.1	4005	90.1
Muslim	267	10.6	159	8.2	426	9.6
Christian	-	-	4	0.2	4	0.1
Sikh	2	0.1	4	0.2	6	0.1
Other	1	0.04	4	0.2	5	0.1
Total	2514	100	1932	100	4446	100

Table 22: Cancer cases by income and sex

Income	Male		Female		Total	
	Number	%	Number	%	Number	%
=> 30375	282	11.2	99	5.1	381	8.6
15188-30374	258	10.3	166	8.6	424	9.5
11362-15187	287	11.4	177	9.2	464	10.4
7594-11361	887	35.3	697	36.1	1584	35.6
4556-7593	306	12.2	300	15.5	606	13.6
1521-4555	196	7.8	220	11.4	416	9.4
<= 1520	247	9.8	259	13.4	506	11.4
Unknown/No information	52	2.0	13	0.7	65	1.5
Total	2514	100	1932	100	4446	100

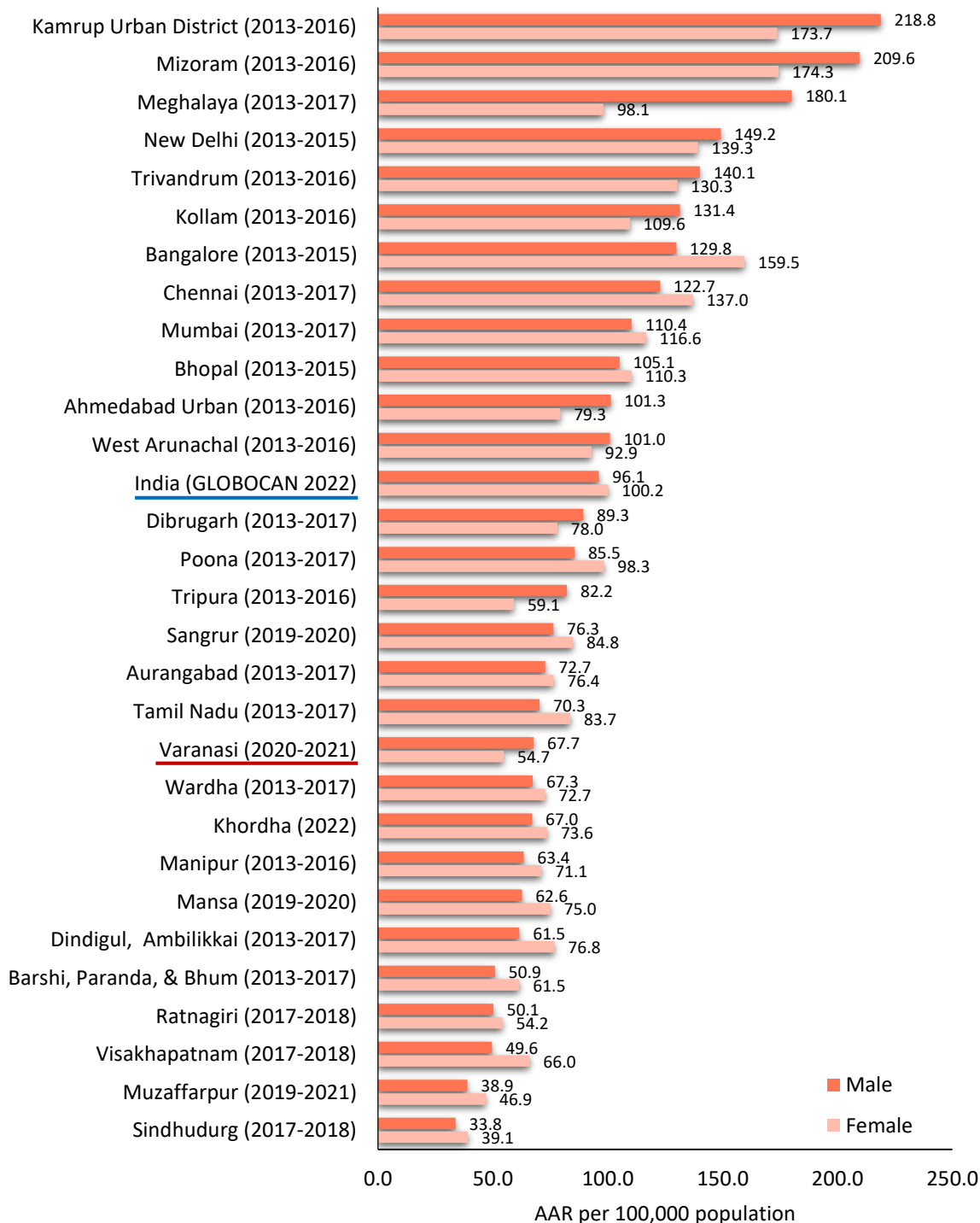
Table 23: Cancer cases by occupation and sex

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Professional	56	2.2	2	0.1	58	1.3
Semi-professional	112	4.5	16	0.8	128	2.9
Clerical, Shop-owner	372	14.8	28	1.4	400	9.0
Farmer	980	39.0	232	12.0	1212	27.3
Skilled worker	44	1.8	8	0.4	52	1.2
Semi-skilled worker	136	5.4	4	0.2	140	3.1
Unskilled worker	125	5.0	4	0.2	129	2.9
Unemployed	32	1.3	3	0.2	35	0.8
Student	103	4.1	49	2.5	152	3.4
House-wife	-	-	1499	77.6	1499	33.7
Govt. Employee	302	12.0	52	2.7	354	8.0
Private Employee	83	3.3	4	0.2	87	2.0
Other	132	5.3	17	0.9	149	3.4
Not applicable for children	33	1.3	14	0.7	47	1.1
Unknown/No information	4	0.2	-	-	4	0.1
Total	2514	100	1932	100	4446	100

16. Comparison of cancer incidence rate with other Indian registries

Age-adjusted incidence rate for all cancer sites for both sexes for the year 2020-2021 was compared with other Indian PBCRs in figure 40. The cancer incidence rate of Varanasi district is lower than urban areas and it is comparable with other rural cancer registries in the country.

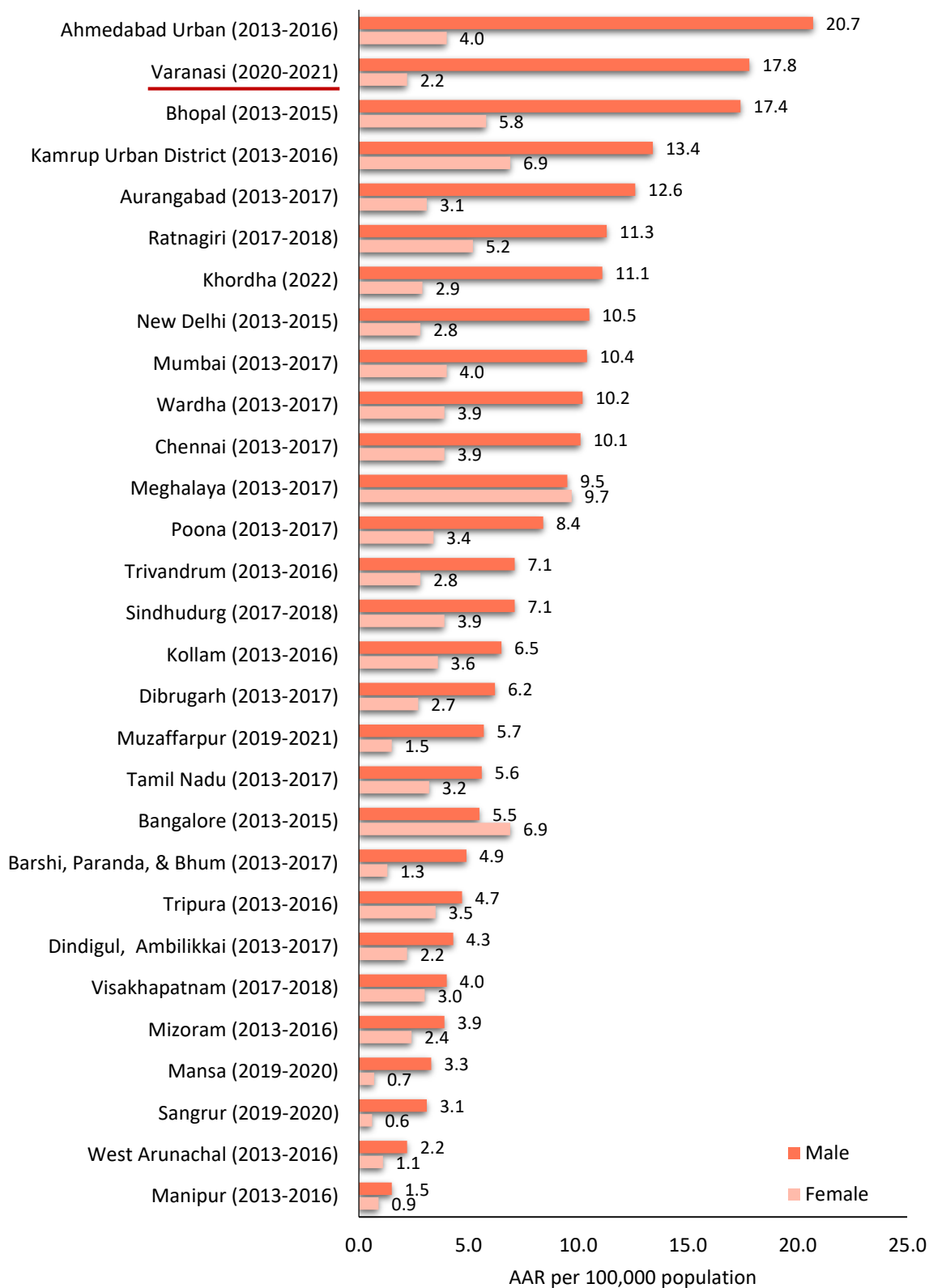
Figure 40: Age-adjusted incidence rate of all cancer sites



(References: 5, 9-18)

Among males, out of every 4 cancer cases, 1 case is of mouth cancer registered at Varanasi district. Mouth cancer rate is higher in Varanasi district. Comparison of mouth cancer rate is shown in figure 41.

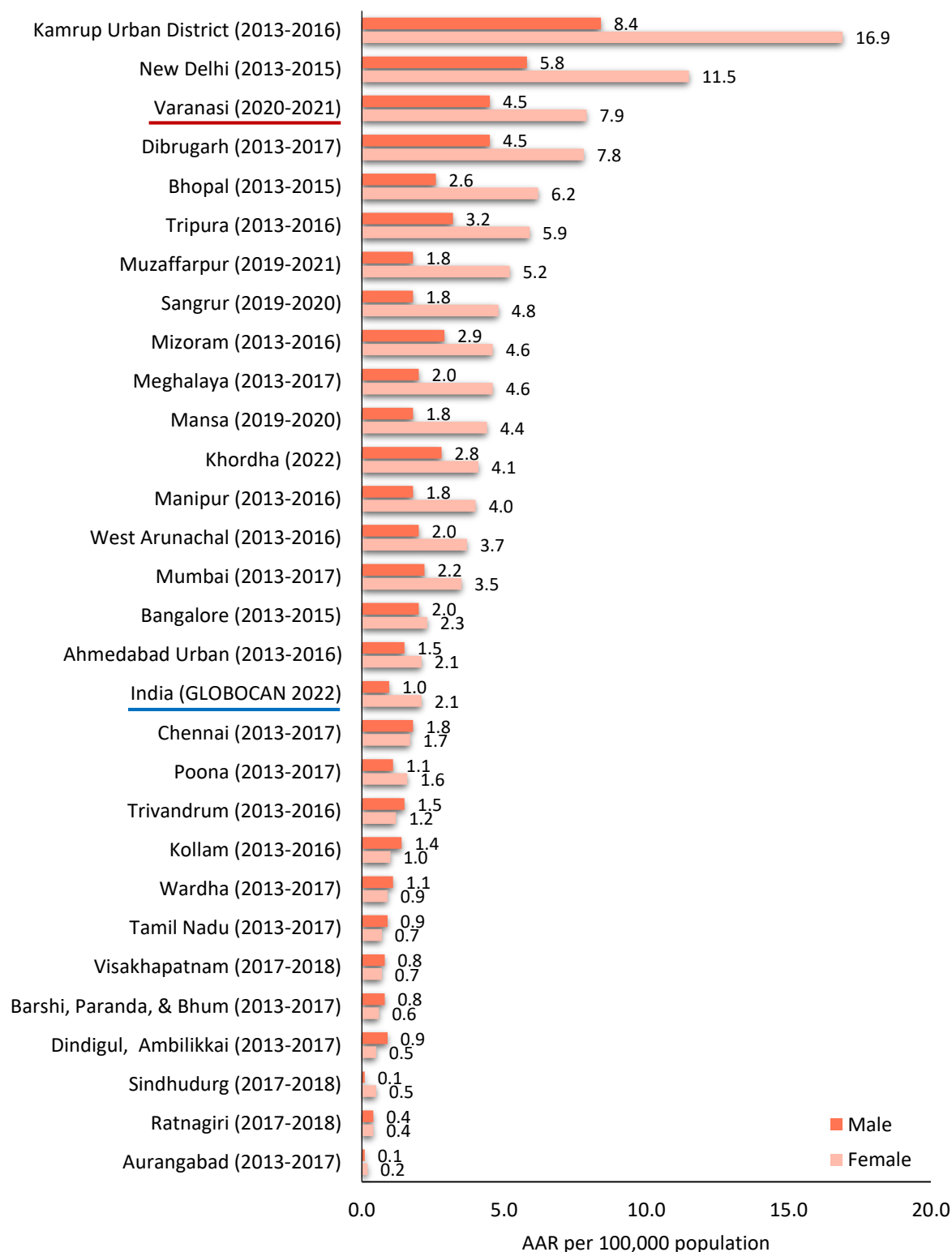
Figure 41: Age-adjusted incidence rate of mouth cancer (C03-C06)



(References: 5, 10-18)

Gall bladder cancer is the second leading cancer site among females and third in males in Varanasi district. Compared to other Indian registries the rates are high; however, it is low as compared to Kamrup urban district and New Delhi cancer registry. The comparison of gall bladder cancer rate is shown in figure 42.

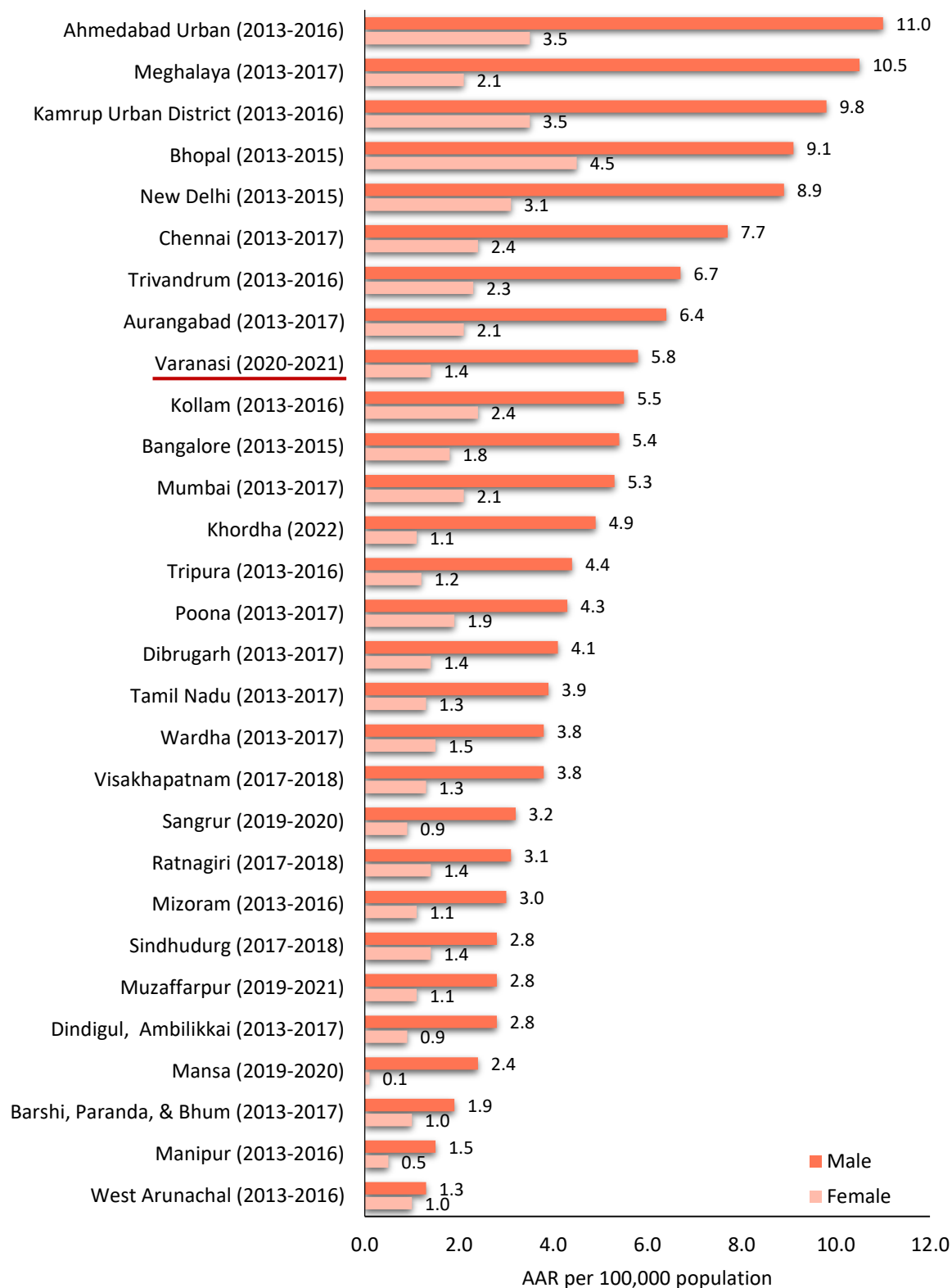
Figure 42: Age-adjusted incidence rate of gall bladder cancer



(References: 5, 9-18)

Tongue cancer is the second leading cancer site among males in Varanasi district. Compared to other Indian rural registries the rate is high; however, it is low as compared to Delhi and few other Indian cancer registry. The comparison of tongue cancer rate is shown in figure 43.

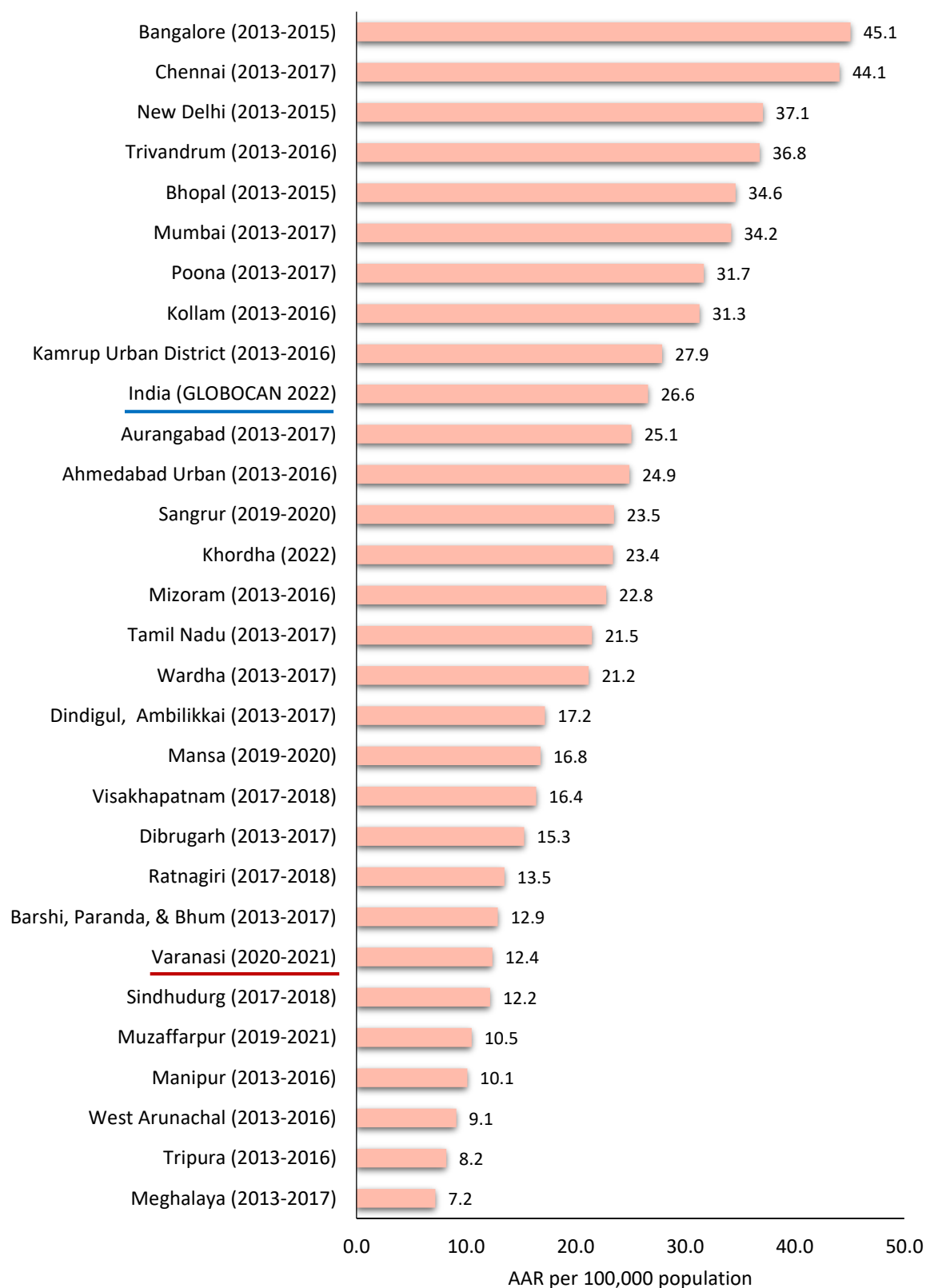
Figure 43: Age-adjusted incidence rate of tongue cancer



(References: 5, 10-18)

The breast cancer incidence rate is low in Varanasi district as compared to other registries in India. The comparison of breast cancer rate is shown in figure 44.

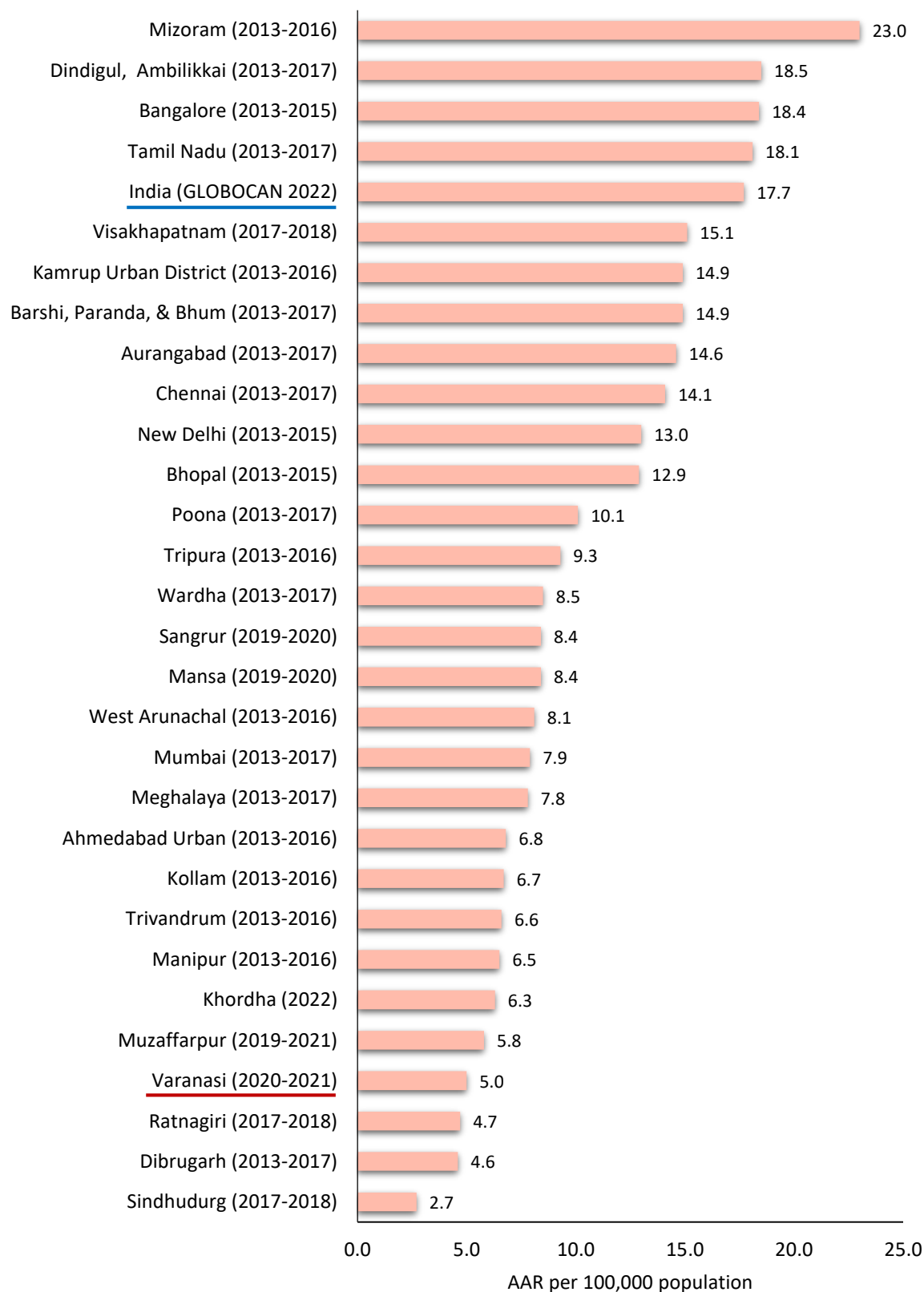
Figure 44: Age-adjusted incidence rate of breast cancer



(References: 5, 9-18)

The cervical cancer incidence rate is low in Varanasi district as compared to other registries in India. The comparison of cervical cancer rate is shown in figure 45.

