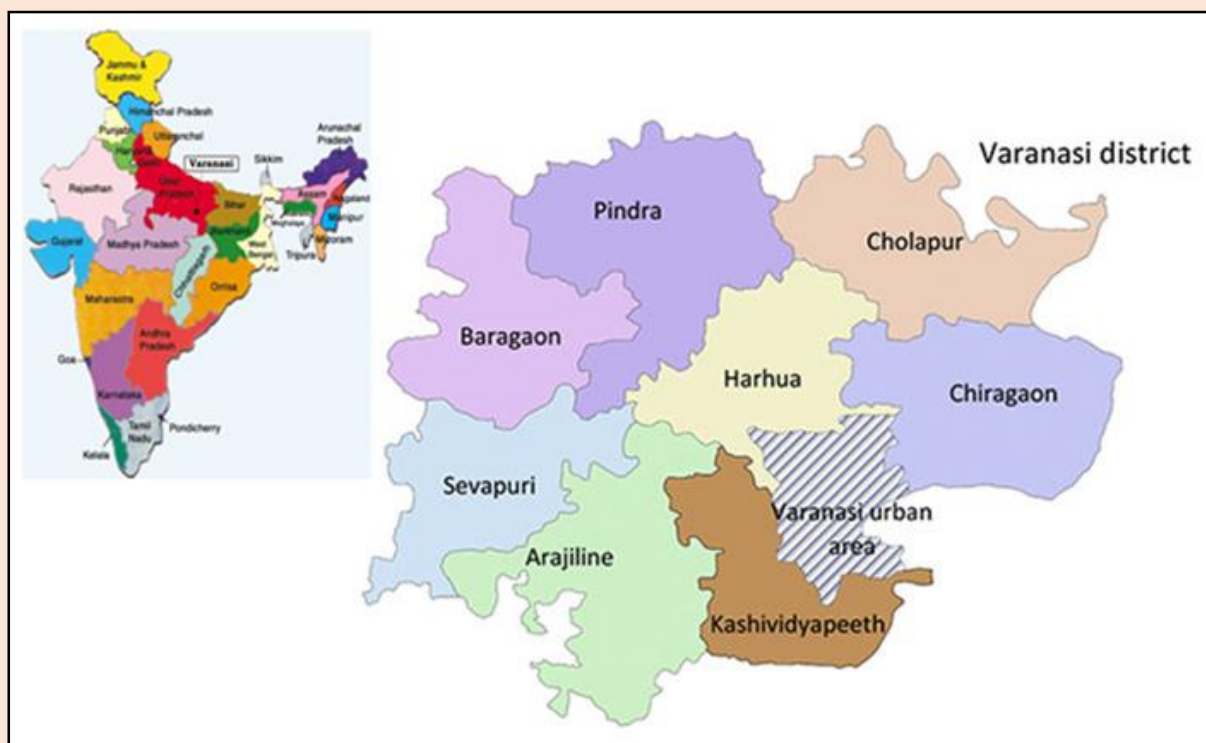


Cancer Incidence and Mortality in Varanasi District, Uttar Pradesh State, India: 2017

First-year report of the Population-Based Cancer Registry (PBCR)



Centre for Cancer Epidemiology (CCE), Mumbai, India

Tata Memorial Centre (TMC), Mumbai, India

Homi Bhabha National Institute (HBNI)

Homi Bhabha Cancer Hospital (HBCH) & Mahamana Pandit Madan Mohan Malaviya

Cancer Centre (MPMMCC), Varanasi, Uttar Pradesh, India

Institute of Medical Science, Sir Sunderlal Hospital,

Banaras Hindu University (BHU), Varanasi, Uttar Pradesh, India



Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC) was inaugurated on 19th February 2019 by the Hon. Prime Minister Mr. Narendra Modi in the presence of Mr. Ram Naik – Governor of Uttar Pradesh (UP), Mr. Yogi Adityanath – Chief Minister of UP, Mr. Ratan Tata – Chairman, Tata Trust and Dr. R A Badwe - Director TMC, Mumbai.



Key handover ceremony of Homi Bhabha Cancer Hospital, Lahartara to Mr. Sanjeev Sood Director, Administration – TMC and Dr. Pankaj Chaturvedi Dy Director, CCE-TMC by Mr. Sanjay Deka from Tata Trust Mumbai

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Name	Role	Designation
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Executive summary

Background

Tata Memorial Centre, Mumbai (TMC), an autonomous institute under the Department of Atomic Energy, Government of India, has 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.** The cancer registry data will be useful in planning cancer control activities and to strengthen cancer care services in the Varanasi district. **This is the first population-based cancer registry in the Uttar Pradesh State.**

Population covered

The cancer registry covers the eight blocks of the district – Arajiline, Baragaon, Chiraigaon, Cholapur, Harhua, Kashividyapeeth, Pindra, and Sewapuri covering a population of 3,676,841 as per census 2011. **The registry covers urban areas, Ramnagar (NPP) as well as 1295 villages of the district. Around 57% of the population of the district is rural.**

Registration method

Trained field investigators of the cancer registry regularly visit the villages as well as different hospitals, pathology laboratories, medical colleges, cancer control cells, and the birth and death registrar office to collect cancer incidence and death cases. The registry staff interacts with village sarpanch, Auxiliary Nurse Midwife (ANM), Accredited Social Health Activist (ASHA) workers, and primary health center staff periodically to get 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 are further confirmed at the patient's treating hospital.

After confirming the patient's residence (residence 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 Allahabad, 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 has started two cancer centers including Homi Bhabha Cancer Hospital (HBCH), Lahartara and Mahamana Pandit Madan Mohan Malaviya Cancer Centre (MPMMCC), BHU in the Varanasi city. The HBCH has been functioning from 15th May 2018 while MPMMCC center was inaugurated on 19th February 2019 by the Hon. Prime Minister Mr. Narendra Modi in the presence, Mr. Ram Naik – Governor of Uttar Pradesh, Mr. Yogi Adityanath – Chief Minister of Uttar Pradesh, Mr. Ratan Tata – Chairman, Tata Trust and Dr. R A Badwe - Director TMC, Mumbai.

Results

This report is based on the cancer registry data for the year 2017. **In the year 2017, the cancer registry recorded 1907 incidence cancer cases including 1058 males and 849 females. The age-adjusted incidence rate for males is 59.2 per 100,000 population and for females, it is 52.1 per 100,000 population. The cumulative risk for the age group 0-74 in males is 6.7% (1 in 15 men is at risk of developing cancer) and in females, it is 5.9% (1 in 17 females is at risk of developing cancer).**

In the year 2017, the cancer registry recorded 762 cancer deaths including 429 deaths among males and 333 deaths among females. The age-adjusted mortality rate for males is 24.4 per 100,000 population and for females, it is 20.8 per 100,000 population. The cumulative risk of death due to cancer in the age group 0-74 in males is 2.9% and for females, it is 2.5% (1 in 35 males and 1 in 40 females is at risk of death due to cancer).

This is the first-year report of the cancer registry and we have noticed under registration of incidence and mortality cases. In the coming year 2018 and 2019, we expect there will be an improvement in the cancer registration process.

Leading cancer sites

Among males; mouth, tongue, lung, liver, and prostate are the leading cancer sites. Among females; breast, cervix uteri, gall bladder, liver, and ovary are the leading cancer sites. The leading cancer sites are mentioned in table I and II.

Table I: Leading cancer sites in males

ICD 10	Sites	Number	CR	AAR	TR
C03-C06	Mouth	337	16.0	19.0	48.3
C01-C02	Tongue	70	3.3	3.9	8.8
C33-C34	Trachea, bronchus and lung	49	2.3	2.8	5.3
C22	Liver	43	2.0	2.5	5.3
C61	Prostate	42	2.0	2.5	2.7

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

ICD 10	Sites	Number	CR	AAR	TR
C50	Breast	222	11.7	13.3	33.7
C53	Cervix uteri	153	8.1	9.5	22.4
C23-24	Gallbladder etc.	79	4.2	5.0	12.0
C22	Liver	43	2.3	2.7	5.5
C56	Ovary	44	2.3	2.6	6.4

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

Primary unknown cases

In the year 2017, 5.1% of primary unknown cases in males and 3.1% of primary unknown cases in females were recorded.

Under-registration of incidence and mortality cases

This is the first-year report of the population-based cancer registry and we have noted the under-reporting of the cases in the range of 14% to 28%. Few private laboratories as well as leading hospitals were reluctant in providing the cancer patients data of the Varanasi district. The cancer registry staff interacted with all the authorities. However, it was challenging for the registry staff to collect the cancer case records from these centers. To overcome this problem, we have interacted with the community leaders/patient's relatives to gather the information of the cancer cases. However, it was also difficult to get the cancer patient data from patient's relatives because many times they burn the medical records. Hence, it was difficult to collect all the details.

We have also missed the registration of cancer deaths due to poor death certificate record as the cause of death was not properly recorded in the death certificate in both urban and rural areas. In the coming year, we expect that there will be an improvement in the cancer registration process.

Comparison of cancer registry rate with other registries in India

As compared to the other parts of India, cancer incidence rates are lower and are comparable with other parts of India. ⁽¹⁻⁶⁾

Figure 1: All site cancer incidence rate – males

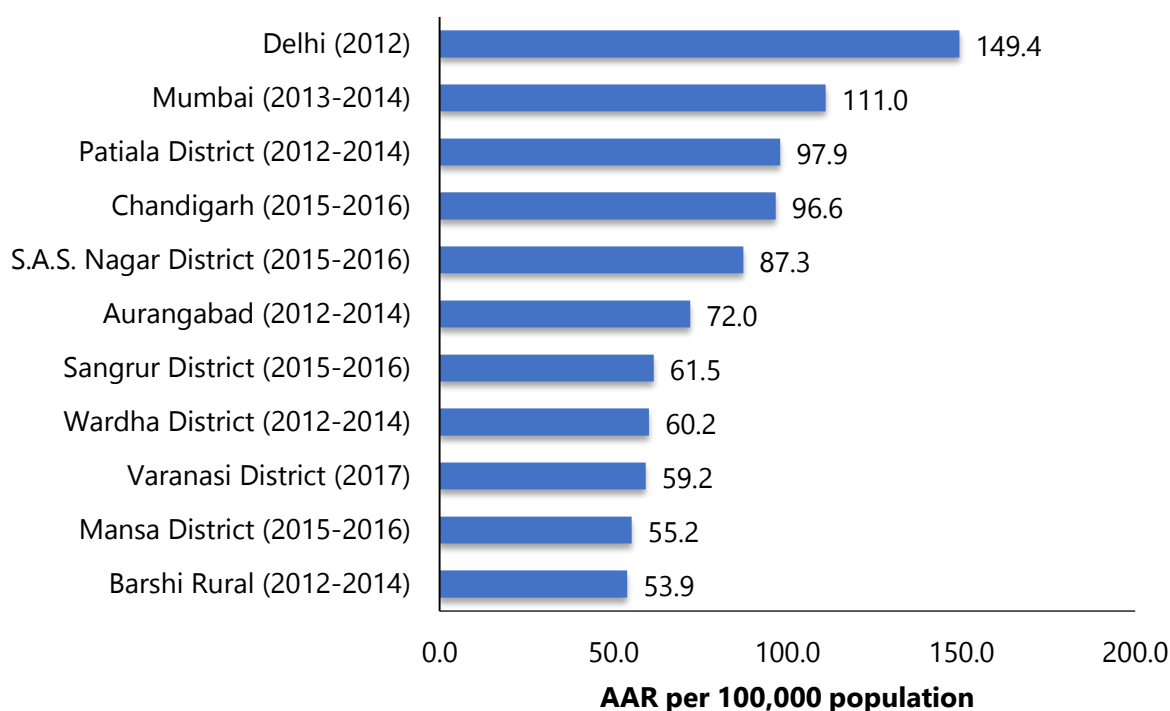
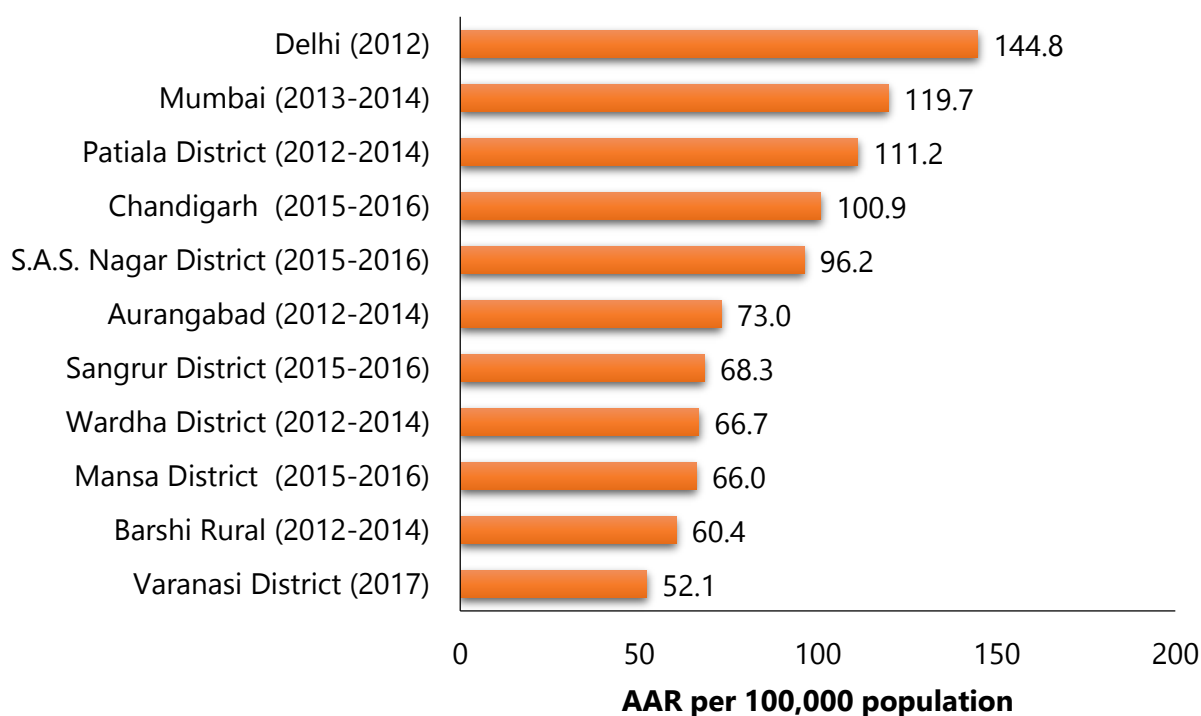


Figure II: All site cancer incidence rate – females

Cancer pattern in urban and rural areas

The Varanasi cancer registry covers 57% rural area and 43% urban area. The urban and rural area cancer incidence rate for males is 63.2 and 55.6 per 100,000 population respectively. For females, the rural area cancer incidence rates are higher as compared to the urban area. Mouth cancer is the leading cancer site in both urban and rural males with age adjusted incidence rate 22.4 and 16.2 per 100,000 population respectively. For females, breast and cervix uteri are the top two leading cancer sites. **The cervix cancer incidence for rural females is almost double than the urban area.**

Cancer control activities in the Varanasi district/ recommendation

The cancer registry data has estimated the risk of developing cancer in males 6.7% and in females 5.9%. The major cancer burden in Varanasi district is due to the mouth, tongue, breast, and cervix uteri cancers. These cancers are preventable. Mouth cancer incidence rates are higher in the Varanasi district as compared to other cancer registries.

This report recommends initiation of the awareness programs in schools, colleges, and community as well as for the primary health center workers, and government medical officers. It is also recommended that there should be an easy access to diagnosis of symptomatic/ likely cases and the confirmed cancer cases should be provided treatment at the cancer centers.

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

1. Uttar Pradesh state profile

Uttar Pradesh state is located in the northern region of the country; the state shares its borders with states like 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 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 ⁽⁷⁾. Lucknow is the capital of Uttar Pradesh.

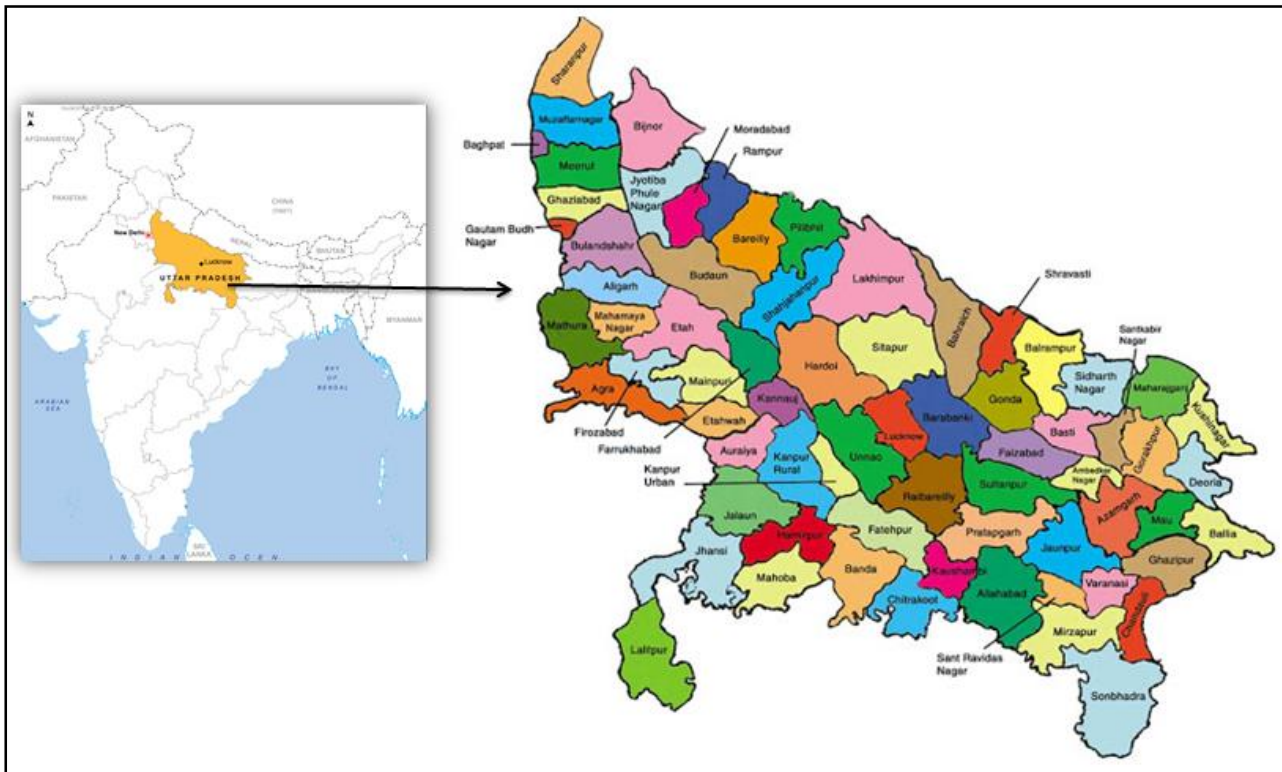
As per the 2011 census, Uttar Pradesh has a total population of 199,812,341 out of which 104,480,510 (52.3%) are males and 95,331,831 (47.7%) are females. The population density of Uttar Pradesh is 829 people per Km²; it is the highest populated state of India.

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 towards 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. The location of Uttar Pradesh state is presented in figure 1.

Table 1: Uttar Pradesh state population, literacy and area

Sr. No.	Characteristics	Unit	Value
1.	Area (i) Rural-rea (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

Figure 1: Location of Uttar Pradesh state



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." 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 center 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 Hindu renaissance ⁽⁸⁾.

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 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 ⁽⁷⁾.

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

Figure 2: 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 centers, 8 community health centers, and more than 300 sub-centers. Primary health care is offered at these hospitals. Detailed information about the hospital and PHC is presented in Table 3.

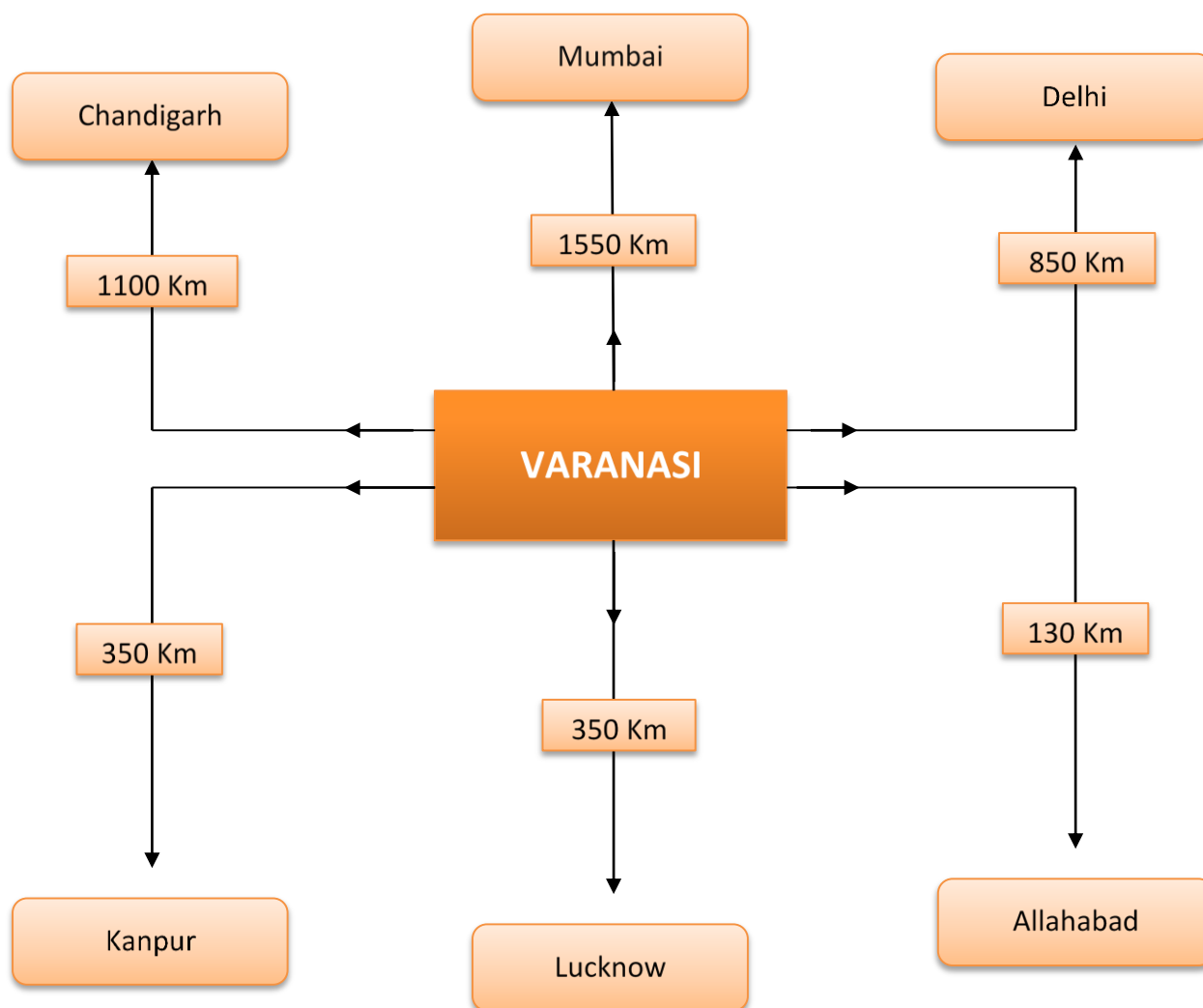
Table 3: Major Health Facilities in Varanasi district

Sr. No.	Institute	Number
1.	District hospital (DH)	5
2.	Sub-district hospital (SDH)	5
3.	Community health centre	8
4.	Block primary health centre (PHC)	30
5.	Sub-Centre (SC)	312
6.	Maternity welfare centre	41
7.	Maternity welfare sub-centre	306
8.	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 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. Until now, more than 7000 cancer patients have been treated. The hospital is listed in the various government-sponsored schemes for cancer treatment.

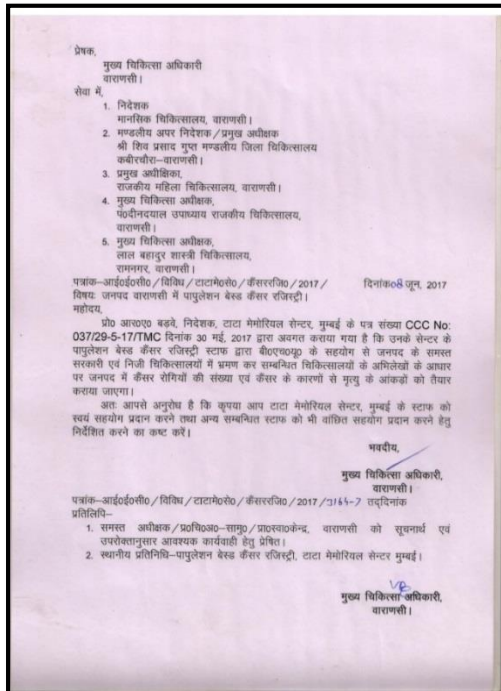
The cancer treatment facility is also available in SS Hospital, BHU Varanasi. The patient from Varanasi district travel to Allahabad, Lucknow, Kanpur, Delhi, Chandigarh and Mumbai for cancer treatment. The distance from Varanasi to different cancer treatment centres is presented in figure 3.

Figure 3: The distance from Varanasi to different cancer treatment centers

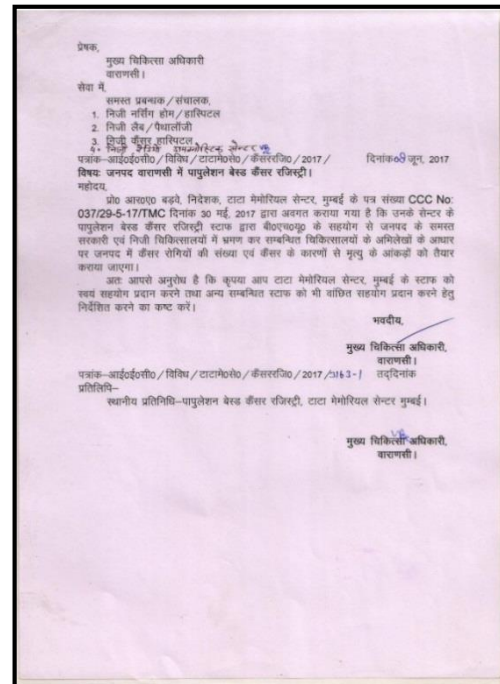


3. Administrative Orders

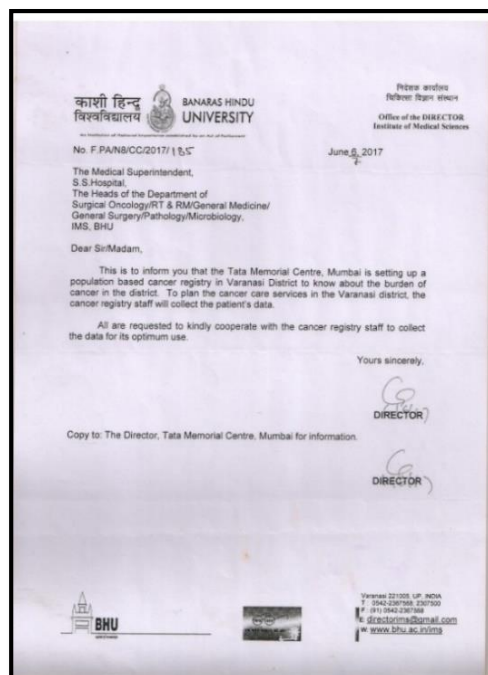
The Chief Medical Officer (CMO) of Varanasi district has issued an administrative order to all the government and private hospitals to provide data of all cancer patients to the population-based cancer registry. The Director of IMS BHU also issued the letter to all the departments of SS hospital to support 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.



CMO letter for government hospitals



CMO letter for private centers



IMS BHU

4. Population covered by registry

Varanasi district is divided into urban area and rural eight 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. ^(7, 8)

Table 4: Varanasi district population as per census 2011

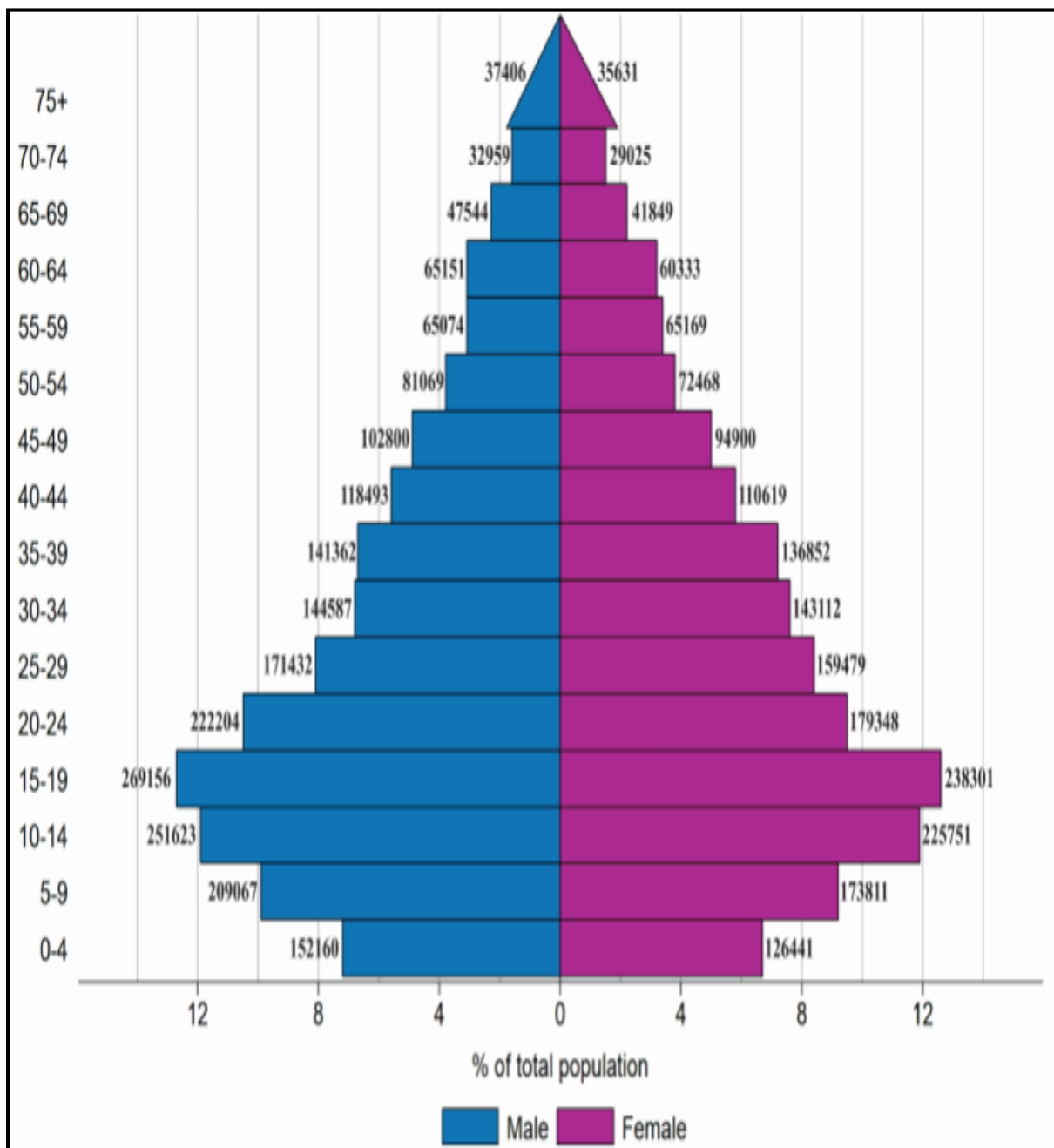
Area	Total	Male	Female
Rural	2,079,790	1,076,526	1,003,264
Urban	1,597,051	845,331	751,720
Total	3,676,841	1,921,857	1,754,984

Estimated population of Varanasi district: 2017

The registry population for 2017 was estimated by the exponential growth rate using the growth rate for the 2001 to 2011 census population. As a result, in 2017 there are 2,112,087 males and 1,893,089 females. The estimated population of 2017 is presented in table 5. The population pyramid of the Varanasi district is shown in figure 4.

Table 5: Estimated population of Varanasi district as on 1st July 2017

Age Group	Male		Female		Total	
	Number	%	Number	%	Number	%
00-04	152160	7.2	126441	6.7	278601	7.0
05-09	209067	9.9	173811	9.2	382878	9.6
10-14	251623	11.9	225751	11.9	477374	11.9
15-19	269156	12.7	238301	12.6	507457	12.7
20-24	222204	10.5	179348	9.5	401552	10.0
25-29	171432	8.1	159479	8.4	330911	8.3
30-34	144587	6.8	143112	7.6	287699	7.2
35-39	141362	6.7	136852	7.2	278214	6.9
40-44	118493	5.6	110619	5.8	229112	5.7
45-49	102800	4.9	94900	5.0	197700	4.9
50-54	81069	3.8	72468	3.8	153537	3.8
55-59	65074	3.1	65169	3.4	130243	3.3
60-64	65151	3.1	60333	3.2	125484	3.1
65-69	47544	2.3	41849	2.2	89393	2.2
70-74	32959	1.6	29025	1.5	61984	1.5
75+	37406	1.8	35631	1.9	73037	1.8
Total	2112087	100.0	1893089	100.0	4005176	100.0

Figure 4: Population pyramid of Varanasi district as on 1st July 2017

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 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.

The training programs conducted by the Centre for Cancer Epidemiology at Mumbai for the cancer registry staff are mentioned below:

Sr. No.	Period	Number of staff attended training
1	09.03.2017 to 16.03.2017	3
2	26.12.2017 to 03.01.2018	8
3	05.04.2018 to 13.04.2018	2
4	16.12.2019 to 21.12.2019	5

Cancer incidence cases

Trained field staff 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 staff 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 center 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 staff 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 staff communicates with the treating cancer center, collects the clinical details of the patient, and registers the cancer case in the prescribed proforma. In case of not getting access to the medical records of the patient, staff registers the case based on the information provided by the patient/patient's relatives.

