SINDHUDURG –POPULATION BASED CANCER REGISTRY REPORT 2010-2011

INTRODUCTION

This is the first Report of Sindhudurg Population Based Cancer Registry. All the cancer cases within the geographical area of Sindhudurg district during the year 2010 and 2011 are analysed and presented.

Tata Memorial Hospital

The Tata Memorial Centre (TMC) comprising the Tata Memorial Hospital (TMH), the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), and Centre for Cancer Epidemiology (CCE) is a grant-in-aid institution under the administrative control of Dept. of Atomic Energy, Govt. of India. The mandate of TMC is Service, Research and Education. The TMC continued to provide highest standard of patient care through the services and research, and capacity building by imparting knowledge through various educational activities.

Tata Memorial Outreach Programme was started in the Ratnagiri district with the collaboration of BKL Walawalkar Hospital, Dervan in August 2003. The screening program was primarily to screen for detection of head and neck, breast and cervix cancers. Since this screening was an ongoing service oriented activity, it was necessary to follow-up the cases. Thus under these circumstances, it was proposed and initiated to set up the population based cancer registry in the Rartnagiri district. Since a large number of cases were residents of Sindhudurg district, a Population Based Cancer Registry was established in 2010 covering Sindhudurg district.

BACKGROUND

Sindhudurg is an administrative district in the state of Maharashtra in India, which was carved out of the erstwhile Ratnagiri District.
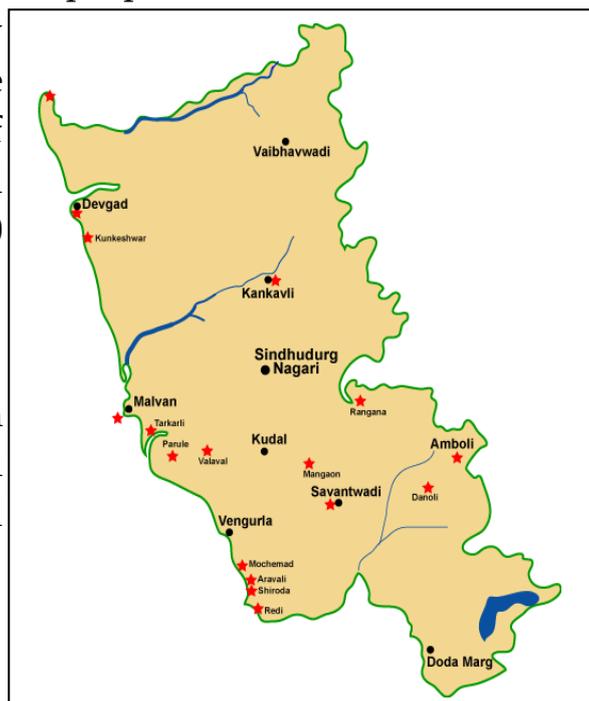
The district headquarters are located at Oras. Sindhudurg is bordered on the north by Ratnagiri District, on the south by the state of Goa, on the west by the Arabia Sea, and to the east across the crest of the Western Ghats or Sahyadris in Kolhapur District.

Sindhudurg is part of Konkan (coastal) region, a narrow coastal plain in western Maharashtra which lies between the Western ghats and the Arabia sea.

GEOGRAPHY

Sindhudurg district is situated between the north latitudes of 15.37 and 16.40 and the east longitudes of 73.19 and 74.18. Covering a total area of 5207 Square Kilometres, the district of Sindhudurg lies in the Konkan area of Maharashtra, comprising both the seashore as well as mountains. National Highway 17 passes through this area. With 7 railway stations, a 103 Km stretch of Konkan Railway line passes through this district. It has good road and rail links with Goa and Mumbai.

DIVISIONS

There are 8 talukas in Sindhudurg district Devgad, Kankavli, Malvan, Kudal, Sawantwadi, Vengurla, Dodamarg and Vaibhavwadi.

POPULATION

The estimated population is approximately 8.5 lacs for the year 2011. There is a female preponderance in the population with 4.32 lacs females and 4.17 lacs males.

Description	2011	2001
Total Population	**849,651**	**868,825**
Male	417,332	417,890
Female	432,319	450,935
Population Growth	**-2.21%**	**4.41%**
Area Sq. Km	5,207	5,207
Density/km2	**163**	**167**
Proportion to Maharashtra Population	0.76%	0.90%
Sex Ratio (Per 1000)	**1036**	**1079**
Child Sex Ratio (0-6 Years)	922	944
Average Literacy	**85.56**	**80.30**
Male Literacy	91.58	90.26
Female Literacy	79.81	71.23
Total Child Population (0-6 Years)	**71,193**	**105,518**
Male Population (0-6 Years)	37,034	54,277
Female Population (0-6 Years)	34,159	51,241
Literates	**666,067**	**612,919**
Male Literates	348,289	328,199
Female Literates	317,778	284,720
Child Proportion (0-6 Years)	**8.38%**	**12.14%**
Boys Proportion (0-6 Years)	8.87%	12.99%
Girls Proportion (0-6 Years)	7.90%	11.36%

(Source: Based on Census 2001 estimates were calculated for the year 2011.)

POPULATION ESTIMATES

The population was estimated using the 2001 Census India and also by taking into account the decadal growth of 2011 census data. The estimated population distribution by age group and sex for the year 2011 are shown in **table-1**.

Table 1 : **Estimated Population Distribution by Age Group and sex, Sindhudurg- 2011 (estimates based on 2001)**

Age-group (in years)	Male		Female		Total	
	Numbers	%	Numbers	%	Numbers	%
0-4	37,791	9.1	33,648	7.8	71,329	8.4
5-9	39,489	9.5	36,871	8.5	76,280	9.0
10-14	44,868	10.8	41,042	9.5	85,801	10.1
15-19	40,864	9.8	39,609	9.2	80,419	9.5
20-24	32,939	7.9	35,705	8.3	68,675	8.1
25-29	31,001	7.4	35,531	8.2	66,600	7.8
30-34	29,755	7.1	30,739	7.1	60,493	7.1
35-39	29,009	7.0	30,718	7.1	59,741	7.0
40-44	25,496	6.1	24,232	5.6	49,684	5.8
45-49	22,869	5.5	23,351	5.4	46,214	5.4
50-54	18,589	4.5	19,097	4.4	37,683	4.4
55-59	15,185	3.6	19,398	4.5	34,656	4.1
60-64	15,796	3.8	20,603	4.8	36,484	4.3
65-69	14,585	3.5	18,733	4.3	33,391	3.9
70-74	9,781	2.3	11,948	2.8	21,766	2.6
75-79	4,547	1.1	5,229	1.2	9,786	1.2
80+	4,449	1.1	5,583	1.3	10,051	1.2
Age not stated	318	0.1	282	0.1	598	0.1
All ages	417,332	100	432,319	100	849,651	100

Figure 1 : Percentage Distribution of Estimated Resident Population By Age and Sex, Sindhudurg-2011
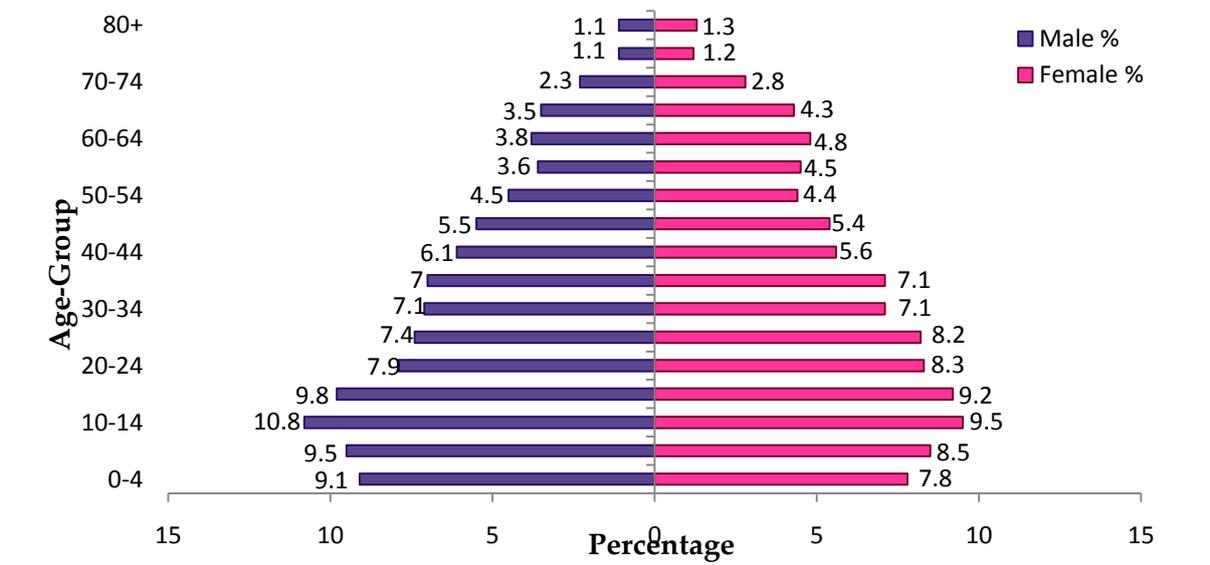
REGISTRY SPECIFIC OBJECTIVES

❖ Generating reliable data on the magnitude and patterns of cancer – this would be based on Morbidity and Mortality information according to age, sex and residence of the patient, anatomical site of cancer etc.

❖ Undertaking epidemiologic research, such as case control or cohort studies based on observations of registry data;

❖ Providing database for developing appropriate strategies to aid in District Cancer Control Programme; this would be in the form of planning, monitoring and evaluation of activities under this programme

❖ Developing human resource in Cancer registration and Epidemiology.

BENEFITS AND OUTCOMES

❖ Enumeration of disease burden and patterns of cancer in the rural areas: The project will enable in identifying the disease burden and also the common cancers prevalent in the district of Sindhudurg.
❖ National Gain: The valuable information collected will form a basis for planning a Cancer Control Programme in the country.