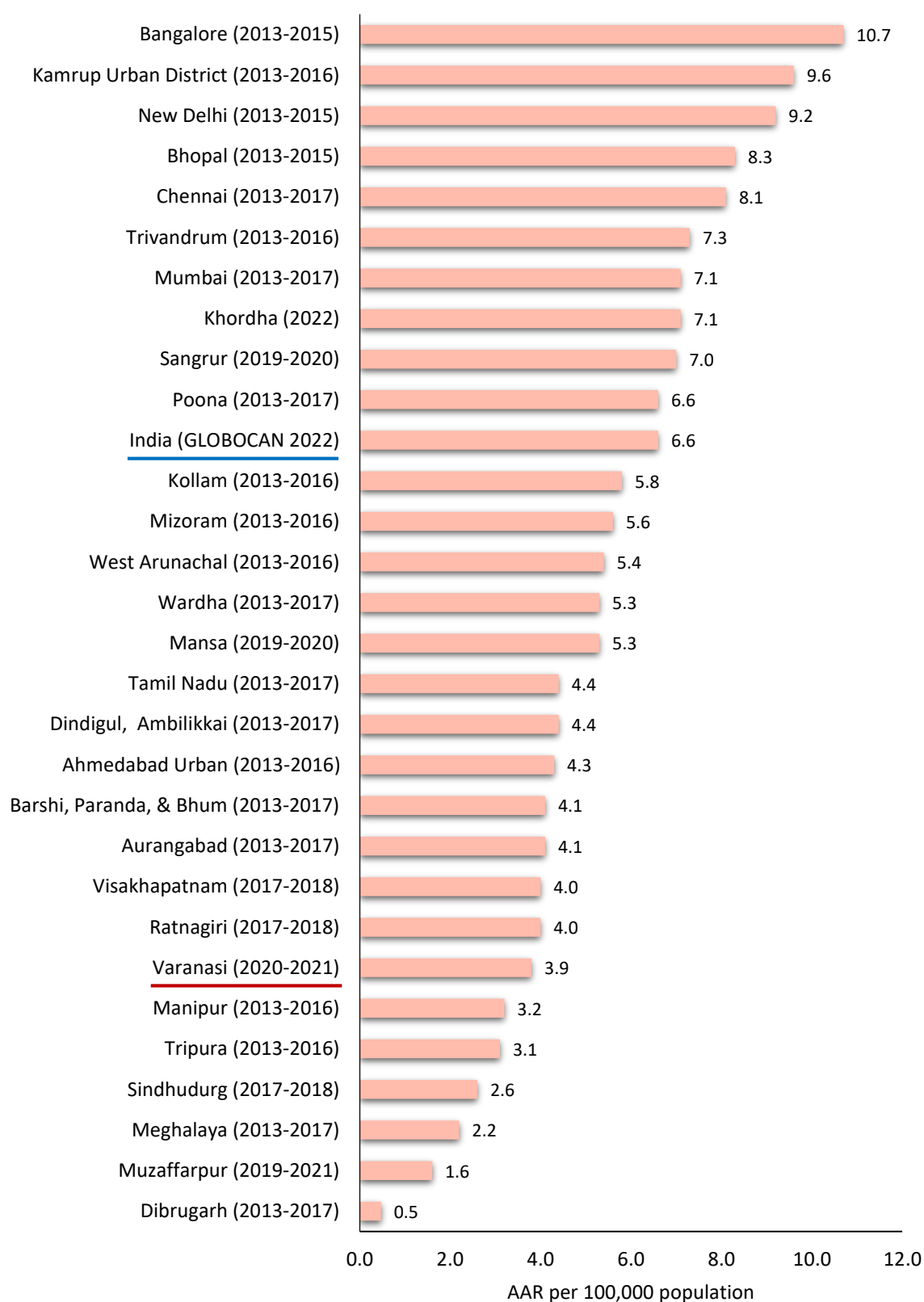
Figure 45: Age-adjusted incidence rate of cervical cancer



(References: 5, 9-18)

The ovarian cancer incidence rate is low in Varanasi district as compared to other registries in India. The comparison of ovarian cancer rate is shown in figure 46.

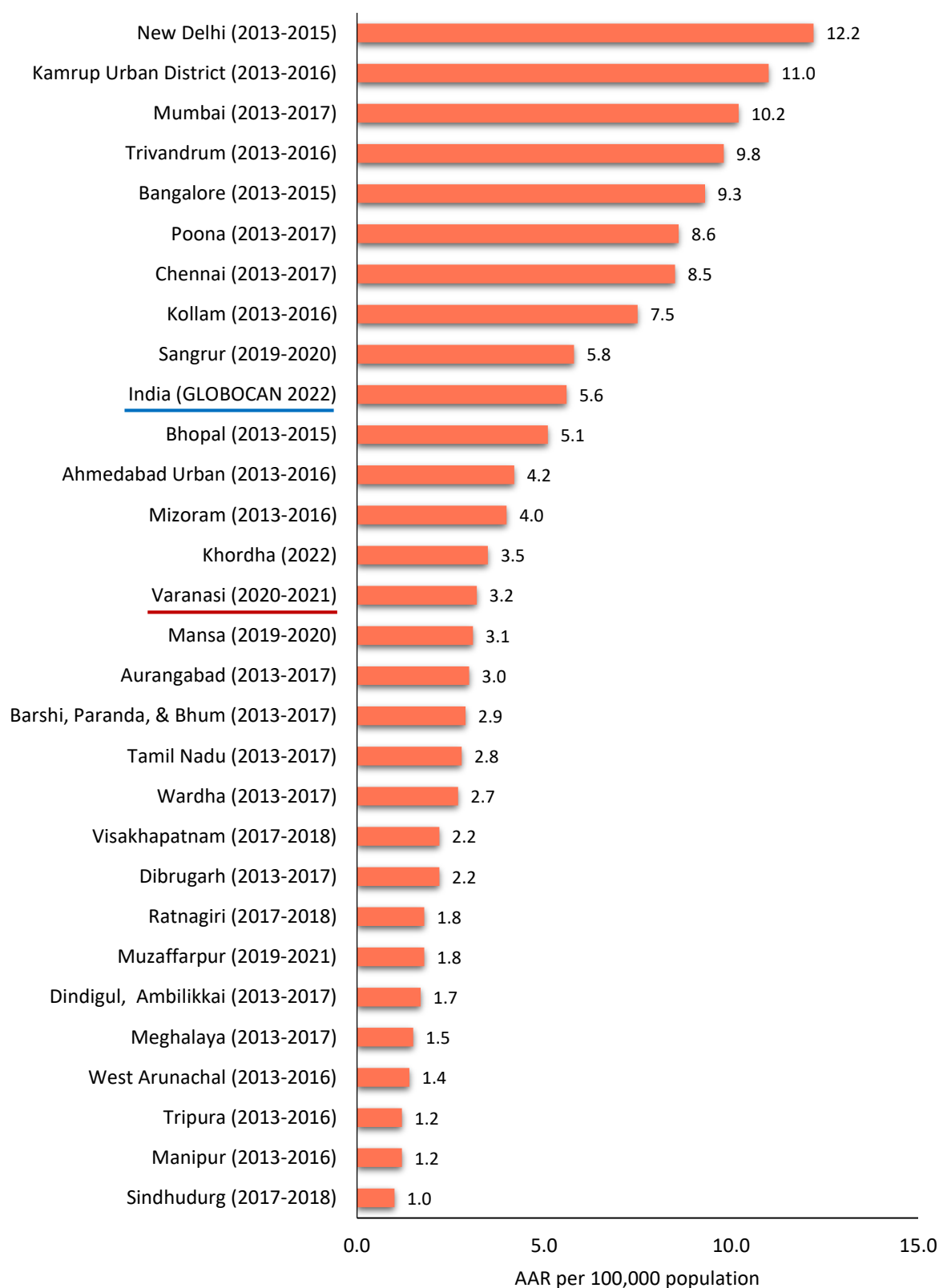
Figure 46: Age-adjusted incidence rate of ovary cancer



(References: 5, 9-18)

The prostate cancer incidence rate is low in Varanasi district as compared to other registries in India. The comparison of prostate cancer rate is shown in figure 47.

Figure 47: Age-adjusted incidence rate of prostate cancer



(References: 5, 9-18)

17. The COVID-19 pandemic effect

Introduction

The COVID-19 pandemic severely disrupted healthcare systems across the globe, including routine surveillance and registry activities. India imposed a nationwide lockdown from March 24 to May 31, 2020, followed by phased relaxations. The second wave of COVID-19 in 2021 was particularly devastating, peaking on May 1, 2021, with more than 400,000 daily cases nationwide. Varanasi district recorded over 70,600 infections and nearly 700 officially reported deaths. With healthcare facilities overwhelmed, many hospitals were converted into COVID-19 isolation centres, and critical non-COVID services, including cancer care and registration, were disrupted.

Cancer registration relies on an active case-finding approach, which involves consistent field visits, access to medical and diagnostic records, and direct interaction with patients, their families, and healthcare providers. The journey to compile the third-year report was directly impacted by the COVID-19 pandemic, which posed unprecedented challenges to cancer data collection, community interaction, and case-confirmation. This chapter presents findings from two studies conducted during the COVID period, reflecting on the challenges faced during cancer registration and the strategies adopted by the PBCR staff to overcome these hurdles.

Challenges faced by PBCR team

A qualitative exploration of the PBCR staff experiences between May 2020 to June 2021 provides critical insights into the hurdles encountered and the adaptive strategies that enabled continuity of cancer registration during this global health crisis.

1. Difficult Working Conditions

- **Restricted mobility:** Public transport shutdowns and travel restrictions prevented field investigators from accessing communities, diagnostic laboratories, and hospitals.
- **Safety concerns:** Staff had limited access to personal protective equipment (PPE), such as masks and sanitizers. Fear of COVID-19 transmission further restricted in-person activities.
- **Workplace limitations:** Registry operations were constrained by social-distancing protocols, with only 50% of staff allowed in offices. Vaccination access for registry staff during the second wave was also delayed.

2. Hurdles in active case finding

- **Disrupted access to medical records:** Many treatment centres and diagnostic facilities restricted access to patient data. Several hospitals were repurposed exclusively for COVID care.
- **Resistance from stakeholders:** Healthcare workers, such as ASHAs and ANMs, were preoccupied with pandemic response, limiting their support for cancer registration.

- **Restricted death records:** Access to mortality data from civil registration offices was halted, complicating verification of cancer-related deaths.
- **Community fear:** Patients, families, and community informants often refused in-person interaction, fearing COVID testing or infection.

3. Manpower crisis

- Registry staff and their family members contracted COVID-19 during both waves, necessitating sick leave and quarantine. While no staff resigned and salaries were disbursed on time, the temporary reduction in workforce slowed operations.

4. Patient-related barriers

- Many cancer patients were unable to access timely treatment during lockdowns, leading to frustration and reluctance to engage with registry staff.
- Some patients and families were unwilling to share information due to dissatisfaction with care or fear of infection.

Adaptive local measures by PBCR team

Despite severe constraints, the PBCR team in Varanasi implemented several innovative strategies to sustain registry activities:

- **Remote work adaptation:** Staff shifted to work-from-home settings, focusing on data abstraction, cleaning, and ICD-O coding.
- **Telephonic follow-up:** Patients and their families were contacted via phone to collect missing data and confirm diagnoses.
- **Digital solutions:** To sustain registry activities during the lockdown, staff relied on digital communication tools for data abstraction and verification. Wherever possible, electronic medical records (EMRs) were accessed through secure channels. In some instances, pragmatic use of commonly available platforms (e.g., email, messaging applications) was adopted for the timely exchange of information. However, this raised challenges related to data security, confidentiality, and standardisation. These experiences highlight the urgent need for a dedicated, secure digital infrastructure to support cancer registries during emergencies. Registry staff had no option but to share medical records through online platforms, including email and WhatsApp.
- **Quality improvement:** The lockdown period was effectively used to review, validate, and update registry forms, and also for quality check and control.
- **Institutional support:** Collaboration with hospital administration and technical oversight from the Centre for Cancer Epidemiology (CCE), Mumbai, ensured continuity of registry operations.

Evidence from a Retrospective Cohort Study on Cancer Care Disruptions

To complement registry-level observations, a retrospective cohort study was conducted at the Tata Memorial Centre, Varanasi, to assess disruptions, barriers, and resilience of cancer care during the pandemic.

Study Population

The study included 798 cancer patients who had registered for care between September 23, 2019, and March 23, 2020, representing the six months immediately preceding the nationwide lockdown in India. Patients were followed for six months from their date of registration (DOR) through a combination of electronic medical records (EMRs) and telephonic interviews, providing a dual source of quantitative and qualitative data. This allowed the investigators to capture both objective treatment disruptions (e.g., delays, missed visits) and subjective experiences (e.g., fear, financial strain).

Reported barriers to cancer care

The pandemic created multi-dimensional challenges for patients, ranging from logistical hurdles to psychosocial concerns. The main barriers reported were:

- **Inability to visit hospitals due to lockdown extension (57%):** Many patients who had initiated or were due to initiate treatment were unable to travel to the tertiary centres. Lockdowns, curfews, and sealing of district borders prevented routine movement even for medical reasons, and obtaining travel passes was cumbersome.
- **Closure of public transportation (53%):** Public transport shutdowns compounded the problem, as the majority of patients belonged to rural or semi-urban areas and were highly dependent on trains and buses for reaching hospitals. Private transport was either unavailable or unaffordable, especially for those requiring multiple hospital visits.
- **Lack of accommodation during treatment (52.4%):** Cancer patients often rely on dharamshalas, guest houses, or hospital-linked accommodations during extended treatment regimens. With the closure of many such facilities during lockdowns, patients were left without secure places to stay near treatment centres. This barrier disproportionately affected those undergoing prolonged therapies like chemotherapy or radiotherapy.
- **Resort to alternative therapies (7.4%):** A small proportion of patients turned to unproven alternative treatments, primarily due to a lack of access to conventional care and a fear of contracting COVID-19 in hospital settings. This highlights both the vulnerability of patients in crises and the persistent challenges of health literacy.
- **Refusal of treatment due to COVID-related fears (9.5%):** A segment of patients consciously deferred or declined treatment altogether, fearing exposure to COVID-19 within healthcare facilities. This was particularly noted among older patients, those with comorbidities and those under palliation, reflecting widespread anxiety and mistrust during the pandemic's peak.

Hospital resilience and adaptive strategies

Despite these barriers, both participating cancer centres demonstrated significant resilience, maintaining essential cancer services throughout the pandemic. Notably, services were never completely shut down, even during the peak of the first and second waves. Key adaptive measures included:

- **Telemedicine and online appointments:** Hospitals rapidly scaled up their teleconsultation platforms, allowing follow-up consultations, prescription renewals, and counselling sessions to be conducted remotely. This not only reduced the risk of infection but also alleviated the need for patients to travel long distances for routine visits.
- **Localstay arrangements for patients:** Recognizing the closure of traditional lodging facilities, hospitals facilitated temporary accommodation through partnerships with local NGOs, community guesthouses, and charitable trusts. This ensured that patients undergoing continuous treatments, such as radiotherapy and chemotherapy, could remain close to their treatment facilities.
- **Strengthened referral networks:** To minimize travel and disruption, hospitals developed strong referral linkages with nearby cancer-treating centres closer to patients' residences. Patients were guided to alternative treatment centres within their districts or neighbouring states whenever feasible. This decentralised approach helped reduce treatment abandonment and improve continuity of care.
- **Safety and infection control protocols:** Hospitals implemented stringent screening, masking, and sanitization protocols, which reassured patients and staff. Cancer wards were physically segregated from COVID care facilities, preserving "safe zones" for oncology care.
- **Patient support systems:** Hospital-based helplines and counselling services were strengthened, allowing patients to seek guidance on treatment schedules, hospital entry requirements, and accommodation. This proactive engagement built trust and encouraged treatment adherence.

Implications for cancer registries

The barriers and resilience measures identified in this cohort directly intersected with registry operations. Patient's inability to reach hospitals or reliance on alternative care pathways reduced the visibility of cancer cases in registry records. Conversely, hospital innovation, such as telemedicine and referral networks, created new opportunities for registries to adapt their data collection methods by leveraging EMRs and cross-institutional collaborations.

Lessons learned

1. **Digital readiness is indispensable:** The rapid shift to remote data abstraction, telephonic follow-up, and electronic medical records has highlighted the value of digital tools. However, the reliance on ad-hoc platforms underscored the urgent need for secure, standardized digital infrastructure for registries.
2. **Integration of registry and hospital systems enhances resilience:** Cancer registries cannot function in isolation. A strong linkage with hospital innovations, such as telemedicine, online appointments, referral networks, and patient support systems, ensures continuity of both care and data flow during public health crises.
3. **Preparedness planning must be embedded in registry operations:** Public health emergencies will recur. Cancer registries need contingency plans, including flexible staffing models, remote work protocols, and emergency SOPs for data collection, to minimize disruptions.
4. **Community trust and engagement are critical:** Fear, misinformation, and dissatisfaction among patients and families created barriers to data collection. Building transparent communication channels, patient counselling, and community engagement strategies is essential for registry acceptance and cooperation during crises.
5. **Supportive leadership and institutional backing sustain morale and continuity:** The uninterrupted salaries, administrative support, and technical guidance from the Centre for Cancer Epidemiology (CCE) and hospital management were vital in keeping registry operations functional. Such institutional commitment is critical for resilience in future emergencies.

18. Description of statistical terms used

Incidence: Cancer incidence denotes new cancer cases diagnosed in a defined population in a specified period. For this report, all cancer cases diagnosed from 1st January 2020 to 31st December 2021 in the Varanasi district have been included.

Mortality: Cancer mortality is defined as the number of cancer deaths occurring in a defined population, in a defined geographic area, during a particular year(s) per 100,000 population. All cancer deaths from 1st January 2020 to 31st December 2021 in the Varanasi district have been included.

Rates: Rates for cancer are always expressed per 100,000 population.

Crude Incidence Rate (CIR): The crude incidence is the rate at which new cases occur in a population during a specific period.

$$\text{CIR} = \frac{\text{Number of new cancer cases observed in the period 2020-2021} * 100,000}{\text{Estimated population of the same year}}$$

This rate is also called the crude rate because it relates to each population as a whole and is influenced by the age structure of each population.

Age-Specific Rate (ASR): This refers to the rate obtained by the division of the total number of cancer cases by the corresponding estimated population in that age group and sex/site/geographic area/time and multiplying by 100,000.

Age-Adjusted or Age-Standardized Rate (AAR): Age adjustment is a statistical method that corrects for the changing age distribution of the population and allows comparisons to be made in the adjusted rates between different population sub-groups over time.

Truncated Rates (TR): This is similar to the age-adjusted rate except that it is calculated to the truncated age group 35-64 years of age.

Paediatric cancer incidence rate: Age-specific rates are shown for 0-4, 5-9, 10-14, and 15-19 age groups. Age-adjusted incidence rates were calculated by the direct method, using the age-specific rates for the age groups 0-4, 5-9, 10-14, and 15-19 and the weights of the World Standard population for these age groups according to Segi, namely 12, 10, 9, and 9.

19. Standard registry tables

Table 24: Number of incidence cancers by five-year age group and site (ICD 10): 2020-2021
Males Varanasi district

% = Relative proportion of cancers of all sites

ICD 10	Sites	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	Total	%
C00	Lip	-	-	-	-	1	-	3	3	8	6	5	5	9	5	-	-	45	1.8
C01-C02	Tongue	-	-	-	-	1	10	15	30	45	29	27	17	15	16	8	12	225	8.9
C03-C06	Mouth	-	-	-	-	3	9	34	63	95	112	110	75	71	48	31	14	665	26.5
C07-C08	Salivary glands	-	-	-	-	2	-	-	-	1	1	2	4	-	4	3	1	18	0.7
C09	Tonsil	-	-	-	-	-	-	-	-	3	-	1	2	2	2	-	1	11	0.4
C10	Other oropharynx	-	-	-	-	-	-	-	1	2	-	1	1	1	3	1	2	12	0.5
C11	Nasopharynx	-	-	-	-	-	-	-	1	-	1	1	1	-	-	-	-	4	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	1	1	-	3	7	5	4	4	25	1.0
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	3	0.1
C15	Oesophagus	-	-	-	-	-	-	-	-	1	1	9	12	10	9	7	5	54	2.1
C16	Stomach	-	-	-	1	1	2	2	4	3	4	5	6	9	8	2	3	50	2.0
C17	Small intestine	-	-	-	-	1	1	-	1	-	2	1	1	-	-	-	-	7	0.3
C18	Colon	-	-	-	1	3	1	-	3	7	5	3	4	2	8	5	-	42	1.7
C19-C20	Rectum	-	-	-	5	1	2	2	2	1	1	4	4	8	6	1	1	38	1.5
C21	Anus	-	-	-	1	-	2	1	-	-	-	2	3	-	-	-	1	10	0.4
C22	Liver	1	1	-	-	2	-	5	6	6	8	9	3	17	22	15	11	106	4.2
C23-C24	Gallbladder etc.	-	-	-	-	-	4	2	9	11	17	16	27	27	25	11	14	163	6.5
C25	Pancreas	-	-	-	-	-	1	2	1	2	5	5	1	3	5	5	4	34	1.4
C30-C31	Nose, sinuses etc.	-	-	-	-	2	-	1	3	-	2	1	-	-	-	-	1	10	0.4
C32	Larynx	-	-	-	-	-	-	1	1	1	7	6	9	12	12	6	8	63	2.5
C33-C34	Trachea, bronchus and lung	-	-	-	-	3	-	3	3	3	7	6	22	26	34	20	23	150	6.0
C37-C38	Other thoracic organs	-	-	-	-	-	1	-	-	-	-	1	1	2	-	2	1	8	0.3
C40-C41	Bone	-	1	1	3	6	2	3	1	2	3	1	2	2	1	2	3	33	1.3
C43	Melanoma of skin	-	-	-	-	-	-	-	-	1	-	-	2	3	2	-	-	8	0.3
C44	Other skin	-	-	-	-	-	1	1	2	-	-	3	-	6	4	3	3	23	0.9
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	2	1	2	1	1	2	2	3	1	1	1	1	2	1	6	-	27	1.1
C50	Breast	-	-	-	-	-	-	-	1	-	1	1	1	1	1	1	1	8	0.3
C60	Penis	-	-	-	-	-	-	1	1	-	1	-	6	-	5	3	2	19	0.8
C61	Prostate	-	-	-	-	-	1	-	1	-	3	4	7	24	28	22	23	113	4.5
C62	Testis	3	-	-	3	1	2	7	3	3	2	1	1	-	-	-	-	26	1.0
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	0.1
C64	Kidney	2	-	-	-	1	-	-	2	3	4	2	4	6	6	4	4	38	1.5
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	1	-	-	-	-	1	4	9	5	5	8	3	9	45	1.8
C68	Other urinary organs	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.0
C69	Eye	5	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	6	0.2
C70-C72	Brain, nervous system	4	2	-	1	4	3	4	-	2	1	4	3	4	5	6	1	44	1.8
C73	Thyroid	-	-	-	-	2	-	-	1	1	-	1	1	2	3	-	-	11	0.4
C74	Adrenal gland	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1
C75	Other adrenal gland	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.0
C81	Hodgkin disease	-	2	4	1	2	2	2	-	-	1	-	1	-	1	-	1	17	0.7
C82-C86,C96	Non-Hodgkin lymphoma	4	5	4	2	1	6	1	3	6	3	7	12	8	6	3	4	75	3.0
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.0
C90	Multiple myeloma	-	-	-	-	-	-	-	1	1	2	8	7	6	7	4	3	39	1.6
C91	Lymphoid leukaemia	4	6	2	3	4	1	1	1	-	-	3	3	2	3	2	-	35	1.4
C92-C94	Myeloid leukaemia	-	2	2	3	4	6	5	2	4	2	3	1	4	1	1	2	42	1.7
C95	Leukaemia unspecified	4	1	2	3	3	1	-	2	2	-	-	1	2	1	-	-	22	0.9
Other & Unspecified*		1	-	1	4	2	5	4	6	7	11	11	15	16	22	14	13	132	5.3
Total		31	21	19	33	51	65	102	161	225	248	274	276	316	318	197	177	2514	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 25: Number of incidence cancers by five-year age group and site (ICD 10): 2020-2021
Females Varanasi district
 % = Relative proportion of cancers of all sites

