

Cancer Incidence and Mortality in Sangrur District, Punjab state, India: 2017-2018



Homi Bhabha Cancer Hospital, Sangrur,
Punjab State, India



Sangrur district, Punjab State, India

Centre for Cancer Epidemiology (CCE), Mumbai, India

Homi Bhabha Cancer Hospital (HBCH), Sangrur, Punjab, India

Homi Bhabha Cancer Hospital & Research Centre (HBCH&RC), Mullanpur, Punjab, India

Advanced Centre for Treatment, Research, and Education in Cancer, Kharghar, India

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Homi Bhabha National Institute (HBNI), Mumbai, India

Post Graduate Institute of Medical Education and Research, Chandigarh, India

Department of Health and Family Welfare, Government of Punjab State, India

Civil Hospital, Sangrur District, Punjab State, India

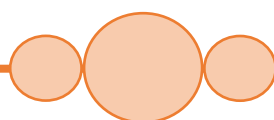
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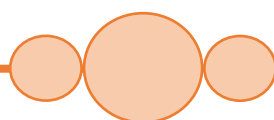
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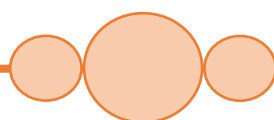
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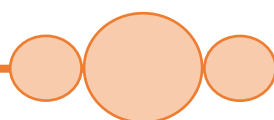
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Executive summary

Background

Tata Memorial Centre (TMC), Mumbai an autonomous institute under the Department of Atomic Energy, Government of India, started a population-based cancer registry (PBCR) in Sangrur district on January 1, 2013, in collaboration with the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh and the Department of Health and Family Welfare, Government of Punjab. The registry is located in the Civil Hospital Campus of Sangrur. 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 strengthening cancer care services in this area. The cancer registry regularly publishes annual reports. This report presents the cancer data for the years 2017 and 2018.

Population covered

The cancer registry covers seven health blocks of the district – Amargarh, Bhawanigarh, Fatehgarh Panjgarian, Kauhrian, Longowal, Moonak, and Sherpur covering a population of 17,94,201. The registry covers urban areas as well as 589 villages in the district. More than 65% of the population of the district is rural. Sangrur district was split and the new district of Malerkotla was formed as the 23rd district of Punjab on 02nd June 2021. District Malerkotla is divided into three sub-divisions namely Malerkotla, Amargarh, and Ahmedgarh.

Registration method

Trained field / social workers of the 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 the village Sarpanch, Auxiliary Nurse Midwife (ANM), ASHA workers, and primary health centre staff periodically to know the cancer cases diagnosed in the area as well as cancer deaths that have occurred in the village. With the help of ASHA workers, the registry staff interacts with the patient's relative and they note down the information available to the patient. This information is further confirmed at the patient's treating hospital. After confirming the patient's residence (resident of the district for at least one year) and duplicate checking by senior staff, the case is registered in the prescribed format. The data entry is carried out in CanReg5 software. Due to regular interaction with the community, the registry could update the survival status of cancer patients. As of December 31, 2021, we have the survival status of more than 95% of cancer patients. This information will be utilized for cancer survival analysis.

A comprehensive cancer treatment facility was not available in the Sangrur district. Patients from this area travel to Bhatinda, Ludhiana, Bikaner, Chandigarh, Patiala, Hissar (Haryana), and Faridkot for cancer treatment. **The nearest centre is 60 km. and the farthest centre is 420 km. Tata Memorial Centre has started the Homi Bhabha Cancer Hospital in the Sangrur district. It has been functioning since January 2015. To date, more than 12000 cancer patients from Punjab and neighboring states have been treated at Sangrur hospital.**

Release of the third annual report of the Sangrur cancer registry

PBCR Sangrur report was released virtually on 28th November 2020 by Ms. Vini Mahajan Ex-Principal Secretary Punjab Government along with Prof. Jagat Ram, Director–PGIMER, Prof. RA Badwe, Director–TMC Mumbai, Prof Rajesh Dikshit, Director–CCE TMC Mumbai, Prof. JS Thakur, Professor of Community Medicine and School of Public Health, and Dr. Atul Budukh, Professor–CCE TMC Mumbai along with other dignitaries.

Results

The present report is based on the cancer registry results for the years 2017 and 2018. In the year 2017-2018, the cancer registry recorded 2678 incidence cases including 1323 males (49.4%) and 1355 females (50.6%). The age-adjusted incidence rate for males is 73.3 per 100,000 population and for females, it is 79.7 per 100,000 population. **The cumulative risk for the age group 0-74 in males is 8.6% (1 in 12 men is at risk of developing cancer) and in females, it is 9.0% (1 in 11 females is at risk of developing cancer).**

In the year 2017-2018, the cancer registry recorded 1907 cancer deaths including 1028 deaths among males (53.9%) and 879 deaths among females (46.1%). The age-adjusted mortality rate for males is 56.8 per 100,000 population and for females, it is 52.1 per 100,000 population. **The cumulative risk of death due to cancer in the age group 0-74 in males is 6.7% and for females, it is 6.1% (1 in 15 males and 1 in 16 females is at risk of death due to cancer).**

Due to improvements in the cancer registration process, the registry has reported 140 (Male: 75, Female: 65) late registration incidence cases of the year 2015-2016. After including the late registration cases, the age-adjusted incidence rate is 65.7 for males and 72.2 per 100,000 for females. In mortality, we have recorded 88 (Male: 49, Female: 39) late-registration mortality cases for the year 2015-2016. After including the late registration cases, the age-adjusted mortality rate for males is 46.1 and for females, it is 43.2 per 100,000.

Leading cancer sites

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

Table I: Leading cancer sites in males for the period 2017-2018

ICD 10	Site	Total	%	CR	AAR	TR
C22	Liver	127	9.6	6.7	7.2	14.6
C61	Prostate	130	9.8	6.8	6.8	4.9
C15	Esophagus	100	7.6	5.3	5.6	11.2
C01-C02	Tongue	75	5.7	3.9	4.1	9.1
C33-C34	Lung	70	5.3	3.7	4.0	8.4

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

Table II: Leading cancer sites in females for the period 2017-2018

ICD 10	Site	Total	%	CR	AAR	TR
C50	Breast	329	24.3	19.5	19.2	45.9
C53	Cervix uteri	159	11.7	9.4	9.3	22.9
C15	Esophagus	102	7.5	6.1	6.2	13.7
C56	Ovary	98	7.2	5.8	5.8	13.3
C23-C24	Gallbladder	87	6.4	5.2	5.2	11.3

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

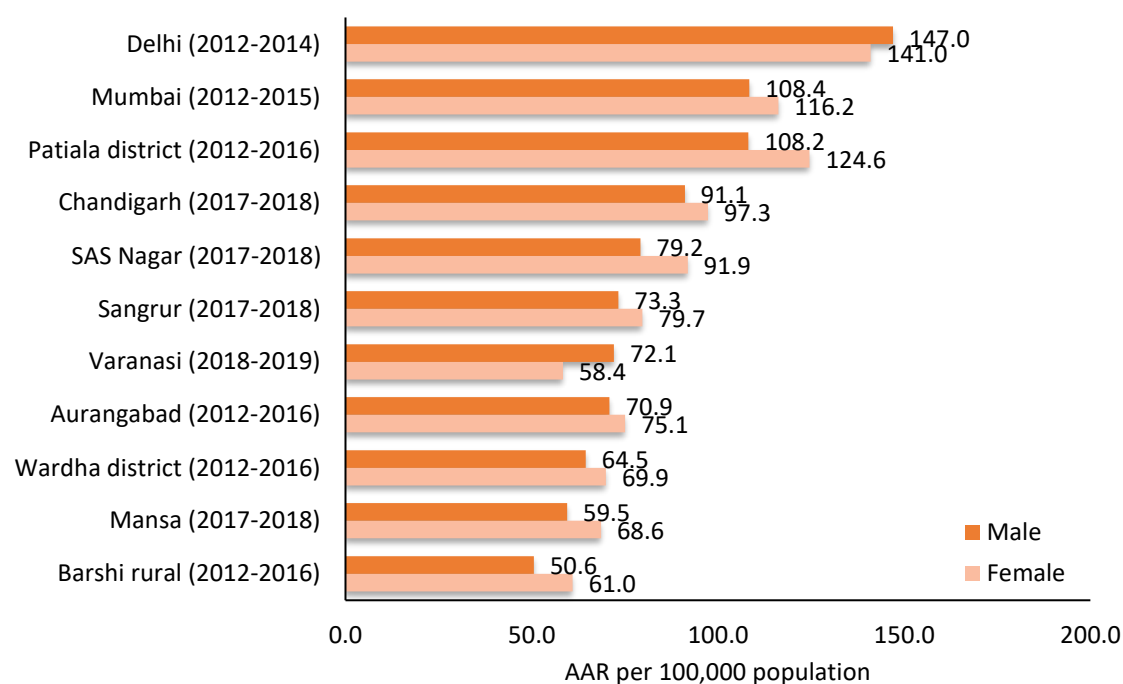
Primary unknown cases

In the year 2017-2018, 7.7% of primary unknown cases are in males while 5.7% of primary unknown cases in females were recorded. The primary site unknown cases are related to the quality of diagnostic information and the poor documentation of the medical records. Due to continuous interaction with the clinician by the registry staff, there was an improvement in the medical documentation; the primary unknown cases percentage has decreased for males from 9.2 to 6.9 and in females from 4.7 to 3.8 as compared to the year 2015-2016.

Comparison of Cancer Registry Rate with Other Registries in India

As compared to the other parts of the India, cancer incidence rates are lower and are comparable with other parts of rural India ⁽¹⁻⁵⁾.

Figure I: All site cancer incidence rate



Cancer control activities in Sangrur district

The cancer registry is the primary step in cancer control. The registry data has estimated the risk of developing cancer in males at 8.6% and females at 9%. The major cancers in the Sangrur district are breast, esophagus, cervix uteri, mouth, and prostate. Most of these cancers are preventable. Based on observation from the registry, Tata Memorial Centre has started a satellite centre in Sangrur and a comprehensive cancer centre in Mullanpur. In addition, PGIMER Chandigarh has also initiated a 500-bedded multispecialty hospital in the district. These centres will play important role in improving cancer care in this region.

Early detection program for oral, breast, and cervical cancer in Sangrur district

As per the recommendation of the cancer registry report, an “Early detection program for Oral, Breast and Cervical cancer in Sangrur district of Punjab state” was initiated. In this project, intensive health education on signs, symptoms, and risk factors for breast, cervix and oral cancer was given. The likely cases were provided easy access to diagnosis and treatment. Under this program, the project staff went 44,572 houses we have covered 1,77,968 (male: 92,649, female: 85,319) population from Sangrur and Bhawanigarh area. We have organised 75 cancer detection camp in this area. More than 2000 symptomatic cases attended the detection clinic organized at the doorstep of the population. We have diagnosed 11 oral cancer, 30 breast cancer and 8 cervical cancer cases. These cases are under regular follow-up at Homi Bhabha Cancer Hospital, Sangrur. The team of the Sangrur cancer registry monitors this program.

1. Punjab state profile

Punjab is situated in northwest India. The Indian state borders the Pakistani province of Punjab to the west, Jammu and Kashmir to the north, Himachal Pradesh to the northeast, Chandigarh to the east, Haryana to the south and southeast, and Rajasthan to the southwest. The total area of the state is 50,362 square kilometres. The population of the state is 27,743,338 (Census 2011) ⁶. Punjab's capital is Chandigarh, which is administered separately as a Union Territory since it is also the capital of the neighboring Haryana State.

As per the 2011 Census, Punjab has a total population of 27,743,338 out of which 14,639,465 are males and 13,103,873 are females. It constitutes 2.29% of the total population of India. The population density of Punjab is 550 people per sq. km. The population of Punjab according to the 2011 Census stands at about 27 million people, making it the 15th most populated state in India².

The state is spread over an area of about 50,362 sq. km. making it the 20th largest state in the country in terms of area. The state has a growth rate of about 13%, which is below the national average of 17%. The population of the state is rising considerably due to rapid efforts toward development and progress. The literacy rate in the state is about 76.7% a figure that has improved tremendously in the last few years due to consistent efforts of the government. The sex ratio in Punjab leaves a lot to be desired as it lags behind the national average. The Punjab state profile is presented in Table 1.⁷

Table 1: Punjab state population, literacy, and area in Sq. Km.

Sr. No.	Characteristics	Unit	Value
1.	Area		50,362
	(i) Rural-Area	Sq. Km	48,265
	(ii) Urban Area		2097
2.	Tehsils	Number	81
3.	Total Population (Census 2011)		277.04
	(i) Urban population	Lakh	103.8(37.5%)
	(ii) Rural Population		173.2(62.5%)
4.	Density	Per Sq. Km.	550
5.	Female per 1000 Male	Number	893
6.	Literacy Rate	%	76.7

2. Sangrur district profile

The district of Sangrur takes its name from its headquarters town, Sangrur. It is said to have been founded by one Sanghu, a Jat, approximately 400 years ago. It is bounded by Ludhiana district in the north, Barnala district in the west, Patiala district in the east and by Fatehbad district (Haryana State) in the south.

According to the 2011 census of India, Sangrur district ranks 7th in Punjab with a population of 16,55,169, which is 6% of the total population 27,743,338 of Punjab state^{6,8}. The location of the Sangrur district is presented in Figure 1.

Sangrur district health blocks and the number of villages are presented in Table 2.

Figure 1: Location of population-based cancer registry Sangrur district, Punjab



Table 2: Health blocks under Sangrur district

Subdivision / Tehsil	Number of villages
Amargarh	106
Bhawanigarh	68
Fatehgarh Panj Garian	100
Kauhrian	86
Longowal	68
Moonak	91
Sherpur	70
Total	589

Health infrastructure of Sangrur district

Sangrur district has one district hospital and three sub-district hospitals with basic diagnostic and surgical facilities. The district has 4 rural hospitals, 7 block primary health centres, 28 mini primary health centers, and more than 190 sub-centers. Primary health care is offered at these hospitals. The Sangrur district hospital provides supportive services to cancer cases. Detailed information about the hospital and PHC is presented in table 3.

Table 3: Major health facilities in Sangrur district

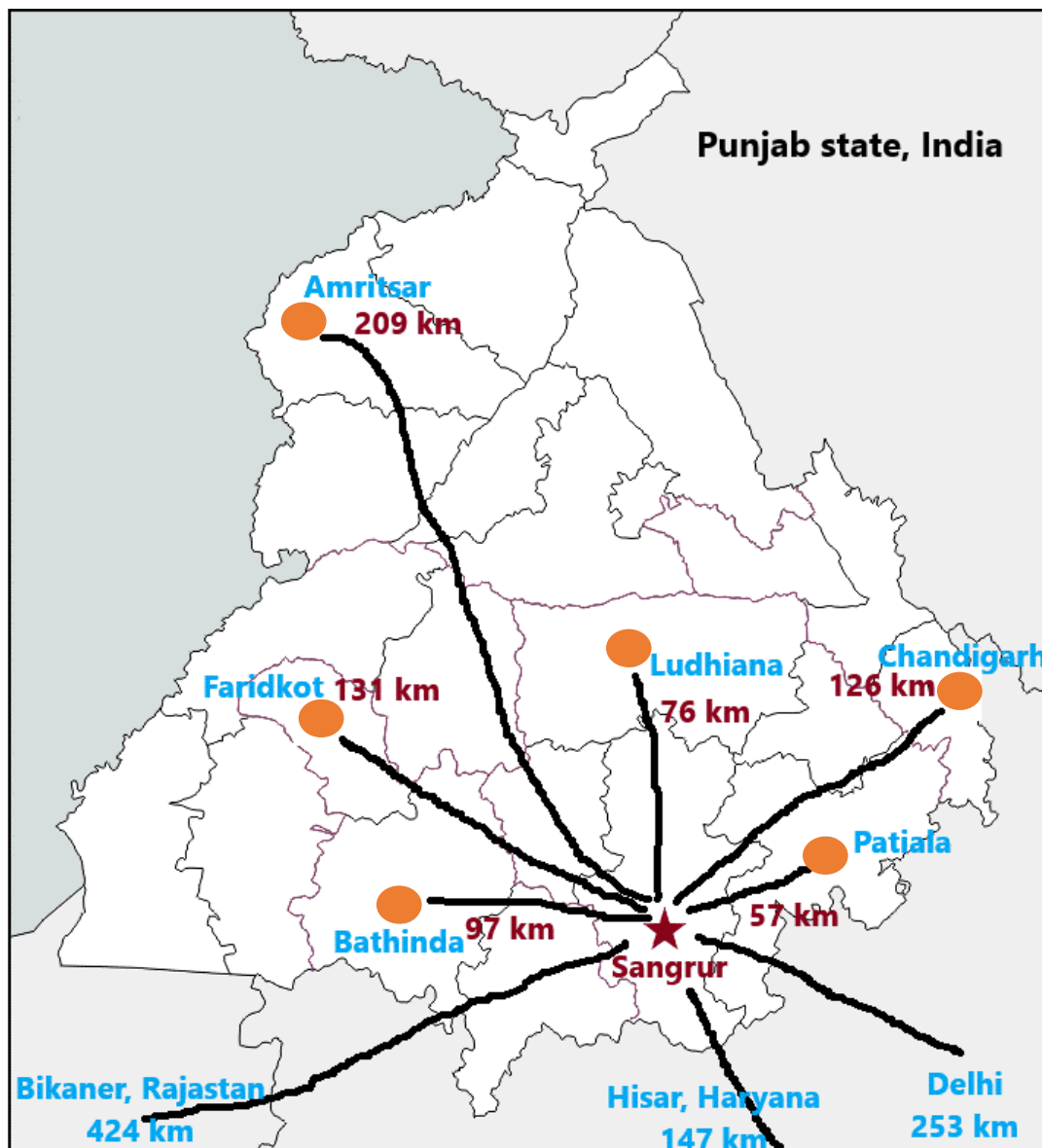
Sr. No.	Institute	Number
1.	District Hospital (DH)	1
2.	Sub-District Hospital (SDH)	3
3.	Community Health Centre	6
4.	Block Primary Health Centre (PHC)	7
5.	Mini Primary Health Centre (MPHC)	28
6.	Rural Hospital (RH)	4
7.	Subsidiary Health Centre (SHC)	68
8.	Sub-Centre (SC)	196
Total		313

Before the HBCH start functioning comprehensive cancer treatment facilities was not available in the district. For cancer treatment, patients from these areas travel to Patiala, Bhatinda, Faridkot, Ludhiana, Chandigarh, New Delhi, Bikaner, and Rajasthan state. The closest centre is Patiala (57 km) and the farthest centre is Bikaner (420 km). The distance from Sangrur to different cancer treatment centers is shown in figure 2.

Tata Memorial Centre, Mumbai – an autonomous unit of the Department of Atomic Energy, Government of India with the support of the Government of Punjab has started the Homi

Bhabha Cancer Hospital (HBCH) in Sangrur district. The hospital started functioning in January 2015. The HBCH has surgical, radiotherapy, and medical oncology facilities. Until now, more than 10000 cancer patients have been treated. The hospital is listed in the government-sponsored scheme “Mukhmantri Punjab Cancer Rahat Kosh Scheme⁹” & AYUSHMAN Bharat – Sarb Sehat Vima Yojana (AB-SSBY) for cancer treatment.

Figure 2: Distance from Sangrur to the cancer treatment centers



3. Administrative order by the state government for the cancer registration process

The State Program Officer (Cancer Control Cell) of the Government of Punjab has issued an administrative order to all the hospitals in the state, which are empanelled the Mukhmantri Punjab Cancer Rahat Kosh Schemes, to provide the data of cancer patients to the population-based cancer registries of Mansa, Sangrur, and SAS Nagar. Due to administrative support from the government of Punjab, the registry got good cooperation from all the government hospitals and the private impanelled hospitals.



NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF CANCER, DIABETES, CARDIOVASCULAR DISEASES & STROKE
Directorate of Health & Family Welfare
Room No 502, 4th Floor,
Sector 34 A, Chandigarh
0172-2605600

No. NPCDCS/Pb/2013/
To

Dated:-11-03-2013

1. Civil Surgeons
Mohali, Sangrur and Mansa.
2. All empanelled Hospitals
under MukhMantri Punjab Cancer RahatKosh scheme.

Subject :- Population Based Cancer Registries (PBCR) – An initiative by Punjab Government in collaboration with Tata Memorial Centre, Mumbai and PGIMER, Chandigarh.

Population Based Cancer Registry in Urban and Rural areas in Chandigarh, Mohali and Sangrur, Mansa, urban and rural areas respectively, has already started since 1st Jan 2013. These registries will provide annual Cancer incidence, Mortality and trends of Cancer in Punjab.

For the above said purpose, the teams will be visiting various institutions, Public and Private, in your area. As per the orders of Worthy PSHFW, Punjab, you are directed to co-operate and co-ordinate with them in every possible way to make this initiative taken by Punjab Government, a success.

**State Programme Officer
Cancer Control Cell**

No. NPCDCS/Pb/2013/
Dated:-11-03-2013

A copy of above is forwarded to:-

1. PA to PSHFW, for information of Worthy PSHFW, Punjab please.
2. PA to DHS, for information of Worthy DHS, Punjab please.
3. Civil Surgeon Mohali, Sangrur and Mansa for information and necessary action please.
4. All empanelled Hospitals (Public and Private) under Mukh Mantri Punjab Cancer Rahat Kosh.

4. Population covered by cancer registry

Sangrur district is divided into seven health blocks: Moonak, Longwol, Bhawanigarh, Amargarh, Kauhrian, Sherpur, and Fatehgarh Panj-Garian. As per the 2011 census, the total population of Sangrur district was 1,655,169. Of the total population, 53% are males and 47% are females. Of the total population, 1,139,204 (68.8%) is rural and 515,965 (31.17%) is urban⁶. The population as per the 2011 census is mentioned in Table 4.

Table 4: Sangrur district population as per census 2011

Area	No. of Households	Total	Male	Female
Rural	217864	1139204	604653	534551
Urban	101006	515965	273376	242589
Total	318870	1655169	878029	777140

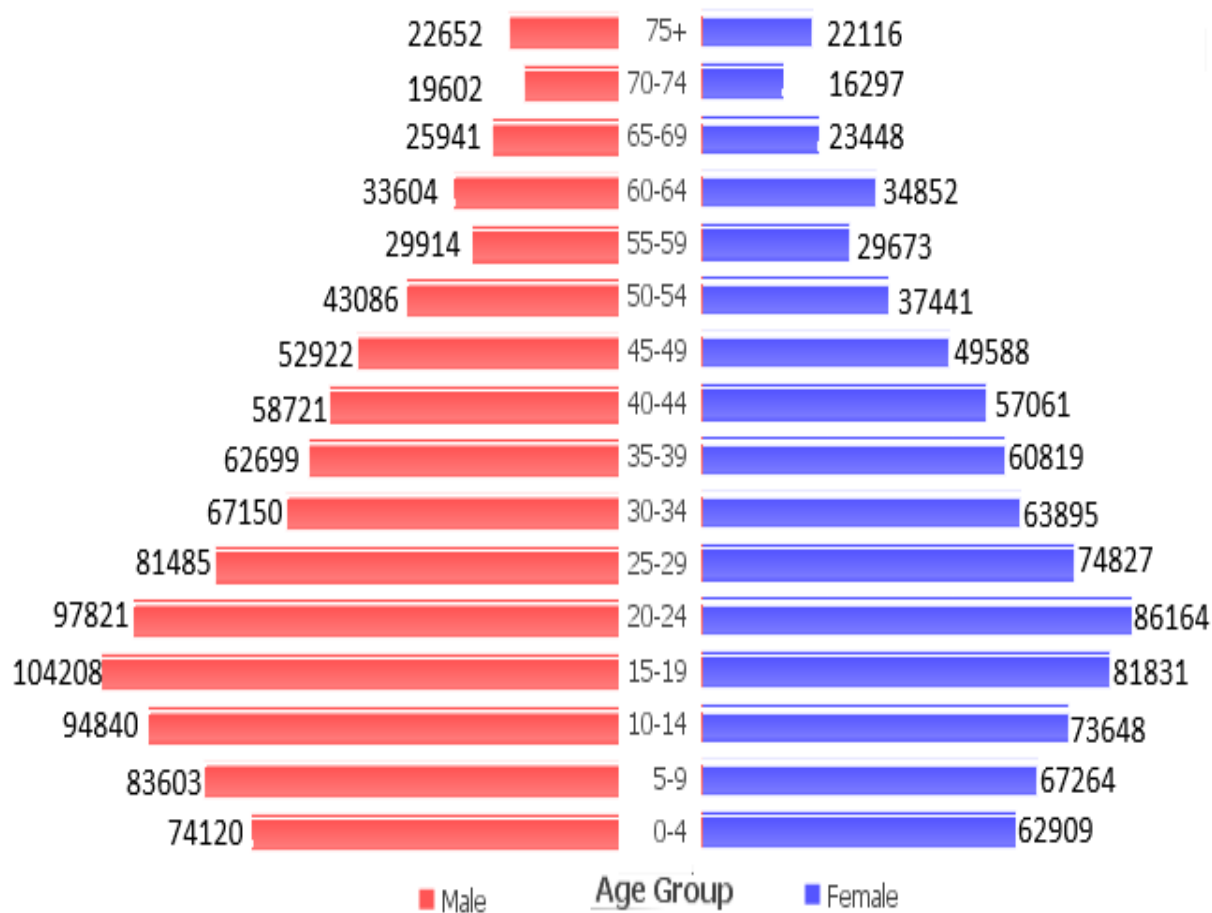
The estimated average population of Sangrur district: 2017 – 2018

The registry population for 2017-2018 was estimated by the exponential growth rate method by using the 2001 to 2011 census population. As of 2017-2018, there are 952,368 males and 841,833 females. More than 65% of the population is rural and depends on agricultural activities. The estimated population for 2017-2018 is presented in Table 5. The population pyramid of the Sangrur district is shown in Figure 3.

Table 5: Estimated average population of Sangrur district: 2017 – 2018

Age group	Male		Female		Total	
	Number	%	Number	%	Number	%
0-4	74120	7.8	62909	7.5	137029	7.6
5-9	83603	8.8	67264	8.0	150867	8.4
10-14	94840	10.0	73648	8.7	168488	9.4
15-19	104208	10.9	81831	9.7	186039	10.4
20-24	97821	10.3	86164	10.2	183985	10.3
25-29	81485	8.6	74827	8.9	156312	8.7
30-34	67150	7.1	63895	7.6	131045	7.3
35-39	62699	6.6	60819	7.2	123518	6.9
40-44	58721	6.2	57061	6.8	115782	6.5
45-49	52922	5.6	49588	5.9	102510	5.7
50-54	43086	4.5	37441	4.4	80527	4.5
55-59	29914	3.1	29673	3.5	59587	3.3
60-64	33604	3.5	34852	4.1	68456	3.8
65-69	25941	2.7	23448	2.8	49389	2.8
70-74	19602	2.1	16297	1.9	35899	2.0
75+	22652	2.4	22116	2.6	44768	2.5
Total	952368	100	841833	100	1794201	100

Figure 3: Population pyramid of Sangrur district: 2017 – 2018



5. Cancer registration method

Cancer incidence cases

Trained social workers of the registry visit the allotted villages periodically (in a period of every 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, ASHA workers, and the medical officer of the primary health centre and collects 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 interact with the patient/patient's relative and ask 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 centre, 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 relative.

During the second visit, the field staff updates the status of the cancer cases. Field worker 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 inquired about cancer deaths that have happened in the village and collects the death case information from the village birth and death registrar's 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 come across cases diagnosed before 2017. The field staff takes detailed information about the cancer case from the patient's relative and

maintains the data in the registry office. During 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

All the cases collected by field staff from the villages as well as from the hospital 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 on Oncology – Third Edition, Geneva, 2000 (ICD-O3)¹⁰.

Data entry

The data entry is carried out in CanReg5 software developed by the International Agency for Research on Cancer, Lyon, France¹¹.

After duplicate checking and other quality measures, cancer incidence and death cases are registered. The cancer registration process of the registry is presented in Figure 4.

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 the Sangrur district. Chandigarh and SAS Nagar PBCR staff appointed by TMC regularly visit all the hospitals in Chandigarh and the SAS Nagar area to collect the cancer case data. They provide the cancer case data to the cancer registry staff of Sangrur during their monthly meeting. The different sources of data collection are mentioned in Table 6.

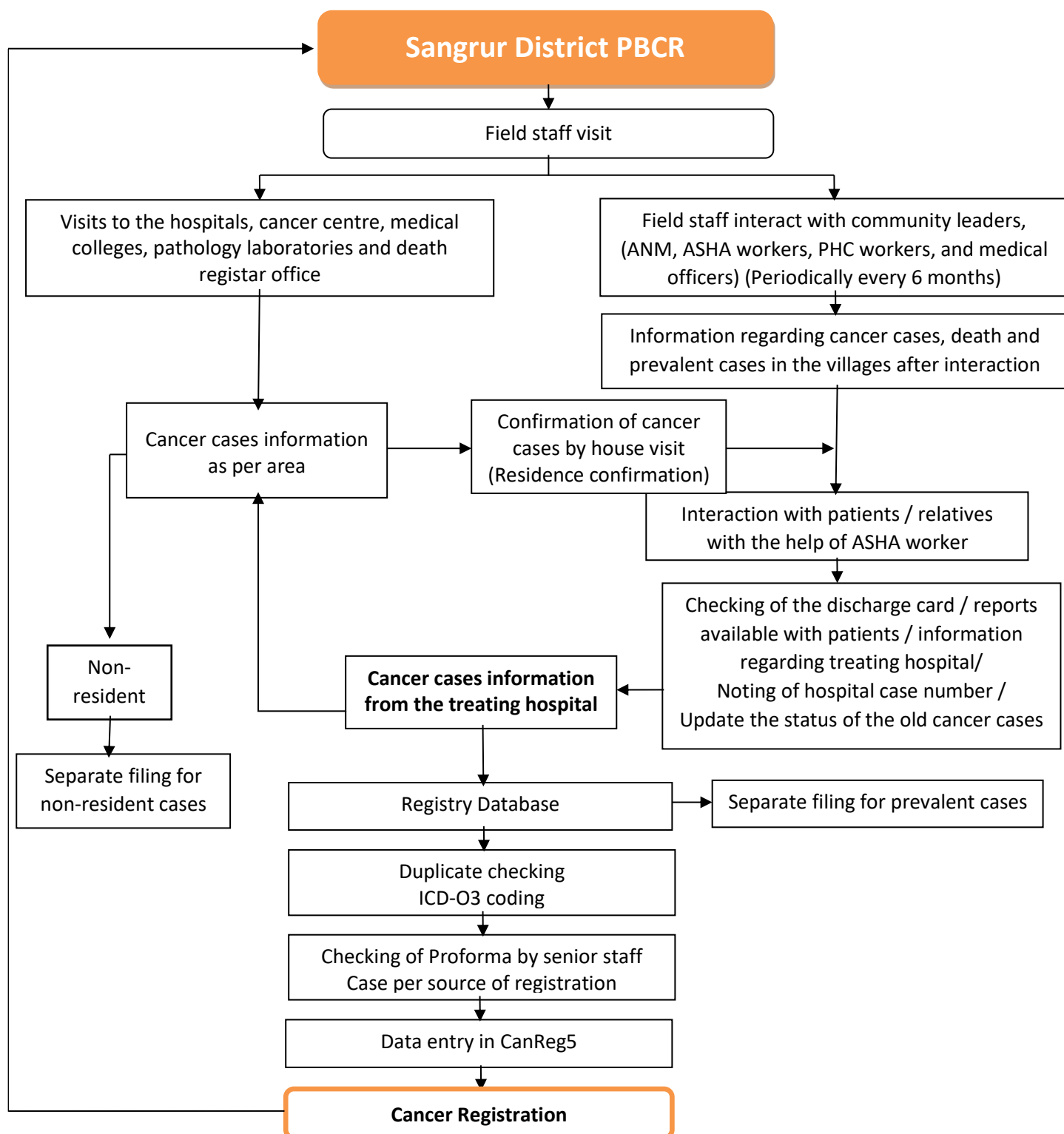
Table 6: Different sources of data collection

Sr. No.	Institution Name	Place
1	Post Graduate Institute of Medical Education and Research (PGIMER)	Chandigarh
2	Government Medical College and Hospital, Sector 32	Chandigarh
3	Government Multi Speciality Hospital, Sector- 16	Chandigarh
4	Homi Bhabha Cancer Hospital	Sangrur
5	Civil Hospital	Sangrur
6	Births and Deaths Registrar	Sangrur
7	Poonam Lab	Sangrur
8	Sodhi Scan Centre	Sangrur

Sr. No.	Institution Name	Place
9	Cancer Cell	Sangrur
10	Harbans Ultrasound and CT Scan Centre	Sangrur
11	Savi Path Lab	Sangrur
12	Grewal Health Clinic	Sangrur
13	Sibia Health Care	Sangrur
14	Jindal Ultrasound Centre	Sangrur
15	Grecian Super Speciality Hospital	SAS Nagar
16	Fortis Hospital	SAS Nagar
17	Indus Hospital	SAS Nagar
18	IVY Hospital	SAS Nagar
19	Max Hospital	SAS Nagar
20	Behgal Hospital	SAS Nagar
21	Mohan Dai Oswal Cancer Hospital	Ludhiana
22	Dyanand Medical College & Hospital	Ludhiana
23	Christian Medical College & Hospital, Ludhiana	Ludhiana
24	Fortis Hospital	Ludhiana
25	Community Health Centre	Ahmedgarh
26	Births and Deaths Registrar	Ahmedgarh
27	Community Health Centre	Amargarh
28	Births and Deaths Registrar	Amargarh
29	Gian Sagar Medical College and Hospital	Banur
30	Max Super Speciality Hospital	Bathinda
31	Community Health Centre	Bhawanigarh
32	Births and Deaths Registrar	Bhawanigarh
33	Births and Deaths Registrar	Bhawanigarh
34	Acharaya Tulsi Regional Cancer Treatment Centre & Research Institute	Bikaner
35	Births and Deaths Registrar	Cheema
36	Births and Deaths Registrar	Dhuri
37	Civil Hospital	Dhuri
38	Births and Deaths Registrar	Dirba

Sr. No.	Institution Name	Place
39	Guru Gobind Singh Medical College & Hospital	Faridkot
40	Primary Health Centre	Fatehgarh Panjgarian
41	O.P Jindal Institute of Medical Sciences	Hisar
42	Life Line Care Hospital/ Adhar Health Institute	Hisar
43	Community Health Centre	Kauhrian
44	Births and Deaths Registrar	Khanauri
45	Community Health Centre	Lehragaga
46	Births and Deaths Registrar	Lehragaga
47	Community Health Centre	Longowal
48	Mohan Dai Oswal Cancer Hospital	Ludhiana
49	Dayanand Medical College & Hospital	Ludhiana
50	Christian Medical College & Hospital, Ludhiana	Ludhiana
51	Fortis Hospital	Ludhiana
52	Births and Deaths Registrar	Malerkotla
53	Hazrat Haleema Hospital	Malerkotla
54	Civil Hospital	Malerkotla
55	Births and Deaths Registrar	Moonak
56	Sub Divisional Hospital	Moonak
57	Amar Hospital	Patiala
58	Government Medical College/ Rajindra Hospital	Patiala
59	Patiala Surgical Centre	Patiala
60	Government Dental College	Patiala
61	Onco Path Lab	Patiala

Figure 4: Cancer registration method



6. Community involvement in the cancer registration process

The cancer patients from this area travel 60 km to 420 km for cancer treatment. It is practically difficult for the registry staff to visit these entire centres regularly. The Punjab Government has conducted a door-to-door campaign and household survey to know the prevalence of cancer in each district of the state¹². Due to this program, the community leaders are aware of the importance of the disease and the cancer registration process. The primary health centre staff, ASHA workers, and Anganwadi workers cooperate by providing information on newly diagnosed cancer/cancer deaths that have 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.

Community interaction enabled the registry to confirm the residence of cancer cases. Interaction with the patient/ patient's relatives provides demographic information such as education, income, religion, etc. Regular village visits and communications with the community have enabled the registry to update the status of cancer patients, which will be utilized for cancer survival analysis. Two major cancer centres were initially reluctant to share the cancer case data, however, field visits and support from the community members and leaders enabled the registry to receive data and further reach the cancer patients/their relatives from these centres. In the year 2017-2018, the registry interacted with 2622 community leaders of 589 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 block is presented in Table 7.

Table 7: Community Leaders/Primary Health Centre Staff Involved in the Cancer Registration Process

Block Name	Total No. of Villages	Sarpanch / MC	SMO	MO	BEE	CHO	ANM	ASHA Workers	Anganwadi workers	MPHW	Other	Total
Sherpur	70	45	1	4	1	19	37	118	35	7	9	276
Kauhrian	86	61	1	6	1	12	51	173	14	9	7	335
Moonak	91	59	2	6	1	22	44	212	54	32	17	449
Longowal	68	92	2	6	1	26	35	158	99	25	7	451
Amargarh	106	55	1	2	1	14	34	137	45	21	27	337
Bhawanigarh	68	48	1	5	1	11	22	78	61	10	21	258
Fatehgarh Panjgarian	100	85	2	14	2	23	40	157	152	26	15	516
Total	589	445	10	43	8	127	263	1003	460	130	103	2622

SMO: Senior Medical Officer, MO: Medical Officer, BEE: Block Extententure Educator, MPHW: Multipurpose Health Worker, ANM: Auxiliary Nurse Midwife, ASHA: Accredited Social Health Activist, CHO: Community Health Officer

7. 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 2017-2018, 2678 incident cancer cases (1323 males (49.4%) and 1355 females (50.6%)) have been registered by PBCR Sangrur. For the same period, 1907 cancer deaths have been registered (1028 males (53.9%) and 879 females (46.1%)). The overall mortality to incidence ratio is 0.71 (71%); for males it was 0.78 (78%) and females the ratio was 0.65 (65%). The MI ratio is good and comparable to other established rural PBCRs in India¹.

Re-abstraction of the cases

A quality control exercise was carried out to improve the records and retrain the staff if required. The CCE-TMC team checked all cancer case data. During the quality control exercise, we observed minor errors. The error was corrected and training was provided to the staff. The data were modified and re-entered.

Incidence rates of childhood cancers

In the year 2017-2018, we registered 26 cancer cases in boys and 18 in girls. The age-specific rates reported for pediatric cancer per million are mentioned in table 8.

Table 8: Incidence rate of pediatric cancer cases in Sangrur district: 2017-2018

Age group	Boys		Girls	
	Number of Cases	Age Specific Rate	Number of Cases	Age Specific Rate
0 – 4	10	67.5	7	55.6
5 – 9	8	47.8	3	22.3
10 – 14	8	42.2	8	54.3
Age Adjusted Rate per 1,000,000 population	53.8		44.5	

The age-adjusted incidence rate for the pediatric age group (0-14) was 53.8 per million for boys and 44.5 per million for girls. As per the International Incidence of Childhood Cancer (IICC) volume III, the incidence rate for boys and girls is lower, indicating that we may have missed the cases in boys and girls¹³.

The microscopic confirmation was 96.2% in boys and 66.7% in girls.

Microscopic verification of the cases

In the year 2017-2018, out of 1323 male cases, 1016 (76.8%) cases were diagnosed with microscopic verification, 13.3% of cases were diagnosed based on radiological findings and 3.5% of cases were diagnosed clinically. In females, out of 1355 cases, we have 1093 (80.7%) cases diagnosed with microscopic verification, 9.4% of cases were diagnosed on radiological findings and 2.7% of cases were diagnosed clinically. Most of the other and unspecified cases were diagnosed with radiological findings (eg. lymph node, primary site unknown cases).

Death certificate only (DCO) cases

We have registered 82 (6.2%) cases in males and 96 (7.1%) cases in females under the DCO/other categories. The death cases have been registered based on the narration/relative 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 of cancer death.

Per source case registration

We have also seen the number of sources per incidence case registered. The cases were counted as per source notification. In Sangrur, the average number of sources per case registered is 2.9. The coverage of the sources by the registry has become higher. Due to field interaction, the case coverage is high.

Source	Number of cases confirm
Source 1	2,678
Source 2	2,399
Source 3	1,246
Source 4	737
Source 5	377
Source 6	156
Source 7	67
Source 8	13
Source 9	3
Source 10	4
Source 11	1
Total sources	7,681
Per source of registration	2.9 (7,681/2,678)

8. Cancer cases registered by the source of registration: First source of information

Homi Bhabha Cancer hospital Sangrur is the first source of information for 60% of incidence cases. As compared to the previous year, the first source of registration as a village visit has reduced from 25% to 10%. Where in 63.3% of cancer death, a village visit is the first source of information. The establishment of the HBCH Sangrur hospital has boosted cancer registration. The cancer incidence and death cases registered by the source of registration are mentioned in Table 9 and 10. However, for the death registration, we have to depend on the village visit. More than 60% of cancer deaths were registered through a village visit.