RESEARCH POTENTIAL

The project has an excellent potential for community based epidemiological study to identify the risk factors. The work flow of the cancer registry is shown below. It is to be noted that there is sequence which needs to be followed by which the registry's outcome can be improved from time-to-time. There are checks at each gateway. The land terrains of Sindhudurg are difficult to approach and the registry staff have been trained adequately and instructed to maximize the visit to these areas through proper planning prior to the visit. There was no major cancer hospital in Ratnagiri district. BKL Walawalkar hospital, a General hospital in Dervan, Chiplun taluka, has developed into a comprehensive cancer centre with the help of Tata Memorial Hospital

(TMH), Mumbai, in patient care, service, research and education in cancer.

CANCER REGISTRATION SYSTEMS

Cancer registration is active, which means that the investigators have to visit the various sources to obtain information on diagnosis and treatment. The sources include various hospitals, pathology laboratories, radiological centers, village panchayats, local physicians, Aanganwadi workers office, primary health care centers and non-governmental organizations (NGOs) etc.

Many of the cases who are residents of Sindhudurg district visit Tata Memorial Hospital, Mumbai for diagnosis and treatment. For such cases, variables such as name, address, diagnosis, clinical variables are matched and information is abstracted accordingly from TMH database for the Sindhudurg cancer registry. There are many other cases who visit other hospitals in Mumbai, both private and municipal hospitals for which information is sought from Mumbai cancer registry. Besides, a good number of cases attend BKL Walawalkar hospital, Dervan for cancer care, since it is established as a comprehensive cancer centre with all facilities for diagnosis and treatment. TMH has collaborated with the BKLW hospital for a large outreach screening program for common cancers as mentioned earlier and thus a large population base has been utilizing this opportunity to seek cancer diagnosis and treatment.

CANCER REGISTRY CORE PERFORMA

Special form is designed and tested for Sindhudurg Population based cancer registry (PBCR), based on the experience of the registry staff of the Hospital Based Cancer Registry in TMH (HBCR is ongoing in TMH for last 3 decades) and also keeping in mind the other variables required in PBCR such as residence, source of registration, verification of information from various sources and also the authenticity.

CHALLENGES

Prior to setting up the registry, a survey was done for Sindhudurg district. Due to the hilly areas, access to these areas was not very easy; thus a proposal was put forward to procure motor bikes for the field

investigators to access the various sources of information. Thus registry started functioning formally in 2010.

Although, the travelling expenses were a little higher than what we expected in the other registries, measures have been taken to keep check to minimize the expenses and it has been found that this method is cost effective with the given registry area.

Training was provided to all field investigators in Tata Memorial Hospital by the staff to understand the medical terminologies, ways to approach various sources and patients to collect the information etc. TMH staff members also periodically visit the Registry office to monitor the cancer registry activities. There is a constant communication with the Registry staff sitting at base center, BKLW Hospital and TMH.

SOFTWARE

In- house Software is developed by the department of Medical Records, Biostatistics & Epidemiology in TMH by using Visual Basic as front-end and MS- Access as back-end. This information is entered by the Data-entry operator in TMH periodically and it gets checked for completion. Once the form is complete in all respect, the case is tagged as 'Complete' and gets locked in the system. Any changes in this can be done only by the administrator.

CANCER REGISTRATION

As per the international guidelines and reporting by the population based cancer registries, the cases registered in the Sindhudurg cancer registry are based on the following criteria.
- ✓ Only malignant cases are included
- ✓ Resident of Sindhudurg District for atleast one year.
- ✓ All Suspicious and Non-cancer Cases are excluded.
- ✓ Non resident cases of Sindhudurg District are excluded.
- ✓ Suspicious cases are further followed up to capture any event.

CANCER REPORTING SYSTEM

The cancer cases are classified as per the ICD-O-3 and ICD-10 as per the guidelines provided by the World Health Organization (WHO) publication (International Classification of Diseases for

Oncology-3ʳᵈ ed.). ICD-O is a dual classification with coding system for both topography and morphology. The topography code describes the site of origin of the neoplasm. The morphology code describes the cell type of the tumor and its biologic activity, in other words, the characteristic of the tumor itself. Morphology terms have five digit codes ranging from M-8000/0 to M-9989/3. The first four digits indicate the specific histological term. The fifth digit, after the slash is a behavior code, which indicates whether a tumor is malignant, benign, in-situ or uncertain whether malignant or benign. All the tumors which are benign (code '0'), uncertain (code '1') and in-situ (code '2') are not included for analysis.

QUALITY CHECKS

A) Duplicate Checks
Duplicates checks are done by comparing various fields like name, address, sex, age and site. There are two methods to find out the duplicates – Manual method by using the index card and Electronic method through the software.

1) Manual Method- In the registry office, we are maintaining the index cards which contains the above fields and registration number of the form. Index cards are arranged in alphabetical order according to the patients name. Whenever, the investigators finds any new case, they first search it in the index card and if they are able to find the index card with the same name and other details, they note down the registration number of the index card and take out the original form of the same patient and update the information in the same form. Thus duplicates are removed from the system at the scrutiny level itself. If they are not able to get the index card with the given name then they register it as a new case.

2) Electronic Method- Whenever a new case is added into the software system, it generates a unique registration number for each case. The moment we enter the name of the patient, the software immediately checks all the records matching with the same name and displays the registration number, name, age and site of the matching records in the grid. So user can check the duplicates at the entry level also. The forms are separately arranged by the registration number which is the primary key in the database.

B) Residence Confirmation

Population based registry data is dependent on geographical boundaries of any specified population, and thus residence confirmation is required in the PBCR. Residence confirmation is done by house visits on given address or through the telephone numbers if available. During the house visit, we check the diagnostic information and also try to get treatment and follow up information of the patient.

C) Re-checking

5 % of the cases are re-approached for collection of information which includes visits to the labs, hospitals, house etc. and the data which is already collected is checked again. This will ensure the correctness of the information.

SOURCES OF REGISTRATION

The Sources of registration are primary, secondary and tertiary. It is in the hierarchical order from the date of diagnosis i.e. the primary source is the one where the patient got diagnosed first and then the subsequent sources are entered where the patient has gone for further treatment or follow-up.

The main criteria for inclusion in the population registry are those who are 'residents' for at least one-year in Sindhudurg district.

Table 1(a) : Incident Cancer Cases by Primary Sources of Registration with Percentage, Sindhudurg, 2010-11

SOURCES	2010	2011	Grand Total	%
TMH	171	158	329	45.5
Sumedh Path Lab	18	57	75	10.4
Omkar Path Lab	38	23	61	8.4
BKLW	30	28	58	8.0
TMCROP Direct	14	13	27	3.7
KEM	20	5	25	3.5
Sumedh Path Lab		24	24	3.3
Sindhudurg Radiology Center	1	10	11	1.5
Goa Medical College	2	4	6	0.8
Civil Hospital	3	2	5	0.7
Deenanath Mangeshkar Hospital	5		5	0.7
Purohit Lab	2	3	5	0.7
PHC	2	2	4	0.6
Siddhivinayak Hospital Miraj	3	1	4	0.6
Rani Jankinbai Aurvedic Hospital	3	1	4	0.6
Kolhapur Oncology Center	1	2	3	0.4
Nair Hospital	3		3	0.4
Swaroop Path Lab	1	1	2	0.3
Others	43	29	72	10.0
Grand Total	360	363	723	

INCIDENCE RATES

All New cases of cancer diagnosed in a define population during a given period of time are defined as 'incident cases'. Thus all new cancer case diagnosed in the defined area of Sindhudurg district during the year 2010-2011 (1st January to 31st December) formed the incident cases.

The major concern of Population based Cancer Registries will be the calculation of cancer incidence rates and their use to study the risk of individual cancers in the registry area compared to elsewhere or to compare different subgroups of the population within the registry area itself.

Definition-

Incidence express the number of new cases of cancer which occurs in a defined population of disease-free individuals and the incidence rate is the number of such events in a specific period of time.

Incidence rates of cancer are expressed as cases per 100,000 person year. As per the definition,

Incidence Rate in a given period of time   = *No. of new cancer cases*   x *100,000*
(per 100,000)   *Population at Risk*

Age Specific Incidence Rate in a given   = *No. of new cancer cases in a specific age-group* x*100,000*
period of time   *Population at Risk in a specific age group*
(per 100,000)

Usually, age groups, as five year age groups, (0-4, 5-9, 10-14,etc.) are reported, as per the WHO classification

CANCER REGISTRATION AND RATES

In the year 2010 and 2011, a total of 1027 forms were collected in a pre-designed core-proforma. Of these, 360 and 363 cancer cases have been recorded in 2010 and 2011 respectively, totaling to 723 cancer cases (including DCOs) in the Sindhudurg Cancer Registry (Table-2). Of these, 375 are males and 348 are females. It is seen that that a higher proportion of cancer cases are diagnosed after the age of 50 years , both in males and females.

Apart from 723 cases, another 12 cases were non-resident. 31 Benign and 10 Borderline Tumors and 3 In-situ cases were reported in this area.