ICD 10	Sites	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	Total	%
C00	Lip	-	-	-	-	-	-	-	1	1	1	2	-	-	1	-	-	6	0.3
C01-C02	Tongue	-	-	-	-	-	-	2	3	6	9	4	6	6	4	6	4	50	2.6
C03-C06	Mouth	-	-	-	-	-	1	-	6	8	14	15	6	11	6	7	2	76	3.9
C07-C08	Salivary glands	-	-	-	-	-	-	1	1	-	2	-	1	-	-	-	-	5	0.3
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	-	4	0.2
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	3	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	0.1
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	1	-	-	2	5	2	6	3	3	5	4	31	1.6
C16	Stomach	-	-	-	-	1	1	3	5	2	7	7	4	10	2	5	4	51	2.6
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	0.1
C18	Colon	-	-	-	-	-	3	1	-	2	1	3	1	3	1	-	2	17	0.9
C19-C20	Rectum	-	-	-	1	-	1	2	1	-	-	4	4	2	3	1	1	20	1.0
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	3	0.2
C22	Liver	1	-	-	-	2	3	-	2	3	8	10	8	12	8	4	3	64	3.3
C23-C24	Gallbladder etc.	-	-	-	-	1	2	7	27	23	27	46	37	39	28	22	15	274	14.2
C25	Pancreas	-	-	-	-	1	-	1	-	3	1	5	3	3	3	3	3	26	1.3
C30-C31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	2	0.1
C32	Larynx	-	-	-	-	-	-	1	1	1	-	1	-	1	6	-	-	11	0.6
C33-C34	Trachea, bronchus and lung	-	-	-	-	-	1	2	2	7	10	15	11	8	16	8	6	86	4.5
C37-C38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	Bone	-	1	2	1	3	-	3	2	3	-	-	1	1	2	1	1	21	1.1
C43	Melanoma of skin	-	-	-	-	-	-	2	-	-	1	1	1	-	1	1	-	7	0.4
C44	Other skin	-	-	-	-	-	-	-	-	-	1	3	2	2	-	1	-	9	0.5
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	1	-	1	-	1	2	-	1	1	1	1	1	-	1	1	12	0.6
C50	Breast	-	-	-	-	3	17	29	46	57	72	64	52	40	31	20	18	449	23.2
C51	Vulva	1	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	4	0.2
C52	Vagina	-	-	-	-	-	-	1	2	2	3	3	1	3	3	-	-	18	0.9
C53	Cervix uteri	-	-	-	-	-	1	4	8	20	34	26	16	26	17	10	10	172	8.9
C54	Corpus uteri	-	-	-	-	-	1	1	-	2	6	10	10	5	9	6	4	54	2.8
C55	Uterus unspecified	-	-	-	-	-	-	-	1	1	1	2	-	1	1	1	2	10	0.5
C56	Ovary	1	-	2	4	1	3	9	22	12	22	22	14	14	7	5	5	143	7.4
C57	Other female genital organs	-	-	-	-	-	1	-	-	1	3	-	-	1	2	-	-	8	0.4
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	3	-	-	-	-	-	2	1	-	5	-	-	2	-	-	-	13	0.7
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.1
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	1	2	-	1	1	5	1	1	12	0.6
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.1
C69	Eye	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	3	0.2
C70-C72	Brain, nervous system	1	1	-	-	-	2	1	4	4	2	3	5	3	-	-	3	29	1.5
C73	Thyroid	-	-	-	2	2	5	4	-	-	2	3	2	3	4	2	3	32	1.7
C74	Adrenal gland	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1
C75	Other adrena gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	1	-	2	-	1	1	-	-	2	-	-	1	1	1	-	-	10	0.5
C82-C86,C96	Non-Hodgkin lymphoma	1	-	1	1	2	1	2	-	5	3	3	4	5	4	3	3	38	2.0
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	1	2	3	5	1	-	2	2	1	17	0.9
C91	Lymphoid leukaemia	2	3	1	-	-	-	1	-	2	1	1	1	-	-	1	-	13	0.7
C92-C94	Myeloid leukaemia	-	1	2	4	1	5	4	4	2	3	2	4	2	-	-	-	34	1.8
C95	Leukaemia unspecified	-	1	-	3	1	-	-	-	3	2	2	2	-	-	-	-	14	0.7
Other & Unspecified*		1	1	1	3	1	2	3	2	1	9	5	13	13	7	6	6	74	3.8
Total		13	10	11	21	22	53	88	143	180	264	273	221	224	180	125	104	1932	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 26: Average annual Age-Specific, Crude (CR), Age-Adjusted (AAR) and Truncated (35-64 yrs) (TR) incidence rate per 100,000 population: 2020-2021 – Males Varanasi district

ICD 10	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	CR	AAR	TR
C00	-	-	-	-	0.2	-	1.0	1.0	3.2	2.8	3.0	3.6	6.5	4.9	-	-	1.0	1.2	3.1
C01-C02	-	-	-	-	0.2	2.8	5.0	10.2	18.3	13.4	16.1	12.3	10.8	15.8	11.7	15.1	5.2	5.8	13.7
C03-C06	-	-	-	-	0.6	2.5	11.3	21.3	38.5	51.8	65.5	54.3	51.3	47.4	45.4	17.7	15.5	17.8	45.8
C07-C08	-	-	-	-	0.4	-	-	-	0.4	0.5	1.2	2.9	-	4.0	4.4	1.3	0.4	0.5	0.7
C09	-	-	-	-	-	-	-	-	1.2	-	0.6	1.4	1.4	2.0	-	1.3	0.3	0.3	0.7
C10	-	-	-	-	-	-	-	0.3	0.8	-	0.6	0.7	0.7	3.0	1.5	2.5	0.3	0.3	0.5
C11	-	-	-	-	-	-	-	0.3	-	0.5	0.6	0.7	-	-	-	-	0.1	0.1	0.3
C12-C13	-	-	-	-	-	-	-	-	0.4	0.5	-	2.2	5.1	4.9	5.9	5.0	0.6	0.7	1.1
C14	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	1.5	1.3	0.1	0.1	0.1
C15	-	-	-	-	-	-	-	-	0.4	0.5	5.4	8.7	7.2	8.9	10.2	6.3	1.3	1.6	3.1
C16	-	-	-	0.2	0.2	0.6	0.7	1.4	1.2	1.8	3.0	4.3	6.5	7.9	2.9	3.8	1.2	1.3	2.7
C17	-	-	-	-	0.2	0.3	-	0.3	-	0.9	0.6	0.7	-	-	-	-	0.2	0.2	0.4
C18	-	-	-	0.2	0.6	0.3	-	1.0	2.8	2.3	1.8	2.9	1.4	7.9	7.3	-	1.0	1.1	2.0
C19-C20	-	-	-	0.9	0.2	0.6	0.7	0.7	0.4	0.5	2.4	2.9	5.8	5.9	1.5	1.3	0.9	1.0	1.8
C21	-	-	-	0.2	-	0.6	0.3	-	-	-	1.2	2.2	-	-	-	1.3	0.2	0.3	0.5
C22	0.4	0.3	-	-	0.4	-	1.7	2.0	2.4	3.7	5.4	2.2	12.3	21.7	22.0	13.9	2.5	2.9	4.3
C23-C24	-	-	-	-	-	1.1	0.7	3.0	4.5	7.9	9.5	19.5	19.5	24.7	16.1	17.7	3.8	4.5	9.5
C25	-	-	-	-	-	0.3	0.7	0.3	0.8	2.3	3.0	0.7	2.2	4.9	7.3	5.0	0.8	0.9	1.5
C30-C31	-	-	-	-	0.4	-	0.3	1.0	-	0.9	0.6	-	-	-	-	1.3	0.2	0.2	0.5
C32	-	-	-	-	-	-	0.3	0.3	0.4	3.2	3.6	6.5	8.7	11.9	8.8	10.1	1.5	1.8	3.3
C33-C34	-	-	-	-	0.6	-	1.0	1.0	1.2	3.2	3.6	15.9	18.8	33.6	29.3	29.0	3.5	4.2	6.1
C37-C38	-	-	-	-	-	0.3	-	-	-	-	0.6	0.7	1.4	-	2.9	1.3	0.2	0.2	0.4
C40-C41	-	0.3	0.2	0.5	1.3	0.6	1.0	0.3	0.8	1.4	0.6	1.4	1.4	1.0	2.9	3.8	0.8	0.8	1.0
C43	-	-	-	-	-	-	-	-	0.4	-	-	1.4	2.2	2.0	-	-	0.2	0.2	0.5
C44	-	-	-	-	-	0.3	0.3	0.7	-	-	1.8	-	4.3	4.0	4.4	3.8	0.5	0.6	1.0
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	0.7	0.3	0.4	0.2	0.2	0.6	0.7	1.0	0.4	0.5	0.6	0.7	1.4	1.0	8.8	-	0.6	0.7	0.7
C50	-	-	-	-	-	-	-	0.3	-	0.5	0.6	0.7	0.7	1.0	1.5	1.3	0.2	0.2	0.4
C60	-	-	-	-	-	-	0.3	0.3	-	0.5	-	4.3	-	4.9	4.4	2.5	0.4	0.5	0.7
C61	-	-	-	-	-	0.3	-	0.3	-	1.4	2.4	5.1	17.3	27.7	32.2	29.0	2.6	3.2	3.6
C62	1.1	-	-	0.5	0.2	0.6	2.3	1.0	1.2	0.9	0.6	0.7	-	-	-	-	0.6	0.6	0.8
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	1.5	1.3	0.1	0.1	-
C64	0.7	-	-	-	0.2	-	-	0.7	1.2	1.8	1.2	2.9	4.3	5.9	5.9	5.0	0.9	1.1	1.8
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	0.2	-	-	-	-	0.4	1.8	5.4	3.6	3.6	7.9	4.4	11.4	1.0	1.3	2.2
C68	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	0.02	0.02	0.1
C69	1.8	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	0.1	0.2	0.1
C70-C72	1.5	0.5	-	0.2	0.9	0.8	1.3	-	0.8	0.5	2.4	2.2	2.9	4.9	8.8	1.3	1.0	1.2	1.3
C73	-	-	-	-	0.4	-	-	0.3	0.4	-	0.6	0.7	1.4	3.0	-	-	0.3	0.3	0.5
C74	0.4	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	0.1	-
C75	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	0.02	0.03	0.1
C81	-	0.5	0.8	0.2	0.4	0.6	0.7	-	-	0.5	-	0.7	-	1.0	-	1.3	0.4	0.4	0.2
C82-C86,C96	1.5	1.3	0.8	0.4	0.2	1.7	0.3	1.0	2.4	1.4	4.2	8.7	5.8	5.9	4.4	5.0	1.7	2.0	3.5
C88	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	0.02	0.03	0.1
C90	-	-	-	-	-	-	-	0.3	0.4	0.9	4.8	5.1	4.3	6.9	5.9	3.8	0.9	1.1	2.3
C91	1.5	1.6	0.4	0.5	0.9	0.3	0.3	0.3	-	-	1.8	2.2	1.4	3.0	2.9	-	0.8	0.9	0.8
C92-C94	-	0.5	0.4	0.5	0.9	1.7	1.7	0.7	1.6	0.9	1.8	0.7	2.9	1.0	1.5	2.5	1.0	1.0	1.4
C95	1.5	0.3	0.4	0.5	0.6	0.3	-	0.7	0.8	-	-	0.7	1.4	1.0	-	-	0.5	0.6	0.6
O&U	0.4	-	0.2	0.7	0.4	1.4	1.3	2.0	2.8	5.1	6.5	10.9	11.6	21.7	20.5	16.4	3.1	3.6	5.9
Total	11.4	5.4	3.8	5.9	10.9	18.1	34.0	54.5	91.3	114.7	163.1	199.7	228.1	314.3	288.3	223.3	58.5	67.7	131.9

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 27: Average annual Age-Specific, Crude (CR), Age-Adjusted (AAR) and Truncated (35-64 yrs) (TR) incidence rate per 100,000 population: 2020-2021 – Females Varanasi district

ICD 10	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	CR	AAR	TR
C00	-	-	-	-	-	-	-	0.3	0.4	0.5	1.3	-	-	1.1	-	-	0.2	0.2	0.4
C01-C02	-	-	-	-	-	-	0.7	1.0	2.5	4.4	2.5	4.2	4.6	4.4	9.6	5.1	1.3	1.4	3.1
C03-C06	-	-	-	-	-	0.3	-	2.0	3.4	6.9	9.5	4.2	8.4	6.7	11.2	2.6	1.9	2.2	5.5
C07-C08	-	-	-	-	-	-	0.3	0.3	-	1.0	-	0.7	-	-	-	-	0.1	0.1	0.3
C09	-	-	-	-	-	-	-	-	-	-	0.6	-	0.8	1.1	1.6	-	0.1	0.1	0.2
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	0.5	-	-	-	0.4	-	-	-	-	-	-	-	0.1	0.1	0.1
C12-C13	-	-	-	-	-	-	-	-	-	0.5	0.6	-	-	-	-	-	0.1	0.1	0.2
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	0.3	-	-	0.8	2.5	1.3	4.2	2.3	3.3	8.0	5.1	0.8	0.9	1.7
C16	-	-	-	-	0.3	0.3	1.0	1.7	0.8	3.4	4.5	2.8	7.6	2.2	8.0	5.1	1.3	1.4	3.2
C17	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	1.6	-	0.1	0.1	0.1
C18	-	-	-	-	-	0.9	0.3	-	0.8	0.5	1.9	0.7	2.3	1.1	-	2.6	0.4	0.5	1.0
C19-C20	-	-	-	0.2	-	0.3	0.7	0.3	-	-	2.5	2.8	1.5	3.3	1.6	1.3	0.5	0.6	1.0
C21	-	-	-	-	-	-	-	-	-	-	-	0.7	-	1.1	-	1.3	0.1	0.1	0.1
C22	0.5	-	-	-	0.5	0.9	-	0.7	1.3	3.9	6.4	5.6	9.2	8.9	6.4	3.8	1.6	1.9	4.1
C23-C24	-	-	-	-	0.3	0.6	2.3	9.2	9.7	13.2	29.3	26.1	29.8	31.1	35.1	19.2	7.0	7.9	18.1
C25	-	-	-	-	0.3	-	0.3	-	1.3	0.5	3.2	2.1	2.3	3.3	4.8	3.8	0.7	0.8	1.4
C30-C31	-	-	-	-	-	-	-	-	-	0.5	-	0.7	-	-	-	-	0.1	0.1	0.2
C32	-	-	-	-	-	-	0.3	0.3	0.4	-	0.6	-	0.8	6.7	-	-	0.3	0.3	0.3
C33-C34	-	-	-	-	-	0.3	0.7	0.7	2.9	4.9	9.5	7.8	6.1	17.8	12.8	7.7	2.2	2.5	5.0
C37-C38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	-	0.3	0.4	0.2	0.8	-	1.0	0.7	1.3	-	-	0.7	0.8	2.2	1.6	1.3	0.5	0.5	0.6
C43	-	-	-	-	-	-	0.7	-	-	0.5	0.6	0.7	-	1.1	1.6	-	0.2	0.2	0.3
C44	-	-	-	-	-	-	-	-	-	0.5	1.9	1.4	1.5	-	1.6	-	0.2	0.3	0.8
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	-	0.3	-	0.2	-	0.3	0.7	-	0.4	0.5	0.6	0.7	0.8	-	1.6	1.3	0.3	0.3	0.5
C50	-	-	-	-	0.8	5.0	9.6	15.7	23.9	35.3	40.7	36.7	30.5	34.4	31.9	23.0	11.4	12.4	29.7
C51	0.5	-	-	-	-	-	-	-	-	0.5	-	-	-	-	1.6	1.3	0.1	0.1	0.1
C52	-	-	-	-	-	-	0.3	0.7	0.8	1.5	1.9	0.7	2.3	3.3	-	-	0.5	0.5	1.3
C53	-	-	-	-	-	0.3	1.3	2.7	8.4	16.7	16.5	11.3	19.8	18.9	16.0	12.8	4.4	5.0	12.1
C54	-	-	-	-	-	0.3	0.3	-	0.8	2.9	6.4	7.1	3.8	1-	9.6	5.1	1.4	1.6	3.2
C55	-	-	-	-	-	-	-	0.3	0.4	0.5	1.3	-	0.8	1.1	1.6	2.6	0.3	0.3	0.5
C56	0.5	-	0.4	0.8	0.3	0.9	3.0	7.5	5.0	10.8	14.0	9.9	10.7	7.8	8.0	6.4	3.6	3.9	9.4
C57	-	-	-	-	-	0.3	-	-	0.4	1.5	-	-	0.8	2.2	-	-	0.2	0.2	0.5
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	1.4	-	-	-	-	-	0.7	0.3	-	2.5	-	-	1.5	-	-	-	0.3	0.4	0.7
C65	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	0.03	0.03	0.1
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	0.4	1.0	-	0.7	0.8	5.6	1.6	1.3	0.3	0.4	0.5
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	0.03	0.03	0.0
C69	0.5	-	-	0.2	-	-	-	0.3	-	-	-	-	-	-	-	-	0.1	0.1	0.1
C70-C72	0.5	0.3	-	-	-	0.6	0.3	1.4	1.7	1.0	1.9	3.5	2.3	-	-	3.8	0.7	0.8	1.8
C73	-	-	-	0.4	0.5	1.5	1.3	-	-	1.0	1.9	1.4	2.3	4.4	3.2	3.8	0.8	0.9	1.0
C74	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.03	0.0
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	0.5	-	0.4	-	0.3	0.3	-	-	0.8	-	-	0.7	0.8	1.1	-	-	0.3	0.3	0.4
C82-C86,C96	0.5	-	0.2	0.2	0.5	0.3	0.7	-	2.1	1.5	1.9	2.8	3.8	4.4	4.8	3.8	1.0	1.1	1.9
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	0.3	0.8	1.5	3.2	0.7	-	2.2	3.2	1.3	0.4	0.5	1.1
C91	0.9	0.9	0.2	-	-	-	0.3	-	0.8	0.5	0.6	0.7	-	-	1.6	-	0.3	0.4	0.5
C92-C94	-	0.3	0.4	0.8	0.3	1.5	1.3	1.4	0.8	1.5	1.3	2.8	1.5	-	-	-	0.9	0.8	1.5
C95	-	0.3	-	0.6	0.3	-	-	-	1.3	1.0	1.3	1.4	-	-	-	-	0.4	0.4	0.8
O&U	0.5	0.3	0.2	0.6	0.3	0.6	1.0	0.7	0.4	4.4	3.2	9.2	9.9	7.8	9.6	7.7	1.9	2.1	4.0
Total	5.9	3.1	2.2	4.0	5.8	15.7	29.1	48.8	75.6	129.4	173.7	156.1	170.9	199.9	199.4	132.9	49.1	54.7	119.3

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 28: Cumulative Rate (Cu. Rate) & Cumulative Risk (Cu. Risk) of individual sites (ICD 10) based on age-specific rates (from 0-64 Years and 0-74 Years) 2020-2021: Males

ICD 10	Sites	Cum Rate (0-64)	Cum Risk (0-64)	Cum Rate (0-74)	Cum Risk (0-74)
C00	Lip	0.0011	0.0011	0.0013	0.0013
C01-C02	Tongue	0.0045	0.0045	0.0058	0.0058
C03-C06	Mouth	0.0149	0.0149	0.0195	0.0195
C07-C08	Salivary glands	0.0003	0.0003	0.0007	0.0007
C09	Tonsil	0.0002	0.0002	0.0003	0.0003
C10	Other oropharynx	0.0002	0.0002	0.0004	0.0004
C11	Nasopharynx	0.0001	0.0001	0.0001	0.0001
C12-C13	Hypopharynx	0.0004	0.0004	0.0009	0.0009
C14	Pharynx unspecified	0.0000	0.0000	0.0001	0.0001
C15	Oesophagus	0.0011	0.0011	0.0021	0.0021
C16	Stomach	0.0010	0.0010	0.0015	0.0015
C17	Small intestine	0.0002	0.0002	0.0002	0.0002
C18	Colon	0.0007	0.0007	0.0014	0.0014
C19-C20	Rectum	0.0007	0.0007	0.0011	0.0011
C21	Anus	0.0002	0.0002	0.0002	0.0002
C22	Liver	0.0015	0.0015	0.0037	0.0037
C23-C24	Gallbladder etc.	0.0033	0.0033	0.0053	0.0053
C25	Pancreas	0.0005	0.0005	0.0011	0.0011
C30-C31	Nose, sinuses etc.	0.0002	0.0002	0.0002	0.0002
C32	Larynx	0.0012	0.0012	0.0022	0.0022
C33-C34	Trachea, bronchus and lung	0.0023	0.0023	0.0054	0.0054
C37-C38	Other thoracic organs	0.0002	0.0002	0.0003	0.0003
C40-C41	Bone	0.0005	0.0005	0.0007	0.0007
C43	Melanoma of skin	0.0002	0.0002	0.0003	0.0003
C44	Other skin	0.0004	0.0004	0.0008	0.0008
C45	Mesothelioma	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-
C47,C49	Connective and soft tissue	0.0004	0.0004	0.0009	0.0009
C50	Breast	0.0001	0.0001	0.0003	0.0003
C60	Penis	0.0003	0.0003	0.0007	0.0007
C61	Prostate	0.0013	0.0013	0.0043	0.0043
C62	Testis	0.0005	0.0005	0.0005	0.0005
C63	Other male genital organs	0.0000	0.0000	0.0001	0.0001
C64	Kidney	0.0007	0.0007	0.0012	0.0012
C65	Renal pelvis	-	-	-	-
C66	Ureter	-	-	-	-
C67	Bladder	0.0008	0.0008	0.0014	0.0014
C68	Other urinary organs	0.0000	0.0000	0.0000	0.0000
C69	Eye	0.0001	0.0001	0.0001	0.0001
C70-C72	Brain, nervous system	0.0007	0.0007	0.0014	0.0014
C73	Thyroid	0.0002	0.0002	0.0003	0.0003
C74	Adrenal gland	0.0000	0.0000	0.0000	0.0000
C75	Other adrenal gland	0.0000	0.0000	0.0000	0.0000
C81	Hodgkin disease	0.0002	0.0002	0.0003	0.0003
C82-C86,C96	Non-Hodgkin lymphoma	0.0015	0.0015	0.0020	0.0020
C88	Immunoproliferative diseases	0.0000	0.0000	0.0000	0.0000
C90	Multiple myeloma	0.0008	0.0008	0.0014	0.0014
C91	Lymphoid leukaemia	0.0006	0.0006	0.0009	0.0009
C92-C94	Myeloid leukaemia	0.0007	0.0007	0.0008	0.0008
C95	Leukaemia unspecified	0.0004	0.0004	0.0004	0.0004
Other & Unspecified*		0.0022	0.0022	0.0043	0.0043
Total		0.0470	0.0470	0.0772	0.0772

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 29: Cumulative Rate (Cu. Rate) & Cumulative Risk (Cu. Risk) of individual sites (ICD 10) based on age specific rates (from 0-64 Years and 0-74 Years) 2020-2021: Females

ICD 10	Sites	Cum Rate (0-64)	Cum Risk (0-64)	Cum Rate (0-74)	Cum Risk (0-74)
C00	Lip	0.0001	0.0001	0.0002	0.0002
C01-C02	Tongue	0.0010	0.0010	0.0017	0.0017
C03-C06	Mouth	0.0017	0.0017	0.0026	0.0026
C07-C08	Salivary glands	0.0001	0.0001	0.0001	0.0001
C09	Tonsil	0.0001	0.0001	0.0002	0.0002
C10	Other oropharynx	-	-	-	-
C11	Nasopharynx	0.0000	0.0000	0.0000	0.0000
C12-C13	Hypopharynx	0.0001	0.0001	0.0001	0.0001
C14	Pharynx unspecified	-	-	-	-
C15	Oesophagus	0.0006	0.0006	0.0011	0.0011
C16	Stomach	0.0011	0.0011	0.0016	0.0016
C17	Small intestine	0.0000	0.0000	0.0001	0.0001
C18	Colon	0.0004	0.0004	0.0004	0.0004
C19-C20	Rectum	0.0004	0.0004	0.0007	0.0007
C21	Anus	0.0000	0.0000	0.0001	0.0001
C22	Liver	0.0014	0.0014	0.0022	0.0022
C23-C24	Gallbladder etc.	0.0060	0.0060	0.0093	0.0093
C25	Pancreas	0.0005	0.0005	0.0009	0.0009
C30-C31	Nose, sinuses etc.	0.0001	0.0001	0.0001	0.0001
C32	Larynx	0.0001	0.0001	0.0005	0.0005
C33-C34	Trachea, bronchus and lung	0.0016	0.0016	0.0032	0.0032
C37-C38	Other thoracic organs	-	-	-	-
C40-C41	Bone	0.0003	0.0003	0.0005	0.0005
C43	Melanoma of skin	0.0001	0.0001	0.0003	0.0003
C44	Other skin	0.0003	0.0003	0.0003	0.0003
C45	Mesothelioma	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-
C47,C49	Connective and soft tissue	0.0002	0.0002	0.0003	0.0003
C50	Breast	0.0099	0.0099	0.0132	0.0132
C51	Vulva	0.0000	0.0000	0.0001	0.0001
C52	Vagina	0.0004	0.0004	0.0006	0.0006
C53	Cervix uteri	0.0039	0.0039	0.0056	0.0056
C54	Corpus uteri	0.0011	0.0011	0.0021	0.0021
C55	Uterus unspecified	0.0002	0.0002	0.0003	0.0003
C56	Ovary	0.0032	0.0032	0.0040	0.0040
C57	Other female genital organs	0.0001	0.0001	0.0003	0.0003
C58	Placenta	-	-	-	-
C64	Kidney	0.0003	0.0003	0.0003	0.0003
C65	Renal pelvis	0.0000	0.0000	0.0000	0.0000
C66	Ureter	-	-	-	-
C67	Bladder	0.0001	0.0001	0.0005	0.0005
C68	Other urinary organs	0.0000	0.0000	0.0001	0.0001
C69	Eye	0.0000	0.0000	0.0000	0.0000
C70-C72	Brain, nervous system	0.0007	0.0007	0.0007	0.0007
C73	Thyroid	0.0005	0.0005	0.0009	0.0009
C74	Adrenal gland	0.0000	0.0000	0.0000	0.0000
C75	Other adrena gland	-	-	-	-
C81	Hodgkin disease	0.0002	0.0002	0.0002	0.0002
C82-C86,C96	Non-Hodgkin lymphoma	0.0007	0.0007	0.0012	0.0012
C88	Immunoproliferative diseases	-	-	-	-
C90	Multiple myeloma	0.0003	0.0003	0.0006	0.0006
C91	Lymphoid leukaemia	0.0003	0.0003	0.0003	0.0003
C92-C94	Myeloid leukaemia	0.0007	0.0007	0.0007	0.0007
C95	Leukaemia unspecified	0.0003	0.0003	0.0003	0.0003
Other & Unspecified*		0.0016	0.0016	0.0024	0.0024
Total		0.0410	0.0410	0.0610	0.0610

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

**Table 30: Number (#) and Proportion (%) of cancers by site (ICD10) and method of diagnosis:
2020-2021 – Males Varanasi district**