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

Sr. No.	Source of registration	Male		Female		Total	
		Number	%	Number	%	Number	%
1	Homi Bhabha Cancer Hospital, Sangrur	753	56.9	846	62.4	1599	59.7
2	Village Visit	144	10.9	117	8.6	261	9.7
3	Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh	88	6.7	63	4.6	151	5.6
4	Cancer Cell, Sangrur	52	3.9	54	4.0	106	4.0
5	Birth & Death Registrar Office, Civil Surgeon, Sangrur	50	3.8	47	3.5	97	3.6
6	Rajindra Hospital, Patiala	38	2.9	25	1.8	63	2.4
7	Mohandai Oswal Cancer Hospital, Ludhiana	31	2.3	29	2.1	60	2.2
8	Municipal Birth & Death Registrar Office, Sangrur	28	2.1	27	2.0	55	2.1
9	Dyanand Medical College & Hospital, Ludhiana	35	2.6	20	1.5	55	2.1
10	Early Detection Programme, Sangrur	20	1.5	20	1.5	40	1.5
11	Acharya Tulsi Regional Cancer Research & Hospital, Bikaner	12	0.9	14	1.0	26	1.0
12	Sodhi Scan Centre Hospital, Sangrur	10	0.8	12	0.9	22	0.8
13	Fortis Hospital, Mohali	10	0.8	9	0.7	19	0.7
14	Government Medical College and Hospital, Sector 32, Chandigarh	10	0.8	9	0.7	19	0.7
15	Guru Gobind Singh Medical College & Hospital, Faridkot	6	0.5	13	1.0	19	0.7
16	Poonam Path Lab, Sangrur	3	0.2	15	1.1	18	0.7

Sr. No.	Source of registration	Male		Female		Total	
		Number	%	Number	%	Number	%
17	Indus Hospital SCF 99-100, Mohali	3	0.2	4	0.3	7	0.3
18	Christian Medical College & Hospital, Ludhiana	4	0.3	2	0.1	6	0.2
19	Civil Hospital, Malerkotla	3	0.2	3	0.2	6	0.2
20	Fortis Hospital, Ludhiana	3	0.2	3	0.2	6	0.2
21	Patiala Surgical Centre, Patiala	2	0.2	2	0.1	4	0.1
22	IVY Hosital, Mohali	1	0.1	2	0.1	3	0.1
23	Max Multi speciality Hospital, Mohali	1	0.1	2	0.1	3	0.1
24	Columbasia, Patiala	2	0.2	1	0.1	3	0.1
25	Rajiv Singla Hospital, Sunam	2	0.2	1	0.1	3	0.1
26	Punjab Cancer Care, Bathinda	2	0.2	1	0.1	3	0.1
27	Other Sources	10	0.8	14	1.0	24	0.9
Total		1323	100.0	1355	100.0	2678	100.0

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

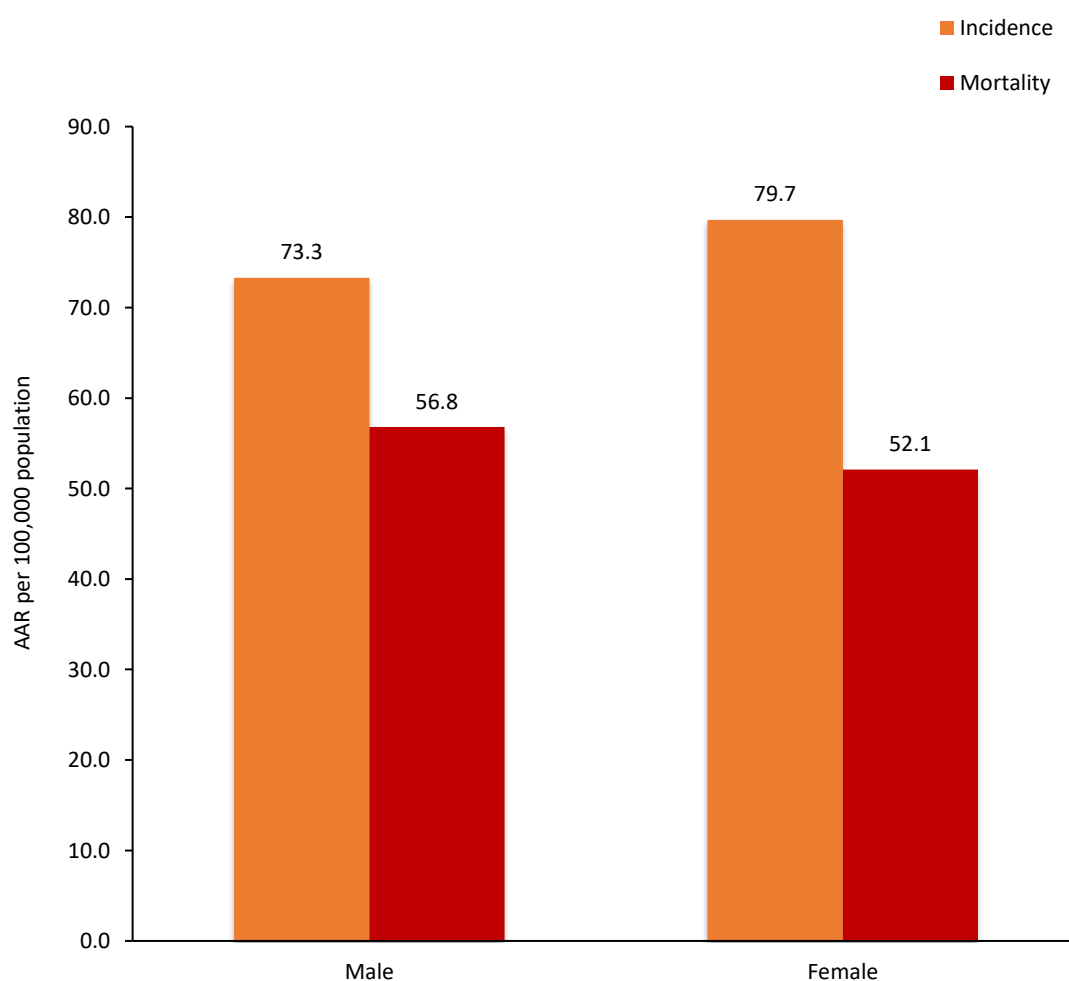
Sr. No.	Source of registration	Male		Female		Total	
		Number	%	Number	%	Number	%
1	Village visit	674	65.6	533	60.6	1207	63.3
2	Death & Birth Sangrur	311	30.3	312	35.5	623	32.7
3	Early Detection Programme Sangrur	14	1.4	19	2.2	33	1.7
4	Homi Bhabha Cancer Hospital Sangrur	19	1.8	9	1.0	28	1.5
5	Christian Medical College Ludhiana	1	0.1	2	0.2	3	0.2
6	Civil Hospital, Malerkotla	1	0.1	2	0.2	3	0.2
7	Mohandai Oswal Hospital, Ludhiana	3	0.3	0	0.0	3	0.2
8	Guru Gobind Singh Hospital, Faridkot	1	0.1	1	0.1	2	0.1
9	PGIMER, Chandigarh	2	0.2	0	0.0	2	0.1
10	Acharya Tulsi Regional Cancer Research and Hospital, Bikaner	0	0.0	1	0.1	1	0.1
11	Dayanand Medical College, Ludhiana	1	0.1	0	0.0	1	0.1
12	Rajindra Hospital, Patiala	1	0.1	0	0.0	1	0.1
Total		1028	100.0	879	100.0	1907	100.0

9. Cancer incidence and mortality: All sites

In the year 2017-2018, the cancer registry registered 2678 cancer cases. In males, we had 1323 cases (49.4%) and in females, we had 1355 cases (50.6%). The age-adjusted incidence rate for males was 73.3 per 100,000 population and for females, it was 79.7 per 100,000 population.

In the year 2017-2018, the cancer registry registered 1907 cancer deaths. In males, we have registered 1028 death (53.9%) and in females 879 deaths (46.1%). The age-adjusted mortality rate for males is 56.8 per 100,000 and for females, it is 52.1 per 100,000 population. The cancer incidence and mortality rates for all sites for males and females are presented in Figure 5.

Figure 5: All sites cancer incidence and mortality rate by sex: 2017-2018



10. Leading cancer sites by gender

In males, the liver, prostate, esophagus tongue, lung, mouth, larynx, urinary bladder, brain and hypopharynx are the leading cancer sites. The top ten leading cancer site rates are presented in Figure 6. In females, the breast, cervix uteri, esophagus, ovary, gall bladder, liver, corpus uteri, lung, thyroid, and brain are the leading cancer sites. The top 10 leading cancer sites are presented in Figure 7.

Figure 6: Leading cancer sites in males: 2017-2018

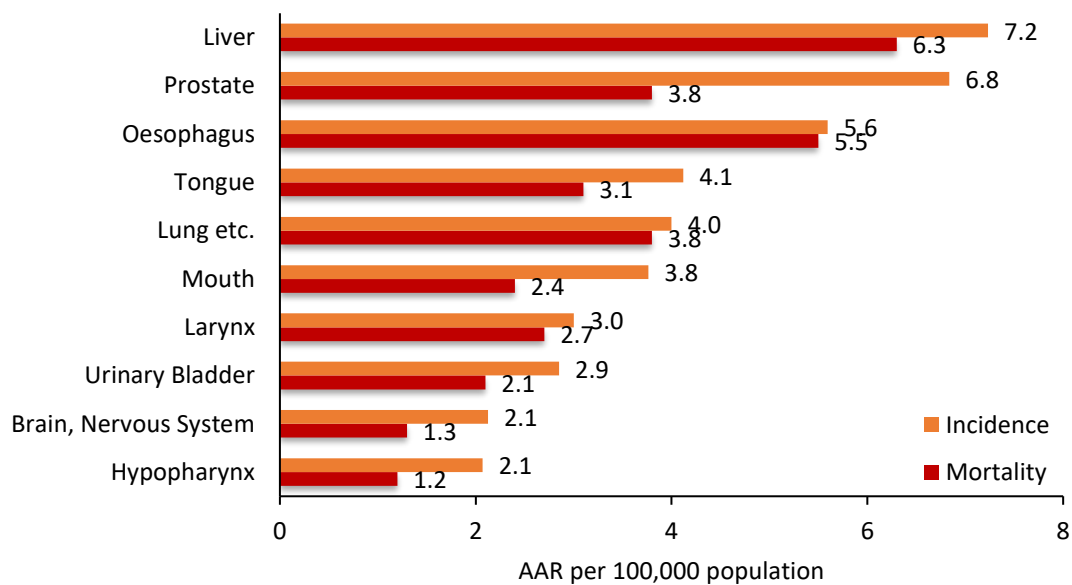
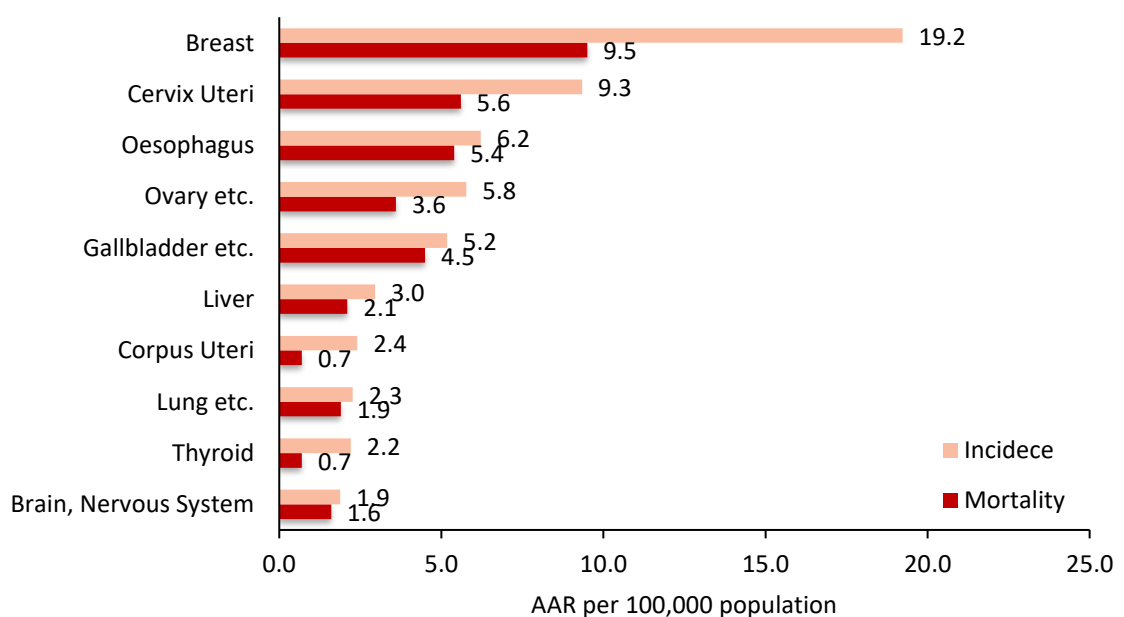


Figure 7: Leading cancer sites in females: 2017-2018



Comparison of leading cancer sites with other Indian registries

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

Cancer of the liver (C22)

	Male	Female
Number of cases	127	47
Percentage (%)	9.6	3.5
Crude incidence rate (CR)	6.7	2.8
Age-adjusted rate (AAR)	7.2	3.0
Truncated rate (TR)	14.6	6.3

Figure 8: Age-specific incidence rate of liver cancer (Sangrur district): 2017-2018

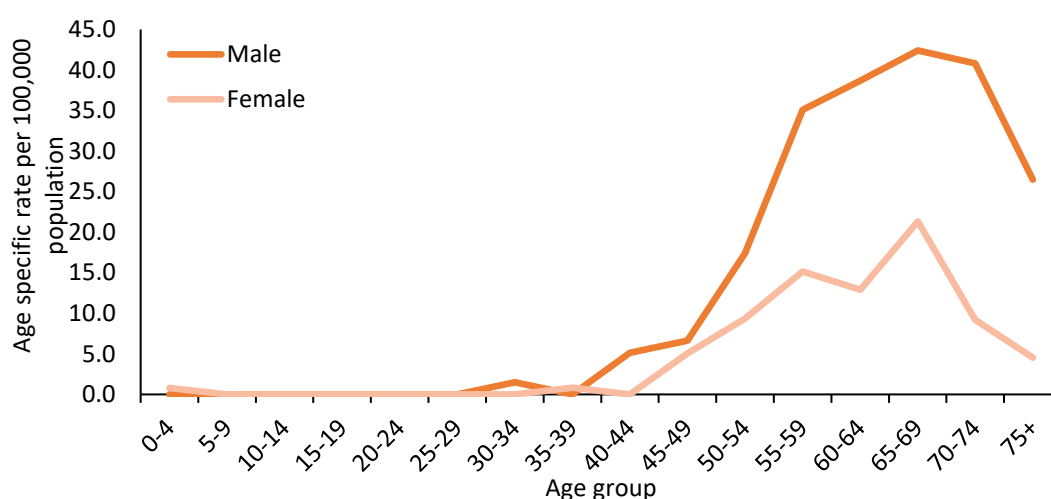
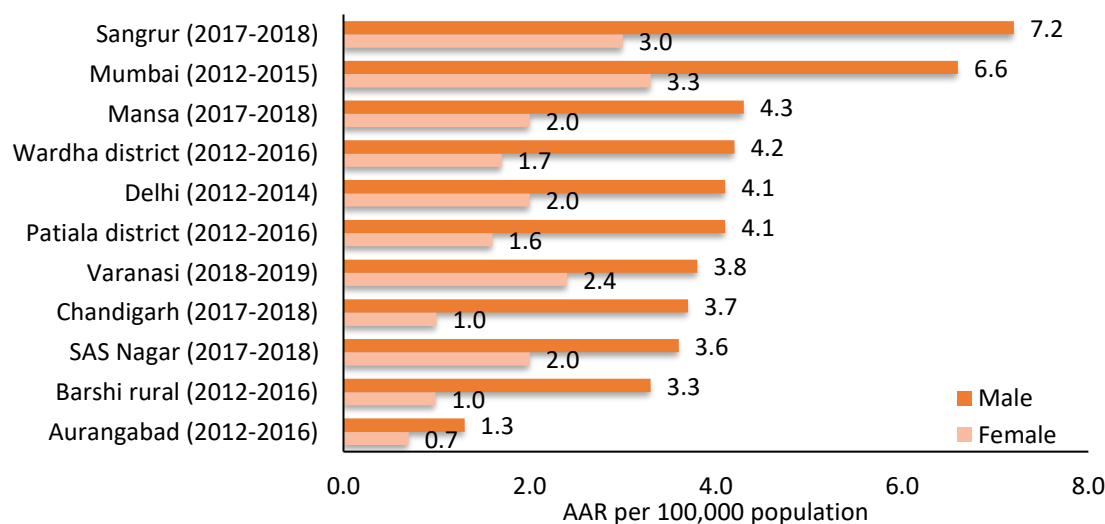


Figure 9: Comparison of liver cancer incidence rate with other Indian registries



Cancer of the oesophagus (C15)

	Male	Female
Number of cases	100	102
Percentage (%)	7.6	7.5
Crude incidence rate (CR)	5.3	6.1
Age-adjusted rate (AAR)	5.6	6.2
Truncated rate (TR)	11.2	13.7

Figure 10: Age-specific incidence rate of oesophagus cancer (Sangrur district): 2017-2018

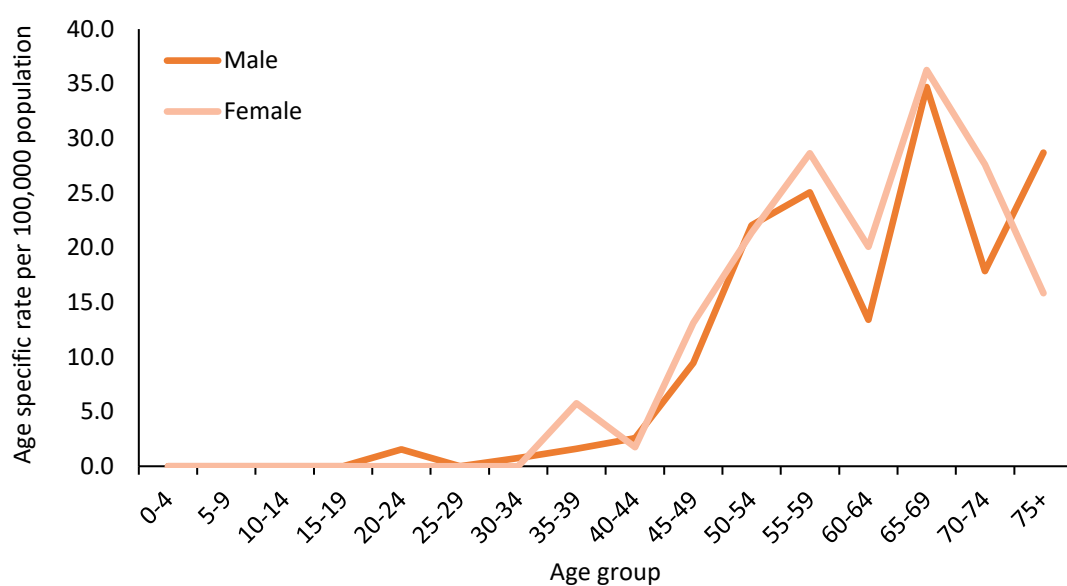
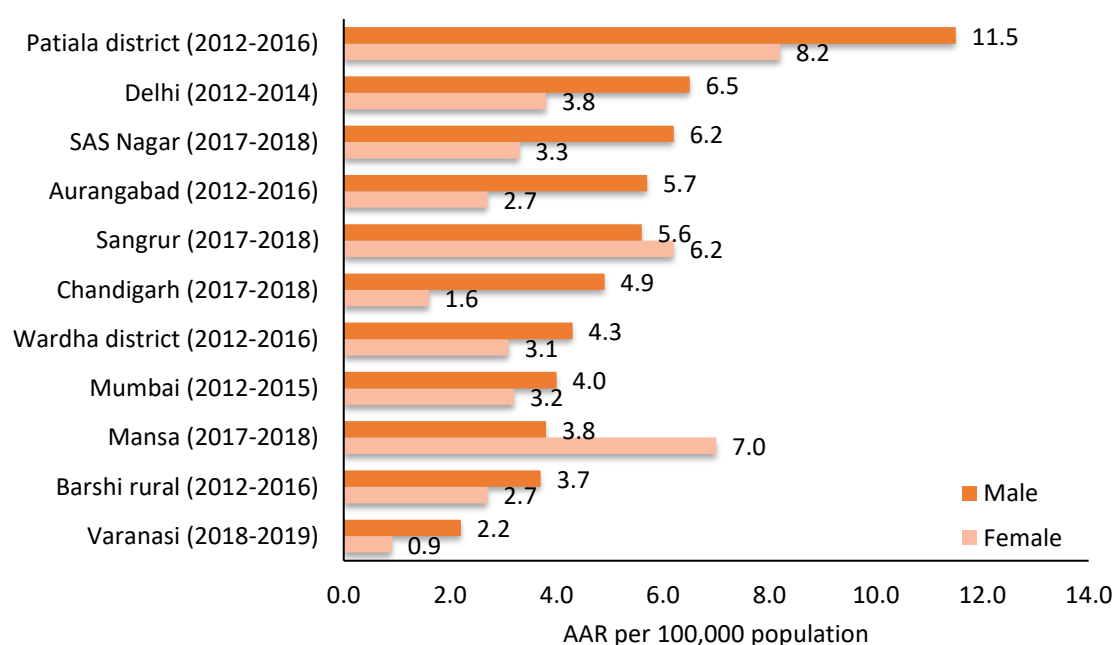


Figure 11: Comparison of oesophagus cancer incidence rate with other Indian registries



Cancer of the tongue (C01-C02)

	Male	Female
Number of cases	75	12
Percentage (%)	5.7	0.9
Crude incidence rate (CR)	3.9	0.7
Age-adjusted rate (AAR)	4.1	0.7
Truncated rate (TR)	9.1	0.6

Figure 12: Age-specific incidence rate of tongue cancer (Sangrur district): 2017-2018

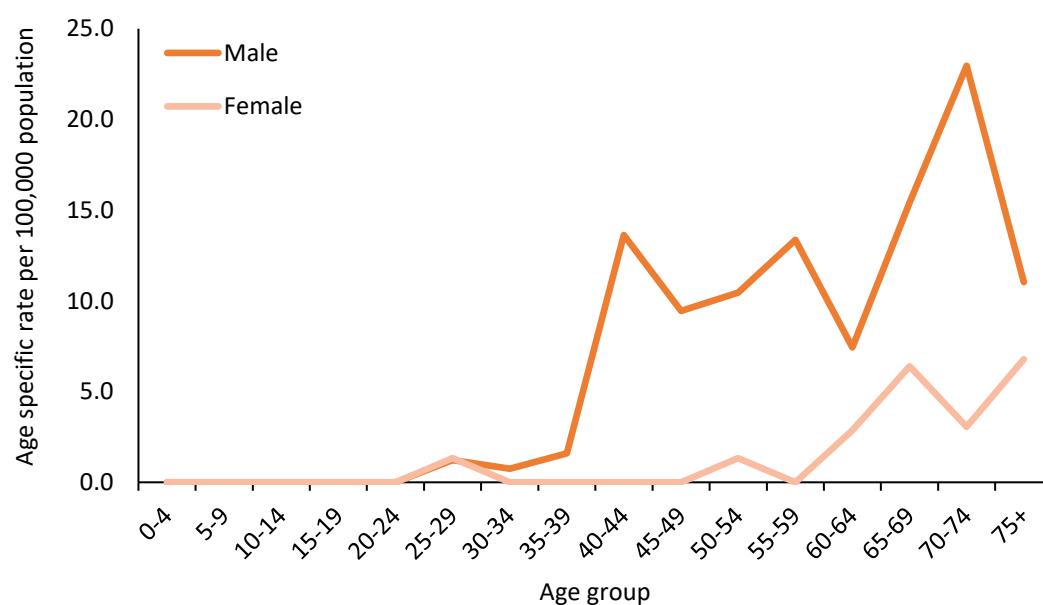
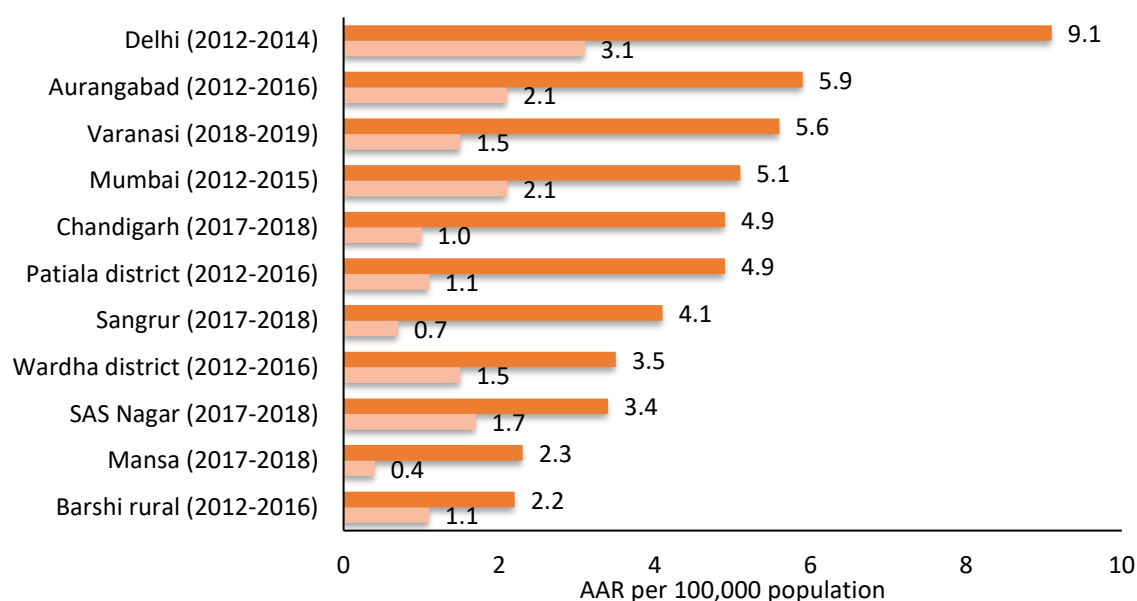


Figure 13: Comparison of tongue cancer incidence rate with other Indian registries



Cancer of the lung (C33-C34)

	Male	Female
Number of cases	70	38
Percentage (%)	5.3	2.8
Crude incidence rate (CR)	3.7	2.3
Age-adjusted rate (AAR)	4.0	2.3
Truncated rate (TR)	8.4	5.4

Figure 14: Age-specific incidence rate of cancer of lung cancer (Sangrur district): 2017-2018

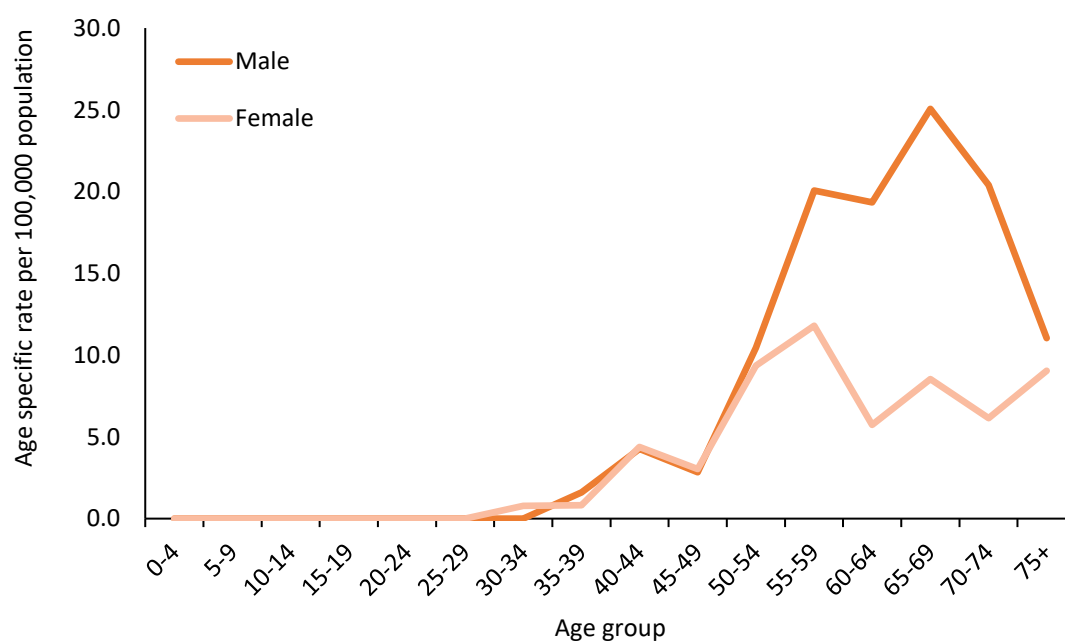
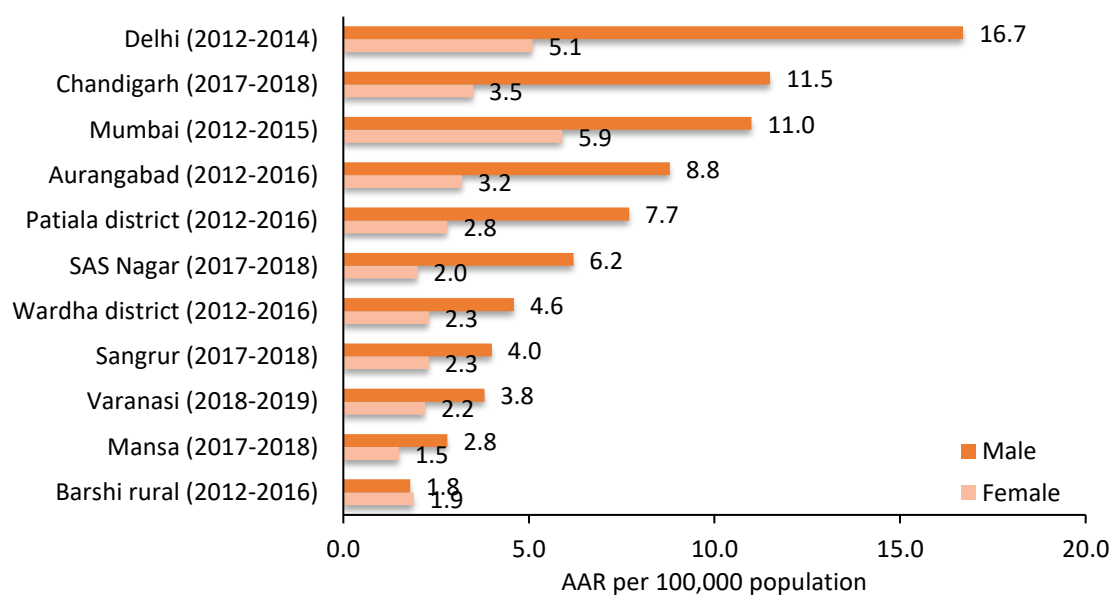


Figure 15: Comparison of lung cancer incidence rate with other Indian registries



Cancer of the gall bladder (C23-C24)

	Male	Female
Number of cases	36	87
Percentage (%)	2.7	6.4
Crude incidence rate (CR)	1.9	5.2
Age-adjusted rate (AAR)	1.9	5.2
Truncated rate (TR)	3.4	11.3

Figure 16: Age-specific incidence rate of cancer of gall bladder cancer (Sangrur district): 2017-2018

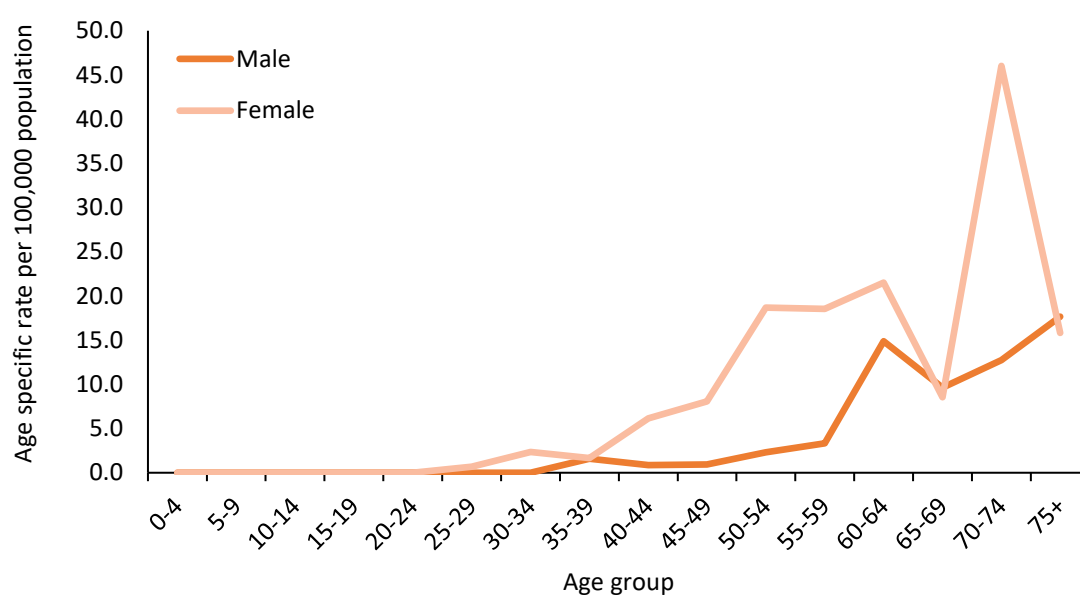
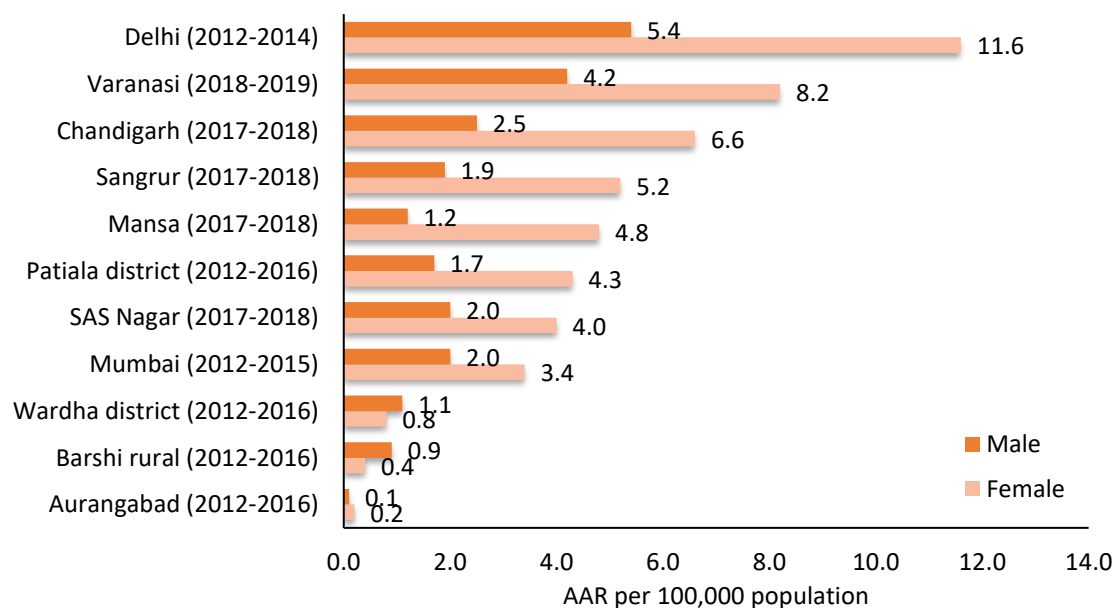


Figure 17: Comparison of gall bladder cancer incidence rate with other Indian registries



Cancer of the prostate (C61)

Number of cases	130
Percentage (%)	9.8
Crude incidence rate (CR)	6.8
Age-adjusted rate (AAR)	6.8
Truncated rate (TR)	4.9

Figure 18: Age-specific incidence rate of cancer of prostate cancer (Sangrur district): 2017-2018

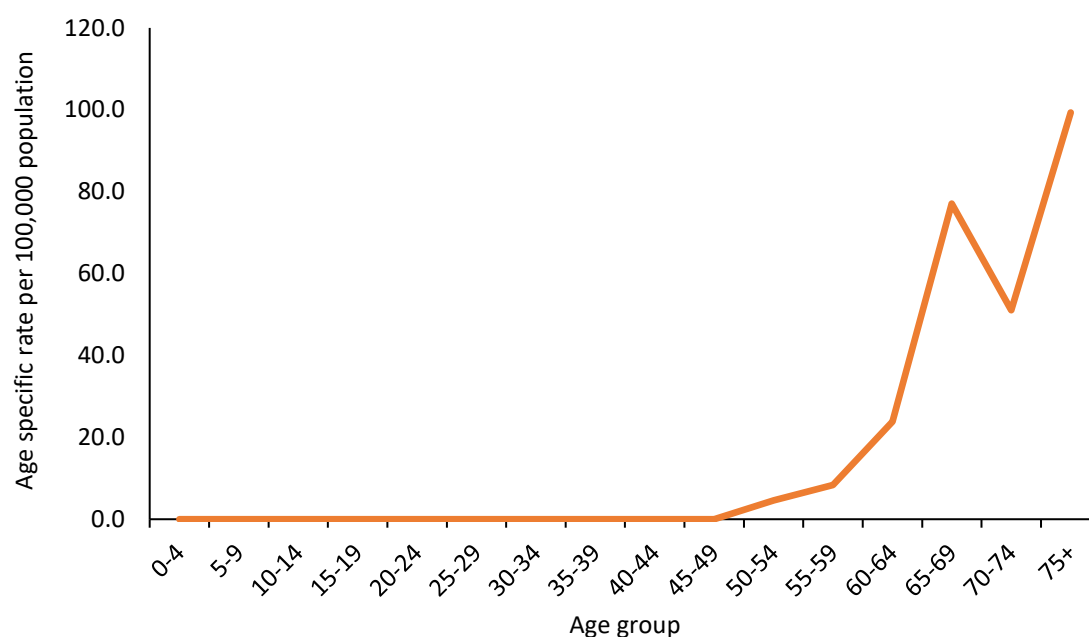
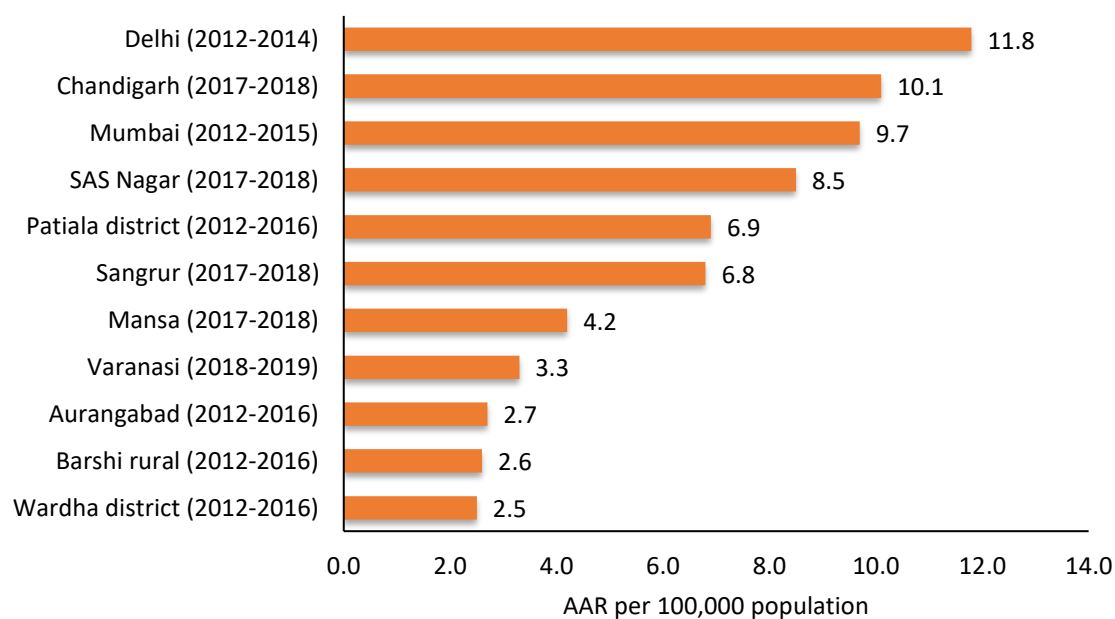


Figure 19: Comparison of prostate cancer incidence rate with other Indian registries



Cancer of the breast (C50)

	Female
Number of cases	329
Percentage (%)	24.3
Crude incidence rate (CR)	19.5
Age-adjusted rate (AAR)	19.2
Truncated rate (TR)	45.9

Figure 20: Age-specific incidence rate of cancer of breast cancer (Sangrur district): 2017-2018

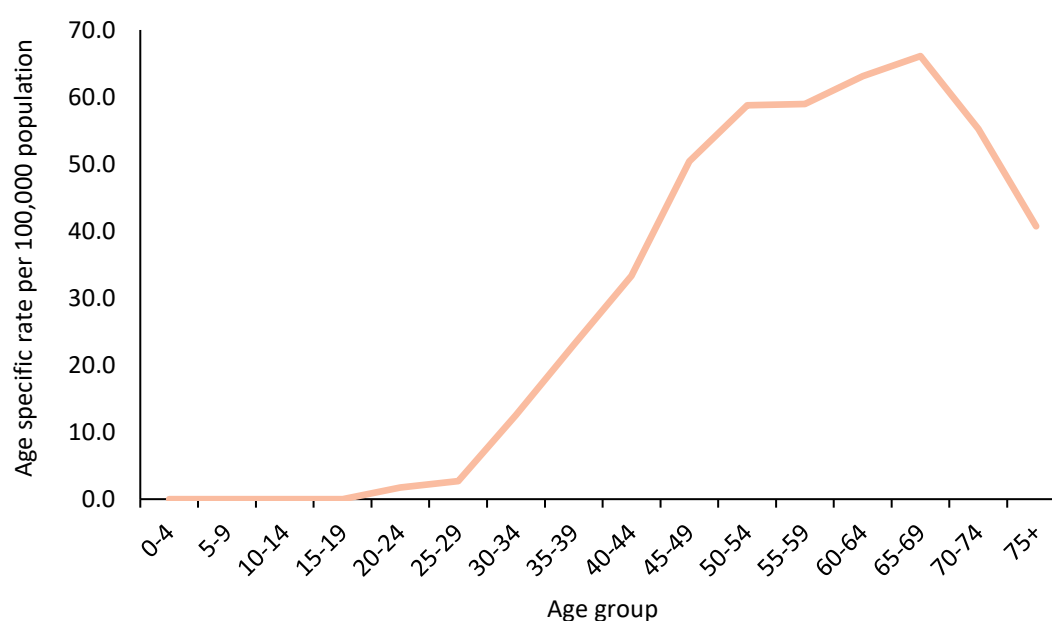
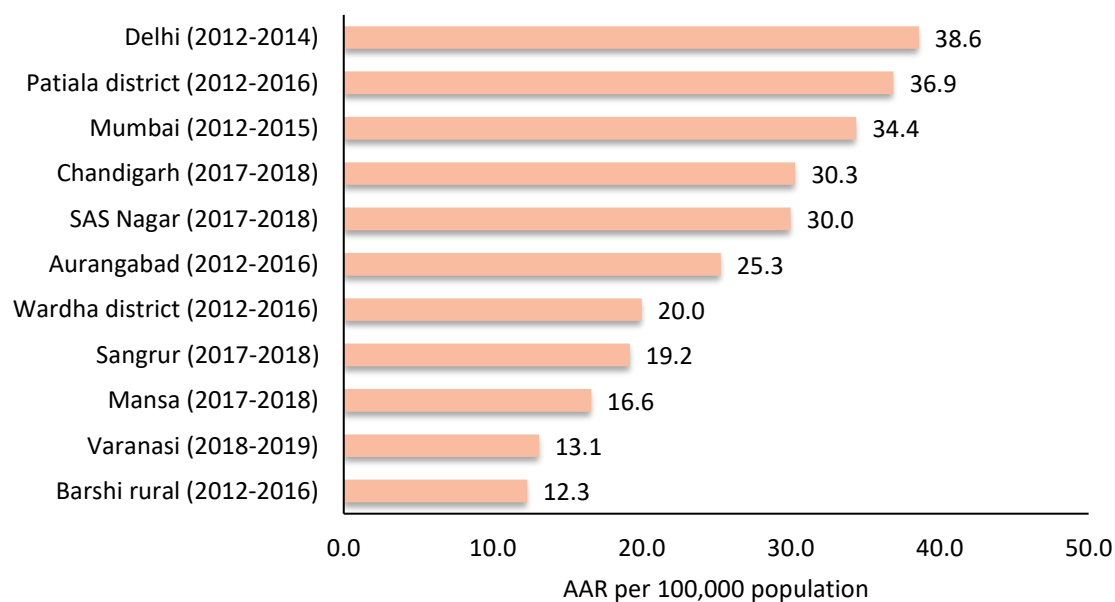