In the second visit, the field staff updates the status of the cancer cases. Fieldworker 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. The social worker also collects the death case information from the village birth and death registrar office. In the same manner as the cancer incidence cases, the field staff 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 staff may come across the cases diagnosed before 2017. In this situation, the field staff collects detailed information on the cancer case from the patient's relative and maintains the data in the registry office. In the second visit, field staff 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 staff from the villages as well as from the hospitals are scrutinized by the senior staff member. After residence confirmation, the cancer case information is documented in the prescribed format. The primary site and histology are coded based on the International Classification of Diseases for Oncology – Third Edition, Geneva, 2000 (ICD-O3) ⁽⁹⁾. TMC team regularly visits the project office for the quality control. The visit by TMC technical team is presented in table 6.

Table 6: Quality control visit by technical team and Co-Principal Investigator

Period	Visit by	Period	Visit by
28.04.2017 to 30.04.2017	Dr. Atul Budukh – Co-PI	26.07.2018 to 04.08.2018	Mrs. Sonali Bagal Ms. Shraddha Shinde
31.07.2017 to 05.08.2017	Dr. Atul Budukh – Co-PI		
19.11.2017 to 21.11.2017	Dr. Atul Budukh – Co-PI		
15.01.2018 to 19.01.2018	Dr. Atul Budukh – Co-PI	26.03.2019 to 06.04.2019	Mrs. Sonali Bagal Ms. Shraddha Shinde Mrs. Suchita Yadav
18.08.2018 to 24.08.2018	Dr. Atul Budukh – Co-PI		
01.04.2019 to 03.04.2019	Dr. Atul Budukh – Co-PI	17.08.2019 to 25.08.2019	Mrs. Sonali Bagal Mrs. Suchita Yadav
21.08.2019 to 25.08.2019	Dr. Atul Budukh – Co-PI		
03.02.2020 to 08.02.2020	Dr. Atul Budukh – Co-PI		

Data entry

The data entry is carried out in *CanReg5* software developed by the International Agency for Research on Cancer (IARC), Lyon, France ⁽¹⁰⁾.

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

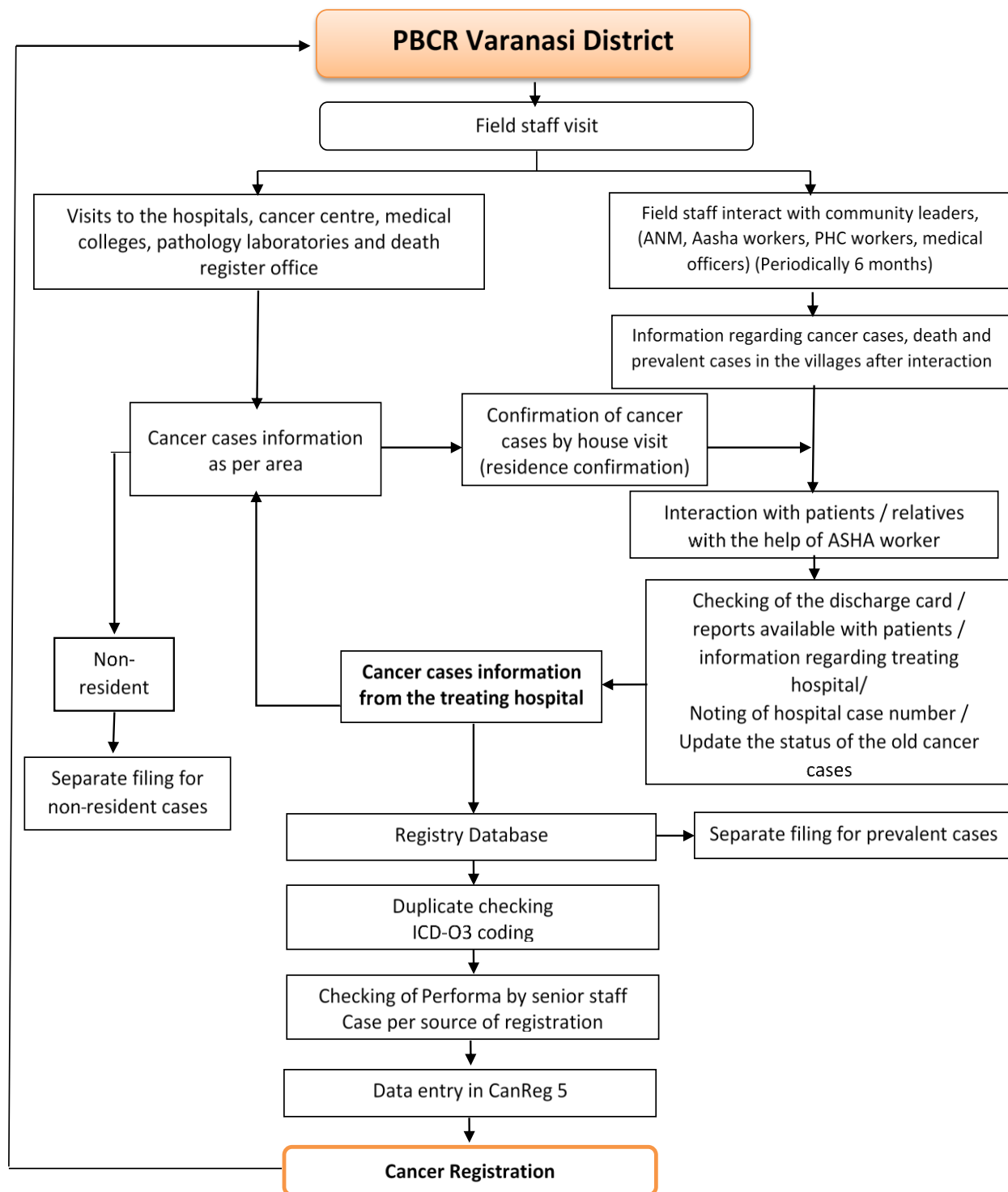
The registry staff regularly visits the following centers to collect information on the cancer cases and death cases in Varanasi district. The different sources of data collection are mentioned in table 7.

Table 7: Different sources of data collection

Sr. No.	Institution name	Place
1	Sir Sunderlal Hospital, Banaras Hindu University	Varanasi
2	Homi Bhabha Cancer Hospital & MPMMCC	Varanasi
3	Pt. Deen Dayal Upadhyay Mandaliya Hospital	Varanasi
4	Arihant Diagnostic Centre	Varanasi
5	Block Development Office Chiraigaon	Varanasi
6	Block Development Office Arajiline	Varanasi
7	Block Development Office Baragaon	Varanasi
8	Block Development Office Cholaapur	Varanasi
9	Block Development Office Haruha	Varanasi
10	Block Development Office Kashi Vidya Peeth Block	Varanasi
11	Block Development Office Pindra	Varanasi
12	Block Development Office Sewapuri	Varanasi
13	Dabur Oncolist Naria	Varanasi
14	Death Registration Office Nagar Nigam	Varanasi
15	Dinesh Pathology Varanasi	Varanasi
16	Dr Lal Path Naria Road	Varanasi
17	Dr Mohan Kumar Lab Lanka	Varanasi
18	Galaxy Hospital & Diagnostic Centre Mahmoor Ganj	Varanasi
19	Heritage Hospital	Varanasi
20	Karauli Diagnostic	Varanasi
21	Medicadre Diagnosis Mahmoor Ganj	Varanasi
22	Opal Hospital & Pathlab Varanasi	Varanasi
23	Popular Hospital	Varanasi
24	Prakashdeep Hospital Varanasi	Varanasi
25	Primary Health Centre Arajiline Block	Varanasi
26	Primary Health Centre Baragaon Block	Varanasi
27	Primary Health Centre Chiraigaon Block	Varanasi
28	Primary Health Centre Cholaapur Block	Varanasi
29	Primary Health Centre Harhua Block	Varanasi
30	Primary Health Centre Pindra Block	Varanasi
31	Primary Health Centre Kashi Vidya Peeth Block	Varanasi
32	Primary Health Centre Sewapuri	Varanasi

Sr. No.	Institution name	Place
33	SRL Diagnosis Centre	Varanasi
34	Ragni Diagnosis Centre Ravidas Gate	Varanasi
35	Railway Cancer Hospital	Varanasi
36	Rastogi Diagnosis Centre	Varanasi
37	Ray Diagnostic Centre	Varanasi
38	S G Lab Jawhar Nagar	Varanasi
39	Shree Ram Krishna Mission Hospital Luxa	Varanasi
40	Apex Diagnosis Centre	Varanasi
41	Sirgona Diagnosis Center Maqbool Alam Road	Varanasi
42	Suvidha Diagnosis Jawahar Nagar Bhelupur	Varanasi
43	Urban Health Care Centre Naria	Varanasi
44	Urban Health Care Centre Durgakund	Varanasi
45	Urban Health Care Centre Lahartara	Varanasi
46	Vimita Labs	Varanasi
47	Death Record Office Arajiline Block	Varanasi
48	Death Record Office Baragaon Block	Varanasi
49	Death Record Office Chiraigaon Block	Varanasi
50	Death Record Office Cholapur Block	Varanasi
51	Death Record Office Harhua Block	Varanasi
52	Death Record Office Pindra Block	Varanasi
53	Cantonment Hospital Sadar Hospital	Varanasi
54	ECHS Hospital	Varanasi
55	Sampurna Clinic, Pt. Deen Dayal Upadhyay Hospital	Varanasi
56	Kamala Nehru Memorial Hospital	Prayagraj
57	Kirti Scanning Centre	Prayagraj
58	Moti Lal Nehru Hospital	Prayagraj
59	Tata Memorial Hospital	Mumbai
60	Sahara Hospital	Lucknow
61	Sanjay Gandhi Postgraduate Institute Of Medical Sciences	Lucknow
62	Dr. Ram Manohar Lohia Hospital	Lucknow
63	J.K. Cancer Institute	Kanpur
64	Rama Dental College	Kanpur
65	Ganesh Shankar Vidyarthi Memorial Medical College	Kanpur
66	Lala Lajpat Rai Hospital	Kanpur

Figure 5: Cancer registration method

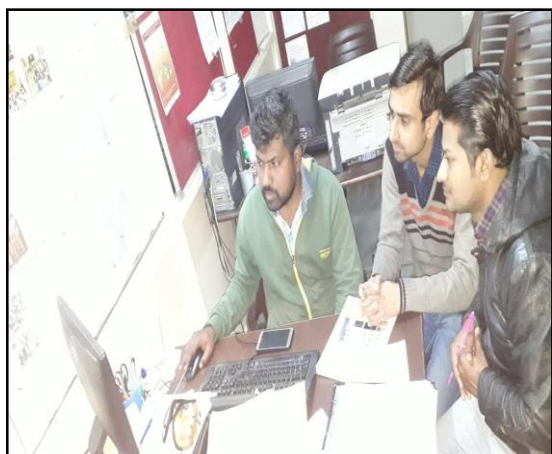




Staff recruitment for cancer registry



Cancer registry training program at CCE, Mumbai



Training program at PBCR Sangrur, Punjab



Training program at PBCR Varanasi, UP



Cancer registry staff collecting the records from medical record unit of BHU and cancer death record from the Municipal Corporation office of the Varanasi

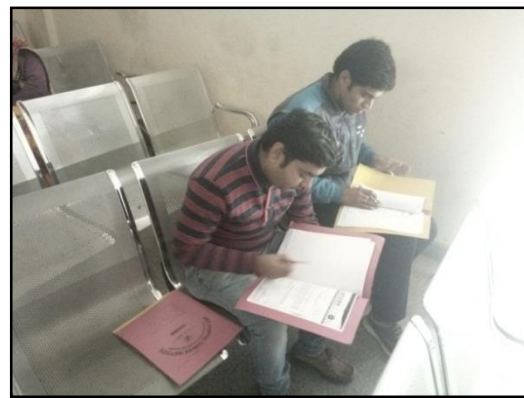




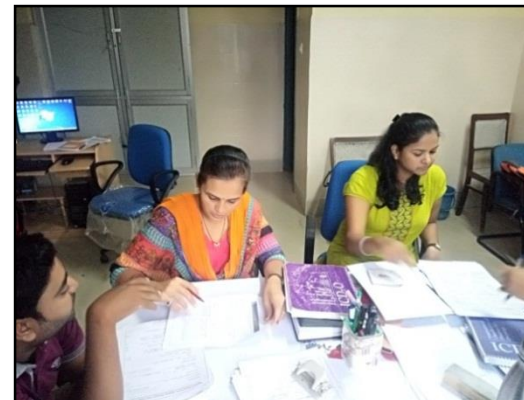
Field staff interacting with the patient/ patient's relative



Field staff interacting with the ANM and ASHA workers



Registry staff regularly visit to various hospitals and pathology lab for data collection



CCE-TMC, Mumbai staff regularly deputed to Varanasi for quality control of registry data

6. Community involvement in the cancer registration process

The cancer patients from Varanasi district travel to different cities for cancer treatment. It is practically difficult for the registry staff to visit these all centers regularly. Few hospitals and private laboratories are reluctant in providing cancer patients data of the district. To overcome this problem, we started immense interaction with the community. The primary health center staff, ASHA workers, and Anganwadi workers cooperate by providing information on newly diagnosed cancer/cancer deaths that occurred in the village. The trained field staff 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.

Due to community interaction, we are 100% sure about the residence confirmation of the cancer cases. Interaction with the patient/ patient's relatives provides demographic information such as education, income, and religion, etc. Regular village visits and communications with the community have enabled us to update the status of cancer patients, which will be utilized for cancer survival analysis. Initially, several centers refused to provide cancer case data. In this situation, due to field visits and interactions with community leaders, we were able to get the information about the cancer cases from the villages after contacting patients / their relatives through these community leaders. **In 2017, registry staff interacted with 6786 community leaders of 90 municipal ward and 1295 villages.**

Registry staff interacted with community leaders and primary health center staff to collect information about diagnosed cancer cases. The detail of the same by blocks is presented in table 8.

Table 8: Community Leaders/Primary Health Centre staff involved in the cancer registration process

Block Name	Total No. of Villages/ Ward	Sarpanch/ Panch/ Parshad (Sabhasad)	SM O	MO	HE O	ANM	ASHA Workers	Anganwadi workers	MPHW	Total
Varanasi urban	90	89	6	127	2	110	220	0	4	558
Arajiline	220	130	1	1	7	53	369	525	2	1088
Baragaon	139	113	1	1	4	43	227	316	2	707
Chiraigaon	133	91	1	1	5	39	239	323	7	706
Cholapur	148	114	1	1	3	37	216	297	3	672
Harhua	173	125	1	1	2	42	210	301	2	684
Kashividyapeeth	106	79	1	1	2	49	295	577	4	1008
Pindra	191	125	1	1	2	49	284	230	1	693
Sewapuri	185	119	1	1	3	46	234	262	4	670
Total	1385	985	14	135	30	468	2294	2831	29	6786

SMO: Senior Medical Officer, MO: Medical Officer, HEO: Health Education Officer, MPHW: Multipurpose Health Worker, ANM: Auxillary Nurse Midwife, ASHA: Accredited Social Health Activist

Cancer awareness program

While interacting with ANM/ASHA workers, we have observed that there is a need for a cancer awareness program for ANM/ASHA workers as well as for the school teachers. In the awareness meetings, we have explained the cancer sign, symptoms, risk factors and preventive measures to take focusing mainly on mouth, breast, and cervix uteri cancer. In the health education program, we have explained the cancer registry activities and role of ANM/ASHA workers and school teachers in the cancer registry program.

Due to the cancer awareness program, we 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 9.

Table 9: Cancer awareness program conducted by the registry staff

Date	Place/ Location	Beneficiary
8 th June 2017	Bhishampur, Sewapuri Block	Pradhan, ASHA, and Villagers including some Patients.
3 rd August 2017	Death Record Office, Nagar Nigam Varanasi	PBCR Staffs and municipal officers
3 rd August 2017	Tikari and Tarapur Village of Kashividyapeeth Block	Girls Students of Secondary, Senior Secondary, and Teachers of the Govt. Inter College including Principal.
3 rd August 2017	Tikari and Tarapur Village of Kashividyapeeth Block	Jr High School Girls & Teachers of Govt. Jr. High School including Principal.
17 th January 2018	Rajkiya Balika Inter college, Cholaipur, Varanasi	Girls Students of Secondary, Senior Secondary, and Teachers of the College including Principal.
16 th January 2018	Sivo, Chiraigaon Block	ASHA(s), Health Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Chiraigaon.
22 nd to 23 rd March, 2018	Stall No. 13, IMS BHU, Varanasi (Health Mela)	Health Workers, Visitors, Staffs and Students of BHU Varanasi
27 th April, 2018	CMO Office, Bhelupur Varanasi	Local Health Worker, CMO Office Staffs
8 th May, 2018	Jakhini, Araziline Block	ASHA(s) and ANM of the block and Staffs of PHC Jakhini, Araziline Block
17 th May, 2018	Basni, Badagaon Block	ASHA(s) of the block, Local people of block and Cancer patients of the block.

Date	Place/ Location	Beneficiary
26 th May, 2018	Urban PHC, Amala Nagar, Lahartara, Varanasi	Urban Health Care Worker, PHC Incharge and ANM
18 th June, 2018	CHC , Cholapur	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Cholapur.
3 rd June, 2019	Pindra, PHC	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Pindra.
10 th June, 2019	Pindra, PHC	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Pindra.
13 th June, 2019	Puarikala, CHC Harhua	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of CHC Harhua.
15 th July, 2019	PHC Sewapuri	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Sewapuri.
21 st October, 2019	PHC Kashividyapeeth	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC KVP.
21 st October, 2019	CHC Cholapur	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of CHC Cholapur.
21 st October, 2019	PHC Badagaon	ASHA(s), Heath Workers/Visters, ANM of the block, Officer of CMO office and Staffs of PHC Badagaon.



Heath education program conducted at school



Drawing competition and prize distribution for school children



Health education at school, Cholaipur block



Health education and meeting with ANM



Health education and meeting with ANM and Anganwadi workers

7. Community involvement in the cancer registration process

The first information of the cancer cases diagnosed/cancer deaths is from the village visit due to interaction with the community. After documentation, these cases are further confirmed from hospital records. **For about 37.0% of cases, the village visit is the first source of information.** The cancer incidence and death cases registered by the source of registration are mentioned in table 10 and table 11.

Table 10: Cancer cases information by the first source of cancer registration

Sr. No.	Source of registration	Male	%	Female	%	Total	%
1	Village Visit	368	34.8	337	39.7	705	37.0
2	Sir Sunderlal Hospital BHU, Varanasi	285	26.9	237	27.9	522	27.4
3	Tata Memorial Centre, Mumbai	136	12.9	77	9.1	213	11.2
4	Dr Lal pathology centre, Varanasi	82	7.8	62	7.3	144	7.6
5	Homi Bhabha Cancer Hospital, Varanasi	73	6.9	44	5.2	117	6.1
6	Apex Hospital, Varanasi	42	4.0	27	3.2	69	3.6
7	Sanjay Gandhi Postgraduate Institute Of Medical Sciences, Lucknow	7	0.7	10	1.2	17	0.9
8	Nagar Nigam Death Office, Varanasi	13	1.2	4	0.5	17	0.9
9	Popular Hospital, Varanasi	5	0.5	9	1.1	14	0.7
10	D S Research Centre, Varanasi	6	0.6	7	0.8	13	0.7
11	Prakash Pathology, Varanasi	2	0.2	9	1.1	11	0.6
12	Railway Cancer Hospital, Varanasi	6	0.6	4	0.5	10	0.5
13	Kamala Nehru Memorial Hospital, Allahabad	6	0.6	4	0.5	10	0.5
14	Opal Hospital, Varanasi	8	0.8	1	0.1	9	0.5
15	Heritage Hospital and Diagnostic Centre, Varanasi	4	0.4	3	0.4	7	0.4
16	Pandit Deendayal Mandliya Hospital, Varanasi	0	0.0	3	0.4	3	0.2
17	Prakash Deep Hospital, Varanasi	0	0.0	2	0.2	2	0.1
18	Vimta Lab Private Limited, Varanasi	1	0.1	1	0.1	2	0.1
19	Rajiv Gandhi Cancer Hospital, New Delhi	0	0.0	1	0.1	1	0.1
20	Prince Aly Khan, Mumbai	1	0.1	0	0.0	1	0.1
21	IMS BHU Pathology, Varanasi	1	0.1	0	0.0	1	0.1
22	Dr Mohan Kumar lab, Varanasi	1	0.1	0	0.0	1	0.1
23	S G Lab Jawhar Nagar, Varanasi	1	0.1	0	0.0	1	0.1
24	Rastogi Diagnostic Centre, Varanasi	0	0.0	1	0.1	1	0.1
25	Ayush Diagnostic Centre	0	0.0	1	0.1	1	0.1
26	Other	10	0.9	5	0.6	15	0.8
Total		1058	100	849	100	1907	100

Table 11: Cancer death information by the first source of cancer registration

Sr. No.	Source of registration	Male	%	Female	%	Total	%
1	Village visit	266	62.1	229	69.0	495	65.1
2	Sir Sunderlal Hospital BHU, Varanasi	68	15.9	40	12.0	108	14.2
3	Nagar Nigam Death Office, Varanasi	28	6.5	14	4.2	42	5.5
4	Tata Memorial Centre, Mumbai	21	4.9	17	5.1	38	5.0
5	Apex Hospital, Varanasi	20	4.7	9	2.7	29	3.8
6	Dr Lal pathology centre, Varanasi	14	3.3	12	3.6	26	3.4
7	D S Research Centre, Varanasi	3	0.7	4	1.2	7	0.9
8	Popular Hospital, Varanasi	1	0.2	2	0.6	3	0.4
9	Railway Cancer Hospital, Varanasi	1	0.2	1	0.3	2	0.3
10	Kamala Nehru Memorial Hospital, Allahabad	1	0.2	1	0.3	2	0.3
11	Prakash Pathology, Varanasi	1	0.2	1	0.3	2	0.3
12	Sanjay Gandhi Postgraduate Institute Of Medical Sciences, Lucknow	0	0.0	1	0.3	1	0.1
13	Opal Hospital, Varanasi	1	0.2	0	0.0	1	0.1
14	Rajiv Gandhi Cancer Hospital, New Delhi	0	0.0	1	0.3	1	0.1
15	Homi Bhabha Cancer Hospital, Varanasi	1	0.2	0	0.0	1	0.1
16	IMS BHU Pathology, Varanasi	1	0.2	0	0.0	1	0.1
17	Heritage Hospital and Diagnostic Centre, Varanasi	1	0.2	0	0.0	1	0.1
18	Others	1	0.2	1	0.3	2	0.3
Total		429	100	333	100	762	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 2017, 1907 incident cancer cases (1058 males and 849 females) have been registered by PBCR Varanasi. For the same period, 762 cancer deaths have been registered (429 males and 333 females). The overall mortality to incidence ratio is 0.40 (males 0.41 and females 0.39). The MI ratio is comparable to other established rural PBCRs in India.⁽¹⁾

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 cases data. During the quality control exercise, it was observed that staff were needed to be retrained in the abstraction of cases of the primary site unknown, metastatic, and lymphoma - leukemia. Based on the results, the staff were retrained at TMC, Mumbai. The data were modified and re-entered.

Incidence rates of childhood cancers

In the year 2017, we registered 39 cancer cases in boys and 15 in girls. The age-specific rates reported for the pediatric cancer are mentioned in table 12.

Table 12: Incidence rate of pediatric cancer cases in Varanasi district: 2017

Age group	Boys		Girls	
	Number of Cases	Age-Specific Rate	Number of Cases	Age-Specific Rate
0 – 4	11	7.2	7	5.5
5 – 9	11	5.3	5	2.9
10 – 14	17	6.8	3	1.3
Age Adjusted Rate per 1,000,000 (AAR per million)	32.3		17.3	

The age-adjusted incidence rate for the paediatric age group (0-14) was 32.3 per million for boys and 17.3 per million for girls. As per the international incidence of childhood cancer volume III, the incidence rate for boys is less than 60 per million⁽¹¹⁾. There is under-reporting of the pediatric cancer cases diagnosed in the district.

The microscopic confirmation was 79.5% in boys and 86.7% in girls.

Microscopic verification of the cases

In the year 2017, out of 1058 males cases, 704 cases (66.5%) were diagnosed with microscopic verification. 5.5% of cases were diagnosed based on radiological findings and 7.4% of cases were diagnosed clinically. Most of the Other and Unspecified cases were based on verbal autopsy i.e. relative's remark (eg. Primary site unknown cases).

In females, out of 849 cases, we have 537 cases (63.3%) diagnosed with microscopic verification. 4.5% of cases were diagnosed on radiological findings and 7.4% of cases were diagnosed clinically.

Cases registered based on narration by the patient's relatives

While interacting with the community in the villages as well as in the urban areas, we observed that patient's relatives have burned the medical records after the death of the patient. In some cases, even after consulting the oncologist/ cancer center, 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 get diagnosed? Which hospital did 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?

We try to identify some evidence based on the patient's/ patient's relatives' narration; like, verbally given date of biopsy or patient mentions the received chemotherapy/radiotherapy or the name of the medical oncologist/radiotherapist that patient was taking treatment from. We register the cancer case based on the information gathered through these narrations.

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

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

Death Certificate Only (DCO) Cases

We have registered 218 cases in males (20.6%) and 210 cases in females (24.8%) 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

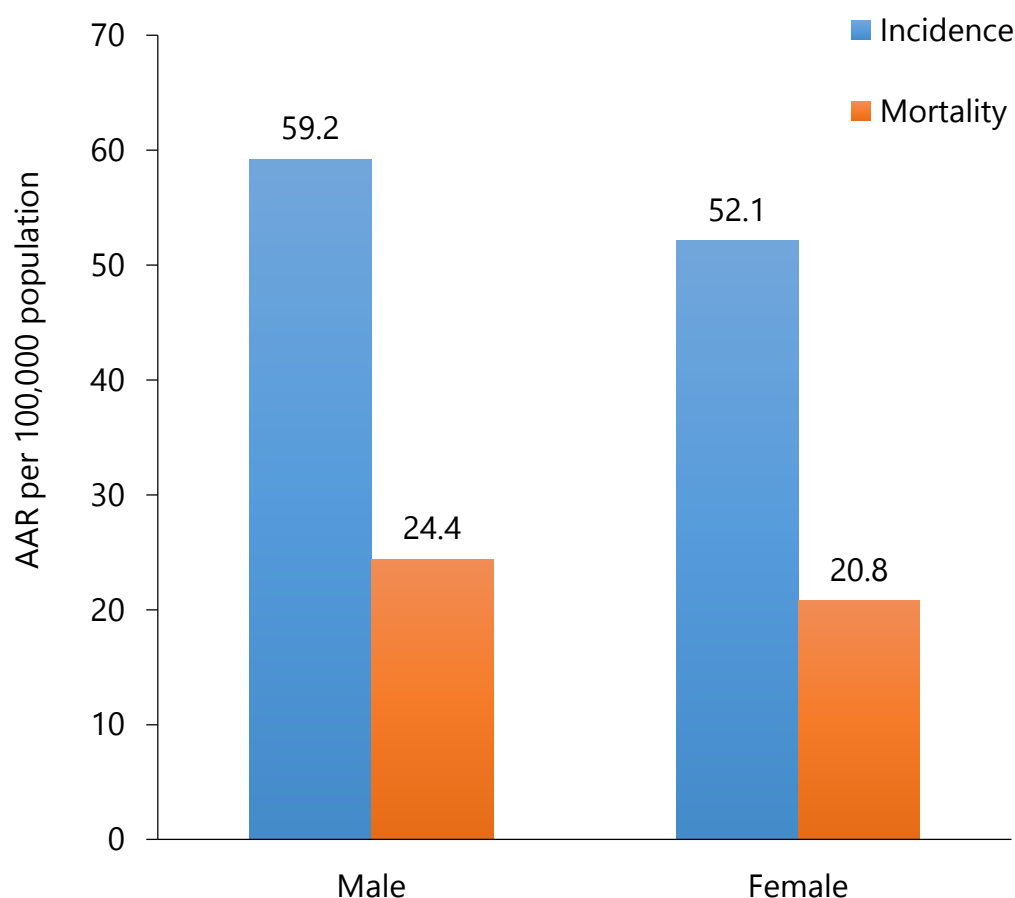
We have also noted down the number of sources per incidence case registered. The cases were counted as per source notification. In Varanasi, the average number of sources per case registered is 2.4. Due to field interactions, the coverage is satisfactory.

9. Cancer incidence and mortality – all sites

In the year 2017, the cancer registry registered 1907 cancer cases. There were 1058 male cases and 849 female cases. The age-adjusted incidence rate for males was 59.2 per 100,000 population and for females, it was 52.1 per 100,000 population.

In the year 2017, the cancer registry registered 762 cancer deaths. The cancer registry registered 429 male deaths and 333 female deaths. The age-adjusted mortality rate for males is 24.4 per 100,000 population and for females, it is 20.8 per 100,000 population. The cancer incidence and mortality rates for all sites for males and females are presented in figure 6.

Figure 6: All sites cancer incidence and mortality rate by sex: 2017 (Varanasi district)



10. Leading cancer sites by sex

Among males; mouth, tongue, lung, liver, prostate, larynx, stomach, gall bladder, oesophagus and brain are the leading cancer sites. The top ten leading cancer sites for males are presented in figure 7. Among females; breast, cervix uteri, gall bladder, liver, ovary, mouth, tongue, stomach, brain, and lung are the leading cancer sites. The top ten leading cancer sites for females are presented in figure 8.