ICD 10	Sites	Clinical		Radiology		Microscopic		Other (+DCO)**		Total	
		#	%	#	%	#	%	#	%	#	%
C00	Lip	2	4.4	1	2.2	37	82.2	5	11.1	45	100
C01-C02	Tongue	15	6.7	8	3.6	193	85.8	9	4.0	225	100
C03-C06	Mouth	33	5.0	33	5.0	513	77.1	86	12.9	665	100
C07-C08	Salivary Gland	1	5.6	-	-	17	94.4	-	-	18	100
C09	Tonsil	-	-	-	-	11	100	-	-	11	100
C10	Other Oropharynx	-	-	1	8.3	11	91.7	-	-	12	100
C11	Nasopharynx	-	-	-	-	4	100	-	-	4	100
C12-C13	Hypopharynx	-	-	1	4.0	24	96.0	-	-	25	100
C14	Pharynx Unspecified	-	-	-	-	1	33.3	2	66.7	3	100
C15	Oesophagus	3	5.6	2	3.7	48	88.9	1	1.9	54	100
C16	Stomach	2	4.0	8	16.0	36	72.0	4	8.0	50	100
C17	Small Intestine	1	14.3	1	14.3	3	42.9	2	28.6	7	100
C18	Colon	2	4.8	5	11.9	32	76.2	3	7.1	42	100
C19-C20	Rectum	1	2.6	2	5.3	32	84.2	3	7.9	38	100
C21	Anus & Anal Canal	-	-	-	-	10	100	-	-	10	100
C22	Liver	5	4.7	41	38.7	43	40.6	17	16.0	106	100
C23-C24	Gallbladder etc.	10	6.1	47	28.8	91	55.8	15	9.2	163	100
C25	Pancreas	5	14.7	10	29.4	19	55.9	-	-	34	100
C30-C31	Nose, Sinuses etc.	-	-	-	-	10	100	-	-	10	100
C32	Larynx	6	9.5	6	9.5	49	77.8	2	3.2	63	100
C33-C34	Lung etc.	5	3.3	24	16.1	112	75.2	8	5.4	149	100
C37-C38	Other Thoracic Organs	-	-	2	25.0	6	75.0	-	-	8	100
C40-C41	Bone	-	-	4	12.1	22	66.7	7	21.2	33	100
C43	Melanoma of Skin	-	-	-	-	8	100	-	-	8	100
C44	Other Skin	-	-	-	-	21	91.3	2	8.7	23	100
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	1	3.7	3	11.1	21	77.8	2	7.4	27	100
C50	Breast	-	-	-	-	8	100	-	-	8	100
C60	Penis	-	-	1	5.3	17	89.5	1	5.3	19	100
C61	Prostate	6	5.3	12	10.6	89	78.8	6	5.3	113	100
C62	Testis	-	-	1	3.8	24	92.3	1	3.8	26	100
C63	Other Male Genital	-	-	-	-	3	100	-	-	3	100
C64	Kidney etc.	1	2.6	5	13.2	30	78.9	2	5.3	38	100
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	-	-	1	2.2	41	91.1	3	6.7	45	100
C68	Unspecified Urinary Organs	-	-	-	-	1	100	-	-	1	100
C69	Eye	2	33.3	-	-	3	50	1	16.7	6	100
C70-C72	Brain, Nervous System	3	6.8	7	15.9	28	63.6	6	13.6	44	100
C73	Thyroid	2	18.2	-	-	9	81.8	-	-	11	100
C74	Adrenal Gland	-	-	-	-	2	100	-	-	2	100
C75	Other endocrine	-	-	-	-	1	100	-	-	1	100
C81	Hodgkins Disease	-	-	-	-	17	100	-	-	17	100
C82-C86, C96	Non-Hodgkin Lymphoma	-	-	-	-	74	98.7	1	1.3	75	100
C88	Malig Imn.Prol D	-	-	-	-	1	100	-	-	1	100
C90	Multiple Myeloma	-	-	1	2.6	38	97.4	-	-	39	100
C91	Lymphoid Leukaemia	-	-	-	-	35	100	-	-	35	100
C92-C94	Myeloid Leukaemia	-	-	-	-	42	100	-	-	42	100
C95	Leukaemia Unspecified	-	-	-	-	22	100	-	-	22	100
Other & Unspecified*		15	11.4	20	15.2	49	37.1	48	36.4	132	100
Total***		121	4.8	247	9.8	1,908	75.9	237	9.4	2,513	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

** Other: Information based on patient's relatives, medical note and DCO *** 1 case of Specific tumor marker not included in the table

**Table 31: Number (#) and Proportion (%) of cancers by site (ICD10) and method of diagnosis:
2020-2021 – Females Varanasi district**

ICD 10	Sites	Clinical		Radiology		Microscopic		Other (+DCO)**		Total	
		#	%	#	%	#	%	#	%	#	%
C00	Lip	1	16.7	-	-	5	83.3	-	-	6	100
C01-C02	Tongue	3	6.0	3	6.0	43	86.0	1	2.0	50	100
C03-C06	Mouth	5	6.6	1	1.3	60	78.9	10	13.2	76	100
C07-C08	Salivary Gland	-	-	2	40.0	3	60.0	-	-	5	100
C09	Tonsil	-	-	-	-	4	100	-	-	4	100
C10	Other Oropharynx	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	3	100	-	-	3	100
C12-C13	Hypopharynx	-	-	-	-	2	100	-	-	2	100
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	4	12.9	-	-	26	83.9	1	3.2	31	100
C16	Stomach	2	3.9	8	15.7	37	72.5	4	7.8	51	100
C17	Small Intestine	-	-	-	-	2	100	-	-	2	100
C18	Colon	1	5.9	4	23.5	10	58.8	2	11.8	17	100
C19-C20	Rectum	1	5.0	4	20.0	15	75.0	-	-	20	100
C21	Anus & Anal Canal	-	-	-	-	1	33.3	2	66.7	3	100
C22	Liver	2	3.1	10	15.6	26	40.6	26	40.6	64	100
C23-C24	Gallbladder etc.	16	5.8	93	33.9	153	55.8	12	4.4	274	100
C25	Pancreas	2	8.0	9	36.0	14	56.0	-	-	25	100
C30-C31	Nose, Sinuses etc.	-	-	-	-	2	100	-	-	2	100
C32	Larynx	-	-	2	18.2	7	63.6	2	18.2	11	100
C33-C34	Trachea, bronchus and lung	3	3.5	15	17.4	66	76.7	2	2.3	86	100
C37-C38	Other Thoracic Organs	-	-	-	-	-	-	-	-	-	-
C40-C41	Bone	-	-	5	23.8	15	71.4	1	4.8	21	100
C43	Melanoma of Skin	-	-	-	-	7	100	-	-	7	100
C44	Other Skin	1	11.1	-	-	8	88.9	-	-	9	100
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	-	-	1	8.3	10	83.3	1	8.3	12	100
C50	Breast	9	2.0	15	3.3	391	87.1	34	7.6	449	100
C51	Vulva	-	-	-	-	4	100	-	-	4	100
C52	Vagina	-	-	-	-	18	100	-	-	18	100
C53	Cervix Uteri	5	2.9	13	7.6	133	78.2	19	11.2	170	100
C54	Corpus Uteri	1	1.9	8	14.8	45	83.3	-	-	54	100
C55	Uterus Unspecified	1	10.0	1	10.0	4	40.0	4	40.0	10	100
C56	Ovary	6	4.3	23	16.4	104	74.3	7	5.0	140	100
C57	Other Female Genital	-	-	1	12.5	7	87.5	-	-	8	100
C58	Placenta	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	-	-	4	30.8	9	69.2	-	-	13	100
C65	Renal Pelvis	-	-	-	-	1	100	-	-	1	100
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	1	8.3	-	-	11	91.7	-	-	12	100
C68	Unspecified Urinary Organs	-	-	-	-	1	100	-	-	1	100
C69	Eye	-	-	1	33.3	2	66.7	-	-	3	100
C70-C72	Brain, Nervous System	3	10.3	6	20.7	17	58.6	3	10.3	29	100
C73	Thyroid	3	9.4	2	6.3	27	84.4	-	-	32	100
C74	Adrenal Gland	-	-	-	-	1	100	-	-	1	100
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-
C81	Hodgkins Disease	-	-	-	-	10	100	-	-	10	100
C82-C86, C96	Non-Hodgkin lymphoma	-	-	-	-	38	100	-	-	38	100
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	1	5.9	16	94.1	-	-	17	100
C91	Lymphoid Leukaemia	-	-	-	-	13	100	-	-	13	100
C92-C94	Myeloid Leukaemia	-	-	-	-	34	100	-	-	34	100
C95	Leukaemia Unspecified	-	-	-	-	14	100	-	-	14	100
Other & Unspecified*		6	8.1	12	16.2	22	29.7	34	45.9	74	100
Total ***		76	3.9	244	12.7	1441	74.8	165	8.6	1926	100

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

** Other: Information based on patient's relatives, medical note and DCO *** 6 case of Specific tumor marker not included in the table

Table 32: Number of cancer deaths by five year age group and site (ICD 10): 2020-2021 Males
Varanasi district

% = Relative proportion of cancers of all sites

ICD 10	Sites	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	Total	%
C00	Lip	-	-	-	-	-	1	2	2	4	2	4	4	4	3	2	-	28	1.6
C01-C02	Tongue	-	-	-	-	1	4	10	11	28	18	11	20	16	7	11	13	150	8.6
C03-C06	Mouth	-	-	-	-	1	6	21	34	58	69	60	51	50	32	25	16	423	24.3
C07-C08	Salivary glands	-	-	-	-	-	-	1	-	1	-	2	2	2	2	2	3	15	0.9
C09	Tonsil	-	-	-	-	-	-	-	-	2	-	-	3	2	2	--	1	10	0.6
C10	Other oropharynx	-	-	-	-	-	-	-	1	1	-	1	1	2	2	2	1	11	0.6
C11	Nasopharynx	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	3	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	1	-	-	2	8	5	4	5	25	1.4
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	2	0.1
C15	Oesophagus	-	-	-	-	-	-	-	-	2	3	8	11	14	8	9	6	61	3.5
C16	Stomach	-	-	-	-	1	2	2	3	-	3	4	9	8	8	8	7	55	3.2
C17	Small intestine	-	-	-	-	1	1	-	1	-	1	1	-	-	-	-	1	6	0.3
C18	Colon	-	-	-	1	-	-	-	-	-	1	-	1	4	4	5	-	16	0.9
C19-C20	Rectum	-	-	-	4	-	2	3	1	1	1	4	3	4	4	1	-	28	1.6
C21	Anus	-	-	-	-	-	-	1	1	1	-	3	2	1	-	-	1	10	0.6
C22	Liver	1	-	-	-	2	1	3	5	8	7	5	7	18	23	14	13	107	6.2
C23-C24	Gallbladder etc.	-	-	-	-	-	1	2	5	10	16	15	28	19	21	12	11	140	8.1
C25	Pancreas	-	-	-	-	1	1	1	1	2	2	2	2	4	4	4	4	28	1.6
C30-C31	Nose, sinuses etc.	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	2	5	0.3
C32	Larynx	-	-	-	-	-	-	-	-	2	2	6	7	8	9	4	3	41	2.4
C33-C34	Trachea, bronchus and lung	-	-	-	-	3	-	3	2	3	3	5	20	20	32	18	17	126	7.2
C37-C38	Other thoracic organs	-	-	-	-	-	1	-	-	-	-	1	-	1	-	-	1	4	0.2
C40-C41	Bone	-	-	1	4	-	-	-	-	-	3	-	-	-	1	2	4	15	0.9
C43	Melanoma of skin	-	-	-	-	-	-	-	-	1	-	-	2	2	1	-	1	7	0.4
C44	Other skin	-	-	-	-	-	-	-	-	-	-	1	1	5	1	2	3	13	0.7
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	1	-	-	1	2	-	1	-	2	1	-	1	2	1	3	-	15	0.9
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.1
C60	Penis	-	-	-	-	-	-	-	-	-	-	2	2	-	2	1	1	8	0.5
C61	Prostate	-	-	-	-	-	1	-	-	1	-	6	7	6	11	11	11	54	3.1
C62	Testis	1	-	-	-	-	-	1	-	-	1	1	2	-	-	-	-	6	0.3
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	2	2	-	1	3	3	4	2	4	21	1.2
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	1	-	-	3	5	6	3	7	3	4	32	1.8
C68	Other urinary organs	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	2	0.1
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, nervous system	2	1	1	-	1	2	2	1	5	2	3	3	2	3	5	1	34	2.0
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	2	1	1	2	-	6	0.3
C74	Adrenal gland	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	--	2	0.1
C75	Other adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	1	3	0.2
C82-C86,C96	Non-Hodgkin lymphoma	1	1	-	-	1	1	1	-	3	2	5	7	8	3	3	3	39	2.2
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	1	6	3	7	4	2	-	23	1.3
C91	Lymphoid leukaemia	1	-	1	2	3	-	-	1	1	-	2	1	2	1	-	-	15	0.9
C92-C94	Myeloid leukaemia	-	-	1	1	1	2	3	1	1	1	2	1	2	-	-	-	16	0.9
C95	Leukaemia unspecified	1	-	1	1	2	1	1	1	1	1	-	2	3	1	-	-	16	0.9
Other & Unspecified*		-	-	4	3	1	4	1	5	6	7	15	11	15	22	11	12	117	6.7
Total		8	2	9	19	22	32	60	79	148	150	183	228	248	232	168	151	1739	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 33: Number of cancer deaths by five year age group and site (ICD 10): 2020-2021 Females
Varanasi district

% = Relative proportion of cancers of all sites

ICD 10	Sites	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	Total	%
C00	Lip	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	2	0.2
C01-C02	Tongue	-	-	-	-	1	-	2	3	5	4	4	3	5	4	7	2	40	3.1
C03-C06	Mouth	-	-	-	-	-	1	2	3	4	7	10	5	8	10	3	4	57	4.4
C07-C08	Salivary glands	-	-	-	-	-	-	2	-	-	1	1	-	-	-	-	-	4	0.3
C09	Tonsil	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2	0.2
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	0.1
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	-	-	2	-	3	3	3	3	5	19	1.5
C16	Stomach	-	-	-	-	1	-	2	2	1	5	7	2	7	5	5	4	41	3.1
C17	Small intestine	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	0.2
C18	Colon	-	-	-	-	-	2	1	-	3	3	1	-	2	-	-	2	14	1.1
C19-C20	Rectum	-	-	1	-	-	2	2	1	1	-	2	1	1	3	-	-	14	1.1
C21	Anus	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	3	0.2
C22	Liver	-	-	-	-	3	2	-	5	5	9	12	7	12	7	2	3	67	5.1
C23-C24	Gallbladder etc.	-	-	-	-	1	2	2	19	19	26	45	41	37	27	16	12	247	18.9
C25	Pancreas	-	-	-	-	1	-	1	-	2	-	2	4	2	2	3	3	20	1.5
C30-C31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	2	0.2
C32	Larynx	-	-	-	-	-	-	-	1	-	-	-	-	-	4	-	-	5	0.4
C33-C34	Trachea, bronchus and lung	-	-	-	-	-	1	3	3	9	7	12	12	7	7	5	3	69	5.3
C37-C38	Other thoracic organs	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	0.1
C40-C41	Bone	-	-	5	-	-	-	5	-	1	-	-	-	2	2	1	-	16	1.2
C43	Melanoma of skin	-	-	-	-	-	-	1	-	-	-	-	1	-	1	-	-	3	0.2
C44	Other skin	-	-	-	1	-	-	-	2	1	-	-	-	-	-	1	-	5	0.4
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	1	1	-	2	-	-	-	-	-	2	-	1	-	1	2	-	10	0.8
C50	Breast	-	-	-	-	1	4	15	20	27	34	23	31	25	25	12	8	225	17.2
C51	Vulva	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.1
C52	Vagina	-	-	-	-	-	-	-	1	2	1	1	-	2	-	-	2	9	0.7
C53	Cervix uteri	-	-	-	-	2	1	2	6	10	24	14	21	23	16	10	6	135	10.3
C54	Corpus uteri	-	-	-	-	-	-	-	-	1	-	3	2	4	5	2	-	17	1.3
C55	Uterus unspecified	-	-	-	-	-	-	-	1	3	1	-	2	-	1	-	1	9	0.7
C56	Ovary	-	-	1	3	-	3	2	4	9	15	10	9	7	7	7	4	81	6.2
C57	Other female genital organs	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	0.2
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	1	-	1	2	1	1	1	1	-	1	9	0.7
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.1
C66	Ureter	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
C67	Bladder	-	-	-	-	-	-	-	-	1	1	-	1	1	6	-	1	11	0.8
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, nervous system	1	-	-	-	-	-	-	1	6	1	2	6	2	2	-	-	21	1.6
C73	Thyroid	-	-	-	-	-	-	-	-	-	1	-	1	1	2	1	1	7	0.5
C74	Adrenal gland	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	0.2
C75	Other adrena gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.1
C82-C86,C96	Non-Hodgkin lymphoma	-	-	-	-	-	-	1	1	2	-	2	3	3	2	1	2	17	1.3
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	1	1	4	-	-	1	1	2	10	0.8
C91	Lymphoid leukaemia	-	-	-	-	-	-	-	-	-	1	-	2	1	-	-	2	6	0.5
C92-C94	Myeloid leukaemia	-	-	-	2	-	2	1	3	3	1	-	4	1	1	-	-	18	1.4
C95	Leukaemia unspecified	-	1	-	1	1	1	-	-	-	4	-	2	-	1	-	-	11	0.8
Other & Unspecified*		1	1	1	2	1	2	1	1	3	10	5	8	8	7	9	6	66	5.1
Total		3	4	8	13	12	24	46	78	122	169	163	173	167	156	93	75	1306	100

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 34: Average annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35-64 yrs) (TR) mortality rate per 100,000 population: 2020-2021 – Males Varanasi district

ICD 10	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	CR	AAR	TR
C00	-	-	-	-	-	0.3	0.7	0.7	1.6	0.9	2.4	2.9	2.9	3.0	2.9	-	0.7	0.8	1.8
C01-C02	-	-	-	-	0.2	1.1	3.3	3.7	11.4	8.3	6.5	14.5	11.6	6.9	16.1	16.4	3.5	3.9	8.9
C03-C06	-	-	-	-	0.2	1.7	7.0	11.5	23.5	31.9	35.7	36.9	36.1	31.6	36.6	20.2	9.8	11.4	28.1
C07-C08	-	-	-	-	-	-	0.3	-	0.4	-	1.2	1.4	1.4	2.0	2.9	3.8	0.3	0.4	0.6
C09	-	-	-	-	-	-	-	-	0.8	-	-	2.2	1.4	2.0	-	1.3	0.2	0.3	0.6
C10	-	-	-	-	-	-	-	0.3	0.4	-	0.6	0.7	1.4	2.0	2.9	1.3	0.3	0.3	0.5
C11	-	-	-	-	0.2	-	-	-	-	-	0.6	0.7	-	-	-	-	0.1	0.1	0.2
C12-C13	-	-	-	-	-	-	-	-	0.4	-	-	1.4	5.8	4.9	5.9	6.3	0.6	0.7	1.0
C14	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	1.3	0.05	0.1	0.1
C15	-	-	-	-	-	-	-	-	0.8	1.4	4.8	8.0	10.1	7.9	13.2	7.6	1.4	1.7	3.5
C16	-	-	-	-	0.2	0.6	0.7	1.0	-	1.4	2.4	6.5	5.8	7.9	11.7	8.8	1.3	1.5	2.4
C17	-	-	-	-	0.2	0.3	-	0.3	-	0.5	0.6	-	-	-	-	1.3	0.1	0.1	0.3
C18	-	-	-	0.2	-	-	-	-	-	0.5	-	0.7	2.9	4.0	7.3	-	0.4	0.5	0.6
C19-C20	-	-	-	0.7	-	0.6	1.0	0.3	0.4	0.5	2.4	2.2	2.9	4.0	1.5	-	0.7	0.7	1.3
C21	-	-	-	-	-	-	0.3	0.3	0.4	-	1.8	1.4	0.7	-	-	1.3	0.2	0.3	0.7
C22	0.4	-	-	-	0.4	0.3	1.0	1.7	3.2	3.2	3.0	5.1	13.0	22.7	20.5	16.4	2.5	2.9	4.4
C23-C24	-	-	-	-	-	0.3	0.7	1.7	4.1	7.4	8.9	20.3	13.7	20.8	17.6	13.9	3.3	3.9	8.4
C25	-	-	-	-	0.2	0.3	0.3	0.3	0.8	0.9	1.2	1.4	2.9	4.0	5.9	5.0	0.7	0.8	1.2
C30-C31	-	-	-	-	-	-	-	0.3	-	-	0.6	-	0.7	-	-	2.5	0.1	0.1	0.3
C32	-	-	-	-	-	-	-	-	0.8	0.9	3.6	5.1	5.8	8.9	5.9	3.8	1.0	1.2	2.3
C33-C34	-	-	-	-	0.6	-	1.0	0.7	1.2	1.4	3.0	14.5	14.4	31.6	26.3	21.4	2.9	3.5	4.8
C37-C38	-	-	-	-	-	0.3	-	-	-	-	0.6	-	0.7	-	-	1.3	0.1	0.1	0.2
C40-C41	-	-	0.2	0.7	-	-	-	-	-	1.4	-	-	-	1.0	2.9	5.0	0.3	0.4	0.3
C43	-	-	-	-	-	-	-	-	0.4	-	-	1.4	1.4	1.0	-	1.3	0.2	0.2	0.5
C44	-	-	-	-	-	-	-	-	-	-	0.6	0.7	3.6	1.0	2.9	3.8	0.3	0.4	0.7
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	0.4	-	-	0.2	0.4	-	0.3	-	0.8	0.5	-	0.7	1.4	1.0	4.4	-	0.3	0.4	0.5
C50	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	0.02	0.03	0.00
C60	-	-	-	-	-	-	-	-	-	-	1.2	1.4	-	2.0	1.5	1.3	0.2	0.2	0.4
C61	-	-	-	-	-	0.3	-	-	0.4	-	3.6	5.1	4.3	10.9	16.1	13.9	1.3	1.5	1.9
C62	0.4	-	-	-	-	-	0.3	-	-	0.5	0.6	1.4	-	-	-	-	0.1	0.2	0.4
C63																			
C64	-	-	-	-	-	-	-	0.7	0.8	-	0.6	2.2	2.2	4.0	2.9	5.0	0.5	0.6	0.9
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	0.3	-	-	1.4	3.0	4.3	2.2	6.9	4.4	5.0	0.7	0.9	1.6
C68	-	-	-	-	-	-	-	-	0.4	-	-	-	-	1.0	-	-	0.05	0.1	0.1
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	0.7	0.3	0.2	-	0.2	0.6	0.7	0.3	2.0	0.9	1.8	2.2	1.4	3.0	7.3	1.3	0.8	0.9	1.4
C73	-	-	-	-	-	-	-	-	-	-	-	1.4	0.7	1.0	2.9	-	0.1	0.2	0.3
C74	-	-	-	-	-	0.3	-	-	-	-	-	-	-	1.0	-	-	0.05	0.1	0.00
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	1.3	0.1	0.1	0.00
C82-C86,C96	0.4	0.3	-	-	0.2	0.3	0.3	-	1.2	0.9	3.0	5.1	5.8	3.0	4.4	3.8	0.9	1.1	2.3
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	0.5	3.6	2.2	5.1	4.0	2.9	-	0.5	0.7	1.6
C91	0.4	-	0.2	0.4	0.6	-	-	0.3	0.4	-	1.2	0.7	1.4	1.0	-	-	0.3	0.4	0.6
C92-C94	-	-	0.2	0.2	0.2	0.6	1.0	0.3	0.4	0.5	1.2	0.7	1.4	-	-	-	0.4	0.4	0.7
C95	0.4	-	0.2	0.2	0.4	0.3	0.3	0.3	0.4	0.5	-	1.4	2.2	1.0	-	-	0.4	0.4	0.7
O&U	-	-	0.8	0.5	0.2	1.1	0.3	1.7	2.4	3.2	8.9	8.0	10.8	21.7	16.1	15.1	2.7	3.2	5.3
Total	2.9	0.5	1.8	3.4	4.7	8.9	20.0	26.7	60.0	69.4	108.9	165.0	179.0	229.3	245.8	190.5	40.4	47.3	92.2

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

Table 35: Average annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35-64 yrs) (TR) mortality rate per 100,000 population: 2020-2021 – Females Varanasi district

ICD 10	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	CR	AAR	TR
C00	-	-	-	-	-	-	-	-	0.4	-	0.6	-	-	-	-	-	0.1	0.1	0.2
C01-C02	-	-	-	-	0.3	-	0.7	1.0	2.1	2.0	2.5	2.1	3.8	4.4	11.2	2.6	1.0	1.1	2.2
C03-C06	-	-	-	-	-	0.3	0.7	1.0	1.7	3.4	6.4	3.5	6.1	11.1	4.8	5.1	1.4	1.7	3.5
C07-C08	-	-	-	-	-	-	0.7	-	-	0.5	0.6	-	-	-	-	-	0.1	0.1	0.2
C09	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	1.6	-	0.1	0.1	0.1
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	0.2	-	0.3	-	-	-	-	-	-	-	-	-	-	0.1	0.04	0.00
C12-C13	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	0.03	0.03	0.1
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	-	-	1.0	-	2.1	2.3	3.3	4.8	6.4	0.5	0.6	0.8
C16	-	-	-	-	0.3	-	0.7	0.7	0.4	2.5	4.5	1.4	5.3	5.6	8.0	5.1	1.0	1.2	2.3
C17	-	-	-	-	-	-	-	-	-	0.5	0.6	-	-	-	-	-	0.1	0.1	0.2
C18	-	-	-	-	-	0.6	0.3	-	1.3	1.5	0.6	-	1.5	-	-	2.6	0.4	0.4	0.8
C19-C20	-	-	0.2	-	-	0.6	0.7	0.3	0.4	-	1.3	0.7	0.8	3.3	-	-	0.4	0.4	0.5
C21	-	-	-	-	-	-	-	0.3	-	-	-	-	-	1.1	-	1.3	0.1	0.1	0.1
C22	-	-	-	-	0.8	0.6	-	1.7	2.1	4.4	7.6	4.9	9.2	7.8	3.2	3.8	1.7	1.9	4.6
C23-C24	-	-	-	-	0.3	0.6	0.7	6.5	8.0	12.7	28.6	29.0	28.2	30.0	25.5	15.3	6.3	7.2	17.3
C25	-	-	-	-	0.3	-	0.3	-	0.8	-	1.3	2.8	1.5	2.2	4.8	3.8	0.5	0.6	0.9
C30-C31	-	-	-	-	-	-	-	-	-	0.5	-	-	-	1.1	-	-	0.1	0.1	0.1
C32	-	-	-	-	-	-	-	0.3	-	-	-	-	-	4.4	-	-	0.1	0.2	0.1
C33-C34	-	-	-	-	-	0.3	1.0	1.0	3.8	3.4	7.6	8.5	5.3	7.8	8.0	3.8	1.8	2.0	4.6
C37-C38	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	0.03	0.03	0.1
C40-C41	-	-	1.0	-	-	-	1.7	-	0.4	-	-	-	1.5	2.2	1.6	-	0.4	0.4	0.3
C43	-	-	-	-	-	-	0.3	-	-	-	-	0.7	-	1.1	-	-	0.1	0.1	0.1
C44	-	-	-	0.2	-	-	-	0.7	0.4	-	-	-	-	-	1.6	-	0.1	0.1	0.2
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	0.5	0.3	-	0.4	-	-	-	-	-	1.0	-	0.7	-	1.1	3.2	-	0.3	0.3	0.3
C50	-	-	-	-	0.3	1.2	5.0	6.8	11.3	16.7	14.6	21.9	19.1	27.8	19.1	10.2	5.7	6.3	14.4
C51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	0.03	0.03	0.00
C52	-	-	-	-	-	-	-	0.3	0.8	0.5	0.6	-	1.5	-	-	2.6	0.2	0.2	0.6
C53	-	-	-	-	0.5	0.3	0.7	2.0	4.2	11.8	8.9	14.8	17.5	17.8	16.0	7.7	3.4	3.9	9.1
C54	-	-	-	-	-	-	-	-	0.4	-	1.9	1.4	3.1	5.6	3.2	-	0.4	0.5	1.0
C55	-	-	-	-	-	-	-	0.3	1.3	0.5	-	1.4	-	1.1	-	1.3	0.2	0.2	0.6
C56	-	-	0.2	0.6	-	0.9	0.7	1.4	3.8	7.4	6.4	6.4	5.3	7.8	11.2	5.1	2.1	2.3	5.0
C57	-	-	-	-	-	-	-	-	-	0.5	-	-	0.8	-	-	-	0.1	0.1	0.2
C58																			
C64	-	-	-	-	-	-	0.3	-	0.4	1.0	0.6	0.7	0.8	1.1	-	1.3	0.2	0.3	0.6
C65	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	0.03	0.03	0.1
C66	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	0.03	0.03	0.1
C67	-	-	-	-	-	-	-	-	0.4	0.5	-	0.7	0.8	6.7	-	1.3	0.3	0.3	0.4
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	0.5	-	-	-	-	-	-	0.3	2.5	0.5	1.3	4.2	1.5	2.2	-	-	0.5	0.6	1.6
C73	-	-	-	-	-	-	-	-	-	0.5	-	0.7	0.8	2.2	1.6	1.3	0.2	0.2	0.3
C74	-	0.3	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.05	0.00
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	0.03	0.03	0.00
C82-C86,C96	-	-	-	-	-	-	0.3	0.3	0.8	-	1.3	2.1	2.3	2.2	1.6	2.6	0.4	0.5	1.0
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	0.4	0.5	2.5	-	-	1.1	1.6	2.6	0.3	0.3	0.6
C91	-	-	-	-	-	-	-	-	-	0.5	-	1.4	0.8	-	-	2.6	0.2	0.2	0.4
C92-C94	-	-	-	0.4	-	0.6	0.3	1.0	1.3	0.5	-	2.8	0.8	1.1	-	-	0.5	0.4	1.0
C95	-	0.3	-	0.2	0.3	0.3	-	-	-	2.0	-	1.4	-	1.1	-	-	0.3	0.3	0.6
O&U	0.5	0.3	0.2	0.4	0.3	0.6	0.3	0.3	1.3	4.9	3.2	5.6	6.1	7.8	14.4	7.7	1.7	1.9	3.3
Total	1.4	1.3	1.6	2.5	3.2	7.1	15.2	26.6	51.2	82.8	103.7	122.2	127.4	173.2	148.4	95.8	33.2	37.3	80.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C76, C77, C78, C79, C80, C97)