Figure 21: Comparison of breast cancer incidence rate with other Indian registries



Cancer of cervix uteri (C53)

Number of cases	159
Percentage (%)	11.7
Crude incidence rate (CR)	9.4
Age-adjusted rate (AAR)	9.3
Truncated rate (TR)	22.9

Figure 22: Age-specific incidence rate of cancer of cervix uteri cancer (Sangrur district): (2017-2018)

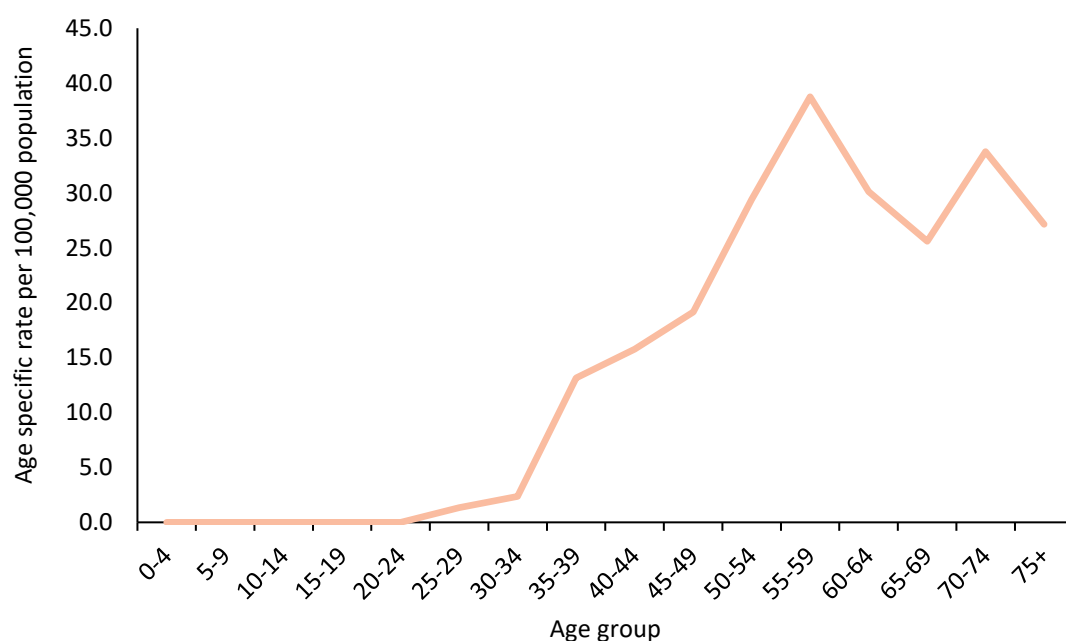
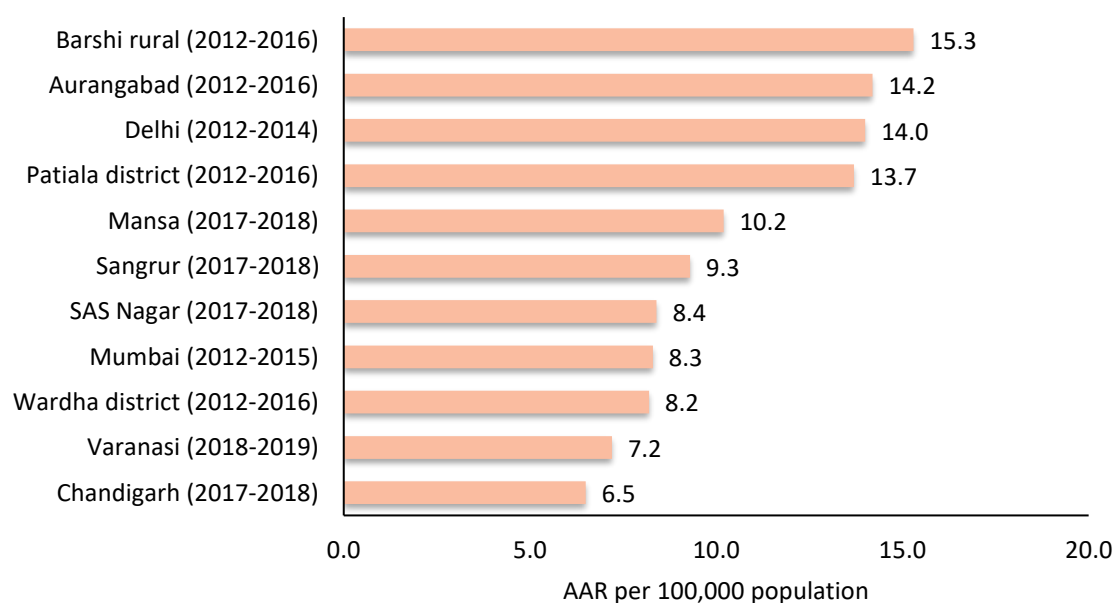


Figure 23: Comparison of cervix uteri cancer incidence rate with other Indian registries



Cancer of the ovary (C56)

Number of cases	98
Percentage (%)	7.2
Crude incidence rate (CR)	5.8
Age-adjusted rate (AAR)	5.8
Truncated rate (TR)	13.3

Figure 24: Age-specific incidence rate of ovarian cancer (Sangrur district): 2017-2018

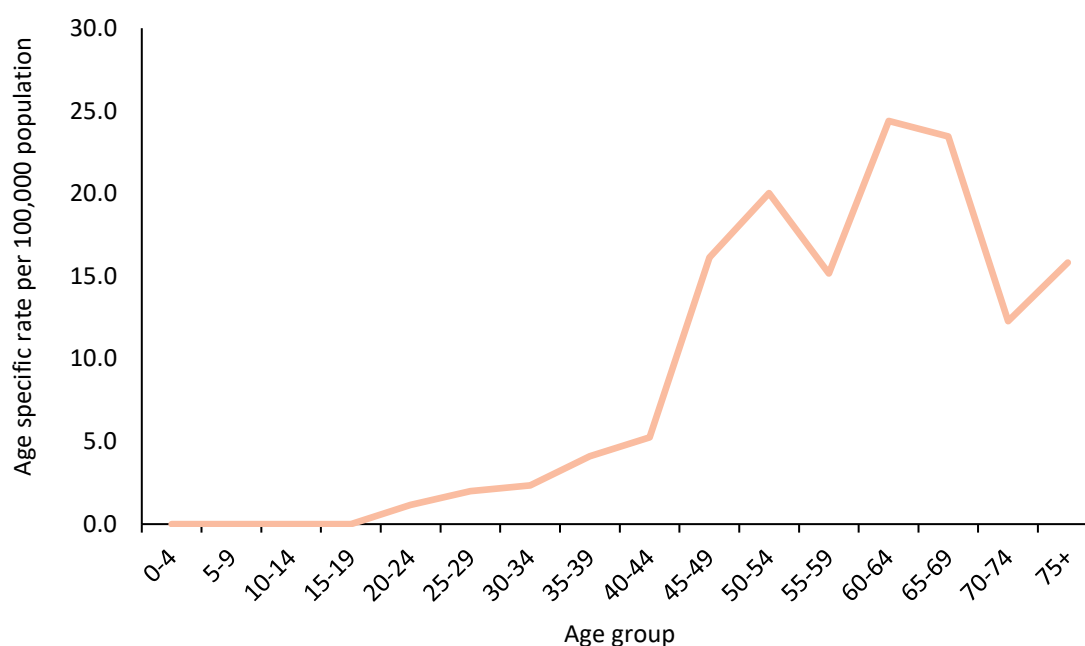


Figure 25: Comparison of ovarian cancer incidence rate with other Indian registries

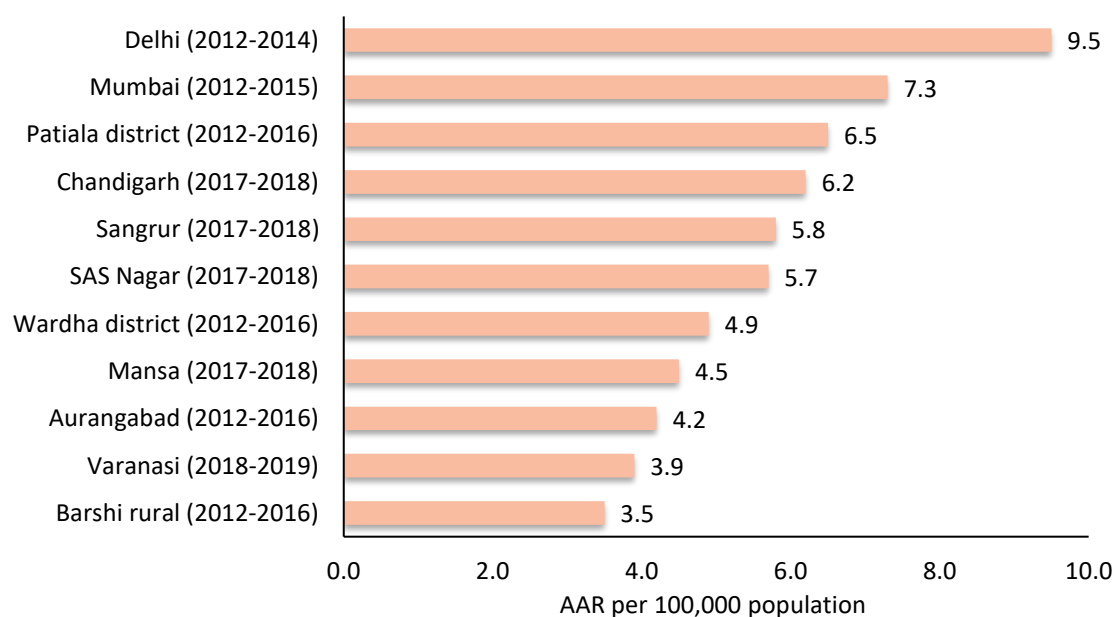


Figure 26: Age-specific incidence and mortality rate: Male all cancer sites (Sangrur district): (2017-2018)

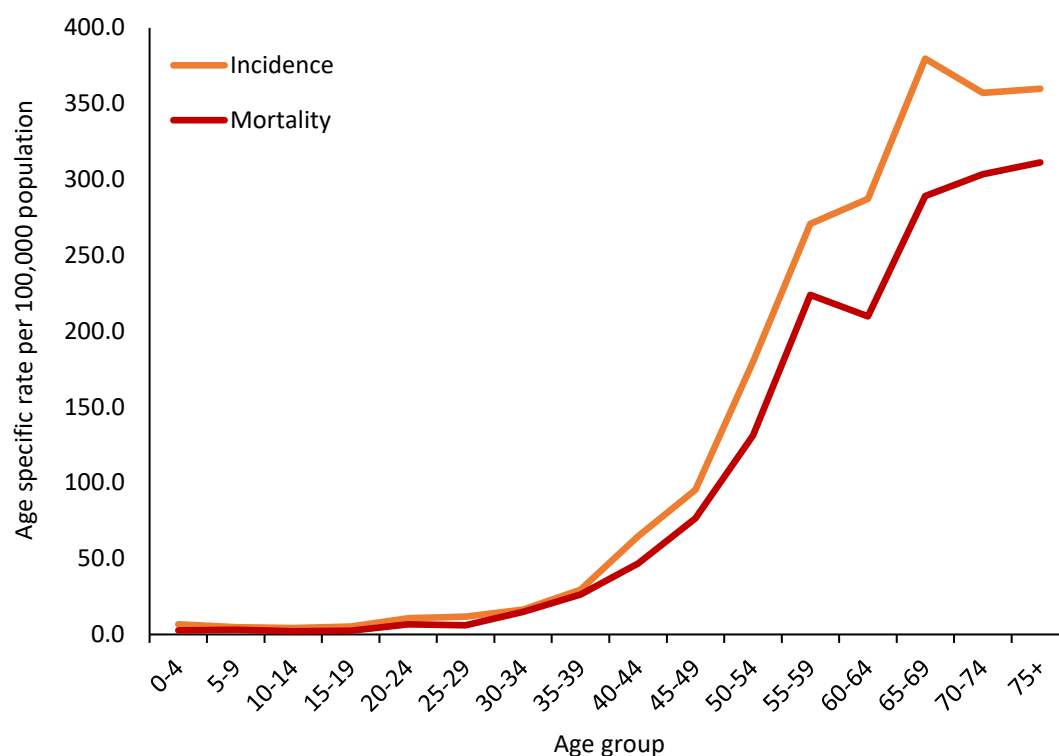
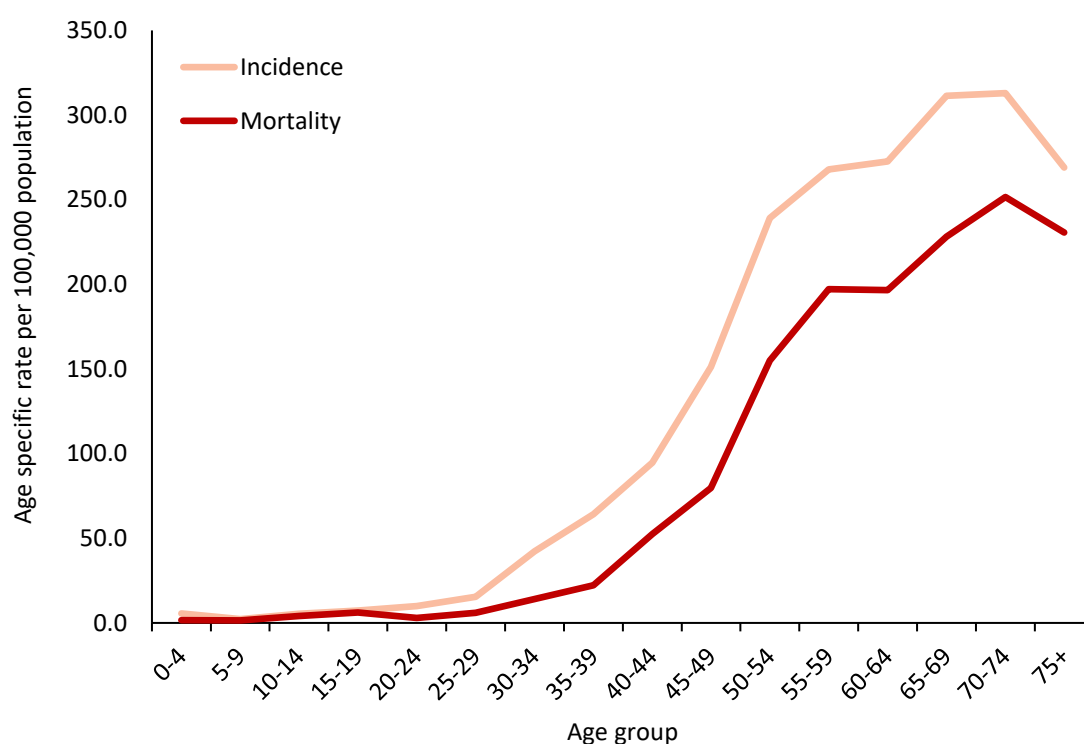


Figure 27: Age-specific incidence and mortality rate: Female all cancer sites (Sangrur district): (2017-2018)



Other and unspecified sites

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

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

In males, out of 1323 cases, 102 cases are of other and unspecified sites. The predominant cases are C80 – primary unknown (6.9%), followed by C26 – other and ill-defined digestive organ (0.3%), and other and ill-defined, secondary and unspecified sites (0.2%). In females, out of 1355 cases, 77 cases are of other and unspecified sites. The predominant cases are C80 – primary unknown (3.8%), followed by C76 – other and ill-defined, secondary and unspecified sites (0.8%), and other and ill-defined digestive organ (0.4% cases). The details are presented in Table 11.

Due to improvement in the diagnostic and treatment facility, the percentage of the Primary Site Unknown will decrease in coming years.

Table 11: Other and unspecified cases by sex

ICD 10	Male		Female	
	Number	%	Number	%
C26	4	0.3	6	0.4
C48	1	0.1	1	0.1
C75	1	0.1	0	0.0
C76	3	0.2	11	0.8
C77	2	0.2	6	0.4
C78	0	0.0	0	0.0
C79	0	0.0	1	0.1
C80	91	6.9	52	3.8
Total	102/1323	7.7/100.0	77/1355	5.7/100

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

	Male	Female
Number of cases	102	77
Percentage (%)	7.7	5.7
Crude incidence rate (CR)	5.4	4.6
Age-adjusted rate (AAR)	5.7	4.5
Truncated rate (TR)	11.5	8.3

Figure 28: Age-specific incidence rate of other and unspecified cancer (Sangrur district): (2017-2018)

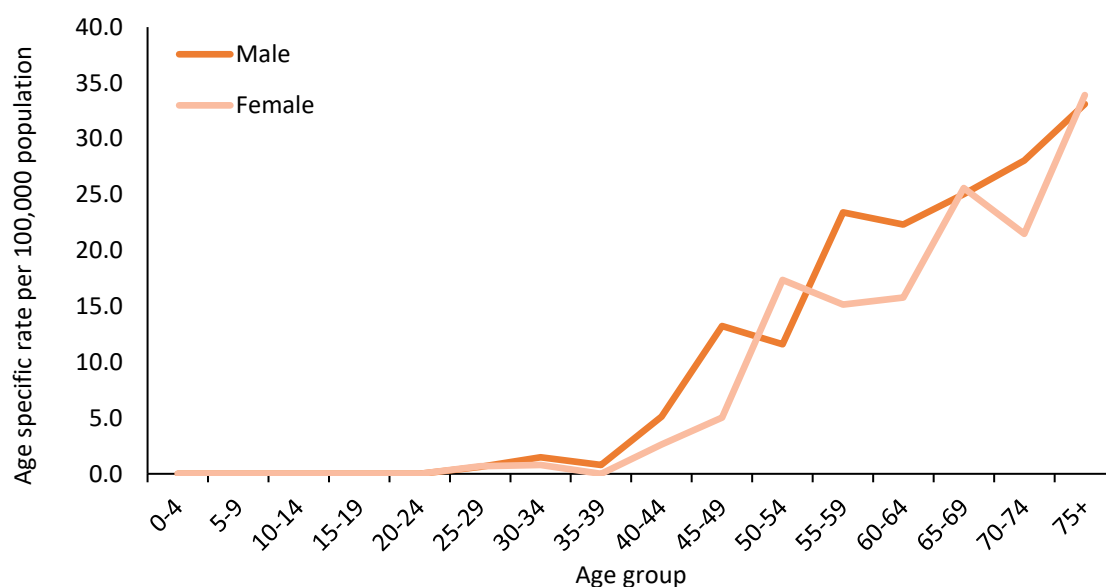
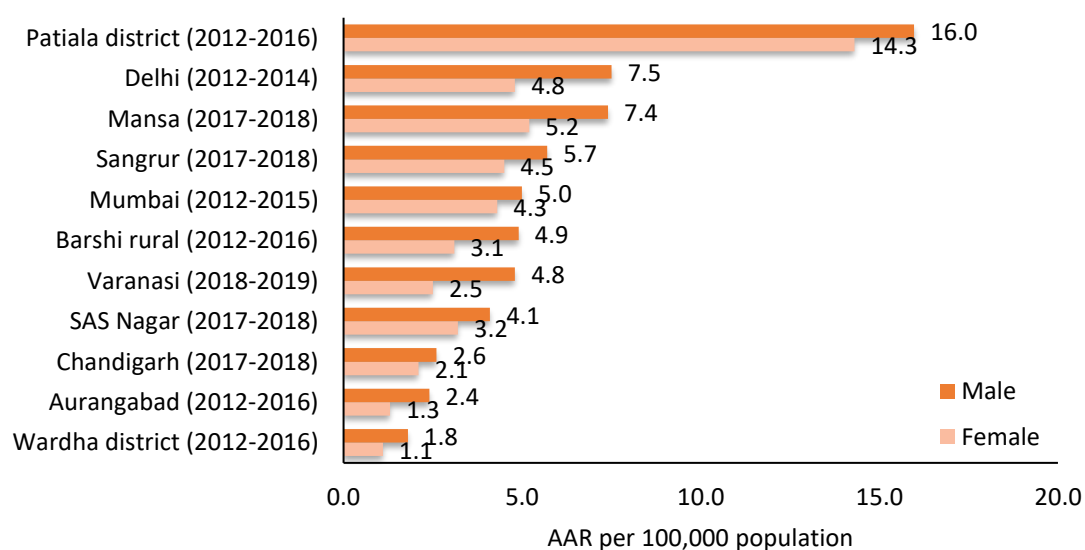


Figure 29: Comparison of other and unspecified cancer incidence rate with other Indian registries



11. Cancer pattern in paediatric age-group (0-14 years)

In the year 2017-2018, out of 2678 registered cancer cases 44 (1.6%) paediatric cases (0-14 age group) were registered. The age-adjusted incidence for boys is 53.8 per million and 44.5 per million for girls.

The leading cancer sites in boys are lymphoid leukaemia, leukaemia unspecified, brain, connective and soft tissue, adrenal gland, kidney, other thoracic organs, eye, myeloid leukaemia and Hodgkins disease. While in girls, brain, bone, leukaemia unspecified, lymphoid leukaemia, kidney, connective and soft tissue, liver, hypopharynx, Hodgkins disease and salivary gland are the leading cancer sites. Leading cancer sites are mentioned below in Figure 30 and 31.

Figure 30: Leading cancer sites in boys: 2017-2018

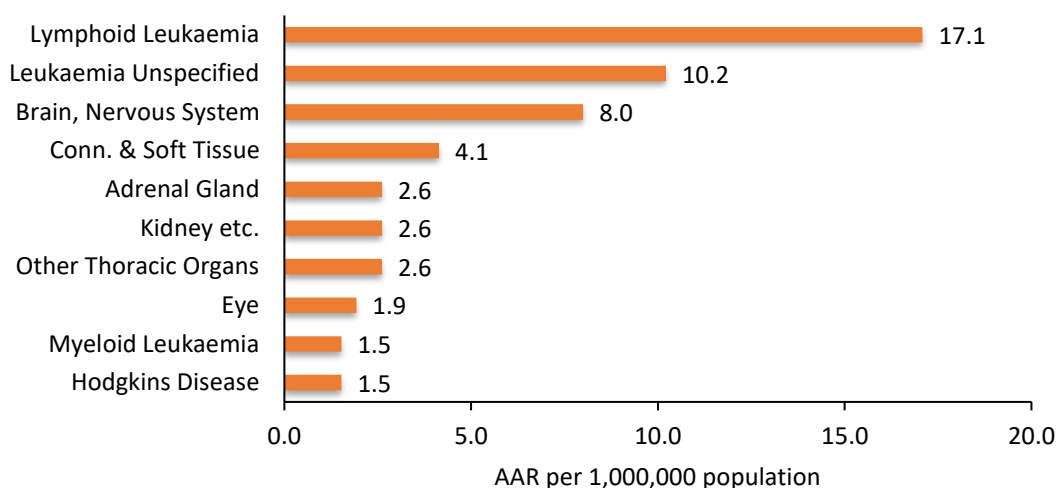
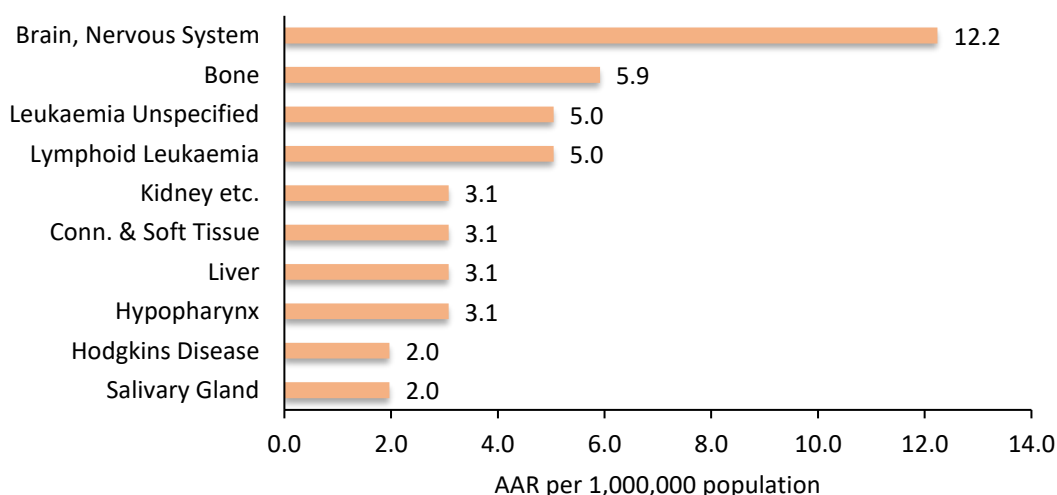


Figure 31: Leading cancer sites in girls: 2017-2018



International Classification of Childhood Cancer, 3rd edition (ICCC-3) has mentioned the separate coding to know the cancer burden in children according to appropriate diagnostic groups. ICCC-3 having twelve main groups and further these are divided in to subgroups and division of selected subgroups. The age-adjusted incidence rate as per subgroups in boys and girls per million population is mentioned in Table 13. **The paediatric cancer burden as per ICCC-3 standard is mentioned separately in Table 39 and 40.** ⁽¹⁴⁾

Proportion of paediatric cancer cases as per 12 main diagnostic group as per ICCC-3 standard is presented in figure 32.

Figure 32: Proportion of paediatric cancer cases by age-group: Both sex (Sangrur district)

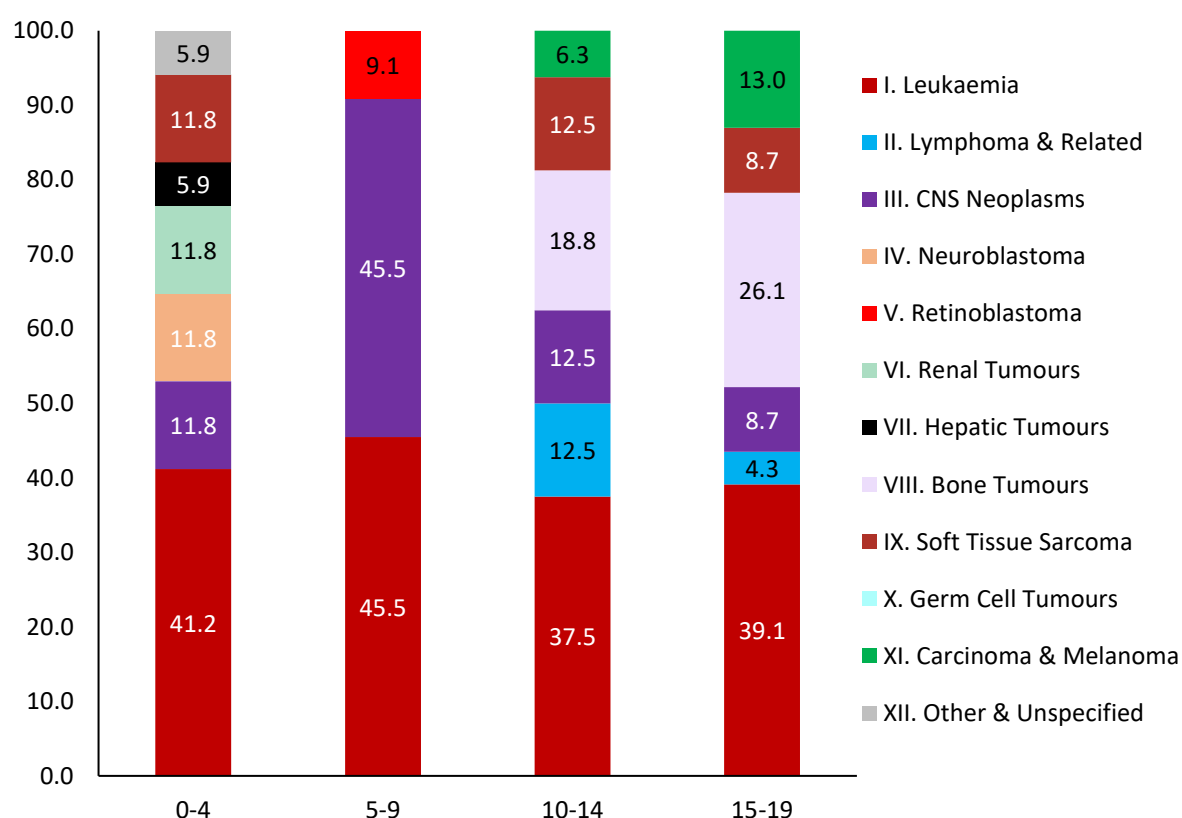


Table 12: Cancer cases distribution as per the International Classification of Childhood Cancer (ICCC) code: 2017-2018

ICCC Code	Site	Boys			Girls		
		Number	%	AAR*	Number	%	AAR*
1a	Lymphoid leukaemia	8	30.8	17.1	2	11.1	5.0
1b	Acute myeloid leukaemia	1	3.8	1.5	-	-	
1e	Unspecified and other specified leukaemia	5	19.2	10.2	2	11.1	5.0
2a	Hodgkin lymphomas	1	3.8	1.5	1	5.6	2.0
3b	Astrocytomas	1	3.8	2.6	1	5.6	3.1
3c	Intracranial and intraspinal embryonal tumors	3	11.5	5.4	1	5.6	2.4
3d	Other gliomas	-	-	-	1	5.6	2.4
3f	Unspecified intracranial and intraspinal neoplasms	-	-	-	2	11.1	4.4
4a	Neuroblastoma and ganglioneuroblastoma	2	7.7	5.2	-	-	-
5	Retinoblastoma	1	3.8	1.9	-	-	-
6a	Nephroblastoma and other nonepithelial renal tumors	1	3.8	2.6	1	5.6	3.1
7c	Unspecified malignant hepatic tumors	-	-	-	1	5.6	3.1
8a	Osteosarcomas	-	-	-	2	11.1	3.9
8e	Unspecified malignant bone tumors	-	-	-	1	5.6	2.0
9a	Rhabdomyosarcomas	1	3.8	2.6	1	5.6	3.1
9d	Other specified soft tissue sarcomas	2	7.7	3.1	-	-	-
11f	Other and unspecified carcinomas	-	-	-	1	5.6	2.0
12b	Other unspecified malignant tumors	-	-	-	1	5.6	3.1
Total		26	100.0	53.8	18	100.0	44.5

* AAR per 1,000,000 population

12. Tobacco-related cancers

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

As per the Sangrur registry data the tobacco-related cancer burden is 35.4% in males while it is 14.6% in females. The leading site under tobacco-related cancer are the esophagus, tongue, lung, mouth, and larynx in males; and in females, the esophagus, lung, hypopharynx, tongue, and larynx.

In the male out of 469; 172 (36.7%) farmer, 163 (34.8%) unskilled worker and 29 (6.2%) are government employees. In the female out of 198; 191 (96.5%) are housewife. If we consider the educational level in this population 52.9% males are illiterate while female 73.7%.

Table 13: Tobacco-related cancer in males: 2017-2018

ICD10	Site	Number	%	CR	AAR	TR
C00	Lip	1	0.1	0.1	0.1	0.2
C01-C02	Tongue	75	5.7	3.9	4.1	9.1
C03-C06	Mouth	65	4.9	3.4	3.8	9.4
C10	Other Oropharynx	14	1.1	0.7	0.8	1.5
C12-C13	Hypopharynx	37	2.8	1.9	2.1	3.9
C14	Pharynx Unspecified	4	0.3	0.2	0.2	0.8
C15	Oesophagus	100	7.6	5.3	5.6	11.2
C32	Larynx	53	4.0	2.8	3.0	6.9
C33-C34	Lung etc.	70	5.3	3.7	4.0	8.4
C67	Urinary Bladder	50	3.8	2.6	2.9	6.2
C00-C06, C10, C12-C15, C32-C34 & C67	Tobacco-related cancer	469	35.4	24.6	26.5	57.6

Table 14: Tobacco-related cancer in females: 2017-2018

ICD10	Site	Number	%	CR	AAR	TR
C00	Lip	0	0.0	0.0	0.0	0.0
C01-C02	Tongue	12	0.9	0.7	0.7	0.6
C03-C06	Mouth	8	0.6	0.5	0.4	0.8
C10	Other Oropharynx	3	0.2	0.2	0.2	0.4
C12-C13	Hypopharynx	18	1.3	1.1	1.1	1.9
C14	Pharynx Unspecified	0	0.0	0.0	0.0	0.0
C15	Oesophagus	102	7.5	6.1	6.2	13.7
C32	Larynx	8	0.6	0.5	0.5	1.2
C33-C34	Lung etc.	38	2.8	2.3	2.3	5.4
C67	Urinary Bladder	9	0.7	0.5	0.5	1.1
C00-C06, C10, C12-C15, C32-C34 & C67	Tobacco-related cancer	198	14.6	11.8	11.8	25.1

Table 15: Occupation in tobacco-related cancer cases

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Professional	5	1.1	1	0.5	6	0.9
Semi-Professional	2	0.4	0	0.0	2	0.3
Clerical/Shop owner	25	5.3	1	0.5	26	3.9
Farmer	172	36.7	1	0.5	173	25.9
Skilled Worker	20	4.3	0	0.0	20	3.0
Semi-Skilled Worker	14	3.0	0	0.0	14	2.1
Unskilled Worker	163	34.8	0	0.0	163	24.4
Unemployed	6	1.3	0	0.0	6	0.9
Student	1	0.2	0	0.0	1	0.1
Housewife	0	0.0	191	96.5	191	28.6
Government Employee	29	6.2	3	1.5	32	4.8
Private Employee	10	2.1	0	0.0	10	1.5
Other	22	4.7	1	0.5	23	3.4
Total	469	100.0	198	100.0	667	100.0

Table 16: Educational characteristics in tobacco-related cancer cases

Education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	248	52.9	146	73.7	394	59.1
Literate	15	3.2	6	3.0	21	3.1
Primary (1-7 std)	72	15.4	23	11.6	95	14.2
Secondary (8-10 std)	98	20.9	17	8.6	115	17.2
Technical after 10 th	10	2.1	1	0.5	11	1.6
College	12	2.6	3	1.5	15	2.2
Post-graduate	10	2.1	1	0.5	11	1.6
Other	2	0.4	1	0.5	3	0.4
Unknown/ No information	2	0.4	0	0.0	2	0.3
Total	469	100.0	198	100.0	667	100.0

Table 17: Religion in tobacco-related cancer cases

Religion	Male		Female		Total	
	Number	%	Number	%	Number	%
Hindu	122	26.0	32	16.2	154	23.1
Muslim	62	13.2	19	9.6	81	12.1
Sikh	285	60.8	147	74.2	432	64.8
Total	469	100.0	198	100.0	667	100.0

13. Cancer burden as per anatomical system

In males, the majority of cancer cases involved the site digestive organ (28.3%) followed by Head and Neck Cancer (21.2%), Lymphoid and Haematopoietic tissue (11.4%), and male genital organ (11.5%) with AAR 20.9, 15.8, 8.2 and 8.0 per 100,000 population respectively. In the digestive organs, liver and esophagus are predominant cancer while in Head and Neck cancer, the predominant cancer are of tongue and mouth. Among Lymphoid and Haematopoietic tissue, NHL and lymphoid leukaemia are the predominant cancer. The prostate cancer is the predominant cancer in the male genital organ.

In females, the majority of cancer cases involved the sites from the female breast (24.3%) followed by genital organ (23.3%), digestive organ (22.3%) and Head and Neck (7.5%) with AAR 19.2, 18.6, 18.2, and 5.7 per 100,000 population respectively. In female breast, genital organ, cervix uteri and ovary are the predominant cancer while in digestive organ, oesophagus and gall bladder are the predominant cancer. Among Lymphoid and Haematopoietic tissue NHL and myeloid leukaemia are the predominant cancer. The details are presented in Figure 32, Table 18 and 19.

Figure 32: Cancer rates by different anatomical sites in Sangrur district: 2017-2018

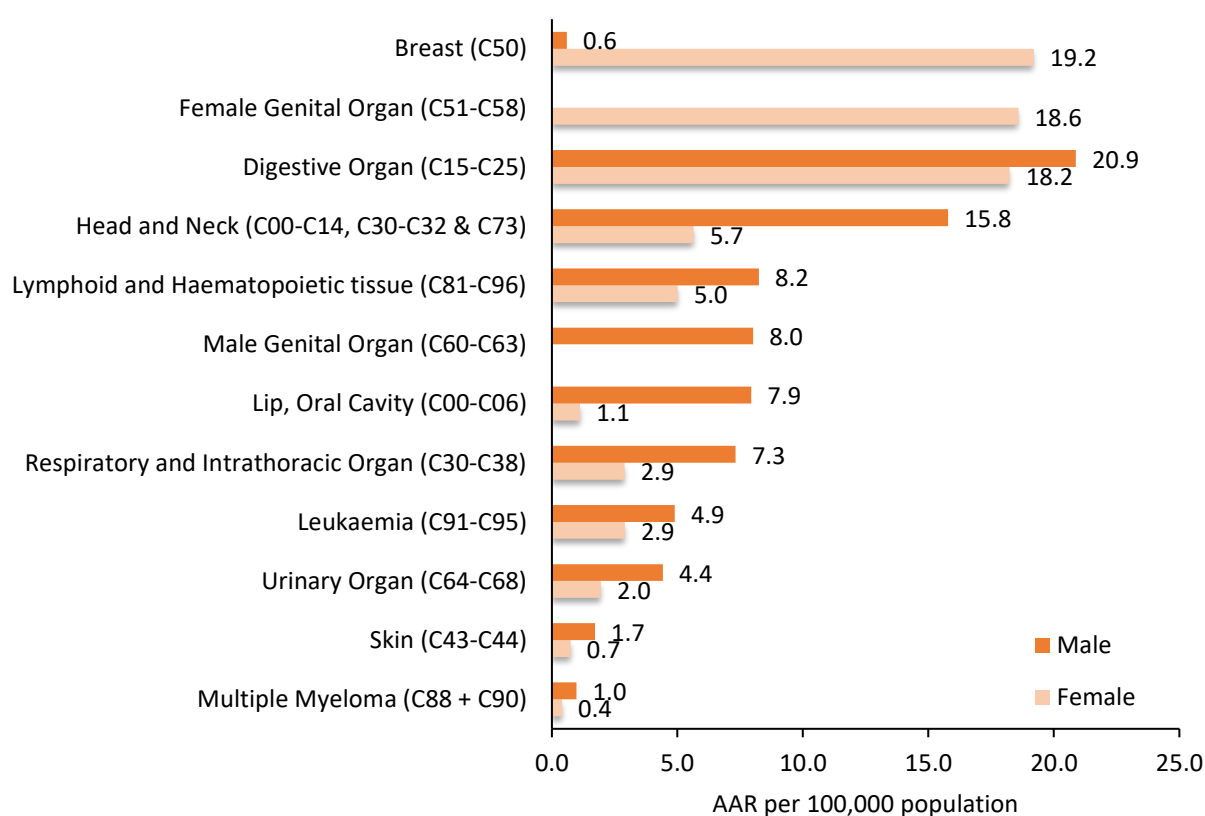


Table 18: Cancer burden as per the various anatomical system in males: 2017-2018

ICD10	Site	Number	%	CR	AAR	TR
C15-C25	Digestive Organ	375	28.3	19.7	20.9	41.6
C00-C14, C30-C32 & C73	Head and Neck	280	21.2	14.7	15.8	35.8
C81-C96	Lymphoid and Haematopoietic tissue	151	11.4	7.9	8.2	13.5
C60-C63	Male Genital Organ	152	11.5	8.0	8.0	6.8
C00-C06	Lip, Oral Cavity	141	10.7	7.4	7.9	18.7
C30-C38	Respiratory and Intrathoracic Organ	128	9.7	6.7	7.3	15.9
C91-C95	Leukaemia	91	6.9	4.8	4.9	6.1
C64-C68	Urinary Organ	78	5.9	4.1	4.4	9.1
C43-C44	Skin	32	2.4	1.7	1.7	3.0
C88 + C90	Multiple Myeloma	17	1.3	0.9	1.0	2.3
C50	Breast	10	0.8	0.5	0.6	1.4

Table 19: Cancer burden as per the various anatomical system in females: 2017-2018

ICD10	Site	Number	%	CR	AAR	TR
C50	Breast	329	24.3	19.5	19.2	45.9
C51-C58	Female Genital Organ	316	23.3	18.8	18.6	42.3
C15-C25	Digestive Organ	302	22.3	17.9	18.2	38.8
C00-C14, C30-C32 & C73	Head and Neck	101	7.5	6.0	5.7	9.6
C81-C96	Lymphoid and Haematopoietic tissue	87	6.4	5.2	5.0	7.2
C91-C95	Leukaemia	50	3.7	3.0	2.9	4.5
C30-C38	Respiratory and Intrathoracic Organ	49	3.6	2.9	2.9	6.7
C64-C68	Urinary Organ	32	2.4	1.9	2.0	3.9
C00-C06	Lip, Oral Cavity	20	1.5	1.2	1.1	1.4
C43-C44	Skin	14	1.0	0.8	0.7	0.8
C88 + C90	Multiple Myeloma	7	0.5	0.4	0.4	0.4

14. Cancer trends in Sangrur district

Since the number of cancer cases are less the registry has combined the data for two years to see the trends of leading cancer sites in the Sangrur district.