Figure 7: Leading cancer sites in males (figures in parenthesis indicate the Percentage)

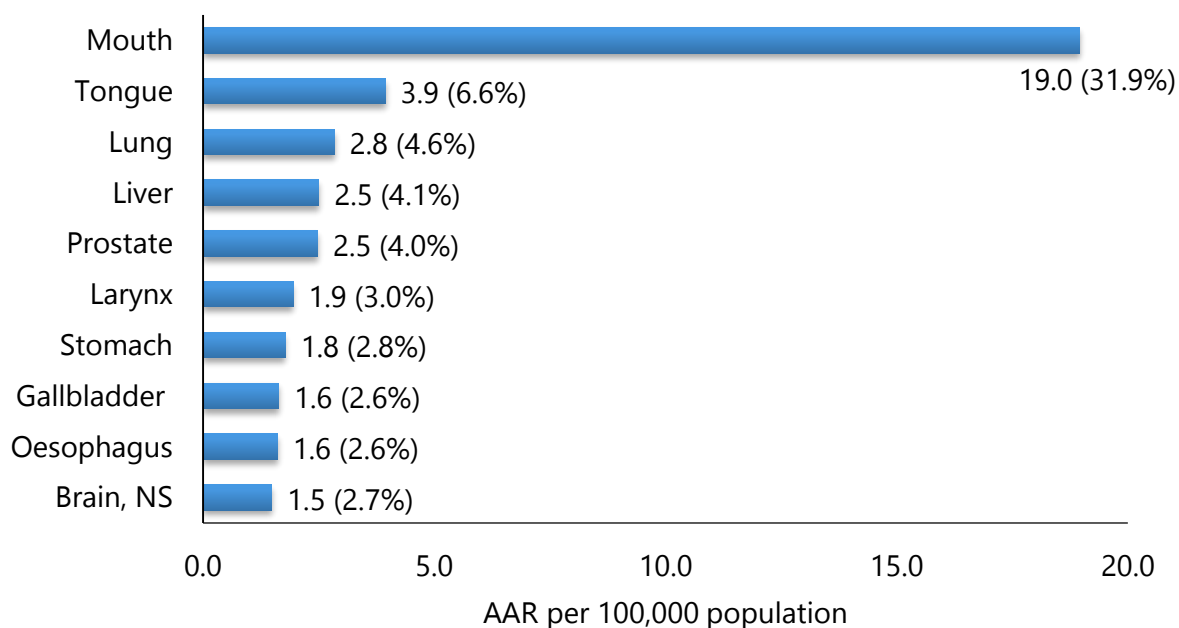
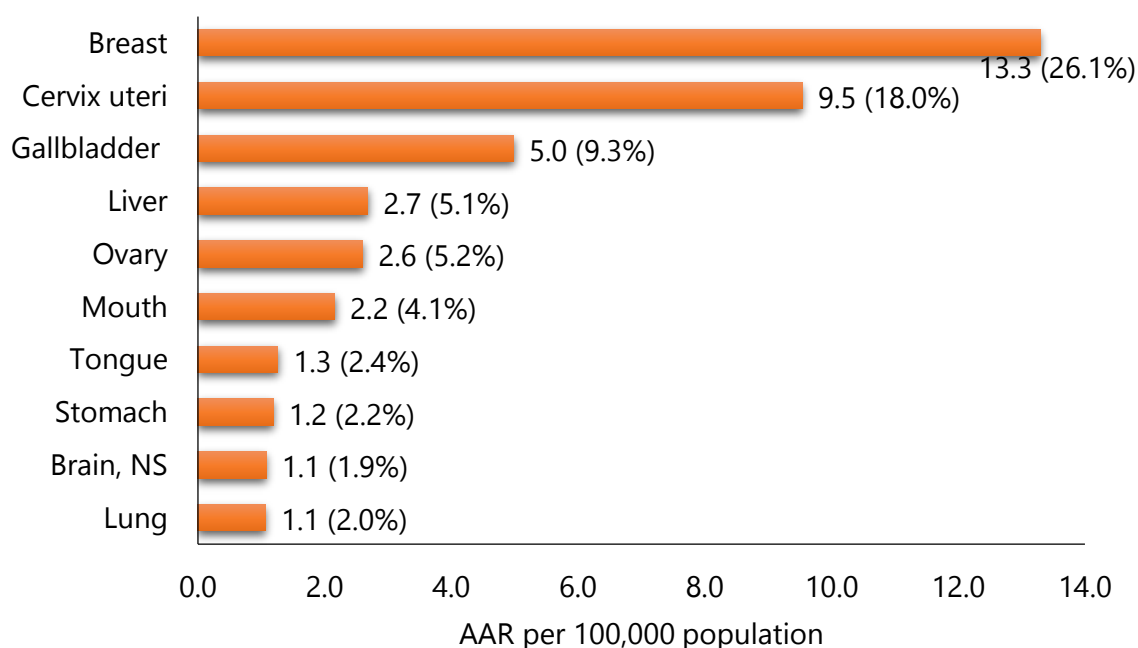
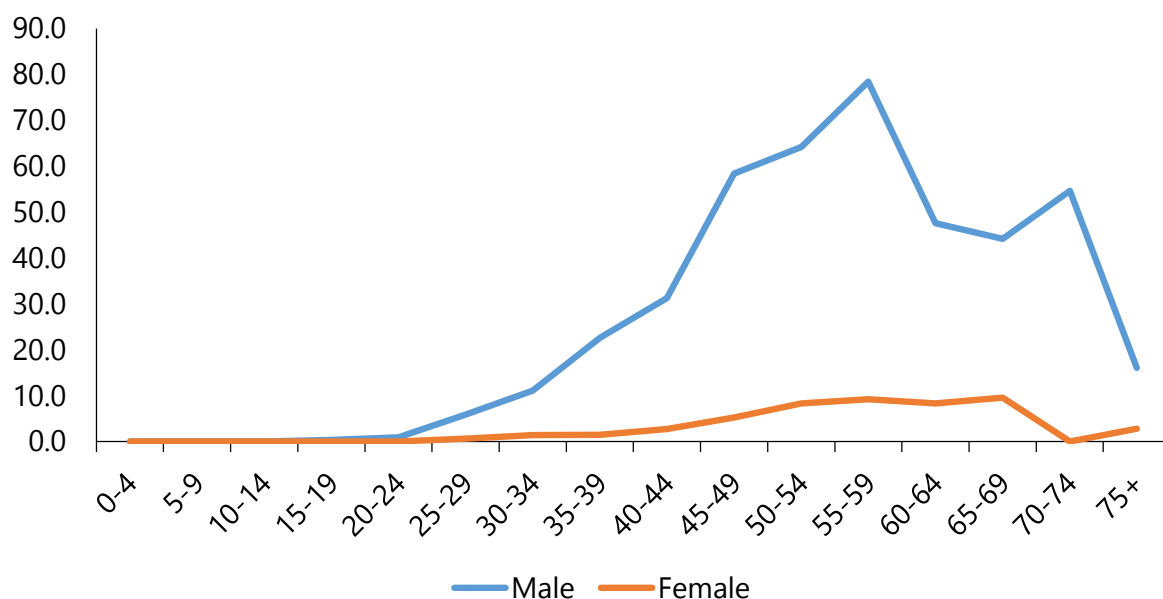
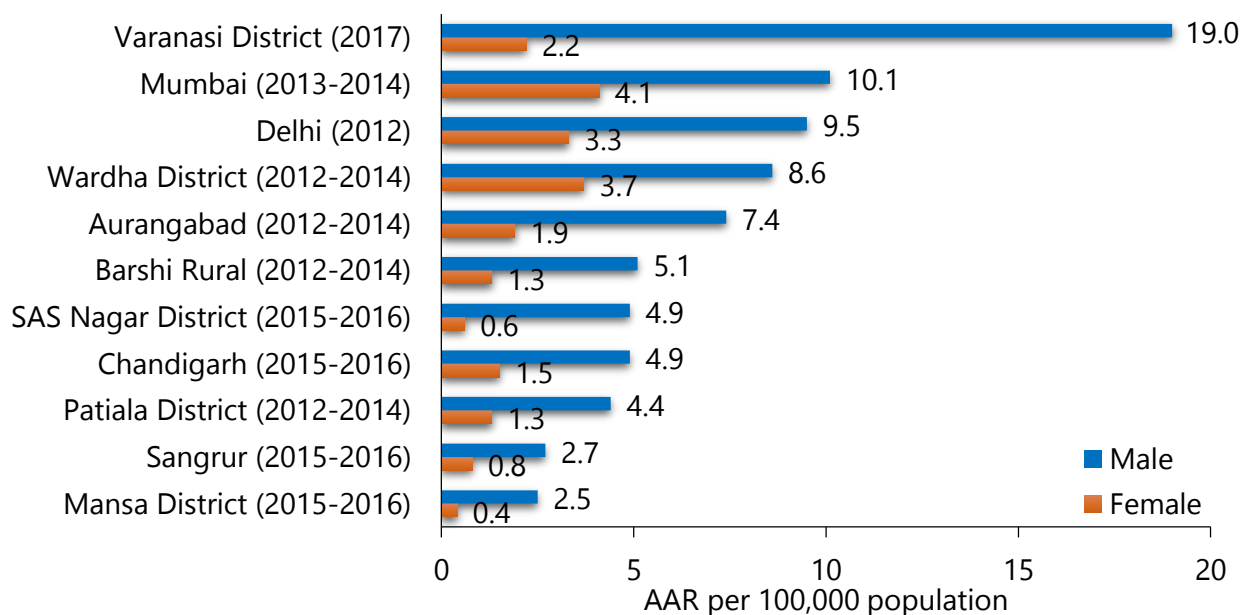


Figure 8: Leading cancer sites in Females (figures in parenthesis indicate the Percentage)



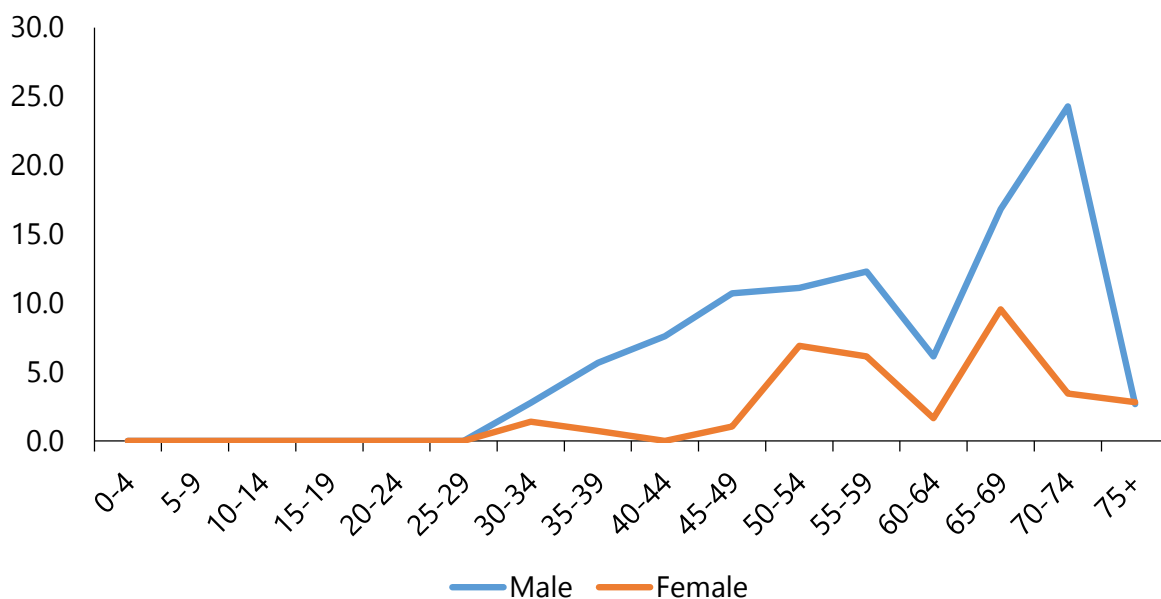
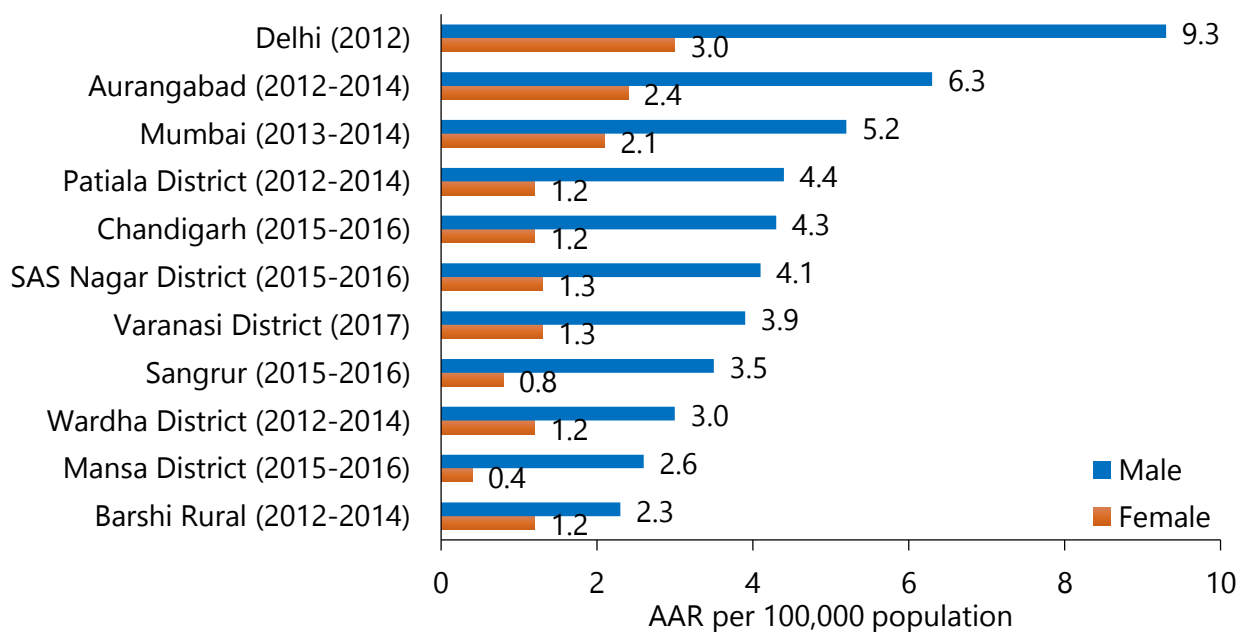
Cancer of mouth (C03-C06)

	Male	Female
Number of cases	337	35
% to total cases	31.9	4.1
Crude Incidence Rate per 100,000	16.0	1.8
Age Adjusted Incidence Rate per 100,000	19.0	2.2
Truncated Rate per 100,000	48.3	5.4

Figure 9: Age-specific incidence rate of cancer of mouth: 2017 (Varanasi district)**Figure 10: Comparison of mouth cancer incidence rate with other Indian registries**

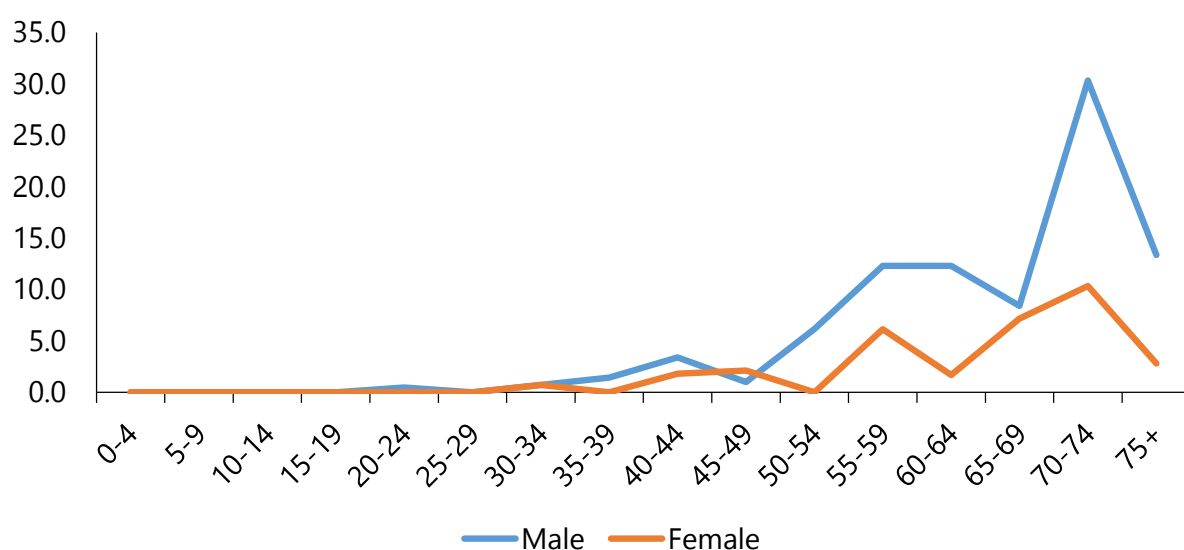
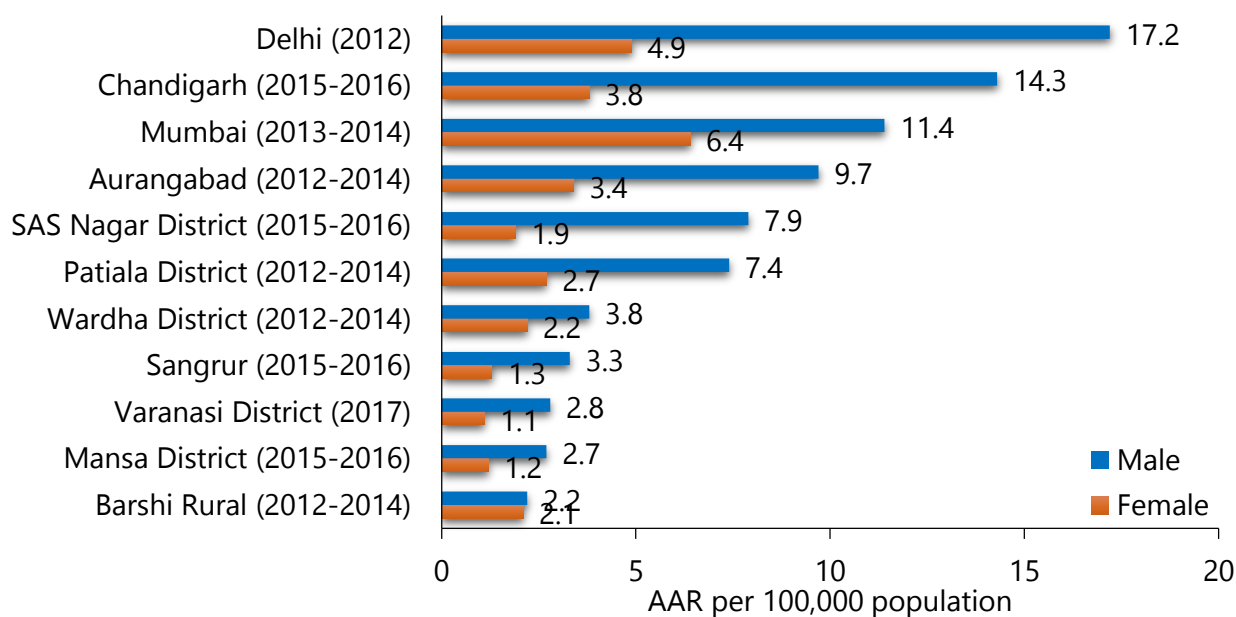
Cancer of tongue (C01-C02)

	Male	Female
Number of cases	70	20
% to total cases	6.6	2.4
Crude Incidence Rate per 100,000	3.3	1.1
Age Adjusted Incidence Rate per 100,000	3.9	1.3
Truncated Rate per 100,000	8.8	2.5

Figure 11: Age-specific incidence rate of cancer of tongue: 2017 (Varanasi district)**Figure 12: Comparison of tongue cancer incidence rate with other Indian registries**

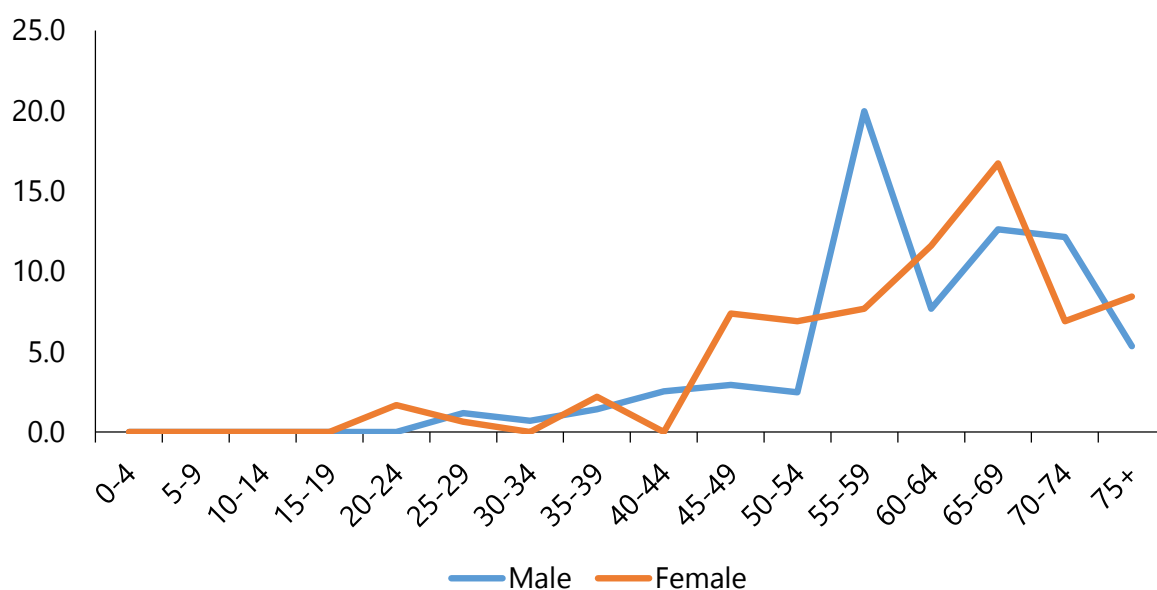
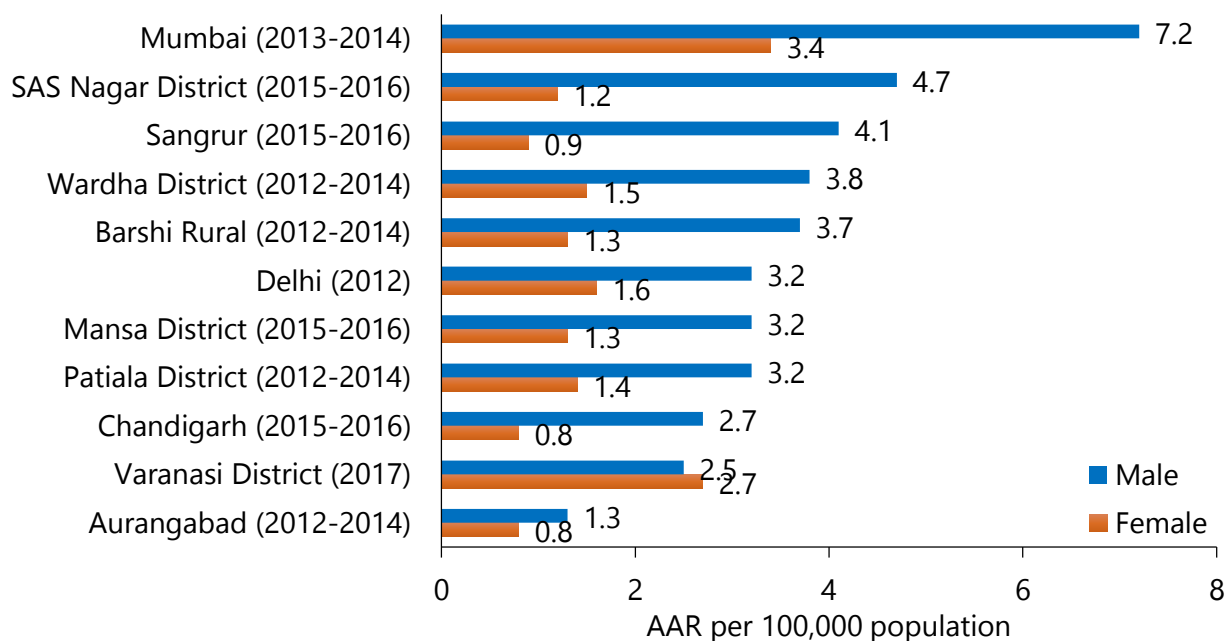
Cancer of trachea, bronchus and lung (C33-C34)

	Male	Female
Number of cases	49	17
% to total cases	4.6	2.0
Crude Incidence Rate per 100,000	2.3	0.9
Age Adjusted Incidence Rate per 100,000	2.8	1.1
Truncated Rate per 100,000	5.3	1.8

Figure 13: Age-specific incidence rate of cancer of trachea, bronchus, and lung: 2017 (Varanasi district)**Figure 14: Comparison of trachea, bronchus and lung cancer incidence rate with other Indian registries**

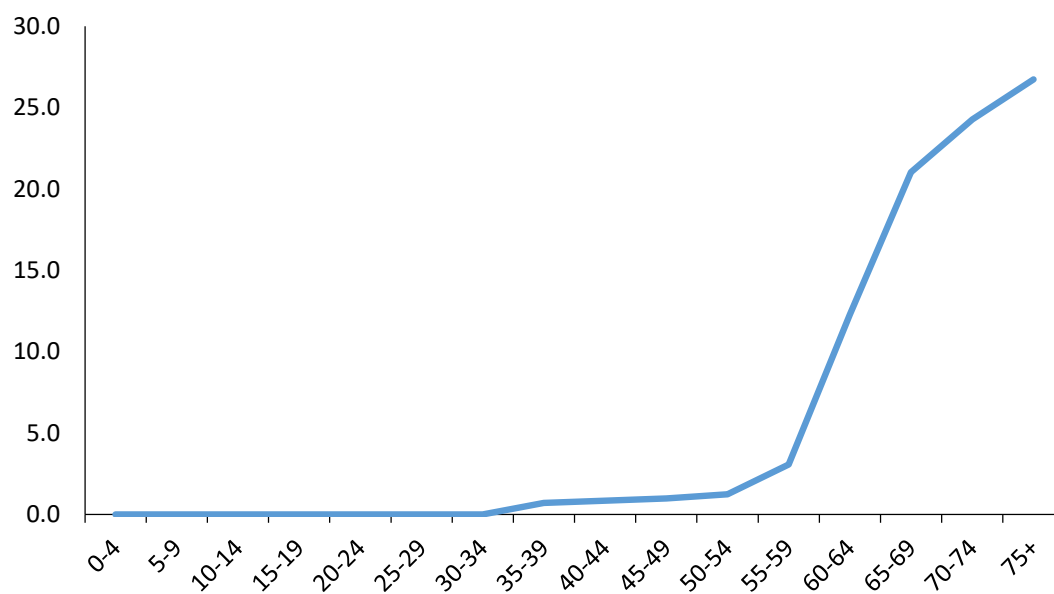
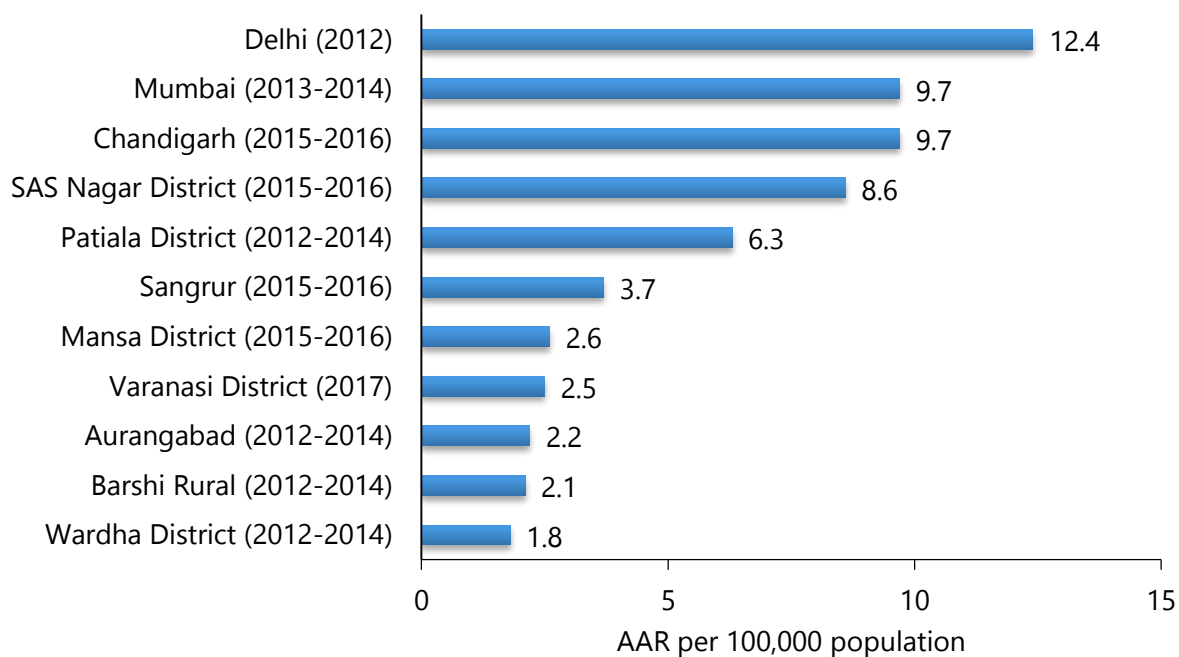
Cancer of liver (C22)

	Male	Female
Number of cases	43	43
% to total cases	4.1	5.1
Crude Incidence Rate per 100,000	2.0	2.3
Age Adjusted Incidence Rate per 100,000	2.5	2.7
Truncated Rate per 100,000	5.3	5.5

Figure 15: Age-specific incidence rate of cancer of liver: 2017 (Varanasi district)**Figure 16: Comparison of liver cancer incidence rate with other Indian registries**

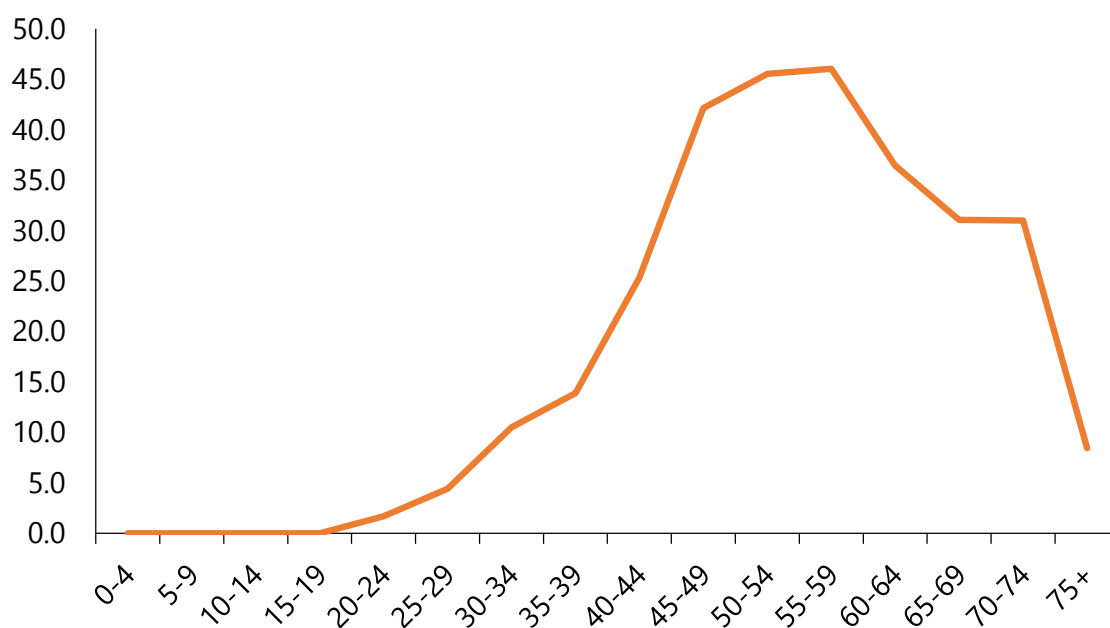
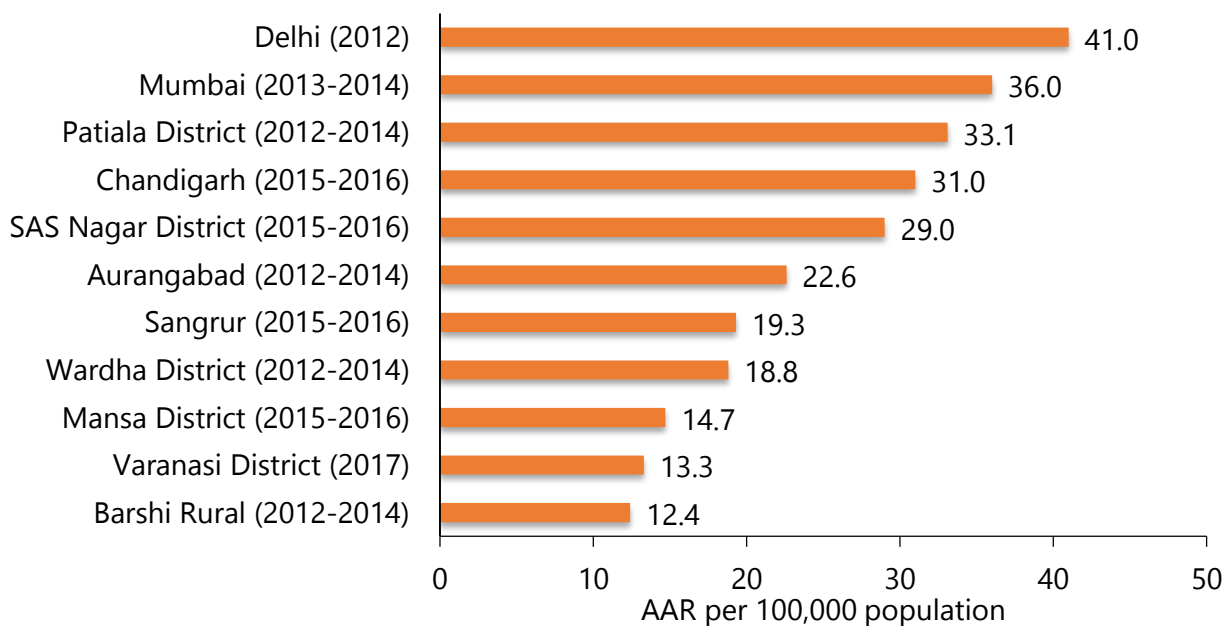
Cancer of prostate (C61)

Number of cases	42
% to total cases	4.0
Crude Incidence Rate per 100,000	2.0
Age-Adjusted Incidence Rate per 100,000	2.5
Truncated Rate per 100,000	2.7

Figure 17: Age-specific incidence rate of cancer of prostate: 2017 (Varanasi district)**Figure 18: Comparison of prostate cancer incidence rate with other Indian registries**

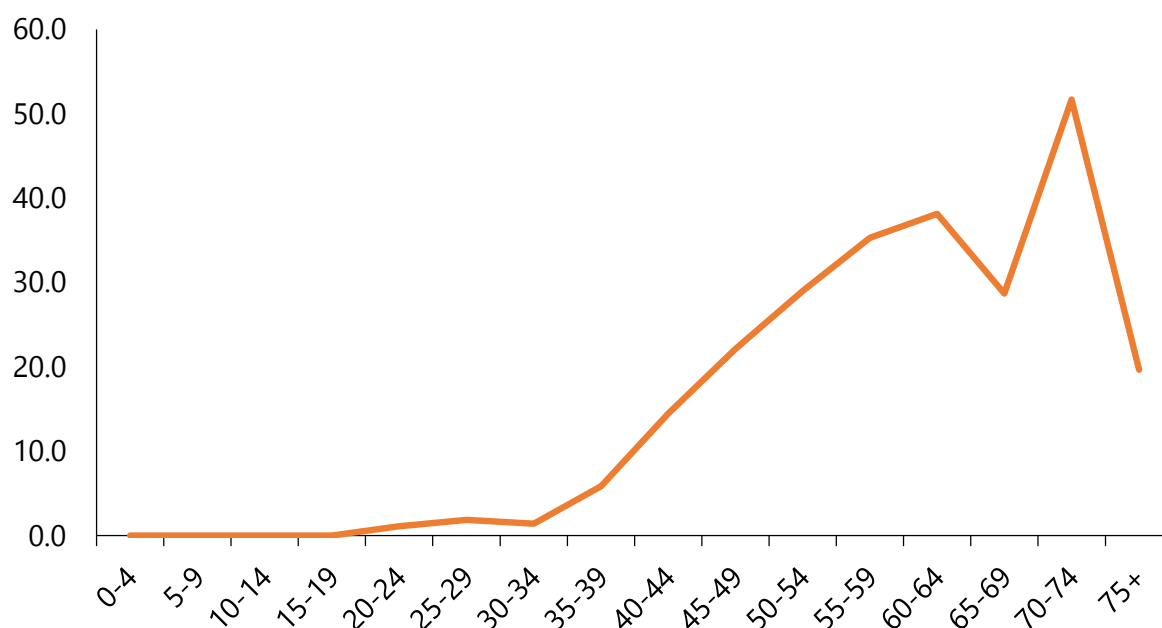
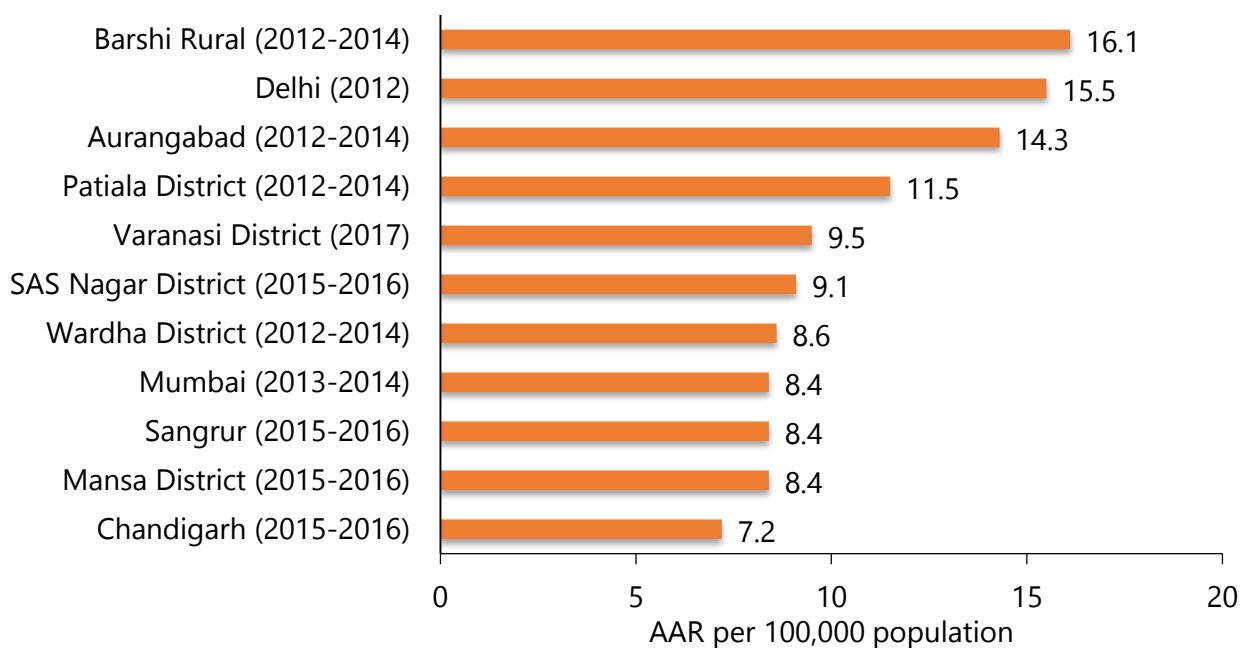
Cancer of breast (C50)