20. Paediatric cancer incidence tables as per ICCC-3 standard

Table 36: Number of cases in paediatric age-group, incidence rate per million population: 2020-2021 (Both sex)

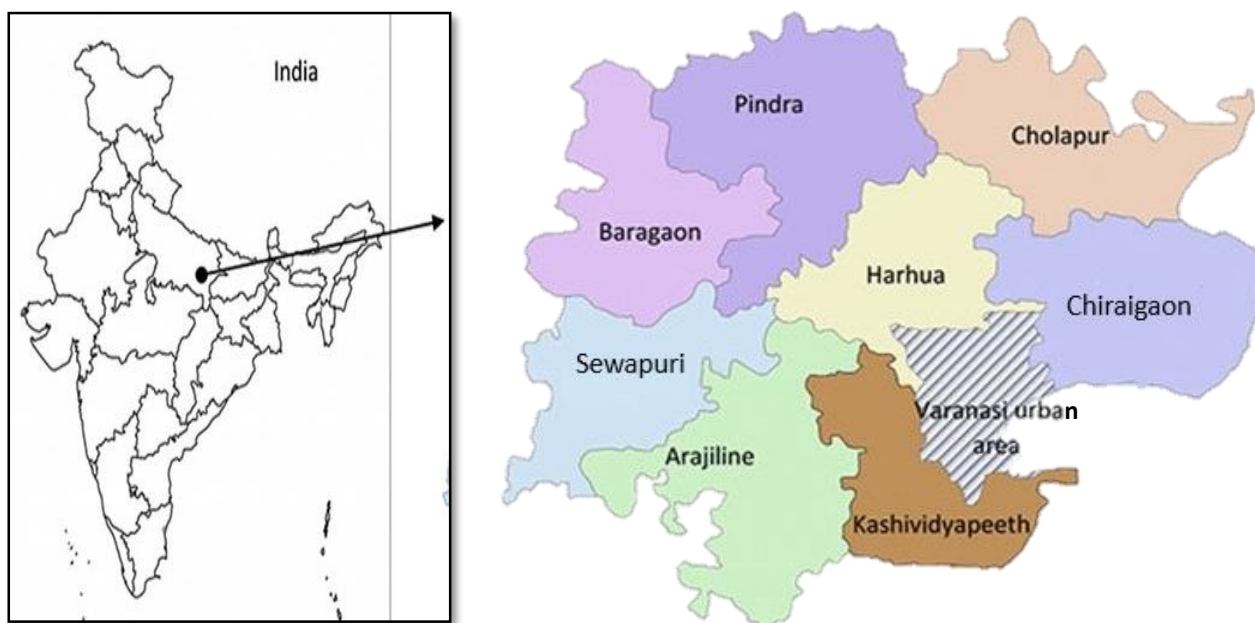
ICCC	Site	0-4	5-9	10-14	15-19	0-14	0-19	Percentage (0-14)		Percentage (0-19)		Age-specific rate per 1,000,000				AAR		Cumulative		MV % 0-19	DCO % 0-19
								All	Group	All	Group	0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19		
I	LEUKAEMIA	13	14	9	16	36	52	34.3	100.0	32.7	100.0	26.4	19.9	9.4	14.8	19.3	18.3	3595	2840	98.1	-
a.	Lymphoid	6	9	3	3	18	21	17.1	50.0	13.2	40.4	12.2	12.8	3.1	2.8	9.7	8.2	7124	6483	100	-
b.	Acute myeloid	-	1	2	3	3	6	2.9	8.3	3.8	11.5	-	1.4	2.1	2.8	1.1	1.4	57124	31869	100	-
c.	CMD	-	2	2	4	4	8	3.8	11.1	5.0	15.4	-	2.8	2.1	3.7	1.5	2.0	40650	23204	100	-
d.	MDS & other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	7	2	2	6	11	17	10.5	30.6	10.7	32.7	14.2	2.8	2.1	5.5	7.0	6.7	10453	8103	94.1	-
II	LYMPHOMA & RELATED	3	7	11	4	21	25	20.0	100.0	15.7	100.0	6.1	9.9	11.5	3.7	8.9	7.7	7279	6416	100	-
a.	Hodgkin	1	2	6	1	9	10	8.6	42.9	6.3	40.0	2.0	2.8	6.2	0.9	3.5	2.9	17994	16611	100	-
b.	Non-Hodgkin except BL	1	2	5	3	8	11	7.6	38.1	6.9	44.0	2.0	2.8	5.2	2.8	3.2	3.1	19853	15566	100	-
c.	Burkitt (BL)	-	1	-	-	1	1	1.0	4.8	0.6	4.0	-	1.4	-	-	0.5	0.4	140957	140957	100	-
d.	Lymphoreticular	1	-	-	-	1	1	1.0	4.8	0.6	4.0	2.0	-	-	-	0.8	0.6	98489	98489	100	-
e.	Unspecified	-	2	-	-	2	2	1.9	9.5	1.3	8.0	-	2.8	-	-	0.9	0.7	70479	70479	100	-
III	CNS NEOPLASMS	4	2	-	1	6	7	5.7	100.0	4.4	100.0	8.1	2.8	-	0.9	4.1	3.4	18248	16828	85.7	-
a.	Ependymoma	2	-	-	-	2	2	1.9	33.3	1.3	28.6	4.1	-	-	-	1.6	1.2	49245	49245	100	-
b.	Astrocytoma	1	2	-	1	3	4	2.9	50.0	2.5	57.1	2.0	2.8	-	0.9	1.7	1.5	41081	34523	100	-
c.	CNS embryonal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other gliomas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Unspecified CNS	1	-	-	-	1	1	1.0	16.7	0.6	14.3	2.0	-	-	-	0.8	0.6	98489	98489	-	-
IV	NEUROBLASTOMA	4	1	1	-	6	6	5.7	100.0	3.8	100.0	8.1	1.4	1.0	-	3.9	3.0	18899	18899	100	-
a.	(Ganglio)neuroblastoma	4	1	-	-	5	5	4.8	83.3	3.1	83.3	8.1	1.4	-	-	3.6	2.8	20961	20961	100	-
b.	Peripheral nervous	-	-	1	-	1	1	1.0	16.7	0.6	16.7	-	-	1.0	-	0.3	0.2	192095	192095	100	-
V	RETINOBLASTOMA	4	-	-	-	4	4	3.8	100.0	2.5	100.0	8.1	-	-	-	3.1	2.4	24623	24623	100	-
VI	RENAL TUMOURS	5	-	-	-	5	5	4.8	100.0	3.1	100.0	10.2	-	-	-	3.9	3.0	19698	19698	100	-
a.	Nephroblastoma	5	-	-	-	5	5	4.8	100.0	3.1	100.0	10.2	-	-	-	3.9	3.0	19698	19698	100	-
b.	Renal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VII	HEPATIC TUMOURS	1	1	-	-	2	2	1.9	100.0	1.3	100.0	2.0	1.4	-	-	1.2	1.0	57979	57979	50.0	-
a.	Hepatoblastoma	1	-	-	-	1	1	1.0	50.0	0.6	50.0	2.0	-	-	-	0.8	0.6	98489	98489	100	-
b.	Hepatic carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	1	-	-	1	1	1.0	50.0	0.6	50.0	-	1.4	-	-	0.5	0.4	140957	140957	-	-
VIII	BONE TUMOURS	-	2	3	4	5	9	4.8	100.0	5.7	100.0	-	2.8	3.1	3.7	1.8	2.2	33551	20703	88.9	-
a.	Osteosarcoma	-	1	2	1	3	4	2.9	60.0	2.5	44.4	-	1.4	2.1	0.9	1.1	1.0	57124	45187	100	-
b.	Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
c.	Ewing & related	-	1	1	1	2	3	1.9	40.0	1.9	33.3	-	1.4	1.0	0.9	0.8	81300	59086	100	-	
d.	Other specified	-	-	-	1	-	1	-	-	0.6	11.1	-	-	-	0.9	-	0.2	-	216247	100	-
e.	Unspecified	-	-	-	1	-	1	-	-	0.6	11.1	-	-	-	0.9	-	0.2	-	216247	100	-
IX	SOFT TISSUE SARCOMA	3	2	1	3	6	9	5.7	100.0	5.7	100.0	6.1	2.8	1.0	2.8	3.6	3.4	20059	15692	100	-
a.	Rhabdomyosarcoma	3	1	-	-	4	4	3.8	66.7	2.5	44.4	6.1	1.4	-	-	2.8	2.2	26628	26628	100	-
b.	Fibrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	1	1	3	2	5	1.9	33.3	3.1	55.6	-	1.4	1.0	2.8	0.8	1.2	81300	38207	100	-
X	GERM CELL TUMOURS	4	-	2	7	6	13	5.7	100.0	8.2	100.0	8.1	0.0	2.1	6.5	3.7	4.4	19599	11992	84.6	-
a.	CNS germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other extragonadal	1	-	-	-	1	1	1.0	16.7	0.6	7.7	2.0	-	-	-	0.8	0.6	98489	98489	100	-
c.	Gonadal germ cell	3	-	1	3	4	7	3.8	66.7	4.4	53.8	6.1	-	1.0	2.8	2.7	2.7	28038	20187	100	-
d.	Gonadal carcinoma	-	-	-	3	-	3	-	-	1.9	23.1	-	-	-	2.8	0.0	0.6	-	72083	100	-
e.	Unspecified gonadal	-	-	1	1	1	2	1.0	16.7	1.3	15.4	-	-	1.0	0.9	0.3	0.4	192095	101729	-	-
XI	CARCINOMA & MELANOMA	-	1	-	11	1	12	1.0	100.0	7.5	100.0	-	1.4	-	10.2	0.5	2.6	140957	17253	100	-
a.	Adrenocortical	-	1	-	-	1	1	1.0	100.0	0.6	8.3	-	1.4	-	-	0.5	0.4	140957	140957	100	-
b.	Thyroid	-	-	-	2	-	2	-	-	1.3	16.7	-	-	-	1.8	-	0.4	-	108124	100	-
c.	Nasopharyngeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Melanoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Skin carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Other & unspecified	-	-	-	9	-	9	-	-	5.7	75.0	-	-	-	8.3	-	1.9	-	24028	100	-
XII	OTHER & UNSPECIFIED	3	1	3	8	7	15	6.7	100.0	9.4	100.0	6.1	1.4	3.1	7.4	3.7	4.5	18807	11091	-	-
a.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other unspecified	3	1	3	8	7	15	6.7	100.0	9.4	100.0	6.1	1.4	3.1	7.4	3.7	4.5	18807	11091	-	-
Total		44	31	30	54	105	159	100.0	100.0	100.0	100.0	89.4	44.0	31.2	49.9	57.8	56.1	1216	933	86.8	

Table 37: Number of cases in paediatric age-group, incidence rate per million population: 2020-2021 (By gender)

ICCC	Site	Males						Females											
		Number of cases in age groups						AAR per million		M/F Ratio		Number of cases in age groups						AAR per million	
		0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19	0-14	0-19	0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19
I	LEUKAEMIA	10	9	6	9	25	34	25.2	23.2	2.3	1.9	3	5	3	7	11	18	12.2	12.5
a.	Lymphoid	4	6	2	3	12	15	11.9	10.4	2.0	2.5	2	3	1	-	6	6	7.2	5.6
b.	Acute myeloid	-	1	1	2	2	4	1.4	1.9	2.0	2.0	-	-	1	1	1	2	0.6	0.9
c.	CMD	-	1	1	1	2	3	1.4	1.5	1.0	0.6	-	1	1	3	2	5	1.6	2.6
d.	MDS & other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	6	1	2	3	9	12	10.5	9.4	4.5	2.4	1	1	0	3	2	5	2.8	3.4
II	LYMPHOMA & RELATED	2	7	8	3	17	20	13.3	11.5	4.3	4.0	1	-	3	1	4	5	3.6	3.3
a.	Hodgkin	-	2	4	1	6	7	4.0	3.5	2.0	2.3	1	-	2	-	3	3	3.0	2.3
b.	Non-Hodgkin except BL	1	2	4	2	7	9	5.4	5.0	7.0	4.5	-	-	1	1	1	2	0.6	0.9
c.	Burkitt (BL)	-	1	-	-	1	1	0.8	0.6	0.0	0.0	-	-	-	-	-	-	-	-
d.	Lymphoreticular	1	-	-	-	1	1	1.4	1.1	0.0	0.0	-	-	-	-	-	-	-	-
e.	Unspecified	-	2	-	-	2	2	1.7	1.3	0.0	0.0	-	-	-	-	-	-	-	-
III	CNS NEOPLASMS	3	1	-	1	4	5	5.1	4.4	2.0	2.5	1	1	-	-	2	2	2.8	2.1
a.	Ependymoma	2	-	-	-	2	2	2.8	2.2	0.0	0.0	-	-	-	-	-	-	-	-
b.	Astrocytoma	1	1	-	1	2	3	2.3	2.2	2.0	3.0	-	1	-	-	1	1	1.0	0.8
c.	CNS embryonal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other gliomas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Unspecified CNS	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	1.8	1.4
IV	NEUROBLASTOMA	4	1	1	-	6	6	7.1	5.5	0.0	0.0	-	-	-	-	-	-	-	-
a.	(Ganglio)neuroblastoma	4	1	-	-	5	5	6.5	5.1	0.0	0.0	-	-	-	-	-	-	-	-
b.	Peripheral nervous	-	-	1	-	1	1	0.6	0.4	0.0	0.0	-	-	-	-	-	-	-	-
V	RETINOBLASTOMA	3	-	-	-	3	3	4.3	3.3	3.0	3.0	1	-	-	-	1	1	1.8	1.4
VI	RENAL TUMOURS	2	-	-	-	2	2	2.8	2.2	0.7	0.7	3	-	-	-	3	3	5.3	4.1
a.	Nephroblastoma	2	-	-	-	2	2	2.8	2.2	0.7	0.7	3	-	-	-	3	3	5.3	4.1
b.	Renal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VII	HEPATIC TUMOURS	-	1	-	-	1	1	0.8	0.6	1.0	1.0	1	-	-	-	1	1	1.8	1.4
a.	Hepatoblastoma	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	1.8	1.4
b.	Hepatic carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	1	-	-	1	1	0.8	0.6	0.0	0.0	-	-	-	-	-	-	-	-
VIII	BONE TUMOURS	-	1	1	3	2	5	1.4	2.3	0.7	1.3	-	1	2	1	3	4	2.3	2.2
a.	Osteosarcoma	-	-	-	1	-	1	-	0.4	0.0	0.3	-	1	2	-	3	3	2.3	1.8
b.	Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Ewing & related	-	1	1	1	2	3	1.4	1.5	0.0	0.0	-	-	-	-	-	-	-	-
d.	Other specified	-	-	-	1	-	1	-	0.4	-	0.0	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	-	-	-	-	-	-	-	0.0	-	-	-	1	-	1	-	0.4
IX	SOFT TISSUE SARCOMA	2	1	1	1	4	5	4.3	3.7	2.0	1.3	1	1	-	2	2	4	2.8	3.0
a.	Rhabdomyosarcoma	2	-	-	-	2	2	2.8	2.2	1.0	1.0	1	1	-	-	2	2	2.8	2.1
b.	Fibrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	1	1	1	2	3	1.4	1.5	0.0	1.5	-	-	-	2	-	2	-	0.9
X	GERM CELL TUMOURS	3	-	-	3	3	6	4.3	4.5	1.0	0.9	1	-	2	4	3	7	3.0	4.1
a.	CNS germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other extragonadal	1	-	-	-	1	1	1.4	1.1	0.0	0.0	-	-	-	-	-	-	-	-
c.	Gonadal germ cell	2	-	-	3	2	5	2.8	3.4	1.0	2.5	1	-	1	-	2	2	2.4	1.8
d.	Gonadal carcinoma	-	-	-	-	-	-	-	-	0.0	0.0	-	-	-	3	-	3	0.0	1.3
e.	Unspecified gonadal	-	-	-	-	-	-	-	-	0.0	0.0	-	-	1	1	1	2	0.6	0.9
XI	CARCINOMA & MELANOMA	-	-	-	8	-	8	-	3.2	0.0	2.0	-	1	-	3	1	4	1.0	2.1
a.	Adrenocortical	-	-	-	-	-	-	-	-	0.0	0.0	-	1	-	-	1	1	1.0	0.8
b.	Thyroid	-	-	-	-	-	-	-	-	0.0	0.0	-	-	-	2	-	2	-	0.9
c.	Nasopharyngeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Melanoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Skin carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Other & unspecified	-	-	-	8	-	8	-	3.2	-	0.0	-	-	-	1	-	1	-	0.4
XII	OTHER & UNSPECIFIED	2	-	2	5	4	9	4.0	5.1	1.3	1.5	1	1	1	3	3	6	3.4	3.9
a.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other unspecified	2	-	2	5	4	9	4.0	5.1	1.3	1.5	1	1	1	3	3	6	3.4	3.9
Total		31	21	19	33	71	104	72.7	69.6	2.1	1.9	13	10	11	21	34	55	39.9	40.0

21. Village-wise incidence and mortality cases: 2017-2019

We are presenting village-wise incidence and mortality cases registered in the year 2020-2021.



**Cancer incidence cases and mortality cases: Varanasi district (2020-2021)
(Urban and rural area)**

Block	Incidence			Mortality		
	Male	Female	Total	Male	Female	Total
Varanasi Urban Area*	1378	1021	2399	905	590	1495
Arajiline	167	140	307	116	112	228
Baragaon	127	107	234	100	73	173
Chiragaon	115	82	197	84	82	166
Cholapur	137	95	232	102	79	181
Harhua	138	107	245	100	81	181
Kashividyaapeeth	158	138	296	109	90	199
Pindra	166	136	302	120	105	225
Sewapuri	128	106	234	103	94	197
Total	2,514	1,932	4,446	1,739	1,306	3,045

* Including new census town

Cancer incidence cases and mortality cases: Varanasi urban area (2020-2021)

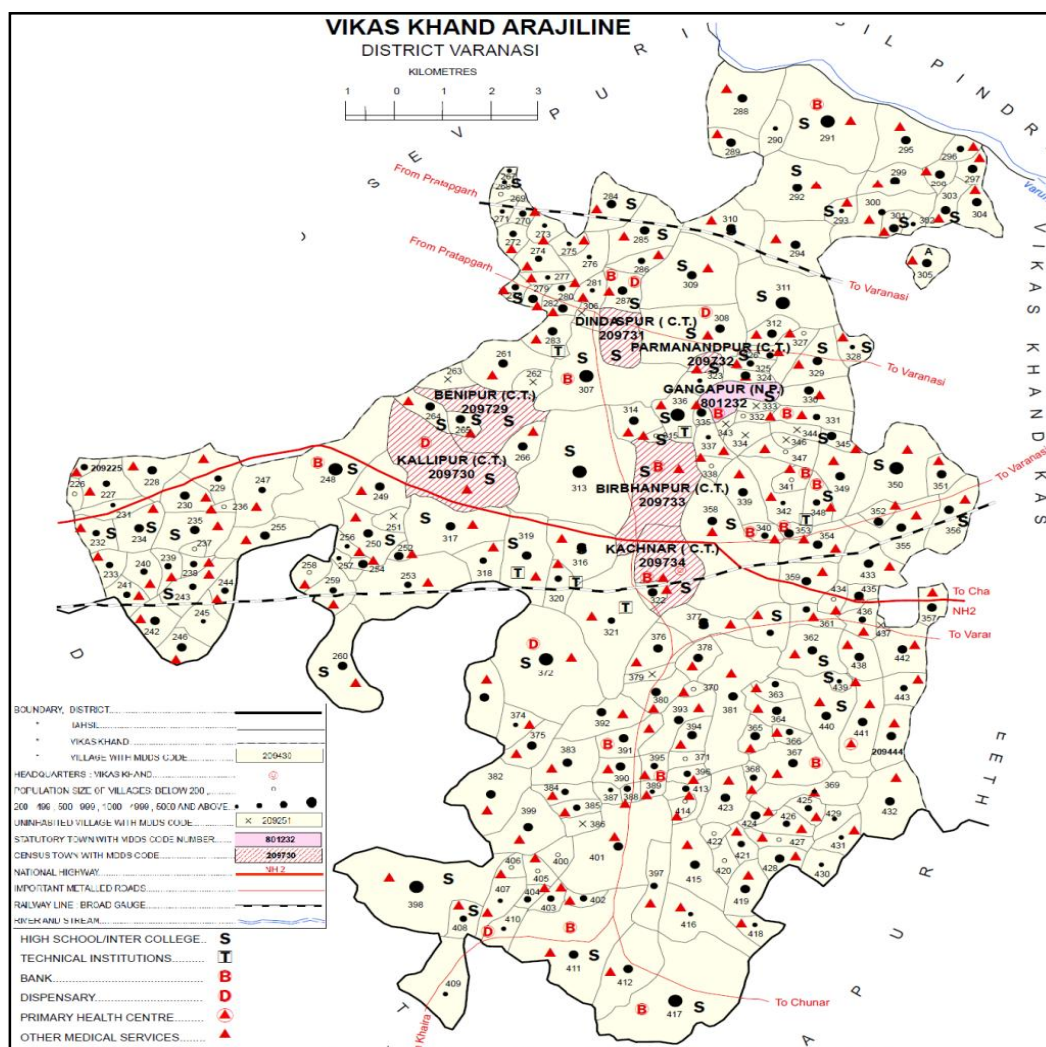
Sr. No.	Urban area	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Akaga Ganj	-	2	2	2	1	3
2	Aktha	6	5	11	5	2	7
3	Alaipura	3	3	6	7	2	9
4	Ashapur	11	6	17	4	8	12
5	Bagahara	1	2	3	1	-	1
6	Baluwa Bir	1	3	4	1	2	3
7	Bandhuk Kachhi Bag	7	2	9	7	2	9
8	Bangali Tola	10	5	15	8	1	9
9	Barjardiha	23	20	43	25	9	34
10	Benia	4	3	7	3	3	6
11	Bhadani	9	9	18	3	2	5
12	Bhelupur	30	20	50	13	11	24
13	Bhoot Bhairav	-	-	-	-	1	1
14	Bridopur	13	10	23	6	2	8
15	Chatin Pura	11	3	14	4	1	5
16	Chetganj	25	15	40	16	9	25
17	Chitampur	4	1	5	2	-	2
18	Choti Piyari	7	9	16	7	4	11
19	Chowka Ghat	12	12	24	10	9	19
20	City	5	2	7	4	2	6
21	Daniyalpur	1	2	3	1	2	3
22	Daranagar	19	9	28	13	4	17
23	Dasaswamedh	30	20	50	15	13	28
24	Dedhori Mahaal	21	20	41	15	4	19
25	Deen Dayal Pur	2	-	2	-	-	-
26	Dhup Chandi	7	11	18	5	5	10
27	Eswar Gangi	4	4	8	1	4	5
28	Gola Dina Nath	21	10	31	16	8	24
29	Graghwasi Tola	7	7	14	6	3	9
30	Habibpur	4	5	9	3	2	5
31	Harha	4	2	6	4	2	6
32	Hukulganj	11	12	23	10	6	16
33	Indrapur	5	5	10	1	5	6
34	Jagambadi	1	2	3	1	1	2
35	Jagatganj	21	24	45	13	14	27
36	Jaitpura	38	22	60	29	8	37
37	Jalalipur	9	8	17	8	3	11