The all-site cancer incidence for males and females have shown upward trend. Initially, there was a possibility of under registration. With continuous efforts towards proper documentation and establishment of HBCH, Sangrur has greatly improved the cancer registration process.

The oesophageal cancer in male is gradually getting stable however we may have missed the cases. Liver and prostate cancer incidence shows increasing trends may be due to improvement in the diagnostic facilities in the registry area.

In females; ovary, gall bladder, oesophagus and liver cancer incidence shows upward trends due to improvement in the diagnostic facilities however, further research is required to know the cause of upward trends. While breast and cervical cancer trends are gradually getting stable. The trends are presented in Figure 33 to 40.

Figure 33: All sites cancer trends in Sangrur district

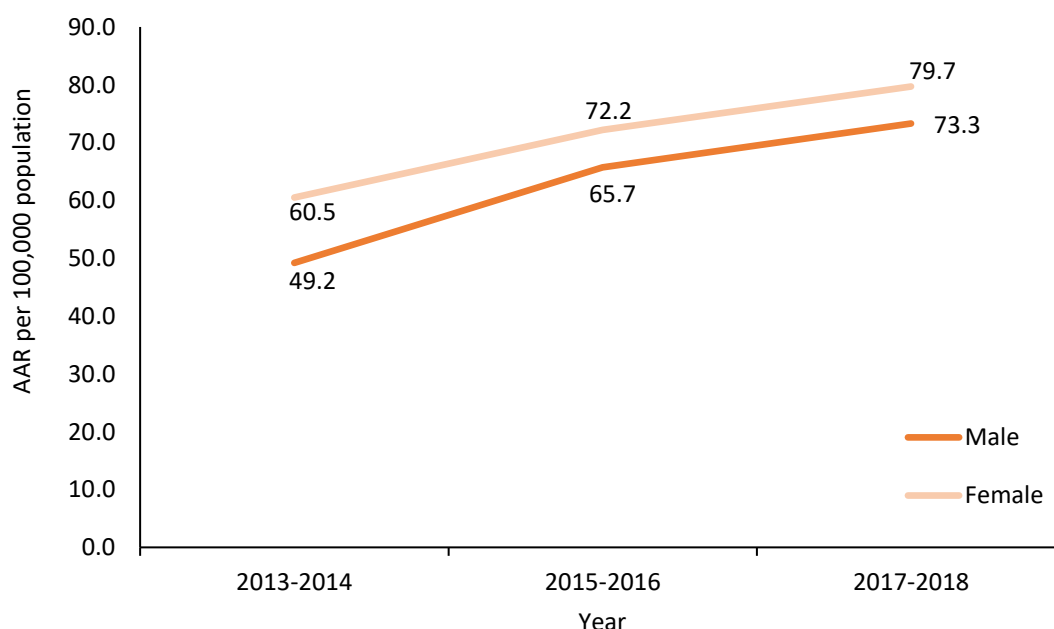


Figure 34: Esophagus cancer trends in Sangrur district

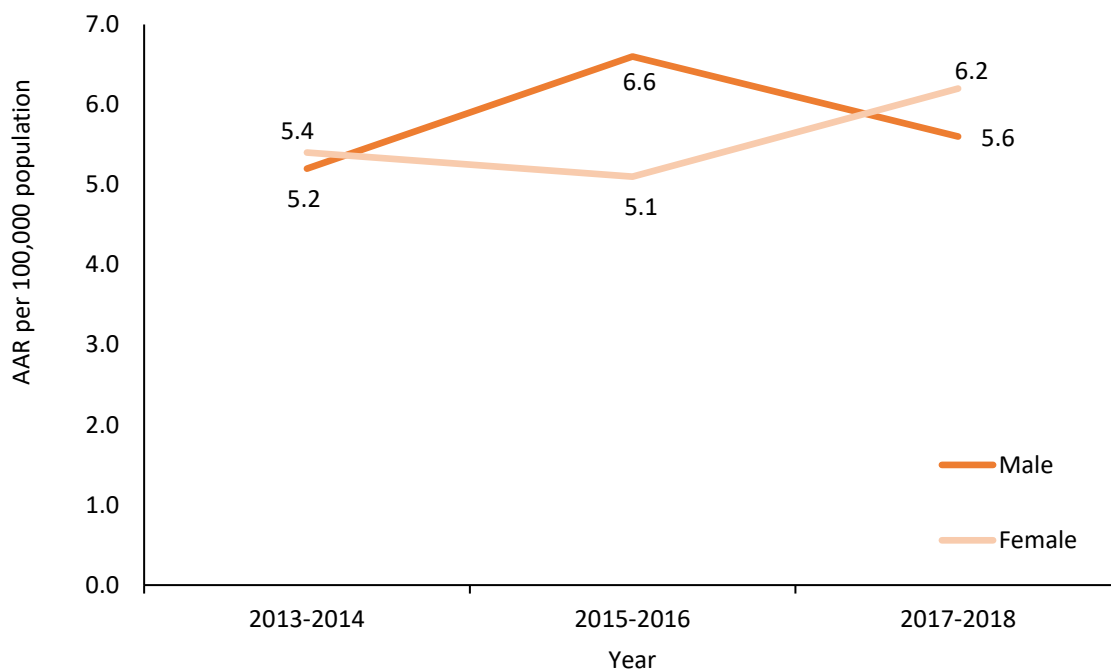


Figure 35: Liver cancer trends in Sangrur district

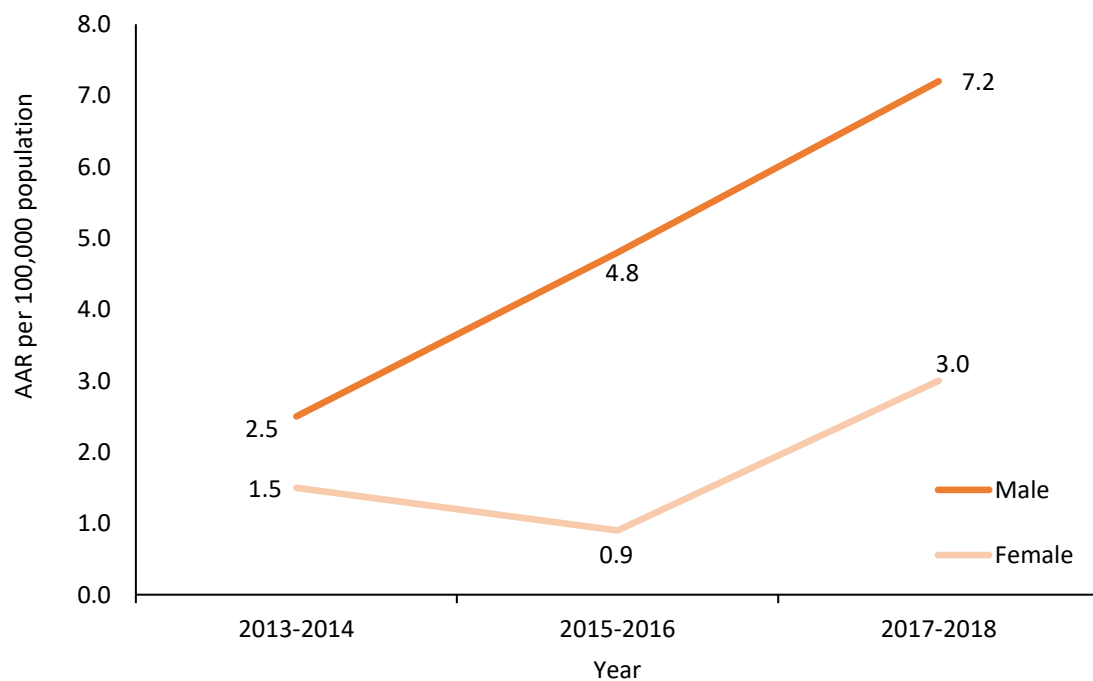


Figure 36: Breast cancer trends in Sangrur district: Female

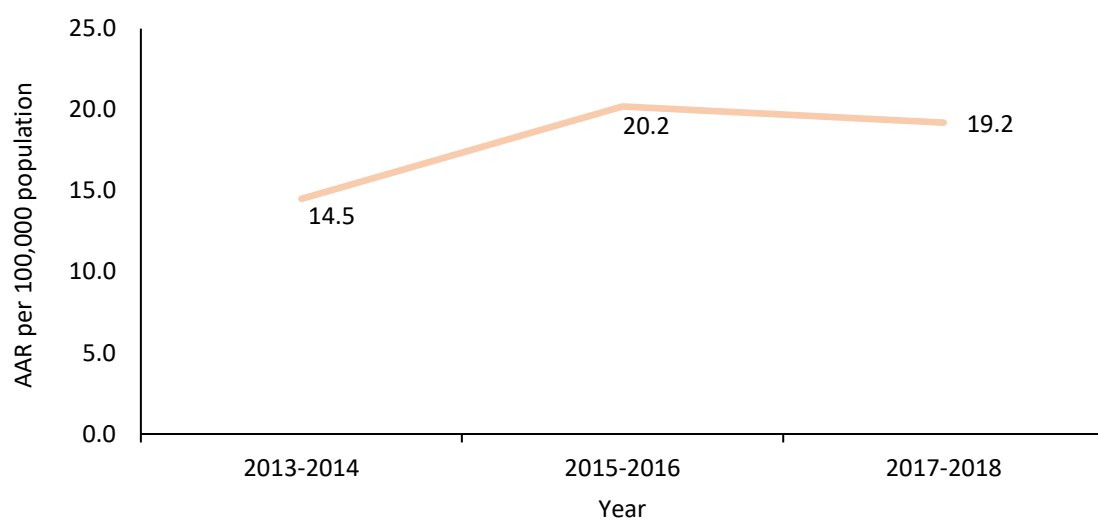


Figure 37: Cervical cancer trends in Sangrur district

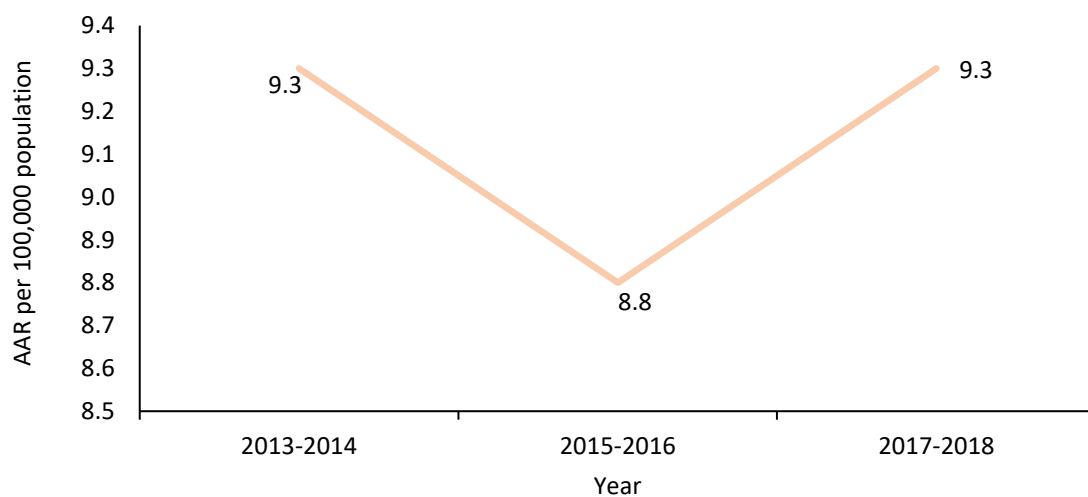


Figure 38: Ovarian cancer trends in Sangrur district

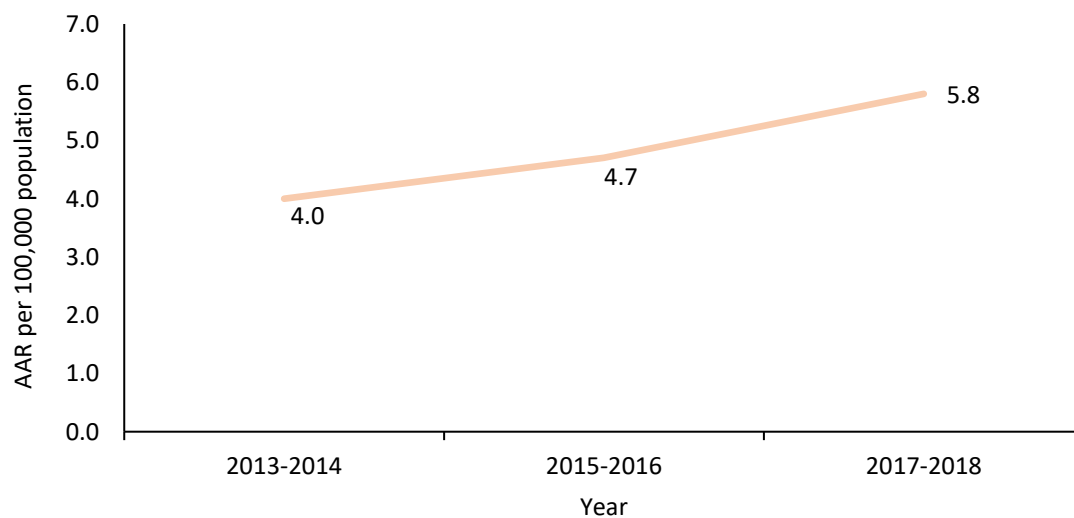


Figure 39: Prostate cancer trends in Sangrur district

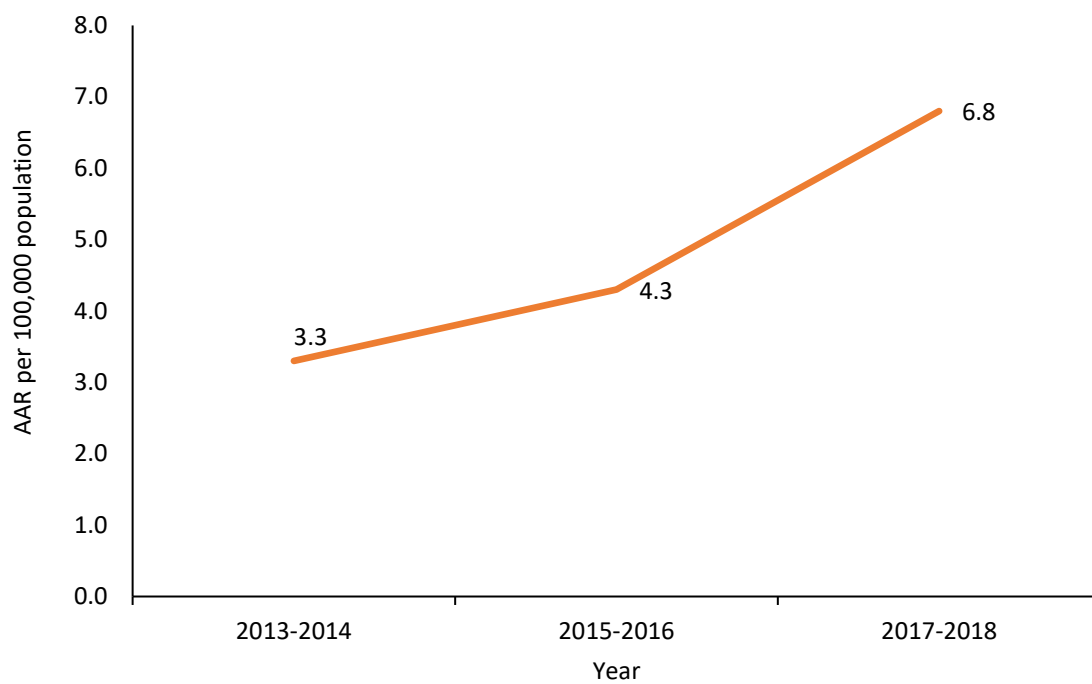
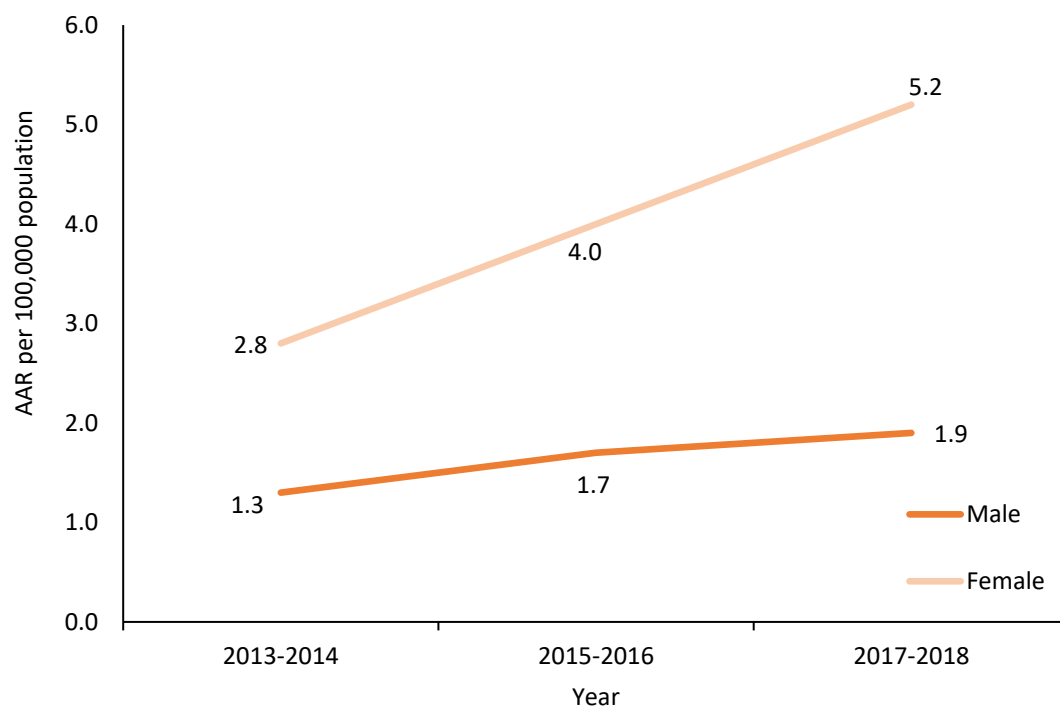


Figure 40: Gall bladder cancer trends in Sangrur district



15. Cancer survival studies

Sangrur PBCR regularly updates the follow-up status of the cancer cases diagnosed. We have undertaken survival studies of the oesophagus, breast, cervix uteri and prostate cancer cases diagnosed in 2013-2018. The date of the diagnosis is the starting date and the last date of follow-up is 31st December 2021 or the date of death.

Due to regular village visits and community interaction, the registry has good follow-up status available for the esophagus, breast, cervix uteri and prostate cancer. The registry is in the process of analysing the data. For the other cancer sites (ovary, gall bladder, NHL and lung) follow-up is in process.

Out of 579 total oesophagus cancer cases 40 (6.9%) patients are alive while 535 (92.4%) are dead. Out of 895 breast cancer cases, 480 (53.6%) patients are alive while 403 (45.0%) are dead. Similarly, out of 453 cervix uteri cancer cases, 157 (34.7%) patients are alive while 281 (62.0%) patients are dead. Out of total 271 prostate cancer cases, 86 (31.7%) patients are alive while 184 (67.9%) patients are dead.

The five-year observed survival was 9.3% for oesophagus, 57.8% for breast, 39.8% for cervix uteri and 30.3% for prostate cancer. The follow up status and survival is presented in table 20.a and 20.b.

The results of the survival analysis will be released soon.

Table 20.a: Cancer cases registered in the period 2013-2018 and their follow-up status

Cancer Site	No. of cases (2013-2018)	Follow-up status as of 31 st December 2021					
		Alive		Death		Migrated/ lost to follow up	
		No.	%	No.	%	No.	%
Oesophagus	579	40	6.9	535	92.4	4	0.7
Breast	895	480	53.6	403	45.0	12	1.3
Cervix uteri	453	157	34.7	281	62.0	15	3.3
Prostate	271	86	31.7	184	67.9	1	0.4

Table 20.b: Year-wise observed and relative survival

Cancer site	Observed Survival			Relative Survival		
	1 Year	3 Years	5 Year	1 Years	3 Year	5 Years
Oesophagus	35.8%	13.4%	8.6%	36.6%	14.2%	9.3%
Breast	86.0%	62.8%	54.4%	87.0%	65.0%	57.8%
Cervix uteri	80.7%	47.1%	37.6%	81.8%	48.9%	39.8%
Prostate	66.7%	35.1%	25.0%	69.4%	39.8%	30.3%

16. Socio-demographic information

The Sangrur district cancer registry staff interacted with cancer patients or their relatives and gathered socio-demographic information. Based on the information collected, in the Sangrur district, cancer cases were highest among Sikh community (70.1%). Moreover, cancer cases were more among Illiterate population [n= 1476, (55.1%)]. Among the illiterate population, cancer cases are more among females [838 (61.8%) out of 1355 cancer cases] than males. Furthermore, in terms of occupation, cancer cases were more commonly found among housewives in females and farmers in males with 91.5% and 39.5% respectively. The number of cancer cases was more among the population with an income of less than Rs. 15,000/- per month.

Table 21: Cancer cases by education and sex

Education	Male		Female		Total	
	Number	%	Number	%	Number	%
Illiterate	638	48.2	838	61.8	1476	55.1
Literate	39	2.9	35	2.6	74	2.8
Primary (1-7 std)	194	14.7	173	12.8	367	13.7
Secondary (8-10 std)	272	20.6	188	13.9	460	17.2
Technical after 10 th	54	4.1	40	3.0	94	3.5
College	72	5.4	43	3.2	115	4.3
Post graduate	34	2.6	24	1.8	58	2.2
Other	6	0.5	4	0.3	10	0.4
Not applicable for children	12	0.9	7	0.5	19	0.7
Unknown/ No information	2	0.2	3	0.2	5	0.2
Total	1323	100.0	1355	100.0	2678	100.0

Table 22: Cancer cases by religion and sex

Religion	Male		Female		Total	
	Number	%	Number	%	Number	%
Hindu	287	21.7	278	20.5	565	21.1
Muslim	137	10.4	96	7.1	233	8.7
Sikh	898	67.9	980	72.3	1878	70.1
Buddhist	1	0.1	0	0.0	1	0.04
Other	0	0.0	1	0.1	1	0.04
Total	1323	100.0	1355	100.0	2678	100.0

Table 23: Cancer cases by income and sex

Income	Male		Female		Total	
	Number	%	Number	%	Number	%
>=30375	106	8.0	62	4.6	168	6.3
15188-30374	154	11.6	123	9.1	277	10.3
11362-15187	247	18.7	281	20.7	528	19.7
7594-11361	504	38.1	571	42.1	1075	40.1
4556-7593	243	18.4	216	15.9	459	17.1
1521-4555	46	3.5	73	5.4	119	4.4
<=1520	5	0.4	3	0.2	8	0.3
Unknown/No information	18	1.4	26	1.9	44	1.6
Total	1323	100.0	1355	100.0	2678	100.0

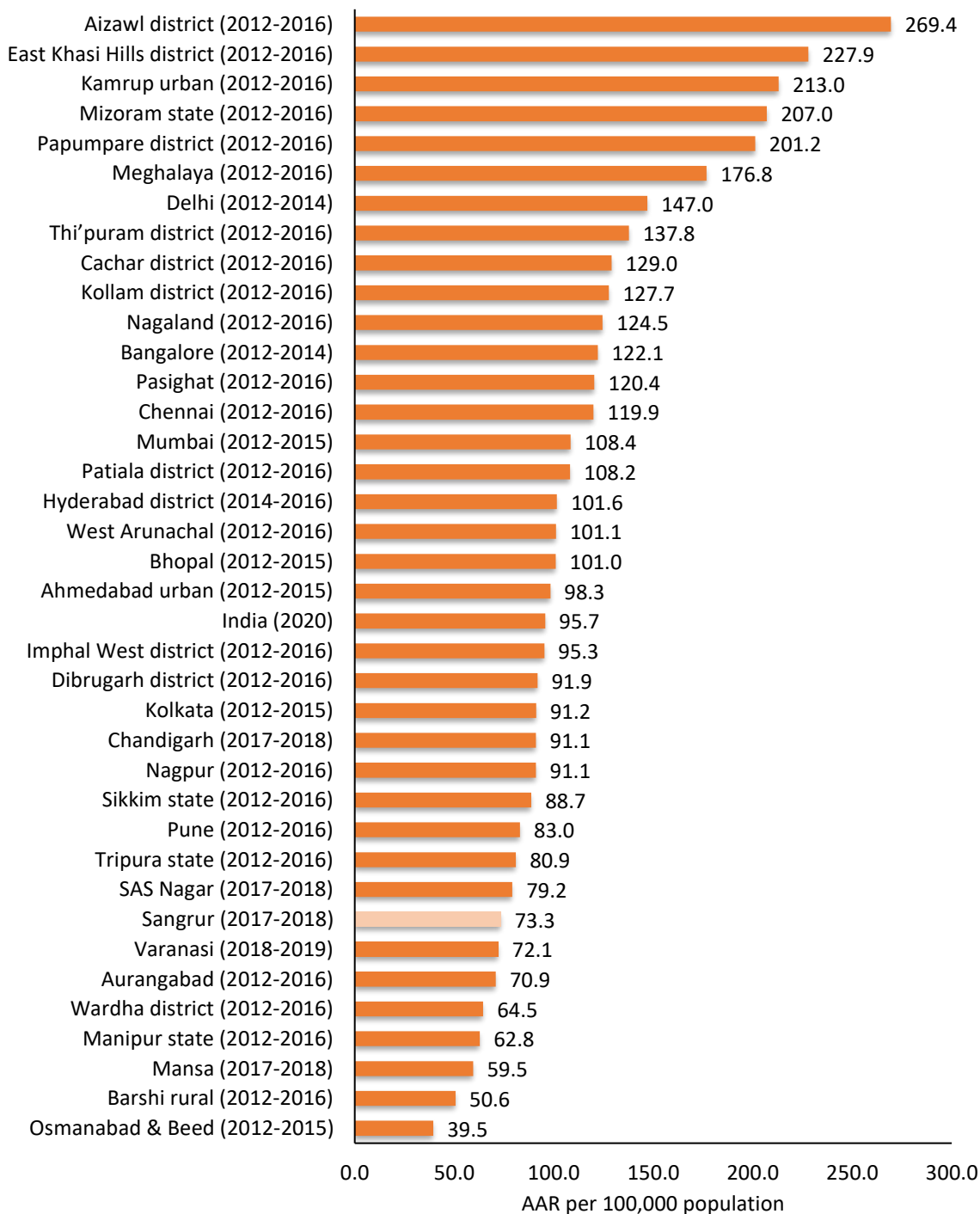
Table 24: Cancer cases by occupation and sex

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Professional	14	1.1	3	0.2	17	0.6
Semi-professional	6	0.5	0	0.0	6	0.2
Clerical/Shop owner	71	5.4	5	0.4	76	2.8
Farmer	522	39.5	6	0.4	528	19.7
Skilled worker	47	3.6	2	0.1	49	1.8
Semi-skilled worker	32	2.4	3	0.2	35	1.3
Unskilled worker	366	27.7	8	0.6	374	14.0
Unemployed	13	1.0	1	0.1	14	0.5
Student	36	2.7	24	1.8	60	2.2
Housewife	0	0.0	1240	91.5	1240	46.3
Government employee	107	8.1	28	2.1	135	5.0
Private employee	31	2.3	10	0.7	41	1.5
Other	66	5.0	16	1.2	82	3.1
Not applicable to children	12	0.9	9	0.7	21	0.8
Total	1323	100.0	1355	100.0	2678	100.0

17. Comparison of cancer incidence rate with other Indian registries

Sangrur male incidence rates are in comparison with Varanasi registry. Age adjusted incidence rate for all cancer sites among males for the year 2017-2018 is compared with other Indian PBCRs and is presented in the figure 41.

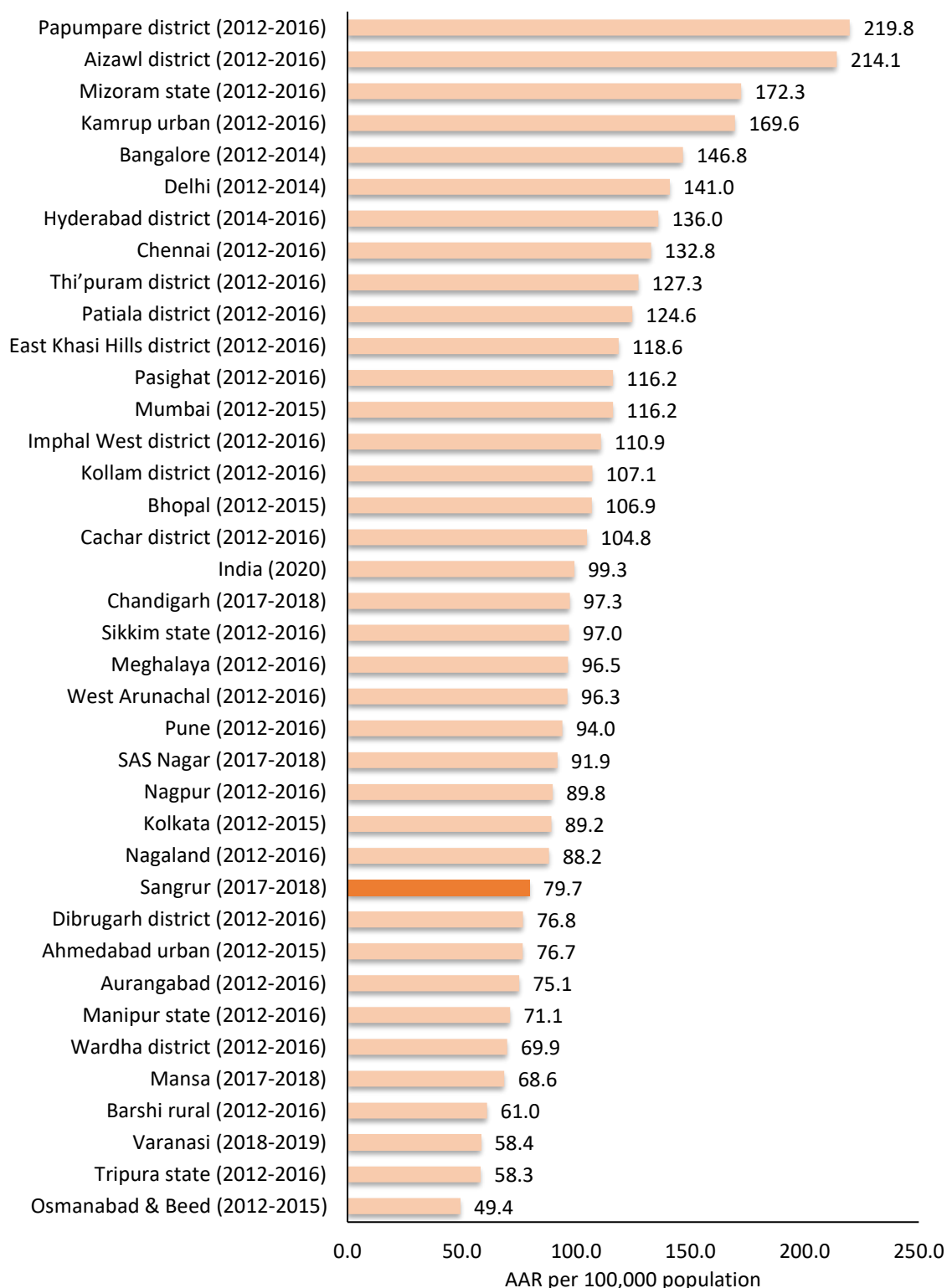
Figure 41: Age-adjusted incidence rate of all cancer sites in males



(References: 1-5, 15)

All site cancer incidence rates in females for Chandigarh and SAS Nagar registry rates are lower as compared to Mumbai and Delhi registry. Sangrur and Mansa rates are lower than the national average, however they are higher as compared to the rates of Varanasi and Barshi registry. Age adjusted incidence rate for all cancer sites among females for the year 2017-2018 is compared with other Indian PBCRs and is presented in the figure 42.

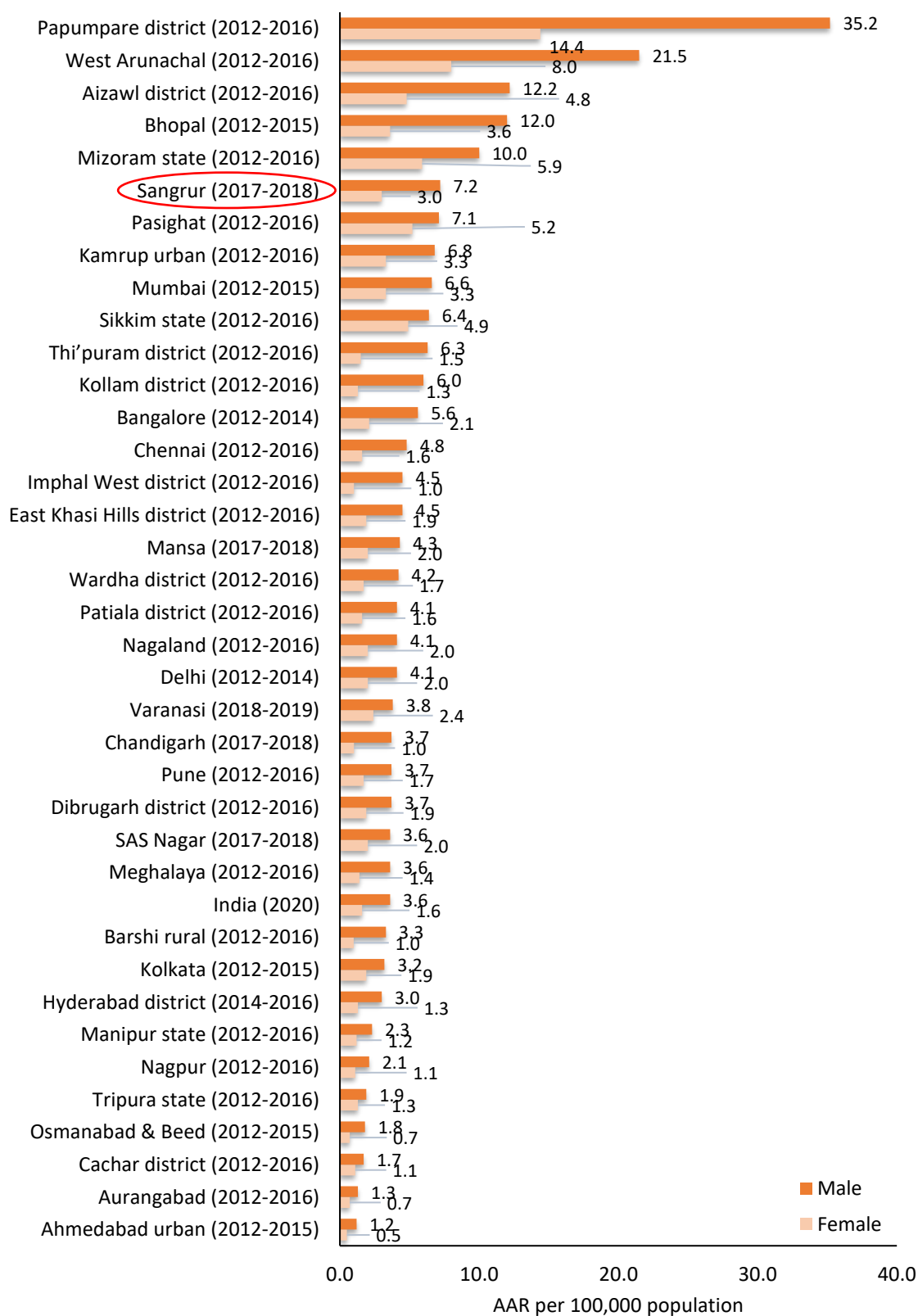
Figure 42: Age-adjusted incidence rate of all cancer sites in females



(References: 1-5, 15)

The liver cancer incidence rates are slightly higher in Sangrur district as compared to other registries. This is attributed to improvements in the diagnostic facilities in this district. A comparison of the liver cancer rates is shown in Figure 43.

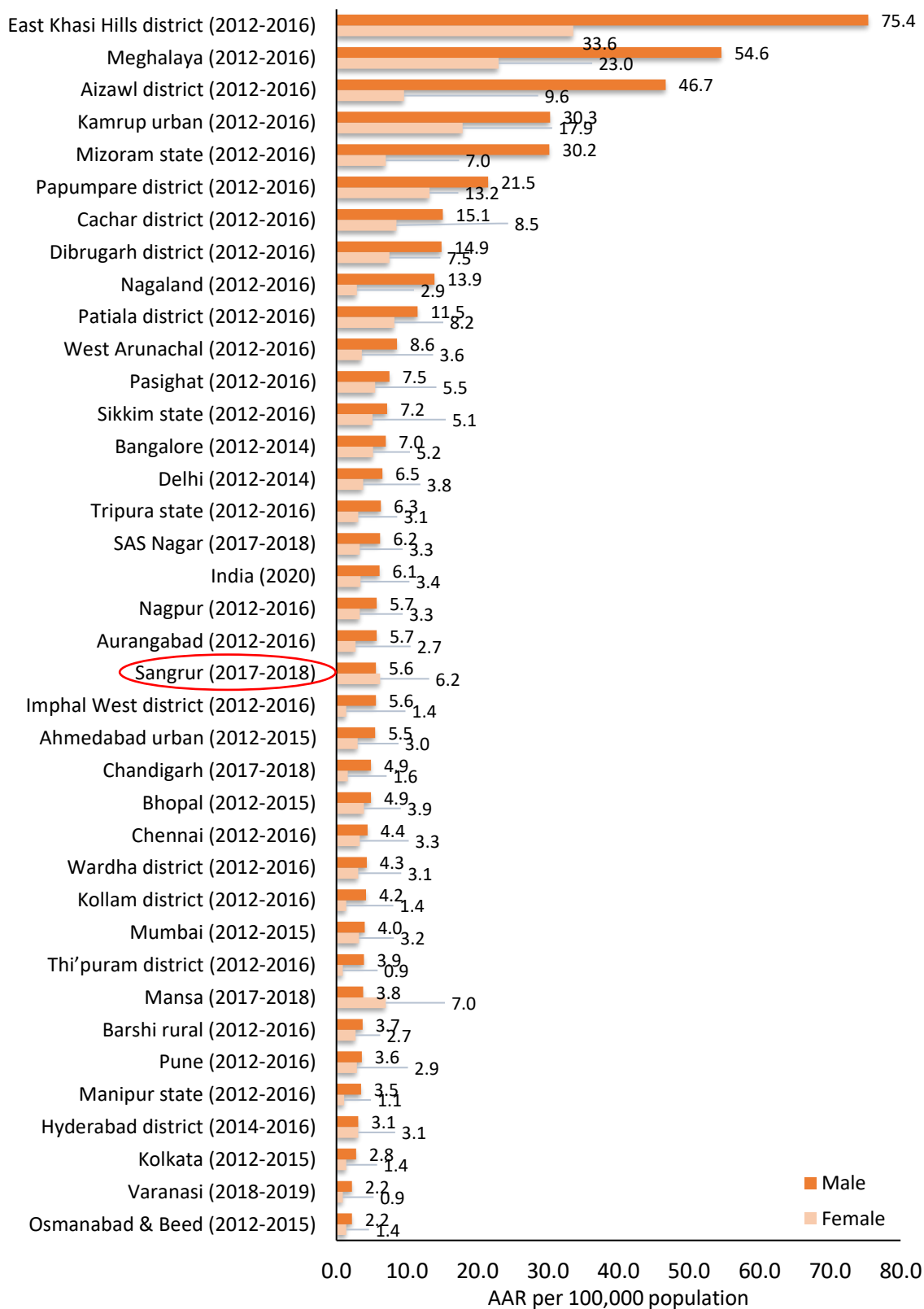
Figure 43: Age-adjusted incidence rate of liver cancer



(References: 1-5, 15)

Oesophagus cancer incidence rates in females of Sangrur cancer registry is higher than Chandigarh and SAS Nagar registry. A comparison of the esophagus cancer rates is shown in Figure 44.