	Female
Number of cases	222
% to total cases	26.1
Crude Incidence Rate per 100,000	11.7
Age-Adjusted Incidence Rate per 100,000	13.3
Truncated Rate per 100,000	33.7

Figure 19: Age-specific incidence rate of cancer of breast: 2017 (Varanasi district)**Figure 20: Comparison of breast cancer incidence rate with other Indian registries**

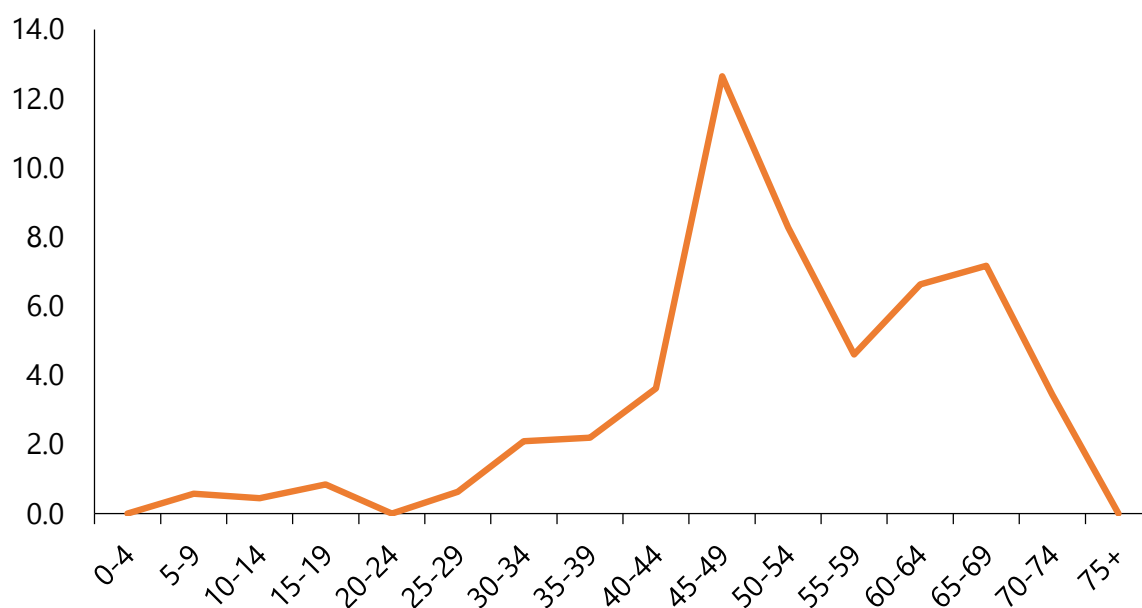
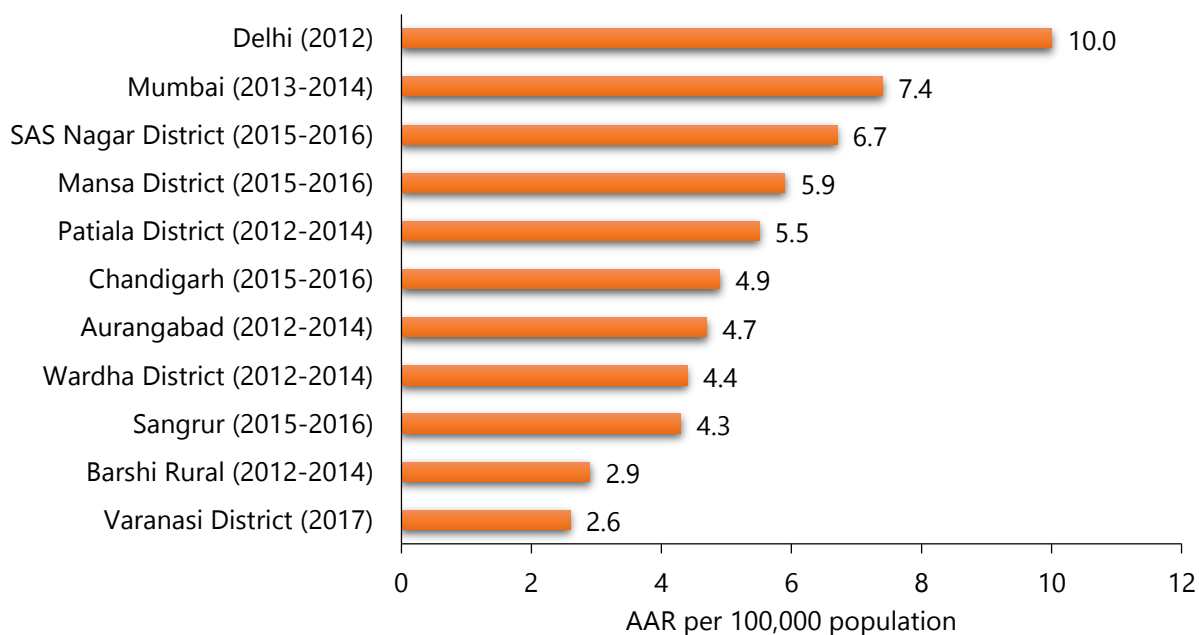
Cancer of cervix uteri (C53)

Number of cases	153
% to total cases	18.0
Crude Incidence Rate per 100,000	8.1
Age-Adjusted Incidence Rate per 100,000	9.5
Truncated Rate per 100,000	22.4

Figure 21: Age-specific incidence rate of cancer of cervix uteri: 2017 (Varanasi district)**Figure 22: Comparison of cervix uteri cancer incidence rate with other Indian registries**

Cancer of ovary (C56)

Number of cases	44
% to total cases	5.2
Crude Incidence Rate per 100,000	2.3
Age-Adjusted Incidence Rate per 100,000	2.6
Truncated Rate per 100,000	6.4

Figure 23: Age-specific incidence rate of cancer of ovary: 2017 (Varanasi district)**Figure 24: Comparison of ovary cancer incidence rate with other Indian registries**

Cancer of gall bladder (C23-C24)

	Male	Female
Number of cases	28	79
% to total cases	2.6	9.3
Crude Incidence Rate per 100,000	1.3	4.2
Age Adjusted Incidence Rate per 100,000	1.6	5.0
Truncated Rate per 100,000	3.6	12.0

Figure 25: Age-specific incidence rate of cancer of gall bladder: 2017 (Varanasi district)

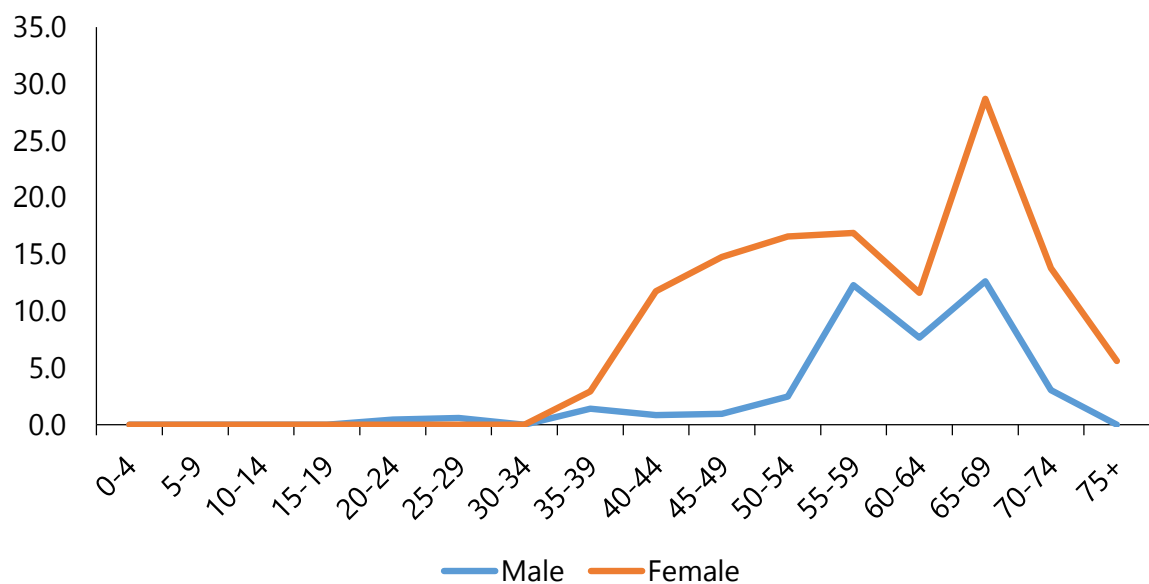


Figure 26: Comparison of gall bladder cancer incidence rate with other Indian registries

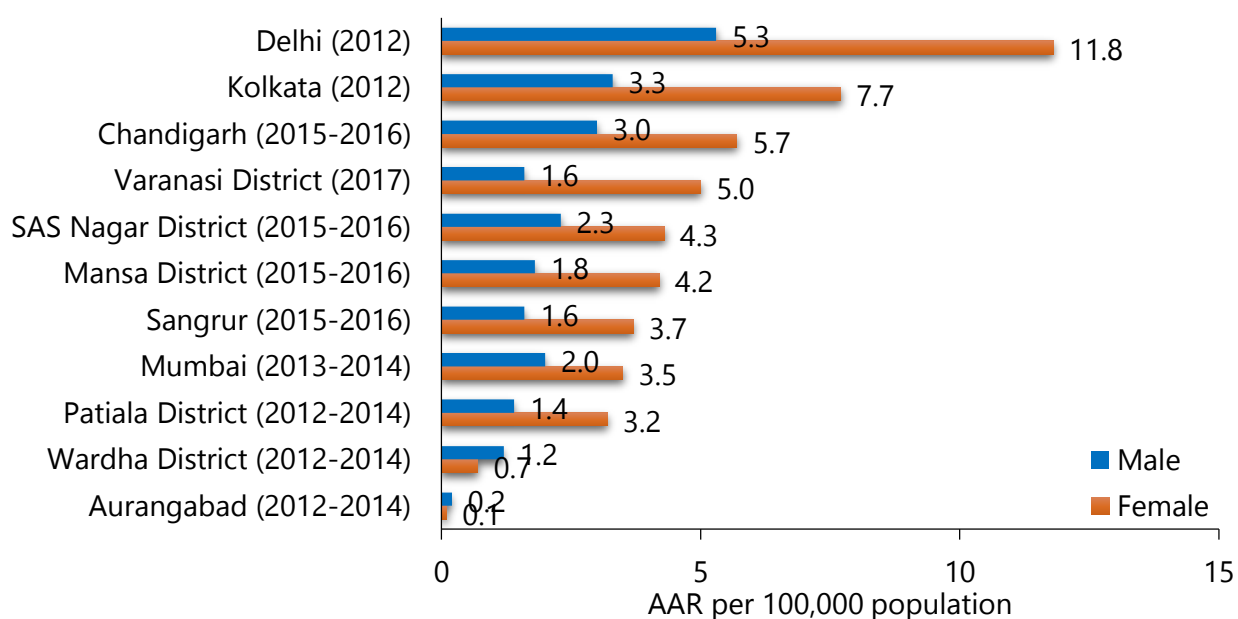
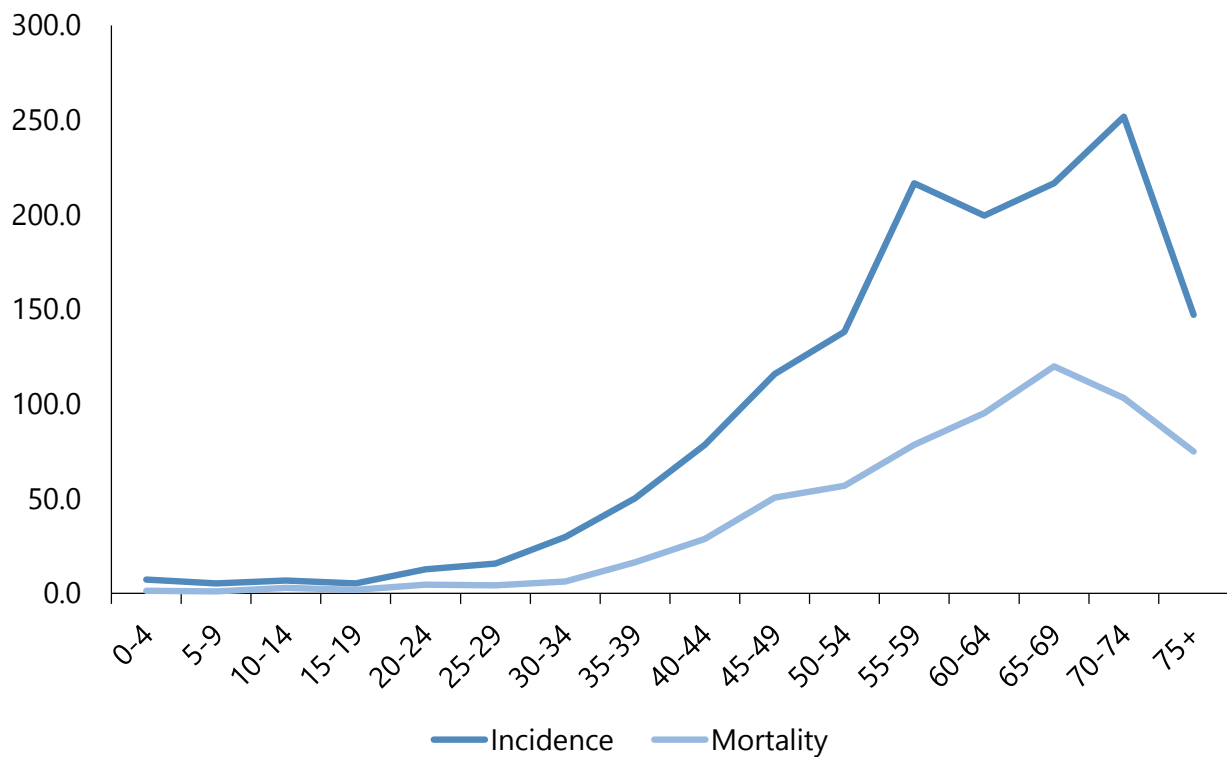
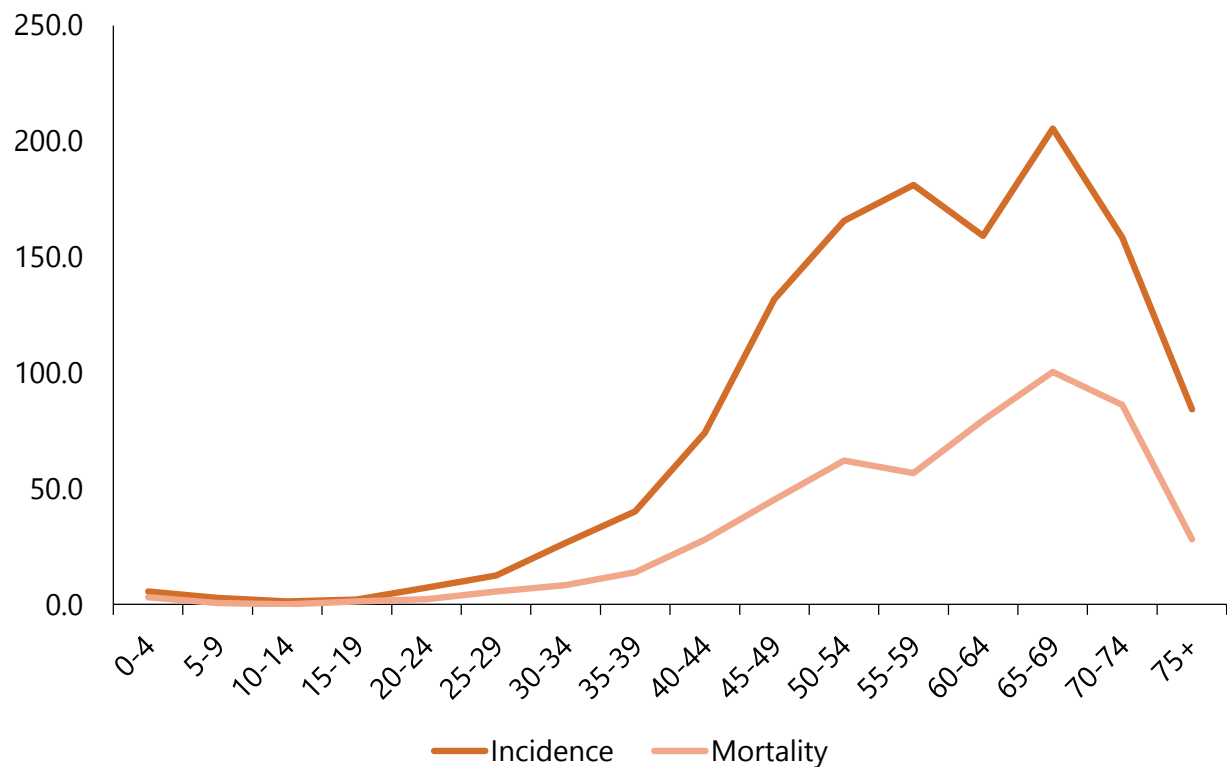


Figure 27: Age specific incidence and mortality rate – male all sites**Figure 28: Age specific incidence and mortality rate – female all sites**

Other and unspecified Sites

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

C26	Other and III-Defined Digestive Organ	C77	Secondary and Unspecified Malignant Neoplasm of Lymph Node
C39	Other and III-Defined Sites Within Respiratory Systems and Intrathoracic Organ	C78	Secondary Malignant Neoplasm of Respiratory and Digestive Organs,
C48	Retro Peritoneum and Peritoneum,	C79	Secondary Malignant Neoplasm of Other and Unspecified Sites
C75	Other Endocrine Glands and Related Structures,	C80	Malignant Neoplasm Without Specification of Site
C76	Other and III-Defined, Secondary and Unspecified sites	C97	Malignant Neoplasm of Independent (Primary) Multiple sites

In males, out of 1058 cases, 54 cases are of Other and Unspecified sites. The predominant cases are C80 – Primary Unknown (4.4%), followed by C26 – Other and Ill-defined Sites (0.4%), and Other Sites (0.3%). In females, out of 849 cases, 26 cases are of Other and Unspecified Sites. The predominant cases are C80 – Primary Unknown (2.5%), followed by C48 – Retro Peritoneum and Peritoneum and C77 – Other and Ill-defined Sites (0.2%), and Other Sites (0.1% cases). The details are presented in table 13.

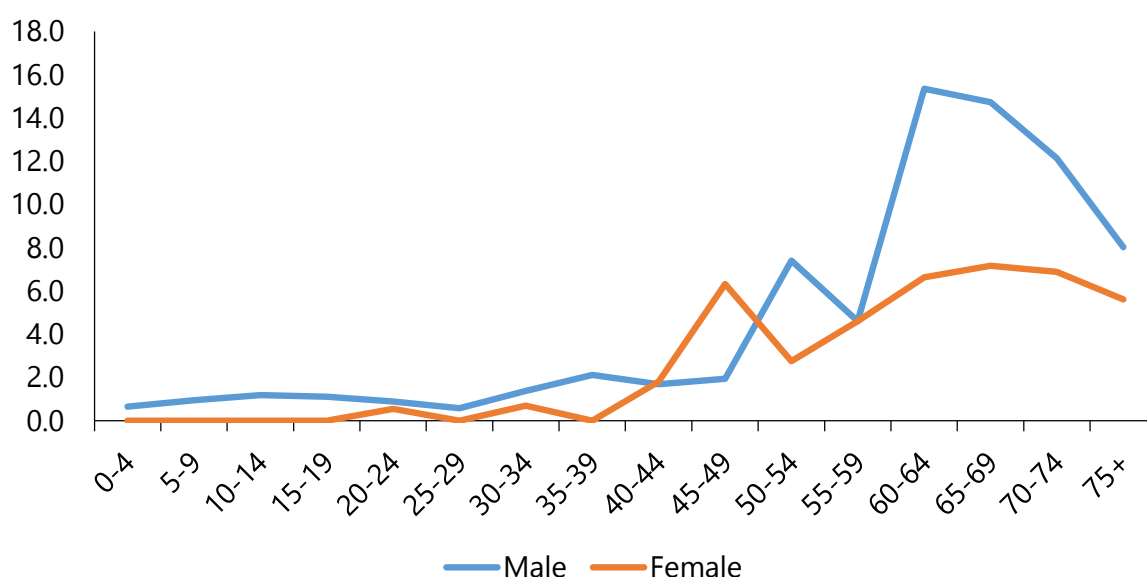
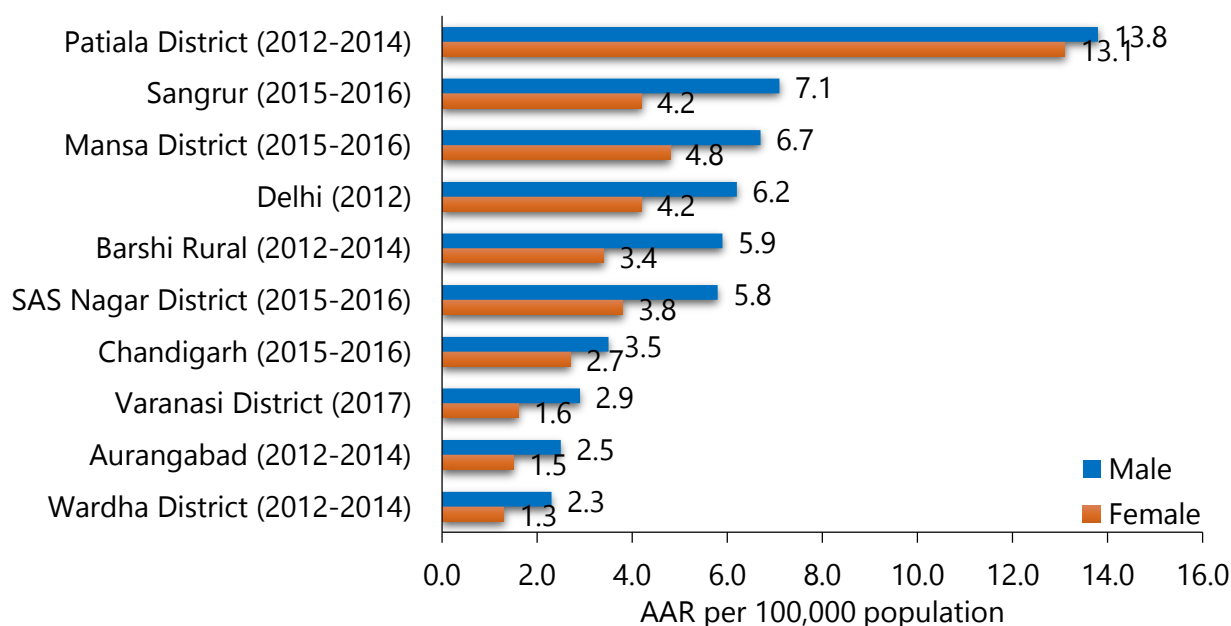
In the coming years, the percentage of the Primary Site Unknown will be decreased due to improvement in the diagnostic and treatment facility.

Table 13: Other and Unspecified Cases by Sex

ICD 10	Male		Female	
	Number	%	Number	%
C26	4	0.4	1	0.1
C48	0	0.0	2	0.2
C75	0	0.0	0	0.0
C76	3	0.3	0	0.0
C77	0	0.0	2	0.2
C78	0	0.0	0	0.0
C79	0	0.0	0	0.0
C80	47	4.4	21	2.5
Total	54/1058	5.1/100.0	26/849	3.1/100.0

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

	Male	Female
Number of Cases	54	26
% to Total Cases	5.1	3.1
Crude Incidence Rate per 100,000	2.6	1.4
Age Adjusted Incidence Rate per 100,000	2.9	1.6
Truncated Rate per 100,000	4.9	3.5

Figure 29: Age-specific incidence rate of other and unspecified: 2017 (Varanasi district)**Figure 30: Comparison of other and unspecified site incidence rate with other Indian registries**

11. Cancer pattern in urban and rural area

The cancer registry covers 57% rural area and 43% urban area. We have observed the difference in the cancer incidence rate in urban and rural areas. The urban area cancer incidence rate in males is 63.2 per 100,000 population whereas it is 55.6 per 100,000 population in rural areas. In females, the rural area cancer incidence rates are higher as compared to the urban area. The cancer incidence rate by the area and sex is mentioned in figure 31. We have observed the under-reporting of the cancer death in the urban area as compared to the rural area. The all site cancer mortality by the area and sex is mentioned in figure 32.

Figure 31: All sites cancer incidence rate by area and sex: 2017 (Varanasi district)

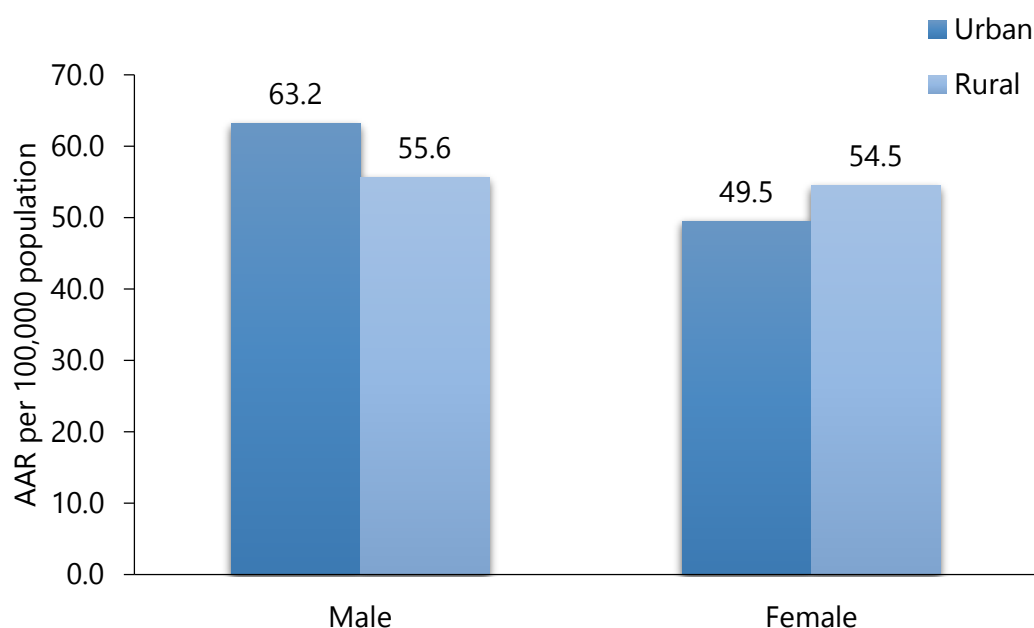
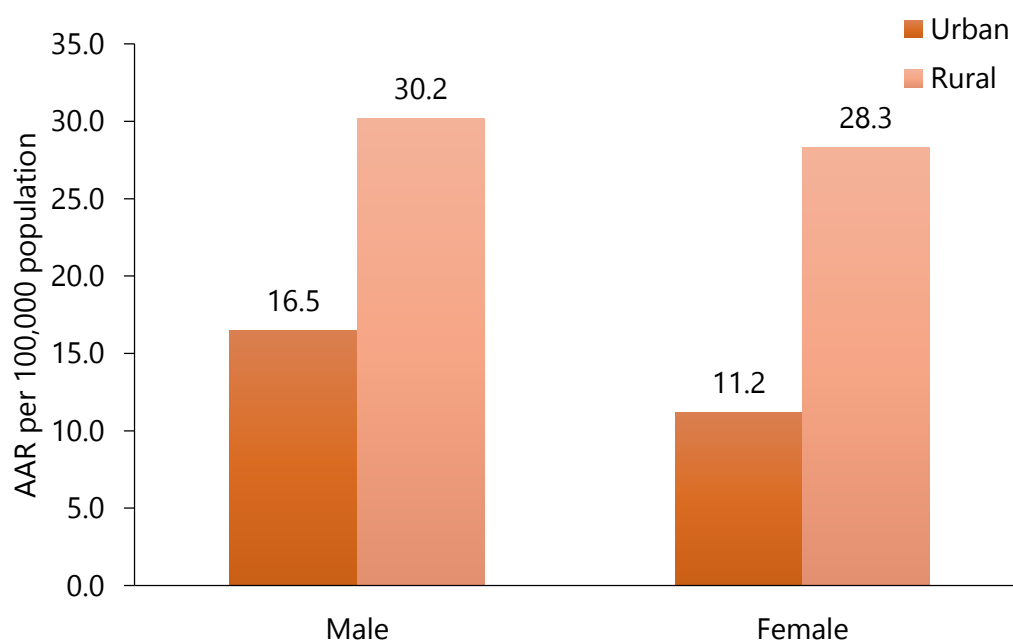


Figure 32: All site cancer mortality rate by area and sex: 2017 (Varanasi district)



Leading cancer sites in rural and urban area

In males, mouth cancer incidence rate is higher in the urban area (22.4 per 100,000 population) as compared to rural areas (16.2 per 100,000 population); 38% higher in urban area. In females, breast cancer incidence rate is higher in the urban area as compared to rural areas respectively 14.8 and 12.3 per 100,000 population; 20% higher in urban area. In contrast, the cervix uteri cancer incidence rate in rural areas is almost double than the urban area (rural 12.2 per 100,000 population and urban 6.2 per 100,000 population). The leading cancer sites by sex and area are presented in figure 33 to 36.

The difference in the cancer burden and pattern in the rural and urban may be due to different lifestyles, food habits, education levels, and access to the diagnostic and treatment facilities.