Table -2 : Number of Cancer Cases and Age Specific Incidence Rate (ASR) per 100,000 for all cancer sites, by sex in sindhudurg: 2010-11

	Male			Female			Total		
Age-group	Nos	Population	ASR	Nos	Population	ASR	Nos	Population	ASR
00-04	1	37791	1.3	1	33648	1.5	2	71329	1.4
05-09	0	39489	0.0	2	36871	2.7	2	76280	1.3
10-14	5	44868	5.6	1	41042	1.2	6	85801	3.5
15-19	4	40864	4.9	3	39609	3.8	7	80419	4.4
20-24	5	32939	7.6	1	35705	1.4	6	68675	4.4
25-29	5	31001	8.1	2	35531	2.8	7	66600	5.3
30-34	17	29755	28.6	11	30739	17.9	28	60493	23.1
35-39	12	29009	20.7	20	30718	32.6	32	59741	26.8
40-44	26	25496	51.0	27	24232	55.7	53	49684	53.3
45-49	46	22869	100.6	45	23351	96.4	91	46214	98.5
50-54	31	18589	83.4	33	19097	86.4	64	37683	84.9
55-59	41	15185	135.0	45	19398	116.0	86	34656	124.1
60-64	49	15796	155.1	52	20603	126.2	101	36484	138.4
65-69	62	14585	212.5	48	18733	128.1	110	33391	164.7
70-74	37	9781	189.1	28	11948	117.2	65	21766	149.3
75+	34	8996	189.0	29	10811	134.1	63	19837	158.8
Grand Total	375	417332	44.9	348	432319	40.2	723	849651	42.5

(ASR*- Age Specific Incidence Rate per 100,000)

It is seen from figure 2, that cancer incidence rates are found to increase with the age. As compared to female, Age specific rate (ASR) is higher in male between age group 45 to 69 years.

Figure- 2 : Age Specific Incidence Rate per 100,000 for all cancer sites, 2010-11
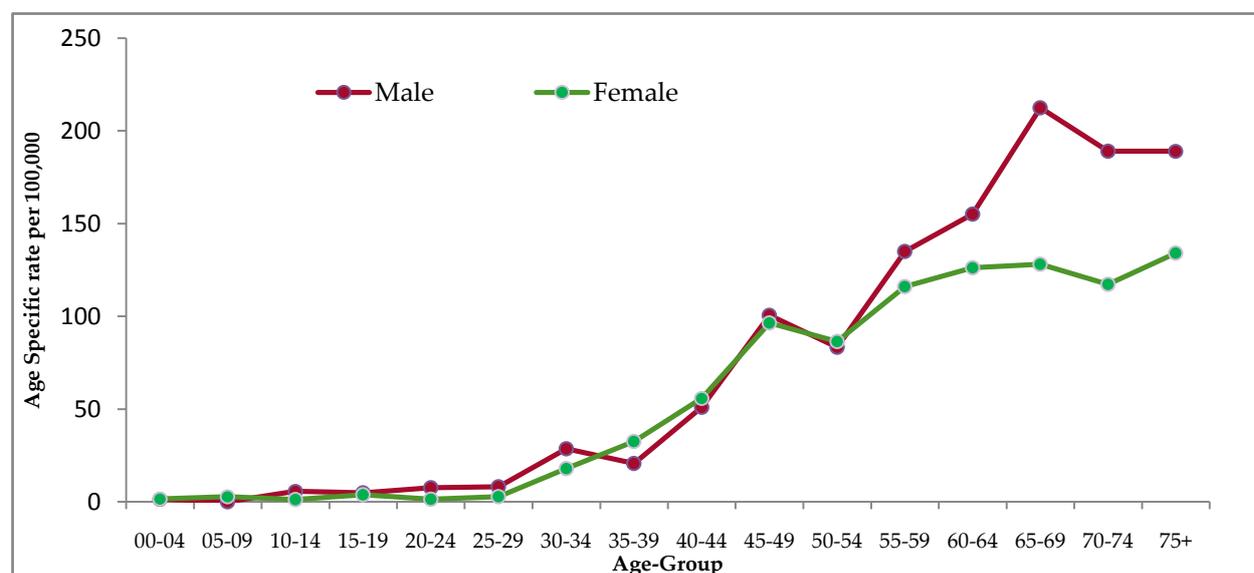
Figure- 3 : Taluka-wise Distribution of Cancer Cases in Sindhudurg district: 2010-11
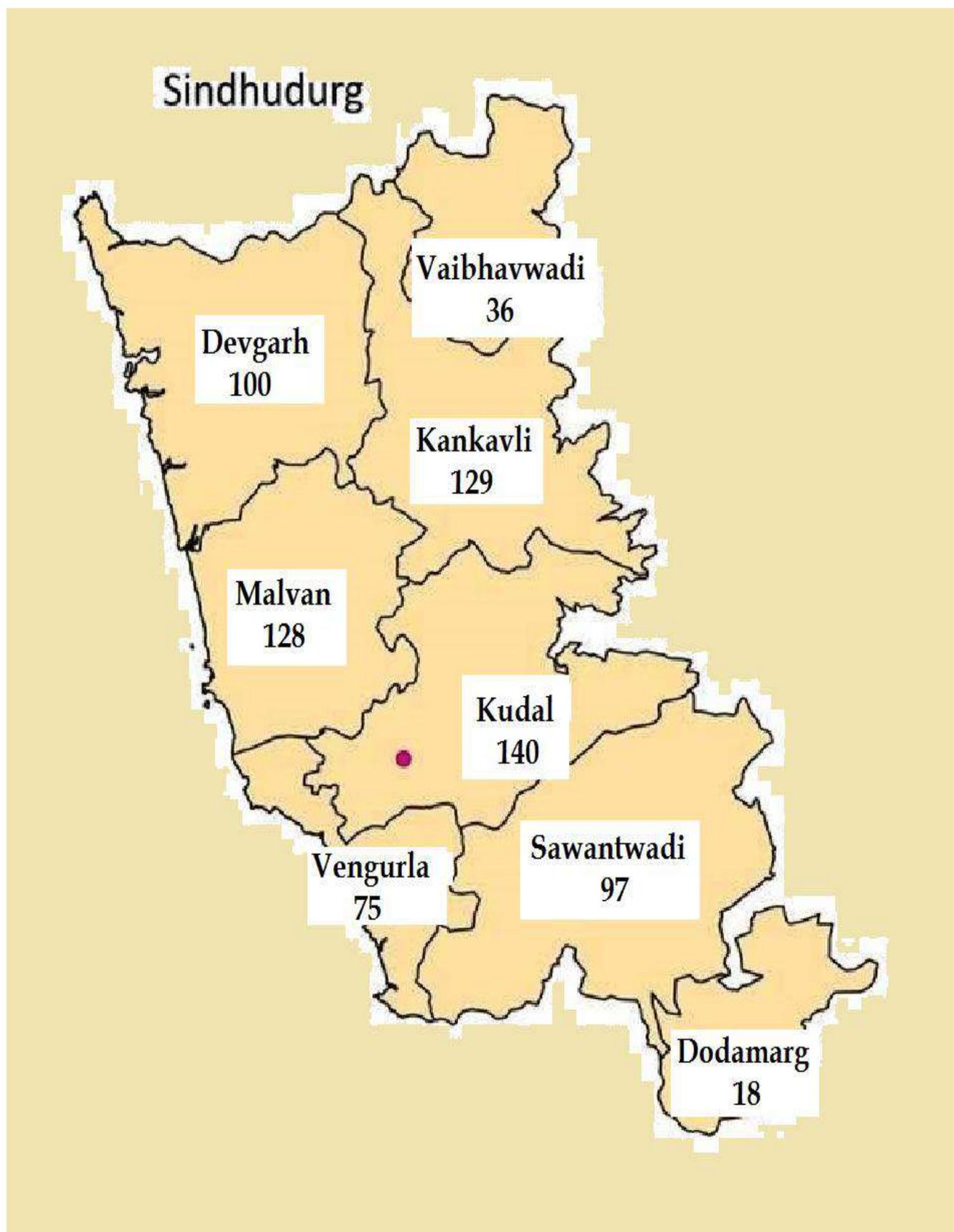
Table 3 : Taluka-wise Distribution of Cancer Cases and Crude incidence rates (per 100,000) : 2010-11

Taluka/ Year	2010	2011	Total	Population	Crude Incidence Rate
Kudal	64	76	140	155624	45.0
Sawantwadi	50	47	97	147466	32.9
Vengurla	39	36	75	85801	43.7
Dodamarg	7	11	18	48904	18.4
Malvan	65	63	128	111807	57.2
Devgad	49	51	100	120909	41.4
Vaibhavwadi	16	20	36	43845	41.1
Kankavli	70	59	129	135295	47.7
Total	**360**	**363**	**723**	**849651**	**42.5**

Kudal has reported maximum no. of Cases but incidence is more in Malvan district.

SYSTEM-WISE DISTRIBUTION OF CANCER CASES

In the first year of reporting by the cancer registry, head and neck cancer constituted a major proportion (33.6%) in both sexes together (table 4). Among males, head and neck cancer contribute to 47% of all male cancers followed by 18.7% of digestive tract cancers. However among females, breast cancer is the leading site of cancer (30.5%) followed by genital cancers and Head & Neck Cancer.

Table 4 : System-wise distribution of cancer cases by Sex in Sindhudurg : 2010-11.

Anatomical System	Male	%	Female	%	Total	%
Head & Neck	175	46.7	68	19.5	243	33.6
Digestive Organs	70	18.7	48	13.8	118	16.3
Respiratory Organs	25	6.7	9	2.6	34	4.7
Bone	2	0.5	2	0.6	4	0.6
Soft Tissue & PNS	6	1.6	3	0.9	9	1.2
Skin	4	1.1	3	0.9	7	1.0
Breast	1	0.3	106	30.5	107	14.8
Genital Organs	21	5.6	68	19.5	89	12.3
Urinary Organs	12	3.2	4	1.1	16	2.2
Brain, Nervous System & Endocrine Glands	9	2.4	7	2.0	16	2.2
Lymphoma, Hodgkin's & Leukemia	28	7.5	18	5.2	46	6.4
Secondary Others	22	5.9	10	2.9	32	4.4
Unknown sites		0.0	2	0.6	2	0.3
Total	375	100.0	348	100.0	723	100.0

LEADING SITES OF CANCER

Table-5 shows the Ten Leading sites of cancer in Sindhudurg district during the year 2010-11. Among males, mouth cancers (oral cavity) shows the highest incidence, followed by Tongue and Lung cancer. Among females, as can be seen, breast emerges as the leading cancer site with an incidence rate of 11.4 followed by Mouth cancer with 3.6 as incidence rate. A graphical representation of these are shown in figure 4(a) and 4(b).