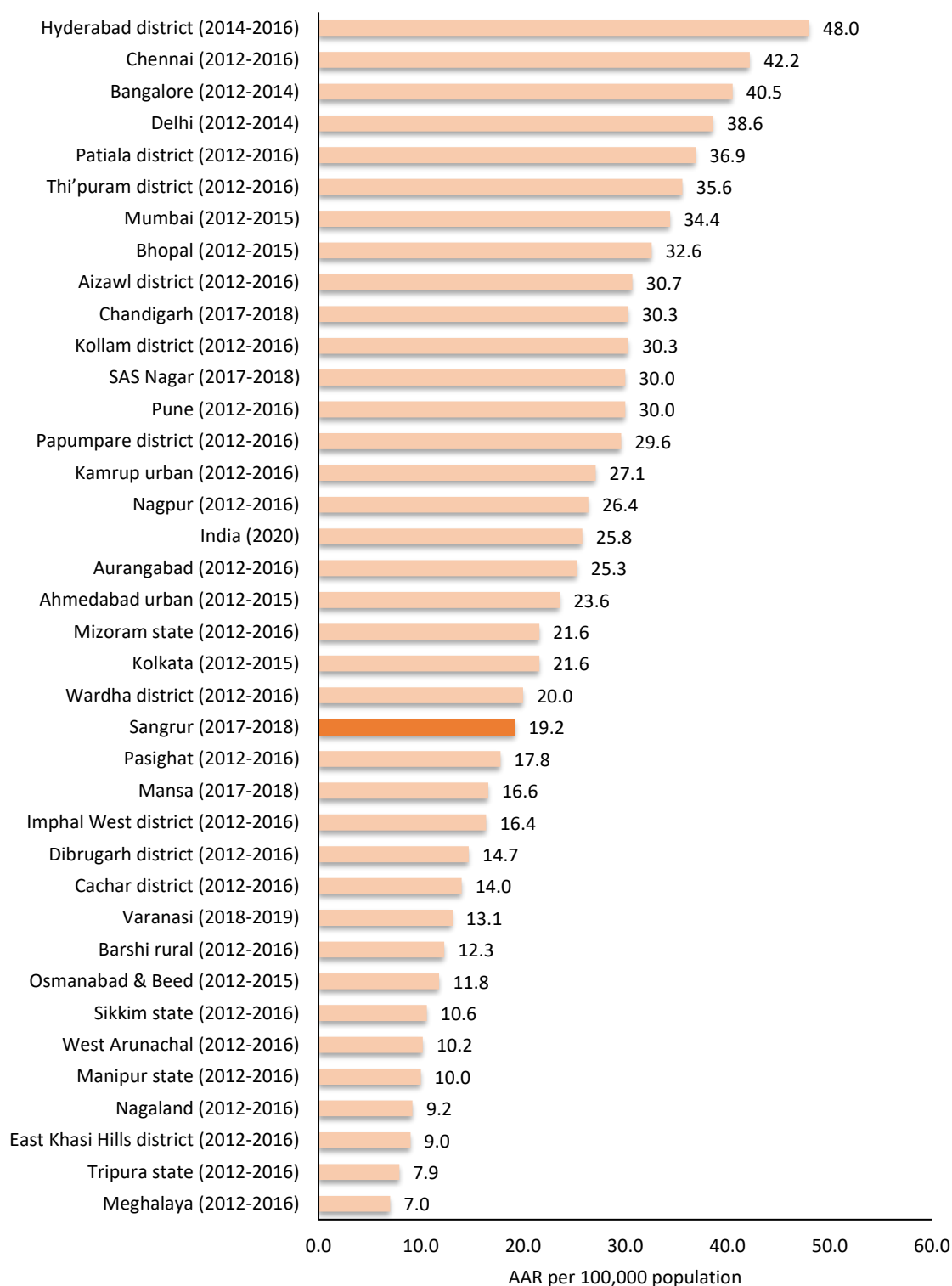
Figure 44: Age-adjusted incidence rate of esophagus cancer



(References: 1-5, 15)

Breast cancer rates for Chandigarh and SAS Nagar are lower as compared to Delhi, Chennai and Mumbai. While for Sangrur registry the rate is in comparison with the Wardha registry while rate of Mansa registry is lower than the Sangrur registry. The comparison of breast cancer rates is shown in Figure 45.

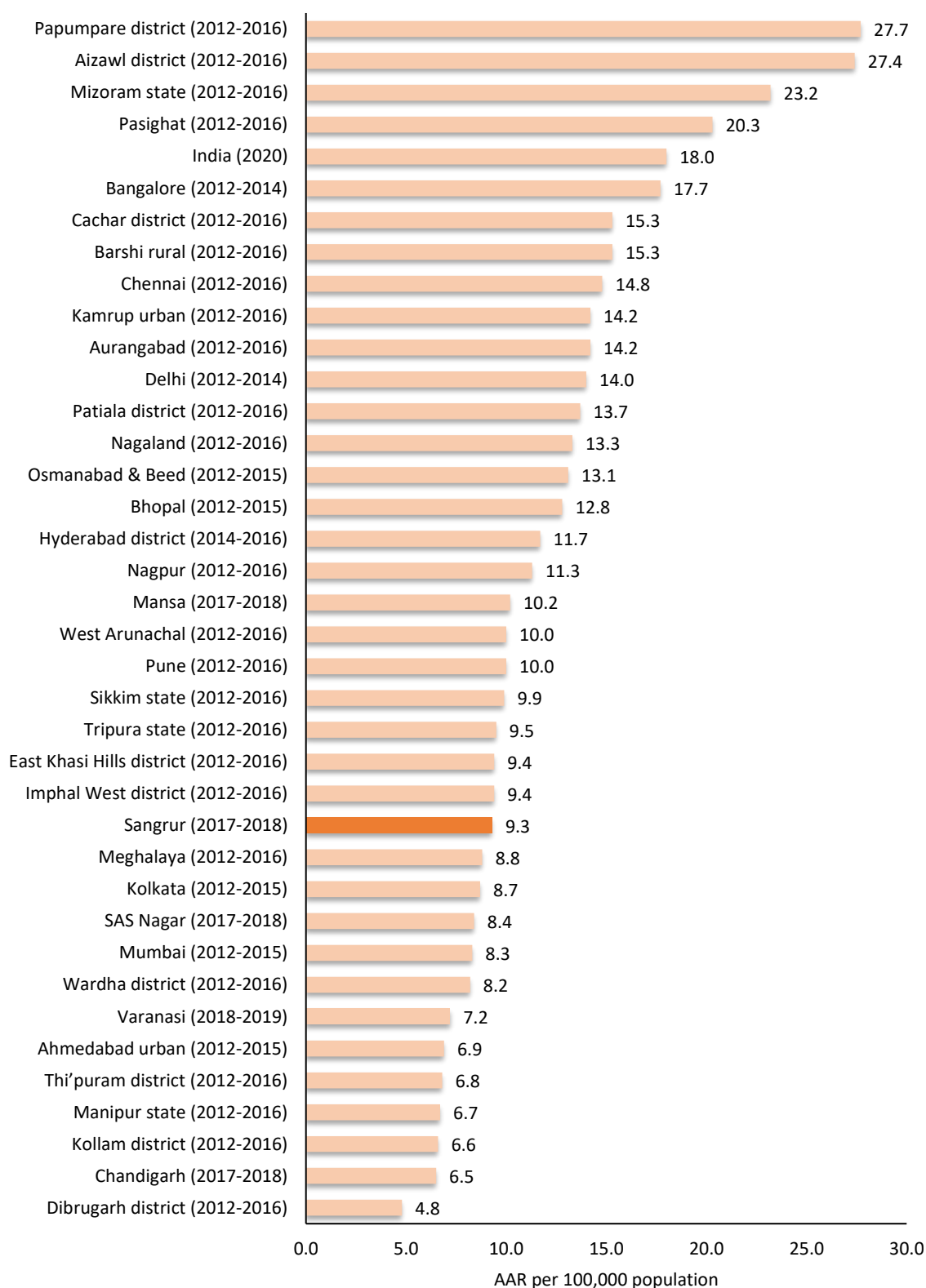
Figure 45: Age-adjusted incidence rate of breast cancer



(References: 1-5, 15)

For cervical cancer, the Barshi rural registry rate is higher than Sangrur and Mansa registry. While rates for Chandigarh and SAS Nagar are lower as compared Mumbai. The comparison of the cervical cancer rate is shown in Figure 46.

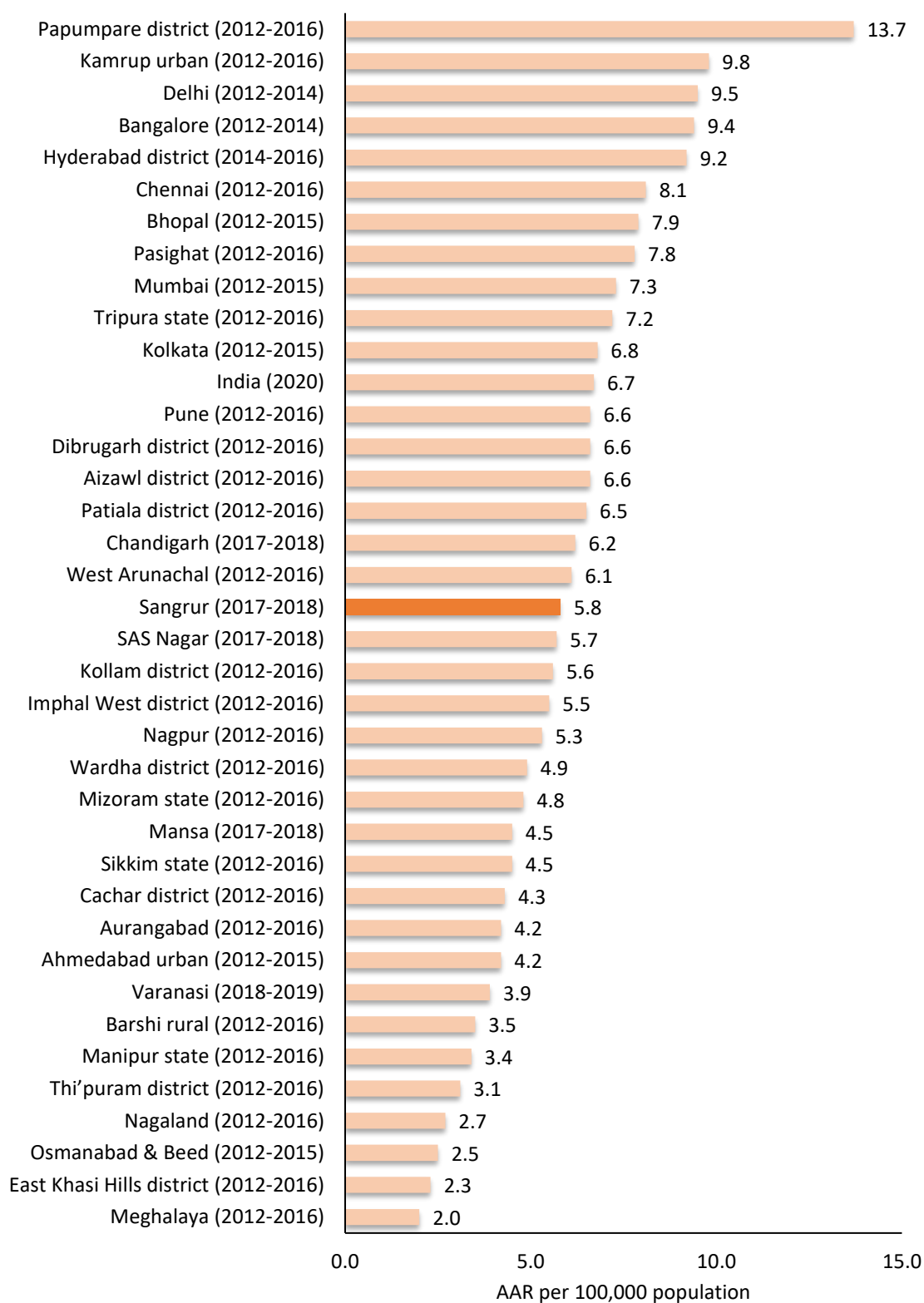
Figure 46: Age-adjusted incidence rate of cervical cancer



(References: 1-5, 15)

Ovarian cancer rates for Chandigarh and SAS Nagar are lower as compared to Delhi, Chennai and Mumbai but slightly higher than Sangrur registry. The comparison of ovarian cancer rates is shown in Figure 47.

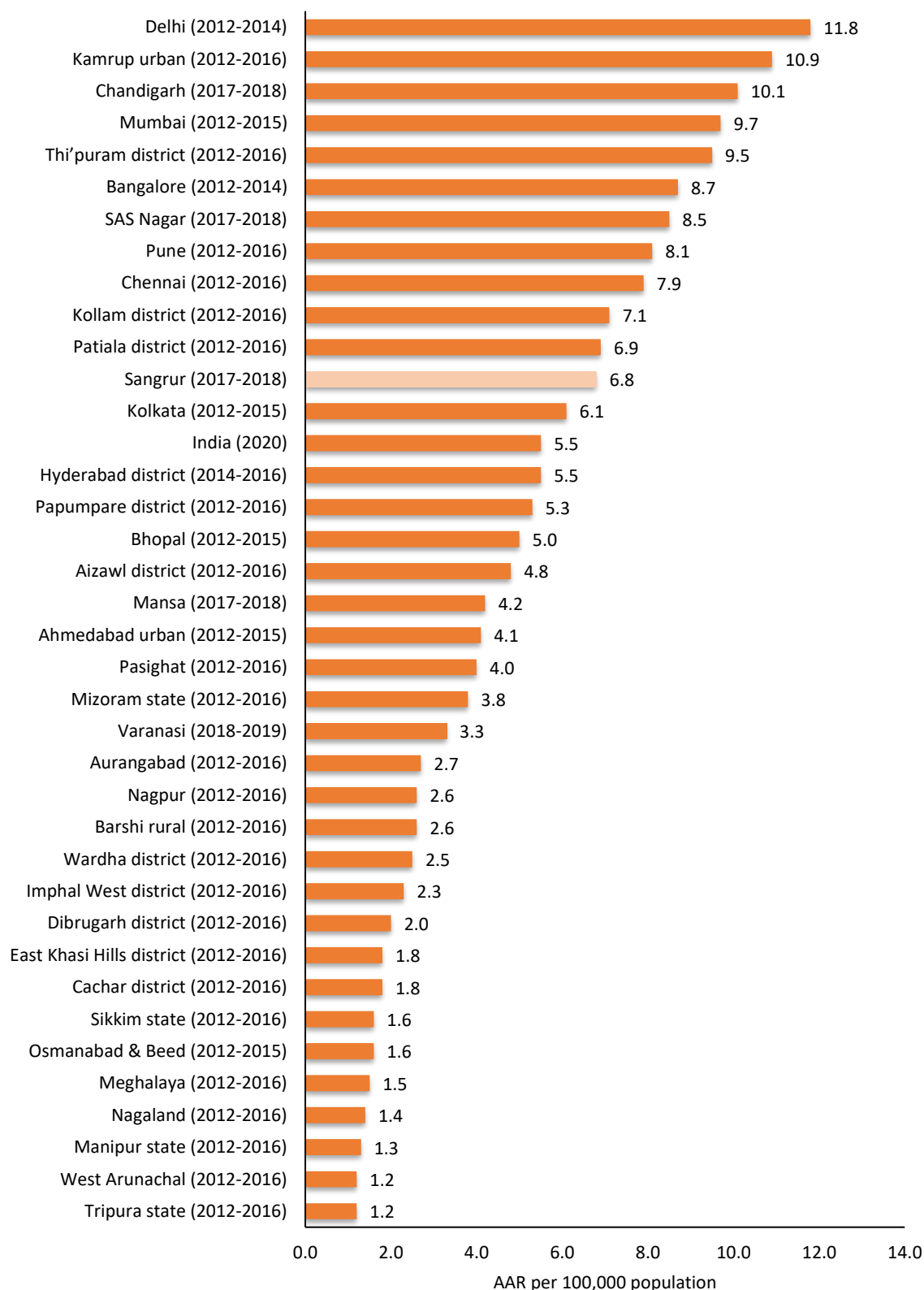
Figure 47: Age-adjusted incidence rate of ovarian cancer



(References: 1-5, 15)

Prostate cancer rates for Sangrur, SAS Nagar and Chandigarh are higher than the national average however it is lower than Delhi. The comparison of prostate cancer rates is shown in Figure 48.

Figure 48: Age-adjusted incidence rate of prostate cancer



(References: 1-5, 15)

18. Early detection program for oral, breast and cervical cancer in Sangrur district of Punjab state

In the 2013-2014 annual report of the Sangrur population-based cancer registry, it was recommended to start the cancer prevention programme in Sangrur district. Based on this recommendation, we have started an early detection programme for Oral, Breast and Cervical Cancer in the Sangrur district of Punjab State. In this programme, we are providing intensive health education on the risk factors, preventive measures of the disease, and easy access to diagnosis and treatment for the symptomatic or likely cases.

We expect that breast, oral, and cervical cancer cases will be detected at an early stage and most of the cases will complete the treatment. The programme is monitored by the population-based cancer registry Sangrur. In this programme, we have selected the staff locally and they have been given training by the faculty of HBCH, Sangrur and TMC, Mumbai.

The number of people screened and confirmed the diagnosis:

More than 2040 participants attended the detection clinic organized at the doorstep of the population as well as at HBCH Sangrur. Out of these, 434 were screen positive, 82 precancerous cases were diagnosed. We have diagnosed 36 leukoplakia, 2 mild dysplasia during oral screening and 4 CIN I and 2 CIN II precancerous cases get diagnosed in cervical screening. **As of today 11, oral cancer, 38 breast cancer, and 12 cervical cancer cases are diagnosed. Moreover, out of 51 oral, breast and cervical cancer cases 29 cancer patient have completed treatment and are under follow-up at Homi Bhabha Cancer Hospital, Sangrur.**

The number of cases attended for the examination, screen positive and cancer cases detected and treated

	Oral	Breast	Cervix uteri
Total population covered	177968	85319	85319
Symptomatic and Self attended for examination	434	758	1486
Total screen positive	95 (21.9%)	144 (19.0%)	180 (12.1%)
Cancer cases detected	11	38	12
Treatment completion and Under follow up	7 (63.6%)	35 (92.1%)	11 (91.7%)

We also have diagnosed 1 ovarian cancer case and 2 endometrial cancer cases which have been referred to HBCH for further management. We have conducted 43 school education programme and 75 cancer detection camps in the period 2019 to June 2022. The details about

the cancer awareness programme and the cancer detection camps conducted in Sangrur district are mentioned in the table.

Cancer detection camp organised in the villages and Sangrur urban area:

Sangrur And Bhawanigarh Urban Area					
1	Sangrur Ward -1	16	Sangrur Ward -16	31	Bhawanigarh Ward-2
2	Sangrur Ward -2	17	Sangrur Ward -17	32	Bhawanigarh Ward-3
3	Sangrur Ward -3	18	Sangrur Ward -18	33	Bhawanigarh Ward-4
4	Sangrur Ward -4	19	Sangrur Ward -19	34	Bhawanigarh Ward-5
5	Sangrur Ward -5	20	Sangrur Ward -20	35	Bhawanigarh Ward-6
6	Sangrur Ward -6	21	Sangrur Ward -21	36	Bhawanigarh Ward-7
7	Sangrur Ward -7	22	Sangrur Ward -22	37	Bhawanigarh Ward-8
8	Sangrur Ward -8	23	Sangrur Ward -23	38	Bhawanigarh Ward-9
9	Sangrur Ward -9	24	Sangrur Ward -24	39	Bhawanigarh Ward-10
10	Sangrur Ward -10	25	Sangrur Ward -25	40	Bhawanigarh Ward-11
11	Sangrur Ward -11	26	Sangrur Ward -26	41	Bhawanigarh Ward-12
12	Sangrur Ward -12	27	Sangrur Ward -27	42	Bhawanigarh Ward-13
13	Sangrur Ward -13	28	Sangrur Ward -28	43	Bhawanigarh Ward-14
14	Sangrur Ward -14	29	Sangrur Ward -29	44	Bhawanigarh Ward-15
15	Sangrur Ward -15	30	Bhawanigarh Ward-1		
Bhawanigarh Rural Area					
1	Nadampur	21	Mehsampur	41	Dialgarh
2	Nakte	22	Kheri Chandwan	42	Aloarkh
3	Mattran	23	Gehlan	43	Sajuma
4	Hardipura	24	Ditupura	44	Akbarpur
5	Balial	25	Ghamad Singh Wala	45	Phaguwala
6	Retgarh	26	Sangatpura	46	Rampura
7	Bhatiwal Khurd	27	Fatehgarh Bhadson	47	Roshanwala
8	Rajpura	28	Panwan	48	Bharo
9	Masani	29	Bhatiwal Kalan	49	Dehlewal
10	Munshiwal	30	Channo	50	Bimbari
11	Phuman Wal	31	Lakhewal	51	Bimbar
12	Shahpur	32	Bharaj	52	Noorpura
13	Majhi	33	Balad Kalan	53	Batriana
14	Majha	34	Balad Khurd	54	Jhaneri
15	Bakhtra	35	Balad Kothi	55	Bakhopir
16	Bakhtri	36	Turi	56	Gharachon
17	Jalan	37	Harkishanpura	57	Sanghreri
18	Santokhpura	38	Rai Singh Wala	58	Kapial
19	Rasulpur Chhana	39	Kakra	59	Bijalpur
20	Nandgarh (Thaman Singh Wala)	40	Sakrodi	60	Nandgarh

Cancer awareness meetings in schools:

Sr. no.	School/ College Name	Number of students /Participants
1	Govt. High Sec. School, Bhatiwal Kalan	150
2	Govt. Sen. Sec. School, Sakrodi	150
3	Govt. Prim & Sec. School, Rampura	70
4	Govt. Sen. Sec. School, Jhaneri	65
5	Govt. Sen. Sec. School, Batriana	70
6	Govt. Sen. Sec. School, Phaguwala	55
7	Govt. Sen. Sec. School, Akberpur	50
8	Govt. Girls School, Sangrur	200
9	Khalsa School, Sangrur	80
10	Prem Sabha Sen. Sec. School, Sangrur	200
11	Prem Sabha Shishu Niketan School, Sangrur	90
12	Arya Samaj School, Sangrur	60
13	Gurnam Singh Public School, Sangrur	160
14	Govt High School, Mangwal	60
15	Vasant Valley Public School, Sangrur	70
16	Govt. Sen. Sec. Smart School, Sangrur (Cancer Walk)	2500
17	Little Flower Convent School, Sangrur	70
18	Govt. Elementary School, Badbar	80
19	Sant Baba Attar Singh Govt Polytechnic College, Badbar	90
20	Govt. Sen Sec School, Banarsi	65
21	SPS School, Sangrur	100
23	Golden Earth School Sangrur	100
24	Ranbir College Sangrur	80
27	Govt. Sen. Sec. School, Channo	40
29	Sangrur w-08 Raj High Sen. Sec school (Oral)	150
30	Primary Govt School Alorakh	100
31	Primary Govt School Balad kalan	100
32	Primary Govt School Bakhopir	150
33	Govt Sen Sec School Kakra	70
34	Primary Govt School Rai Singh Wala	25
35	Gove Sen Sec School Bhawanigarh Girls	150
36	Govt Sen Sec School Bhawanigarh boys	50
37	Govt Boys School Bhawanigarh	60
38	Diet College Sangrur	150
39	Sunrise Public School Sangrur	70
40	Alpine School bhawanigarh	150
41	Guru Tegh Bahadur School Bhawanigarh	70
42	Heritage School Bhawanigarh	50
43	Thomas School Bhawanigarh	60
Total		6060

Moreover, after the health talk, we have conducted drawing competition for the school children. Students are encouraged to draw a picture that gives the message of cancer prevention. Students were cherished with prizes and certificates.



Detection clinic in the village/ ward:



Health education in the villages



Thermal screening before screening



Counselling to participants before the screening



Registration for camp



Oral screening by surgeon



Free medicine distribution



Six month followup of screen positive patient

19. COVID-19 impact on cancer registry activities

Globally, the COVID-19 pandemic has affected the day-to-day activities of human beings. Due to a strict lockdown in the country from 24th March 2020 to 31st May 2020. After the lockdown period, there was a continuous COVID wave and due to several restrictions, the registry work was badly hampered.

Since the registry activities involved community interaction, visiting different hospitals, and meeting with the consultant for the data collection were completely stopped. The year-wise source visit has presented in the Table 25 and Figure 49. There was a significant drop down in the sources visits during the COVID-19 pandemic in 2020 and 2021 as well as there was a significant drop down in the meetings with the community leaders.

We have requested our registry staff to work in the hospital as a supportive staff to improve the hospital services during the COVID-19 pandemic. Since the staff was not able to travel we have updated the follow-up status of cancer patients and the staff was asked to do data entry work and also to update their manual registers.

Several registry staff and their relatives got infected and they had to apply for leaves while several staff members were quarantined. The staff was encouraged to work from home during the pandemic period.

Despite several challenges the cancer registry team worked very efficiently by adopting the flexible remedial measure. We have received very good administrative support from HBCH Sangrur and technical support from CCE-TMC.

Table 25: Year-wise source visit by the cancer registry staff

Year	Number of sources visited	%
2013	6	1.8
2014	14	4.2
2015	27	8.2
2016	47	14.2
2017	52	15.7
2018	65	19.6
2019	61	18.4
2020	24	7.3
2021	35	10.6
Total	331	100.0

Figure 49: Year-wise source visit by the cancer registry staff

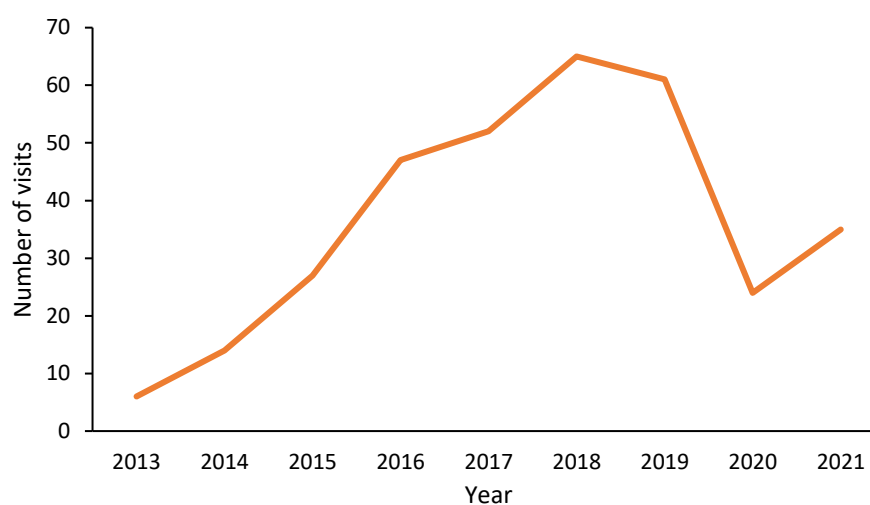
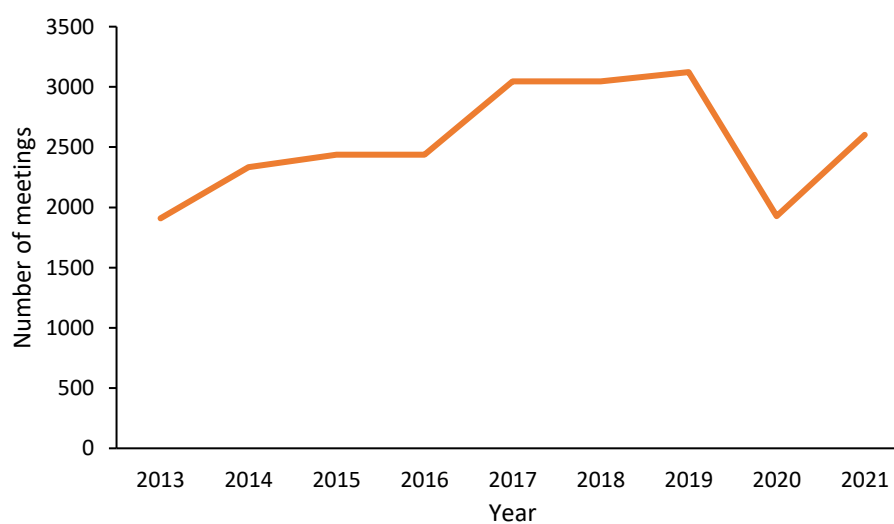


Table 26: Year-wise meetings with community leaders by the registry staff

Year	Number of meetings conducted	%
2013	1909	8.4
2014	2335	10.2
2015	2437	10.7
2016	2437	10.7
2017	3045	13.3
2018	3045	13.3
2019	3123	13.7
2020	1928	8.4
2021	2602	11.4
Total	22861	100.1

Figure 50: Year-wise meetings with community leaders by the registry staff



20. Description of statistical terms used

Incidence: Cancer incidence denotes new cancer cases diagnosed in a defined population in a specified time period. For this report, all cancer cases diagnosed from January 1, 2017 to December 31, 2018, in the Sangrur district has 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 between January 1, 2017 and December 31, 2018 in the Sangrur 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.

$$CR = \frac{\text{Number of new cancer cases observed in the period 2017-2018} * 100000}{\text{Estimated population of the same year}}$$

This rate is also called 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 period 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 for the truncated age group 35-64 years of age.

Paediatric cancer incidence rate: Age-specific rates are shown for 0-4, 5-9, 10-14, and 15-19 age groups. Age-adjusted incidence rates were calculated by the direct method, using the age-specific rates for the age groups 0-4, 5-9, 10-14, and 15-19 and the weights of the World Standard population for these age groups according to Segi, namely 12, 10, 9, and 9. The cumulative incidence rates were calculated as the sum of the age-specific incidence rates for the 5-year age groups, each multiplied by 5, the number of years contained in each age group.

21. Standard registry tables

Table 27: Number of incidence cancers by five-year age group and site (ICD 10): 2017-2018

Males Sangrur 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	0.1
C01-C02	Tongue	-	-	-	-	-	2	1	2	16	10	9	8	5	8	9	5	75	5.7
C03-C06	Mouth	-	-	-	-	-	2	-	-	3	10	12	9	15	8	4	2	65	4.9
C07-C08	Salivary Gland	-	-	-	1	-	-	-	1	-	-	-	2	-	-	-	1	5	0.4
C09	Tonsil	-	-	-	-	-	-	-	-	1	1	2	2	-	-	-	-	6	0.5
C10	Other Oropharynx	-	-	-	-	-	-	-	-	1	1	2	1	3	3	3	-	14	1.1
C11	Nasopharynx	-	-	-	-	-	-	-	1	1	-	1	-	1	-	-	-	4	0.3
C12-C13	Hypopharynx	-	-	-	-	1	-	1	1	-	2	7	5	5	6	6	3	37	2.8
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	4	0.3
C15	Oesophagus	-	-	-	-	3	-	1	2	3	10	19	15	9	18	7	13	100	7.6
C16	Stomach	-	-	-	-	1	-	-	-	-	2	2	1	3	3	2	-	14	1.1
C17	Small Intestine	-	-	-	-	-	-	-	-	1	1	-	1	-	-	1	3	7	0.5
C18	Colon	-	-	-	1	1	-	2	3	4	4	2	4	3	2	1	2	29	2.2
C19-C20	Rectum	-	-	-	-	-	-	-	2	6	1	5	2	4	1	1	5	27	2.0
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	-	-	1	1	-	1	2	1	6	0.5
C22	Liver	-	-	-	-	-	-	2	-	6	7	15	21	26	22	16	12	127	9.6
C23-C24	Gallbladder etc.	-	-	-	-	-	-	-	2	1	1	2	2	10	5	5	8	36	2.7
C25	Pancreas	-	-	-	-	-	-	-	-	-	3	3	3	5	4	6	5	29	2.2
C30-C31	Nose, Sinuses etc.	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	3	0.2
C32	Larynx	-	-	-	-	-	-	2	2	-	7	11	7	9	7	3	5	53	4.0
C33-C34	Lung etc.	-	-	-	-	-	-	-	2	5	3	9	12	13	13	8	5	70	5.3
C37-C38	Other Thoracic Organs	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	0.2
C40-C41	Bone	-	-	-	1	1	3	1	1	-	-	-	3	1	-	1	1	13	1.0
C43	Melanoma of Skin	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2	4	0.3
C44	Other Skin	-	-	1	-	-	-	-	1	2	-	5	1	5	3	5	5	28	2.1
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	1	-	1	2	1	1	-	-	2	-	1	2	1	1	1	-	14	1.1
C50	Breast	-	-	-	-	-	-	-	1	-	-	1	4	1	2	1	-	10	0.8
C60	Penis	-	-	-	-	-	-	-	-	-	-	2	3	2	3	2	1	13	1.0
C61	Prostate	-	-	-	-	-	-	-	-	-	-	4	5	16	40	20	45	130	9.8
C62	Testis	-	-	-	-	2	2	2	1	2	-	-	-	-	-	-	-	9	0.7
C63	Other Male Genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	1	-	-	-	1	-	-	-	1	2	7	2	3	5	1	5	28	2.1
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	-	-	-	-	-	-	-	1	2	3	4	9	13	7	5	6	50	3.8
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	0.2
C70-C72	Brain, Nervous System	1	2	1	1	-	-	4	5	4	3	3	4	3	3	4	1	39	2.9
C73	Thyroid	-	-	-	-	-	1	-	1	1	2	1	1	1	3	2	-	13	1.0
C74	Adrenal Gland	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	0.2
C81	Hodgkins Disease	-	-	1	1	-	1	-	-	1	-	-	1	1	-	-	-	6	0.5
C82-C86, C96	NHL	-	-	-	-	3	1	-	2	4	2	2	7	7	4	2	3	37	2.8
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	-	1	-	2	3	1	5	4	1	-	17	1.3
C91	Lymphoid Leukaemia	3	4	1	3	2	-	2	1	-	1	3	3	4	3	3	-	33	2.5
C92-C94	Myeloid Leukaemia	-	-	1	-	2	4	2	2	3	4	1	2	1	1	4	5	32	2.4
C95	Leukaemia Unspecified	2	1	2	1	3	1	-	1	-	2	2	-	3	3	2	3	26	2.0
Other and Unspecified*		-	-	-	-	-	1	2	1	6	14	10	14	15	13	11	15	102	7.7
Total		10	8	8	11	21	19	22	37	76	101	155	162	193	197	140	163	1323	100.0

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

Table 28: Number of incidence cancers by five-year age group and site (ICD 10): 2017-2018
Females Sangrur 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	-	-	-	-	-	2	-	-	-	-	1	-	2	3	-	3	12	0.9
C03-C06	Mouth	-	-	-	-	-	-	-	-	1	1	-	2	-	-	1	3	8	0.6
C07-C08	Salivary Gland	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	2	0.1
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2	0.1
C10	Other. Oropharynx	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	1	3	0.2
C11	Nasopharynx	-	-	-	-	-	-	-	1	-	1	1	-	1	-	1	-	5	0.4
C12-C13	Hypopharynx	1	-	-	-	1	-	1	-	2	1	-	3	4	1	2	2	18	1.3
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	7	2	13	16	17	14	17	9	7	102	7.5
C16	Stomach	-	-	-	-	-	-	-	-	1	-	2	2	2	3	-	2	12	0.9
C17	Small Intestine	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	2	0.1
C18	Colon	-	-	-	-	-	-	1	2	-	1	2	4	4	1	4	3	22	1.6
C19-C20	Rectum	-	-	-	-	-	-	1	2	-	3	-	1	-	-	-	-	7	0.5
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	1	-	-	-	-	-	-	1	-	5	7	9	9	10	3	2	47	3.5
C23-C24	Gallbladder etc.	-	-	-	-	-	1	3	2	7	8	14	11	15	4	15	7	87	6.4
C25	Pancreas	-	-	-	-	1	-	1	-	1	-	5	3	1	4	4	3	23	1.7
C30-C31	Nose, Sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	0.1
C32	Larynx	-	-	-	-	-	-	-	1	1	-	2	1	1	-	1	1	8	0.6
C33-C34	Lung etc.	-	-	-	-	-	-	1	1	5	3	7	7	4	4	2	4	38	2.8
C37-C38	Other Thoracic Organs	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1
C40-C41	Bone	-	-	3	5	1	1	1	2	1	-	1	1	-	-	1	1	18	1.3
C43	Melanoma of Skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other Skin	-	-	-	-	1	2	1	-	1	-	2	-	1	-	2	4	14	1.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	1	-	-	-	-	-	1	-	-	1	1	1	2	-	-	1	8	0.6
C50	Breast	-	-	-	-	3	4	16	28	38	50	44	35	44	31	18	18	329	24.3
C51	Vulva	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	3	7	0.5
C52	Vagina	-	-	-	-	-	-	-	-	2	-	-	-	2	-	1	1	6	0.4
C53	Cervix Uteri	-	-	-	-	-	2	3	16	18	19	22	23	21	12	11	12	159	11.7
C54	Corpus Uteri	-	-	-	-	-	-	2	1	1	4	6	4	4	10	4	4	40	3.0
C55	Uterus Unspecified	-	-	-	-	1	-	-	-	-	1	1	1	2	-	-	-	6	0.4
C56	Ovary etc.	-	-	-	-	2	3	3	5	6	16	15	9	17	11	4	7	98	7.2
C57	Other Female Genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	1	-	-	-	1	1	-	-	2	3	3	2	4	4	1	1	23	1.7
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	-	-	-	-	-	-	-	-	1	1	1	-	3	3	-	-	9	0.7
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, Nervous System	1	3	1	1	-	-	2	4	3	5	4	3	1	1	1	1	31	2.3
C73	Thyroid	-	-	-	1	5	-	9	2	4	2	2	5	5	2	-	4	41	3.0
C74	Adrenal Gland	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1
C81	Hodgkins Disease	-	-	1	-	-	2	-	-	1	-	1	-	1	-	-	-	6	0.4
C82-C86, C96	NHL	-	-	-	-	-	1	2	-	2	1	2	-	4	7	1	4	24	1.8
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	1	-	-	-	-	-	2	3	-	1	7	0.5
C91	Lymphoid Leukaemia	1	-	1	2	-	1	-	-	-	1	-	1	2	-	2	-	11	0.8
C92-C94	Myeloid Leukaemia	-	-	-	2	-	1	3	1	3	2	2	1	5	-	2	1	23	1.7
C95	Leukaemia Unspecified	1	-	1	1	1	1	1	2	1	2	-	1	-	1	2	1	16	1.2
Other & Unspecified*		-	-	-	-	-	1	1	-	3	5	13	9	11	12	7	15	77	5.7
Total		7	3	8	12	17	23	54	78	108	150	179	159	190	146	102	119	1355	100.0

* 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) Incidence Rate per 100,000 Population: 2017-2018 – Males Sangrur 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	-	-	-	-	-	-	0.1	0.1	0.2
C01-C02	-	-	-	-	-	1.2	0.7	1.6	13.6	9.4	10.4	13.4	7.4	15.4	23.0	11.0	3.9	4.1	9.1
C03-C06	-	-	-	-	-	1.2	-	-	2.6	9.4	13.9	15.0	22.3	15.4	10.2	4.4	3.4	3.8	9.4
C07-C08	-	-	-	0.5	-	-	-	0.8	-	-	-	3.3	-	-	-	2.2	0.3	0.3	0.6
C09	-	-	-	-	-	-	-	-	0.9	0.9	2.3	3.3	-	-	-	-	0.3	0.4	1.2
C10	-	-	-	-	-	-	-	-	0.9	0.9	2.3	1.7	4.5	5.8	7.7	-	0.7	0.8	1.5
C11	-	-	-	-	-	-	-	0.8	0.9	-	1.2	-	1.5	-	-	-	0.2	0.2	0.7
C12-C13	-	-	-	-	0.5	-	0.7	0.8	-	1.9	8.1	8.4	7.4	11.6	15.3	6.6	1.9	2.1	3.9
C14	-	-	-	-	-	-	-	-	-	0.9	2.3	1.7	-	-	-	-	0.2	0.2	0.8
C15	-	-	-	-	1.5	-	0.7	1.6	2.6	9.4	22.0	25.1	13.4	34.7	17.9	28.7	5.3	5.6	11.2
C16	-	-	-	-	0.5	-	-	-	-	1.9	2.3	1.7	4.5	5.8	5.1	-	0.7	0.8	1.5
C17	-	-	-	-	-	-	-	-	0.9	0.9	-	1.7	-	-	2.6	6.6	0.4	0.4	0.6
C18	-	-	-	0.5	0.5	-	1.5	2.4	3.4	3.8	2.3	6.7	4.5	3.9	2.6	4.4	1.5	1.6	3.7
C19-C20	-	-	-	-	-	-	-	1.6	5.1	0.9	5.8	3.3	6.0	1.9	2.6	11.0	1.4	1.5	3.6
C21	-	-	-	-	-	-	-	-	-	-	1.2	1.7	-	1.9	5.1	2.2	0.3	0.3	0.4
C22	-	-	-	-	-	-	1.5	-	5.1	6.6	17.4	35.1	38.7	42.4	40.8	26.5	6.7	7.2	14.6
C23-C24	-	-	-	-	-	-	-	1.6	0.9	0.9	2.3	3.3	14.9	9.6	12.8	17.7	1.9	1.9	3.4
C25	-	-	-	-	-	-	-	-	-	2.8	3.5	5.0	7.4	7.7	15.3	11.0	1.5	1.6	2.7
C30-C31	-	-	-	-	-	-	-	-	-	0.9	1.2	-	-	1.9	-	-	0.2	0.2	0.4
C32	-	-	-	-	-	-	1.5	1.6	-	6.6	12.8	11.7	13.4	13.5	7.7	11.0	2.8	3.0	6.9
C33-C34	-	-	-	-	-	-	-	1.6	4.3	2.8	10.4	20.1	19.3	25.1	20.4	11.0	3.7	4.0	8.4
C37-C38	0.7	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	0.1	0.1	0.2
C40-C41	-	-	-	0.5	0.5	1.8	0.7	0.8	-	-	-	5.0	1.5	-	2.6	2.2	0.7	0.7	1.0
C43	-	-	-	-	-	-	-	-	-	-	1.2	1.7	-	-	-	4.4	0.2	0.2	0.4
C44	-	-	0.5	-	-	-	-	0.8	1.7	-	5.8	1.7	7.4	5.8	12.8	11.0	1.5	1.5	2.6
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	0.7	-	0.5	1.0	0.5	0.6	-	-	1.7	-	1.2	3.3	1.5	1.9	2.6	-	0.7	0.8	1.1
C50	-	-	-	-	-	-	-	0.8	-	-	1.2	6.7	1.5	3.9	2.6	-	0.5	0.6	1.4
C60	-	-	-	-	-	-	-	-	-	-	2.3	5.0	3.0	5.8	5.1	2.2	0.7	0.8	1.4
C61	-	-	-	-	-	-	-	-	-	-	4.6	8.4	23.8	77.1	51.0	99.3	6.8	6.8	4.9
C62	-	-	-	-	1.0	1.2	1.5	0.8	1.7	-	-	-	-	-	-	-	0.5	0.4	0.5
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	0.7	-	-	-	0.5	-	-	-	0.9	1.9	8.1	3.3	4.5	9.6	2.6	11.0	1.5	1.6	2.8
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	0.8	1.7	2.8	4.6	15.0	19.3	13.5	12.8	13.2	2.6	2.9	6.2
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	2.6	2.2	0.2	0.2	-
C70-C72	0.7	1.2	0.5	0.5	-	-	3.0	4.0	3.4	2.8	3.5	6.7	4.5	5.8	10.2	2.2	2.0	2.1	4.0
C73	-	-	-	-	-	0.6	-	0.8	0.9	1.9	1.2	1.7	1.5	5.8	5.1	-	0.7	0.7	1.3
C74	0.7	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	0.1	0.1	0.2
C81	-	-	0.5	0.5	-	0.6	-	-	0.9	-	-	1.7	1.5	-	-	-	0.3	0.3	0.6
C82-C86, C96	-	-	-	-	1.5	0.6	-	1.6	3.4	1.9	2.3	11.7	10.4	7.7	5.1	6.6	1.9	2.1	4.6
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	0.8	-	1.9	3.5	1.7	7.4	7.7	2.6	-	0.9	1.0	2.3
C91	2.0	2.4	0.5	1.4	1.0	-	1.5	0.8	-	0.9	3.5	5.0	6.0	5.8	7.7	-	1.7	1.9	2.3
C92-C94	-	-	0.5	-	1.0	2.5	1.5	1.6	2.6	3.8	1.2	3.3	1.5	1.9	10.2	11.0	1.7	1.6	2.3
C95	1.3	0.6	1.1	0.5	1.5	0.6	-	0.8	-	1.9	2.3	-	4.5	5.8	5.1	6.6	1.4	1.4	1.5
O&U*	-	-	-	-	-	0.6	1.5	0.8	5.1	13.2	11.6	23.4	22.3	25.1	28.1	33.1	5.4	5.7	11.5
Total	6.7	4.8	4.2	5.3	10.7	11.7	16.4	29.5	64.7	95.4	179.9	270.8	287.2	379.7	357.1	359.8	69.5	73.3	137.7