Sr. No.	Urban area	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
38	Jmaludinpur	3	-	3	4	-	4
39	Jolha	-	2	2	-	-	-
40	Kaal Bharav	22	11	33	14	9	23
41	Kahjuri	16	13	29	11	5	16
42	Kajipur	5	-	5	2	2	4
43	Kajisadulla Pura	14	2	16	7	3	10
44	Kakarmatta	15	8	23	4	5	9
45	Kamaccha	8	8	16	3	4	7
46	Kamal Pura	2	2	4	4	2	6
47	Kamalgarha	5	1	6	3	-	3
48	Kameshwar Mahadev	-	3	3	1	2	3
49	Kashipur	2	1	3	1	-	1
50	Katehar	7	3	10	3	3	6
51	Katuwa Pura	1	3	4	2	1	3
52	Khojwa	16	28	44	12	12	24
53	Konia	6	11	17	6	6	12
54	Lahang Pura	9	4	13	6	-	6
55	Lahartara	23	18	41	12	13	25
56	Lallapur Kala	1	1	2	1	1	2
57	Lallapura Khurd	10	6	16	9	3	12
58	Lanka	6	3	9	5	2	7
59	Lohatia	-	1	1	-	-	-
60	Loko Chatipur	6	1	7	7	2	9
61	Luxa	15	12	27	14	4	18
62	Madan Pura	5	4	9	5	2	7
63	Madhmaishewar	3	1	4	3	-	3
64	Maidagin	16	11	27	9	4	13
65	Nadesar	25	30	55	15	17	32
66	Nagwa	12	19	31	9	11	20
67	Nai Basti	14	15	29	9	13	22
68	Narayanpur	4	1	5	2	1	3
69	Naria	18	12	30	7	9	16
70	Nawab Ganj	4	5	9	3	2	5
71	Nawapura	11	9	20	5	8	13
72	Newada	10	8	18	7	2	9
73	Omkaleswar	3	-	3	1	2	3
74	Pahriya	27	13	40	17	5	22
75	Pan Dariba	2	-	2	-	-	-
76	Pandey Havali	2	4	6	3	-	3

Sr. No.	Urban Area	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
77	Pandeypur	38	26	64	23	18	41
78	Peayarikala	4	2	6	5	2	7
79	Prahalad Ghat	12	3	15	7	2	9
80	Raj Mandir	7	7	14	7	5	12
81	Raja Bazaar	6	2	8	5	-	5
82	Rajghat	10	4	14	9	2	11
83	Ramapura	11	5	16	8	2	10
84	Ramerapur	2	3	5	1	-	1
85	Ramnagar	42	23	65	32	16	48
86	Ranipur	5	6	11	4	3	7
87	Rasulpura	5	-	5	4	2	6
88	Rawari Talab	8	-	8	10	1	11
89	Salempura	-	4	4	1	1	2
90	Sarai Growardhan	3	-	3	-	1	1
91	Sarai Surjan	2	2	4	1	2	3
92	Saraya	8	3	11	3	4	7
93	Sarnath	37	27	64	18	13	31
94	Sarsauli	7	11	18	8	3	11
95	Shivala	20	13	33	11	7	18
96	Shivpur	65	41	106	43	30	73
97	Shivpurwa	15	13	28	10	6	16
98	Sigra	49	30	79	23	20	43
99	Sikaraul	18	10	28	12	5	17
100	Sunderpur	25	25	50	10	19	29
101	Tarna	13	8	21	10	4	14
102	Tulsi Pur	21	18	39	12	14	26
103	Vinayka	-	1	1	1	-	1
New census town							
104	Benipur (Arajiline)	10	2	12	4	2	6
105	Kallipur (Arajiline)	3	2	5	1	-	1
106	Dindaspur (Arajiline)	3	4	7	3	2	5
107	Parmanandapur (Arajiline)	3	-	3	2	-	2
108	Birbhanpur (Arajiline)	2	4	6	2	4	6
109	Kachnar (Arajiline)	7	5	12	2	3	5
110	Chhitauni (Kashividyapeeth)	2	2	4	-	1	1
111	Chandpur (Kashividyapeeth)	10	4	14	4	2	6
112	Kakarmatta (Kashividyapeeth)	-	1	1	-	2	2
113	Kesaripur (Kashividyapeeth)	-	1	1	-	-	-
114	Harpalpur (Kashividyapeeth)	2	2	4	3	1	4

Sr. No.	Urban Area	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
115	Amara Khaira Chak (Kashividyapeeth)	5	1	6	1	-	1
116	Jalal Patti (Kashividyapeeth)	2	1	3	2	2	4
117	Susuwahi (Kashividyapeeth)	18	14	32	6	4	10
118	Sir Govardhanpur (Kashividyapeeth)	3	5	8	2	3	5
119	Chhittupur (Kashividyapeeth)	23	15	38	18	9	27
120	Bhagwanpur (Kashividyapeeth)	5	5	10	2	3	5
121	Asapur (Kashividyapeeth)	1	-	1	-	-	-
122	Suzabad (Kashividyapeeth)	10	7	17	3	5	8
123	Kotwa (Kashividyapeeth)	5	2	7	7	1	8
124	Lohta (Kashividyapeeth)	5	9	14	8	7	15
125	Phulwariya (Kashividyapeeth)	16	14	30	13	9	22
126	Shivdashpur (Kashividyapeeth)	9	13	22	1	7	8
127	Kandawa (Kashividyapeeth)	8	10	18	13	9	22
128	Maruadih	16	18	34	9	7	16
129	Lehrupur (Chiraigaon)	2	-	2	-	-	-
130	Umaraha (Chiraigaon)	5	2	7	3	-	3
131	Salarpur (Chiraigaon)	11	6	17	5	6	11
132	Gaurakala (Chiraigaon)	-	1	1	-	-	-
133	Kotwa (Chiraigaon)	2	1	3	-	-	-
134	Sarai Mohana (Chiraigaon)	8	3	11	6	1	7
135	Baragaon (CT)	2	3	5	1	1	2
136	Gangapur (NP, Arajiline)	8	2	10	7	1	8
137	Lahartara (CT)	1	-	1	1	1	2
138	Maruadih Railway Settlement (ITS)	3	6	9	3	5	8
Total		1,378	1,021	2,399	905	590	1,495

Cancer incidence cases and mortality cases: Arajiline, Varanasi district (2020-2021)



Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Appi	-	1	1	-	-	-
2	Ashar	1	-	1	1	-	1
3	Aswari	2	5	7	1	4	5
4	Atarsuiya	-	-	-	-	1	1
5	Ayodhyapur	2	1	3	2	2	4
6	Babhaniyav	3	2	5	1	2	3
7	Badhaini Khurd	1	-	1	-	-	-
8	Badipur	-	1	1	-	-	-
9	Baherwa	-	3	3	-	2	2
10	Bairwan	4	3	7	4	1	5
11	Bansipur	-	1	1	-	-	-
12	Barhaini Kala	-	1	1	1	-	1

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
13	Barikhpur	1	-	1	-	-	-
14	Basant Ptiti	-	-	-	1	1	2
15	Basantpur	-	2	2	-	-	-
16	Belauri	2	3	5	2	2	4
17	Bhadarasi	1	2	3	2	-	2
18	Bhanjanpur	-	-	-	-	1	1
19	Bharaon	1	-	1	2	-	2
20	Bhatshar	1	3	4	2	1	3
21	Bhawanipur	2	-	2	2	-	2
22	Bhikhampur	1	-	1	-	-	-
23	Bhikharipur	-	3	3	2	3	5
24	Bhikhipur	-	1	1	-	1	1
25	Bhimchandi	1	-	1	-	-	-
26	Bhojubeer	-	-	-	1	-	1
27	Birbalpur	-	1	1	-	1	1
28	Birsinghpur	2	-	2	1	-	1
29	Burapur	-	1	1	-	1	1
30	Chakarpanpur	1	1	2	-	2	2
31	Chandapur	5	-	5	3	1	4
32	Chaukhandi	2	-	2	1	1	2
33	Chintapur	1	-	1	-	-	-
34	Coraut	3	4	7	2	3	5
35	Daghariya	2	1	3	-	1	1
36	Darekhu	3	3	6	3	-	3
37	Dashrathpur	1	-	1	2	-	2
38	Dayapur	-	-	-	-	1	1
39	Deuara	-	1	1	-	-	-
40	Dhadhorpur	1	3	4	-	3	3
41	Dhanapur	-	-	-	-	1	1
42	Dhanpalpur	1	-	1	-	-	-
43	Dipapur	1	2	3	1	-	1
44	Gaharpur	-	1	1	-	1	1
45	Gajapur	2	-	2	1	-	1
46	Gajari	2	-	2	1	3	4
47	Ganeshpur	3	2	5	2	1	3
48	Gangpur	1	1	2	1	1	2
49	Gaur Madhukar Shahpur	4	3	7	5	2	7
50	Ghamahapur	-	-	-	-	1	1
51	Ghamhapur	-	-	-	1	-	1
52	Gobindpur	1	-	1	1	-	1

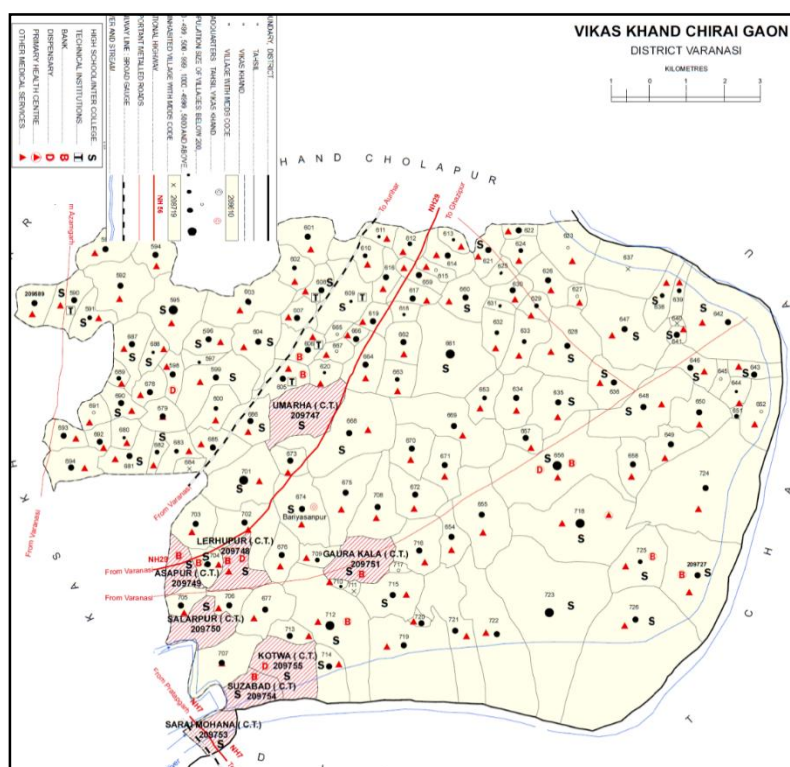
Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
53	Gora	2	-	2	1	-	1
54	Gurudasapur	-	-	-	1	-	1
55	Hardattpur	-	1	1	-	2	2
56	Harpur	3	1	4	-	-	-
57	Harsos	4	4	8	1	3	4
58	Jaddupur	2	-	2	-	-	-
59	Jagardeopur	-	1	1	-	-	-
60	Jagatpur	6	1	7	1	2	3
61	Jakhini	4	6	10	3	3	6
62	Jamin Kaneri	-	1	1	-	1	1
63	Jansa	3	2	5	1	2	3
64	Jayapur	5	1	6	2	-	2
65	Kaneri	1	1	2	-	4	4
66	Kankpur	-	1	1	-	1	1
67	Kanthipur	1	-	1	1	-	1
68	Kapar Phorwa	3	3	6	4	-	4
69	Karia	-	1	1	-	-	-
70	Karnadadi	2	-	2	1	-	1
71	Kashipur	-	6	6	1	4	5
72	Kasipur	-	1	1	-	-	-
73	Khajuri	1	1	2	1	1	2
74	Khemaipur	-	1	1	-	1	1
75	Khewali	1	1	2	2	-	2
76	Khewasipur	-	2	2	-	1	1
77	Khochwa	1	2	3	-	2	2
78	Koilo Urf Kishun Duttpur	1	-	1	-	-	-
79	Kundriya	-	3	3	-	3	3
80	Kurauna	1	-	1	1	-	1
81	Kurauti	1	-	1	-	1	1
82	Lachapur	1	2	3	-	-	-
83	Lachhimanpur	1	-	1	-	-	-
84	Lallapur	-	1	1	-	1	1
85	Laskariya	-	-	-	-	1	1
86	Loharapur	2	-	2	2	-	2
87	Madhukar Shahpur	1	1	2	-	-	-
88	Mahgoan	3	2	5	2	-	2
89	Mahmdpur	1	-	1	1	-	1
90	Manikpur	1	-	1	-	-	-
91	Maniyari Pur(Darerhu)	1	-	1	1	-	1
92	Marui	4	1	5	2	1	3

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
93	Mehadiganj	5	2	7	7	2	9
94	Milki Chack	-	-	-	-	1	1
95	Mirawan	1	1	2	-	1	1
96	Moglabir	-	2	2	2	-	2
97	Mubarakpur	2	-	2	1	-	1
98	Mungawar	1	-	1	-	-	-
99	Nagepur	4	2	6	4	1	5
100	Naraicha	2	-	2	2	1	3
101	Narottampur	1	1	2	-	-	-
102	Narsara	1	2	3	1	-	1
103	Nayapura	-	2	2	-	1	1
104	Pachai(No1)	1	-	1	-	-	-
105	Paidegaon	-	1	1	-	-	-
106	Paniyara	1	1	2	2	1	3
107	Parjanpur	1	1	2	1	2	3
108	Payagpur	1	-	1	-	-	-
109	Pilori	1	1	2	-	2	2
110	Pratappur	2	4	6	2	4	6
111	Rajpur	-	1	1	-	1	1
112	Rakhauna	3	1	4	2	1	3
113	Ramaipur	1	1	2	1	-	1
114	Rampur	1	-	1	1	-	1
115	Ramraypur	1	-	1	-	1	1
116	Ramsinghpur	1	1	2	-	-	-
117	Ranibazar	1	-	1	1	1	2
118	Rupapur	1	-	1	1	-	1
119	Sahansapur	2	1	3	2	3	5
120	Sahawabad	3	1	4	1	1	2
121	Sajoi	1	5	6	-	2	2
122	Saraimohan	2	-	2	1	-	1
123	Sarauni	1	-	1	2	1	3
124	Serwanpur	1	-	1	2	-	2
125	Sheorampur	-	1	1	-	-	-
126	Shihorwa	2	1	3	-	1	1
127	Singhai	2	-	2	1	-	1
128	Sinhorwa	1	1	2	-	-	-
129	Sirsa	-	-	-	-	1	1
130	Suichak	-	1	1	1	1	2
131	Tilanga	-	1	1	-	1	1
132	Todarpur	3	-	3	-	1	1
133	Tohaphapur	-	-	-	-	1	1
Total		167	140	307	116	112	228

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
15	Belawa	-	1	1	1	1	2
16	Bharthara	1	2	3	-	-	-
17	Bharthipur	1	-	1	1	-	1
18	Bhawanipur	1	-	1	-	-	-
19	Bhiti	1	-	1	-	-	-
20	Bikapur	-	1	1	1	1	2
21	Biraon	1	2	3	1	1	2
22	Chak Chamran	1	-	1	-	-	-
23	Chak Kharawan	1	1	2	-	1	1
24	Chak Machhiya	-	-	-	1	1	2
25	Changwar	2	-	2	1	1	2
26	Chaturpur	1	-	1	1	-	1
27	Cherapur	1	1	2	1	1	2
28	Chilbila	1	2	3	1	1	2
29	Dallipur	-	1	1	1	1	2
30	Dandupur	1	2	3	1	2	3
31	Devchandpur	1	-	1	1	-	1
32	Dhanrajaipur	-	-	-	1	-	1
33	Dhora	-	2	2	-	-	-
34	Dhoraipur	-	-	-	1	-	1
35	Eshipur	1	2	3	2	1	3
36	Fatehpur	1	2	3	2	2	4
37	Gajapur	1	1	2	1	-	1
38	Gang Khurd	1	-	1	-	-	-
39	Gangkala	1	-	1	1	2	3
40	Ghamhapur	1	1	2	1	1	2
41	Hamirapur	1	-	1	-	-	-
42	Harinathpur	4	2	6	4	2	6
43	Hasanpur	3	5	8	2	2	4
44	Itha	1	2	3	-	1	1
45	Kaithauli	1	-	1	1	2	3
46	Kaniyar	2	-	2	5	1	6
47	Karampur	2	2	4	1	1	2
48	Kathiraon	6	5	11	3	1	4
49	Kavirampur	-	2	2	1	-	1
50	Kharariya Taluka Birawn	1	-	1	1	-	1
51	Kharawan	-	2	2	1	3	4
52	Khariya Khas	1	4	5	1	1	2
53	Khataura	3	1	4	2	1	3

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
54	Koailar	1	1	2	2	-	2
55	Kodai	1	2	3	1	1	2
56	Kumbhapur	3	-	3	1	1	2
57	Kuri	4	4	8	3	4	7
58	Kuru	2	2	4	1	3	4
59	Kushmara	-	2	2	1	-	1
60	Kuwar	3	-	3	3	3	6
61	Lachhi Rampur	-	2	2	-	-	-
62	Lakhmipur	-	1	1	-	-	-
63	Madhumakhiya	2	-	2	1	-	1
64	Mahimapur	2	1	3	1	-	1
65	Mahuari	-	-	-	-	1	1
66	Majhgawan Kala	-	1	1	1	1	2
67	Malhath	1	2	3	2	-	2
68	Nakati	-	1	1	-	-	-
69	Newada	1	-	1	2	1	3
70	Nimaich	1	-	1	1	1	2
71	Nindanpur	1	-	1	-	1	1
72	Pachrasi	1	2	3	-	1	1
73	Paschampur	1	-	1	-	-	-
74	Patere	-	2	2	-	2	2
75	Phulwariya	1	-	1	1	-	1
76	Pura Raghunathpur	3	-	3	2	1	3
77	Rampur	2	-	2	1	-	1
78	Rasulha	1	1	2	1	-	1
79	Ratanpur	2	3	5	2	1	3
80	Sagunha	-	5	5	-	2	2
81	Sarvipur	2	-	2	-	-	-
82	Shaipur	-	1	1	-	-	-
83	Sharawa	1	-	1	2	-	2
84	Shekhanipur	1	2	3	1	1	2
85	Siswa	2	3	5	2	-	2
86	Sonpurwa	2	1	3	1	1	2
87	Tari	1	-	1	-	1	1
88	Taridih	1	-	1	-	-	-
89	Tarsara	1	1	2	-	1	1
Total		127	107	234	100	73	173

Cancer incidence cases and mortality cases: Chiraigaon, Varanasi district (2020-2021)

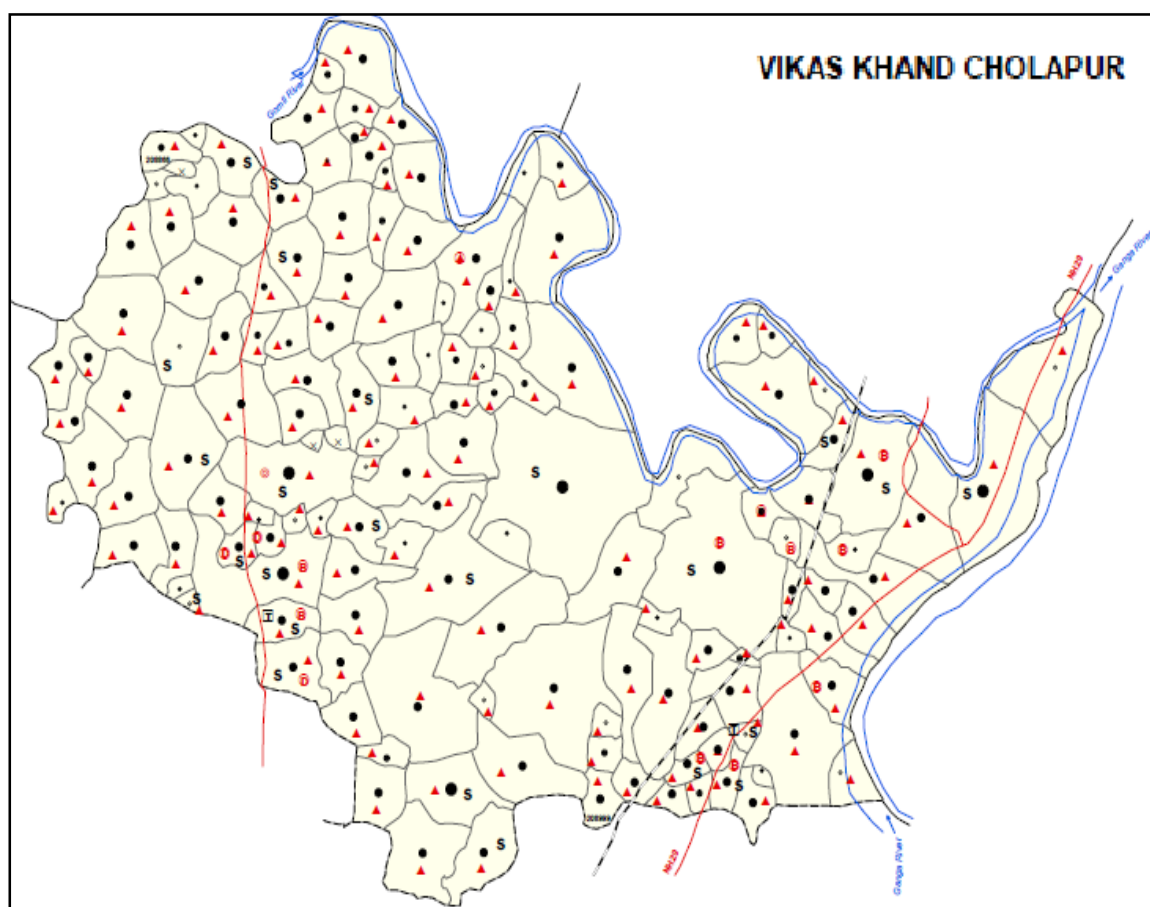


Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Airla	1	-	1	-	-	-
2	Allopur	1	-	1	1	-	1
3	Amar Patti	-	2	2	-	2	2
4	Amauli	1	-	1	1	-	1
5	Amwa	1	-	1	-	-	-
6	Babhanpura	4	1	5	1	1	2
7	Bankat	1	1	2	-	-	-
8	Barai	3	-	3	2	-	2
9	Bariyasanpur	1	2	3	1	2	3
10	Bhagwanpur	1	-	1	1	-	1
11	Bharthara Kala	6	2	8	3	2	5
12	Bhisori	-	-	-	-	1	1
13	Chadpur	-	2	2	-	1	1
14	Chamauli	1	4	5	1	2	3
15	Chhahi	2	1	3	-	-	-
16	Chhitauni	1	1	2	1	1	2
17	Chiraigaon	1	2	3	-	2	2
18	Chukha	2	2	4	-	2	2

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
19	Damodarpur	1	1	2	1	2	3
20	Daniyalpur	-	2	2	1	1	2
21	Dewariya	1	-	1	-	-	-
22	Dhananjaipur	-	-	-	-	2	2
23	Dhobahi	1	1	2	-	-	-
24	Dinapur	6	2	8	3	2	5
25	Dubkiya	2	2	4	3	2	5
26	Faridpur	-	-	-	-	1	1
27	Foolpur	3	1	4	3	2	5
28	Gangapur	-	1	1	-	-	-
29	Gobrha	-	-	-	-	1	1
30	Goithaha	1	-	1	2	-	2
31	Gokulpur	1	-	1	-	-	-
32	Goppur	2	1	3	4	2	6
33	Hasanpur	1	-	1	-	-	-
34	Hiramanpur	3	2	5	1	1	2
35	Jairampur	3	2	5	1	1	2
36	Jalhupur	4	2	6	2	2	4
37	Jogapur	-	1	1	-	-	-
38	Kadipur Khurd	1	2	3	-	1	1
39	Katesar Kala	2	1	3	2	1	3
40	Khajuhi	-	1	1	-	1	1
41	Khalispur	1	-	1	1	1	2
42	Khanpur	1	-	1	1	1	2
43	Kharagaipur	-	1	1	-	-	-
44	Khetalpur	1	-	1	-	3	3
45	Kodopur	-	-	-	2	-	2
46	Kukraha	-	1	1	-	-	-
47	Looth Kala	-	1	1	-	1	1
48	Marhni	-	-	-	1	-	1
49	Milkapur	-	1	1	-	2	2
50	Misripura	2	1	3	1	-	1
51	Mokalpur	-	1	1	1	-	1
52	Muridpur	1	-	1	1	-	1
53	Mustafabad	3	3	6	2	3	5
54	Narayanpur	2	1	3	2	2	4
55	Narpatpur	1	-	1	2	1	3
56	Newada	-	-	-	-	2	2
57	Pacharon	2	1	3	-	-	-

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
58	Panihari	1	3	4	-	2	2
59	Parwatpur	1	-	1	2	-	2
60	Paterwa	2	1	3	1	2	3
61	Piyri	3	-	3	2	2	4
62	Prahladpur	-	-	-	1	-	1
63	Puran Patti	-	-	-	-	1	1
64	Raimala	-	1	1	-	1	1
65	Raipura	1	1	2	1	-	1
66	Rajapur	1	-	1	1	1	2
67	Rajnahiya	-	1	1	-	2	2
68	Ramchandipur	-	3	3	1	1	2
69	Rampur	-	-	-	-	1	1
70	Rasulgarh	2	-	2	2	2	4
71	Rustampur	2	-	2	2	1	3
72	Sandaha	2	1	3	1	-	1
73	Sapsaul	3	1	4	1	-	1
74	Saraiya I	3	1	4	1	1	2
75	Saraiya li	-	1	1	-	1	1
76	Sathawan	-	1	1	-	1	1
77	Shahpur	1	1	2	1	-	1
78	Shankarpur	2	-	2	-	1	1
79	Sheodas Uparwar	-	3	3	1	-	1
80	Shivbon	3	2	5	3	1	4
81	Singhpur	2	-	2	2	-	2
82	Sonbarsa	3	-	3	4	-	4
83	Srithi	1	1	2	1	-	1
84	Sultanpur	1	1	2	1	-	1
85	Taraya	-	1	1	-	1	1
86	Tilamapur	4	2	6	2	3	5
87	Tofapur	3	1	4	3	-	3
88	Ukthi	1	2	3	1	2	3
89	Vikapur	-	-	-	-	1	1
Total		115	82	197	84	82	166