Table -5 : Ten Leading Sites Of Cancer in Sindhudurg : 2010-11 Annual Age-adjusted Incidence Rates (AAR) by Sex per 100,000 population of Ten Leading cancer sites

	Male		Female	
RANK	**SITE**	**AAR**	**SITE**	**AAR**
1	Mouth	9.5	Breast	11.4
2	Tongue	4.5	Mouth	3.6
3	Lung etc.	3.1	Cervix	3.4
4	Oesophagus	2.4	Ovary	2.8
5	Larynx	2.1	Oesophagus	2.4
6	Oth. Oropharynx	1.8	Tongue	1.2
7	Hypopharynx	1.6	Lung etc.	0.9
8	Colon	1.6	NHL	1
9	Leukemia	1.6	Oth. Oropharynx	0.8
10	NHL	1.4	Rectum	0.7
	All Sites	29.6	All Sites	28.2

Figure 4 (a): Age Adjusted Incidence Rates (AAR) per 100,000 Population of Ten Leading Sites (Males)
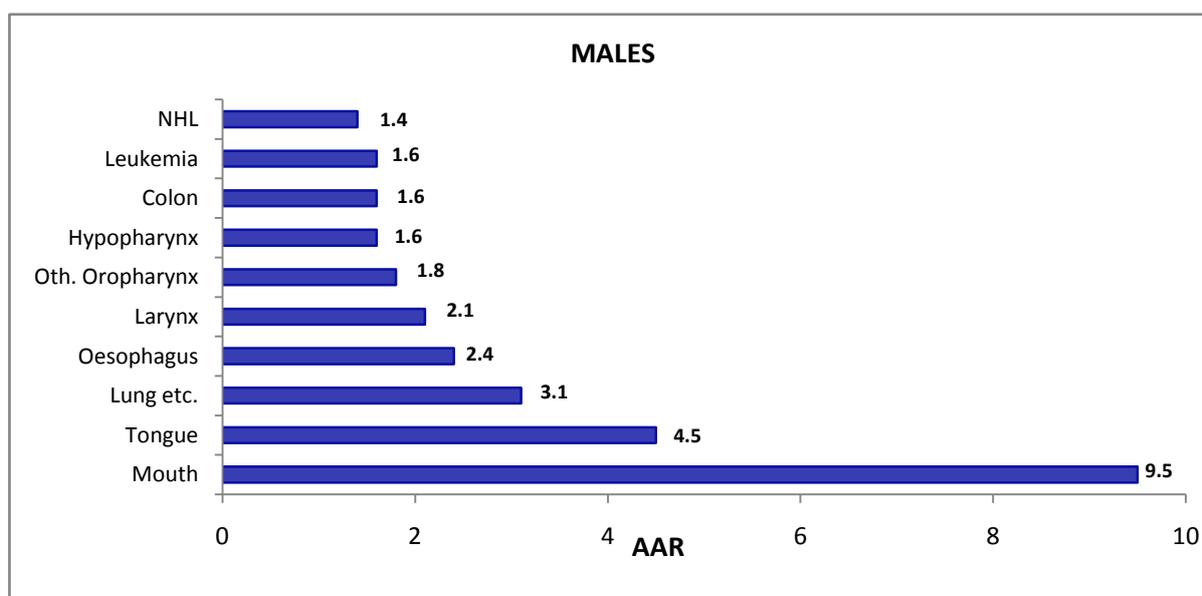
Figure 4 (b): Age Adjusted Incidence Rates (AAR) per 100,000 Population of Ten Leading Sites (Females)
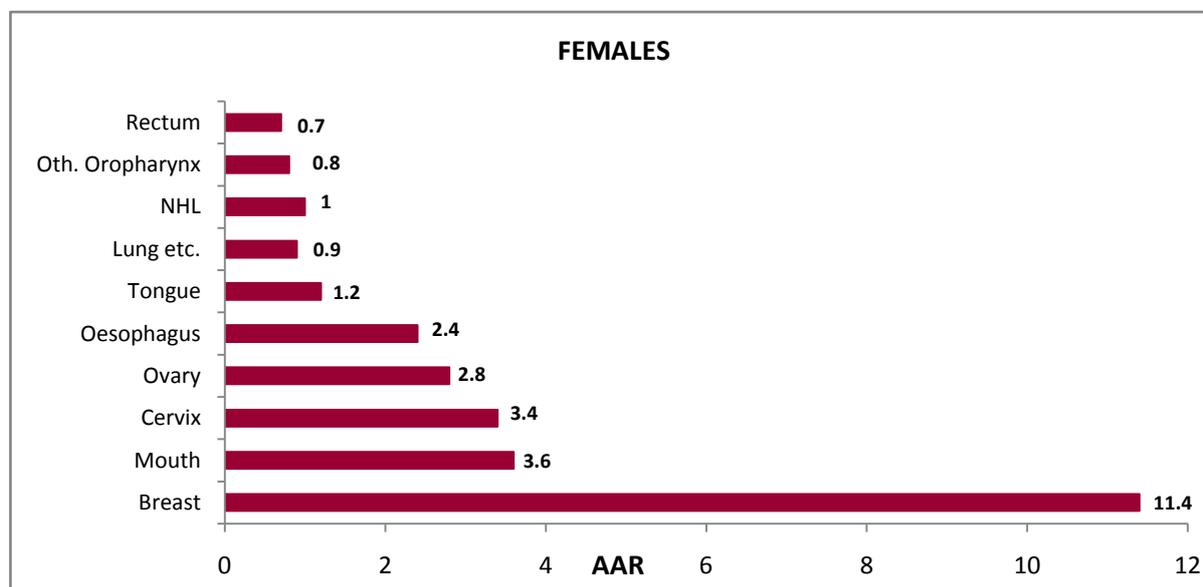
COMPARISON OF LEADING SITES WITH OTHER REGISTRIES

Table 5 (a): Age-adjusted incidence rates (AAR) of Barshi Rural, Mumbai Urban, Ratnagiri and Sindhudurg - Male

MALE- AAR Per 100,000				
	REGISTRIES			
SITE	**Sindhudurg (2010-11)**	**Ratnagiri* (2009-10)**	**Barshi Rural* (2009-10)**	**Mumbai Urban* (2009-10)**
Mouth	9.5	9.6	6.5	8.2
Tongue	4.5	4	2.0	4.4
Lung etc.	3.1	2	2.4	8.7
Oesophagus	2.4	2.9	4.5	4.3
Larynx	2.1	3.2	1.5	4.8
Hypopharynx	1.6	1.7	2.0	1.6
Colon	1.6	1.3	1.0	3.7
NHL	1.4	2.3	0.9	4.9
All Sites	**44.1**	**46.7**	**51.8**	**98.4**

Table 5 (a) : Age-adjusted incidence rates (AAR) of Barshi Rural, Mumbai Urban, Ratnagiri and Sindhudurg - Female

FEMALE- AAR Per 100,000				
	REGISTRIES			
SITE	Sindhudurg (2010-11)	Ratnagiri* (2009-10)	Barshi Rural* (2009-10)	Mumbai Urban* (2009-10)
Breast	11.4	13.4	12.3	31.0
Mouth	3.6	4.7	0.7	3.9
Cervix	3.4	5.6	18.0	10.1
Ovary	2.8	2.5	3.5	7.1
Oesophagus	2.4	2.9	3.6	2.8
Tongue	1.2	1.8	1.3	1.8
Lung etc.	0.9	1.0	0.6	3.5
NHL	1	1.2	1.0	3.2
All Sites	36.3	46.4	62.6	105.5

NCRP Annual Report Year: 2009-11, ICMR, 2013.

A comparison of incidence rates of Sindhudurg, Ratnagiri, Mumbai (urban) and Barshi (rural) is shown in tables 5(a) and 5(b). Among males, the rates of *mouth cancers almost same as Ratnagiri but higher than those seen in other two registries.*

Among females , Breast cancer is the leading cancer in Sindhudurg, Ratnagiri and Mumbai followed by mouth cancer in Sindhudurg . These rates indicate that the Sindhudurg population might be a semi-urban rather than rural with regard to their lifestyle. This can be established only through an epidemiological study.

Table 6 : Leading Cancer Sites by Truncated Rates (TR) per 100,000 (age 35-64 years): 2010-11

MALE		FEMALE	
SITE	TR	SITE	TR
Mouth	21.5	Breast	29.7
Tongue	11	Mouth	8.1
Lung etc.	8	Cervix	7.8
Oesophagus	5.7	Ovary	6
Oth. Oropharynx	3.8	Oesophagus	3.9
Larynx	3.8	Tongue	3
Colon	3.3	Oth. Oropharynx	2.1
Rectum	2.7	NHL	2.4
NHL	2.4	Stomach	1.9
Lip	2.1	Lung etc.	1.8
ALL SITES	64.3	ALL SITES	66.7

Figure 5 (a) : Truncated Incidence rates (TR) per 100,000 for Male
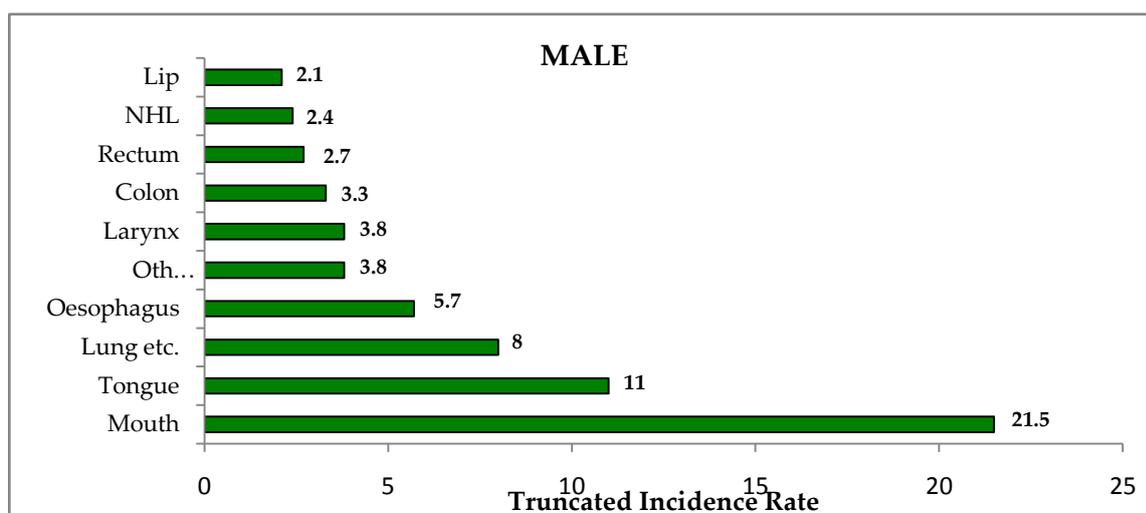
Figure 5 (b) : Truncated Incidence rates (TR) per 100,000 for Female