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

Table 30: Average annual Age Specific, Crude (CR), Age-Adjusted (AAR) and Truncated (35-64 yrs) (TR) Incidence Rate per 100,000 Population: 2017-2018 – Females Sangrur 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	-	-	-	-	-	1.3	-	-	-	-	1.3	-	2.9	6.4	3.1	6.8	0.7	0.7	0.6
C03-C06	-	-	-	-	-	-	-	-	0.9	1.0	-	3.4	-	-	3.1	6.8	0.5	0.4	0.8
C07-C08	-	-	0.7	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	0.1	0.2
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	3.1	-	0.1	0.1	-
C10	-	-	-	-	-	-	-	-	-	-	1.3	-	1.4	-	-	2.3	0.2	0.2	0.4
C11	-	-	-	-	-	-	-	0.8	-	1.0	1.3	-	1.4	-	3.1	-	0.3	0.3	0.8
C12-C13	0.8	-	-	-	0.6	-	0.8	-	1.8	1.0	-	5.1	5.7	2.1	6.1	4.5	1.1	1.1	1.9
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	5.8	1.8	13.1	21.4	28.6	20.1	36.3	27.6	15.8	6.1	6.2	13.7
C16	-	-	-	-	-	-	-	-	0.9	-	2.7	3.4	2.9	6.4	-	4.5	0.7	0.7	1.4
C17	-	-	-	-	-	-	-	-	-	1.0	-	1.7	-	-	-	-	0.1	0.1	0.4
C18	-	-	-	-	-	-	0.8	1.6	-	1.0	2.7	6.7	5.7	2.1	12.3	6.8	1.3	1.3	2.6
C19-C20	-	-	-	-	-	-	0.8	1.6	-	3.0	-	1.7	-	-	-	-	0.4	0.4	1.1
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	0.8	-	-	-	-	-	-	0.8	-	5.0	9.3	15.2	12.9	21.3	9.2	4.5	2.8	3.0	6.3
C23-C24	-	-	-	-	-	0.7	2.3	1.6	6.1	8.1	18.7	18.5	21.5	8.5	46.0	15.8	5.2	5.2	11.3
C25	-	-	-	-	0.6	-	0.8	-	0.9	-	6.7	5.1	1.4	8.5	12.3	6.8	1.4	1.4	2.1
C30-C31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	0.1	0.1	-
C32	-	-	-	-	-	-	-	0.8	0.9	-	2.7	1.7	1.4	-	3.1	2.3	0.5	0.5	1.2
C33-C34	-	-	-	-	-	-	0.8	0.8	4.4	3.0	9.3	11.8	5.7	8.5	6.1	9.0	2.3	2.3	5.4
C37-C38	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	0.1	0.1	0.2
C40-C41	-	-	2.0	3.1	0.6	0.7	0.8	1.6	0.9	-	1.3	1.7	-	-	3.1	2.3	1.1	1.0	0.9
C43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	-	-	-	-	0.6	1.3	0.8	-	0.9	-	2.7	-	1.4	-	6.1	9.0	0.8	0.7	0.8
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	0.8	-	-	-	-	-	0.8	-	-	1.0	1.3	1.7	2.9	-	-	2.3	0.5	0.5	1.0
C50	-	-	-	-	1.7	2.7	12.5	23.0	33.3	50.4	58.8	59.0	63.1	66.1	55.2	40.7	19.5	19.2	45.9
C51	-	-	-	-	-	-	-	-	-	-	1.3	-	1.4	2.1	3.1	6.8	0.4	0.4	0.4
C52	-	-	-	-	-	-	-	-	1.8	-	-	-	2.9	-	3.1	2.3	0.4	0.3	0.7
C53	-	-	-	-	-	1.3	2.3	13.2	15.8	19.2	29.4	38.8	30.1	25.6	33.7	27.1	9.4	9.3	22.9
C54	-	-	-	-	-	-	1.6	0.8	0.9	4.0	8.0	6.7	5.7	21.3	12.3	9.0	2.4	2.4	4.0
C55	-	-	-	-	0.6	-	-	-	-	1.0	1.3	1.7	2.9	-	-	-	0.4	0.4	1.0
C56	-	-	-	-	1.2	2.0	2.3	4.1	5.3	16.1	2-	15.2	24.4	23.5	12.3	15.8	5.8	5.8	13.3
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	0.8	-	-	-	0.6	0.7	-	-	1.8	3.0	4.0	3.4	5.7	8.5	3.1	2.3	1.4	1.4	2.7
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	0.9	1.0	1.3	-	4.3	6.4	-	-	0.5	0.5	1.1
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	0.8	2.2	0.7	0.6	-	-	1.6	3.3	2.6	5.0	5.3	5.1	1.4	2.1	3.1	2.3	1.8	1.9	3.8
C73	-	-	-	0.6	2.9	-	7.0	1.6	3.5	2.0	2.7	8.4	7.2	4.3	-	9.0	2.4	2.2	3.8
C74	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	0.1	0.1	0.2
C81	-	-	0.7	-	-	1.3	-	-	0.9	-	1.3	-	1.4	-	-	-	0.4	0.3	0.6
C82-C86, C96	-	-	-	-	-	0.7	1.6	-	1.8	1.0	2.7	-	5.7	14.9	3.1	9.0	1.4	1.4	1.7
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	0.8	-	-	-	-	-	2.9	6.4	-	2.3	0.4	0.4	0.4
C91	0.8	-	0.7	1.2	-	0.7	-	-	-	1.0	-	1.7	2.9	-	6.1	-	0.7	0.7	0.8
C92-C94	-	-	-	1.2	-	0.7	2.3	0.8	2.6	2.0	2.7	1.7	7.2	-	6.1	2.3	1.4	1.3	2.6
C95	0.8	-	0.7	0.6	0.6	0.7	0.8	1.6	0.9	2.0	-	1.7	-	2.1	6.1	2.3	1.0	0.9	1.1
O&U*	-	-	-	-	-	0.7	0.8	-	2.6	5.0	17.4	15.2	15.8	25.6	21.5	33.9	4.6	4.5	8.3
Total	5.6	2.2	5.4	7.3	9.9	15.4	42.3	64.1	94.6	151.2	239.0	267.9	272.6	311.3	312.9	269.0	80.5	79.7	168.3

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

Table 31: 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) 2017-2018: Males

ICD 10	Sites	Cum Rate (0-64)	Cum Risk (0-64)	Cum Rate (0-74)	Cum Risk (0-74)
C00	Lip	-	-	-	-
C01-C02	Tongue	0.0029	0.0029	0.0048	0.0048
C03-C06	Mouth	0.0032	0.0032	0.0045	0.0045
C07-C08	Salivary Gland	0.0002	0.0002	0.0002	0.0002
C09	Tonsil	0.0004	0.0004	0.0004	0.0004
C10	Other Oropharynx	0.0005	0.0005	0.0012	0.0012
C11	Nasopharynx	0.0002	0.0002	0.0002	0.0002
C12-C13	Hypopharynx	0.0014	0.0014	0.0027	0.0027
C14	Pharynx Unspecified	0.0002	0.0002	0.0002	0.0002
C15	Oesophagus	0.0038	0.0038	0.0064	0.0064
C16	Stomach	0.0005	0.0005	0.0011	0.0011
C17	Small Intestine	0.0002	0.0002	0.0003	0.0003
C18	Colon	0.0013	0.0013	0.0016	0.0016
C19-C20	Rectum	0.0011	0.0011	0.0014	0.0014
C21	Anus & Anal Canal	0.0001	0.0001	0.0005	0.0005
C22	Liver	0.0052	0.0052	0.0094	0.0094
C23-C24	Gallbladder etc.	0.0012	0.0012	0.0023	0.0023
C25	Pancreas	0.0009	0.0009	0.0021	0.0021
C30-C31	Nose, Sinuses etc.	0.0001	0.0001	0.0002	0.0002
C32	Larynx	0.0024	0.0024	0.0034	0.0034
C33-C34	Lung etc.	0.0029	0.0029	0.0052	0.0052
C37-C38	Other Thoracic Organs	0.0001	0.0001	0.0001	0.0001
C40-C41	Bone	0.0005	0.0005	0.0007	0.0007
C43	Melanoma of Skin	0.0001	0.0001	0.0001	0.0001
C44	Other Skin	0.0009	0.0009	0.0018	0.0018
C45	Mesothelioma	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-
C47+C49	Conn. & Soft Tissue	0.0005	0.0005	0.0008	0.0008
C50	Breast	0.0005	0.0005	0.0008	0.0008
C60	Penis	0.0005	0.0005	0.0011	0.0011
C61	Prostate	0.0018	0.0018	0.0082	0.0082
C62	Testis	0.0003	0.0003	0.0003	0.0003
C63	Other Male Genital	-	-	-	-
C64	Kidney etc.	0.0010	0.0010	0.0016	0.0016
C65	Renal Pelvis	-	-	-	-
C66	Ureter	-	-	-	-
C67	Urinary Bladder	0.0022	0.0022	0.0035	0.0035
C68	Unspecified Urinary Organs	-	-	-	-
C69	Eye	-	-	0.0002	0.0002
C70-C72	Brain, Nervous System	0.0015	0.0015	0.0023	0.0023
C73	Thyroid	0.0004	0.0004	0.0010	0.0010
C74	Adrenal Gland	0.0001	0.0001	0.0001	0.0001
C81	Hodgkins Disease	0.0003	0.0003	0.0003	0.0003
C82-C86, C96	NHL	0.0017	0.0017	0.0023	0.0023
C88	Malig Imn.Prol D	-	-	-	-
C90	Multiple Myeloma	0.0008	0.0008	0.0013	0.0013
C91	Lymphoid Leukaemia	0.0013	0.0013	0.0019	0.0019
C92-C94	Myeloid Leukaemia	0.0010	0.0010	0.0016	0.0016
C95	Leukaemia Unspecified	0.0008	0.0008	0.0013	0.0013
Other & Unspecified*		0.0039	0.0039	0.0066	0.0066
Total		0.0494	0.0494	0.0862	0.0862

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

Table 32: 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) 2017-2018: Females

ICD 10	Sites	Cum Rate (0-64)	Cum Risk (0-64)	Cum Rate (0-74)	Cum Risk (0-74)
C00	Lip	-	-	-	-
C01-C02	Tongue	0.0003	0.0003	0.0008	0.0008
C03-C06	Mouth	0.0003	0.0003	0.0004	0.0004
C07-C08	Salivary Gland	0.0001	0.0001	0.0001	0.0001
C09	Tonsil	-	-	0.0003	0.0003
C10	Other. Oropharynx	0.0001	0.0001	0.0001	0.0001
C11	Nasopharynx	0.0002	0.0002	0.0004	0.0004
C12-C13	Hypopharynx	0.0008	0.0008	0.0012	0.0012
C14	Pharynx Unspecified	-	-	-	-
C15	Oesophagus	0.0045	0.0045	0.0077	0.0077
C16	Stomach	0.0005	0.0005	0.0008	0.0008
C17	Small Intestine	0.0001	0.0001	0.0001	0.0001
C18	Colon	0.0009	0.0009	0.0016	0.0016
C19-C20	Rectum	0.0004	0.0004	0.0004	0.0004
C21	Anus & Anal Canal	-	-	-	-
C22	Liver	0.0022	0.0022	0.0037	0.0037
C23-C24	Gallbladder etc.	0.0039	0.0039	0.0066	0.0066
C25	Pancreas	0.0008	0.0008	0.0018	0.0018
C30-C31	Nose, Sinuses etc.	-	-	-	-
C32	Larynx	0.0004	0.0004	0.0005	0.0005
C33-C34	Lung etc.	0.0018	0.0018	0.0025	0.0025
C37-C38	Other Thoracic Organs	0.0001	0.0001	0.0001	0.0001
C40-C41	Bone	0.0006	0.0006	0.0008	0.0008
C43	Melanoma of Skin	-	-	-	-
C44	Other Skin	0.0004	0.0004	0.0007	0.0007
C45	Mesothelioma	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-
C47+C49	Conn. & Soft Tissue	0.0004	0.0004	0.0004	0.0004
C50	Breast	0.0152	0.0152	0.0213	0.0213
C51	Vulva	0.0001	0.0001	0.0004	0.0004
C52	Vagina	0.0002	0.0002	0.0004	0.0004
C53	Cervix Uteri	0.0075	0.0075	0.0105	0.0105
C54	Corpus Uteri	0.0014	0.0014	0.0031	0.0031
C55	Uterus Unspecified	0.0004	0.0004	0.0004	0.0004
C56	Ovary etc.	0.0045	0.0045	0.0063	0.0063
C57	Other Female Genital	-	-	-	-
C58	Placenta	-	-	-	-
C64	Kidney etc.	0.0010	0.0010	0.0016	0.0016
C65	Renal Pelvis	-	-	-	-
C66	Ureter	-	-	-	-
C67	Urinary Bladder	0.0004	0.0004	0.0007	0.0007
C68	Unspecified Urinary Organs	-	-	-	-
C69	Eye	-	-	-	-
C70-C72	Brain, Nervous System	0.0014	0.0014	0.0017	0.0017
C73	Thyroid	0.0018	0.0018	0.0020	0.0020
C74	Adrenal Gland	0.0001	0.0001	0.0001	0.0001
C81	Hodgkins Disease	0.0003	0.0003	0.0003	0.0003
C82-C86, C96	NHL	0.0007	0.0007	0.0016	0.0016
C88	Malig Imn.Prol D	-	-	-	-
C90	Multiple Myeloma	0.0002	0.0002	0.0005	0.0005
C91	Lymphoid Leukaemia	0.0004	0.0004	0.0008	0.0008
C92-C94	Myeloid Leukaemia	0.0011	0.0011	0.0014	0.0014
C95	Leukaemia Unspecified	0.0005	0.0005	0.0009	0.0009
Other & Unspecified*		0.0029	0.0029	0.0052	0.0052
Total		0.0589	0.0589	0.0901	0.0901

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

Table 33: Number (#) and Proportion (%) of cancers by site (ICD -10) and method of diagnosis: 2017-2018 – Males Sangrur district

ICD 10	Sites	Clinical		Radiology		Microscopic		Other (+DCO)**		Total #	
		No.	%	No.	%	No.	%	No.	%	No.	%
C00	Lip	-	-	-	-	1	100.0	-	-	1	100.0
C01-C02	Tongue	1	1.3	2	2.7	71	94.7	1	1.3	75	100.0
C03-C06	Mouth	2	3.1	1	1.5	61	93.8	1	1.5	65	100.0
C07-C08	Salivary Gland	-	-	-	-	5	100.0	-	-	5	100.0
C09	Tonsil	-	-	-	-	6	100.0	-	-	6	100.0
C10	Other Oropharynx	-	-	-	-	14	100.0	-	-	14	100.0
C11	Nasopharynx	-	-	-	-	4	100.0	-	-	4	100.0
C12-C13	Hypopharynx	-	-	3	8.1	34	91.9	-	-	37	100.0
C14	Pharynx Unspecified	-	-	-	-	4	100.0	-	-	4	100.0
C15	Oesophagus	3	3.0	8	8.0	76	76.0	13	13.0	100	100.0
C16	Stomach	2	14.3	2	14.3	8	57.1	2	14.3	14	100.0
C17	Small Intestine	-	-	-	-	7	100.0	-	-	7	100.0
C18	Colon	2	6.9	2	6.9	24	82.8	1	3.4	29	100.0
C19-C20	Rectum	2	7.4	1	3.7	23	85.2	1	3.7	27	100.0
C21	Anus & Anal Canal	-	-	-	-	6	100.0	-	-	6	100.0
C22	Liver	5	4.0	50	39.7	65	51.6	6	4.8	126	100.0
C23-C24	Gallbladder etc.	1	2.8	19	52.8	16	44.4	-	-	36	100.0
C25	Pancreas	1	3.6	7	25.0	20	71.4	-	-	28	100.0
C30-C31	Nose, Sinuses etc.	-	-	-	-	3	100.0	-	-	3	100.0
C32	Larynx	2	3.8	1	1.9	50	94.3	-	-	53	100.0
C33-C34	Lung etc.	3	4.3	9	12.9	56	80.0	2	2.9	70	100.0
C37-C38	Other Thoracic Organs	-	-	-	-	2	100.0	-	-	2	100.0
C40-C41	Bone	1	7.7	2	15.4	9	69.2	1	7.7	13	100.0
C43	Melanoma of Skin	-	-	-	-	4	100.0	-	-	4	100.0
C44	Other Skin	-	-	-	-	28	100.0	-	-	28	100.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	-	-	1	7.1	13	92.9	-	-	14	100.0
C50	Breast	-	-	-	-	10	100.0	-	-	10	100.0
C60	Penis	-	-	-	-	13	100.0	-	-	13	100.0
C61	Prostate	9	7.0	9	7.0	104	80.6	7	5.4	129	100.0
C62	Testis	-	-	-	-	9	100.0	-	-	9	100.0
C63	Other Male Genital	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	2	7.1	7	25.0	19	67.9	-	-	28	100.0
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	2	4.0	7	14.0	39	78.0	2	4.0	50	100.0
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	1	33.3	2	66.7	-	-	3	100.0
C70-C72	Brain, Nervous System	1	2.6	8	20.5	26	66.7	4	10.3	39	100.0
C73	Thyroid	-	-	-	-	13	100.0	-	-	13	100.0
C74	Adrenal Gland	1	50.0	-	-	1	50.0	-	-	2	100.0
C81	Hodgkins Disease	-	-	-	-	6	100.0	-	-	6	100.0
C82-C86, C96	NHL	-	-	-	-	37	100.0	-	-	37	100.0
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	17	100.0	-	-	17	100.0
C91	Lymphoid Leukaemia	-	-	-	-	33	100.0	-	-	33	100.0
C92-C94	Myeloid Leukaemia	-	-	-	-	32	100.0	-	-	32	100.0
C95	Leukaemia Unspecified	3	11.5	2	7.7	15	57.7	6	23.1	26	100.0
Other & Unspecified*		3	2.9	34	33.3	-	29.4	35	34.3	102	100.0
Total		46	3.5	176	13.3	1016	77.0	82	6.2	1320	100.0

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

** Other: Information based on patient's relatives, medical note and DCO

3 case of specific tumor marker

Table 34: Number (#) and Proportion (%) of cancers by site (ICD -10) and method of diagnosis: 2017-2018 – Females Sangrur district

ICD 10	Sites	Clinical		Radiology		Microscopic		Other (+DCO)**		Total #	
		No.	%	No.	%	No.	%	No.	%	No.	%
C00	Lip	-	-	-	-	-	-	-	-	-	-
C01-C02	Tongue	-	-	-	-	12	100.0	-	-	12	100.0
C03-C06	Mouth	1	12.5	-	-	7	87.5	-	-	8	100.0
C07-C08	Salivary Gland	-	-	-	-	2	100.0	-	-	2	100.0
C09	Tonsil	-	-	-	-	2	100.0	-	-	2	100.0
C10	Other. Oropharynx	-	-	-	-	3	100.0	-	-	3	100.0
C11	Nasopharynx	-	-	-	-	5	100.0	-	-	5	100.0
C12-C13	Hypopharynx	-	-	3	16.7	15	83.3	-	-	18	100.0
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	3	2.9	5	4.9	77	75.5	17	16.7	102	100.0
C16	Stomach	-	-	-	-	10	83.3	2	16.7	12	100.0
C17	Small Intestine	-	-	-	-	2	100.0	-	-	2	100.0
C18	Colon	-	-	3	13.6	18	81.8	1	4.5	22	100.0
C19-C20	Rectum	-	-	-	-	7	100.0	-	-	7	100.0
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	22	46.8	23	48.9	2	4.3	47	100.0
C23-C24	Gallbladder etc.	2	2.3	21	24.1	58	66.7	6	6.9	87	100.0
C25	Pancreas	4	17.4	6	26.1	13	56.5	-	-	23	100.0
C30-C31	Nose, Sinuses etc.	-	-	-	-	1	50.0	1	50.0	2	100.0
C32	Larynx	-	-	-	-	8	100.0	-	-	8	100.0
C33-C34	Lung etc.	2	5.3	5	13.2	30	78.9	1	2.6	38	100.0
C37-C38	Other Thoracic Organs	-	-	-	-	1	100.0	-	-	1	100.0
C40-C41	Bone	-	-	2	11.1	14	77.8	2	11.1	18	100.0
C43	Melanoma of Skin	-	-	-	-	-	-	-	-	-	-
C44	Other Skin	-	-	-	-	14	100.0	-	-	14	100.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	-	-	1	12.5	7	87.5	-	-	8	100.0
C50	Breast	7	2.1	8	2.4	307	93.3	7	2.1	329	100.0
C51	Vulva	-	-	-	-	7	100.0	-	-	7	100.0
C52	Vagina	-	-	-	-	6	100.0	-	-	6	100.0
C53	Cervix Uteri	2	1.3	5	3.1	139	87.4	13	8.2	159	100.0
C54	Corpus Uteri	-	-	1	2.5	39	97.5	-	-	40	100.0
C55	Uterus Unspecified	2	33.3	1	16.7	2	33.3	1	16.7	6	100.0
C56	Ovary etc.	4	4.1	15	15.3	78	79.6	1	1.0	98	100.0
C57	Other Female Genital	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	2	8.7	5	21.7	13	56.5	3	13.0	23	100.0
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	-	-	2	22.2	7	77.8	-	-	9	100.0
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, Nervous System	1	3.2	7	22.6	18	58.1	5	16.1	31	100.0
C73	Thyroid	2	4.9	1	2.4	38	92.7	-	-	41	100.0
C74	Adrenal Gland	-	-	-	-	-	-	-	-	-	-
C81	Hodgkins Disease	-	-	-	-	6	100.0	-	-	6	100.0
C82-C86, C96	NHL	-	-	-	-	24	100.0	-	-	24	100.0
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	7	100.0	-	-	7	100.0
C91	Lymphoid Leukaemia	-	-	-	-	11	100.0	-	-	11	100.0
C92-C94	Myeloid Leukaemia	-	-	-	-	23	100.0	-	-	23	100.0
C95	Leukaemia Unspecified	2	12.5	-	-	7	43.8	7	43.8	16	100.0
Other & Unspecified*		3	3.9	15	19.5	32	41.6	27	35.1	77	100.0
Total		37	2.7	128	9.5	1093	80.7	96	7.1	1354	100.0

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

** Other: Information based on patient's relatives, medical note and DCO

1 case of specific tumor marker

Table 35: Number of cancer deaths by five-year age group and site (ICD 10): 2017-2018
Males Sangrur district

% = Relative Proportion of Cancers of All Sites

ICD 10	Sites	0_4	5_9	10_14	15_19	20_24	25_29	30_34	35_39	40_44	45_49	50_54	55_59	60_64	65_69	70_74	75+	Total	%
C00	Lip	-	-	-	-	-	-	-	-	1	1	-	-	2	-	-	-	4	0.4
C01-C02	Tongue	-	-	-	-	-	1	-	1	12	8	7	9	4	3	4	6	55	5.4
C03-C06	Mouth	-	-	-	-	-	-	1	1	-	6	5	10	8	4	3	4	42	4.1
C07-C08	Salivary Gland	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	2	5	0.5
C09	Tonsil	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-	1	8	0.8
C10	Other Oropharynx	-	-	-	-	-	-	-	1	-	-	4	1	1	3	2	1	13	1.3
C11	Nasopharynx	-	-	-	1	-	-	-	-	1	1	1	-	1	-	-	-	5	0.5
C12-C13	Hypopharynx	-	-	-	-	1	-	-	-	-	2	3	2	3	6	2	2	21	2.0
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.1
C15	Oesophagus	-	-	-	-	1	-	3	4	7	7	15	10	8	17	11	19	102	9.9
C16	Stomach	-	-	-	-	1	-	1	-	-	1	1	2	5	3	2	-	16	1.6
C17	Small Intestine	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	2	4	0.4
C18	Colon	-	-	-	1	-	-	1	1	3	3	1	2	1	1	1	4	19	1.8
C19-C20	Rectum	-	-	-	-	-	-	-	1	-	1	2	3	5	1	1	4	18	1.8
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	0.2
C22	Liver	-	-	-	-	-	1	1	-	6	7	17	19	22	15	13	10	111	10.8
C23-C24	Gallbladder etc.	-	-	-	-	-	-	-	2	1	1	4	2	8	6	5	6	35	3.4
C25	Pancreas	-	-	-	-	-	-	-	-	-	3	2	5	5	4	4	5	28	2.7
C30-C31	Nose, Sinuses etc.	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	3	0.3
C32	Larynx	-	-	-	-	-	-	-	3	-	9	8	5	7	7	4	5	48	4.7
C33-C34	Lung etc.	-	-	-	-	1	-	1	2	5	3	7	13	10	13	7	4	66	6.4
C37-C38	Other Thoracic Organs	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	2	0.2
C40-C41	Bone	-	-	1	-	1	1	2	1	1	-	-	2	1	-	1	2	13	1.3
C43	Melanoma of Skin	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2	0.2
C44	Other Skin	-	-	-	-	-	1	1	-	1	-	1	2	1	-	3	-	10	1.0
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	-	-	-	2	1	-	-	-	-	-	2	-	-	2	2	1	10	1.0
C50	Breast	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	2	0.2
C60	Penis	-	-	-	-	-	-	-	-	-	1	1	1	1	3	1	2	10	1.0
C61	Prostate	-	1	-	-	-	-	-	-	-	-	3	3	8	14	19	25	73	7.1
C62	Testis	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2	0.2
C63	Other Male Genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
C64	Kidney etc.	-	-	-	-	-	-	-	-	1	1	1	2	3	3	1	2	14	1.4
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0
C67	Urinary Bladder	-	-	-	-	-	-	1	-	-	1	3	10	7	6	5	3	36	3.5
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, Nervous System	-	1	1	-	1	1	1	2	3	-	3	2	3	4	2	-	24	2.3
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	-	4	0.4
C74	Adrenal Gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkins Disease	-	-	-	-	1	1	-	-	1	-	-	-	-	1	-	-	4	0.4
C82-C86, C96	NHL	1	-	-	-	1	1	1	2	2	2	1	4	5	5	1	3	29	2.8
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	-	1	-	2	1	3	2	2	1	2	14	1.4
C91	Lymphoid Leukaemia	2	2	1	-	1	-	1	2	-	3	-	1	2	2	-	1	18	1.8
C92-C94	Myeloid Leukaemia	-	-	-	-	1	1	1	2	-	2	1	3	-	1	2	3	17	1.7
C95	Leukaemia Unpacified	1	1	1	1	2	1	1	2	-	2	1	1	2	1	2	3	22	2.1
Other and Unpacified*		-	-	-	-	-	1	2	3	6	13	10	14	15	20	14	18	116	11.3
Total		4	5	4	5	13	10	20	33	55	81	113	134	141	150	119	141	1028	100.0

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

Table 36: Number of cancer deaths by five-year age group and site (ICD 10): 2017-2018
Females Sangrur 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	-	4	1	2	2	13	1.5
C03-C06	Mouth	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	3	7	0.8
C07-C08	Salivary Gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.1
C10	Oth. Oropharynx	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	0.2
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.1
C12-C13	Hypopharynx	1	-	-	-	-	-	-	1	-	-	-	2	2	1	-	1	8	0.9
C14	Pharynx Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	1	-	1	1	6	6	11	13	17	14	11	9	90	10.2
C16	Stomach	-	-	-	-	-	-	-	-	-	-	1	3	2	4	-	3	13	1.5
C17	Small Intestine	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.1
C18	Colon	-	-	-	-	-	-	-	-	1	1	1	2	3	1	2	3	14	1.6
C19-C20	Rectum	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	3	0.3
C21	Anus & Anal Canal	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	0.1
C22	Liver	1	-	-	-	-	-	-	1	-	4	7	3	8	5	3	1	33	3.8
C23-C24	Gallbladder etc.	-	-	-	-	-	1	2	1	4	6	14	9	14	5	12	8	76	8.6
C25	Pancreas	-	-	-	-	-	-	1	-	-	-	6	4	2	3	3	3	22	2.5
C30-C31	Nose, Sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	0.2
C32	Larynx	-	-	-	-	-	-	-	-	1	-	-	3	-	-	-	2	6	0.7
C33-C34	Lung etc.	-	-	-	-	-	-	1	-	5	3	7	6	3	2	1	3	31	3.5
C37-C38	Other Thoracic Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	Bone	-	-	1	4	-	-	-	2	1	1	1	1	-	-	1	1	13	1.5
C43	Melanoma of Skin	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2	0.2
C44	Other Skin	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3	4	0.5
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi Sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	Conn. & Soft Tissue	-	-	1	-	-	-	-	-	1	-	-	1	1	1	-	1	6	0.7
C50	Breast	-	-	-	-	-	2	2	9	16	27	13	22	17	23	17	12	160	18.2
C51	Vulva	-	-	-	-	-	-	-	-	-	-	1	-	1	2	3	1	8	0.9
C52	Vagina	-	-	-	-	-	-	-	-	-	1	1	-	2	-	3	-	7	0.8
C53	Cervix Uteri	-	-	-	-	-	1	1	5	8	8	18	13	14	10	5	11	94	10.7
C54	Corpus Uteri	-	-	-	-	-	-	-	-	-	-	4	1	4	1	-	1	11	1.3
C55	Uterus Unspecified	-	-	-	-	-	-	-	-	-	1	1	1	2	-	-	-	5	0.6
C56	Ovary etc.	-	-	-	-	1	-	4	2	3	3	7	10	12	8	4	8	62	7.1
C57	Other Female Genital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney etc.	-	-	-	-	-	-	-	-	-	3	1	1	-	1	-	2	8	0.9
C65	Renal Pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Urinary Bladder	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	1	4	0.5
C68	Unspecified Urinary Organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	Brain, Nervous System	-	2	2	-	-	1	-	1	4	5	3	4	1	2	1	1	27	3.1
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	2	-	5	2	-	3	12	1.4
C74	Adrenal Gland	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1
C81	Hodgkins Disease	-	-	1	-	1	-	-	-	-	-	1	1	-	-	-	1	5	0.6
C82-C86, C96	NHL	-	-	-	-	-	-	-	-	-	2	3	1	2	2	1	2	13	1.5
C88	Malig Imn.Prol D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple Myeloma	-	-	-	-	-	-	1	-	-	-	-	-	1	1	1	1	5	0.6
C91	Lymphoid Leukaemia	-	-	-	3	1	-	-	-	-	3	-	1	-	2	1	-	11	1.3
C92-C94	Myeloid Leukaemia	-	-	-	2	-	1	1	-	3	1	1	1	2	-	-	-	12	1.4
C95	Leukaemia Unspecified	-	-	1	1	1	-	-	-	1	2	-	1	-	1	1	1	10	1.1
Other & Unspecified*		-	-	-	-	-	2	-	2	5	2	9	12	12	11	7	13	75	8.5
Total		2	2	6	10	5	9	18	27	60	79	116	117	137	107	82	102	879	100.0

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

Table 37: Average annual Age Specific, Crude (CR), Age-Adjusted (AAR) and Truncated (35-64 yrs) (TR) Mortality Rate per 100,000 population: 2017-2018 – Males Sangrur 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	0.9	-	-	3.0	-	-	-	0.2	0.2	0.7
C01-C02	-	-	-	-	-	0.6	-	0.8	10.2	7.6	8.1	15.0	6.0	5.8	10.2	13.2	2.9	3.1	7.6
C03-C06	-	-	-	-	-	-	0.7	0.8	-	5.7	5.8	16.7	11.9	7.7	7.7	8.8	2.2	2.4	5.9
C07-C08	-	-	-	-	-	-	-	-	-	-	1.2	1.7	1.5	-	-	4.4	0.3	0.3	0.6
C09	-	-	-	-	-	-	-	-	2.6	-	3.5	-	-	1.9	-	2.2	0.4	0.4	1.1
C10	-	-	-	-	-	-	-	0.8	-	-	4.6	1.7	1.5	5.8	5.1	2.2	0.7	0.7	1.3
C11	-	-	-	0.5	-	-	-	-	0.9	0.9	1.2	-	1.5	-	-	-	0.3	0.3	0.7
C12-C13	-	-	-	-	0.5	-	-	-	-	1.9	3.5	3.3	4.5	11.6	5.1	4.4	1.1	1.2	1.9
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	-	0.1	0.1	-
C15	-	-	-	-	0.5	-	2.2	3.2	6.0	6.6	17.4	16.7	11.9	32.8	28.1	41.9	5.4	5.5	9.6
C16	-	-	-	-	0.5	-	0.7	-	-	0.9	1.2	3.3	7.4	5.8	5.1	-	0.8	0.9	1.8
C17	-	-	-	-	-	-	-	-	0.9	-	-	-	-	1.9	-	4.4	0.2	0.2	0.2
C18	-	-	-	0.5	-	-	0.7	0.8	2.6	2.8	1.2	3.3	1.5	1.9	2.6	8.8	1.0	1.0	2.0
C19-C20	-	-	-	-	-	-	-	0.8	-	0.9	2.3	5.0	7.4	1.9	2.6	8.8	0.9	1.0	2.3
C21	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	2.6	-	0.1	0.1	0.2
C22	-	-	-	-	-	0.6	0.7	-	5.1	6.6	19.7	31.8	32.7	28.9	33.2	22.1	5.8	6.3	13.8
C23-C24	-	-	-	-	-	-	-	1.6	0.9	0.9	4.6	3.3	11.9	11.6	12.8	13.2	1.8	1.9	3.4
C25	-	-	-	-	-	-	-	-	-	2.8	2.3	8.4	7.4	7.7	10.2	11.0	1.5	1.6	3.0
C30-C31	-	-	-	-	-	-	-	-	-	0.9	2.3	-	-	-	-	-	0.2	0.2	0.6
C32	-	-	-	-	-	-	-	2.4	-	8.5	9.3	8.4	10.4	13.5	10.2	11.0	2.5	2.7	6.0
C33-C34	-	-	-	-	0.5	-	0.7	1.6	4.3	2.8	8.1	21.7	14.9	25.1	17.9	8.8	3.5	3.8	7.7
C37-C38	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	2.6	-	0.1	0.1	0.2
C40-C41	-	-	0.5	-	0.5	0.6	1.5	0.8	0.9	-	-	3.3	1.5	-	2.6	4.4	0.7	0.7	0.9
C43	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	2.2	0.1	0.1	0.2
C44	-	-	-	-	-	0.6	0.7	-	0.9	-	1.2	3.3	1.5	-	7.7	-	0.5	0.5	1.0
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	-	-	-	1.0	0.5	-	-	-	-	-	2.3	-	-	3.9	5.1	2.2	0.5	0.5	0.4
C50	-	-	-	-	-	-	-	0.8	-	-	-	-	-	1.9	-	-	0.1	0.1	0.2
C60	-	-	-	-	-	-	-	-	-	0.9	1.2	1.7	1.5	5.8	2.6	4.4	0.5	0.6	0.8
C61	-	0.6	-	-	-	-	-	-	-	-	3.5	5.0	11.9	27.0	48.5	55.2	3.8	3.8	2.7
C62	-	-	-	-	-	-	0.7	0.8	-	-	-	-	-	-	-	-	0.1	0.1	0.2
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	0.9	0.9	1.2	3.3	4.5	5.8	2.6	4.4	0.7	0.8	1.5
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	0.7	-	-	0.9	3.5	16.7	10.4	11.6	12.8	6.6	1.9	2.1	4.2
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	-	0.6	0.5	-	0.5	0.6	0.7	1.6	2.6	-	3.5	3.3	4.5	7.7	5.1	-	1.3	1.3	2.4
C73	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	7.7	-	0.2	0.2	0.2
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	0.5	0.6	-	-	0.9	-	-	-	-	1.9	-	-	0.2	0.2	0.2
C82-C86, C96	0.7	-	-	-	0.5	0.6	0.7	1.6	1.7	1.9	1.2	6.7	7.4	9.6	2.6	6.6	1.5	1.6	3.0
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	0.8	-	1.9	1.2	5.0	3.0	3.9	2.6	4.4	0.7	0.8	1.7
C91	1.3	1.2	0.5	-	0.5	-	0.7	1.6	-	2.8	-	1.7	3.0	3.9	-	2.2	0.9	1.0	1.5
C92-C94	-	-	-	-	0.5	0.6	0.7	1.6	-	1.9	1.2	5.0	-	1.9	5.1	6.6	0.9	0.9	1.5
C95	0.7	0.6	0.5	0.5	1.0	0.6	0.7	1.6	-	1.9	1.2	1.7	3.0	1.9	5.1	6.6	1.2	1.2	1.5
O&U*	-	-	-	-	-	0.6	1.5	2.4	5.1	12.3	11.6	23.4	22.3	38.5	35.7	39.7	6.1	6.4	11.6
Total	2.7	3.0	2.1	2.4	6.6	6.1	14.9	26.3	46.8	76.5	131.1	224.0	209.8	289.1	303.5	311.2	54.0	56.8	106.1

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

Table 38: Average annual Age Specific, Crude (CR), Age-Adjusted (AAR) and Truncated (35-64 yrs) (TR) Mortality Rate per 100,000 Population: 2017-2018 – Females Sangrur 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	-	-	-	-	-	0.7	0.8	-	-	-	2.7	-	5.7	2.1	6.1	4.5	0.8	0.7	1.2
C03-C06	-	-	-	-	-	-	-	-	-	-	-	-	1.4	4.3	3.1	6.8	0.4	0.4	0.2
C07-C08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	-	0.1	0.1	-
C10	-	-	-	-	-	-	-	-	-	-	1.3	-	1.4	-	-	-	0.1	0.1	0.4
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	-	0.1	0.1	-
C12-C13	0.8	-	-	-	-	-	-	0.8	-	-	-	3.4	2.9	2.1	-	2.3	0.5	0.5	1.0
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	0.6	-	0.8	0.8	5.3	6.0	14.7	21.9	24.4	29.9	33.7	20.3	5.3	5.4	10.7
C16	-	-	-	-	-	-	-	-	-	-	1.3	5.1	2.9	8.5	-	6.8	0.8	0.8	1.2
C17	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	0.1	0.1	-
C18	-	-	-	-	-	-	-	-	0.9	1.0	1.3	3.4	4.3	2.1	6.1	6.8	0.8	0.8	1.6
C19-C20	-	-	-	-	-	-	0.8	1.6	-	-	-	-	-	-	-	-	0.2	0.1	0.3
C21	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	0.1	0.2
C22	0.8	-	-	-	-	-	-	0.8	-	4.0	9.3	5.1	11.5	10.7	9.2	2.3	2.0	2.1	4.6
C23-C24	-	-	-	-	-	0.7	1.6	0.8	3.5	6.0	18.7	15.2	20.1	10.7	36.8	18.1	4.5	4.5	9.6
C25	-	-	-	-	-	-	0.8	-	-	-	8.0	6.7	2.9	6.4	9.2	6.8	1.3	1.3	2.5
C30-C31	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	2.3	0.1	0.1	-
C32	-	-	-	-	-	-	-	-	0.9	-	-	5.1	-	-	-	4.5	0.4	0.3	0.8
C33-C34	-	-	-	-	-	-	0.8	-	4.4	3.0	9.3	10.1	4.3	4.3	3.1	6.8	1.8	1.9	4.8
C37-C38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-C41	-	-	0.7	2.4	-	-	-	1.6	0.9	1.0	1.3	1.7	-	-	3.1	2.3	0.8	0.7	1.1
C43	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	0.1	0.1	-
C44	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	6.8	0.2	0.2	0.2
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47+C49	-	-	0.7	-	-	-	-	-	0.9	-	-	1.7	1.4	2.1	-	2.3	0.4	0.3	0.6
C50	-	-	-	-	-	1.3	1.6	7.4	14.0	27.2	17.4	37.1	24.4	49.0	52.2	27.1	9.5	9.5	20.1
C51	-	-	-	-	-	-	-	-	-	-	1.3	-	1.4	4.3	9.2	2.3	0.5	0.5	0.4
C52	-	-	-	-	-	-	-	-	-	1.0	1.3	-	2.9	-	9.2	-	0.4	0.4	0.8
C53	-	-	-	-	-	0.7	0.8	4.1	7.0	8.1	24.0	21.9	20.1	21.3	15.3	24.9	5.6	5.6	13.0
C54	-	-	-	-	-	-	-	-	-	-	5.3	1.7	5.7	2.1	-	2.3	0.7	0.7	1.8
C55	-	-	-	-	-	-	-	-	-	1.0	1.3	1.7	2.9	-	-	-	0.3	0.3	1.0
C56	-	-	-	-	0.6	-	3.1	1.6	2.6	3.0	9.3	16.9	17.2	17.1	12.3	18.1	3.7	3.6	7.3
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	3.0	1.3	1.7	-	2.1	-	4.5	0.5	0.5	1.0
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	-	-	4.3	-	-	2.3	0.2	0.2	0.6
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-C72	-	1.5	1.4	-	-	0.7	-	0.8	3.5	5.0	4.0	6.7	1.4	4.3	3.1	2.3	1.6	1.6	3.5
C73	-	-	-	-	-	-	-	-	-	-	2.7	-	7.2	4.3	-	6.8	0.7	0.7	1.4
C74	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	0.1	0.1	0.2
C81	-	-	0.7	-	0.6	-	-	-	-	-	1.3	1.7	-	-	-	2.3	0.3	0.3	0.4
C82-C86, C96	-	-	-	-	-	-	-	-	-	2.0	4.0	1.7	2.9	4.3	3.1	4.5	0.8	0.8	1.6
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	0.8	-	-	-	-	-	1.4	2.1	3.1	2.3	0.3	0.3	0.2
C91	-	-	-	1.8	0.6	-	-	-	-	3.0	-	1.7	-	4.3	3.1	-	0.7	0.6	0.8
C92-C94	-	-	-	1.2	-	0.7	0.8	-	2.6	1.0	1.3	1.7	2.9	-	-	-	0.7	0.7	1.5
C95	-	-	0.7	0.6	0.6	-	-	-	0.9	2.0	-	1.7	-	2.1	3.1	2.3	0.6	0.6	0.8
O&U*	-	-	-	-	-	1.3	-	1.6	4.4	2.0	12.0	20.2	17.2	23.5	21.5	29.4	4.5	4.4	8.3
Total	1.6	1.5	4.1	6.1	2.9	6.0	14.1	22.2	52.6	79.7	154.9	197.1	196.5	228.2	251.6	230.6	52.2	52.1	105.7