Figure 33: Leading cancer sites in urban area: male

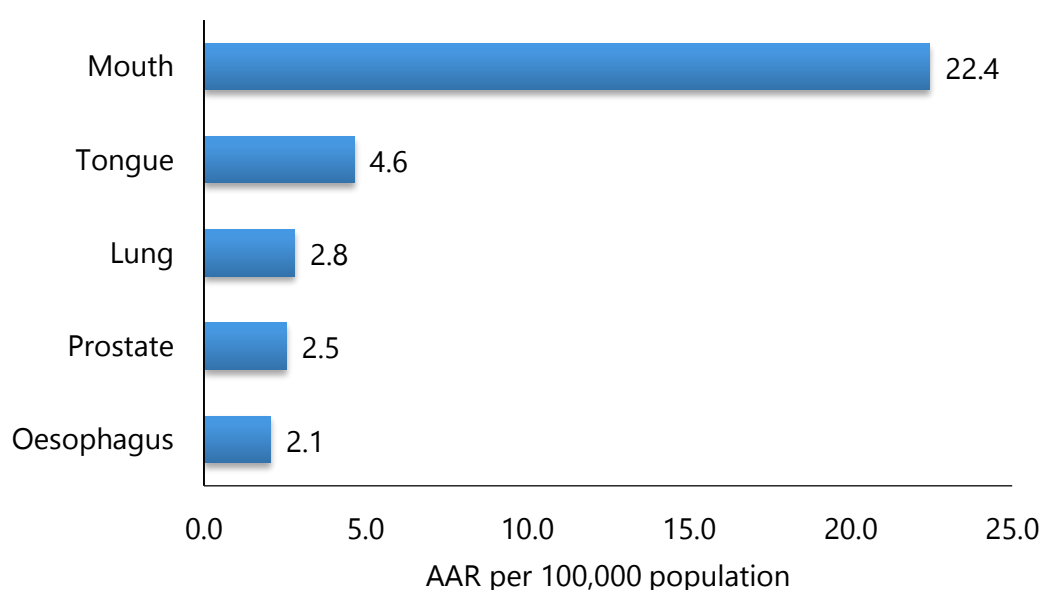


Figure 34: Leading cancer sites in rural area: male

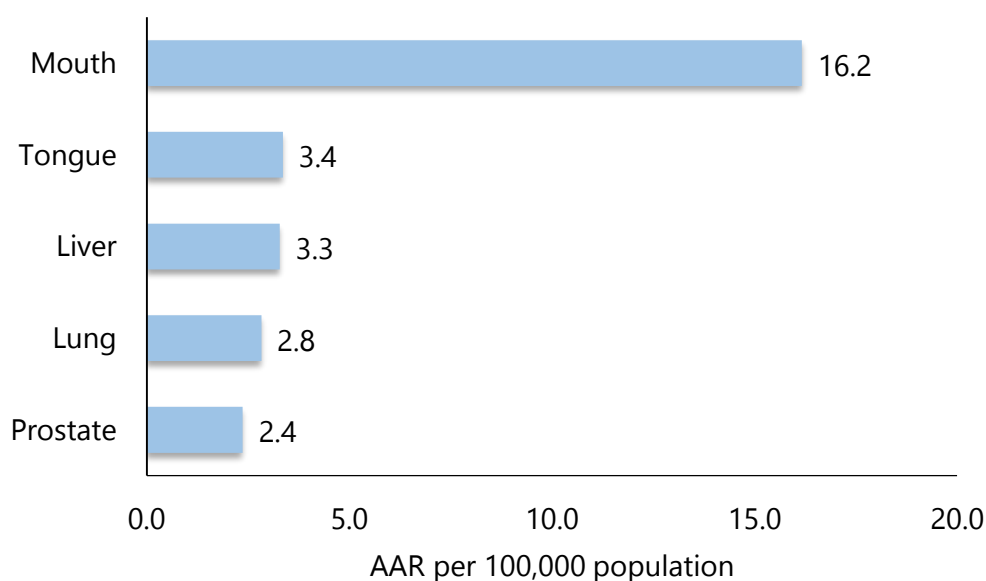
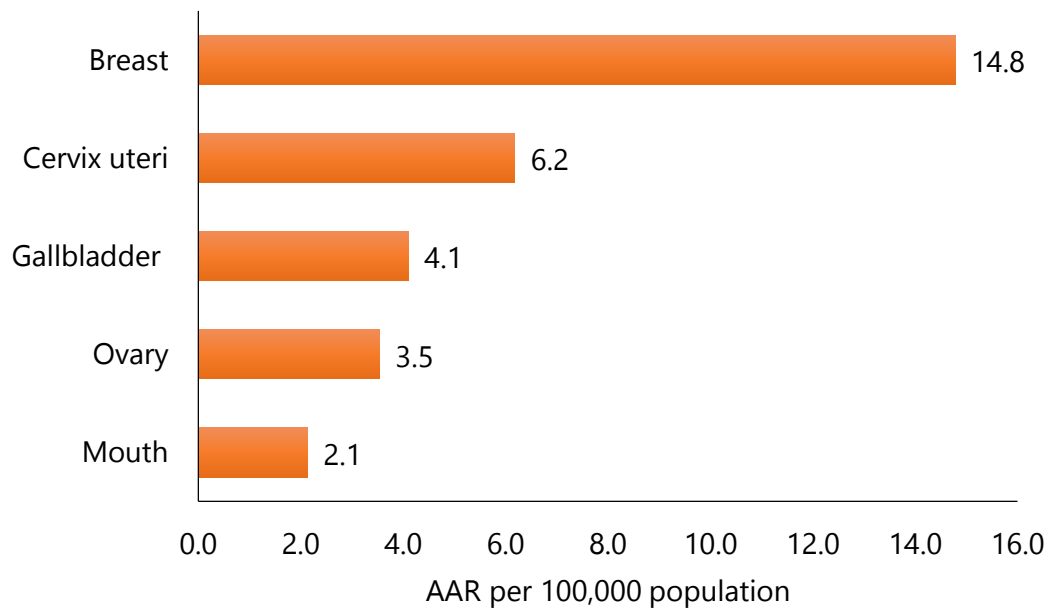
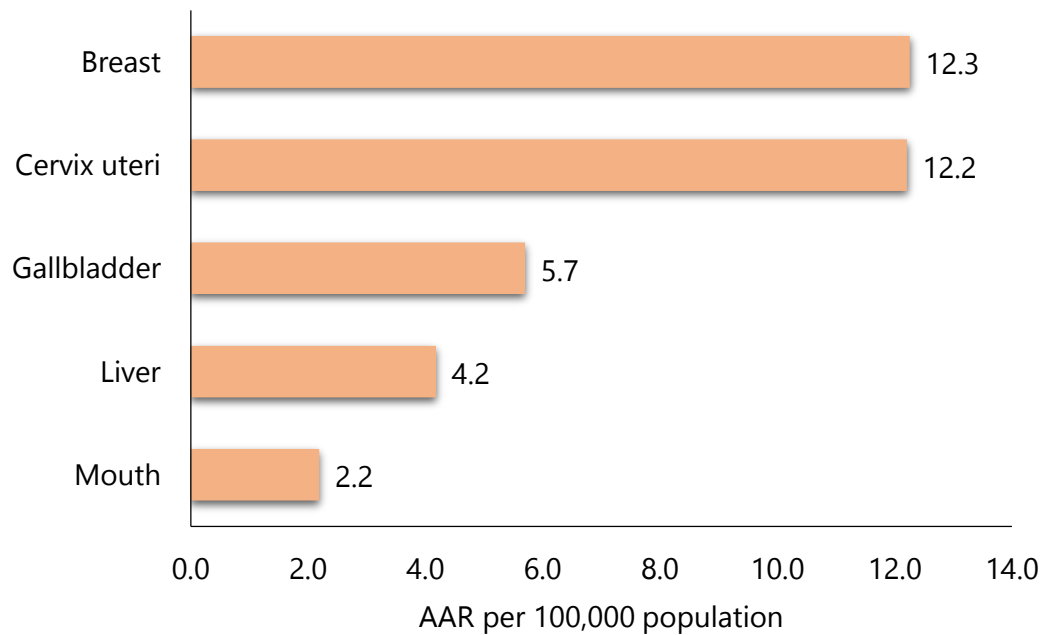


Figure 35: Leading cancer sites in urban area: female**Figure 36: Leading cancer sites in rural area: female**

12. 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 Varanasi district, cancer cases were highest among the Hindu community (87.6%). Moreover, cancer cases were more in the illiterate population among females [249 (29.3%) out of 849 cancer cases] than males. Furthermore, in terms of occupation, cancer cases were more commonly found among farmers (23.8%) in males and housewives (87.8%) in females. The number of cancer cases was more among the population with income range Rs. 1,500/- to Rs. 4,500/- per month.

Table 14: Cancer cases by education and sex

Education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	137	12.9	249	29.3	386	20.2
Literate	322	30.4	251	29.6	573	30.0
Primary (1 to 7std)	179	16.9	156	18.4	335	17.6
Secondary (8 to 10 std)	195	18.4	101	11.9	296	15.5
Technical after 10 th	20	1.9	3	0.4	23	1.2
College	136	12.9	53	6.2	189	9.9
Post Graduate	31	2.9	7	0.8	38	2.0
Other	4	0.4	0	0.0	4	0.2
Not applicable to children	13	1.2	7	0.8	20	1.0
Unknown / No Information	21	2.0	22	2.6	43	2.3
Total	1058	100	849	100	1907	100

Table 15: Cancer cases by religion and sex

Religion	Male		Female		Total	
	Number	%	Number	%	Number	%
Hindu	909	85.9	761	89.6	1670	87.6
Muslim	135	12.8	73	8.6	208	10.9
Christian	2	0.2	1	0.1	3	0.2
Sikh	2	0.2	2	0.2	4	0.2
Other	0	0.0	1	0.1	1	0.1
Unknown / No Information	10	0.9	11	1.3	21	1.1
Total	1058	100	849	100	1907	100

Table 16: Cancer cases by income and sex

Income	Male		Female		Total	
	Number	%	Number	%	Number	%
= > 30375	77	7.3	42	4.9	119	6.2
15188-30374	84	7.9	31	3.7	115	6.0
11362-15187	96	9.1	58	6.8	154	8.1
7594-11361	177	16.7	110	13.0	287	15.0
4556-7593	170	16.1	125	14.7	295	15.5
1521-4555	269	25.4	212	25.0	481	25.2
<= 1520	97	9.2	154	18.1	251	13.2
Unknown/No information	88	8.3	117	13.8	205	10.7
Total	1058	100	849	100	1907	100

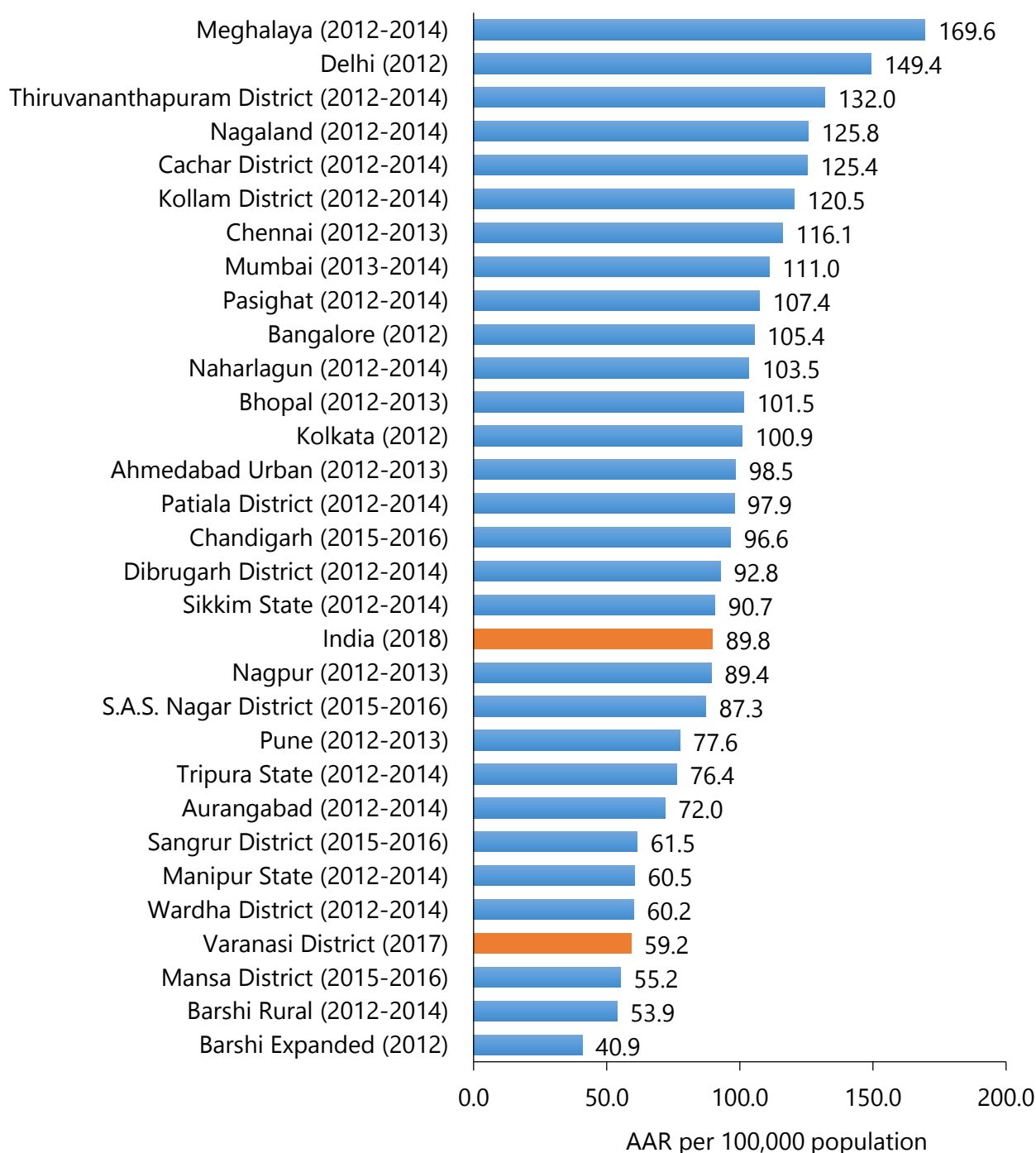
Table 17: Cancer cases by occupation and sex

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Professional	33	3.1	1	0.1	34	1.8
Semi-professional	11	1.0	1	0.1	12	0.6
Clerical, Shop-owner	102	9.6	3	0.4	105	5.5
Farmer	252	23.8	20	2.4	272	14.3
Skilled worker	52	4.9	1	0.1	53	2.8
Semi-skilled worker	116	11.0	8	0.9	124	6.5
Unskilled worker	147	13.9	5	0.6	152	8.0
Unemployed	32	3.0	4	0.5	36	1.9
Student	54	5.1	14	1.6	68	3.6
House-wife	0	0.0	745	87.8	745	39.1
Govt. Employee	81	7.7	11	1.3	92	4.8
Pvt. Employee	71	6.7	4	0.5	75	3.9
Other	68	6.4	6	0.7	74	3.9
Not applicable for children	16	1.5	10	1.2	26	1.4
Unknown/No information	23	2.2	16	1.9	39	2.0
Total	1058	100	849	100	1907	100

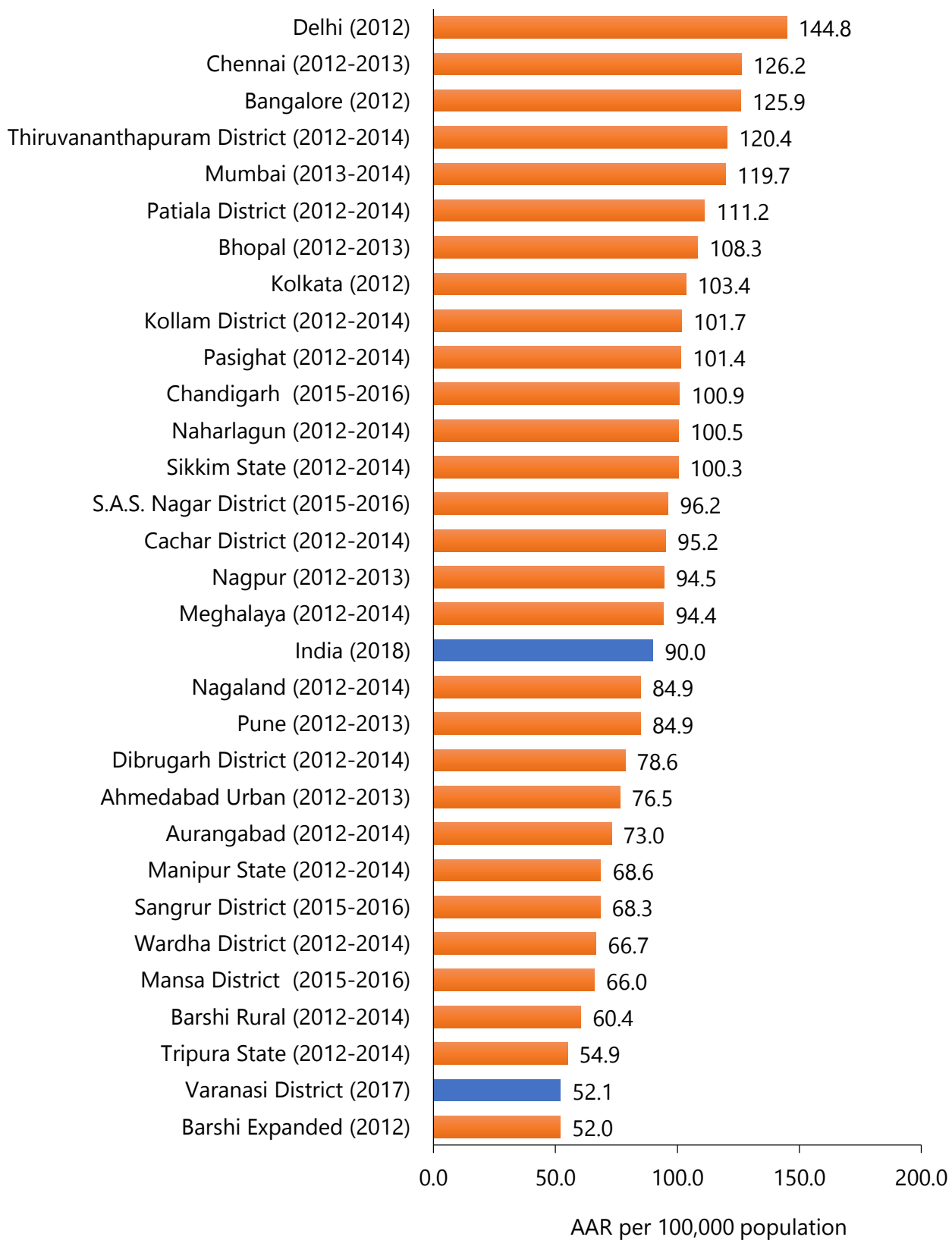
13. Comparison of cancer incidence rate with other Indian registries

Age-adjusted incidence rate for all cancer sites for both sexes for the year 2017 was compared with other Indian PBCRs in figures 37 and 38. 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 37: Age-adjusted incidence rate of all cancer sites in males



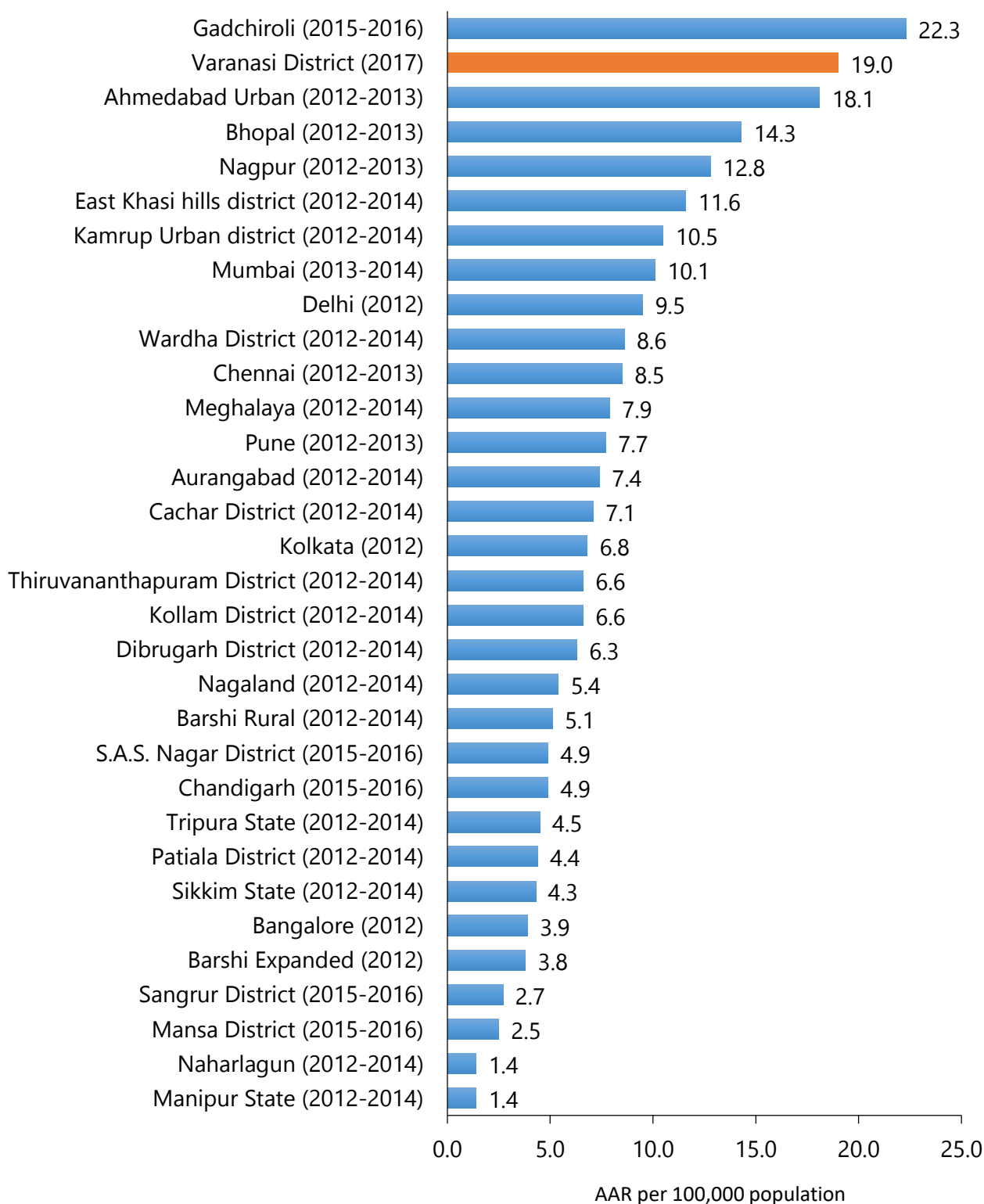
Reference: 1-6, 12

Figure 38: Age-adjusted incidence rate of all cancer sites in females

Reference: 1-6, 12

Among males, out of every 3 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 39.

Figure 39: Age-adjusted incidence rate of mouth cancer in males (C03-C06)



Reference: 1-6, 12, 13

14. Under registration/ diagnosis of cancer cases

There may be under registration or diagnosis of cancer incidence and mortality cases. We may have missed the clinically diagnosed cases as well as pediatric cancer cases. The under registration or diagnosis is mainly occurred in the age group 65+ due to reduced access to health care for the elderly. The truncated rate in males is reported 123.3 per 100,000 population and age-adjusted incidence rate is 59.2 per 100,000 population. Most of the cases are registered under the age group 35-64 and there is a declining trend in the age group 65 to 80. For females, we have noted similar trends. The truncated rate in females is 118.2 per 100,000 population and the age-adjusted incidence rate is 52.1 per 100,000 population.

We observed that the case finding was at a moderate level from the Kashividyapeeth block as compared to other blocks of the Varanasi district, as Kashividyapeeth block is close to the Varanasi city. For males, age-adjusted incidence rate noted in the Kashividyapeeth block of Varanasi is 82.5 per 100,000 population. Based on this rate, we have estimated that the under-reporting will be 28% in males for the entire district. For females, the age-adjusted incidence rate is 61.1 per 100,000 population. The estimated under-reporting will be 14% in females for the entire district. The under-reporting is based on estimation. However, to know the completeness of cancer registration, we need to perform a random survey of a 2% sample of the entire district. **As a part of the completeness of cancer registration we will undertake the 2% random sample survey in the district.**

In low and middle-income countries, it is observed that it takes at least 3 to 4 years to stable the cancer registration process. For Sangrur and Mansa Cancer registries of Punjab state, we have reported under registration for the years 2013 and 2014; however, there is an improvement in the cancer registry process in the years 2015 and 2016. We expect that there will be an improvement in the cancer registration process of Varanasi district in the year 2018 and 2019.

15. Challenges in establishing Varanasi cancer registry

Population-based cancer registry (PBCR), Varanasi was initiated in the year 2017 to cover cancer-related information of the population. Any ambitious project has to face several hurdles in the beginning. Similarly, we also faced many hurdles in establishing a cancer registry in Varanasi. The challenges we faced are mentioned below:

1. Administrative issues
2. Challenges in registry staff retention
3. Poor medical record /death record
4. Lack of cooperation from the hospital and laboratories
5. Transportation problem
6. Poor cooperation from patient/ patients relatives
7. Patient travel to other districts/state for the cancer treatment
8. Alternative treatment

Administrative issues

Initially, the cancer registry was located in the department of Radiotherapy, SS Hospital, BHU. The department was monitored by Professor Shahi, HOD from the Radiotherapy Department. Due to some administrative issues, the registry office had to shift from BHU to Homi Bhabha Cancer Hospital, Lahartara. The PBCR work was badly affected because of the shifting. The allotted room was quite small; approx 250 sq.ft. It was difficult for the staff to concentrate on their work. At the same time, we were also asked to share the room with other project staff of the Centre for Cancer Epidemiology. There was a lot of inconvenience to the field staff while doing case abstraction. After one year, PBCR office was again shifted from HBCH, Lahartara to Mahamana Pandit Madan Mohan Malaviya Cancer Centre, BHU. We were given a small room on a temporary basis. The registry work continued here for a few months and again the office was shifted to another place.

When the department is new, it is not advisable to shift the office from one place to another. Due to this constant relocating of the office, registry work is badly hampered.

Challenges in registry staff retention

The recruited staff were trained at Tata Memorial Centre, Mumbai. We invest a huge amount of time to train staff in the cancer registry operation and support them all the possible way. However, seven trained staff left the job, saying that it is a temporary post with minimum facility. Capacity building is a continuous part of the cancer registry. Recruiting staff and training them involve lots of logistics in the form of manpower, material, funds, and time. We have appointed the new staff for the registry. To overcome this staffing issue, senior staff from TMC have been asked to visit Varanasi regularly and to provide moral support to staff. Periodically, a video conference call is also arranged by CCE, TMC faculties to motivate the staff.

Poor medical record/death record

We observed that medical records were not kept properly in the major hospitals and the pathology laboratories. The important information such as patient's address and telephone number were missing or were not properly documented in the medical records. These information are crucial for PBCR.

To address this issue, we requested the hospital administration to record the proper address in the OPD/IPD file. Moreover, we noticed that the cause of death was also not well-documented in the death certificate. For example, most of the time the cause of death was mentioned as cardio-respiratory arrest which is the mode of dying and not the cause of death. Due to continuous interaction with administrative authority, we have observed some improvement.

Lack of cooperation from the hospitals and laboratories

We also faced a major hurdle in the form of hesitation and unwillingness in sharing cancer patient's data from several hospitals and diagnostic centers in Varanasi. It was very difficult to convince the Hospitals and Diagnostic centers that this is a public health program and the data will be used by the government for cancer control activities as well as in improving cancer care services in the district.

We gratefully acknowledge the CMO of Varanasi district who supported cancer registry activities and passed the orders to all the concerned government institutions as well as private institutions to share the cancer patient's data to the cancer registry. Even though the orders were issued by the government, some private laboratories refused to share the cancer patient data.

The other challenge we faced was the content of cancer-related information that the local treatment or diagnostic center agreed to share. Few hospitals provided only the cancer patient list with minimum information to complete the formalities (contact numbers, detailed address was not being shared or was not available with the center itself) and few didn't allow us to go through their medical records.

We resolved these hurdles by interacting with community/patient relatives and collected the data available with them.

Transportation problem

The Varanasi district covers a population of 4 million. The staff members are located in 8 blocks to cover their area effectively. The local bus timing is not convenient for the staff so they use their motorcycle or another way of transport to cover the area. Moreover, the climate in the district is inconvenient as it is very hot in summer and extreme cold in the winter. Inadequate transportation was the major challenge in covering the cancer registry area. The staff have to manage their duties by using their motorcycle to cover the area. Field staff have visited 1295 villages of the district.

Poor cooperation from the patient's relative

When we started field visits to gather cancer-related information from villages and wards, it was very difficult to collect information from patients and their relatives. The commonly asked questions or concerns were,

- What sort of benefits (financial support/medical help) will they get by sharing information?
- Patient is already deceased so they have burned all the records.
- They felt cheated from health care services and now unwilling to cooperate.
- They feared that sharing information can land them in some legal problems.
- They did not want to discuss as there was a family function going or they were planning for some family event.
- They felt sharing of this information will adversely affect the marriage of their family member.
- Family members were in denial that the patient did not have cancer and were not ready to share any information etc.
- Many people, especially from rural areas, did not maintain any records as well as they have lost the discharge summary paper, pathology report, etc.

Community interaction is a major challenge. In this situation, we have received excellent cooperation from Panchayat leaders, ANMs, and ASHA workers. With their help, we were able to collect the cancer patient information.

Patient travel to other districts/state for the cancer treatment

From Varanasi, patients travel to Lucknow, Kanpur, Prayagraj, New Delhi, and Mumbai for cancer treatment. The staff has to travel to these places to collect the cancer patient's data. It is practically difficult for the staff to visit all these places periodically. To overcome these challenges, some of the centers are sending the cancer patients data by email. The TMC IT unit has provided the data to the population-based cancer registry.

Alternative treatment

We also observed that some patients were taking alternative treatments such as homeopathy/ ayurvedic/ local treatment to cure their disease. There were no documents/ no diagnostic evidence available with the relatives. It was very challenging to trace the medical records of these cases.

We have overcome all these challenges due to constant support from CMO of the Varanasi district, Director TMC and also because of our dedicated staff and great support of panchayat leaders, ANM, ASHA workers.

16. Technical support to Muzaffarpur population-based cancer registry, Bihar

The Tata Memorial Centre, Mumbai will establish a cancer center at Muzaffarpur, Bihar State. This centre has been technically supported by the HBCH-MPMMCC, Varanasi. The Muzaffarpur center will run as a HUB and Spoke Model. Director TMC asked to establish a population-based cancer registry in this area.

The Varanasi PBCR has been providing technical help to the Muzaffarpur population-based cancer registry. The registry started functioning from 1st October 2018. **This is the first population-based cancer registry in Bihar State. The cancer registry is located at Sri Krishna Medical College, Muzaffarpur. The registry covers the population from five blocks Kanti, Motipur, Muraul, Mushahari, Sakara, and Muzaffarpur Municipal Corporation; covering 2.1 million population.**

The staff selected were provided training at the Varanasi PBCR as well as Centre for Cancer Epidemiology, Tata Memorial Centre, Mumbai. The training program conducted by the Varanasi PBCR was from 5th October 2018 to 9th October 2018.



Staff training at TMC Mumbai and PBCR Varanasi

The field supervisor from Varanasi PBCR regularly visits Muzaffarpur to check the data collected by the field staff. The data collection of the Muzaffarpur cancer registry for the year 2018 is going on. So far we have collected 698 new cancer cases and 212 cancer death data. **Based on the provisional data, it was observed that mouth cancer is predominant cancer in males whereas in females, breast and cervix uteri cancer are the leading cancers. The registry data will be utilized in establishing the infrastructure as well as planning the cancer control activities in this region.**

17. 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 2017 to 31st December 2017 in 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 2017 to 31st December 2017 in Varanasi district have been included.

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

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

$$\text{CR} = \frac{\text{Number of new cancer cases observed in the period 2017} \times 100,000}{\text{Estimated population of the same year}}$$