FEMALE

Site	Truncated Incidence Rate
Lung etc.	1.8
Stomach	1.9
NHL	2.4
Oth. Oropharynx	2.1
Tongue	3
Oesophagus	3.9
Ovary	6
Cervix	7.8
Mouth	8.1
Breast	29.7
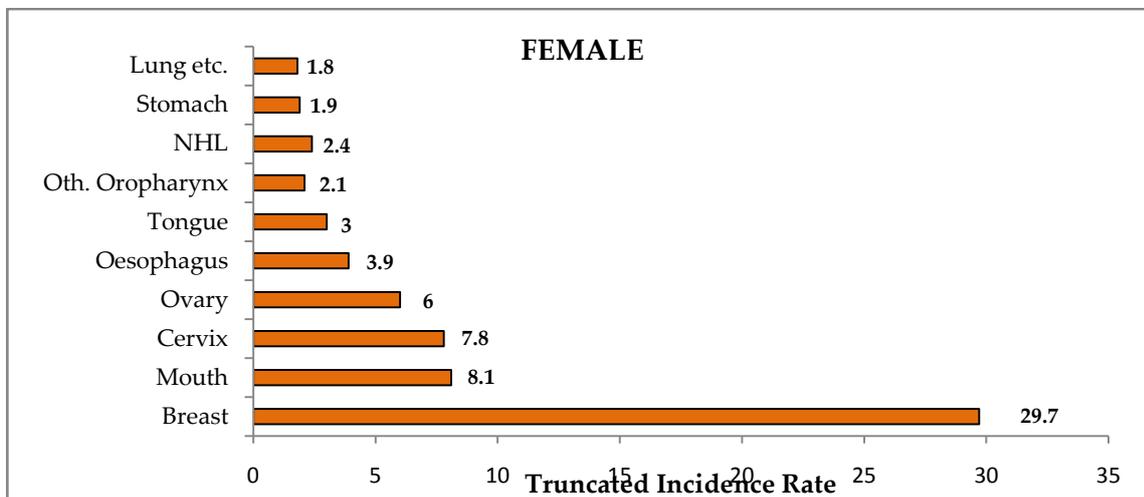
METHOD OF DIAGNOSIS

There are several methods to diagnose cancer. With the advances in technologies that understand cancer better, there is a rise in number of diagnostic tools that can help to detect cancer. Once it is suspected, diagnosis is usually made by Pathologists, Radiologists and Clinicians. The most common diagnostic tools are Biopsy, Cytology, Bone Marrow Aspiration, Endoscopy, Blood test, X-rays, CT Scan, PET Scan and MRI. Some of the patients are also diagnosed on the clinical grounds or by the autopsy after the death of the patient.

The various criteria utilized to diagnose cancer in Sindhudurg Registry are expressed in the **table-7.** 1.1% of the patient are diagnosed by the death certificate alone. Mostly, these are the patients who attended the hospitals in a advanced stage when no active treatment is possible. 96.8% of patients are diagnosed microscopically and this is the most reliable basis of diagnosis as we know the exact site of cancer by this method and 0.7 % of patients are diagnosed Radiologically i.e. by means of X-rays, CT Scan, PET Scan, MRI etc.

Table 7: **Percentage of New Cancer cases Diagnosed by different Methods of Diagnosis: 2010-11**

Method Of Diagnosis	Male	%	Female	%	Grand Total	%
Microscopic	363	96.8	337	96.8	700	96.8
Clinical	5	1.3	5	1.4	10	1.4
Death Certificate Only	5	1.3	3	0.9	8	1.1
Radiology	2	0.5	3	0.9	5	0.7

Grand Total	375	100	348	100	723	100

Only 1.4% of patients are reported by hospitals and clinicians are found to have been diagnosed on the clinical grounds only. A higher percentage of these patients who are diagnosed on the clinical grounds are mostly because, either they refuse for the investigations or have cancer at inaccessible sites for immediate biopsy.

Figure 6 (a) : Method of diagnosis in Males   Figure 6 (b): Method of diagnosis in Females
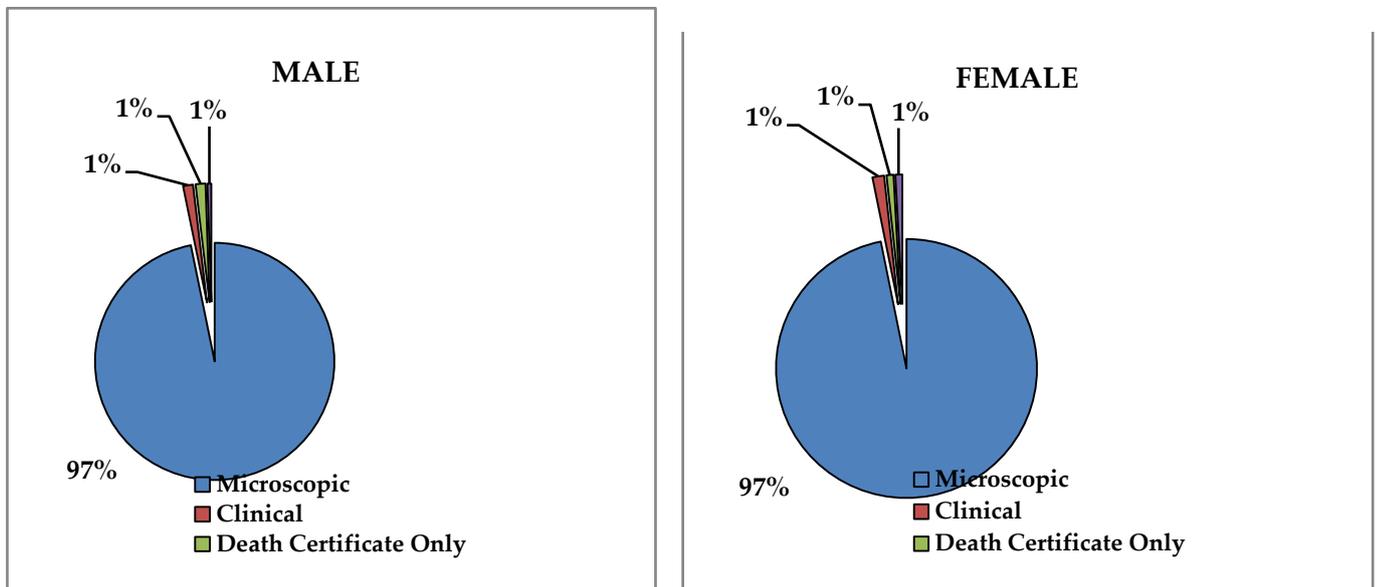
PEDIATRIC CANCERS (Age 0-14 Yrs)

The type of Cancers that develop in children are very different from the types that develop in adults. The most common cancers of children are Leukemia, Lymphoma, Brain and other nervous system tumors, bone cancers, soft tissue sarcomas, kidney and eye cancers. The stage of growth and development is another important difference between adults and children. The immaturity of children's organ system often has important effect on treatment. Childhood cancers tend to respond better to chemotherapy. But, because chemotherapy can have some long-term side effects, children who survive cancer need careful

attention for the rest of their lives. From table 8, it is seen that there are 36 pediatric cancers with a male predominance.

Table 8: **Distribution of Cancer Cases for Pediatric Group in Sindhudurg : 2010-11**

SITE	No.	%
Leukemia	8	80
CNS Tumour	1	10
Soft Tissue Sarcoma	1	10
Total Childhood Cancer	10	100

TOBACCO RELATED CANCERS

Tobacco is a known risk factor for cancer. Some of the sites affected by tobacco usage are lip, tongue, oral cavity, pharynx, oropharynx, hypopharynx, Oesophagus, Larynx, lung and urinary bladder. Tobacco alone contributes to 60% of cancer burden. It is a preventable cancer and can be prevented through education and public awareness programs at various levels of the population. It is seen from **table- 9** that tobacco is responsible for 60.5% of male cancers and 28.4% of female cancers, though it is 45% for both the sexes together.

Table 9: **Number of Tobacco Related Cancer (T.R.C.) Cases by Sex in Sindhudurg: 2010-11**

SITE	MALE		FEMALE		TOTAL	
	No.	%	No.	%	No.	%
Lip	5	1.3	1	0.3	6	0.8
Tongue	37	9.9	11	3.2	48	6.6
Mouth	79	21.1	36	10.3	115	15.9
Oropharynx	19	5.1	8	2.3	27	3.7
Hypopharynx	15	4	6	1.7	21	2.9
Oesophagus	20	5.3	24	6.9	44	6.1
Larynx	18	4.8	2	0.6	20	2.8
Lung etc.	25	6.7	9	2.6	34	4.7
Urinary Bladder	9	2.4	2	0.6	11	1.5
T.R.C.'S	227	60.5	99	28.4	326	45.1
Other Carcinomas	148	39.5	249	71.6	397	54.9
TOTAL	375	100	348	100	723	100

Figure 7 : **Proportion (%) of Tobacco Related Cancers**

FEMALE No.		MALE No.