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

22. Paediatric cancer incidence tables as per ICC-3 standard

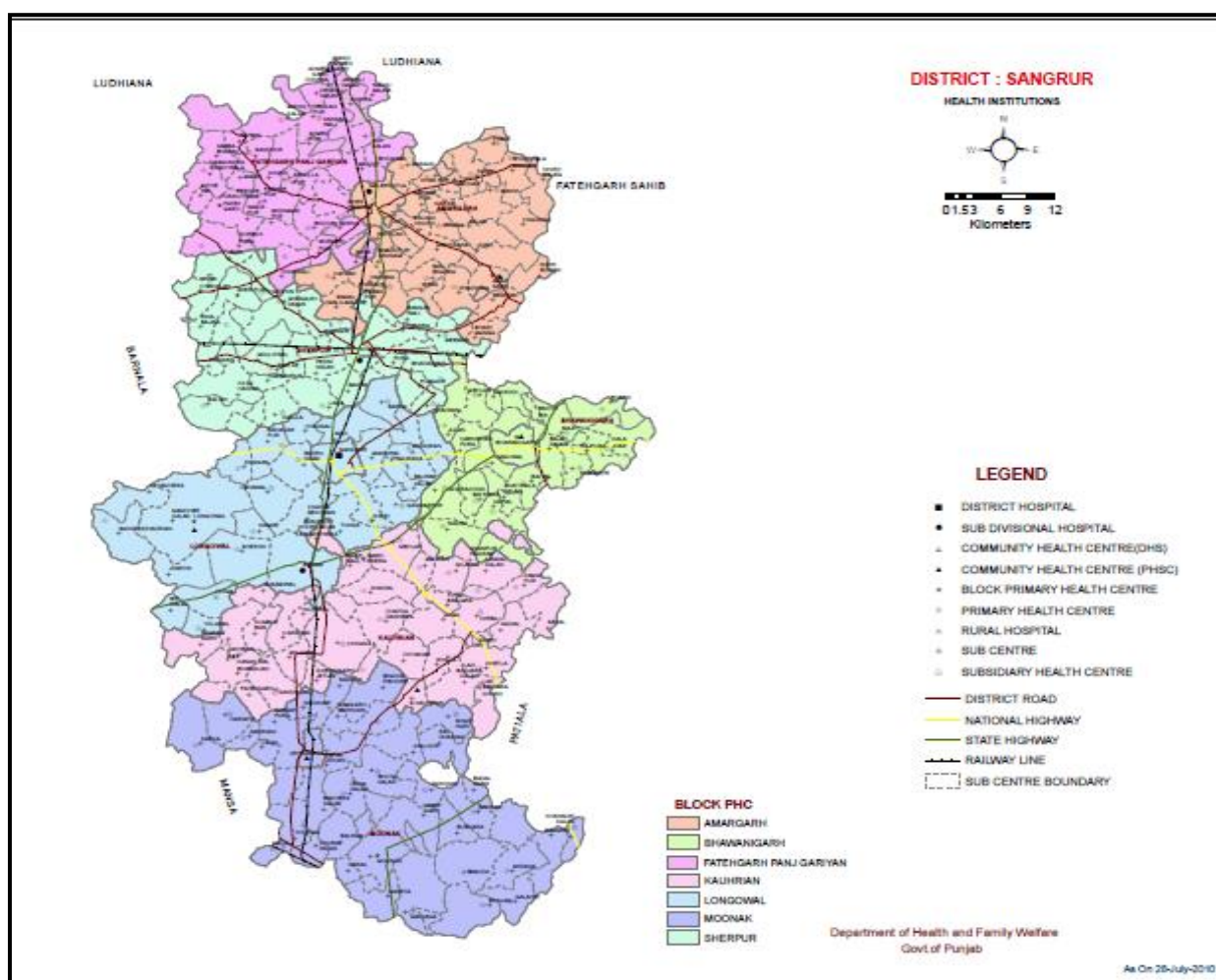
Table 39: Number of cases in paediatric age-group, incidence rate per million population: 2017-2018 (Both sex)

ICCC	Site	0-4	5-9	10-14	15-19	0-14	0-19	Percentage (0-14)		Percentage (0-19)		Age-specific rate per 1,000,000				AAR		Cumulative		MV % 0-19	DCO % 0-19
								All	Group	All	Group	0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19		
I	LEUKAEMIA	7	5	6	9	18	27	40.9	100	40.3	100	47.2	29.9	31.6	43.2	37.1	38.5	1839	1317	92.6	3.7
a.	Lymphoid	4	4	2	5	10	15	22.7	55.6	22.4	55.6	27.0	23.9	10.5	24.0	21.2	21.8	3255	2341	100	0.0
b.	Acute myeloid	-	-	1	2	1	3	2.3	5.6	4.5	11.1	-	-	5.3	9.6	1.5	3.3	37937	13452	100	0.0
c.	CMD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	MDS & other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	3	1	3	2	7	9	15.9	38.9	13.4	33.3	20.2	6.0	15.8	9.6	14.4	13.3	4759	3874	77.8	11.1
II	LYMPHOMA & RELATED	-	-	2	1	2	3	4.5	100	4.5	100	-	-	10.5	4.8	3.1	3.5	18969	13036	100	0.0
a.	Hodgkin	-	-	2	1	2	3	4.5	100	4.5	100	-	-	10.5	4.8	3.1	3.5	18969	13036	100	0.0
b.	Non-Hodgkin except BL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Burkitt (BL)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Lymphoreticular	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
III	CNS NEOPLASMS	2	5	2	2	9	11	20.5	100	16.4	100	13.5	29.9	10.5	9.6	17.9	16.1	3708	3148	81.8	9.1
a.	Ependymoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Astrocytoma	2	-	-	-	2	2	4.5	22.2	3.0	18.2	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
c.	CNS embryonal	-	3	1	-	4	4	9.1	44.4	6.0	36.4	0.0	17.9	5.3	-	7.3	5.7	8616	8616	100	0.0
d.	Other gliomas	-	1	-	1	1	2	2.3	11.1	3.0	18.2	-	6.0	-	4.8	1.9	2.6	33442	18556	100	0.0
e.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Unspecified CNS	-	1	1	1	2	3	4.5	22.2	4.5	27.3	-	6.0	5.3	4.8	3.5	3.8	17774	12461	33.3	33.3
IV	NEUROBLASTOMA	2	-	-	-	2	2	4.5	100	3.0	100	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
a.	(Ganglio)neuroblastoma	2	-	-	-	2	2	4.5	100	3.0	100	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
b.	Peripheral nervous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	RETINOBLASTOMA	-	1	-	-	1	1	2.3	100	1.5	100	-	6.0	-	-	1.9	1.5	33442	33442	100	0.0
VI	RENAL TUMOURS	2	-	-	-	2	2	4.5	100	3.0	100	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
a.	Nephroblastoma	2	-	-	-	2	2	4.5	100	3.0	100	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
b.	Renal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VII	HEPATIC TUMOURS	1	-	-	-	1	1	2.3	100	1.5	100	6.7	-	-	-	2.6	2.0	29649	29649	0.0	0.0
a.	Hepatoblastoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Hepatic carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	1	-	-	-	1	1	2.3	100	1.5	100	6.7	-	-	-	2.6	2.0	29649	29649	0.0	0.0
VIII	BONE TUMOURS	-	-	3	6	3	9	6.8	100	13.4	100	-	-	15.8	28.8	4.6	10.0	12646	4484	88.9	0.0
a.	Osteosarcoma	-	-	2	2	2	4	4.5	66.7	6.0	44.4	-	-	10.5	9.6	3.1	4.5	18969	9931	100	0.0
b.	Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Ewing & related	-	-	-	3	-	3	-	-	4.5	33.3	-	-	-	14.4	0.0	3.2	-	13895	100	0.0
d.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	1	1	1	2	2.3	33.3	3.0	22.2	-	-	5.3	4.8	1.5	2.3	37937	19861	50.0	0.0
IX	SOFT TISSUE SARCOMA	2	-	2	2	4	6	9.1	100	9.0	100	13.5	-	10.5	9.6	8.3	8.6	8321	5947	100	0.0
a.	Rhabdomyosarcoma	2	-	-	-	2	2	4.5	50.0	3.0	33.3	13.5	-	-	-	5.2	4.0	14825	14825	100	0.0
b.	Fibrosarcoma	-	-	-	1	-	1	-	-	1.5	16.7	-	-	-	4.8	0.0	1.1	-	41684	100	0.0
c.	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other specified	-	-	2	-	2	2	4.5	50.0	3.0	33.3	-	-	10.5	-	3.1	2.4	18969	18969	100	0.0
e.	Unspecified	-	-	-	1	-	1	-	-	1.5	16.7	-	-	-	4.8	0.0	1.1	-	41684	100	0.0
X	GERM CELL TUMOURS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a.	CNS germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other extragonadal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Gonadal germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Gonadal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified gonadal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
XI	CARCINOMA & MELANOMA	-	-	1	3	1	4	2.3	100	6.0	100	-	-	5.3	14.4	1.5	4.4	37937	10170	100	0.0
a.	Adrenocortical	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Thyroid	-	-	-	1	-	1	-	-	1.5	25.0	-	-	-	4.8	-	1.1	-	41684	100	0.0
c.	Nasopharyngeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Melanoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Skin carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Other & unspecified	-	-	1	2	1	3	2.3	100	4.5	75.0	-	-	5.3	9.6	1.5	3.3	37937	13452	100	0.0
XII	OTHER & UNSPECIFIED	1	-	-	-	1	1	2.3	100	1.5	100	6.7	-	-	-	2.6	2.0	29649	29649	0.0	0.0
a.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other unspecified	1	-	-	-	1	1	2.3	100	1.5	100	6.7	-	-	-	2.6	2.0	29649	29649	0.0	0.0
Total		17	11	16	23	44	67	100.0	100	100.0	100	114.7	65.8	84.4	110.4	90.1	94.7	756	534	89.6	3.0

Table 40: Number of cases in paediatric age-group, incidence rate per million population: 2017-2018 (By gender)

ICCC	Site	Males						Females											
		Number of cases in age groups						AAR per million		M/F Ratio		Number of cases in age groups						AAR per million	
		0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19	0-14	0-19	0-4	5-9	10-14	15-19	0-14	0-19	0-14	0-19
I	LEUKAEMIA	5	5	4	4	14	18	28.8	26.7	3.5	2.0	2	-	2	5	4	9	10.1	14.7
a.	Lymphoid	3	4	1	3	8	11	17.1	16.5	4.0	2.8	1	-	1	2	2	4	5.0	6.7
b.	Acute myeloid	-	-	1	-	1	1	1.5	1.2	-	0.5	-	-	-	2	-	2	-	2.7
c.	CMD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	MDS & other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	2	1	2	1	5	6	10.2	9.0	2.5	2.0	1	-	1	1	2	3	5.0	5.3
II	LYMPHOMA & RELATED	-	-	1	1	1	2	1.5	2.3	1.0	2.0	-	-	1	-	1	1	2.0	1.5
a.	Hodgkin	-	-	1	1	1	2	1.5	2.3	1.0	2.0	-	-	1	-	1	1	2.0	1.5
b.	Non-Hodgkin except BL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Burkitt (BL)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Lymphoreticular	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
III	CNS NEOPLASMS	1	2	1	1	4	5	8.0	7.3	0.8	0.8	1	3	1	1	5	6	12.2	10.9
a.	Ependymoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Astrocytoma	1	-	-	-	1	1	2.6	2.0	1.0	1.0	1	-	-	-	1	1	3.1	2.4
c.	CNS embryonal	-	2	1	-	3	3	5.4	4.2	3.0	3.0	-	1	-	-	1	1	2.4	1.9
d.	Other gliomas	-	-	-	-	-	-	-	-	0.0	0.0	-	1	-	1	1	2	2.4	3.2
e.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Unspecified CNS	-	-	-	1	-	1	-	1.1	0.0	0.5	-	1	1	-	2	2	4.4	3.4
IV	NEUROBLASTOMA	2	-	-	-	2	2	5.2	4.0	-	-	-	-	-	-	-	-	-	-
a.	(Ganglio)neuroblastoma	2	-	-	-	2	2	5.2	4.0	-	-	-	-	-	-	-	-	-	-
b.	Peripheral nervous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	RETINOBLASTOMA	-	1	-	-	1	1	1.9	1.5	-	-	-	-	-	-	-	-	-	-
VI	RENAL TUMOURS	1	-	-	-	1	1	2.6	2.0	1.0	1.0	1	-	-	-	1	1	3.1	2.4
a.	Nephroblastoma	1	-	-	-	1	1	2.6	2.0	1.0	1.0	1	-	-	-	1	1	3.1	2.4
b.	Renal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VII	HEPATIC TUMOURS	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	3.1	2.4
a.	Hepatoblastoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Hepatic carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Unspecified	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	3.1	2.4
VIII	BONE TUMOURS	-	-	-	1	-	1	-	1.1	0.0	0.1	-	-	3	5	3	8	5.9	11.5
a.	Osteosarcoma	-	-	-	-	-	-	-	-	0.0	0.0	-	-	2	2	2	4	3.9	5.8
b.	Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Ewing & related	-	-	-	-	-	-	-	-	-	0.0	-	-	-	3	-	3	-	4.1
d.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	-	1	-	1	-	1.1	0.0	1.0	-	-	1	-	1	1	2.0	1.5
IX	SOFT TISSUE SARCOMA	1	-	2	2	3	5	5.7	6.6	3.0	5.0	1	-	-	-	1	1	3.1	2.4
a.	Rhabdomyosarcoma	1	-	-	-	1	1	2.6	2.0	1.0	1.0	1	-	-	-	1	1	3.1	2.4
b.	Fibrosarcoma	-	-	-	1	-	1	-	1.1	-	-	-	-	-	-	-	-	-	-
c.	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Other specified	-	-	2	-	2	2	3.1	2.4	-	-	-	-	-	-	-	-	-	-
e.	Unspecified	-	-	-	1	-	1	-	1.1	-	-	-	-	-	-	-	-	-	-
X	GERM CELL TUMOURS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a.	CNS germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other extragonadal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
c.	Gonadal germ cell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Gonadal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Unspecified gonadal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
XI	CARCINOMA & MELANOMA	-	-	-	2	-	2	-	2.2	0.0	1.0	-	-	1	1	1	2	2.0	2.9
a.	Adrenocortical	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Thyroid	-	-	-	-	-	-	-	-	-	0.0	-	-	-	1	-	1	-	1.4
c.	Nasopharyngeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
d.	Melanoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
e.	Skin carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
f.	Other & unspecified	-	-	-	2	-	2	-	2.2	0.0	2.0	-	-	1	-	1	1	2.0	1.5
XII	OTHER & UNSPECIFIED	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	3.1	2.4
a.	Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
b.	Other unspecified	-	-	-	-	-	-	-	-	0.0	0.0	1	-	-	-	1	1	3.1	2.4
Total		10	8	8	11	26	37	53.8	53.6	1.4	1.2	7	3	8	12	18	30	44.5	51.0

23. Village-wise incidence and mortality cases: 2013-2018



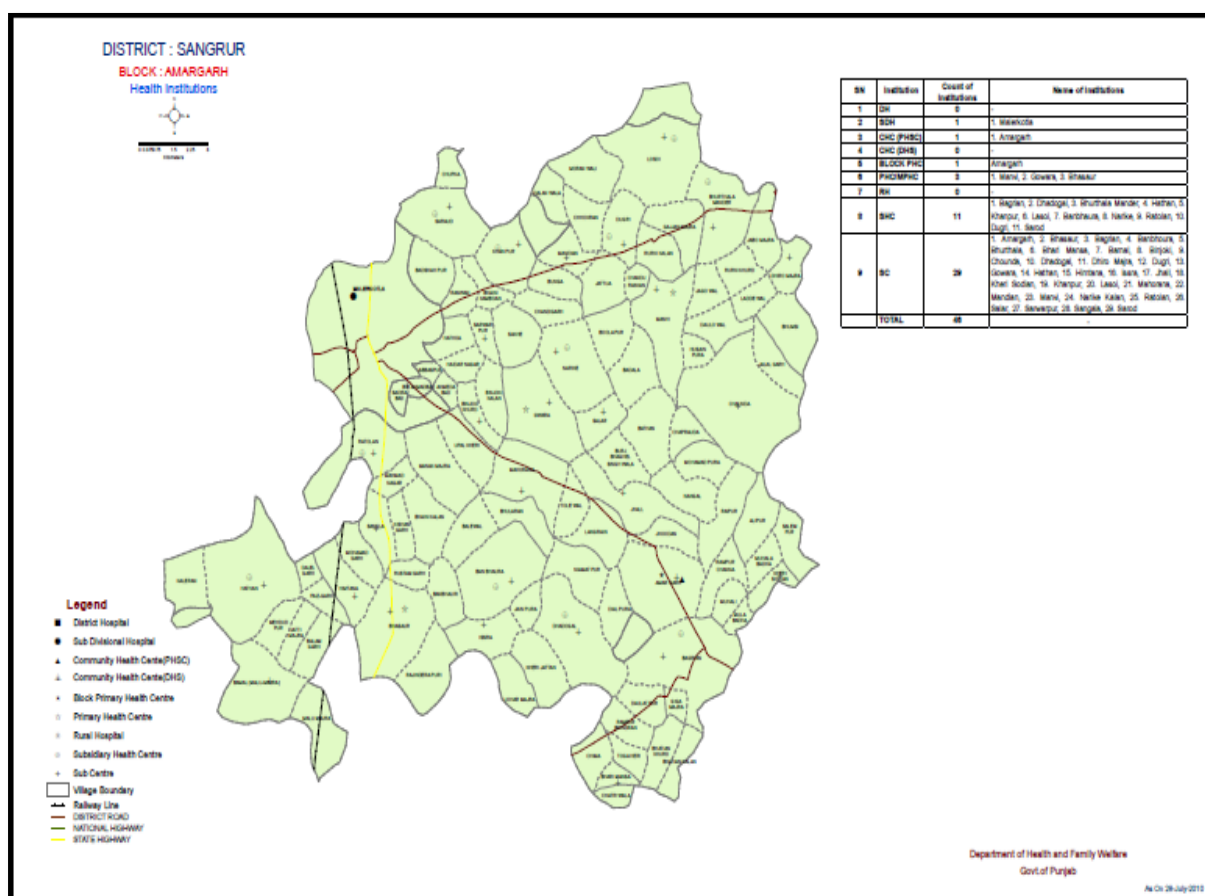
Village-wise Cancer Incidence Cases and Mortality Cases: Sangrur District

Area	Incidence (2013-2018)			Mortality (2013-2018)		
	Male	Female	Total	Male	Female	Total
Sangrur urban area	767	763	1530	489	380	869
Amargarh Block	314	316	630	248	213	461
Bhawanigarh Block	235	294	529	181	182	363
Fatehgarh Panjgrian	359	356	715	297	226	523
Kauhrian Block	390	489	879	287	314	601
Longowal Block	388	427	815	268	260	528
Moonak Block	563	522	1085	436	339	775
Sherpur Block	308	353	661	228	223	451
Total	3324	3520	6844	2434	2137	4571

Cancer incidence and mortality in urban area of Sangrur district

Area	Incidence (2013-2018)			Mortality (2013-2018)		
	Male	Female	Total	Male	Female	Total
Sangrur	233	302	535	135	140	275
Dhuri	128	137	265	79	54	133
Sunam	129	128	257	79	74	153
Malerkotla	277	196	473	196	112	308
Total	767	763	1530	489	380	869

Village-wise cancer incidence cases and mortality cases: Amargarh, Sangrur district

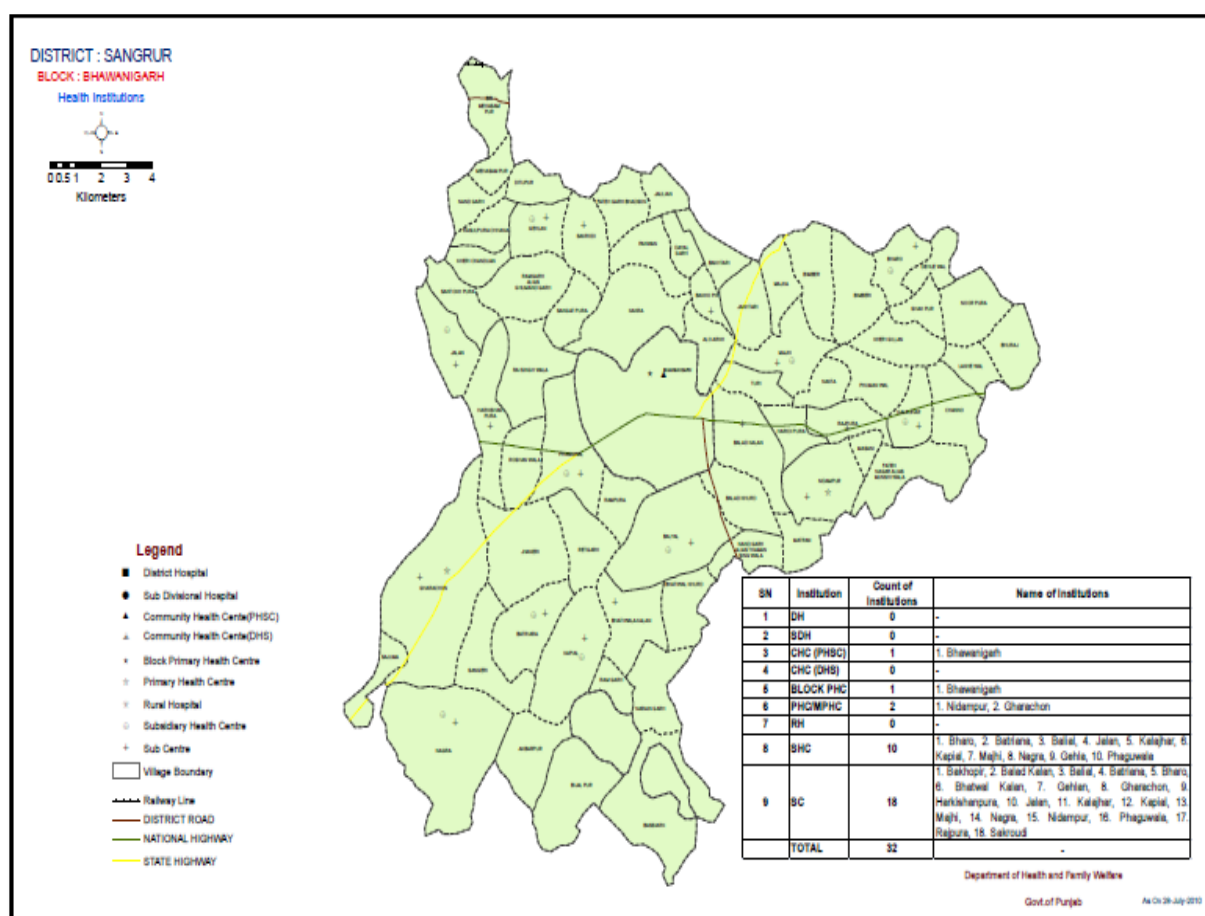


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Amargarh (Village)	12	18	30	13	11	24
2	Jhall	4	5	9	3	2	5
3	Alipur	7	1	8	3	0	3
4	Nangal	1	3	4	0	0	0
5	Raipur	6	4	10	2	3	5
6	Banbhoran (Budarheri)	9	6	15	7	6	13
7	Banbhori	4	2	6	4	1	5
8	Jati Majra	2	0	2	2	0	2
9	Mahorana	5	0	5	4	1	5
10	Derogawal	0	1	1	2	0	2
11	Bhullran	1	2	3	1	0	1
12	Tolewal	2	1	3	1	0	1
13	Bagrian	11	12	23	8	7	15
14	Giga majra	1	0	1	2	0	2
15	Daulatpur Channa	0	0	0	0	1	1
16	Kheri Sodhian	1	1	2	1	3	4
17	Mula Badan	0	2	2	0	1	1

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
18	Rampur Channa	3	4	7	1	2	3
19	Mohali	2	0	2	1	0	1
20	Mohala	3	1	4	1	1	2
21	Salempur (amargarh block)	0	1	1	0	1	1
22	Gowara	3	6	9	1	3	4
23	Uppoki (Uppal Kheri)	6	9	15	5	5	10
24	Binjoki Khurd	9	3	12	7	2	9
25	Binjoki Kalan	4	2	6	4	1	5
26	Beer Ahmedabad	1	0	1	0	0	0
27	manak Majra	5	4	9	5	2	7
28	Narike Kalan	7	11	18	3	6	9
29	Narike Khurd	1	1	2	1	1	2
30	Sehke	0	3	3	0	2	2
31	Salar	3	4	7	3	3	6
32	Batha	4	3	7	6	3	9
33	Langria	3	5	8	1	4	5
34	Mohamadpur	0	1	1	0	0	0
35	Burj Baghel	4	1	5	4	1	5
36	Chaprauda	0	1	1	0	1	1
37	Manvi	5	8	13	3	8	11
38	Bullanpur	2	1	3	1	0	1
39	Badla	2	3	5	2	1	3
40	Husainpura (Amargarh Block)	1	0	1	1	0	1
41	Chaunda	10	18	28	9	13	22
42	Lasoi	8	12	20	6	11	17
43	Rurki Kalan	3	3	6	2	3	5
44	Bhurthala Mander	7	5	12	5	2	7
45	Gajjan Majra	0	2	2	0	1	1
46	Rurki Khurd	2	3	5	1	2	3
47	jaggowal	4	1	5	3	0	3
48	Dolowal	2	1	3	0	0	0
49	Dhiromajra	2	0	2	1	0	1
50	Bhumsi	1	0	1	1	0	1
51	Jalalgarh	0	2	2	1	2	3
52	Iadewal	0	1	1	0	1	1
53	jabomajra	2	2	4	1	1	2
54	Khanpur	4	2	6	2	3	5
55	Jattuan	4	0	4	3	0	3
56	Bhaini Kamoan	3	2	5	3	2	5
57	Mandian	6	0	6	4	0	4
58	Dalanwal	2	1	3	3	0	3
59	Badesha	1	2	3	0	1	1
60	Bunga	2	0	2	0	0	0
61	Dugri	6	3	9	6	2	8

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
62	Moranwali	2	1	3	1	1	2
63	Chhokran	3	3	6	3	3	6
64	Sarod	5	7	12	3	6	9
65	Chupka	0	1	1	0	0	0
66	Badshahpur	3	2	5	2	1	3
67	Sarwarpur	4	4	8	4	3	7
68	Radwan	4	0	4	4	0	4
69	Haidarnagar	2	1	3	2	1	3
70	Hathoa	3	4	7	2	3	5
71	Bhasaur	5	10	15	6	7	13
72	Rajindra Puri	3	4	7	2	5	7
73	Rustam Garh	1	0	1	1	0	1
74	Issra	3	6	9	5	5	10
75	Cheema (Amargarh Block)	1	5	6	1	2	3
76	Lohar Majra	1	3	4	2	3	5
77	Dhaddhogal	9	7	16	8	3	11
78	Niamatpur	1	3	4	1	0	1
79	Kheri Jattan	2	2	4	2	2	4
80	Dialpur Channa	1	0	1	1	0	1
81	Bhari Mansa	2	5	7	3	5	8
82	Bhattian Khurd	0	3	3	0	1	1
83	Bhattian Kalan	0	2	2	0	2	2
84	Togaheri	0	1	1	0	1	1
85	Rampur Bhindra	1	1	2	1	1	2
86	Ratolan (Amargarh Block)	4	5	9	3	1	4
87	Bhaini Kalan	6	2	8	4	1	5
88	Sangala	3	3	6	3	3	6
89	Sangali	2	1	3	1	1	2
90	Himtana	4	4	8	2	2	4
91	Mohamadgarh	2	1	3	2	2	4
92	Faizgarh	4	0	4	2	0	2
93	Dalelgarh	7	8	15	5	6	11
94	Hathan	7	9	16	4	5	9
95	Kaleran	4	3	7	4	5	9
96	Bamal	7	9	16	5	4	9
97	Balamgarh	2	0	2	3	0	3
98	Malumajra	0	2	2	0	1	1
99	Dugni	3	4	7	2	0	2
Total		314	316	630	248	213	461

Village-wise cancer incidence cases and mortality cases: Bhawanigarh, Sangrur district

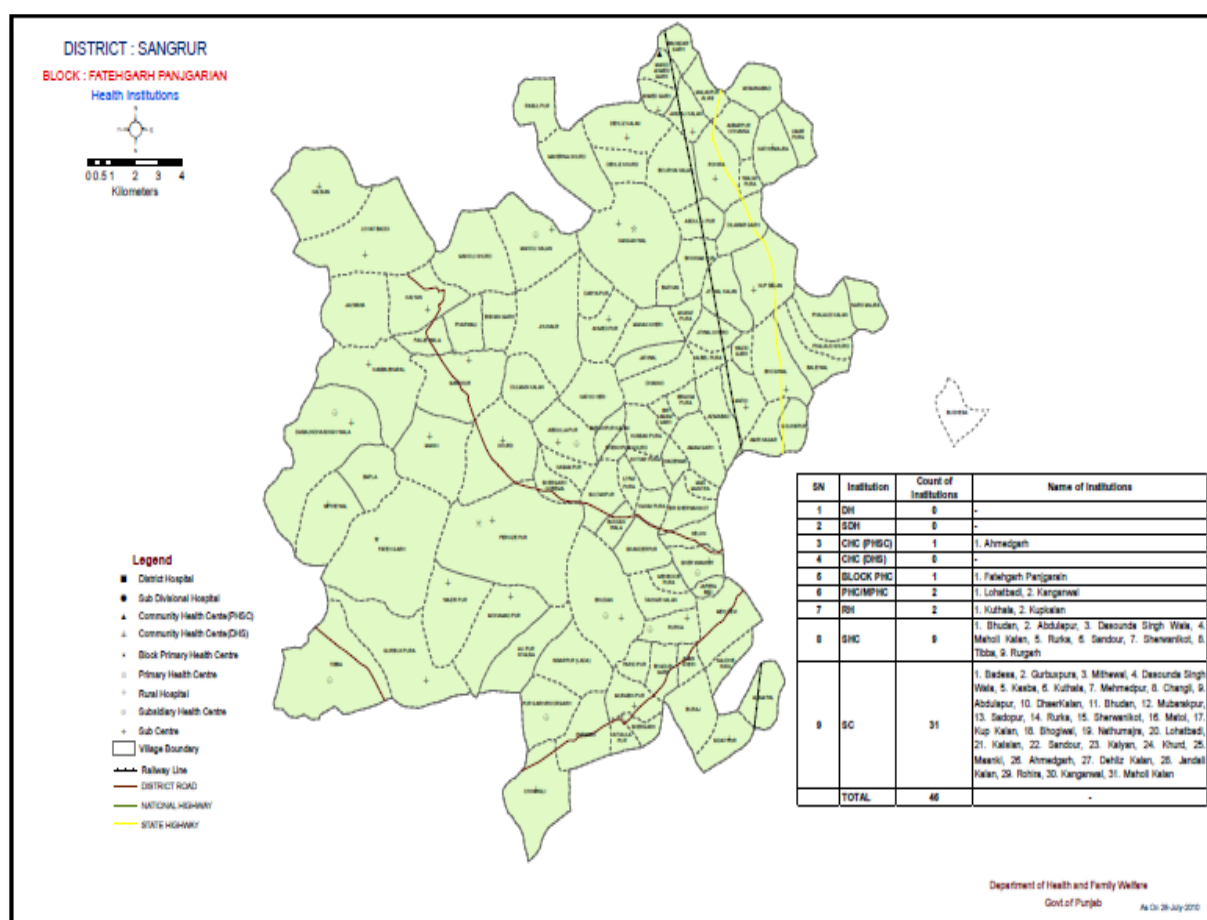


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Bhawanigarh	45	62	107	36	31	67
2	Nadampur	9	7	16	10	5	15
3	Nakte	1	1	2	0	1	1
4	Mattran	3	2	5	1	2	3
5	Hardipura	1	3	4	2	1	3
6	Balial	10	12	22	6	8	14
7	Retgarh	3	2	5	2	1	3
8	Bhatiwai Khurd	1	2	3	0	0	0
9	Rajpura	1	3	4	1	2	3
10	Masani	1	1	2	0	0	0
11	Munshiwal	4	4	8	3	3	6
12	Phamanwal	2	1	3	2	3	5
13	Shahpur (Bhawanigarh Block)	2	3	5	2	2	4
14	Majhi	10	5	15	5	5	10
15	Majha	4	2	6	4	2	6
16	Bakhtra	4	2	6	5	0	5

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
17	Bakhtri	3	3	6	3	1	4
18	Jalan	3	2	5	2	1	3
19	Santokhpura	0	1	1	0	0	0
20	Rasulpur chhana	0	1	1	0	1	1
21	Nandgarh (Thaman singh wala, Nawa Pind)	1	2	3	1	2	3
22	Mehsampur	5	4	9	4	3	7
23	Kheri Chandwan	2	0	2	1	0	1
24	Gehlan	1	2	3	1	1	2
25	Ditupura	0	1	1	0	1	1
26	Sangatpura (Bhawanigarh Block)	1	2	3	1	1	2
27	Fatehgarh Bhadson	4	4	8	1	4	5
28	Panwan	2	3	5	4	1	5
29	Jaulian	2	2	4	2	0	2
30	Bhatiwala Kalan	8	16	24	8	11	19
31	Bassiarkh	3	6	9	3	3	6
32	Kalajhar	1	4	5	1	2	3
33	Channo	1	1	2	0	2	2
34	Kheri Gillan	0	1	1	0	1	1
35	Lakhewal	1	0	1	0	0	0
36	Bharaj	1	2	3	0	1	1
37	Balad Kalan	4	5	9	4	5	9
38	Balad Khurd	4	3	7	3	1	4
39	Balad Kothi	1	2	3	1	1	2
40	Turi	0	1	1	0	1	1
41	Harkishanpura	2	3	5	0	1	1
42	Rai Singh Wala	2	4	6	2	1	3
43	Kakra	4	3	7	4	1	5
44	Sakrodi	1	2	3	1	1	2
45	Dialgarh (Bhwanigarh Block)	3	2	5	1	2	3
46	Aloarkh	3	5	8	1	0	1
47	Nagra	8	12	20	9	8	17
48	Sajuma	0	1	1	0	1	1
49	Akbarpur	4	5	9	3	3	6
50	Phaguwala	4	6	10	4	1	5
51	Rampura (Bhawanigarh block)	6	7	13	6	4	10
52	Roshanwala	1	2	3	1	1	2
53	Bharo	2	4	6	2	3	5
54	Dehlewal	0	1	1	0	1	1
55	Bimbari	0	3	3	1	2	3
56	Bimbar	0	1	1	0	1	1
57	Noorpura	3	3	6	1	1	2
58	Batriana	4	3	7	2	1	3
59	Jhaneri	8	8	16	8	3	11

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
60	Bakhopir	0	4	4	0	4	4
61	Gharachon	18	18	36	11	18	29
62	Sanghreri	4	4	8	0	6	6
63	Kapial	3	6	9	2	3	5
64	Ramgarh	1	0	1	1	0	1
65	Naraingarh	2	3	5	1	3	4
66	Bijalpur	1	4	5	0	2	2
67	Nandgarh	2	0	2	1	0	1
Total		235	294	529	181	182	363

Village-wise cancer incidence cases and mortality cases: Fatehgarh Panjgarian, Sangrur district

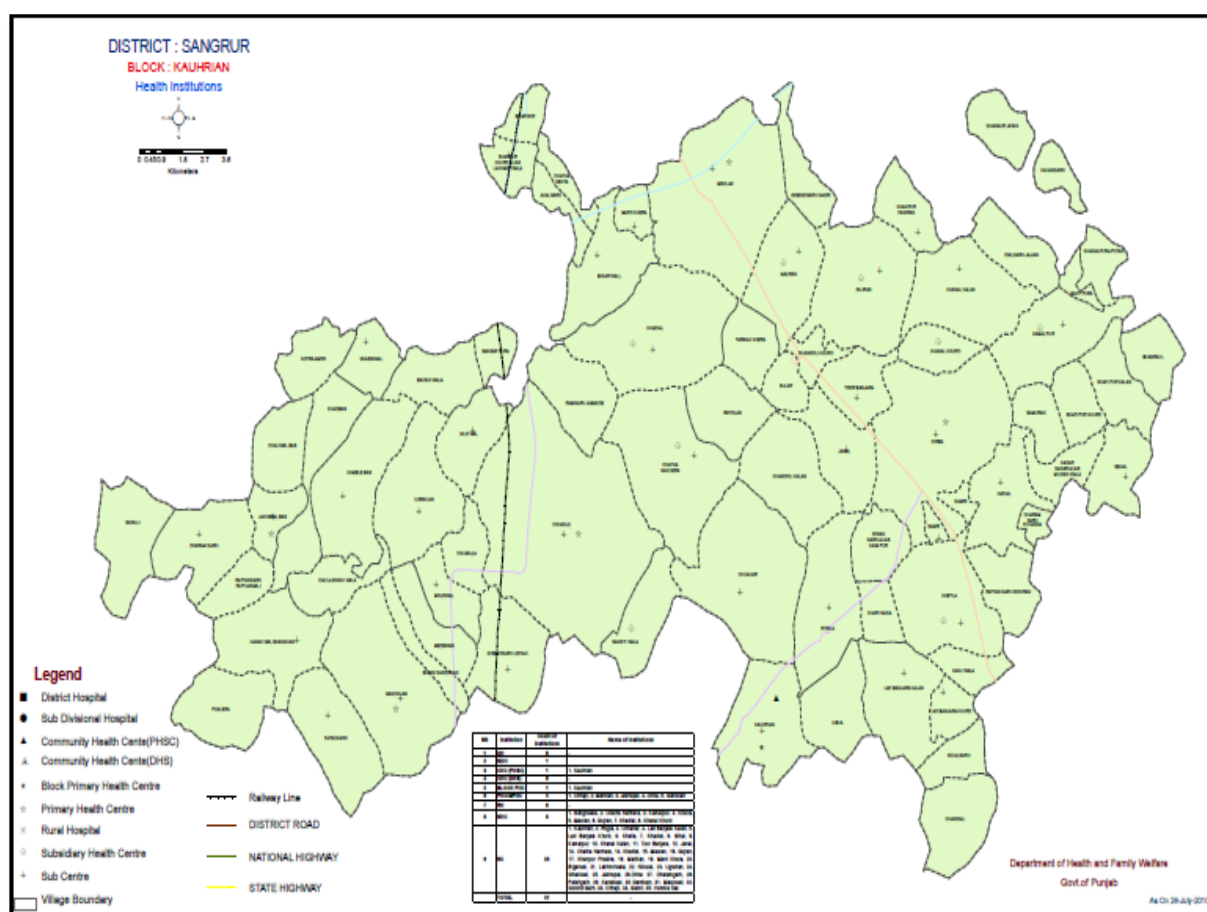


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Fatehgarh Panjgarian(Village)	4	12	16	4	8	12
2	Abdulapur	4	1	5	3	2	5
3	Chak Kalan	1	2	3	2	2	4
4	Chak Khurd	0	1	1	0	1	1
5	Husainpura (F.Panj Block)	2	5	7	1	2	3
6	Dhadhewari	2	1	3	2	1	3
7	Manmajra	1	1	2	0	0	0
8	Budhrwan	0	1	1	0	0	0
9	Ahmedgarh	42	39	81	30	21	51
10	Dhadhewara	5	0	5	6	0	6
11	Sultanpur Badesha	2	2	4	1	2	3
12	Bhogiwal	6	5	11	6	4	10
13	Balewal	3	5	8	2	4	6
14	Phalound Kalan	5	4	9	3	1	4
15	Phalound Khurd	0	3	3	0	1	1
16	Naromajra	5	2	7	5	0	5

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
17	Bhudan	6	4	10	6	3	9
18	Takhar Kalan	3	4	7	1	2	3
19	Takhar Khurd	6	5	11	4	2	6
20	Bukanwal	1	0	1	1	1	2
21	Changli	8	6	14	8	3	11
22	Roorgarh	3	0	3	2	0	2
23	Pharwahi	5	2	7	3	0	3
24	Dasaunda Singh Wala	0	4	4	0	2	2
25	Bapla	1	1	2	0	0	0
26	Dehliz kalan	4	3	7	4	2	6
27	Dehliz khurd	4	2	6	4	1	5
28	Ahmedgarh Channa	0	2	2	0	1	1
29	Dhaler Kalan	8	7	15	9	7	16
30	Jatiwal Arian	1	0	1	0	0	0
31	Jatiwal	1	2	3	1	1	2
32	Dhano	3	1	4	3	1	4
33	Nathoheri	2	5	7	1	3	4
34	Tibba	6	7	13	4	6	10
35	Gurbaxpura	5	4	9	3	3	6
36	Jandali Kalan	5	3	8	4	3	7
37	Jandali Khurd	4	3	7	3	3	6
38	Borhai Kalan	5	1	6	3	0	3
39	Kalyan	6	7	13	3	5	8
40	Maholi Khurd	4	3	7	5	2	7
41	Kanganwal	9	7	16	8	4	12
42	Dhaler Khurd	1	1	2	1	1	2
43	Borhai Khurd	3	2	5	3	3	6
44	Kasba	1	4	5	2	3	5
45	Jalwana	4	0	4	3	0	3
46	Khurd	13	7	20	10	5	15
47	Jhaner	3	6	9	2	4	6
48	Dulma Kalan	2	1	3	1	0	1
49	Kup Kalan	6	7	13	4	4	8
50	Jitwal Kalan	4	7	11	2	5	7
51	Jitwal Khurd	1	5	6	0	3	3
52	Begowal	3	1	4	3	0	3
53	Bathan	4	0	4	3	0	3
54	Kuthala	13	9	22	12	4	16
55	Shergarh Cheema	4	1	5	3	0	3
56	Kasapur	3	4	7	3	3	6
57	Mahmadpur	9	7	16	6	2	8
58	Alipur Khalsa	6	4	10	6	3	9
59	Isapur Landa	1	3	4	1	2	3
60	Maholi Kalan	4	6	10	3	2	5