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

18. Standard registry tables

Table 18: Number of Incidence Cancers by Five Year Age Group and Site (ICD 10): 2017
– 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	-	-	-	-	-	-	3	2	2	4	1	6	4	2	1	1	26	2.5
C01-C02	Tongue	-	-	-	-	-	-	4	8	9	11	9	8	4	8	8	1	70	6.6
C03-C06	Mouth	-	-	-	1	2	10	16	32	37	60	52	51	31	21	18	6	337	31.9
C07-C08	Salivary glands	-	-	-	-	1	1	1	-	-	-	1	-	-	3	-	1	8	0.8
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	3	0.3
C10	Other Oropharynx	-	-	-	-	-	-	-	-	2	-	1	3	2	-	1	2	11	1.0
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.1
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	4	0.4
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	1	-	1	3	-	-	1	-	6	0.6
C15	Oesophagus	-	-	-	-	-	-	-	1	2	2	4	4	6	3	4	1	27	2.6
C16	Stomach	-	-	-	-	-	1	1	-	2	3	2	7	4	6	3	1	30	2.8
C17	Small Intestine	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	4	0.4
C18	Colon	-	-	-	1	3	-	1	3	1	4	-	-	5	1	3	2	24	2.3
C19-C20	Rectum	-	-	1	-	1	1	1	1	3	-	1	-	-	-	1	-	10	0.9
C21	Anus & Anal Canal	-	-	-	-	-	-	-	1	1	1	2	-	1	-	-	1	7	0.7
C22	Liver	-	-	-	-	-	2	1	2	3	3	2	13	5	6	4	2	43	4.1
C23-C24	Gall Bladder	-	-	-	-	1	1	-	2	1	1	2	8	5	6	1	-	28	2.6
C25	Pancreas	-	-	-	-	-	-	-	1	-	2	2	1	3	2	-	2	13	1.2
C30-C31	Nose, sinuses etc.	-	-	-	-	1	-	1	-	-	1	-	-	1	1	-	1	6	0.6
C32	Larynx	-	-	-	-	-	-	-	-	-	2	4	6	5	8	4	3	32	3.0
C33-C34	Lung	-	-	-	-	1	-	1	2	4	1	5	8	8	4	10	5	49	4.6
C37-C38	Other Thoracic organ	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
C40-C41	Bone	-	1	2	1	3	-	-	2	2	1	2	-	2	-	2	-	18	1.7
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	1	5	0.5
C44	Other Skin	-	-	-	-	-	-	2	3	1	3	1	2	3	-	2	2	19	1.8
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft tissue	1	-	-	-	1	-	-	-	3	1	-	2	-	3	-	1	12	1.1
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1
C60	Penis	-	-	-	-	-	-	-	1	1	-	2	1	-	1	1	-	7	0.7
C61	Prostate	-	-	-	-	-	-	-	1	1	1	1	2	8	10	8	10	42	4.0
C62	Testis	-	-	-	-	1	-	2	1	-	1	-	-	-	-	-	-	5	0.5
C63	Other male genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	-	-	-	-	-	-	-	-	-	1	2	-	3	1	-	-	7	0.7
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	1	-	-	1	1	3	2	1	5	2	1	4	21	2.0
C68	Uns. Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	2	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	4	0.4
C70-C72	Brain, NS	1	3	1	-	3	4	-	2	4	4	-	-	4	-	1	2	29	2.7
C73	Thyroid	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	1	3	0.3
C74	Adrenal gland	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
C81	Hodgkins Disease	-	1	1	2	-	1	1	-	-	-	-	-	-	-	-	-	6	0.6
C82-C85, C96	NHL	-	1	1	2	2	1	-	-	3	1	2	3	2	-	1	1	20	1.9
C88	Imm. Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	1	1	-	1	2	4	2	-	1	12	1.1
C91	Lymphoid Leuk.	3	2	4	-	1	1	3	-	1	2	-	2	1	-	-	-	20	1.9
C92-C94	Myeloid Leukemia	1	-	1	2	2	2	3	1	2	3	1	-	-	1	-	-	19	1.8
C95	Leukemia Uns	2	1	3	2	1	1	-	-	1	1	-	1	-	-	-	-	13	1.2
Myeloproliferative disorders		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Myelodysplastic syndromes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other & Unspecified*		1	2	3	3	2	1	2	3	2	2	6	3	10	7	4	3	54	5.1
Total		11	11	17	14	28	27	43	71	93	119	112	141	130	103	83	55	1058	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 19: Number of Incidence Cancers by Five Year Age Group and Site (ICD 10): 2017
– Female 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	-	-	-	3	0.4
C01-C02	Tongue	-	-	-	-	-	-	2	1	-	1	5	4	1	4	1	1	20	2.4
C03-C06	Mouth	-	-	-	-	-	1	2	2	3	5	6	6	5	4	-	1	35	4.1
C07-C08	Salivary gland	-	-	-	-	-	-	1	1	-	-	2	-	-	1	-	-	5	0.6
C09	Tonsil	-	-	-	-	-	-	-	-	-	1	-	1	-	-	1	-	3	0.4
C10	Other oropharynx	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	2	0.2
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	1	3	2	3	2	3	2	-	1	17	2.0
C16	Stomach	-	-	-	-	1	1	2	-	-	1	6	3	1	2	2	-	19	2.2
C17	Small intestine	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	2	0.2
C18	Colon	-	-	-	-	-	1	-	-	-	-	1	-	3	-	1	1	7	0.8
C19-C20	Rectum	-	-	-	-	-	-	-	1	-	1	3	2	-	4	-	-	11	1.3
C21	Anus	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	-	3	0.4
C22	Liver	-	-	-	-	3	1	-	3	-	7	5	5	7	7	2	3	43	5.1
C23-C24	Gall Bladder	-	-	-	-	-	-	-	4	13	14	12	11	7	12	4	2	79	9.3
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	1	-	3	1	-	5	0.6
C30-C31	Nose, Sinuses etc	-	-	-	-	-	-	1	-	-	1	-	-	1	-	-	-	3	0.4
C32	Larynx	-	-	-	-	-	-	-	1	-	1	1	-	2	2	-	1	8	0.9
C33-C34	Lung	-	-	-	-	-	-	1	-	2	2	-	4	1	3	3	1	17	2.0
C37-C38	Other Thoracic organ	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.1
C40-C41	Bone	-	-	1	-	-	1	-	-	-	1	-	-	1	-	-	-	4	0.5
C43	Melanoma of skin	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.1
C44	Other skin	-	-	-	-	-	-	-	2	1	-	1	2	-	2	1	1	10	1.2
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn & soft tissue	-	1	-	1	-	-	1	1	1	3	1	2	-	-	-	2	13	1.5
C50	Breast	-	-	-	-	3	7	15	19	28	40	33	30	22	13	9	3	222	26.1
C51	Vulva	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.1
C52	Vagina	-	-	-	-	-	-	-	-	-	1	1	1	-	2	1	1	7	0.8
C53	Cervix Uteri	-	-	-	-	2	3	2	8	16	21	21	23	23	12	15	7	153	18.0
C54	Corpus Uteri	-	-	-	-	-	-	-	1	-	-	2	2	1	2	1	1	10	1.2
C55	Uterus unspecified	-	-	-	-	1	-	-	-	1	-	3	-	1	1	-	-	7	0.8
C56	Ovary etc.	-	1	1	2	-	1	3	3	4	12	6	3	4	3	1	-	44	5.2
C57	Other female genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	0.1
C64	Kidney	2	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	4	0.5
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	2	0.2
C68	Other urinary organs	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, NS	3	1	1	-	1	-	-	-	-	1	3	4	1	-	1	-	16	1.9
C73	Thyroid	-	-	-	-	-	1	-	1	1	-	-	1	1	1	-	1	7	0.8
C74	Adrenal gland	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
C81	Hodgkins Disease	-	1	-	1	-	-	-	-	1	1	-	-	1	-	-	-	5	0.6
C82-C85, C96	NHL	-	1	-	-	-	-	-	-	-	1	-	3	1	2	-	1	9	1.1
C88	Imm. Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.1
C91	Lymphoid Leuk.	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	0.2
C92-C94	Myeloid Leukemia	-	-	-	1	1	1	2	4	2	1	-	1	1	-	-	-	14	1.6
C95	Leukemia Uns	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3	0.4
Myeloproliferative disorders		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Myelodysplastic syndromes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other & Unspecified*		-	-	-	-	1	-	1	-	2	6	2	3	4	3	2	2	26	3.1
Total		7	5	3	5	13	20	38	55	82	125	120	118	96	86	46	30	849	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 20: Average Annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35-64 yrs) (TR) Incidence Rate per 100,000 Population: 2017 – 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	-	-	-	-	-	-	2.1	1.4	1.7	3.9	1.2	9.2	6.1	4.2	3.0	2.7	1.2	1.5	3.5
C01-C02	-	-	-	-	-	-	2.8	5.7	7.6	10.7	11.1	12.3	6.1	16.8	24.3	2.7	3.3	3.9	8.8
C03-C06	-	-	-	0.4	0.9	5.8	11.1	22.6	31.2	58.4	64.1	78.4	47.6	44.2	54.6	16.0	16.0	19.0	48.3
C07-C08	-	-	-	-	0.5	0.6	0.7	-	-	-	1.2	-	-	6.3	-	2.7	0.4	0.4	0.2
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	6.1	-	0.1	0.2	-
C10	-	-	-	-	-	-	-	-	1.7	-	1.2	4.6	3.1	-	3.0	5.3	0.5	0.6	1.5
C11	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	0.1	0.2
C12-C13	-	-	-	-	-	-	-	-	-	-	-	1.5	1.5	4.2	-	-	0.2	0.2	0.4
C14	-	-	-	-	-	-	-	-	0.8	-	1.2	4.6	-	-	3.0	-	0.3	0.4	1.0
C15	-	-	-	-	-	-	-	0.7	1.7	1.9	4.9	6.1	9.2	6.3	12.1	2.7	1.3	1.6	3.6
C16	-	-	-	-	-	0.6	0.7	-	1.7	2.9	2.5	10.8	6.1	12.6	9.1	2.7	1.4	1.8	3.5
C17	-	-	-	-	-	-	-	-	-	-	-	3.1	1.5	2.1	-	-	0.2	0.2	0.6
C18	-	-	-	0.4	1.4	-	0.7	2.1	0.8	3.9	-	-	7.7	2.1	9.1	5.3	1.1	1.3	2.3
C19-C20	-	-	0.4	-	0.5	0.6	0.7	0.7	2.5	-	1.2	-	-	-	3.0	-	0.5	0.5	0.8
C21	-	-	-	-	-	-	-	0.7	0.8	1.0	2.5	-	1.5	-	-	2.7	0.3	0.4	1.1
C22	-	-	-	-	-	1.2	0.7	1.4	2.5	2.9	2.5	20	7.7	12.6	12.1	5.3	2.0	2.5	5.3
C23-C24	-	-	-	-	0.5	0.6	-	1.4	0.8	1.0	2.5	12.3	7.7	12.6	3.0	-	1.3	1.6	3.6
C25	-	-	-	-	-	-	-	0.7	-	1.9	2.5	1.5	4.6	4.2	-	5.3	0.6	0.8	1.7
C30-C31	-	-	-	-	0.5	-	0.7	-	-	1.0	-	-	1.5	2.1	-	2.7	0.3	0.3	0.4
C32	-	-	-	-	-	-	-	-	-	1.9	4.9	9.2	7.7	16.8	12.1	8.0	1.5	1.9	3.4
C33-C34	-	-	-	-	0.5	-	0.7	1.4	3.4	1.0	6.2	12.3	12.3	8.4	30.3	13.4	2.3	2.8	5.3
C37-C38	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	0.1	0.2
C40-C41	-	0.5	0.8	0.4	1.4	-	-	1.4	1.7	1.0	2.5	-	3.1	-	6.1	-	0.9	0.9	1.6
C43	-	-	-	-	-	-	-	-	-	-	-	-	3.1	-	6.1	2.7	0.2	0.3	0.4
C44	-	-	-	-	-	-	1.4	2.1	0.8	2.9	1.2	3.1	4.6	-	6.1	5.3	0.9	1.0	2.3
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	0.7	-	-	-	0.5	-	-	-	2.5	1.0	-	3.1	-	6.3	-	2.7	0.6	0.7	1.1
C50	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	0.1	0.2
C60	-	-	-	-	-	-	-	0.7	0.8	-	2.5	1.5	-	2.1	3.0	-	0.3	0.4	0.9
C61	-	-	-	-	-	-	-	0.7	0.8	1.0	1.2	3.1	12.3	21.0	24.3	26.7	2.0	2.5	2.7
C62	-	-	-	-	0.5	-	1.4	0.7	-	1.0	-	-	-	-	-	-	0.2	0.2	0.3
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	1.0	2.5	-	4.6	2.1	-	-	0.3	0.4	1.2
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	0.5	-	-	0.7	0.8	2.9	2.5	1.5	7.7	4.2	3.0	10.7	1.0	1.2	2.5
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	1.3	-	-	-	-	-	-	-	-	-	1.2	-	-	2.1	-	-	0.2	0.3	0.2
C70-C72	0.7	1.4	0.4	-	1.4	2.3	-	1.4	3.4	3.9	-	-	6.1	-	3.0	5.3	1.4	1.5	2.5
C73	-	-	-	-	0.5	-	-	-	-	-	1.2	-	-	-	-	2.7	0.1	0.2	0.2
C74	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	0.1	0.2
C81	-	0.5	0.4	0.7	-	0.6	0.7	-	-	-	-	-	-	-	-	-	0.3	0.2	-
C82-C85,C96	-	0.5	0.4	0.7	0.9	0.6	-	-	2.5	1.0	2.5	4.6	3.1	-	3.0	2.7	0.9	1.0	2.1
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	0.7	0.8	-	1.2	3.1	6.1	4.2	-	2.7	0.6	0.7	1.7
C91	2.0	1.0	1.6	-	0.5	0.6	2.1	-	0.8	1.9	-	3.1	1.5	-	-	-	0.9	1.0	1.1
C92-C94	0.7	-	0.4	0.7	0.9	1.2	2.1	0.7	1.7	2.9	1.2	-	-	2.1	-	-	0.9	0.9	1.2
C95	1.3	0.5	1.2	0.7	0.5	0.6	-	-	0.8	1.0	-	1.5	-	-	-	-	0.6	0.6	0.5
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O & U*	0.7	1.0	1.2	1.1	0.9	0.6	1.4	2.1	1.7	1.9	7.4	4.6	15.3	14.7	12.1	8.0	2.6	2.9	4.9
Total	7.2	5.3	6.8	5.2	12.6	15.7	29.7	50.2	78.5	115.8	138.2	216.7	199.5	216.6	251.8	147.0	50.1	59.2	123.3

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 21: Average Annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35- 64 yrs) (TR) Incidence Rate per 100,000 Population: 2017 – 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	-	-	-	-	-	-	-	-	0.9	-	1.4	-	1.7	-	-	-	0.2	0.2	0.6
C01-C02	-	-	-	-	-	-	1.4	0.7	-	1.1	6.9	6.1	1.7	9.6	3.4	2.8	1.1	1.3	2.5
C03-C06	-	-	-	-	-	0.6	1.4	1.5	2.7	5.3	8.3	9.2	8.3	9.6	-	2.8	1.8	2.2	5.4
C07-C08	-	-	-	-	-	-	0.7	0.7	-	-	2.8	-	-	2.4	-	-	0.3	0.3	0.6
C09	-	-	-	-	-	-	-	-	-	1.1	-	1.5	-	-	3.4	-	0.2	0.2	0.4
C10	-	-	-	-	-	-	-	0.7	-	1.1	-	-	-	-	-	-	0.1	0.1	0.3
C11	-	-	-	-	-	-	-	-	-	-	-	1.5	1.7	-	-	-	0.1	0.1	0.4
C12-C13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	0.7	2.7	2.1	4.1	3.1	5.0	4.8	-	2.8	0.9	1.1	2.8
C16	-	-	-	-	0.6	0.6	1.4	-	-	1.1	8.3	4.6	1.7	4.8	6.9	-	1.0	1.2	2.3
C17	-	-	-	-	-	-	-	-	0.9	-	-	1.5	-	-	-	-	0.1	0.1	0.4
C18	-	-	-	-	-	0.6	-	-	-	-	1.4	-	5.0	-	3.4	2.8	0.4	0.4	0.9
C19-C20	-	-	-	-	-	-	-	0.7	-	1.1	4.1	3.1	-	9.6	-	-	0.6	0.7	1.4
C21	-	-	-	-	-	-	-	0.7	-	-	-	1.5	1.7	-	-	-	0.2	0.2	0.6
C22	-	-	-	-	1.7	0.6	-	2.2	-	7.4	6.9	7.7	11.6	16.7	6.9	8.4	2.3	2.7	5.5
C23-C24	-	-	-	-	-	-	-	2.9	11.8	14.8	16.6	16.9	11.6	28.7	13.8	5.6	4.2	5.0	12.0
C25	-	-	-	-	-	-	-	-	-	-	-	1.5	-	7.2	3.4	-	0.3	0.3	0.2
C30-C31	-	-	-	-	-	-	0.7	-	-	1.1	-	-	1.7	-	-	-	0.2	0.2	0.4
C32	-	-	-	-	-	-	-	0.7	-	1.1	1.4	-	3.3	4.8	-	2.8	0.4	0.5	1.0
C33-C34	-	-	-	-	-	-	0.7	-	1.8	2.1	-	6.1	1.7	7.2	10.3	2.8	0.9	1.1	1.8
C37-C38	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	0.1	0.1	0.2
C40-C41	-	-	0.4	-	-	0.6	-	-	-	1.1	-	-	1.7	-	-	-	0.2	0.2	0.4
C43	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	0.1	-	-
C44	-	-	-	-	-	-	-	1.5	0.9	-	1.4	3.1	-	4.8	3.4	2.8	0.5	0.6	1.1
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	-	0.6	-	0.4	-	-	0.7	0.7	0.9	3.2	1.4	3.1	-	-	-	5.6	0.7	0.7	1.5
C50	-	-	-	-	1.7	4.4	10.5	13.9	25.3	42.1	45.5	46.0	36.5	31.1	31.0	8.4	11.7	13.3	33.7
C51	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	0.1	-	-
C52	-	-	-	-	-	-	-	-	-	1.1	1.4	1.5	-	4.8	3.4	2.8	0.4	0.5	0.6
C53	-	-	-	-	1.1	1.9	1.4	5.8	14.5	22.1	29.0	35.3	38.1	28.7	51.7	19.6	8.1	9.5	22.4
C54	-	-	-	-	-	-	-	0.7	-	-	2.8	3.1	1.7	4.8	3.4	2.8	0.5	0.6	1.2
C55	-	-	-	-	0.6	-	-	-	0.9	-	4.1	-	1.7	2.4	-	-	0.4	0.4	1.1
C56	-	0.6	0.4	0.8	-	0.6	2.1	2.2	3.6	12.6	8.3	4.6	6.6	7.2	3.4	-	2.3	2.6	6.4
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C64	1.6	-	-	-	-	-	-	-	0.9	-	1.4	-	-	-	-	-	0.2	0.3	0.4
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	0.6	-	-	-	-	-	-	1.7	-	-	-	0.1	0.1	0.2
C68	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	2.4	0.6	0.4	-	0.6	-	-	-	-	1.1	4.1	6.1	1.7	-	3.4	-	0.8	1.1	1.9
C73	-	-	-	-	-	0.6	-	0.7	0.9	-	-	1.5	1.7	2.4	-	2.8	0.4	0.4	0.7
C74	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	0.1	0.2
C81	-	0.6	-	0.4	-	-	-	-	0.9	1.1	-	-	1.7	-	-	-	0.3	0.3	0.6
C82-C85,C96	-	0.6	-	-	-	-	-	-	-	1.1	-	4.6	1.7	4.8	-	2.8	0.5	0.6	1.0
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-	-	0.1	0.1	-
C91	0.8	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	0.1	0.2	0.2
C92-C94	-	-	-	0.4	0.6	0.6	1.4	2.9	1.8	1.1	-	1.5	1.7	-	-	-	0.7	0.7	1.5
C95	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	0.2	0.1	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O & U*	-	-	-	-	0.6	-	0.7	-	1.8	6.3	2.8	4.6	6.6	7.2	6.9	5.6	1.4	1.6	3.5
Total	5.5	2.9	1.3	2.1	7.2	12.5	26.6	40.2	74.1	131.7	165.6	181.1	159.1	205.5	158.5	84.2	44.8	52.1	118.2

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 22: 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) 2017: Males

ICD 10	Sites	0 - 64 Years		0 - 74 Years	
		Cu. Rate	Cu. Risk	Cu. Rate	Cu. Risk
C00	Lip	0.0013	0.0013	0.0016	0.0016
C01-02	Tongue	0.0028	0.0028	0.0049	0.0049
C03-06	Mouth	0.0160	0.0160	0.0210	0.0210
C07-C08	Salivary glands	0.0001	0.0001	0.0005	0.0005
C09	Tonsil	-	-	0.0004	0.0004
C10	Other Oropharynx	0.0005	0.0005	0.0007	0.0007
C11	Nasopharynx	0.0001	0.0001	0.0001	0.0001
C12-C13	Hypopharynx	0.0002	0.0002	0.0004	0.0004
C14	Pharynx Unspecified	0.0003	0.0003	0.0005	0.0005
C15	Oesophagus	0.0012	0.0012	0.0022	0.0022
C16	Stomach	0.0013	0.0013	0.0023	0.0023
C17	Small Intestine	0.0002	0.0002	0.0003	0.0003
C18	Colon	0.0008	0.0008	0.0014	0.0014
C19-C20	Rectum	0.0003	0.0003	0.0005	0.0005
C21	Anus & Anal Canal	0.0003	0.0003	0.0003	0.0003
C22	Liver	0.0019	0.0019	0.0032	0.0032
C23-C24	Gall Bladder	0.0013	0.0013	0.0021	0.0021
C25	Pancreas	0.0006	0.0006	0.0008	0.0008
C30-C31	Nose, sinuses etc.	0.0002	0.0002	0.0003	0.0003
C32	Larynx	0.0012	0.0012	0.0026	0.0026
C33-C34	Lung	0.0019	0.0019	0.0038	0.0038
C37-C38	Other Thoracic organ	-	-	-	-
C40-C41	Bone	0.0006	0.0006	0.0009	0.0009
C43	Melanoma of skin	0.0002	0.0002	0.0005	0.0005
C44	Other Skin	0.0008	0.0008	0.0011	0.0011
C45	Mesothelioma	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-
C47+C49	Conn. & Soft tissue	0.0004	0.0004	0.0007	0.0007
C50	Breast	0.0001	0.0001	0.0001	0.0001
C60	Penis	0.0003	0.0003	0.0005	0.0005
C61	Prostate	0.0010	0.0010	0.0032	0.0032
C62	Testis	0.0002	0.0002	0.0002	0.0002
C63	Other male genital	-	-	-	-
C64	Kidney etc.	0.0004	0.0004	0.0005	0.0005
C65	Renal pelvis	-	-	-	-
C66	Ureter	-	-	-	-
C67	Bladder	0.0008	0.0008	0.0012	0.0012
C68	Uns. Urinary Organs	-	-	-	-
C69	Eye	0.0001	0.0001	0.0002	0.0002
C70-C72	Brain, NS	0.0010	0.0010	0.0012	0.0012
C73	Thyroid	0.0001	0.0001	0.0001	0.0001
C74	Adrenal gland	-	-	-	-
C81	Hodgkins Disease	0.0001	0.0001	0.0001	0.0001
C82-C85,C96	NHL	0.0008	0.0008	0.0010	0.0010
C88	Imm. disease	-	-	-	-
C90	Multiple myeloma	0.0006	0.0006	0.0008	0.0008
C91	Lymphoid Leukemia	0.0008	0.0008	0.0008	0.0008
C92-C94	Myeloid Leukemia	0.0006	0.0006	0.0007	0.0007
C95	Leukemia Unspecified	0.0004	0.0004	0.0004	0.0004
MPD	Myeloproliferative disorders	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-
Other & Unspecified*		0.0020	0.0020	0.0033	0.0033
Total		0.0441	0.0441	0.0675	0.0675

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 23: 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) 2017: Female

ICD 10	Sites	0 - 64 Years		0 - 74 Years	
		Cu. Rate	Cu. Risk	Cu. Rate	Cu. Risk
C00	Lip	0.0002	0.0002	0.0002	0.0002
C01-C02	Tongue	0.0009	0.0009	0.0015	0.0015
C03-C06	Mouth	0.0019	0.0019	0.0023	0.0023
C07-C08	Salivary gland	0.0002	0.0002	0.0003	0.0003
C09	Tonsil	0.0001	0.0001	0.0003	0.0003
C10	Other oropharynx	0.0001	0.0001	0.0001	0.0001
C11	Nasopharynx	0.0002	0.0002	0.0002	0.0002
C12-C13	Hypopharynx	-	-	-	-
C14	Pharynx Unspecified	-	-	-	-
C15	Oesophagus	0.0009	0.0009	0.0011	0.0011
C16	Stomach	0.0009	0.0009	0.0015	0.0015
C17	Small intestine	0.0001	0.0001	0.0001	0.0001
C18	Colon	0.0003	0.0003	0.0005	0.0005
C19-C20	Rectum	0.0004	0.0004	0.0009	0.0009
C21	Anus	0.0002	0.0002	0.0002	0.0002
C22	Liver	0.0019	0.0019	0.0031	0.0031
C23-C24	Gall Bladder	0.0037	0.0037	0.0058	0.0058
C25	Pancreas	0.0001	0.0001	0.0006	0.0006
C30-C31	Nose, Sinuses etc	0.0002	0.0002	0.0002	0.0002
C32	Larynx	0.0003	0.0003	0.0006	0.0006
C33-C34	Lung	0.0006	0.0006	0.0015	0.0015
C37-C38	Other Thoracic organ	0.0001	0.0001	0.0001	0.0001
C40-C41	Bone	0.0002	0.0002	0.0002	0.0002
C43	Melanoma of skin	-	-	-	-
C44	Other skin	0.0003	0.0003	0.0008	0.0008
C45	Mesothelioma	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-
C47+C49	Conn & soft tissue	0.0005	0.0005	0.0005	0.0005
C50	Breast	0.0113	0.0113	0.0144	0.0144
C51	Vulva	-	-	-	-
C52	Vagina	0.0002	0.0002	0.0006	0.0006
C53	Cervix Uteri	0.0075	0.0075	0.0115	0.0115
C54	Corpus Uteri	0.0004	0.0004	0.0008	0.0008
C55	Uterus unspecified	0.0004	0.0004	0.0005	0.0005
C56	Ovary etc.	0.0021	0.0021	0.0027	0.0027
C57	Other female genital	-	-	-	-
C58	Placenta	-	-	-	-
C64	Kidney	0.0002	0.0002	0.0002	0.0002
C65	Renal Pelvis	-	-	-	-
C66	Ureter	-	-	-	-
C67	Bladder	0.0001	0.0001	0.0001	0.0001
C68	Other urinary organs	-	-	-	-
C69	Eye	-	-	-	-
C70-C72	Brain, NS	0.0008	0.0008	0.0010	0.0010
C73	Thyroid	0.0003	0.0003	0.0004	0.0004
C74	Adrenal gland	-	-	-	-
C81	Hodgkins Disease	0.0002	0.0002	0.0002	0.0002
C82-C85,C96	NHL	0.0004	0.0004	0.0006	0.0006
C88	Imm. disease	-	-	-	-
C90	Multiple Myeloma	-	-	0.0001	0.0001
C91	Lymphoid Leukemia	0.0001	0.0001	0.0001	0.0001
C92-C94	Myeloid Leukemia	0.0006	0.0006	0.0006	0.0006
C95	Leukemia Unspecified	0.0001	0.0001	0.0001	0.0001
MPD	Myeloproliferative disorders	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-
Other & Unspecified*		0.0012	0.0012	0.0019	0.0019
Total		0.0405	0.0405	0.0587	0.0587

* Other & Unspecified includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 24: Number (#) and Proportion (%) of Cancers by Site (ICD -10) and Method of Diagnosis: 2017 – Males Varanasi District

ICD 10	Site	Clinical		Radiology		Microscopic		Other **		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%
C00	Lip	2	7.7	-	-	22	84.6	2	7.7	26	100.0
C01-02	Tongue	4	5.7	2	2.9	60	85.7	4	5.7	70	100.0
C03-06	Mouth	32	9.5	4	1.2	228	67.7	73	21.7	337	100.0
C07-08	Salivary glands	-	-	1	12.5	7	87.5	-	-	8	100.0
C09	Tonsil	1	33.3	-	-	2	66.7	-	-	3	100.0
C10	Other oropharynx	-	-	-	-	11	100.0	-	-	11	100.0
C11	Nasopharynx	-	-	-	-	1	100.0	-	-	1	100.0
C12-13	Hypopharynx	1	25.0	-	-	3	75.0	-	-	4	100.0
C14	Pharynx unspecified	1	16.7	-	-	3	50.0	2	33.3	6	100.0
C15	Oesophagus	3	11.1	1	3.7	21	77.8	2	7.4	27	100.0
C16	Stomach	4	13.3	2	6.7	18	60.0	6	20.0	30	100.0
C17	Small intestine	1	25.0	-	-	2	50.0	1	25.0	4	100.0
C18	Colon	2	8.3	2	8.3	18	75.0	2	8.3	24	100.0
C19-20	Rectum	-	-	-	-	8	80.0	2	20.0	10	100.0
C21	Anus	1	14.3	1	14.3	5	71.4	-	-	7	100.0
C22	Liver	-	-	3	6.8	10	22.7	31	70.5	44	100.0
C23-24	Gallbladder etc.	3	10.7	5	17.9	16	57.1	4	14.3	28	100.0
C25	Pancreas	2	15.4	5	38.5	4	30.8	2	15.4	13	100.0
C30-31	Nose, sinuses etc.	1	16.7	-	-	5	83.3	-	-	6	100.0
C32	Larynx	-	-	3	9.4	25	78.1	4	12.5	32	100.0
C33-34	Trachea, bronchus and lung	5	10.2	7	14.3	32	65.3	5	10.2	49	100.0
C37-38	Other thoracic organs	-	-	-	-	1	100.0	-	-	1	100.0
C40-41	Bone	-	-	2	11.1	9	50.0	7	38.9	18	100.0
C43	Melanoma of skin	-	-	-	-	4	80.0	1	20.0	5	100.0
C44	Other skin	-	-	-	-	15	78.9	4	21.1	19	100.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	10	83.3	2	16.7	12	100.0
C50	Breast	-	-	-	-	1	100.0	-	-	1	100.0
C60	Penis	-	-	2	28.6	4	57.1	1	14.3	7	100.0
C61	Prostate	4	9.5	2	4.8	25	59.5	11	26.2	42	100.0
C62	Testis	1	20.0	1	20.0	3	60.0	-	-	5	100.0
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-
C64	Kidney	1	14.3	1	14.3	4	57.1	1	14.3	7	100.0
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Bladder	2	9.5	5	23.8	12	57.1	2	9.5	21	100.0
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	4	100.0	-	-	4	100.0
C70-72	Brain, nervous system	-	-	7	24.1	15	51.7	7	24.1	29	100.0
C73	Thyroid	-	-	-	-	2	66.7	1	33.3	3	100.0
C74	Adrenal gland	-	-	-	-	1	100.0	-	-	1	100.0
C81	Hodgkin disease	-	-	-	-	6	100.0	-	-	6	100.0
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	20	100.0	-	-	20	100.0
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	12	100.0	-	-	12	100.0
C91	Lymphoid leukaemia	-	-	-	-	20	100.0	-	-	20	100.0
C92-94	Myeloid leukaemia	-	-	-	-	19	100.0	-	-	19	100.0
C95	Leukaemia unspecified	1	7.7	-	-	9	69.2	3	23.1	13	100.0
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-
O&U*	Other and unspecified	6	11.3	2	3.8	7	13.2	38	71.7	53	100.0
Total		78	7.4	58	5.5	704	66.5	218	20.6	1058	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

** Other: Information based on patients relatives, medical note and DCO

Table 25: Number (#) and Proportion (%) of Cancers by Site (ICD -10) and Method of Diagnosis: 2017 – Females Varanasi District

ICD 10	Site	Clinical		Radiology		Microscopic		Other **		Total #	
		Number	%	Number	%	Number	%	Number	%	Number	%
C00	Lip	-	-	-	-	1	33.3	2	66.7	3	100.0
C01-02	Tongue	-	-	1	5.0	17	85.0	2	10.0	20	100.0
C03-06	Mouth	1	2.9	-	-	23	65.7	11	31.4	35	100.0
C07-08	Salivary glands	-	-	-	-	5	100.0	-	-	5	100.0
C09	Tonsil	-	-	-	-	3	100.0	-	-	3	100.0
C10	Other oropharynx	-	-	-	-	2	100.0	-	-	2	100.0
C11	Nasopharynx	1	50.0	-	-	1	50.0	-	-	2	100.0
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	1	5.9	-	-	15	88.2	1	5.9	17	100.0
C16	Stomach	-	-	-	-	11	57.9	8	42.1	19	100.0
C17	Small intestine	-	-	2	100.0	-	-	-	-	2	100.0
C18	Colon	2	28.6	-	-	5	71.4	-	-	7	100.0
C19-20	Rectum	3	27.3	-	-	7	63.6	1	9.1	11	100.0
C21	Anus	-	-	-	-	2	66.7	1	33.3	3	100.0
C22	Liver	4	9.3	3	7.0	4	9.3	32	74.4	43	100.0
C23-24	Gallbladder etc.	7	8.9	14	17.7	27	34.2	31	39.2	79	100.0
C25	Pancreas	2	40.0	-	-	1	20.0	2	40.0	5	100.0
C30-31	Nose, sinuses etc.	-	-	-	-	2	66.7	1	33.3	3	100.0
C32	Larynx	-	-	-	-	6	75.0	2	25.0	8	100.0
C33-34	Trachea, bronchus and lung	-	-	1	5.9	12	70.6	4	23.5	17	100.0
C37-38	Other thoracic organs	-	-	-	-	1	100.0	-	-	1	100.0
C40-41	Bone	1	25.0	-	-	2	50.0	1	25.0	4	100.0
C43	Melanoma of skin	-	-	-	-	1	100.0	-	-	1	100.0
C44	Other skin	-	-	1	10.0	8	80.0	1	10.0	10	100.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	1	7.7	12	92.3	-	0.0	13	100.0
C50	Breast	13	5.9	2	0.9	172	77.5	35	15.8	222	100.0
C51	Vulva	-	-	-	-	1	100.0	-	0.0	1	100.0
C52	Vagina	-	-	-	-	7	100.0	-	0.0	7	100.0
C53	Cervix uteri	10	6.5	2	1.3	85	55.6	56	36.6	153	100.0
C54	Corpus uteri	-	-	-	-	10	100.0	-	0.0	10	100.0
C55	Uterus unspecified	3	42.9	-	-	3	42.9	1	14.3	7	100.0
C56	Ovary	3	7.0	9	20.9	31	72.1	-	0.0	43	100.0
C57	Other female genital organs	-	-	-	-	-	-	-	-	-	-
C58	Placenta	1	100.0	-	-	-	-	-	-	1	100.0
C64	Kidney	-	-	-	-	3	75.0	1	25.0	4	100.0
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Bladder	1	50.0	1	50.0	-	-	-	-	2	100.0
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	1	100.0	-	-	1	100.0
C70-72	Brain, nervous system	2	12.5	-	-	12	75.0	2	12.5	16	100.0
C73	Thyroid	1	14.3	-	-	5	71.4	1	14.3	7	100.0
C74	Adrenal gland	-	-	-	-	1	100.0	-	-	1	100.0
C81	Hodgkin disease	-	-	-	-	5	100.0	-	-	5	100.0
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	8	88.9	1	11.1	9	100.0
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	1	100.0	-	-	1	100.0
C91	Lymphoid leukaemia	-	-	-	-	2	100.0	-	-	2	100.0
C92-94	Myeloid leukaemia	-	-	-	-	14	100.0	-	-	14	100.0
C95	Leukaemia unspecified	-	-	-	-	3	100.0	-	-	3	100.0
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-
O&U*	Other and unspecified	7	26.9	1	3.8	5	19.2	13	50.0	26	100.0
Total		63	7.4	38	4.5	537	63.3	210	24.8	848	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

** Other: Information based on patients relatives, medical note and DCO # 1 case of Specific tumor marker

**Table 26: Number of Cancer Deaths by Five Year Age Group and Site (ICD 10): 2017 –
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	-	-	-	-	-	-	2	-	-	-	1	2	-	1	-	-	6	1.4
C01-C02	Tongue	-	-	-	-	-	-	-	5	3	5	5	3	1	4	-	1	27	6.3
C03-C06	Mouth	-	-	-	-	1	1	3	8	14	21	15	13	17	9	11	5	118	27.5
C07-C08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2	0.5
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.2
C10	Other Oropharynx	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	2	0.5
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.2
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.2
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	3	0.7
C15	Oesophagus	-	-	-	-	-	-	-	-	-	-	2	1	4	2	2	2	13	3.0
C16	Stomach	-	-	-	-	1	-	-	-	2	2	1	3	3	3	1	-	16	3.7
C17	Small Intestine	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	0.5
C18	Colon	-	-	-	-	-	-	-	-	-	2	-	-	1	1	1	1	6	1.4
C19-C20	Rectum	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	2	0.5
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2	0.5
C22	Liver	-	-	-	-	-	2	1	3	3	4	5	9	4	4	4	3	42	9.8
C23-C24	Gall Bladder	-	-	-	-	1	1	-	-	2	1	-	-	-	2	-	-	7	1.6
C25	Pancreas	-	-	-	-	-	-	-	1	-	2	-	-	-	3	-	2	8	1.9
C30-C31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	1	2	4	-	3	1	-	11	2.6
C33-C34	Lung	-	-	-	-	1	-	1	2	1	-	2	4	5	3	3	1	23	5.4
C37-C38	Other Thoracic organ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	Bone	-	-	1	-	1	-	-	1	1	1	2	-	-	2	-	-	9	2.1
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.2
C44	Other Skin	-	-	-	-	1	-	-	-	-	-	-	1	-	1	-	1	4	0.9
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft tissue	-	-	-	-	-	-	-	-	1	-	1	-	-	1	-	-	3	0.7
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	Penis	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.2
C61	Prostate	-	-	-	-	-	-	-	-	1	1	1	-	3	2	2	6	16	3.7
C62	Testis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	Oth male genital org	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	-	1	-	-	-	-	-	-	-	-	-	-	2	1	-	-	4	0.9
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	3	-	1	2	1	-	-	7	1.6
C68	Uns. Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.2
C70-C72	Brain, NS	-	-	-	-	2	-	-	2	1	5	-	-	1	-	1	-	12	2.8
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkins Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-C86, C96	NHL	-	-	-	1	1	-	-	-	1	-	-	-	1	-	-	1	5	1.2
C88	Imm. disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.2
C91	Lymphoid Leuk.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-C94	Myeloid Leukemia	1	-	1	1	-	-	1	-	-	-	1	-	-	1	1	-	7	1.6
C95	Leukemia Uns	-	-	1	1	-	1	-	-	-	2	-	1	-	1	-	-	7	1.6
Myeloproliferative disorders		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Myelodysplastic syndromes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other & Unspecified*		1	1	4	2	1	1	1	1	3	-	5	8	14	9	5	2	58	13.5
Total		2	2	7	5	10	7	9	23	34	52	46	51	62	57	34	28	429	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 27: Number of Cancer Deaths by Five Year Age Group and Site (ICD 10): 2017 – 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-C02	Tongue	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	0.6
C03-C06	Mouth	-	-	-	-	-	1	1	1	4	3	1	2	-	3	-	-	16	4.8
C07-C08	Salivary gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2	0.6
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-C13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	-	1	1	2	-	-	1	-	-	5	1.5
C16	Stomach	-	-	-	-	-	1	1	-	-	-	2	2	1	1	1	-	9	2.7
C17	Small intestine	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2	0.6
C18	Colon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.3
C19-C20	Rectum	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	0.6
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	2	1	-	3	-	4	3	4	8	6	1	2	34	10.2
C23-C24	Gall Bladder	-	-	-	-	1	-	-	3	7	6	5	6	3	6	2	1	40	12.0
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	3	0.9
C30-C31	Nose, Sinuses etc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-C34	Lung	-	-	-	-	-	-	-	-	1	2	-	-	1	3	1	1	9	2.7
C37-C38	Other Thoracic organ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	Bone	-	1	-	-	-	1	-	-	1	1	-	-	1	-	-	-	5	1.5
C43	Melanoma of skin	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.3
C44	Other skin	-	-	-	-	-	-	-	1	-	-	1	1	1	2	-	-	6	1.8
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn & soft tissue	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	3	0.9
C50	Breast	-	-	-	-	-	3	3	4	5	11	11	6	12	3	4	-	62	18.6
C51	Vulva	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	Vagina	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	0.6
C53	Cervix Uteri	-	-	-	-	-	1	1	3	6	7	8	7	13	7	11	2	66	19.8
C54	Corpus Uteri	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.3
C55	Uterus unspecified	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	3	0.9
C56	Ovary etc.	-	-	-	-	-	-	1	2	1	1	3	-	-	-	-	-	8	2.4
C57	Oth female genital org	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3
C70-C72	Brain, NS	1	-	-	1	1	-	-	-	-	-	1	-	-	-	1	-	5	1.5
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	3	0.9
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkins Disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-C85, C96	NHL	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	4	1.2
C88	Imm. disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.3
C91	Lymphoid Leuk.	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3
C92-C94	Myeloid Leukemia	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	3	0.9
C95	Leukemia Uns	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	0.3
Myeloproliferative disorders		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Myelodysplastic syndromes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other & Unspecified*		-	-	-	2	-	-	2	1	3	6	3	2	6	2	1	3	31	9.3
Total		4	1	-	3	4	9	12	19	31	43	45	37	48	42	25	10	333	100.0