Categories (x-axis): Lip, Tongue, Mouth, Orophary…, Hypophar…, Oesopha…, Larynx, Lung etc., Urinary…, T.R.C.'s

Values:
- Lip: 1.3 (male), 0.3 (female)
- Tongue: 9.9 (male), 3.2 (female)
- Mouth: 21.1 (male), 10.3 (female)
- Orophary…: 5.1 (male), 2.3 (female)
- Hypophar…: 4 (male), 1.7 (female)
- Oesopha…: 5.3 (male), 6.9 (female)
- Larynx: 4.8 (male), 0.6 (female)
- Lung etc.: 6.7 (male), 2.6 (female)
- Urinary…: 2.4 (male), 0.6 (female)
- T.R.C.'s: 60.5 (male), 28.4 (female)
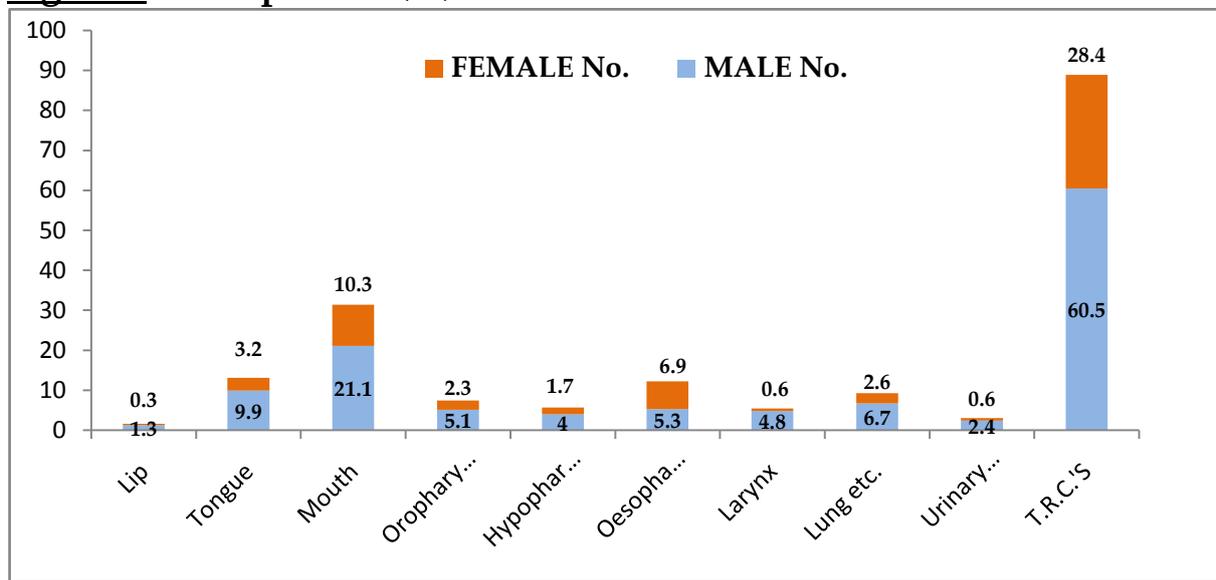
MORTALITY

Mortality statistics have an impressive history as a useful tool for undertaking epidemiological studies of cancer. The mortality analysis of various occupational groups has provided the evidence, which leads to the discovery of several chemical carcinogens. Examination of time trends of deaths rates has in turn lead to the developments of new etiologic hypotheses. Furthermore, international comparison of mortality data has been productive in outlining new directions for undertaking epidemiological studies.

The significant role played by mortality data in epidemiological studies, in the past was largely due to the unavailability of morbidity data, which is considered more valuable for undertaking epidemiological investigations. Gradually, the role of mortality studies has diminished with the establishment of population based cancer registries in various countries throughout the world and the availability of adequate morbidity data. The value of mortality data has also decreased with the increasing use of epidemiological field studies undertaken to test specific etiologic hypotheses, developed as a result of analysis of mortality statistics. It is important to obtain mortality data on cancer patients, though it is difficult. In India due to lack of death registration as mandatory, it is quite difficult to obtain these cases. At our registry, mortality data has been obtained from the death records maintained by the Grampanchyat Office and also during the house visits of the patients.

Table 10 displays the mortality rates for males and females by age groups. Mortality rates increase with advancement of age as seen in table 10 and figure 8.

Table 10 : Annual age specific mortality rates per 100,000 for all sites by Sex: 2010-11

Age Group	Male	Female
00-04	0	0
05-09	0	1.4
10-14	3.3	0
15-19	1.2	2.5
20-24	0	0
25-29	3.2	1.4
30-34	10.1	6.5
35-39	10.3	9.8
40-44	17.6	26.8
45-49	54.7	40.7
50-54	48.4	34
55-59	79	54.1
60-64	101.3	60.7

65-69	150.8	58.7
70-74	143.1	79.5
75+	150.1	88
All	**27**	**19.1**

Figure 8: **Annual age specific mortality rates per 100,000 for all sites by Sex: 2010-11**
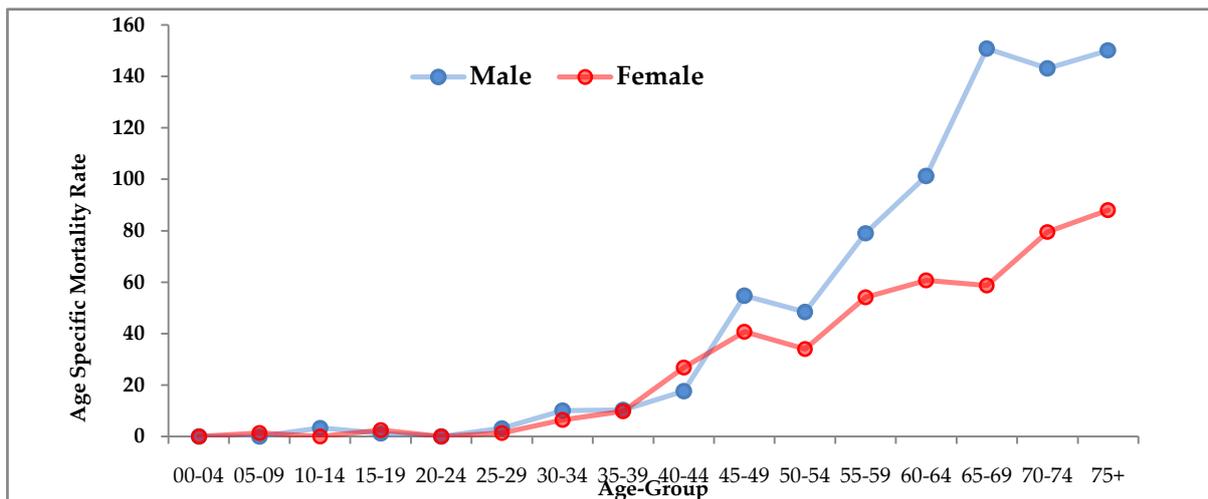
Figure. 8 shows that mortality rate of females is much lower than males and it is stable till the age 30 years both in males and females and then there is rise among male and peaks at age 65-69yrs age group .

Table 11(a) : Leading Cancer Sites by Cancer Death Rates per 100,000, persons for Male 2010-2011

SITE	AAR
Mouth	4.8
Tongue	2.6
Lung etc.	2.4

Oesophagus	1.6
Larnyx	1.4
Colon	1.3
Oth. Oropharynx	1.1
Hypopharnyx	1.1
Sec Resp. & Digestive	1.0
Rectum	0.9

Table 11(b) : Leading Cancer Sites by Cancer Death Rates per 100,000, persons for female 2010-2011

SITE	AAR
Breast	3.2
Mouth	2.1
Oesophagus	1.7
Cervix	1.4
Ovary	1.3
Stomach	0.7
Lung etc.	0.7
Sec Resp. & Digestive	0.7
Tongue	0.6
NHL	0.6

MORTALITY-INCIDENCE RATIO (M/I Ratio)

The Mortality-incident or MI ratio is an indicator of the completeness and accuracy of cancer mortality data. The Mortality-Incident Ratio (M/I %) for Male in Sindhudurg(2010-11) is 60.13% and for Female is 47.51 % where as in Ratnagiri(2009-10) for Male is 38.7% and for Female is 30.2%,

Barshi Rural(2009-10) for Male, it is 71.8% and Female is 67.2% and the M/I % Ratio for Male in Mumbai (2009-10) is 46.9% and for female 40.6%

It may be stated that the coverage of incident and mortality data have been satisfactory and are comparable to that observed in Mumbai cancer registry rates.

Summary

It was a challenge to set up a cancer registry especially in view of very difficult terrains and distant locations of households. One of the major observation is that breast cancer rate among females are higher than the cervical rates which is unlike those observed in Indian rural registries (viz. Barshi). This probably, is a population like a semi-urban where the breast cancer rates are higher than the cervical cancers among females.

Among the males, the mouth cancer is the leading site probably because of high usage of tobacco. Since we are in the initial years of the Sindudurg Cancer Registry operations and efforts are being undertaken constantly to improve the coverage through contacts and correspondence with the local authorities, Meetings with village panchayat and the medical fraternity in this area.