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
61	Maherna Khurd	1	1	2	1	1	2
62	Rasulpur	1	1	2	0	1	1
63	Manki	4	1	5	6	1	7
64	Matoi	2	3	5	1	3	4
65	Sangain	2	4	6	2	3	5
66	Amirnagar Dulma	4	5	9	3	3	6
67	Imamgarh	2	5	7	2	4	6
68	Bir Imamgarh	0	1	1	0	0	0
69	Ibrahimpura	1	0	1	1	0	1
70	Albelapur (Rodiwal)	3	1	4	3	1	4
71	Wazidpur Badesha (Rohna)	5	5	10	4	1	5
72	Manakheri+Anaditpura	3	4	7	4	3	7
73	Mithewal	3	2	5	3	1	4
74	Mubarkpur	2	9	11	1	2	3
75	Faridpur Kalan	1	4	5	1	2	3
76	Faridpur Khurd	0	1	1	0	1	1
77	Nathumajra	2	2	4	2	2	4
78	Umarpura	1	3	4	1	2	3
79	Momnabad	2	5	7	2	3	5
80	Falewal	2	2	4	2	1	3
81	Rohira	6	4	10	5	3	8
82	Kup Khurd	3	7	10	3	6	9
83	Akbarpur Chhanna	2	6	8	1	3	4
84	Rurka	2	3	5	1	2	3
85	Aahen Kheri	2	0	2	2	0	2
86	Madevi	3	1	4	3	2	5
87	Barkatpura	3	2	5	3	1	4
88	Sadipur	6	4	10	6	3	9
89	Aadam Wal	0	1	1	0	0	0
90	Naudhrani	3	5	8	2	3	5
91	Burj	3	3	6	2	4	6
92	Sandaur	4	8	12	4	7	11
93	Bishangarh	0	2	2	0	2	2
94	Pharwali	4	2	6	3	1	4
95	Sherwanikot	3	3	6	4	1	5
96	Sikanderpura	5	3	8	4	3	7
97	Hakimpura	2	0	2	2	1	3
98	Alipura	0	1	1	0	1	1
Total		359	356	715	297	226	523

Village-wise cancer incidence cases and mortality cases: Kauhrian, Sangrur district

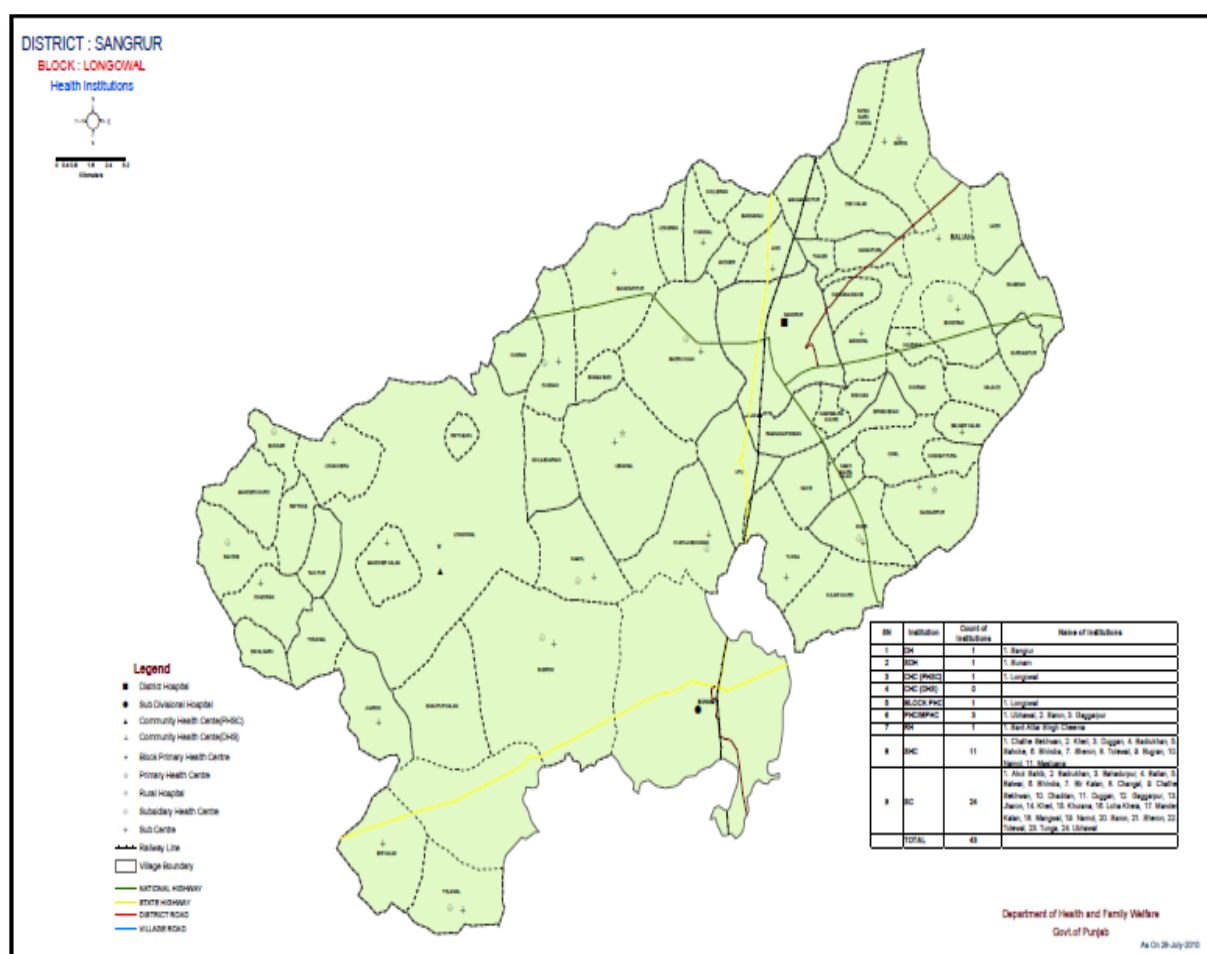


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Kauhrian(village)	15	7	22	11	3	14
2	Sangtiwala	12	4	16	7	1	8
3	Santpura	1	1	2	1	1	2
4	Rogla	7	13	20	5	11	16
5	Camper	8	5	13	6	2	8
6	Chahhar	14	10	24	11	9	20
7	Laadbanjara Kalan	5	8	13	3	5	8
8	Ubhyan	4	4	8	4	5	9
9	Nagakheri	1	1	2	1	0	1
10	Laadbanajara Khurd	3	2	5	2	2	4
11	Nihargarh	2	2	4	1	1	2
12	Dhandial	2	6	8	3	2	5
13	Kakuwala	4	2	6	4	1	5
14	Rampur Kothe	1	1	2	1	1	2
15	Chhajli	27	28	55	21	17	38
16	Khetla	3	7	10	2	5	7

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
17	Rampur Gujran	2	1	3	1	1	2
18	Kadial	5	8	13	3	5	8
19	Smooran	2	1	3	1	2	3
20	Dharamgarh Channa	1	1	2	0	1	1
21	Sihal	2	6	8	0	4	4
22	Safipur Kalan	3	5	8	1	3	4
23	Safipur Khurd	0	1	1	0	0	0
24	Baghrol	3	6	9	2	1	3
25	Kamalpur	6	4	10	5	4	9
26	Ghanaur Rajputan	1	6	7	1	4	5
27	Khanal Kalan	9	9	18	8	5	13
28	Dialgarh (Kauhrian Block)	1	5	6	3	2	5
29	Toorbanjara	9	9	18	4	5	9
30	Khanal Khurd	2	3	5	1	1	2
31	Dhandoli Khurd	5	2	7	2	1	3
32	Janal	15	16	31	12	10	22
33	Dhandoli Kalan	4	8	12	3	4	7
34	Chathe Nanhera	5	12	17	5	9	14
35	Ratolan (Kauhrian Block)	3	4	7	3	3	6
36	Ugrahan	9	9	18	8	6	14
37	Bakshiwala	8	5	13	4	4	8
38	Ghasiwala	1	6	7	0	3	3
39	Amrukotra	2	5	7	2	3	5
40	Jakhepal Was (Jakhepal)	5	2	7	5	1	6
41	Dhaliwas (Jakhepal)	3	5	8	2	3	5
42	Hambalwas (Jakhepal)	5	9	14	2	7	9
43	Chauwas (Jakhepal)	8	10	18	6	6	12
44	Dharamgarh	7	5	12	5	2	7
45	Satauj	5	13	18	4	8	12
46	Fatehgarh	1	3	4	0	1	1
47	Falera	4	7	11	3	4	7
48	Kanakwal	6	2	8	4	2	6
49	Rattangarh	1	2	3	1	2	3
50	Daula Singh Wala	1	5	6	0	4	4
51	Ghanduan	6	11	17	4	4	8
52	Bhaini	0	3	3	1	1	2
53	Mojowal	1	5	6	1	2	3
54	Maidewas	3	6	9	4	3	7
55	Chhajla	4	3	7	2	3	5
56	Gobindgarh	2	9	11	2	7	9
57	Khadial	8	13	21	8	13	21
58	Taranjikhhera	3	5	8	2	4	6
59	Khadial Kothe	1	4	5	0	3	3
60	Mauran	10	5	15	9	3	12

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
61	Gobindpura Nagri	2	6	8	0	4	4
62	Gujran	8	14	22	4	10	14
63	Sullar	3	3	6	2	3	5
64	Gharat	1	3	4	1	4	5
65	Khanpur Fakira	8	3	11	4	3	7
66	Ghanaur Jatan	0	1	1	1	0	1
67	Kahangarh	0	7	7	0	6	6
68	Mehlan	13	11	24	7	5	12
69	Mardkhera	0	1	1	0	1	1
70	Bishanpura	7	1	8	7	1	8
71	Biggarwal	12	9	21	8	6	14
72	Jaggatpura	1	1	2	1	1	2
73	Lakhmirwala	0	5	5	0	3	3
74	Bharoor	1	6	7	1	4	5
75	Akalgarh	1	1	2	1	0	1
76	Nakte Chathe	1	2	3	1	1	2
77	Nilowal	6	11	17	4	8	12
78	Jawandhe	1	6	7	1	2	3
79	Tibi Basti Gurbakshpura	0	2	2	0	2	2
80	Dirba	34	35	69	27	20	47
81	Gamri	0	1	1	0	0	0
Total		390	489	879	287	314	601

Village-wise cancer incidence cases and mortality cases: Longowal, Sangrur district

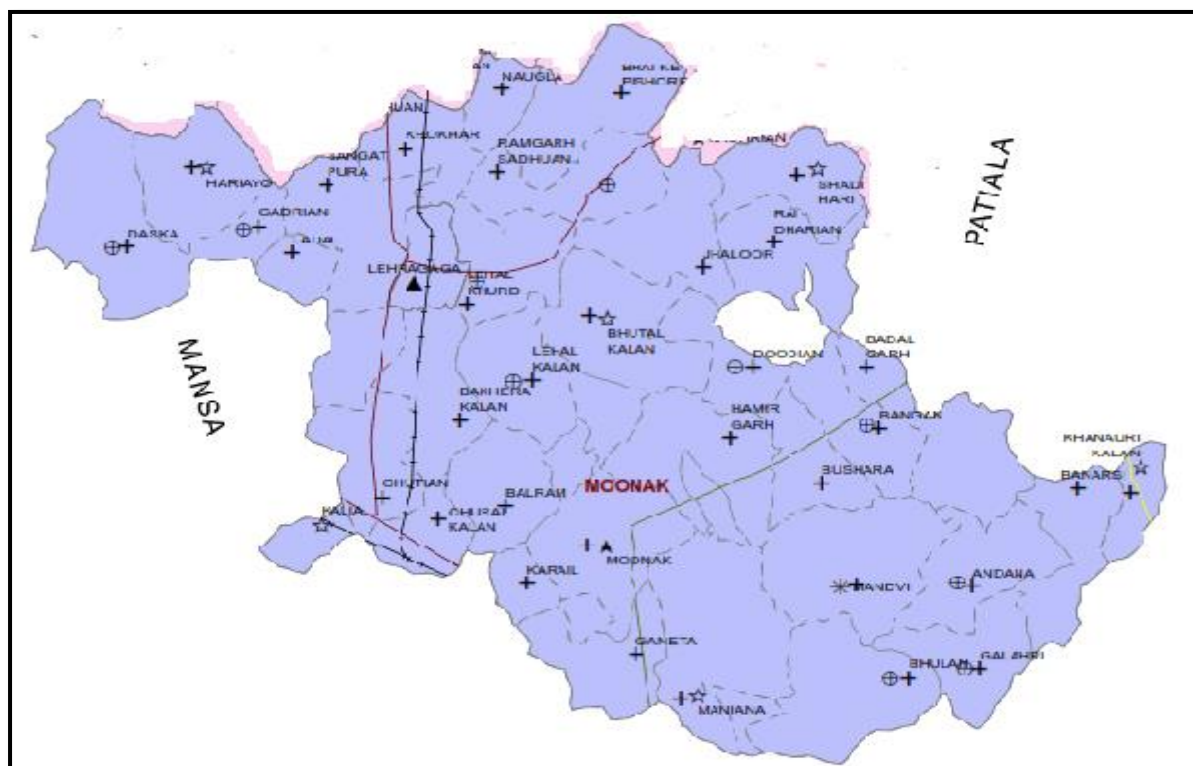


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Ubhawal	20	21	41	17	18	35
2	Namol	12	18	30	11	10	21
3	Chathe	9	10	19	7	7	14
4	Uppli	8	8	16	5	6	11
5	Sheron	10	19	29	6	11	17
6	Badrukhan	16	17	33	13	7	20
7	Duggan	14	13	27	11	8	19
8	Kunran	8	5	13	4	5	9
9	Bahadurpur	10	10	20	7	5	12
10	Bhamabaddi	3	1	4	4	1	5
11	Changal	3	5	8	1	3	4
12	Lidhran	7	2	9	4	2	6
13	Hreri	3	2	5	2	0	2
14	Khilrian	1	5	6	1	3	4
15	Akoi Sahib	3	6	9	2	2	4

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
16	Thlesan	1	1	2	0	3	3
17	Banggawali	4	4	8	3	0	3
18	Dehkalan	0	2	2	1	1	2
19	Sarron	6	13	19	5	6	11
20	Fatehgarh Channa	8	1	9	4	3	7
21	Balian (Longowal Block)	6	6	12	2	4	6
22	Rupa Heri	0	5	5	0	2	2
23	Bhindran	7	3	10	4	3	7
24	Kaloudi	5	4	9	1	2	3
25	Mohamadpur Channa	0	0	0	1	0	1
26	Mangwal	9	10	19	4	6	10
27	Gurdaspur	1	2	3	1	1	2
28	Ghabadan	5	7	12	1	3	4
29	Ellwal	6	7	13	3	4	7
30	Sohian	3	2	5	1	2	3
31	Kheri	5	6	11	5	6	11
32	Kamomajra Khurad	4	7	11	0	6	6
33	Kamomajra kalan	2	3	5	3	1	4
34	Sibia	2	1	3	2	1	3
35	Tunggan	6	2	8	4	3	7
36	Kularkhurd	7	11	18	7	7	14
37	Kanoi	2	4	6	2	3	5
38	Khurana	4	4	8	3	2	5
39	Balbad Kalan	1	3	4	1	3	4
40	Jheor Majra (Sohian Khurd)	1	0	1	1	0	1
41	Balbad Khurd	3	0	3	2	0	2
42	Cheema (Longowal Block)	22	24	46	12	15	27
43	Laddi	3	3	6	2	3	5
44	Mander Kalan	1	6	7	0	4	4
45	Kila Bharian	4	4	8	2	3	5
46	Pindian	0	1	1	0	1	1
47	Dhadrian	4	4	8	4	2	6
48	Togewal	8	10	18	5	3	8
49	Dialgarh (Longowal Block)	7	4	11	4	1	5
50	Ratoke	3	5	8	2	2	4
51	Loha khera	12	8	20	8	6	14
52	Mander Khurd	3	2	5	4	1	5
53	Buggar	1	2	3	2	2	4
54	Sahoke	1	5	6	2	2	4
55	Jharron	7	10	17	7	5	12
56	Shahpur (Longowal Block)	6	10	16	3	7	10
57	Tolawal	4	2	6	6	2	8
58	Bir Kalan	6	5	11	2	3	5
59	Longowal (Village)	61	61	122	40	27	67

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
60	Khurani	1	1	2	0	1	1
61	Bhagwanpura Naiwala	0	1	1	0	1	1
62	Gagarpur	8	4	12	6	4	10
63	Jheor Majra (Sohian Khurd)	0	0	0	0	1	1
64	Ganga Singh Wala	0	2	2	0	2	2
65	Nanakpur (Zulamgarh)	1	1	2	1	1	2
66	Jharron (Satti)	0	2	2	0	1	1
Total		388	427	815	268	260	528

Village-wise cancer incidence cases and mortality cases: Moonak, Sangrur district

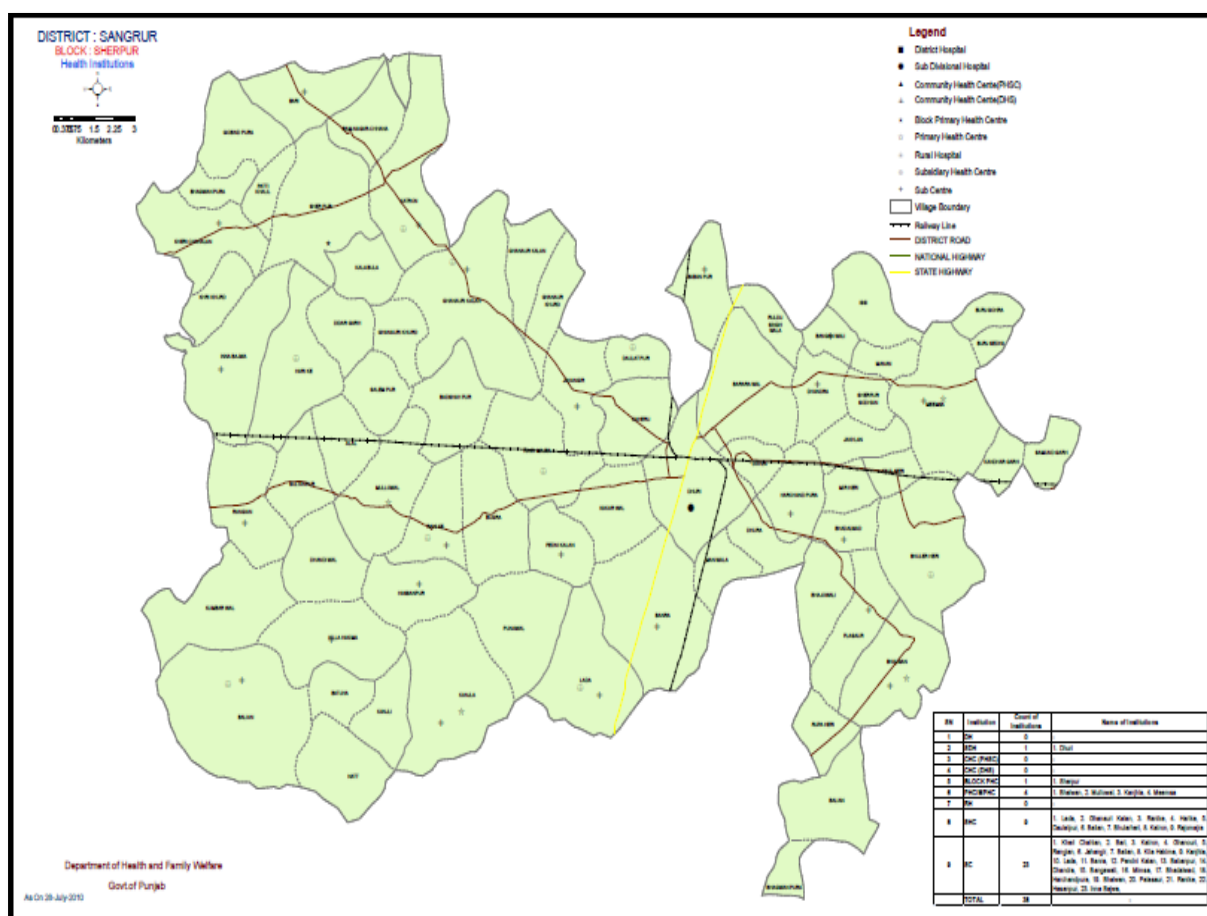


Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Andana	15	7	22	8	3	11
2	Chandu	5	1	6	5	0	5
3	Therri	0	1	1	0	0	0
4	Badalgarh	8	4	12	6	3	9
5	Navan Gaon	3	9	12	3	6	9
6	Hotipur	0	4	4	0	4	4
7	Balran	15	12	27	11	4	15
8	Banarsi	8	3	11	4	2	6
9	Chathe gobindepura	5	5	10	4	1	5
10	Boper	6	6	12	6	4	10
11	Banga	7	3	10	3	1	4
12	Shergarh	1	4	5	2	4	6
13	Bakhora kalan	4	4	8	3	3	6
14	Bakhora Khurd	4	3	7	3	2	5
15	Rampura jawahrwala	3	3	6	3	3	6
16	Gobindpura Jawahar wala	4	2	6	2	1	3
17	Bhai ke pisor	9	5	14	8	4	12
18	Shekhuwass	5	11	16	4	5	9
19	Bhullan	9	5	14	8	4	12
20	Harigarh Gehla	3	2	5	5	4	9

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
21	Ramgarh Gujran	1	1	2	1	1	2
22	Mahan Singh wala	2	1	3	2	1	3
23	Bahmni wala	8	3	11	5	3	8
24	Bhotal kalan	22	8	30	15	7	22
25	Khanouri Kalan	29	13	42	22	6	28
26	Bhotal Kuard	8	8	16	7	9	16
27	Bushera	9	10	19	7	4	11
28	Rajalheri	1	0	1	1	0	1
29	Chotian	3	10	13	1	3	4
30	Aliser	1	2	3	2	2	4
31	Gurnekalan	1	2	3	1	2	3
32	Gurnekhurd	2	2	4	1	2	3
33	Chural Kalan	7	12	19	5	8	13
34	Chural Khurd	1	4	5	0	1	1
35	Kalian	2	5	7	2	3	5
36	Guru Nanak Nagar churalkalan	0	1	1			0
37	Daska	2	9	11	3	5	8
38	Harigarh	3	6	9	1	3	4
39	Ratta Khera	5	2	7	4	1	5
40	Doodian	10	5	15	9	2	11
41	Dhindsa	6	6	12	6	5	11
42	Ganota	2	3	5	2	3	5
43	Ghamoorghat	2	2	4	1	1	2
44	Handa	3	1	4	1	1	2
45	Phalud	3	2	5	4	0	4
46	Kudni	2	2	4	3	2	5
47	Rampura gujra	0	8	8	0	9	9
48	Gidriani	3	4	7	1	3	4
49	Gulari	6	4	10	5	3	8
50	Thaska	1	2	3	1	1	2
51	Karoda	7	7	14	6	5	11
52	Hamirgarh	2	6	8	2	3	5
53	Salemgarh	4	5	9	2	4	6
54	Bathua	8	4	12	6	3	9
55	Haryao	4	10	14	4	5	9
56	Moonak (town)	41	48	89	31	33	64
57	Jhaloor	5	8	13	5	5	10
58	Rorewala	4	2	6	5	1	6
59	Kal banjara	1	9	10	3	6	9
60	Karail	4	4	8	3	3	6
61	Khanouri Khurd	0	1	1	0	1	1
62	Khokhar kalan	2	2	4	3	2	5
63	Khokhar khurd	3	4	7	2	4	6
64	Gaga	5	11	16	5	10	15

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
65	Ladal	6	8	14	7	3	10
66	Kotralehal	7	8	15	5	4	9
67	Alampur	3	5	8	2	6	8
68	Lehalkalan	13	15	28	11	8	19
69	Gobindpura Papda	3	3	6	2	2	4
70	Lehalkhurd	3	4	7	2	3	5
71	Khai	6	3	9	5	2	7
72	Khandebad	8	5	13	8	4	12
73	Mandvi	8	3	11	6	4	10
74	Mandvi Khurd	1	0	1	0	0	0
75	Maniana	10	4	14	7	1	8
76	Bishanpura Khokhar	0	3	3	0	3	3
77	Makror Sahib	9	7	16	5	4	9
78	Dehla	7	4	11	5	3	8
79	BhunderBhaini	5	2	7	2	2	4
80	Nangla	5	10	15	3	6	9
81	Arkwass	8	5	13	5	1	6
82	Rai Dharana	15	18	33	11	14	25
83	Lehragaga	55	40	95	44	22	66
84	Ramgarh Sandhua	4	2	6	3	1	4
85	Ghorenab	7	0	7	4	1	5
86	Sangatpura (Moonak Block)	12	6	18	9	3	12
87	Changaliwala	1	5	6	1	1	2
88	Shadihari	18	9	27	11	7	18
Total		563	522	1085	436	339	775

Village-wise cancer incidence cases and mortality cases: Sherpur, Sangrur district



Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
1	Kheri Kalan	4	10	14	1	10	11
2	Kheri Khurd	0	1	1	0	0	0
3	Bhagwanpura	2	1	3	2	0	2
4	Barri	6	3	9	6	2	8
5	Gobindpura	3	0	3	1	0	1
6	Patti Khalil	2	3	5	1	2	3
7	Ena Bajwa	10	8	18	8	8	16
8	Katron	6	13	19	4	7	11
9	Didargarh	5	7	12	2	6	8
10	Ramnagar Channa	4	5	9	3	2	5
11	Sherpur (Village)	15	29	44	7	12	19
12	Kala Bula	3	4	7	3	4	7
13	Ghanouri Kalan	7	17	24	7	14	21
14	Salempur (sherpur block)	1	0	1	1	1	2
15	Ghanouri Khurd	1	0	1	1	0	1
16	Rangian	5	9	14	5	5	10

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
17	Herike	10	5	15	7	1	8
18	Alal	4	4	8	3	0	3
19	Ranike	3	3	6	2	3	5
20	Mulalowal	11	7	18	10	8	18
21	Badashpur	6	4	10	7	3	10
22	Sultanpur	3	1	4	3	0	3
23	Jahangir	4	3	7	3	2	5
24	Ghanour Khurd	4	5	9	4	1	5
25	Ghanour Kalan	6	4	10	2	0	2
26	Balian (Sherpur block)	10	14	24	7	10	17
27	Batuha	3	4	7	3	4	7
28	Kila Hakima	5	3	8	1	2	3
29	Kumberwal	7	13	20	4	9	13
30	Dhandiwal	9	3	12	7	4	11
31	Kanjla	10	16	26	9	13	22
32	Natt	5	3	8	5	1	6
33	Hasanpur	3	11	14	2	3	5
34	Bugra	7	8	15	7	5	12
35	Kanjali	4	2	6	1	0	1
36	Pedhni Kalan	2	1	3	1	1	2
37	Rajomajra	2	4	6	3	3	6
38	Kakkarwal	6	6	12	3	5	8
39	Babanpur	5	6	11	3	4	7
40	Daultpur	4	5	9	4	3	7
41	Dhuri Pind	6	6	12	8	4	12
42	Benra	10	9	19	8	12	20
43	Kheru	5	3	8	6	0	6
44	Dhandra	5	2	7	6	2	8
45	Bardwal	6	8	14	3	5	8
46	Dohla	3	2	5	1	0	1
47	Sherpur Sodhian	2	2	4	1	0	1
48	Manwala	1	1	2	0	1	1
49	Meemsa	6	13	19	3	6	9
50	Kandhargah Channa	1	3	4	0	2	2
51	Samundgarh	1	1	2	0	0	0
52	Bangawali	1	3	4	1	1	2
53	Ruldu Singh Wala	3	1	4	4	2	6
54	Issi	1	3	4	1	1	2
55	Mana	2		2	2	0	2
56	Burj Sedha	1	1	2	0	1	1
57	Dhura	2	3	5	2	2	4
58	Jakhlan	4	2	6	3	3	6
59	Harchandpur	1	3	4	1	4	5
60	Bhadalwad	1	1	2	0	0	0

Sr. No.	Village name	Incidence (2013-2018)			Mortality (2013-2018)		
		Male	Female	Total	Male	Female	Total
61	Meerheri	1	1	2	1	0	1
62	Kaulseri	2	5	7	1	2	3
63	Bhullerheri	9	11	20	8	4	12
64	Palasour	5	6	11	3	2	5
65	Bhojowali	4	3	7	2	1	3
66	Bhalwan	5	5	10	1	4	5
67	Ladda	6	6	12	5	4	9
68	Ladda Kothi	1	1	2	0	1	1
69	Punnawal	6	3	9	4	1	5
Total		308	353	661	228	223	451

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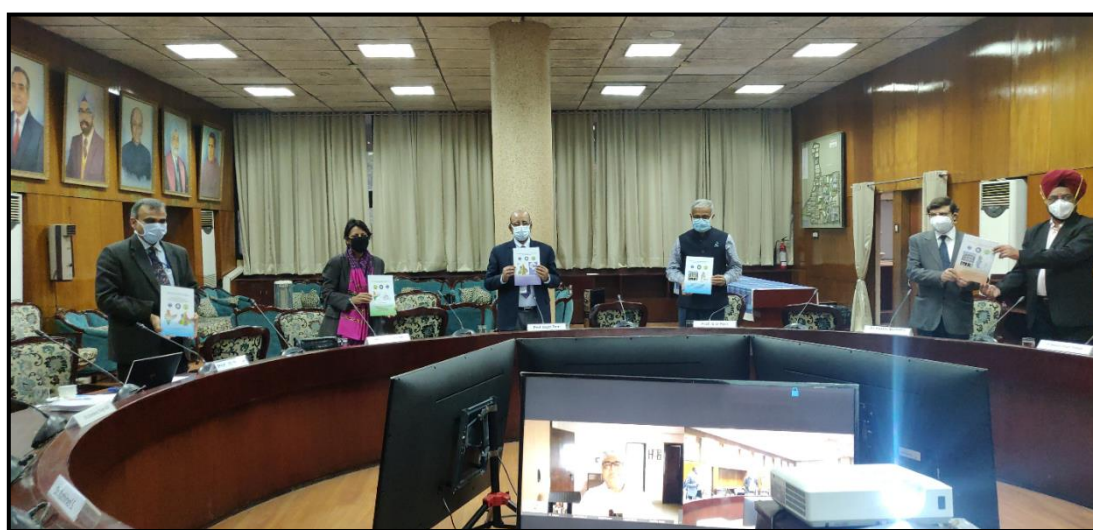
26. Annexure

Release of third-year annual report of the Sangrur population-based cancer registry

The third annual report of population-based cancer registry of Chandigarh and Punjab State was released on 28th November 2020 by Mrs. Vini Mahajan, Ex-Principal Secretary – Government of Punjab state, India, in the presence of Director Dr. Jagat Ram, PGIMER, Prof. RA Badwe, Director–TMC Mumbai, Prof Rajesh Dikshit, Director–CCE TMC Mumbai, Prof. JS Thakur, Professor of Community Medicine and School of Public Health, and Dr. Atul Budukh, Professor–CCE TMC Mumbai along with other dignitaries.

Amidst the COVID-19 situation Dr. RA Badwe, Director TMC Mumbai and his team joined the meeting virtually. While releasing the report, Dr. RA Badwe mentioned that cancer registries serve to be an extremely important tool in gauging the enemy i.e., cancer. For planning cancer control activities cancer registries are essentials. There is need for making cancer as a notifiable disease across the country. Further, he briefed about the magnitude and types of the cancers, geographical variations and infrastructure required for managing specific cancers. Mrs. Vini Mahajan has appreciated the work done by TMC, Mumbai and PGIMER, Chandigarh for providing valuable data on cancer burden in different parts of Punjab. She assured that Punjab government provide all the support to the cancer registries.

The report release provided a key recommendation of organizing an Early Detection Program in these registry areas.



Third annual report (2015-2016) released by Mrs. Vini Mahajan, Dr. Jagat Ram, Dr. RA Badwe (virtually), Dr. JS Thakur and Dr. Rajesh Dikshit (virtually) along with other dignitaries

Achievement

Sangrur cancer registry data have been submitted to CI-5 and also data has been utilized by Globocan 2018 and Globocan 2020 to estimate the cancer rates in India.



Incidence

Country-specific data source: Ahmedabad Cancer Registry, Aurangabad Cancer Registry, Bangalore Cancer Registry, Barshi Cancer Registry, Bhopal Cancer Registry, Cachar Cancer Registry, Chennai Cancer Registry, Delhi Cancer Registry, Dibrugarh Cancer Registry, Dindigul Cancer Registry, Kamrup Cancer Registry, Kollam Cancer Registry, Karwar Cancer Registry, Imphal/Manipur Cancer Registry, Mansa District Population Based Cancer Registry, Meghalaya Cancer Registry, Mizoram Cancer Registry, Mumbai Cancer Registry, Nagpur Cancer Registry, Nagaland Cancer Registry, Raipur Cancer Registry, Raizada Cancer Registry, Sangrur District Population Based Cancer Registry, Sikkim Cancer Registry, Tirunelveli Cancer Registry, Tirupur Cancer Registry, Tripura Cancer Registry

Method: Weighted/simple average of the most recent local rates applied to 2020 population

Training given to other registries staff

Chandigarh and Punjab cancer registries has conducted following training program for the staff of cancer registries from Uttar Pradesh, Bihar, Punjab and Maharashtra. The details of the training programme conducted is mentioned in table 15.

Cancer registry training programme organized by Chandigarh and Sangrur registries

Sr. no.	Registry	Date	Number of participants
1	Population-based cancer registry Varanasi District, Uttar Pradesh, India	6 Jul – 19 Jul 2017	3
2	Population-based cancer registry Varanasi District, Uttar Pradesh, India	23 Jan – 28 Jan 2019	2
3	Population-based cancer registry Muzaffarpur, Bihar, India	23 Jan – 28 Jan 2019	1
4	Bathinda cancer registry (AIIMS, Bathinda)	11 Jan – 12 Jan 2022	2
5	Population-based cancer registry Muzaffarpur, Bihar, India	26 Feb – 6 Mar 2022	3
6	Population-based cancer registry Ratnagiri District, Maharashtra, India	26 Feb – 6 Mar 2022	2
7	Population-based cancer registry Sindhudurg District, Maharashtra, India	26 Feb – 6 Mar 2022	2

International Association of Cancer Registries (IACR) 2021



Population Based Cancer Registry Sangrur district presented three scientific posters virtually in the International Association of Cancer Registries (IACR), meeting was conducted from 12th to 14th October 2021.

- 1. CHILDHOOD CANCER CASES REPORTED FROM POPULATION BASED CANCER REGISTRY SANGRUR, PUNJAB STATE, INDIA**
Prithviraj Kadam, Atul Budukh, JS Thakur, Alok Goel, Pankaj Malhotra, Tapas Dora, Sankalp Sancheti, Debashish Chaudhary, Rakesh Kapoor, Rajesh Dikshit
- 2. CLINICAL PATTERNS OF ORAL CANCER CASES REGISTERED AT THE HOSPITAL BASED CANCER REGISTRY, SANGRUR, INDIA**
Anshul Singla, Debashish Chaudhary, Tapas Dora, Alok Kumar Goel, Sankalp Sancheti, Kuldeep Singh Chauhan, Prithviraj Kadam, Atul Budukh, Pankaj Chaturvedi, Rajesh Dixit, Rakesh Kapoor
- 3. CLINICAL PATTERNS OF OESOPHAGUS CANCER CASES AT THE HOSPITAL BASED CANCER REGISTRY, SANGRUR, PUNJAB STATE, INDIA**
Tapas Dora, Alok Kumar Goel, Debashish Chaudhary, Sankalp Sancheti, Akash Sali, Kuldeep Singh Chauhan, Kiran Arora, Prithviraj Kadam, Atul Budukh, Pankaj Chaturvedi, Rajesh Dikshit, Rakesh Kapoor
- 4. PATTERNS OF BREAST CANCER CASES REGISTERED AT THE HOSPITAL BASED CANCER REGISTRY IN YEAR 2018, SANGRUR, INDIA**
Debashish Chaudhary, Atul Budukh, Sankalp Sancheti, Tapas Dora, Prithviraj Kadam, Kuldeep Singh, Kiran Arora, Pankaj Chaturvedi, RA Badwe
- 5. DUAL PRIMARY CASES REGISTERED AT THE HOSPITAL BASED CANCER REGISTRY, SANGRUR, PUNJAB STATE, INDIA**
Sankalp Sancheti, Debashish Chaudhary, Anshul Singla, Tapas Dora, Alok Kumar Goel, Kiran Arora, Kuldeep Singh Chauhan, Shraddha Shinde, Prithviraj Kadam, Atul Budukh, Pankaj Chaturvedi, Rajesh Dixit, Rakesh Kapoor
- 6. TREATMENT COMPLIANCE TO THE PEDIATRIC CANCER CASES, OUR EXPERIENCE FROM RURAL CANCER CENTRE, SANGRUR, PUNJAB STATE, INDIA**
Alok Kumar Goel, Sankalp Sancheti, Tapas Dora, Akash Sali, Anshul Singla, Kuldeep Singh Chauhan, Kiran Arora, Prithviraj Kadam, Atul Budukh, Pankaj Chaturvedi, Rajesh Dikshit, Rakesh Kapoor

Visitors



Dr. H.S. Bali (DHS, Punjab) visited PBCR Sangrur office (28.01.2017)



Ms. Amiya Bhatia from Harvard University, USA visited PBCR, Sangrur office (12.10.2018)

Course attended by registry staff

Mr. Prithviraj Kadam attended summer school at Lyon, France in the year 2017



Publications

1. Chandigarh Population Based Cancer Registry Report: 2013 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
2. SAS Nagar Population Based Cancer Registry Report: 2013 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
3. Sangrur Population Based Cancer Registry Report: 2013 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
4. Mansa Population Based Cancer Registry Report: 2013 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
5. Chandigarh Population Based Cancer Registry Report: 2014 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
6. SAS Nagar Population Based Cancer Registry Report: 2014 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
7. Sangrur Population Based Cancer Registry Report: 2014 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
8. Mansa Population Based Cancer Registry Report: 2014 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
9. Chandigarh Population Based Cancer Registry Report: 2015-16 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
10. SAS Nagar Population Based Cancer Registry Report: 2015-16 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
11. Sangrur Population Based Cancer Registry Report: 2015-16 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
12. Mansa Population Based Cancer Registry Report: 2015-16 – Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.
13. Population Based Cancer Registries at Chandigarh and SAS Nagar, Sangrur, Mansa Districts of Punjab, state (2013-16)

14. Budukh A, Dikshit R, Thakur JS, Kadam P, Dora T, Sancheti S, et al. Linkage of cancer registration with cancer treatment in predominantly rural district: A model form Sangrur district, Punjab state, India. *Int J Non-Commun Dis* 2018; 3:56-9
15. Thakur JS, Budukh A, Kapoor, R, Malhotra P, Bashir MA, Kathirvel S, Dikshit R, Arrora P. Bhatia SPS, Badwe RA, (2017) Urban rural difference in cancer incidence and pattern in Punjab and Chandigarh: findings from four new population based cancer registries in north India. *Int J Non-Commun Dis* 2017; 2:49-55
16. Prabhat Jha, Dinesh Kumar, Rajesh Dikshit, Atul Budukh, Rehana Begum, Prabha Sati et.al. Automated versus physician assignment of cause of death for verbal autopsies: randomized trial of 9374 deaths in 117 villages in India: *BMC Medicine* (2019) 17:116
17. Budukh Atul M, Chaudhary Debashish, Sancheti Sankalp, Dora Tapas, Kumar Goel Alok, Singla Anshul, Sali Akash, Shinde Shraddha, Singh Chauhan Kuldeep, Kadam Prithviraj, Mohammad Raza, Kapoor Rakesh, Chaturvedi Pankaj, Dikshit Rajesh P, Badwe Rajendra A (2021) Determinants of completion of cancer directed treatment: an experience from a rural cancer centre, Sangrur, Punjab state, India *ecancer* 15 1313.
18. Bhatia A, Victora CG, Beckfield J, Budukh A, Krieger N. "Registries are not only a tool for data collection, they are for action": Cancer registration and gaps in data for health equity in six population-based registries in India. *Int J Cancer*. 2020 Nov 13. doi: 10.1002/ijc.33391.
19. Chakravarti Priyal, Maheshwari Amita, Tahlan Shweta, Kadam Prithviraj, Bagal Sonali, Gore Suvarna, Panse Nandkumar, Deodhar Kedar, Chaturvedi Pankaj, Dikshit Rajesh, Budukh Atul (2022) Diagnostic accuracy of menstrual blood for human papillomavirus detection in cervical cancer screening: a systematic review *ecancer* 16 1427. DOI: <https://doi.org/10.3332/ecancer.2022.1427>
20. Hospital Based Cancer Registry – Annual Report 2017: Homi Bhabha Cancer Hospital, Sangrur, Punjab State, India, Tata Memorial Centre, Mumbai, India
21. Hospital Based Cancer Registry – Annual Report 2018: Homi Bhabha Cancer Hospital, Sangrur, Punjab State, India, Tata Memorial Centre, Mumbai, India



Tata Memorial Centre, Mumbai



Centre for Cancer Epidemiology, ACTREC, Navi Mumbai



Homi Bhabha Cancer Hospital, Sangrur, Punjab



Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh

“Cancer is curable if detected early.”