Cancer incidence cases and mortality cases: Cholanpur, Varanasi district (2020-2021)



Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Ajawan	-	2	2	-	2	2
2	Azgara Khas	5	1	6	5	-	5
3	Babatpur	-	2	2	1	-	1
4	Bahadurpur	2	2	4	1	2	3
5	Ballampur	1	-	1	-	-	-
6	Bantari	-	3	3	1	1	2
7	Barsara	1	-	1	-	-	-
8	Barthara Khurd	2	1	3	2	-	2
9	Barthauli	-	-	-	-	1	1
10	Baviyaon	1	1	2	-	1	1
11	Bela	4	1	5	1	-	1
12	Benipur Kala	-	2	2	-	2	2
13	Bhabhiyar	2	1	3	-	1	1
14	Bhadwan	2	-	2	1	-	1
15	Bhaghutipur	-	1	1	-	-	-
16	Bhagwanpur Khurd	-	1	1	1	-	1
17	Bhandaha Kala	1	1	2	-	-	-
18	Bharatpur	1	4	5	-	3	3

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
19	Bhawanipur	-	1	1	-	2	2
20	Bhidur	-	-	-	1	-	1
21	Chahi	1	1	2	1	-	1
22	Chak Dagrha	-	-	-	-	1	1
23	Chandrawati	2	2	4	1	1	2
24	Chaubepur Kala	2	2	4	3	-	3
25	Chaubepur Khurd	-	2	2	-	1	1
26	Chhitampur	2	-	2	-	-	-
27	Cholapur	3	2	5	1	1	2
28	Darberupur	1	-	1	1	-	1
29	Daudpur	-	-	-	1	-	1
30	Deipur	1	-	1	-	-	-
31	Demrupur	-	-	-	1	-	1
32	Deorai	-	-	-	-	1	1
33	Devnandpur	1	-	1	-	1	1
34	Dhakhawa	1	1	2	1	-	1
35	Dharampur	1	-	1	-	-	-
36	Dharsauna	4	-	4	2	2	4
37	Dhaurhara	6	1	7	2	1	3
38	Duduhan	-	1	1	1	1	2
39	Dulhanpur	1	-	1	1	-	1
40	Garsara	4	1	5	4	-	4
41	Garthauli	5	-	5	2	1	3
42	Gaurapurwar	3	1	4	2	1	3
43	Gola	1	-	1	1	-	1
44	Goppur(Second)	1	-	1	-	-	-
45	Gosaipur	-	1	1	-	1	1
46	Gosaipur Pathkhuli	-	1	1	-	1	1
47	Hajipur	1	1	2	1	1	2
48	Handiyadih	1	-	1	1	-	1
49	Haridasipur	-	-	-	-	1	1
50	Hathiyar Kala	-	2	2	-	2	2
51	Jagdeeshpur	3	-	3	1	-	1
52	Jariyari	1	-	1	-	1	1
53	Kadipur	-	1	1	2	-	2
54	Kaithi	3	-	3	2	-	2
55	Kaithor	-	-	-	-	1	1
56	Kapsa	2	2	4	2	2	4
57	Karma	1	-	1	-	-	-
58	Katari	1	1	2	2	1	3
59	Kauwapur	-	1	1	1	-	1
60	Khardaha	1	2	3	1	3	4
61	Khutha	-	1	1	-	1	1
62	Koilo	-	-	-	-	1	1
63	Kursiyan	-	-	-	1	-	1
64	Lakhanpur	1	2	3	-	1	1

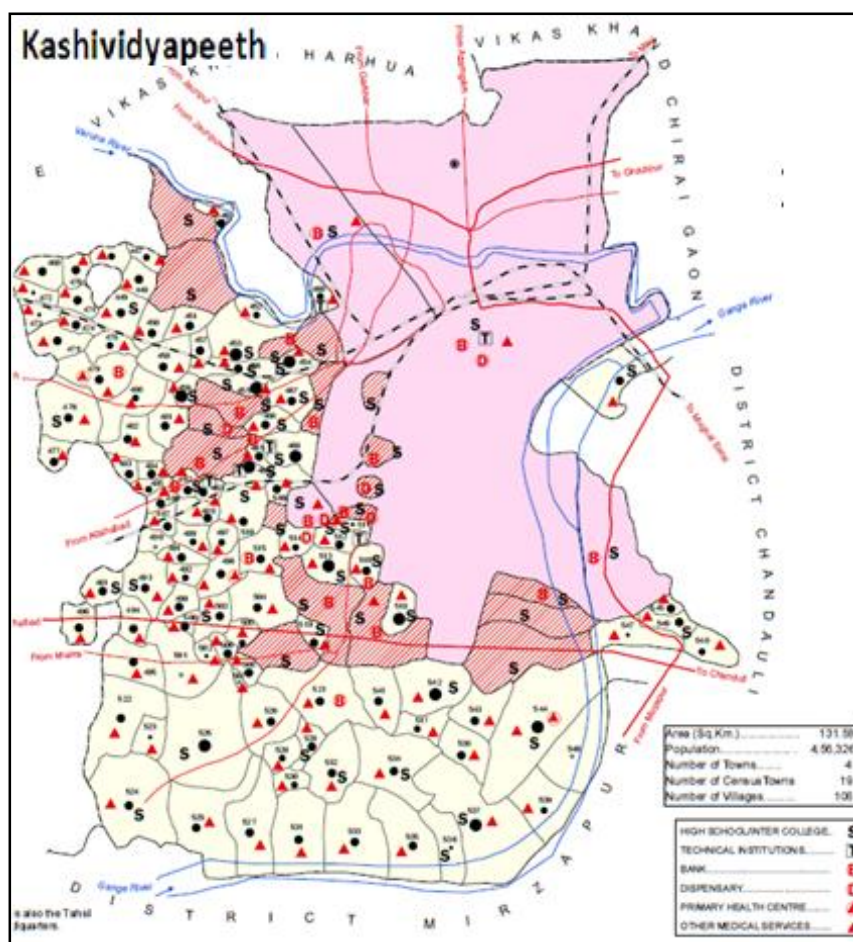
Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
65	Lakhi	1	-	1	-	-	-
66	Lalmankot	1	-	1	2	-	2
67	Laskarpur	-	3	3	-	2	2
68	Latauni	4	1	5	1	2	3
69	Magrahua	1	1	2	1	1	2
70	Mahada	3	1	4	5	1	6
71	Maheshpur	-	1	1	-	-	-
72	Mahmoodpur	-	-	-	1	-	1
73	Mangolepur	-	1	1	-	1	1
74	Mawaiya	3	-	3	2	-	2
75	Mohandas Pur	-	-	-	1	-	1
76	Molanapur	-	1	1	-	-	-
77	Munari	4	4	8	6	5	11
78	Mureri	1	-	1	-	-	-
79	Murli	-	1	1	-	1	1
80	Niyardiha	2	5	7	1	3	4
81	Odar	1	-	1	-	-	-
82	Paharpur	5	2	7	-	-	-
83	Paragdihi	-	1	1	-	1	1
84	Parana Patti	1	-	1	2	-	2
85	Paranapur	1	-	1	1	-	1
86	Pipri	-	1	1	-	-	-
87	Purairaji	1	-	1	1	-	1
88	Rajwari	4	1	5	2	2	4
89	Ramdatha	1	-	1	1	-	1
90	Rampur	3	-	3	3	-	3
91	Rasara	1	-	1	1	-	1
92	Rasulpur	-	1	1	1	-	1
93	Rauna Kala	-	1	1	1	-	1
94	Rauna Khurd	1	1	2	2	1	3
95	Roopchandpur	1	1	2	1	-	1
96	Saraiya	2	-	2	1	-	1
97	Shahdeeh	-	1	1	1	1	2
98	Singhpur	2	1	3	2	3	5
99	Srikanthpur	1	1	2	1	1	2
100	Suari	2	2	4	1	-	1
101	Sugulpur	1	2	3	1	2	3
102	Sultanipur	-	1	1	-	1	1
103	Tala	2	-	2	2	1	3
104	Taraon	1	-	1	-	-	-
105	Tari	1	2	3	-	1	1
106	Tekari	1	1	2	-	-	-
107	Tekuri	3	2	5	2	2	4
108	Tilmapur	1	-	1	-	-	-
109	Tisaura	1	-	1	-	1	1
Total		137	95	232	102	79	181

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
12	Bajhiya	-	-	-	1	-	1
13	Balua	-	-	-	1	-	1
14	Barwapur	1	-	1	-	-	-
15	Basdevpur	1	-	1	-	-	-
16	Bedi	1	-	1	-	-	-
17	Belwariya	2	1	3	-	1	1
18	Benipur Khurd	-	-	-	1	-	1
19	Berwa	-	1	1	-	2	2
20	Bhagwanpur	-	1	1	-	-	-
21	Bhatauli	1	1	2	1	1	2
22	Bhatpurwa Kala	-	1	1	-	1	1
23	Bhawanipur	1	-	1	-	1	1
24	Bhelkha	3	2	5	2	2	4
25	Bhobhi	-	1	1	-	-	-
26	Bhohar	2	1	3	2	2	4
27	Bhopapur	4	1	5	2	-	2
28	Bira Patti	2	2	4	1	2	3
29	Chakka	1	1	2	2	3	5
30	Chamawn	-	3	3	-	2	2
31	Chandapur	1	1	2	-	1	1
32	Chauka	2	-	2	1	-	1
33	Chhatripur	1	-	1	2	-	2
34	Chukhepur	2	4	6	2	2	4
35	Dandupur	3	-	3	1	1	2
36	Daniyalpur	3	1	4	-	1	1
37	Dasepur	2	3	5	-	2	2
38	Dasnipur	1	1	2	1	1	2
39	Devonathpur	1	1	2	-	-	-
40	Dhaneshri	-	1	1	1	1	2
41	Dharmalpur	-	-	-	-	2	2
42	Dihwa	-	-	-	1	-	1
43	Duniyapur	-	2	2	-	2	2
44	Ekala	-	1	1	-	1	1
45	Gahani	2	2	4	-	1	1
46	Ganeshpur	2	-	2	2	-	2
47	Garhwa	-	-	-	1	-	1
48	Gaura	-	-	-	1	1	2
49	Ghamhapur	1	-	1	1	-	1
50	Gosaipur	1	2	3	1	3	4

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
51	Gosaipur Mohaon	4	5	9	3	2	5
52	Gosaipur Pathkhuli	-	1	1	-	-	-
53	Gurwat	-	1	1	1	-	1
54	Har Ballabhpur	2	-	2	1	-	1
55	Harhua	8	3	11	5	2	7
56	Hasimpur	1	1	2	1	2	3
57	Hatiya	3	1	4	-	-	-
58	Holapur	1	3	4	2	3	5
59	Inderwar	-	2	2	1	1	2
60	Jamunipur	-	-	-	1	-	1
61	Kakalpur	1	2	3	2	1	3
62	Kanudih	-	2	2	-	2	2
63	Karoma	1	2	3	-	1	1
64	Khan Patti	-	-	-	1	-	1
65	Kohasi	3	-	3	2	-	2
66	Koirajpur	2	1	3	1	1	2
67	Koiran	-	1	1	-	-	-
68	Kurauli	-	1	1	-	1	1
69	Lalpur	7	3	10	2	3	5
70	Lamhi	4	6	10	3	2	5
71	Lorhan	1	-	1	1	1	2
72	Luchchepur	1	-	1	1	-	1
73	Madhopur	1	-	1	1	-	1
74	Mahadepur	1	2	3	1	1	2
75	Mahadevpur	1	-	1	2	-	2
76	Majhmitia	1	-	1	-	-	-
77	Marhawa	1	-	1	1	-	1
78	Mohanpur	1	-	1	-	-	-
79	Murdaha	4	3	7	1	2	3
80	Narayanpur	1	-	1	1	-	1
81	Nonauti	-	2	2	-	1	1
82	Palahi Patti	4	2	6	3	-	3
83	Pali Shambhupur	1	-	1	1	1	2
84	Parmanandpur	2	1	3	1	-	1
85	Phakirpur	-	-	-	-	1	1
86	Pisaur	2	1	3	3	-	3
87	Puari Kala	3	-	3	2	-	2
88	Raipura	1	-	1	-	-	-
89	Raisi Patti	1	-	1	2	-	2

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
90	Rajapur	-	1	1	-	-	-
91	Ramchandarpur	1	1	2	-	-	-
92	Ramdat Pur	-	1	1	2	1	3
93	Ramgaon	1	2	3	1	-	1
94	Ramsinghpur	2	-	2	-	-	-
95	Rashulpur	-	2	2	-	1	1
96	Sabhaipur	-	1	1	2	-	2
97	Saee	-	-	-	-	1	1
98	Sarai Kazi	4	-	4	1	1	2
99	Saraiya	-	-	-	2	-	2
100	Sarayswami	-	-	-	1	-	1
101	Sarswan	2	2	4	3	1	4
102	Sehmalpur	-	2	2	-	2	2
103	Shahbuddinpur	-	1	1	-	-	-
104	Shivrampur	-	2	2	-	2	2
105	Singhapur	-	-	-	1	-	1
106	Sonakdih	-	-	-	-	1	1
107	Soyepur	2	1	3	-	2	2
108	Sulemapur	-	-	-	1	-	1
109	Surawan	-	1	1	-	1	1
110	Sutwalpur	1	-	1	2	-	2
111	Tewar	-	2	2	1	1	2
112	Udaypur	4	1	5	-	-	-
113	Undi	3	-	3	-	-	-
Total		138	107	245	100	81	181

Cancer incidence cases and mortality cases: Kashividyapeeth, Varanasi district (2020-2021)



Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Akhari	3	1	4	1	1	2
2	Akhileshpur	4	2	6	3	1	4
3	Alauddinpur	1	-	1	2	-	2
4	Anantpur	1	1	2	1	1	2
5	Aura	-	1	1	1	-	1
6	Bachhawn	5	2	7	3	2	5
7	Bakhariya	1	-	1	1	-	1
8	Balirampur	1	2	3	1	1	2
9	Bandepur	1	2	3	-	1	1
10	Bankat	-	2	2	1	1	2
11	Barthara	5	1	6	2	-	2
12	Betwar	-	-	-	-	1	1
13	Bhadwar	-	2	2	-	1	1
14	Bhatti	1	-	1	-	-	-

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
15	Bhikharipur Kala	-	1	1	1	1	2
16	Bhitari	6	6	12	3	4	7
17	Bhitti	7	7	14	4	2	6
18	Bhullanpur	7	8	15	3	7	1-
19	Bisokharpur	-	-	-	-	1	1
20	Bisunpur	1	1	2	3	-	3
21	Chandapur	3	1	4	3	4	7
22	Chhitauni	1	2	3	-	1	1
23	Chitaipur	4	9	13	3	4	7
24	Churamanpur	2	4	6	-	2	2
25	Dafalpur	-	1	1	1	-	1
26	Dafi	7	5	12	3	1	4
27	Daudpur	-	-	-	1	-	1
28	Delhana	1	1	2	1	-	1
29	Dhannipur	2	3	5	4	2	6
30	Domari	1	2	3	-	-	-
31	Faridpur	1	1	2	-	1	1
32	Gajadharpur	1	-	1	-	-	-
33	Ghamhapur	2	-	2	2	-	2
34	Ghatmpur	-	-	-	-	1	1
35	Gobindpur	1	1	2	1	-	1
36	Gopalpur	-	-	-	2	-	2
37	Hariharpur	-	-	-	2	-	2
38	Kadipur	-	1	1	-	1	1
39	Kakarahiya	-	1	1	-	-	-
40	Kanchanpur	2	1	3	2	2	4
41	Karaundi	5	6	11	4	3	7
42	Karsara	4	-	4	4	-	4
43	Kerakatpur	8	5	13	3	2	5
44	Khanwa	1	1	2	1	1	2
45	Khulaspur	-	2	2	1	1	2
46	Khusipur	1	2	3	-	-	-
47	Lakhanipur	1	-	1	1	-	1
48	Lakhanpur	1	2	3	-	2	2
49	Lathiya	3	1	4	1	-	1
50	Madhopur	1	-	1	1	-	1
51	Mahamudpur	2	2	4	2	1	3
52	Maheshpur	2	5	7	4	1	5
53	Mangalpur	5	4	9	3	1	4

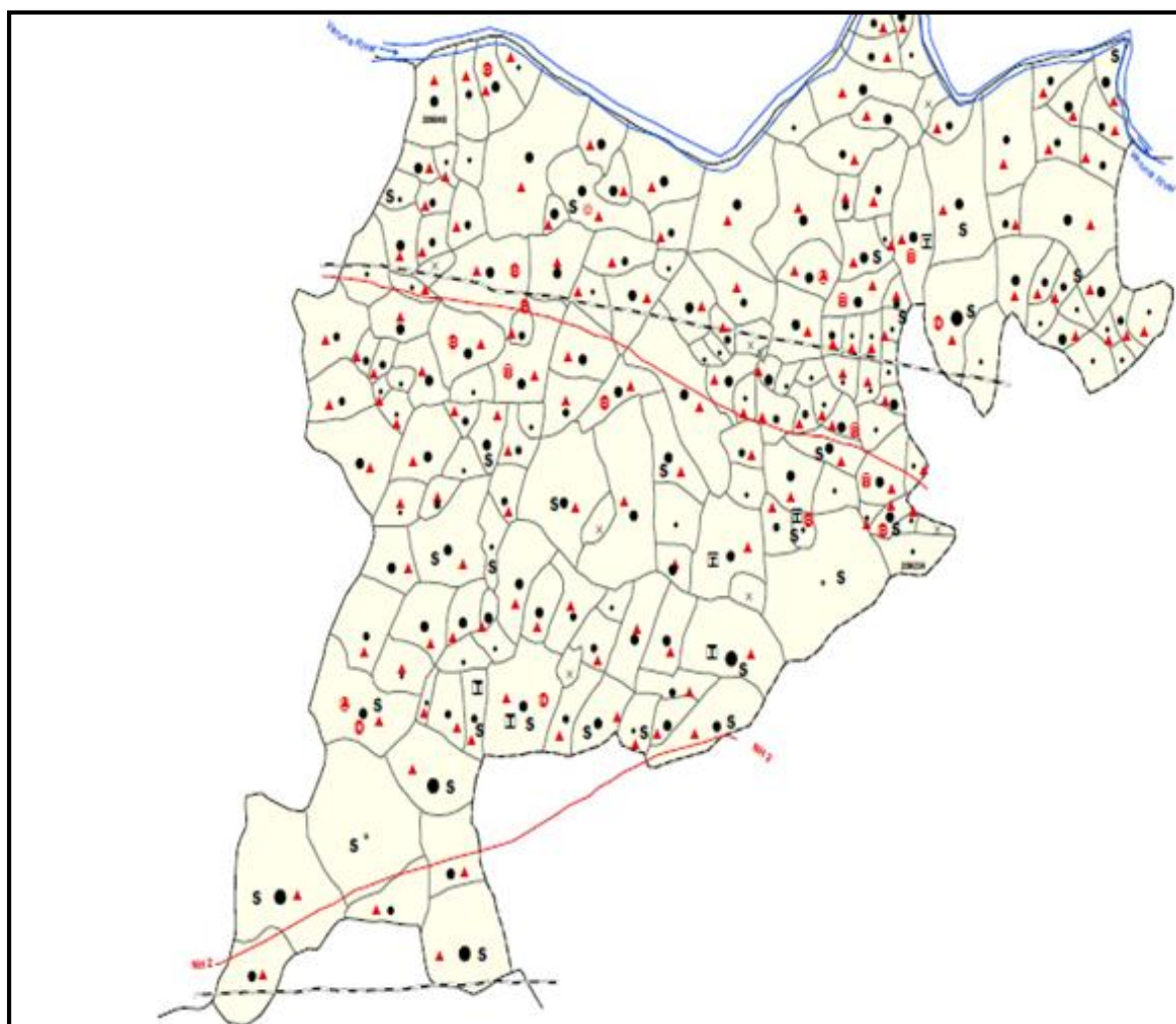
Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
54	Manrauli	6	5	11	5	4	9
55	Marawan	-	2	2	1	2	3
56	Mishirpur	2	-	2	-	-	-
57	Muradev	1	1	2	1	-	1
58	Naipur Kala	2	1	3	-	-	-
59	Naipura Khurd	-	1	1	-	1	1
60	Nakain	1	2	3	1	2	3
61	Narottampur Kala	-	1	1	-	-	-
62	Narur	1	-	1	1	2	3
63	Nasiripur	3	1	4	-	3	3
64	Nathupur	2	3	5	2	2	4
65	Nuawn	-	1	1	-	2	2
66	Pahari	5	2	7	2	4	6
67	Parmanandpur	2	1	3	1	-	1
68	Ramna	8	2	10	6	3	9
69	Ramshipur	-	1	1	-	-	-
70	Sadalpur	1	1	2	-	-	-
71	Sarai Dangari Kala	-	2	2	-	3	3
72	Sarhari	-	1	1	-	1	1
73	Savhat	2	-	2	-	-	-
74	sujabad	3	-	3	3	1	4
75	Sultanpur	4	4	8	3	2	5
76	Surhi	2	-	2	1	-	1
77	Tarapur	1	-	1	-	-	-
78	Tariya	-	1	1	-	-	-
79	Tikari	4	2	6	1	1	2
80	Uchgoan	2	1	3	1	1	2
Total		158	138	296	109	90	199

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
17	Bhatpurwan	1	1	2	1	-	1
18	Binda	2	1	3	2	1	3
19	Burwan	1	-	1	-	-	-
20	Chak Dulla	-	1	1	-	-	-
21	Chakarma	1	2	3	-	1	1
22	Chamru	1	-	1	-	-	-
23	Charo	2	1	3	1	-	1
24	Chhataon	-	2	2	2	1	3
25	Chintamanpur	-	1	1	1	1	2
26	Chitaura	1	1	2	1	2	3
27	Chiurapur	1	1	2	-	-	-
28	Dallipur	-	1	1	-	1	1
29	Deorai	2	2	4	-	-	-
30	Devji	-	2	2	-	-	-
31	Dharsauna	1	2	3	-	2	2
32	Dindaspur	2	-	2	-	-	-
33	Dithiya	-	-	-	1	-	1
34	Dudilpur	-	1	1	-	-	-
35	Fatehpur	3	1	4	4	2	6
36	Gadar	3	-	3	2	-	2
37	Gajendra	-	-	-	1	1	2
38	Gajokhar	-	-	-	1	-	1
39	Gangapur	1	1	2	-	1	1
40	Ganzari	-	-	-	1	-	1
41	Garkhara	5	-	5	-	2	2
42	Garthma	3	1	4	2	-	2
43	Ghamhapur	1	-	1	-	-	-
44	Ghoghali	2	-	2	1	-	1
45	Gori	-	-	-	2	-	2
46	Harishankarpur	-	-	-	1	-	1
47	Hathiwari	-	1	1	-	-	-
48	Hiramanpur	1	2	3	3	1	4
49	Inderkhapur	2	1	3	-	-	-
50	Jagdishpur	2	4	6	-	4	4
51	Jalalpur	-	2	2	1	1	2
52	Jamalpur	-	1	1	-	-	-
53	Jamapur	-	-	-	-	3	3
54	Jathi	3	4	7	1	5	6
55	Jhanjhaur	1	3	4	1	2	3

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
56	Kachhiya	-	4	4	1	4	5
57	Kaharaka	1	-	1	-	-	-
58	Kanakpur	2	-	2	2	1	3
59	Karemua	3	1	4	1	1	2
60	Karkhiyaon	2	3	5	1	1	2
61	Karmi	1	1	2	1	1	2
62	Kashipur	1	1	2	3	-	3
63	Katharawan	1	-	1	1	-	1
64	Kathauna	3	-	3	-	-	-
65	Khalishpur	1	3	4	1	-	1
66	Kiratpur	2	-	2	1	-	1
67	Koilipur Khurd	-	2	2	-	1	1
68	Korra	1	-	1	1	-	1
69	Lallapur	1	-	1	-	-	-
70	Lokapur	1	1	2	-	-	-
71	Mahgaon	4	1	5	3	1	4
72	Majhbhitia(Majhmitiya)	1	-	1	-	-	-
73	Mangari	2	2	4	1	1	2
74	Mani	1	-	1	-	-	-
75	Maruee	3	4	7	3	5	8
76	Murdi	1	-	1	-	2	2
77	Nadoy	1	-	1	3	-	3
78	Nagapur	-	1	1	-	-	-
79	Namapur	-	1	1	-	1	1
80	Nandapur	1	-	1	1	-	1
81	Nehiya	1	2	3	2	1	3
82	Newada	2	2	4	-	2	2
83	Nihalapur	1	-	1	1	1	2
84	Odar	3	1	4	-	2	2
85	Padari	-	-	-	1	-	1
86	Parsaha	1	-	1	-	-	-
87	Parshra	1	1	2	-	-	-
88	Patirajpur	1	1	2	1	-	1
89	Phatehpur Katauna	-	-	-	1	1	2
90	Phoolpur	3	1	4	5	1	6
91	Pindara	4	4	8	2	3	5
92	Pindrai	4	2	6	-	3	3
93	Prasadpur	1	-	1	1	-	1
94	Raghurampur	-	1	1	-	1	1

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
95	Rajpur	6	2	8	3	1	4
96	Ramai Patti	-	4	4	1	4	5
97	Ramapur	1	-	1	1	-	1
98	Ramnagar	3	1	4	3	-	3
99	Rampur	2	3	5	3	3	6
100	Rasulpur	2	1	3	2	1	3
101	Ratanpur	2	-	2	-	-	-
102	Roh	1	-	1	1	-	1
103	Sahapur	1	1	2	-	-	-
104	Salwahanpur	-	-	-	-	1	1
105	Samogara	2	2	4	1	1	2
106	Sarai Takki	1	-	1	-	-	-
107	Saray	1	-	1	2	-	2
108	Saray Shekhlad	2	4	6	2	1	3
109	Sarhad	-	1	1	1	-	1
110	Shahpur	-	-	-	1	1	2
111	Shehmalpur	1	1	2	1	2	3
112	Shivpur	-	-	-	-	1	1
113	Sindhora	9	5	14	4	2	6
114	Sujanipur	1	-	1	1	-	1
115	Surahee	1	2	3	-	2	2
116	Telari Urf Narayanpur	1	-	1	-	-	-
117	Thana	1	-	1	-	-	-
118	Thari	2	1	3	2	-	2
119	Tikari Kala	1	-	1	2	1	3
120	Tikari Khurd	1	-	1	3	-	3
121	Tiwaripur	-	2	2	-	1	1
122	Udhopur	2	-	2	-	-	-
123	Udipur	-	1	1	1	2	3
124	Urban	-	1	1	-	-	-
125	Vikrampur	1	1	2	1	-	1
126	Virdawalpur	-	1	1	-	-	-
127	War	-	1	1	-	-	-
128	Rajpur	6	2	8	3	1	4
Total		166	136	302	120	105	225