TABLES

APPENDIX

List of Tables ICD-10

ICD-10	SITE	00-04	05-09	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	%
00	Lip										1	1	1	2				5	1.3
01-02	Tongue						1	1	2	6	7	3	5	4	2	3	3	37	9.9
03-06	Mouth							2	3	5	12	11	9	12	10	10	5	79	21.1
09	Tonsil									1					2		1	4	1.1
10	Oth. Oropharynx									1	2	3	1	2	3	1	2	15	4.0
12-13	Hypopharynx							1		1	1		1	1	7	2	1	15	4.0
15	Oesophagus								1	2		1	3	7	3	3		20	5.3
16	Stomach										2	1	1	1	1	1	1	8	2.1
17	Small Intestine										1					1		2	0.5
18	Colon									2	1	1	3	1	4	1	1	14	3.7
20	Rectum							3	1	2			1	3		1		11	2.9
22	Liver								1		1				2	1	1	6	1.6
24	Gallbladder etc								1								1	2	0.5
25	Pancreas										1				4		2	7	1.9
30-31	Nose, sinuses etc.												1		1			2	0.5
32	Larynx										2	2	4	1	3	2	4	18	4.8
34	Lung etc.							1			7	3	2	7	1	1	3	25	6.7
40-41	Bone			2														2	0.5
43	Melanoma of Skin										1					1		2	0.5
44	Oth. Skin														1		1	2	0.5
47+49	Soft Tissue & PNS		1		1						1	1			2			6	1.6
50	Breast				1													1	0.3
60	Penis									1		1	1	2	3	1		9	2.4

ICD-10	SITE	00-04	05-09	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	%
61	Prostate										1			1	1	3	2	8	2.1
62	Testis			2	1	1												4	1.1
64	Kidney												1		1	1		3	0.8
67	Urinary Bladder							1					2	1	2		3	9	2.4
71	Brain Nervous System		1		1	1		1					1	1				6	1.6
73	Thyroid					1		1							1			3	0.8
77	Sec. Lymph Node							1	1	3	1	1	1		3	1		12	3.2
78	Sec. Resp. & Digestive											1		2	3		3	9	2.4
79	Sec. Others															1		1	0.3
81	Hodg. Dis							2										2	0.5
82-85,96	NHL							2		3	1	1	1		2	2		12	3.2
91	Lymphoid Leuk			1	2		1	1										5	1.3
92	Myeloid Leukemia			1				2		1	1		2					7	1.9
95	Leukemia Uns	1		1														2	0.5
Grand Total		1		5	4	5	5	17	12	26	46	31	41	49	62	37	34	375	100.0

Table 1(a) Number of Incident Cases of Cancer by Site and Age with percentage, Sindhudurg: (2010-2011)- Male

Table 1(b) Number of Incident Cases of Cancer by Site and Age with percentage, Sindhudurg: (2010-2011)- Female

ICD-10	SITE	00-04	05-09	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	%
00	Lip												1					1	0.3
01-02	Tongue								2	2	1	2		1	1	2		11	3.2
03-06	Mouth								1	2	4	2	6	8	7	3	3	36	10.3
07-08	Salivary Gland														1			1	0.3
10	Oth. Oropharynx							1	1		2		3			1		8	2.3
12-13	Hypopharynx										1	1		2	2			6	1.7
15	Oesophagus						1	1			4		2	5	3	2	6	24	6.9
16	Stomach								1	1		2		1	1		1	7	2.0
18	Colon											1	1			1		3	0.9
20	Rectum							1				1		1	3	2		8	2.3
22	Liver							1				1		1				3	0.9
24	Gallbladder etc												1					1	0.3
25	Pancreas													2				2	0.6
30-31	Nose, sinuses etc.													1		2		3	0.9
32	Larynx													1			1	2	0.6
34	Lung etc.								1		1	3		2	1	1		9	2.6
40-41	Bone							1						1				2	0.6
44	Oth. Skin								1		1	1						3	0.9
47+49	Soft Tissue & PNS			1						1				1				3	0.9
50	Breast						1	4	9	13	17	12	11	19	13	2	5	106	30.5
51	vulva												1			1		2	0.6

31

| 53 | Cervix | | | | | | | | | 40-44:4 | | | | | | | | 32 | 9.2 |

Table continuation (Female):

ICD-10	SITE	00-04	05-09	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	%
53	Cervix									4	4	3	7	3	3	5	3	32	9.2
54	Corpus Uteri										3		1	1		2		7	2.0
56	Ovary				1	1				4	2	2	2	5	2	3	4	27	7.8
64	Kidney												1	1				2	0.6
67	Urinary Bladder										1				1			2	0.6
71	Brain Nervous System				1						1							2	0.6
73	Thyroid						1							1	1		1	4	1.1
74	Adrenal gland							1										1	0.3
77	Sec. Lymph Node															1		1	0.3
78	Sec. Resp. & Digestive										1		1	2	1	2	1	8	2.3
79	Sec. Others													1				1	0.3
80	Unknown Prim											1					1	2	0.6
82-85,96	NHL										2	3		1	1	2		9	2.6
90	Multiple Myeloma													1				1	0.3
91	Lymphoid Leuk	1	1	1														3	0.9
92	Myeloid Leukemia							1		1				1				3	0.9
95	Leukemia Uns		1								1							2	0.6
Grand Total		1	2	1	3	1	2	11	20	27	45	33	45	52	48	28	29	348	100.0

Table 2 (a) Average Annual Age-specific, World Age adjusted, Truncated (35-64 yrs) Incidence Rates of Cancer Cases per 100,000 persons, Sindhudurg : (2010-2011) Male

ICD-10	SITE	00-04	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
00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.7	3.3	6.3	0.0	0.0	0.0	0.6	0.7	2.1
01-02	Tongue	0.0	0.0	0.0	0.0	1.6	1.7	3.4	11.8	15.3	8.1	16.5	12.7	6.9	15.3	16.7	4.4	4.5	11.0
03-06	Mouth	0.0	0.0	0.0	0.0	0.0	3.4	5.2	9.8	26.2	29.6	29.6	38.0	34.3	51.1	27.8	9.5	9.5	21.5
09	Tonsil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	6.9	0.0	5.6	0.5	0.4	0.4
10	Oth. Oropharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.4	8.1	3.3	6.3	10.3	5.1	11.1	1.8	1.8	3.8
12-13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.0	2.2	0.0	3.3	3.2	24.0	10.2	5.6	1.8	1.6	1.6
15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.9	0.0	2.7	9.9	22.2	10.3	15.3	0.0	2.4	2.4	5.7
16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	2.7	3.3	3.2	3.4	5.1	5.6	1.0	1.0	2.1
17	Small Intestine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	5.1	0.0	0.2	0.2	0.4
18	Colon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	2.2	2.7	9.9	3.2	13.7	5.1	5.6	1.7	1.6	3.3
20	Rectum	0.0	0.0	0.0	0.0	0.0	5.0	1.7	3.9	0.0	0.0	3.3	9.5	0.0	5.1	0.0	1.3	1.3	2.7
22	Liver	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.2	0.0	0.0	0.0	6.9	5.1	5.6	0.7	0.7	0.8
24	Gallbladder etc	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.2	0.2	0.3
25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	13.7	0.0	11.1	0.8	0.8	0.4
30-31	Nose, sinuses etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.4	0.0	0.0	0.2	0.2	0.4
32	Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	5.4	13.2	3.2	10.3	10.2	22.2	2.2	2.1	3.8
34	Lung etc.	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	15.3	8.1	6.6	22.2	3.4	5.1	16.7	3.0	3.1	8.0
40-41	Bone	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0
43	Melanoma of Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	5.1	0.0	0.2	0.2	0.4
44	Oth. Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	5.6	0.2	0.2	0.0

ICD-10	SITE	00-04	05-09	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
47+49	Soft Tissue & PNS	0.0	1.1	0.0	1.5	0.0	0.0	0.0	0.0	2.2	2.7	0.0	0.0	6.9	0.0	0.0		0.7	0.7	0.9
50	Breast	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.1	0.0
60	Penis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.7	3.3	6.3	10.3	5.1	0.0		1.1	1.0	2.1
61	Prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	3.2	3.4	15.3	11.1		1.0	0.9	0.8
62	Testis	0.0	0.0	0.0	3.0	1.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.5	0.5	0.0
64	Kidney	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.4	5.1	0.0			0.4	0.3	0.4
67	Urinary Bladder	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	6.6	3.2	6.9	0.0	16.7		1.1	1.0	1.3
71	Brain Nervous System	0.0	1.1	0.0	1.5	1.6	0.0	1.7	0.0	0.0	3.3	3.2	0.0	0.0	0.0			0.7	0.7	1.2
73	Thyroid	0.0	0.0	0.0	0.0	1.6	0.0	1.7	0.0	0.0	0.0	0.0	3.4	0.0	0.0			0.4	0.3	0.3
77	Sec. Lymph Node	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	6.6	2.7	3.3	3.2	10.3	5.1	0.0		1.4	1.4	3.2
78	Sec. Resp. & Digestive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	6.3	10.3	0.0	16.7			1.1	1.0	1.3
79	Sec. Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0			0.1	0.1	0.0
81	Hodg. Dis	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.2	0.2	0.0
82-85,96	NHL	0.0	0.0	0.0	0.0	0.0	3.4	0.0	5.9	2.2	2.7	3.3	0.0	6.9	10.2	0.0		1.4	1.4	2.4
91	Lymphoid Leuk	0.0	1.1	2.4	0.0	1.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.6	0.6	0.0
92	Myeloid Leukemia	0.0	1.1	0.0	0.0	0.0	3.4	0.0	2.0	2.2	0.0	6.6	0.0	0.0	0.0	0.0		0.8	0.8	1.7
95	Leukemia Uns	1.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.2	0.3	0.0
Grand Total		1.3	5.6	4.9	7.6	8.1	28.6	20.7	51.0	100.6	83.4	135.0	155.1	212.5	189.1	189.0		44.9	44.1	84.2

Table 2 (b) Average Annual Age-specific, World Age adjusted, Truncated (35-64 yrs) Incidence Rates of Cancer Cases per 100,000 persons, Sindhudurg : (2010-2011)- Female