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 28: Average Annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35- 64 yrs) (TR) Mortality Rate per 100,000 Population: 2017 – 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	-	-	-	-	-	-	1.4	-	-	-	1.2	3.1	-	2.1	-	-	0.3	0.3	0.6
C01-02	-	-	-	-	-	-	-	3.5	2.5	4.9	6.2	4.6	1.5	8.4	-	2.7	1.3	1.5	3.9
C03-06	-	-	-	-	0.5	0.6	2.1	5.7	11.8	20.4	18.5	20.0	26.1	18.9	33.4	13.4	5.6	6.8	16.3
C07-C08	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	3.0	-	0.1	0.1	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	-	0.1	-
C10	-	-	-	-	-	-	-	-	0.8	-	-	-	1.5	-	-	-	0.1	0.1	0.4
C11	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	0.1	0.2
C12-C13	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	0.1	-
C14	-	-	-	-	-	-	-	-	-	-	2.5	-	1.5	-	-	-	0.1	0.2	0.6
C15	-	-	-	-	-	-	-	-	-	-	2.5	1.5	6.1	4.2	6.1	5.3	0.6	0.8	1.4
C16	-	-	-	-	0.5	-	-	-	1.7	1.9	1.2	4.6	4.6	6.3	3.0	-	0.8	0.9	2.1
C17	-	-	-	-	-	-	-	-	-	1.0	-	-	1.5	-	-	-	0.1	0.1	0.4
C18	-	-	-	-	-	-	-	-	-	1.9	-	-	1.5	2.1	3.0	2.7	0.3	0.4	0.6
C19-C20	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	2.7	0.1	0.1	-
C21	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-	2.7	0.1	0.1	0.2
C22	-	-	-	-	-	1.2	0.7	2.1	2.5	3.9	6.2	13.8	6.1	8.4	12.1	8.0	2.0	2.4	5.2
C23-C24	-	-	-	-	0.5	0.6	-	-	1.7	1.0	-	-	-	4.2	-	-	0.3	0.4	0.5
C25	-	-	-	-	-	-	-	0.7	-	1.9	-	-	-	6.3	-	5.3	0.4	0.5	0.5
C30-C31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	-	-	1.0	2.5	6.1	-	6.3	3.0	-	0.5	0.7	1.4
C33-C34	-	-	-	-	0.5	-	0.7	1.4	0.8	-	2.5	6.1	7.7	6.3	9.1	2.7	1.1	1.3	2.6
C37-C38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	-	-	0.4	-	0.5	-	-	0.7	0.8	1.0	2.5	-	-	4.2	-	-	0.4	0.5	0.9
C43	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	0.1	0.2
C44	-	-	-	-	0.5	-	-	-	-	-	-	1.5	-	2.1	-	2.7	0.2	0.2	0.2
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	-	-	-	-	-	-	-	-	0.8	-	1.2	-	-	2.1	-	-	0.1	0.2	0.4
C50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	0.1	0.2
C61	-	-	-	-	-	-	-	-	0.8	1.0	1.2	-	4.6	4.2	6.1	16.0	0.8	0.9	1.1
C62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	0.5	-	-	-	-	-	-	-	-	-	-	3.1	2.1	-	-	0.2	0.2	0.4
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	2.9	-	1.5	3.1	2.1	-	-	0.3	0.4	1.2
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	0.1	-
C70-C72	-	-	-	-	0.9	-	-	1.4	0.8	4.9	-	-	1.5	-	3.0	-	0.6	0.6	1.6
C73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-C85,C96	-	-	-	0.4	0.5	-	-	-	0.8	-	-	-	1.5	-	-	2.7	0.2	0.2	0.4
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-	0.1	-
C91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-C94	0.7	-	0.4	0.4	-	-	0.7	-	-	-	1.2	-	-	2.1	3.0	-	0.3	0.4	0.2
C95	-	-	0.4	0.4	-	0.6	-	-	-	1.9	-	1.5	-	2.1	-	-	0.3	0.4	0.6
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O & U *	0.7	0.5	1.6	0.7	0.5	0.6	0.7	0.7	2.5	-	6.2	12.3	21.5	18.9	15.2	5.3	2.7	3.3	6.0
Total	1.3	1.0	2.8	1.9	4.5	4.1	6.2	16.3	28.7	50.6	56.7	78.4	95.2	119.9	103.2	74.9	20.3	24.4	50.0

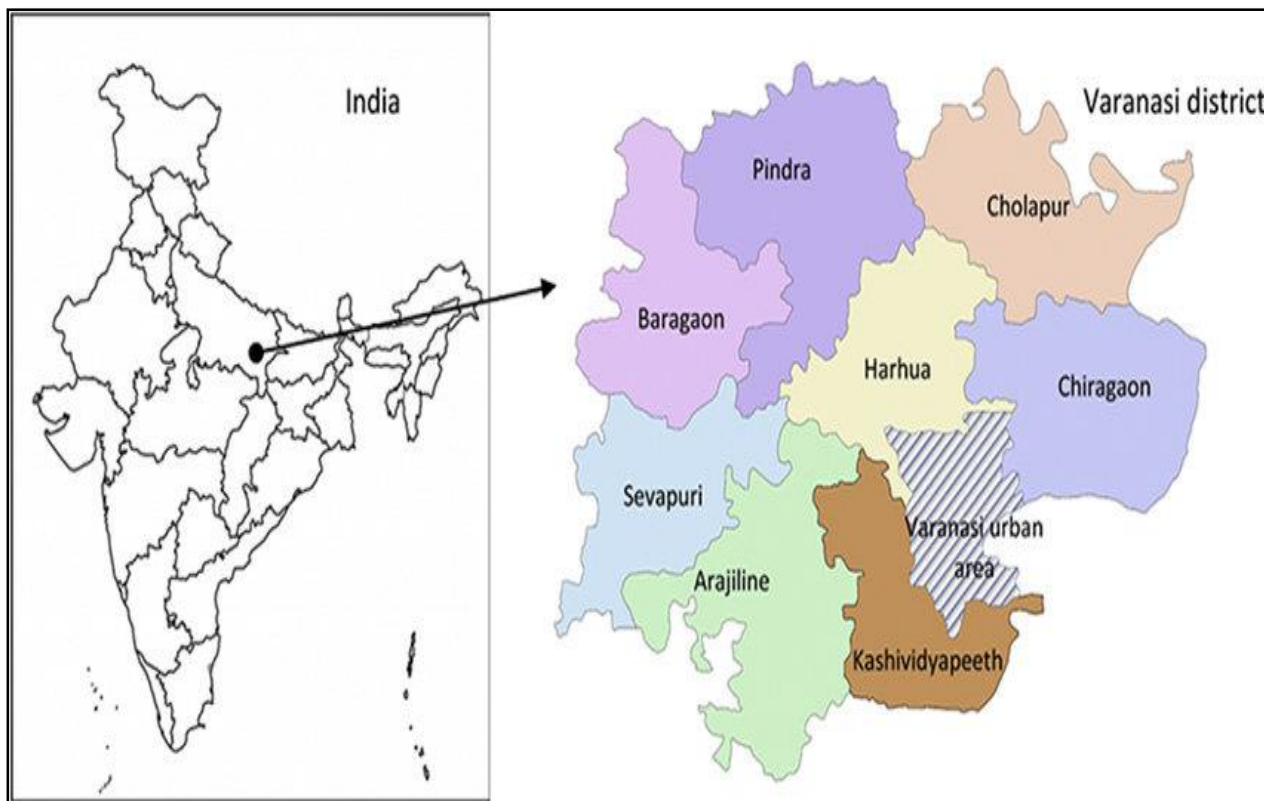
* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

Table 29: Average Annual Age Specific, Crude (CR), Age Adjusted (AAR) and Truncated (35- 64 yrs) (TR) Mortality Rate per 100,000 population: 2017 – 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-C02	-	-	-	-	-	-	-	-	-	-	-	1.5	-	2.4	-	-	0.1	0.1	0.2
C03-C06	-	-	-	-	-	0.6	0.7	0.7	3.6	3.2	1.4	3.1	-	7.2	-	-	0.8	0.9	2.1
C07-C08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-	3.4	-	0.1	0.1	0.2
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-C13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	-	0.9	1.1	2.8	-	-	2.4	-	-	0.3	0.3	0.8
C16	-	-	-	-	-	0.6	0.7	-	-	-	2.8	3.1	1.7	2.4	3.4	-	0.5	0.6	1.1
C17	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	0.1	0.1	0.3
C18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.1	0.1	-
C19-C20	-	-	-	-	-	-	-	-	-	-	-	1.5	-	2.4	-	-	0.1	0.1	0.2
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	-	-	-	-	1.1	0.6	-	2.2	-	4.2	4.1	6.1	13.3	14.3	3.4	5.6	1.8	2.1	4.4
C23-C24	-	-	-	-	0.6	-	-	2.2	6.3	6.3	6.9	9.2	5.0	14.3	6.9	2.8	2.1	2.5	5.8
C25	-	-	-	-	-	-	-	-	-	-	-	1.5	-	4.8	-	-	0.2	0.2	0.2
C30-C31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-C34	-	-	-	-	-	-	-	-	0.9	2.1	-	-	1.7	7.2	3.4	2.8	0.5	0.6	0.8
C37-C38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	-	0.6	-	-	-	0.6	-	-	0.9	1.1	-	-	1.7	-	-	-	0.3	0.3	0.6
C43	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	0.1	-	-
C44	-	-	-	-	-	-	-	0.7	-	-	1.4	1.5	1.7	4.8	-	-	0.3	0.4	0.8
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	-	-	-	-	-	-	-	0.7	-	-	1.4	1.5	-	-	-	-	0.2	0.2	0.6
C50	-	-	-	-	-	1.9	2.1	2.9	4.5	11.6	15.2	9.2	19.9	7.2	13.8	-	3.3	3.8	9.9
C51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	3.4	-	0.1	0.1	0.2
C53	-	-	-	-	-	0.6	0.7	2.2	5.4	7.4	11.0	10.7	21.5	16.7	37.9	5.6	3.5	4.2	8.8
C54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-	0.1	0.1	-
C55	-	-	-	-	-	-	-	-	-	-	2.8	-	-	2.4	-	-	0.2	0.2	0.4
C56	-	-	-	-	-	-	0.7	1.5	0.9	1.1	4.1	-	-	-	-	-	0.4	0.5	1.3
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C70-C72	0.8	-	-	0.4	0.6	-	-	-	-	-	1.4	-	-	-	3.4	-	0.3	0.3	0.2
C73	-	-	-	-	-	-	-	-	-	-	-	1.5	1.7	2.4	-	-	0.2	0.2	0.4
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-C85, C96	-	-	-	-	-	-	-	-	-	-	-	1.5	1.7	4.8	-	-	0.2	0.3	0.4
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	0.1	0.1	0.2
C91	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C92-C94	-	-	-	-	-	-	1.4	-	-	-	-	1.5	-	-	-	-	0.2	0.1	0.2
C95	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O & U*	-	-	-	0.8	-	-	1.4	0.7	2.7	6.3	4.1	3.1	9.9	4.8	3.4	8.4	1.6	1.9	4.2
Total	3.2	0.6	-	1.3	2.2	5.6	8.4	13.9	28.0	45.3	62.1	56.8	79.6	100.4	86.1	28.1	17.6	20.8	44.5

* O & U includes the sites (ICD - 10: C26, C39, C48, C75, C76, C77, C78, C79, C80, C97)

19. Village-wise incidence and mortality cases: 2017



Cancer incidence cases and mortality cases: Varanasi district (urban and rural area)

Block	Incidence		Mortality	
	Male	Female	Male	Female
Varanasi Urban Area	492	349	126	77
Arajiline	71	72	29	43
Baragaon	76	60	40	20
Chiragaon	61	63	31	34
Cholapur	49	42	40	37
Harhua	66	58	41	30
Kashividyapeeth*	120	82	52	33
Pindra	65	80	37	36
Sewapuri	58	43	33	23
Total	1058	849	429	333

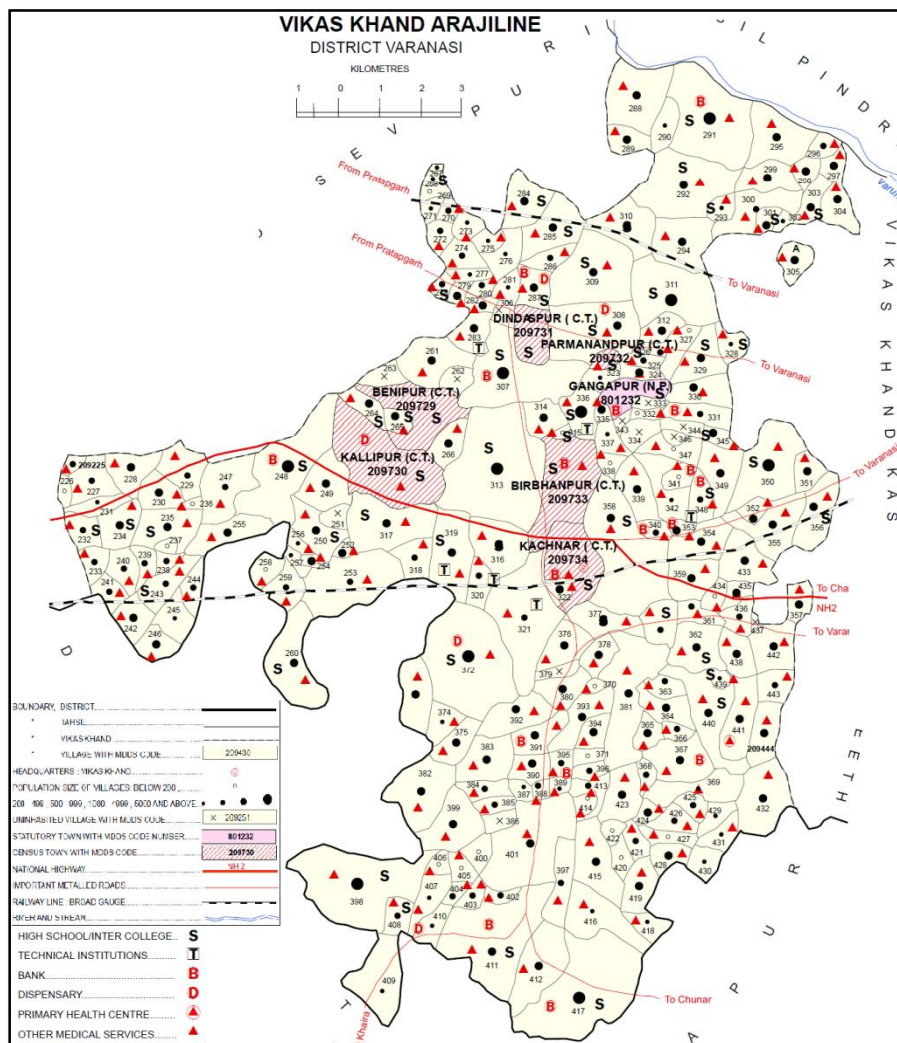
* Including new census town

Cancer incidence cases and mortality cases: Varanasi urban area

Sr. No.	Urban Area	Incidence		Mortality	
		Male	Female	Male	Female
1	Aktha	12	3	3	3
2	Alaipura	4			
3	Ashapur	5	5		
4	Bagahara	1			
5	Baluwa Bir	5	1	2	
6	Bandhukala Kachhi Bag	2		1	
7	Beniya	4			
8	Barjardiha	7	3	1	
9	Bhadani	2	1		2
10	Bhelupur	17	14	5	3
11	Bhoot Bhairav	1	1		
12	Bridopur	7	3	1	5
13	Chitanpur	4	2		2
14	Chetganj	9	4	3	
15	Chitapur (NCCT)	2	5		1
16	Choti Piyari	7	4		
17	Dashashwamedh	7	2	6	
18	Daranagar	4	1	2	
19	Daswamegh	6	14	2	1
20	Dithori mahal	12	4	3	
21	Deen Dayal Pur			1	
22	Dhup Chandi	1	2		
23	Ishwargangi	3	3	1	
24	Gola Dina Nath	5	7	1	1
25	Graghwasi Tola	3	1		
26	Habibpur	2	1		
27	Hardha	5	3	2	
28	Hukulganj	5	2	1	2
29	Indrapur	1			
30	Varanasi (From Lucknow)	13	12		
31	Jagatganj	7	2		1
32	Jaitpura	23	8	5	1
33	Jalalipur	8	3	3	1
34	Jamaluddinpur	1			
35	Jolha		1		1
36	Kaal Bhairav	6	5	2	
37	khujari	5	3	2	1
38	Kazipura	1		1	
39	Kazisadullaha pura	1		1	
40	Kakarmatta	2	3	2	
41	Kamaccha	2	2	2	1
42	Kamalpura	1	1		1
43	kamalghardha	2			
44	Kameshwar Mahadev		1	2	
45	Kashipur	3			1
46	Katehar	3	2	1	1
47	Katuapura	3	1		1

Sr. No.	Urban Area	Incidence		Mortality	
		Male	Female	Male	Female
48	Khojwa	17	17	2	5
49	Konia	2	1	1	2
50	Lahartara	12	13	6	3
51	Lalla Pura	3	3		1
52	Lanka	6	5	3	3
53	Lohatia	1		1	
54	Chittupur	10	7		2
55	Madan Pura	4	3	2	
56	Maidagin	4	3	1	1
57	Mawia/ Sarnath	1			
58	Nadesar	13	7	5	4
59	Nagwa	10	10	4	2
60	Nai Basti		1	2	
61	Naria	8	11	1	1
62	Nawabganj		1		
63	Nawapura	1	2		
64	Newada		1		
65	Omkaleswar	2		1	
66	Pahdiya	9	8	1	
67	Pan Dariba		1		
68	Pandey Havali	1	2		
69	Pandeypur	21	17	4	1
70	Pathani Tola	2	2		
71	Peayari Kalan	1			
72	Prahalad Ghat		4		1
73	Raj Mandir		2		
74	Raja Bazaar	2			
75	Rajghat	3	6	1	1
76	Ramapura	1	2	1	
77	Ramerapur	1			
78	Ramnagar	24	9	5	3
79	Ranipur	1	1	2	
80	Rasulpura	1		1	
81	Sarai Growardhan		1		
82	Sarai Surjan	2		1	1
83	Saraya	6	5	2	2
84	Sarnath	12	7	1	3
85	Sarsauli	3	3	1	
86	Shiv Pur	28	19	5	3
87	Shivala	4	6	2	2
88	Shvipurua	2			
89	Sigra	21	15	8	4
90	Sikaraul	8	10		1
91	Sunderpur	11	10	3	1
92	Tarna	5	2	1	
93	Tulsi Pur	5	2	2	
Total		492	349	126	77

Village-wise cancer incidence cases and mortality cases: Arajiline, Varanasi district

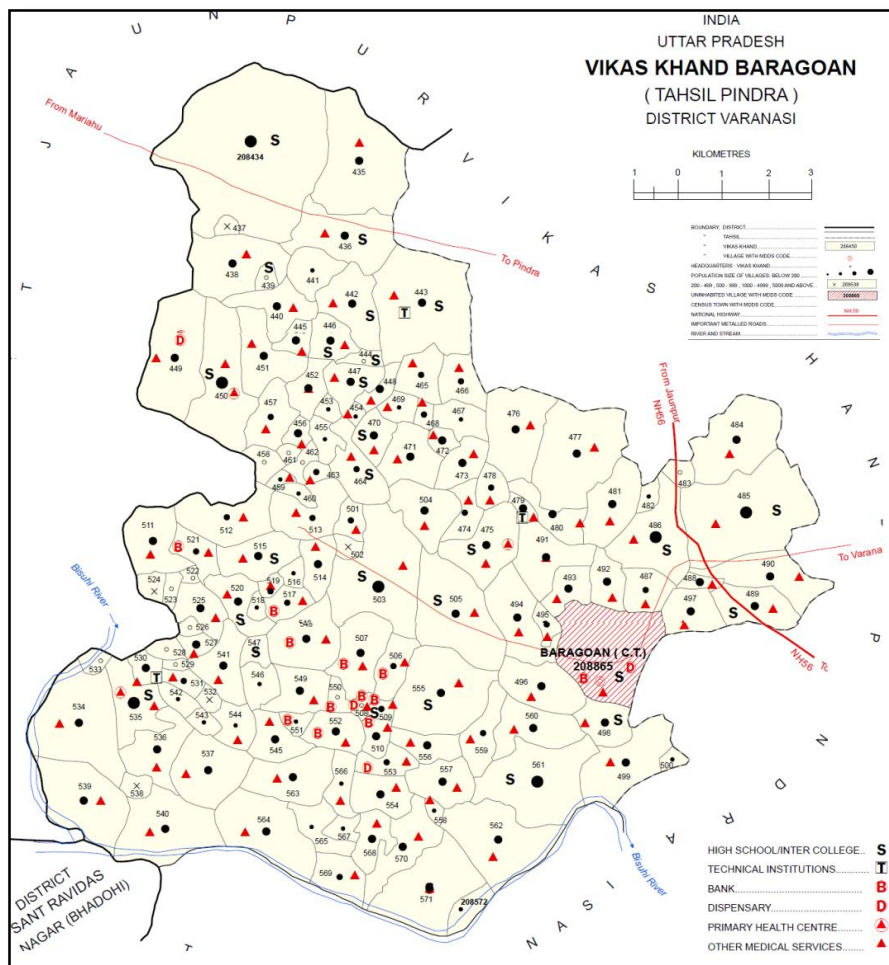


Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Appi	1		1	
2	Aswari	1	3		1
3	Ayodhyapur			1	
4	Babhaniyav		1		
5	Badher	1	1	1	1
6	Badipur	1		1	
7	Bairwan	1	1		2
8	Bangalipur		1	1	
9	Basant Ptti	1			
10	Basantpur	1		1	
11	Belauri	1			
12	Bhareha				1
13	Bharehara		1		1
14	Bhatshar		3		1

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
15	Bhawanipur		1	1	
16	Bhikhampur	2		1	
17	Bhikharipur	1	1		
18	Bhimchandi	1		1	
19	Birbalpur	1		1	
20	Birsinghpur	1			
21	Bitthalpur		1		1
22	Burapur	1			
23	Chakrapanpur		1		1
24	Chandapur		2		3
25	Chaukhandi		1		1
26	Daghariya	1			
27	Darekhu	2		1	2
28	Dayapur		1		1
29	Deuara	2		1	
30	Dhadhorpur		1		1
31	Dhanapur		1		
32	Dipapur		1		1
33	Gajapur	1			
34	Gajari	1	1	1	
35	Ganeshpur		1		
36	Gaur Madhukar Shahpur	4	1	1	
37	Ghamahapur	1			
38	Gora		1		
39	Hardattpur		2		2
40	Harsos	2	1		
41	Jagardeopur			1	
42	Jagatpur	2	1		
43	Jakhini		1		
44	Jansa	1	2	1	1
45	Jayapur	1	1		
46	Jeetapur	1			
47	Jhabra	1			
48	Kachhariya		1		
49	Kachnar	1			
50	Kalyanpur	1		1	
51	Kaneri				2
52	Kanthipur	1			
53	Kapar Phorwa	1	3		1
54	Karnadadi			2	
55	Kashipur		1		
56	Khajuri	1	1	2	
57	Khewali		1		1
58	Kundriya	1			
59	Kurauna	2		1	

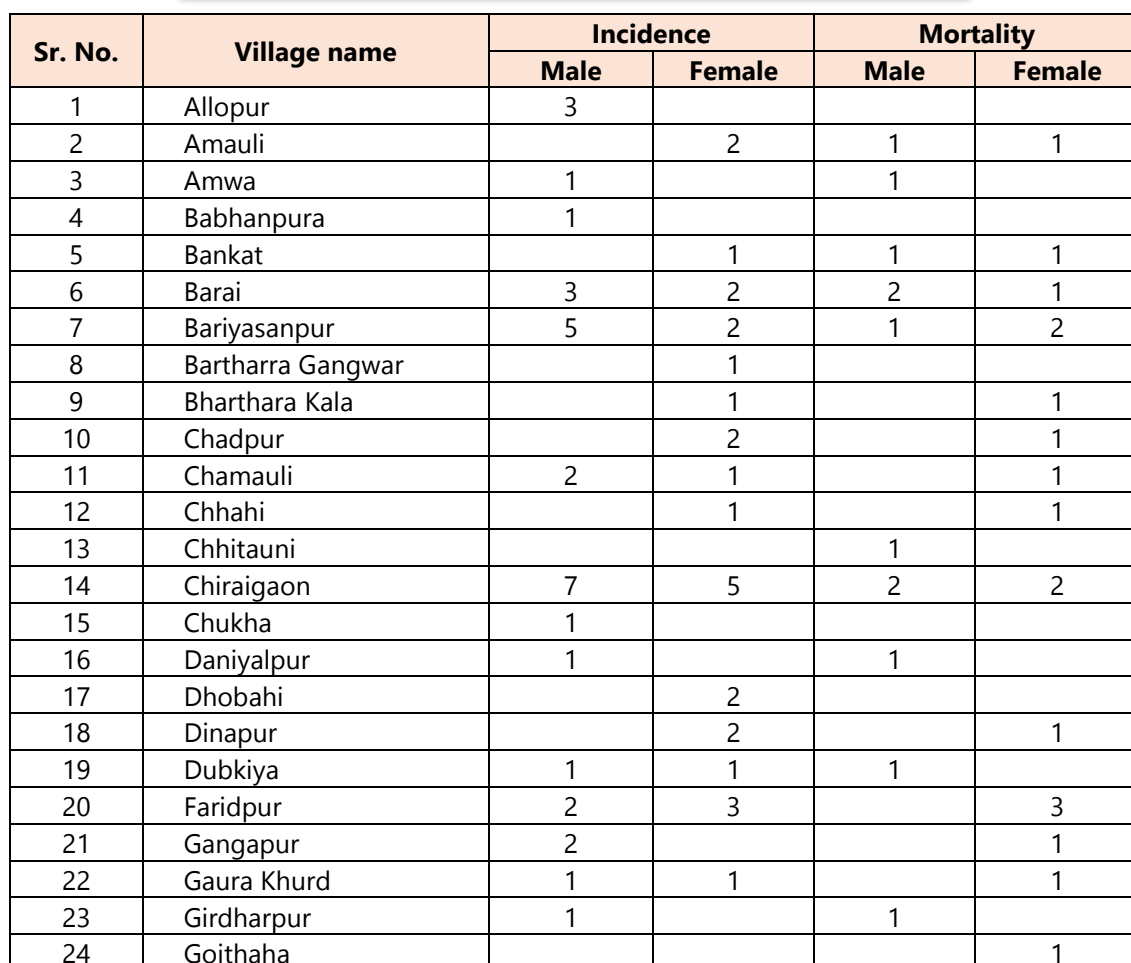
Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
60	Kurauti	2	1		
61	Lachapur	1	1	1	
62	Laxirampur		1		
63	Maniyari Pur (Darerhu)		1		
64	Marui		1		1
65	Mahaban				1
66	Mahgoan				1
67	Mehadiganj	7	3	2	1
68	Mubarakpur		2		2
69	Mungawar		1		1
70	Nagepur		2		1
71	Naraicha		1		1
72	Narottampur	1			
73	Narsara	2			
74	Paidegaon		1		
75	Parampur	1	2		1
76	Parjanpur		1		1
77	Parsuchak	1	1		1
78	Payagpur	1			
79	Pratappur	3		1	
80	Rakhauna	2		2	1
81	Ramraypur		1		
82	Ranibazar	2	2		1
83	Sahansapur	1	3		1
84	Sajoi		1		1
85	Saraimohan		2		1
86	Sarauni		1		
87	Serwanpur		1		
88	Sheorampur	1			
89	Sirsa	1			
90	Suichak	2		1	
91	Todarpur		1		1
Total		71	72	29	43

Village-wise cancer incidence cases and mortality cases: Baragaon, Varanasi district



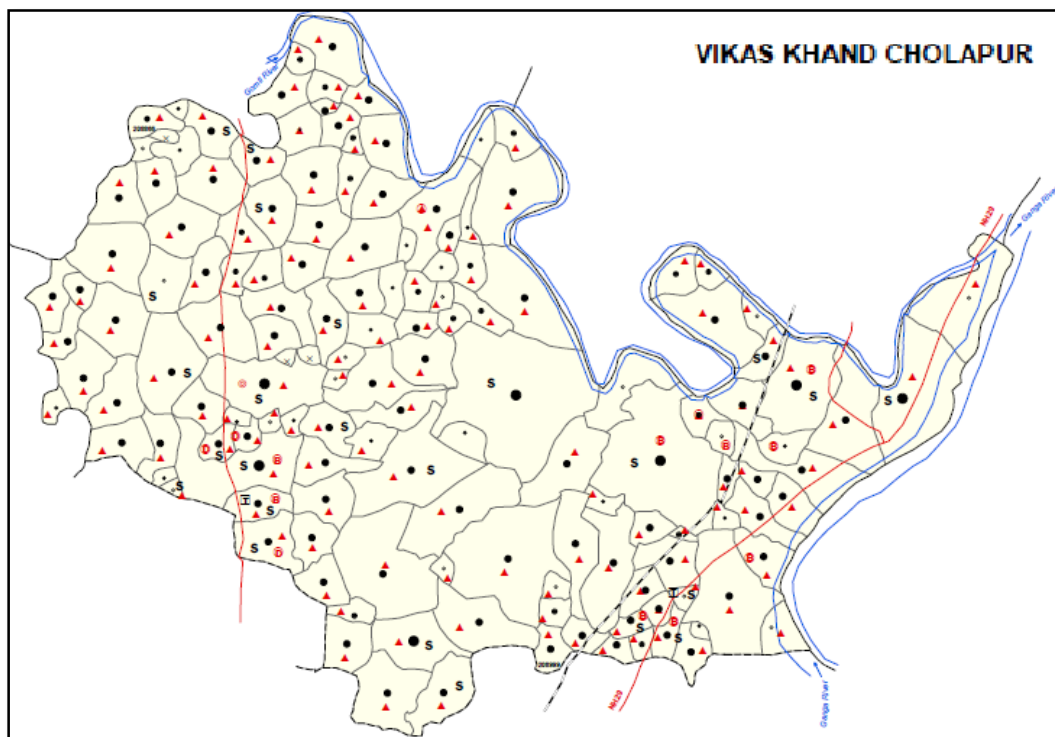
Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Baragaon block	1	1		
2	Bahutara	1	2	1	
3	Balrampur	1	2	1	
4	Balua		2	2	1
5	Barai		1		
6	Barhi Newada	2			
7	Barhikala	3	1	3	
8	Barzi	2			
9	Basni	5	5	3	3
10	Bauliya	1		1	1
11	Belawa	1	3		2
12	Bharthara	1			
13	Bharthipur		1		
14	Chak Kharawan	1	1		1
15	Changwar		1	1	1
16	Chilbila	1	2	1	1
17	Dallipur	1		2	
18	Dandupur		1		