Cancer incidence cases and mortality cases: Sewapuri, Varanasi district (2020-2021)



Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
1	Adampur	1	1	2	2	1	3
2	Amini	4	2	6	3	1	4
3	Arjunpur	1	-	1	-	-	-
4	Babua Pur	-	-	-	1	-	1
5	Bahra	1	3	4	1	3	4
6	Baijal Pur	-	1	1	-	1	1
7	Banauli	-	1	1	1	2	3
8	Bankat	3	4	7	1	1	2
9	Bara Dih	2	1	3	-	-	-
10	Baraura	2	-	2	1	-	1
11	Barema	3	1	4	3	-	3
12	Barki	3	2	5	1	2	3
13	Barsata	-	1	1	-	-	-
14	Bazar Kalika	-	1	1	-	-	-
15	Belwa	1	-	1	-	-	-

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
16	Beshupur	2	-	2	2	1	3
17	Bhgautipur	4	-	4	2	-	2
18	Bhikhampur	4	4	8	5	2	7
19	Bhitkuri	1	-	1	1	1	2
20	Bhorkala	1	1	2	-	-	-
21	Bhuilae	-	2	2	-	1	1
22	Chak Chelawa	-	-	-	-	1	1
23	Chaklola	-	1	1	-	1	1
24	Chhateri Manapur	2	2	4	-	1	1
25	Chitarsenpur	1	2	3	1	3	4
26	Dabethuwa	2	2	4	1	1	2
27	Dalpattipur	-	1	1	-	-	-
28	Daulatiya	3	2	5	1	-	1
29	Dayapur	1	-	1	1	-	1
30	Deipur	2	1	3	2	1	3
31	Dilawalpur	-	2	2	-	2	2
32	Domaila	2	-	2	3	2	5
33	Domanpur	-	2	2	-	2	2
34	Gaddopur	-	1	1	-	1	1
35	Gajepur	1	1	2	1	1	2
36	Ghosila	1	1	2	-	1	1
37	Gogawa	-	1	1	-	1	1
38	Gorai	2	-	2	1	-	1
39	Gosai Pur	1	-	1	-	-	-
40	Guria	1	1	2	1	-	1
41	Harbhampur	-	-	-	3	1	4
42	Harihar Pur	-	-	-	1	-	1
43	Hathi	3	5	8	4	1	5
44	Hirapur	-	1	1	-	1	1
45	Isharwar	1	1	2	1	1	2
46	Jaga Patti	1	-	1	-	-	-
47	Jagdishpur	1	-	1	-	-	-
48	Jogapur	3	-	3	4	-	4
49	Jogiyapur	1	-	1	1	-	1
50	Kapsethi	3	-	3	1	1	2
51	Kardhana	-	2	2	-	2	2
52	Katwaru Pur	-	1	1	-	-	-
53	Khalispur	-	1	1	1	1	2
54	Khamauna	-	1	1	1	-	1
55	Khandakh	2	1	3	1	-	1
56	Kharag Rampur	1	1	2	-	-	-
57	Khargu Pur	1	4	5	1	2	3
58	Khemapur	3	1	4	3	3	6
59	Khillupura	1	-	1	1	-	1
60	Kurauana Urf Rameshwar	1	-	1	1	-	1
61	Kutubpur	-	2	2	-	1	1

Sr. No.	Village name	Incidence			Mortality		
		Male	Female	Total	Male	Female	Total
62	Lachhipur	-	1	1	-	1	1
63	Lahiya	-	-	-	-	1	1
64	Lakhansenpur	2	-	2	-	-	-
65	Lohara Dih	1	1	2	2	-	2
66	Mahagipur	1	-	1	1	-	1
67	Mahrajpur	1	2	3	-	3	3
68	Majhiyarpur	1	-	1	1	1	2
69	Maniyari Pur	2	1	3	1	-	1
70	Mariya	-	2	2	1	1	2
71	Matuka	-	2	2	-	1	1
72	Milki Chak	1	-	1	1	-	1
73	Mokarwan	1	-	1	-	-	-
74	Newada	-	-	-	1	1	2
75	Newada Khas	-	1	1	-	-	-
76	Newriya	-	-	-	-	1	1
77	Nimani	1	-	1	1	-	1
78	Nohanipur	-	-	-	1	2	3
79	Odarha	2	-	2	1	-	1
80	Pachwar	3	-	3	-	-	-
81	Parsi Pur	2	-	2	2	-	2
82	Patre Chak	-	1	1	-	-	-
83	Pura Bariyar	1	1	2	1	1	2
84	Pura Majhola	-	1	1	-	1	1
85	Purananda	2	-	2	1	-	1
86	Purandarpur	-	1	1	-	1	1
87	Pure	4	-	4	2	3	5
88	Raghunathpur	2	-	2	2	-	2
89	Raishipur Sattanpur	2	2	4	1	2	3
90	Rakhi Sattanpur	-	1	1	-	1	1
91	Ramdih	1	-	1	1	1	2
92	Rampur Mutllike Shattanpur	1	-	1	-	-	-
93	Rampur Raisipur	2	3	5	3	3	6
94	Sarang Pur	1	1	2	1	1	2
95	Sato	-	1	1	-	-	-
96	Sattanpur	1	1	2	1	1	2
97	Sikhari	1	-	1	2	-	2
98	Sirhira	2	-	2	2	-	2
99	Sonbarsa	2	3	5	1	4	5
100	Tamachabad	-	1	1	-	1	1
101	Tara Pur	-	2	2	-	2	2
102	Tatehara	-	1	1	-	1	1
103	Tendui	4	1	5	3	2	5
104	Thatra	7	5	12	6	5	11
105	Uparwar	1	1	2	-	3	3
106	Varani	-	1	1	-	1	1
107	Vihana	2	2	4	3	-	3
Total		128	106	234	103	94	197

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24. Annexure

Publications using Varanasi PBCR data

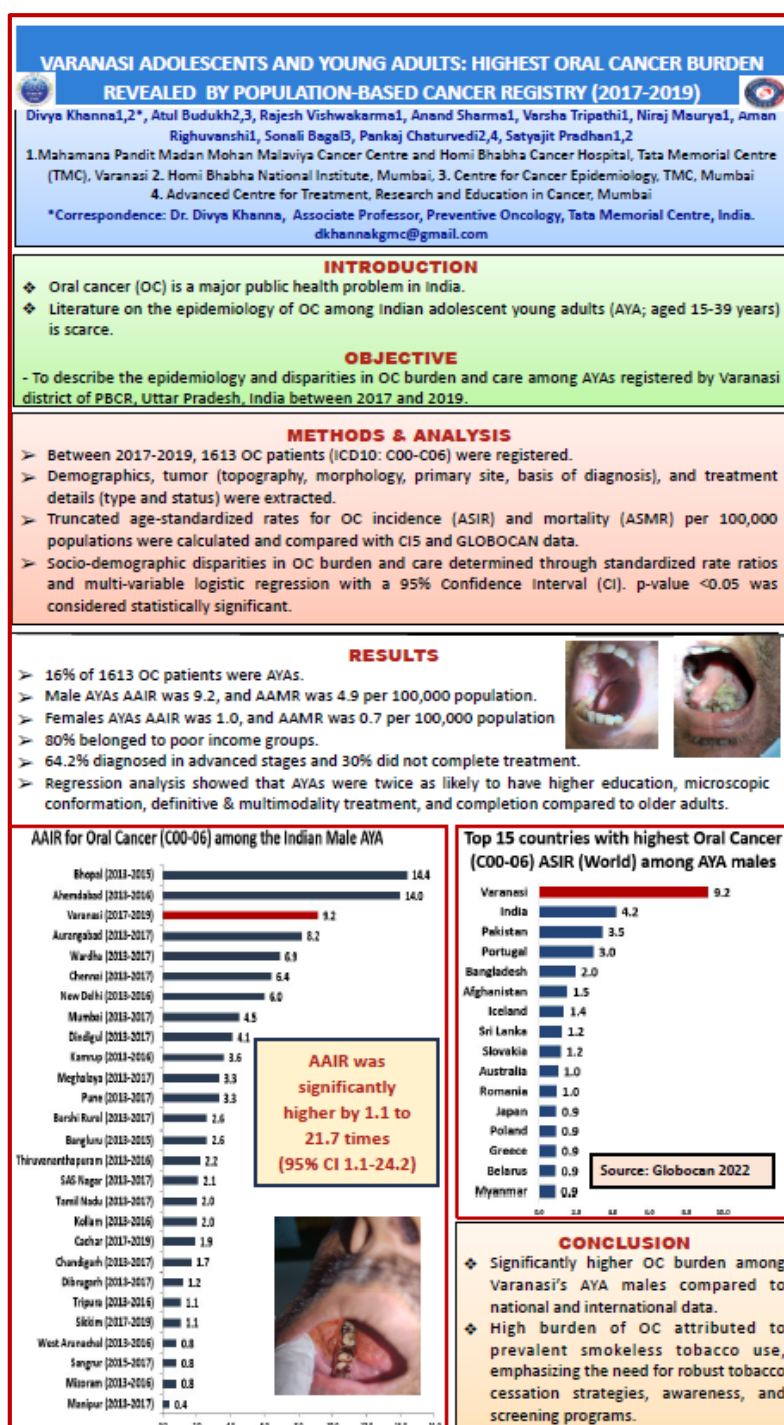
1. Mathur P, Sathishkumar K, Das P, Santhappan S, Sankarapillai J, Nath A, Vishwakarma MB, Swaminathan R, Pitchaimuthu S, Deo SV, Manoharan N. "Cancer Incidence and Mortality Across 43 Cancer Registries in India." *JAMA Network Open*. 2025 Aug 1;8(8):e2527805-.
2. Khanna, D., Vishwakarma, R., Sharma, A.N., Budukh, A., Verma, R.K., Riguvanshi, A., Mahmood, F., Chaturvedi, P. and Pradhan, S., et al. "Epidemiology of adolescent and young adult cancer and associated disparities in cancer pattern and care in India: findings from Varanasi's population-based cancer registry, 2017–2019". *Cancer Causes & Control*, 2025, pp.1-12.
3. Sawant P, Saoba S, Kadam P, Gupta D, Ponnada AK, Khanna D, Perera S, Tshomo U, Ervik M, Mery L, Bray F. "The Nirmiti application: An innovative tool for extending CanReg5 analyses to cancer mortality and paediatric cancer." *International Journal of Cancer*. 2025 Jul 1;157(1):161-9.
4. Khanna D, Sharma P, Budukh A, Vishwakarma R, Sharma AN, Bagal S, Tripathi V, Maurya VK, Chaturvedi P, Pradhan S. "Rural-urban disparity in cancer burden and care: findings from an Indian cancer registry." *BMC cancer*. 2024 Mar 6;24(1):308.
5. Bagal S, Budukh A, Thakur JS, Dora T, Qayyumi B, Khanna D, Fernandes D, Chakravarti P, Singh R, Patil S, Dikshit R. "Head and neck cancer burden in India: an analysis from published data of 37 population-based cancer registries." *ecancermedicalscience*. 2023 Sep 21;17:1603.
6. Khanna, D., Budukh, A., Sharma, P., Shruti, T., Vishwakarma, R., Sharma, A.N., Bagal, S., Vikraman, S.M., Vaza, Y., Anand, A. and Chaturvedi, P., 2023. "Role of verbal autopsy in cancer registration: a mixed-methods study from the population-based cancer registry of Northern India." *Tropical Medicine & International Health*, 28(8), pp.629-640.
7. Budukh AM, Bagal S, Thakur JS, Khanna D, Sancheti S, Banavali S. "Pediatric cancer burden in different regions of India: analysis of published data from 33 population-based cancer registries." *Indian Pediatrics*. 2023 Jul;60(7):541-5.
8. Budukh AM, Pradhan S, Singh VB, Khanna D, Bagal SS, Chakravarti PS, Sharma AN, Vishwakarma RK, Shinde SS, Khargekar NC, Chaturvedi P. "Cancer pattern in Varanasi district from Uttar Pradesh state of India, a foundation for cancer control based on the first report of the population-based cancer registry." *Indian Journal of Cancer*. 2024 Apr 1;61(2):383-9.
9. Anand A, Khanna D, Singh P, Singh A, Pandey A, Budukh A, Pradhan S. "Evaluation of medical certification of cause of death in tertiary cancer hospitals in Northern India." *Health Information Management Journal*. 2024 May;53(2):121-8.

Poster presentation

Following posters presented in the 2024 IACR Scientific Conference was held in Beijing, China and co-hosted by the National Cancer Center / Cancer Hospital, Chinese Academy of Medical Sciences on 05th – 07th November, 2024.

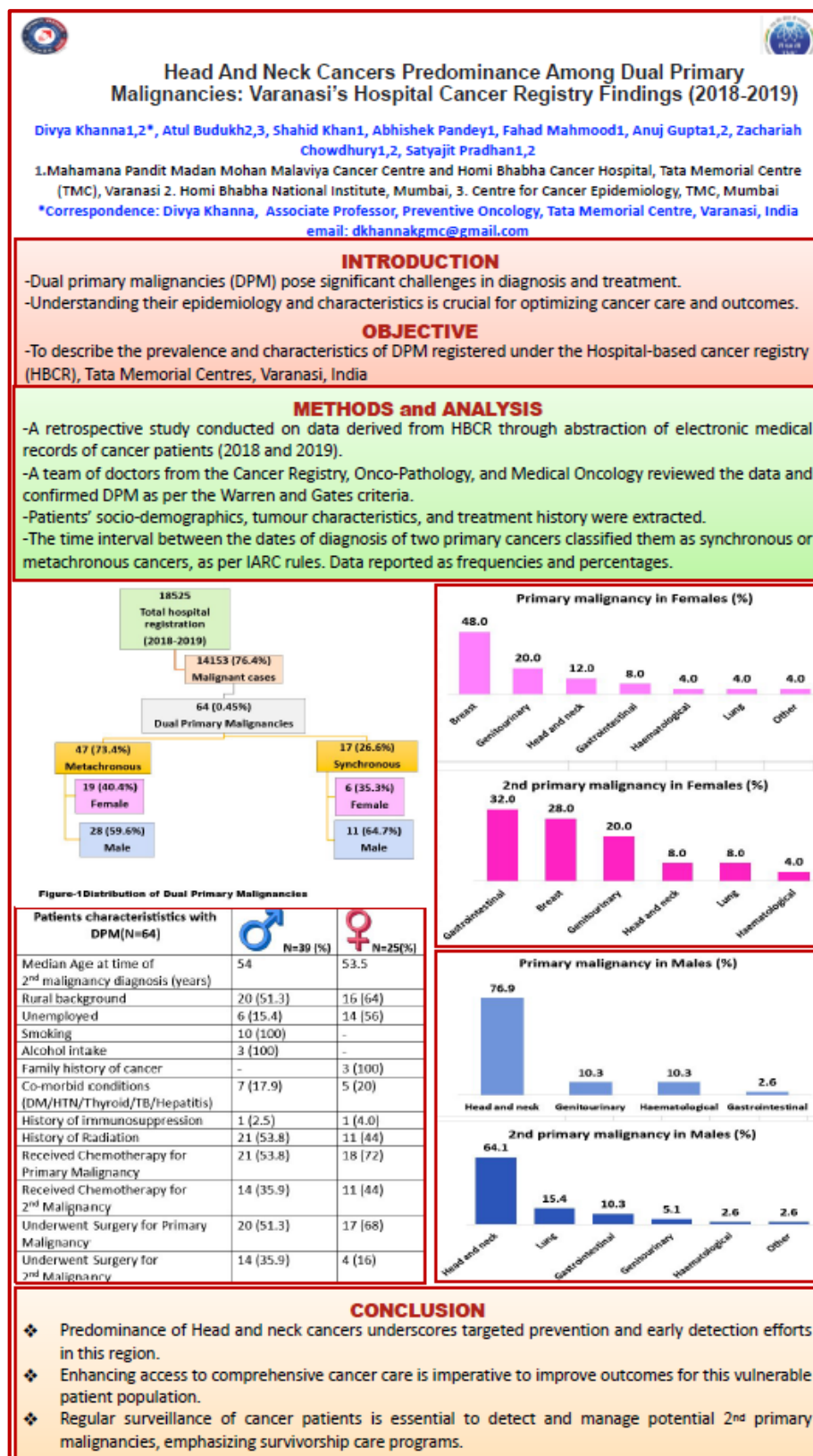
1. Varanasi Adolescents and Young Adults: Highest Oral Cancer Burden Revealed by Population-Based Cancer Registry (2017-2019)

Divya Khanna, Atul Budukh, Rajesh Vishwakarma, Anand Sharma, Varsha Tripathi, Niraj Maurya, Aman Righuvanshi, Sonali Bagal, Pankaj Chaturvedi, Satyajit Pradhan



2. Head And Neck Cancers Predominance Among Dual Primary Malignancies: Varanasi's Hospital Cancer Registry Findings (2018-2019)

Divya Khanna, Atul Budukh, Shahid Khan, Abhishek Pandey, Fahad Mahmood, Anuj Gupta, Zachariah Chowdhury, Satyajit Pradhan



3. Cancer Registry's Role in Unveiling Cancer Care Disparities: Varanasi's Tertiary Cancer Center Findings

Divya Khanna, Atul Budukh, Rajesh Vishwakarma, Anand Sharma, Shahid Khan, Rahul Verma, Amita Maheshwari, Satyajit Pradhan

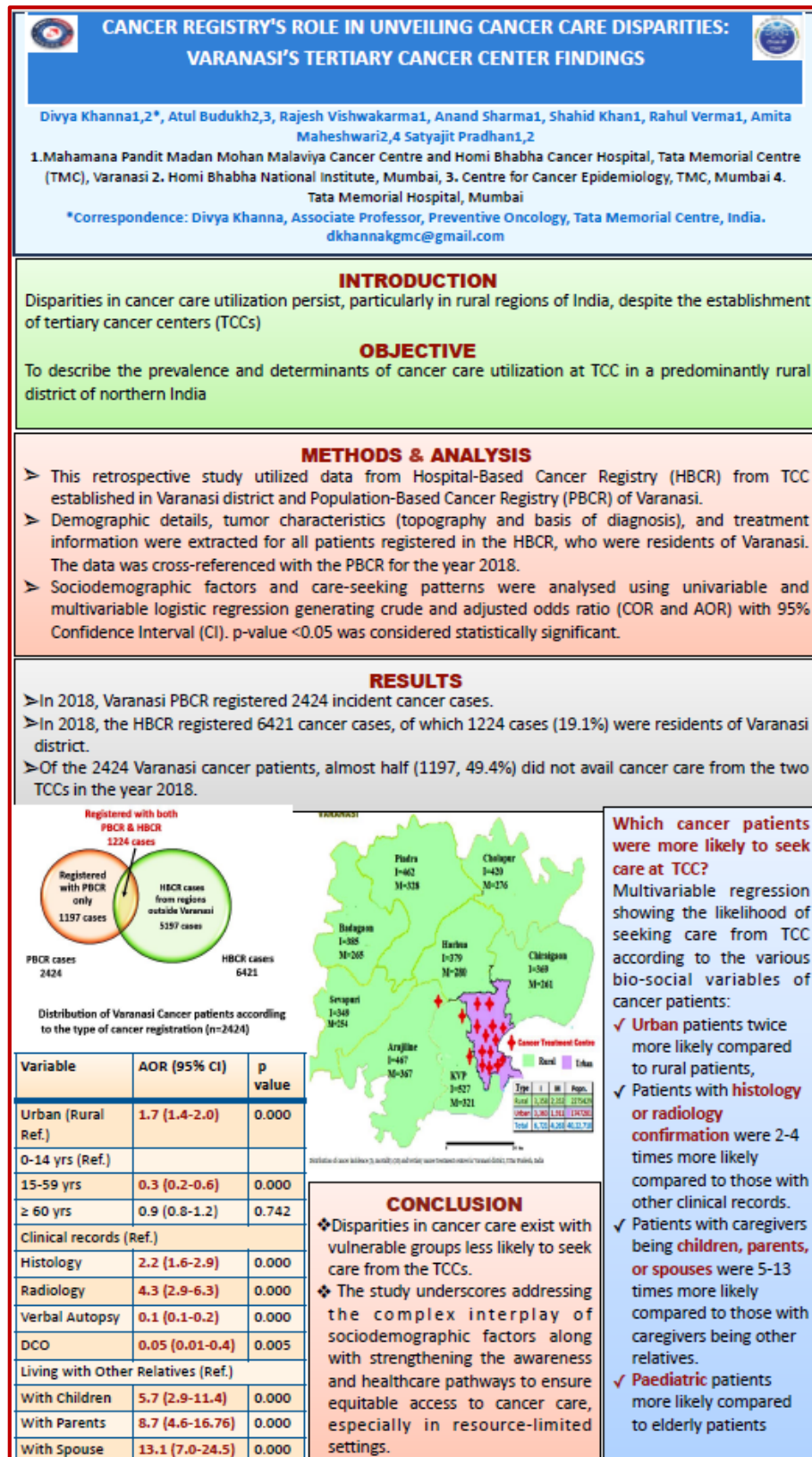


Photo gallery

Cancer cases data collection



Cancer cases data collection through PHC/ Hospitals/ Death registrar Office



Residence confirmation through house/village visit

Cancer awareness in the community/ schools/ ASHA workers



Population-based cancer registry Varanasi team



Population-based cancer registry team along with Dr. Satyajit Pradhan (Director, HBCH & MPMMCC, Varanasi), Dr. Atul Budukh (Professor, CCE-TMC, Mumbai) and Dr. Divya Khanna (Associate Professor & OIC, Preventive Oncology, HBCH & MPMMCC, Varanasi)



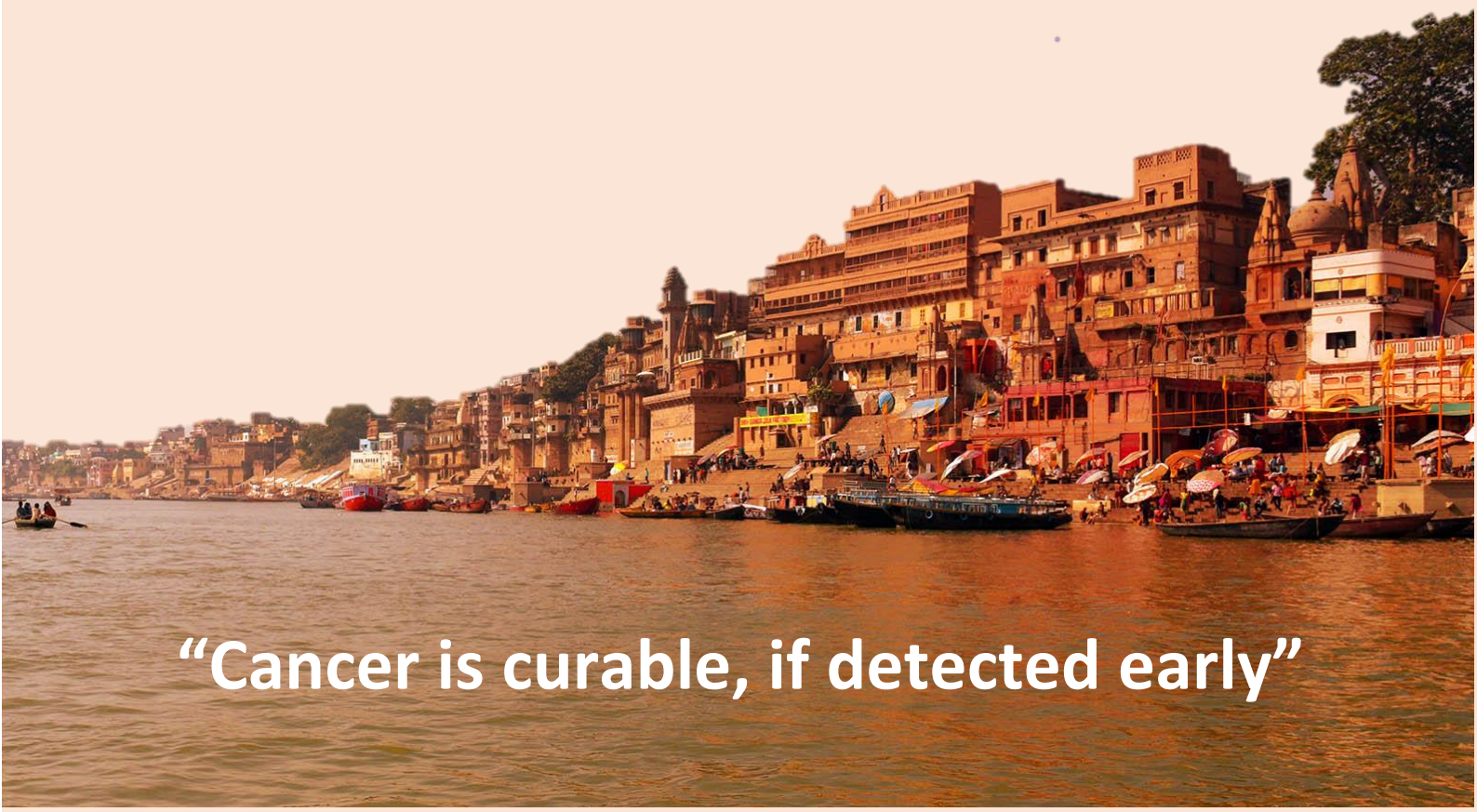
Tata Memorial Centre (TMC), Mumbai, India



**Advanced Centre for Treatment, Research & Education in Cancer (ACTREC),
Kharghar, Navi Mumbai**



**Centre for Cancer Epidemiology,
Kharghar, Navi Mumbai**



“Cancer is curable, if detected early”