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
19	Debathua	2		1	
20	Dhanrajaipur		1		1
21	Eshipur		2		
22	Fatehpur	1			
23	Gajapur		1		
24	Gangkala	1			
25	Ghamhapur	1		1	
26	Harinathpur	2	1	1	
27	Hasanpur	3			
28	Isarwarpur		1		
29	Kaithauli	1	3		2
30	Kaniyar	2	1		1
31	Karampur		1		
32	Kathiraon	2	2	2	
33	Kavirampur	3		2	
34	Kharawan	5	1	1	
35	Khariya Khas	3		1	
36	Khataura		1		
37	Koailar	2			
38	Kodai	1	2	1	1
39	Kumbhapur	2	1	2	
40	Kuri	2	1	2	
41	Kuru	1		1	
42	Kushmara	1	1	1	1
43	Kuwar		2	1	
44	Lakhmipur			1	
45	Madhumakhiya	1	1		
46	Mahimapur		2		1
47	Majhgawan Kala	3		3	
48	Malhath	2	1	2	
49	Newada	1			
50	Nimaich	1			
51	Noniyapur	1			
52	Pachrasi	1	1		
53	Phulwariya		1		
54	Pura Raghunathpur	2	1	1	1
55	Rampur		1		
56	Rasulha	1			
57	Ratanpur		1		
58	Sagunha	1			
59	Sarvipur	1			
60	Shaipur			1	2
61	Shekhanipur		1		
62	Shishwa	2	3		
63	Siswa	1			
64	Tarsara	1	2		
65	Tilawar	1			
Total		76	60	40	20



Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
25	Goppur	1	3		
26	Hiramanpur	1			1
27	Jairampur				1
28	Jalhupur	1	2	2	
29	Jhanjhupur(Ghaghupur)		1		1
30	Khalispur	2			
31	Kharagaipur		1		1
32	Khuthan			1	
33	Kodopur		1		1
34	Looth Kala		1		1
35	Marhni		1		1
36	Misripura	2		1	
37	Mokalpur			1	
38	Muridpur	1		1	
39	Mustafabad		2		
40	Narayanpur	2	1	2	1
41	Narpatpur	2		1	
42	Pacharon		1		
43	Pahriya		1	1	
44	Parwatpur	3			
45	Paterwa		1		
46	Prahladpur	1			
47	Puran Patti		1		
48	Raghunathpur		1		
49	Raipura		1		
50	Rajapur	1			
51	Ramagharwan	1	1	1	
52	Ramchandipur	1			
53	Rampur	1			
54	Rasulgarh	1	2		
55	Rustampur	1	1		
56	Salarpur	1		1	
57	Sapsaul	1			
58	Sathawan		1		
59	Sehwar	1		1	
60	Shankarpur			2	
61	Sheodas Uparwar		2		1
62	Shivbon	1	1		
63	Singhpur	1			1
64	Srithi		2		3
65	Sultanpur		1		
66	Taraya	1		1	
67	Tilamapur	1	1	2	
68	Tofapur	1	1		
69	Ukthi		3		2
70	Vikapur		1		1
71	Vyasapur			1	
Total		61	63	31	34

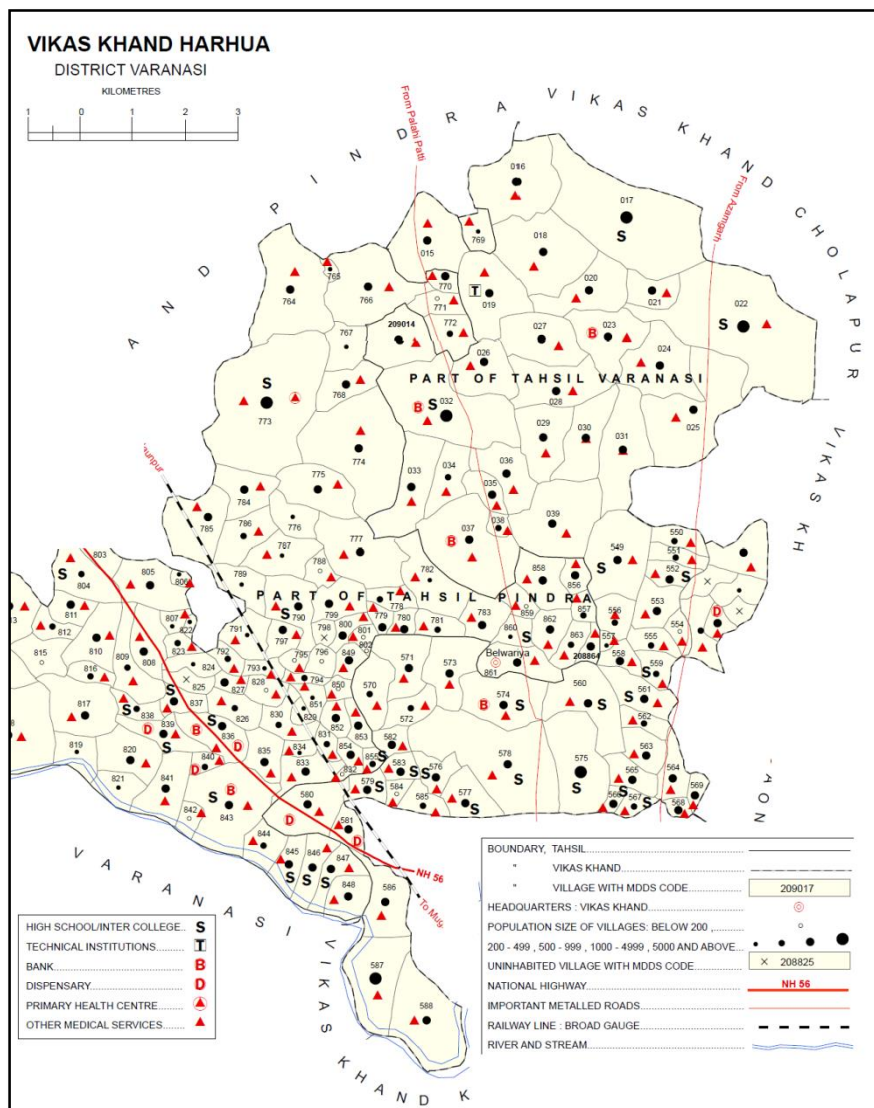
Village-wise cancer incidence cases and mortality cases: Cholanpur, Varanasi district



Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Ajawan	1		1	
2	Azgara Khas		1	1	
3	Babatpur	1			
4	Bahadurpur	1		1	
5	Barthara Khurd		2		
6	Baviyaon			1	1
7	Bela	1	1		2
8	Benipur Kala	1			
9	Bhadwan		1		
10	Bhandaha Kala		1		1
11	Bharatpur		1		1
12	Bhawanipur			1	
13	Chaubepur Kala	3	3	3	1
14	Chaubepur Khurd				1
15	Chhitampur	1			
16	Cholanpur	7	2	2	
17	Daudpur			1	
18	Demrupur	1		1	
19	Dhakhawa				2
20	Dharampur		1		
21	Dharsauna	2	2	1	1
22	Dhaurhara	1			
23	Dherahi	1		1	
24	Garsara		1		

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
25	Garthauli	1			
26	Gaurapurwar	2		2	
27	Gola	1			
28	Gosaipur	1	1		1
29	Hajipur			1	
30	Handiyadih				1
31	Haridasipur	1			
32	Hathiyar Kala	1	1		1
33	Jagdeeshpur	1	1	1	1
34	Jariyari			1	
35	Kadipur		1	3	
36	Kaithi		2		1
37	Katari		1		3
38	Khardaha	1		1	
39	Khutha	1		1	
40	Lachmisenpur		1		
41	Lalmankot	1	1		
42	Laskarpur		1		1
43	Latauni	1		1	1
44	Magrahua		1		
45	Mahada		1		1
46	Mahmoodpur	1			
47	Mangolepur	1	1		
48	Mawaiya	2		1	1
49	Munari	1	1	2	
50	Murli	1		1	
51	Niyardiha			1	
52	Paharpur	1	1	3	1
53	Palkanh		1		1
54	Parana Patti		1		2
55	Pipri				1
56	Rajwari		2		1
57	Rampur	2		1	
58	Rauna Kala	1			1
59	Rauna Khurd		2		
60	Razala	1			
61	Roopchandpur		1		1
62	Shivdas Pur	1		1	1
63	Srikanthpur		1		2
64	Suari	1	1	1	1
65	Sultanipur		1		
66	Tala	1		1	2
67	Tari			1	
68	Taraon		1		
69	Tekari				1
70	Tekuri	1		1	
71	Tisaura	1		1	
Total		49	42	40	37

Village-wise cancer incidence cases and mortality cases: Harhua, Varanasi district

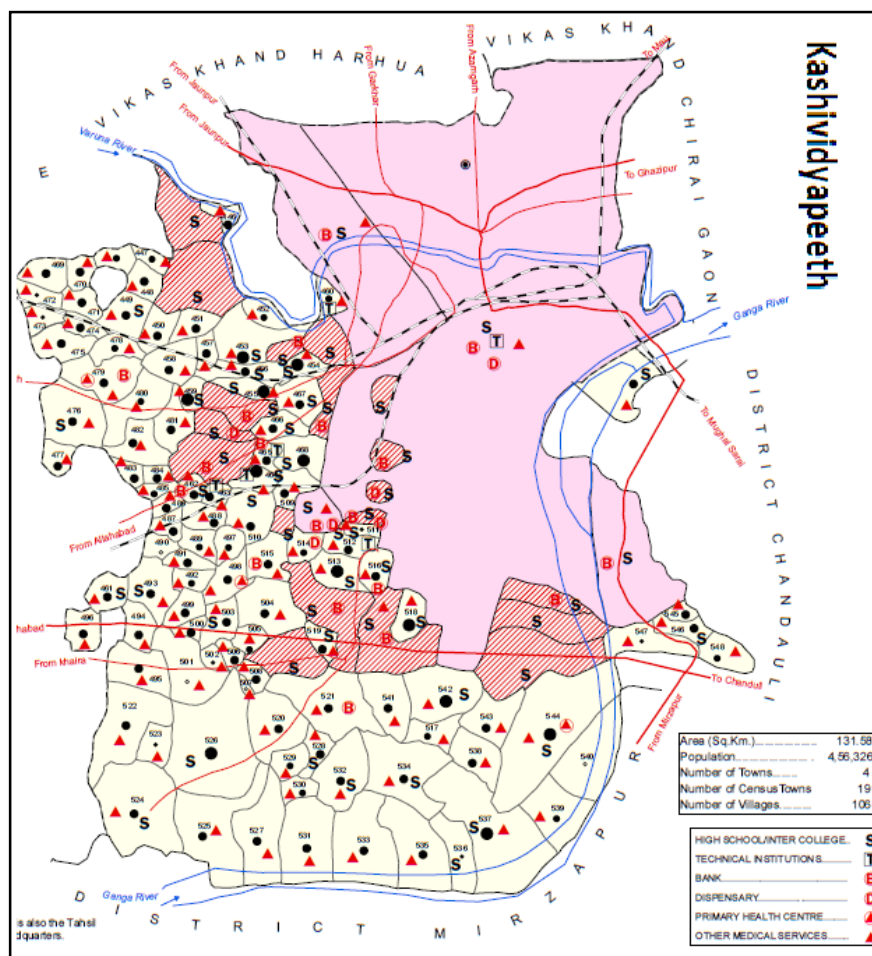


Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Adampur	1		1	
2	Ahiran	3		3	
3	Ahirauli	1	1	1	
4	Ahmadpur	2		4	
5	Aitha	2			
6	Anura			1	
7	Ateshua	1	1		
8	Aura	1			
9	Ausanpur		2	2	2
10	Bajhiya	1	2		
11	Balua	1			
12	Barwapur		1		

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
13	Bedi	1			
14	Benipur Khurd	1	1		
15	Berwa		1		1
16	Bhagtupur	3		2	
17	Bhatauli		1	3	
18	Bhatpurwa Kala		1	1	
19	Bhawanipur	2			
20	Bhelkha	1			
21	Bhohar		1		1
22	Bhopapur	3		1	1
23	Chakka				1
24	Chandapur	1	1	1	
25	Chandi Patti		1		
26	Chauka		2		
27	Chhatripur	1			
28	Chukhepur	2			
29	Dandupur		1		1
30	Daniyalpur			1	
31	Dasepur	1		2	
32	Dasnipur		1		
33	Devonathpur	1		1	
34	Dihwa	2			
35	Ekala		1		
36	Etwa		1		
37	Gahani		1		
38	Ganeshpur		1		
39	Garhwa	2		1	
40	Gaura	1		1	
41	Ghamhapur		1		
42	Gokulpur			1	1
43	Gosaipur		1		1
44	Gosaipur Mohaon		3		2
45	Gurwat	1			
46	Harhua	1			1
47	Hatiya	1	1	1	
48	Hirapur		1		
49	Holapur	2			
50	Inderwar		1		
51	Jaipar	1			
52	Jamunipur		1		
53	Kakalpur	1		1	
54	Karoma	1			

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
55	Kharagpur		1		
56	Koirajpur	4		1	
57	Kurauli	1		1	
58	Lamhi	2	2		
59	Mansapur			1	
60	Mohanpur		2		1
61	Murdaha	1	1	1	1
62	Palahi Patti	1	1	1	
63	Parmanandpur		1		
64	Pisaur	1		1	
65	Puari Kala	2	3	2	3
66	Puari Khurd		1		1
67	Purabpur		1		1
68	Ramchandarpur				1
69	Ramdat Pur		1		2
70	Ramsinghpur	1			
71	Rashulpur	1			
72	Sabhaipur		1	1	
73	Sarai Kazi	1	1		1
74	Saraiya	1			
75	Sarswan		1		
76	Sehmalpur		1		1
77	Shivrampur	1	3		2
78	Sikandarpur		1	1	
79	Singhapur	2		1	
80	Sonakdih	1			
81	Soyepur		1		
82	Sulemapur		1		
83	Surawan		1		1
84	Sutwalpur		1		1
85	Tarna	3		1	
86	Tewar				1
87	Udaypur		1		1
Total		66	58	41	30

Village-wise cancer incidence cases and mortality cases: Kashividyapeeth, Varanasi district

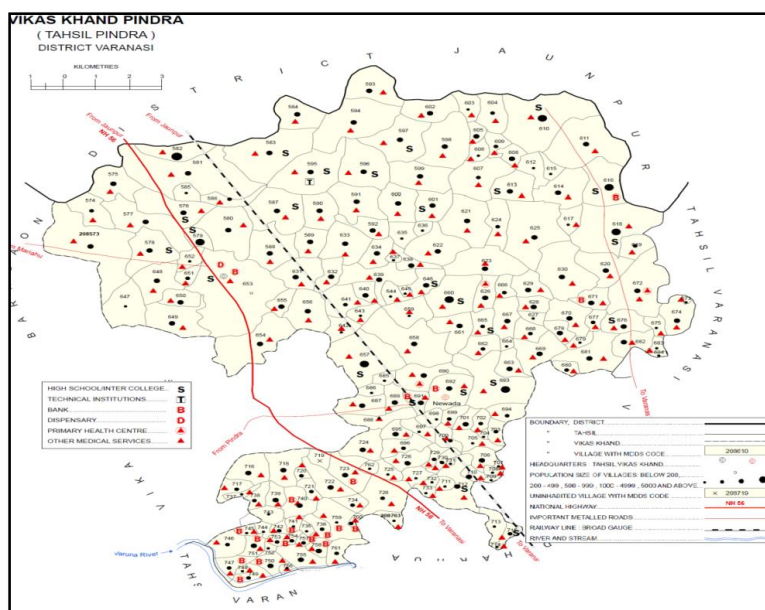


Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Akhari	1	4	1	
2	Akhileshpur			1	3
3	Alauddinpur	1			
4	Anantpur		1		
5	Bachhawn	1	3	1	1
6	Balirampur	1			
7	Bankat			1	
8	Barthara	1			
9	Bhadwar	1	2		
10	Bhatti	1	1		
11	Bhikharipur Kala	3		2	
12	Bhitari	4	1		1
13	Bhitti	1			
14	Bhualpur			1	
15	Bhullanpur	2	5	1	1

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
16	Bisokharpur		1		1
17	Bisunpur	1			
18	Chandapur	1	1	1	
19	Chhitauni	2	5	1	
20	Chitaipur	1	5		1
21	Churamanpur			1	
22	Dafalpur	3			
23	Dafi	3	5		1
24	Delhana		1		
25	Dhannipur	4		1	
26	Domari				1
27	Gajadharpur			1	
28	Ghatmpur		1		
29	Gobindpur		1		
30	Gopalpur		1		2
31	Hariharpur		1		
32	Hasapur		1		
33	Kadipur	1			
34	Kakarahiya	3			
35	Kanchanpur	3	1	1	1
36	Karaundi		1		
37	Karsara	4	2	1	
38	Kerakatpur	14	3	3	1
39	Khanwa	1	1		1
40	Khusipur	1	1		
41	Kurhua	1			1
42	Lakhanipur			1	2
43	Lakhanpur	1	1	1	
44	Lathiya	1	1		1
45	Madhopur	2	1	1	
46	Mahamudpur	4		2	
47	Maheshpur		1		
48	Mangalpur	3		2	
49	Manorathpur		1		
50	Manrauli	2	1		1
51	Marawan	2	2		
52	Mirapur		1		
53	Mishirpur	2		2	1
54	Muradev			1	
55	Naipur Kala	1		1	1
56	Narottampur Kala		1		
57	Narottampur Khurd	1		1	

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
58	Narur	2			
59	Nathupur	1			
60	Nuawn		3		
61	Pahari	2	1	2	1
62	Panditpur			2	1
63	Pilkhani	1			
64	Ramna	1	1	1	
65	Ramshipur	1	1		
66	Sabhaipur	1		1	
67	Salhupur	1		1	
68	Sarai Dangari Kala	1	2	1	
69	Sarhari	1		1	
70	sujabad	5		3	2
71	Sultanpur	2		3	
72	Surhi	1		1	
73	Tarapur		1		
74	Tengara	1			1
75	Tikari	1	1	1	
76	Uchgoan	1			1
77	Udairajpur	1		1	
New census town					
79	Bhagwanpur	1	1	1	1
80	Chhittupur	5	4		1
81	Harpalpur	1			
82	Kandawa	5	2	1	1
83	Kesaripur				1
84	Kotwa		1		
85	Lohta	3			1
86	Maruadih		1	1	
87	Maruadih Railway Settlement (ITS)	1			
88	Sir Govardhanpur		1	1	
89	Susuwahi	1	3		
Total		120	82	52	33

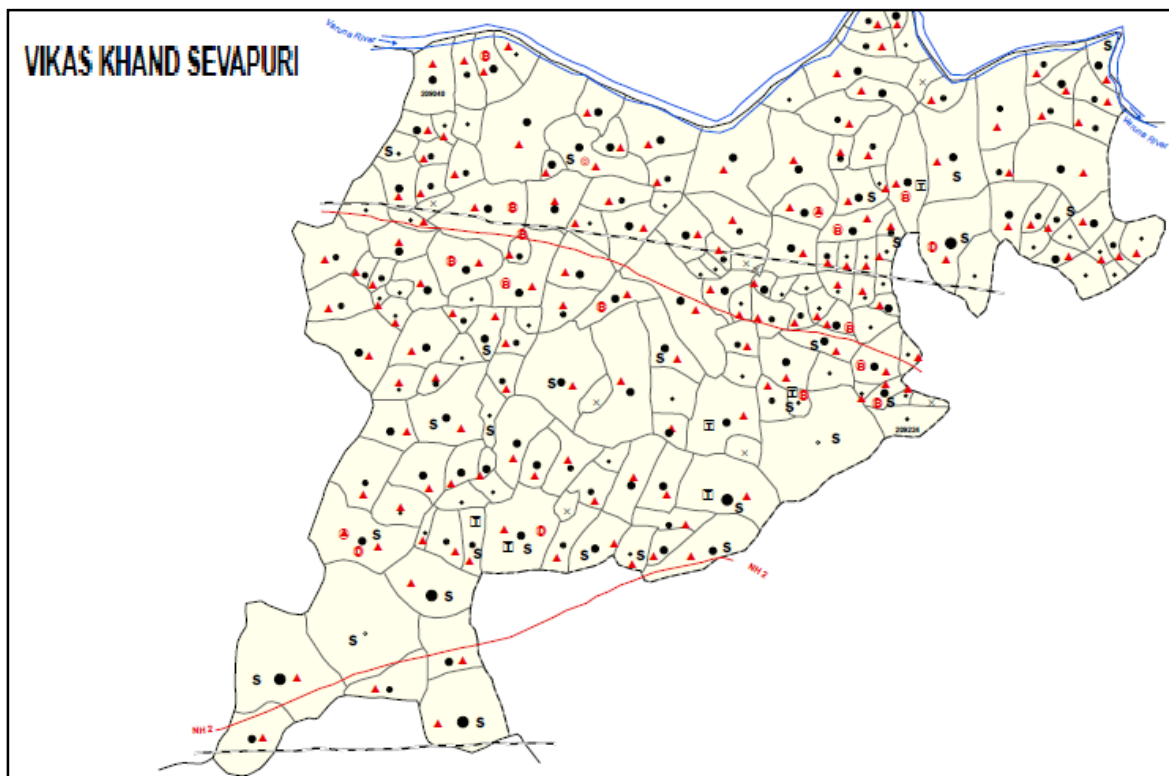
Village-wise cancer incidence cases and mortality cases: Pindra, Varanasi district



Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Aharak		3	2	3
2	Ajaipur	2		1	
3	Amaut	3		2	
4	Aswalpur	1			
5	Auraon		2		1
6	Babatpur	2		3	
7	Baharipur		1		
8	Bamokhar	1		1	
9	Baraipur		1		
10	Barwan		2		2
11	Basantpura	1	1	2	
12	Basawn	1			
13	Belari	1		1	
14	Beshipur	1			
15	Bhatpurwan	1	1		
16	Bhupatpur	1			
17	Binda	1		1	
18	Buchi		1		
19	Charo		1		
20	Chehara	1		1	
21	Chhataon	1			
22	Chitaura		1		1
23	Chiurapur	1	1	1	1
24	Dallipur		2		
25	Deorai	1			
26	Dharmanpur		1		
27	Dindaspur		2		1
28	Dudilpur		1		1
29	Gajokhar	1			
30	Gangapur	1	1		

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
31	Ganzari	1	1	1	
32	Garkhara		1		
33	Garthma				1
34	Ghamhapur		1		
35	Gopal Patti		1		1
36	Hathiwari	1	1		1
37	Hiramanpur	1			
38	Jagdishpur	2		1	
39	Jathi	2		1	
40	Jhanjhaur	2	2	1	1
41	Karemua	1			
42	Karkhiyaon	2	2	1	
43	Karmi	1	1	1	
44	Kashipur	1	2		2
45	Kathauna	1			
46	Khalishpur	4		2	
47	Krishnapur Kala		1		
48	Mahgaon	2	2	1	1
49	Mangari		4		3
50	Maruee	1			
51	Mulka		1		
52	Murdi		1		
53	Nehiya	2	1	1	
54	Newada	1	3	2	2
55	Nihalapur		1		1
56	Niwah		1		1
57	Odari		2		1
58	Pashchim Patti	1		1	
59	Phoolpur	2	2	3	1
60	Pindara	2	10	3	1
61	Pindrai	1	1		1
62	Prasadpur	1			1
63	Pratappur	1			2
64	Raghurampur		1		
65	Rajpur	4	1		
66	Ramai Patti	1	1		
67	Rasulpur		2	1	1
68	Roh		1		
69	Sarai Takki		1		1
70	Shahpur		1		
71	Shivpur		1		
72	Sindhora	2	3	1	
73	Surahee			1	1
74	Thari	1	2		1
75	Tikari Khurd	1			
76	Tiwaripur	1	1		
77	War		1		1
Total		65	80	37	36

Village-wise cancer incidence cases and mortality cases: Sewapuri, Varanasi district



Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
1	Amripur			1	
2	Arjunpur	1	2	1	2
3	Bahra		1		
4	Bajardiha	1	2	2	3
5	Bankat	2	1		
6	Bara Dih		1	1	
7	Baraura	2	1		1
8	Barema	1		2	1
9	Barki	1			
10	Bazar Kalika	2		2	
11	Belwa	1	1		
12	Beshupur		1		2
13	Bhikhampur	3	2		1
14	Bhitkuri	1			
15	Chaklola	1		1	
16	Chhateri Manapur		1		
17	Chitarsenpur	1	1		
18	Dayapur		1		
19	Deipur			1	
20	Devopalpur		1		
21	Dilawalpur	1	1		
22	Domaila	3		2	
23	Gairaha	1			

Sr. No.	Village name	Incidence		Mortality	
		Male	Female	Male	Female
24	Gajepur		1		1
25	Gorai	1	1	2	
26	Gosai Pur	2		1	
27	Guria	1	1		
28	Harihar Pur			1	
29	Hathi	2	1		
30	Hinttapur		1		1
31	Hirampur	1			
32	Hirapur		1		
33	Isharwar				1
34	Jaga Patti			1	
35	Jagati Pur		1		1
36	Jagdishpur			1	
37	Kama Pur	1		2	
38	Kapsethi	1	1		
39	Kardhana	4	1	1	
40	Katwaru Pur				1
41	Khargu Pur	1		1	
42	Khemapur	2		1	1
43	Lachhipur		1		
44	Lalpur	1			
45	Lenuwayi		1		
46	Majhiyarpur	1			
47	Matuka		1		
48	Nawalpur		1		
49	Newada		1		
50	Newada Khas		1		1
51	Newriya		1	1	1
52	Nohanipur	1			
53	Pachwar		1		
54	Parsi Pur	1			
55	Peduka	1		2	
56	Pure	4			2
57	Raghunathpur		2		
58	Raishipur Sattanpur		1		
59	Ramdih	1			
60	Ramnif			1	
61	Rampur Raisipur			1	
62	Rasulaha		1		
63	Sakalpur	4		2	
64	Sato				1
65	Sattanpur	2	2	1	
66	Shpehata		1		
67	Sikhari	1			
68	Thatra	2	1		2
69	Uparwar		1		
70	Vihana	1		1	
Total		58	43	33	23

20. References

1. National Cancer Registry Programme – Indian Council of Medical Research: Three year report of PBCR 2012-2014, Bengaluru 2016.
2. Chandigarh Population-Based Cancer Registry Report: 2015-2016 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
3. SAS Nagar Population-Based Cancer Registry Report: 2015-2016 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
4. Mansa Population-Based Cancer Registry Report: 2015-2016 – Tata Memorial Centre, Mumbai, and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
5. Sangrur Population-Based Cancer Registry Report: 2015-2016 – Tata Memorial Centre, Mumbai, and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
6. Cancer Incidence and Mortality Greater Mumbai 2013-2014, Mumbai Cancer Registry, Mumbai.
7. Census of India 2011 (censusindia.gov.in – downloaded on 22/01/2020)
http://censusindia.gov.in/2011census/dchb/DCHB_A/09/0966_PART_A_DCHB_VARANASI.pdf
8. Government of Uttar Pradesh, India: <https://varanasi.nic.in/> (22/01/2020)
9. International Classification of Diseases for Oncology – Third edition : WHO, Geneva 2000
10. Canreg5 Open Source Software: International Agency for Research on Cancer Lyon, France.
11. International Incidence of Childhood Cancer 3 – indicators of data quality: IARC – WHO, Lyon, France <https://iicc.iarc.fr/includes/results/chapters/QualityIndicators.pdf>
12. Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2018). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: <https://gco.iarc.fr/today> , accessed 07.01.2020
13. Cancer Incidence and Mortality in Rural and Tribal Gadchiroli, Maharashtra, India: 2015 – 2016

21. Acknowledgments

Our special thanks to Hon'ble Prime Minister Shri Narendra Damodardas Modi, Govt. of India and Hon'ble Shri Yogi Adityanath, Hon'ble Chief Minister, Government of Uttar Pradesh

We gratefully acknowledge the support received from Prof. Rakesh Bhatnagar, Vice- Chancellor, Banaras Hindu University, Varanasi, Uttar Pradesh

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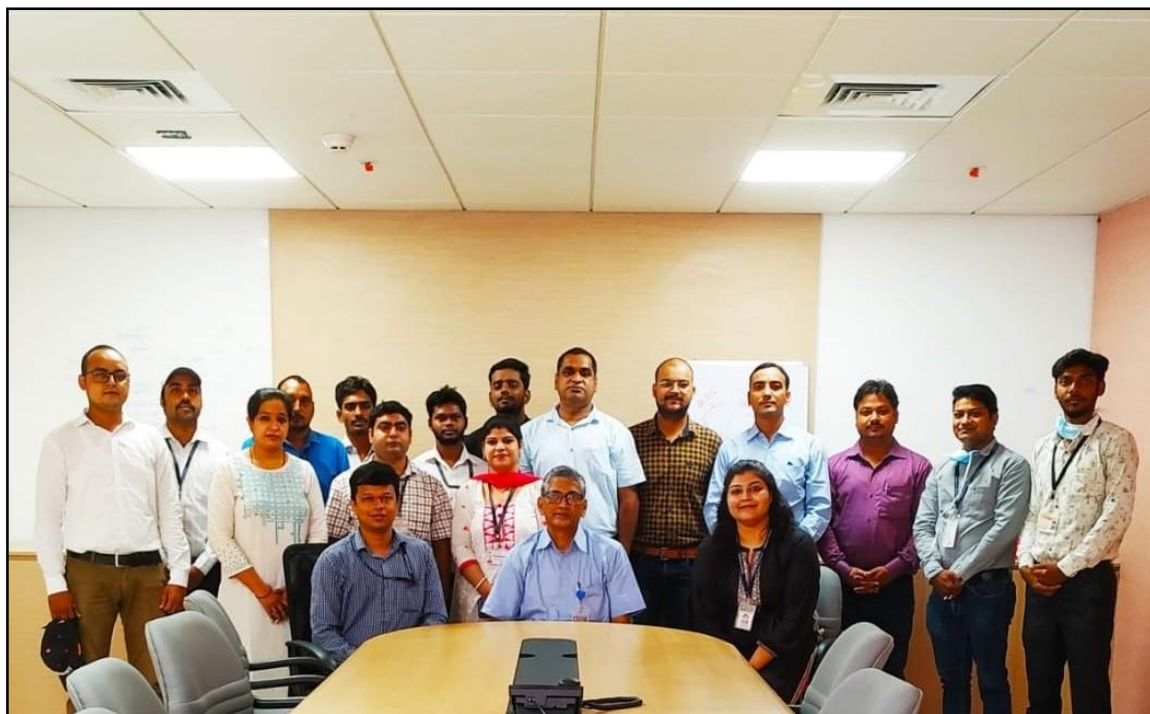
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Annexure



Population and Hospital Based Cancer Registry team along with Dr. Satyajit Pradhan – Director HBCH & MPMMCC, Dr. Divya Khanna – Asst Professor, Focal Person for PBCR & HBCR and Dr. Naveen Khargekar – OIC, Preventive Oncology



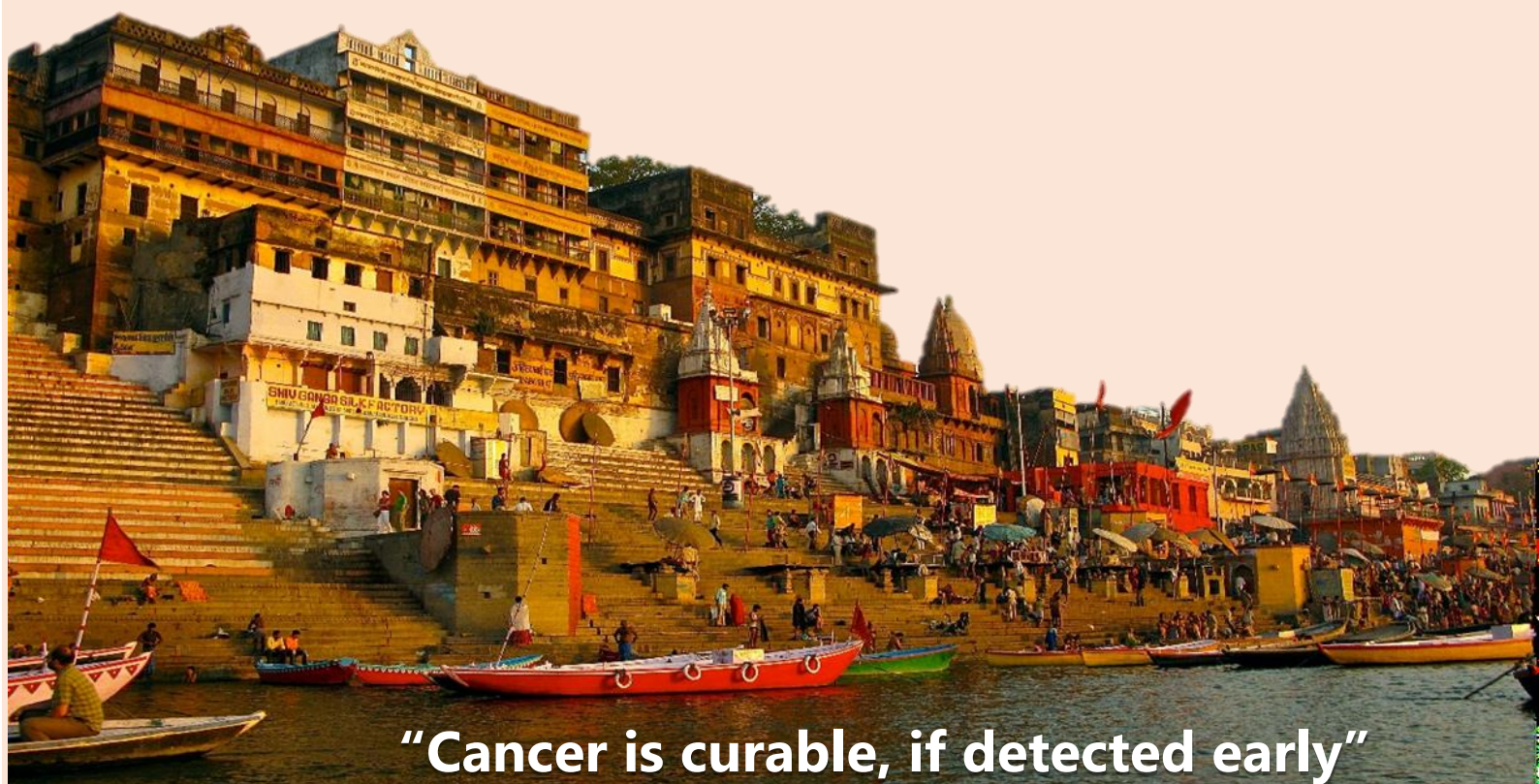
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