ICD-10	SITE	00-04	05-09	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
00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.1	0.1	0.3
01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	4.1	2.1	5.2	0.0	2.4	2.7	8.4	0.0	1.3	1.2	3.0
03-06	Mouth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.1	8.6	5.2	15.5	19.4	18.7	12.6	13.9	4.2	3.6	8.1
07-08	Salivary Gland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.1	0.1	0.0
10	Oth. Oropharynx	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.0	4.3	0.0	7.7	0.0	0.0	4.2	0.0	0.9	0.8	2.1
12-13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.6	0.0	4.9	5.3	0.0	0.0	0.0	0.7	0.6	1.5
15	Oesophagus	0.0	0.0	0.0	0.0	0.0	1.4	1.6	0.0	0.0	8.6	0.0	5.2	12.1	8.0	8.4	27.7	2.8	2.4	3.9
16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.1	0.0	5.2	0.0	2.4	2.7	0.0	4.6	0.8	0.8	1.9
18	Colon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	4.6	0.3	0.3	0.8
20	Rectum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	2.6	0.0	2.4	8.0	8.4	0.0	0.9	0.7	0.7
22	Liver	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	2.6	0.0	2.4	0.0	0.0	0.0	0.3	0.3	0.7
24	Gallbladder etc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.1	0.1	0.3
25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.2	0.2	0.0
30-31	Nose, sinuses etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	9.2	0.3	0.3	0.0
32	Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.6	0.2	0.2	0.3
34	Lung etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.6	7.7	0.0	5.3	4.2	4.6	1.0	0.9	1.8
40-41	Bone	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.2	0.2	0.0
44	Oth. Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.1	2.6	0.0	0.0	0.0	0.0	0.0	0.3	0.4	1.2
47+49	Soft Tissue & PNS	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.3	0.3	0.7
50	Breast	0.0	0.0	0.0	0.0	0.0	1.4	6.5	14.6	26.8	36.4	31.4	28.4	46.1	34.7	8.4	23.1	12.3	11.4	29.7
51	vulva	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	4.6	0.2	0.2	0.3
53	Cervix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	8.6	7.9	18.0	7.3	8.0	20.9	13.9	3.7	3.4	7.8

54	Corpus Uteri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	2.6	2.4	0.0	8.4	0.0	0.8	0.8	1.9
56	Ovary	0.0	0.0	0.0	1.3	1.4	0.0	0.0	6.5	4.1	4.3	5.2	12.9	4.9	8.0	16.7	4.6	3.1	2.8	6.0
64	Kidney	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.4	0.0	0.0	0.0	0.2	0.2	0.6
67	Urinary Bladder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.7	0.0	0.0	0.2	0.2	0.4
71	Brain Nervous System	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
73	Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	2.4	2.7	0.0	4.6	0.5	0.4	0.3
74	Adrenal gland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
77	Sec. Lymph Node	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.1	0.1	0.0
78	Sec. Resp. & Digestive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.6	4.9	2.7	8.4	4.6	0.9	0.8	1.4
79	Sec. Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.1	0.1	0.3
80	Unknown Prim	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	4.6	0.2	0.2	0.4
82-85,96	NHL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	7.9	0.0	2.4	2.7	8.4	0.0	1.0	1.0	2.4
90	Multiple Myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.1	0.1	0.0
91	Lymphoid Leuk	1.5	1.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.0
92	Myeloid Leukemia	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.3	0.3	0.7
95	Leukemia Uns	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4
Grand Total		1.5	2.7	1.2	3.8	1.4	2.8	17.9	32.6	55.7	96.4	86.4	116.0	126.2	128.1	117.2	134.1	40.2	36.3	80.9

Table 3(a) Incident Cases of Cancer by Most Valid Basis of Diagnosis and Site, Sindhudurg: (2010-2011)- Male

ICD-10	SITE	CLINICAL	D.C.O	MICROSCOPIC	RADIOLOGY	TOTAL
00	Lip			5		5
01-02	Tongue	1		36		37
03-06	Mouth		1	78		79
09	Tonsil			4		4
10	Oth. Oropharynx	1		14		15
12-13	Hypopharynx			15		15
15	Oesophagus			20		20
16	Stomach			8		8
17	Small Intestine			2		2
18	Colon			14		14
20	Rectum			11		11
22	Liver			6		6
24	Gallbladder etc			2		2
25	Pancreas		1	5	1	7
30-31	Nose, sinuses etc.			2		2
32	Larynx	2	1	15		18
34	Lung etc.	1		24		25
40-41	Bone			2		2
43	Melanoma of Skin			2		2
44	Oth. Skin			2		2
47+49	Soft Tissue & PNS			6		6
50	Breast			1		1
60	Penis			9		9

		CLINICAL	D.C.O	MICROSCOPIC	RADIOLOGY	TOTAL
61	Prostate			8		8
62	Testis			4		4
64	Kidney			3		3
67	Urinary Bladder			9		9
71	Brain Nervous System			5	1	6
73	Thyroid			3		3
77	Sec. Lymph Node			12		12
78	Sec. Resp. & Digestive		2	7		9
79	Sec. Others			1		1
81	Hodg. Dis			2		2
82-85,96	NHL			12		12
91	Lymphoid Leuk			5		5
92	Myeloid Leukemia			7		7
95	Leukemia Uns			2		2
Grand Total		5	5	363	2	375

Table 3(b) Incident Cases of Cancer by Most Valid Basis of Diagnosis and Site, Sindhudurg: (2010-2011)- Female

ICD-10	SITE	CLINICAL	D.C.O	MICROSCOPIC	RADIOLOGY	TOTAL
00	Lip			1		1
01-02	Tongue			11		11
03-06	Mouth			36		36
07-08	Salivary Gland			1		1
10	Oth. Oropharynx			8		8
12-13	Hypopharynx			6		6
15	Oesophagus	1		22	1	24
16	Stomach		1	6		7
18	Colon			3		3
20	Rectum			8		8
22	Liver			3		3
24	Gallbladder etc			1		1
25	Pancreas		1	1		2
30-31	Nose, sinuses etc.			3		3
32	Larynx			2		2
34	Lung etc.			9		9
40-41	Bone			2		2
44	Oth. Skin			3		3
47+49	Soft Tissue & PNS			3		3
50	Breast	3		103		106
51	Vulva			2		2
53	Cervix			32		32
54	Corpus Uteri			7		7
56	Ovary			26	1	27

ICD-10	SITE	UNMARRIED	MARRIED	WIDOW	SEPERATED	UNKNOWN	TOTAL
64	Kidney			2			2
67	Urinary Bladder			2			2
71	Brain Nervous System			1		1	2
73	Thyroid			4			4
74	Adrenal gland			1			1
77	Sec. Lymph Node	1					1
78	Sec. Resp. & Digestive		1	7			8
79	Sec. Others			1			1
80	Unknown Prim			2			2
82-85,96	NHL			9			9
90	Multiple Myeloma			1			1
91	Lymphoid Leuk			3			3
92	Myeloid Leukemia			3			3
95	Leukemia Uns			2			2
Grand Total		5	3	337		3	348

Table 4(a) Incident Cases of Cancer by Marital Status and Site, Sindhudurg (2010- 2011)- Male

ICD-10	SITE	UNMARRIED	MARRIED	WIDOW	SEPERATED	UNKNOWN	TOTAL
00	Lip		5				5
01-02	Tongue	2	35				37
03-06	Mouth	3	74	2			79
09	Tonsil		4				4
10	Oth. Oropharynx		15				15
12-13	Hypopharynx	1	13		1		15
15	Oesophagus		19			1	20
16	Stomach		8				8
17	Small Intestine		2				2
18	Colon		14				14
20	Rectum		11				11
22	Liver	1	5				6
24	Gallbladder etc		2				2
25	Pancreas		7				7
30-31	Nose, sinuses etc.		2				2
32	Larynx		18				18
34	Lung etc.	1	22	2			25
40-41	Bone	1	1				2
43	Melanoma of Skin		2				2
44	Oth. Skin		2				2
47+49	Soft Tissue & PNS	1	4			1	6
50	Breast		1				1

60	Penis	1	8				9
61	Prostate		8				8
62	Testis	3				1	4
64	Kidney		3				3
67	Urinary Bladder		9				9
71	Brain Nervous System	3	3				6
73	Thyroid	1	1			1	3
77	Sec. Lymph Node	1	11				12
78	Sec. Resp. & Digestive		9				9
79	Sec. Others		1				1
81	Hodg. Dis		2				2
82-85,96	NHL	2	9			1	12
91	Lymphoid Leuk	4	1				5
92	Myeloid Leukemia	1	6				7
95	Leukemia Uns	2					2
Grand Total		28	337	4	1	5	375

ICD-10	SITE	UNMARRIED	MARRIED	WIDOW	UNKNOWN	TOTAL
00	Lip		1			1
01-02	Tongue		10	1		11
03-06	Mouth	1	24	10	1	36
07-08	Salivary Gland			1		1
10	Oth. Oropharynx		8			8
12-13	Hypopharynx		6			6
15	Oesophagus		14	8	2	24
16	Stomach		6		1	7
18	Colon		2	1		3
20	Rectum		5	3		8
22	Liver		3			3
24	Gallbladder etc		1			1
25	Pancreas		1		1	2
30-31	Nose, sinuses etc.		1	2		3
32	Larynx		2			2
34	Lung etc.		5	4		9
40-41	Bone		2			2
44	Oth. Skin		3			3
47+49	Soft Tissue & PNS	1	1	1		3
50	Breast	7	83	10	6	106
51	Vulva		1	1		2
53	Cervix		24	8		32
54	Corpus Uteri		6		1	7

ICD-10	SITE					TOTAL
56	Ovary	2	18	7		27
64	Kidney		1		1	2
67	Urinary Bladder		2			2
71	Brain Nervous System	1	1			2
73	Thyroid		2	1	1	4
74	Adrenal gland		1			1
77	Sec. Lymph Node	1				1
78	Sec. Resp. & Digestive		7	1		8
79	Sec. Others				1	1
80	Unknown Prim		1	1		2
82-85,96	NHL		8	1		9
90	Multiple Myeloma		1			1
91	Lymphoid Leuk	3				3
92	Myeloid Leukemia		2	1		3
95	Leukemia Uns	1	1			2
Grand Total		17	254	62	15	348

Table 4(b) Incident Cases of Cancer by Marital Status and Site, Sindhudurg (2010- 2011)- Female

Table 5(a) Incident Cases of Cancer by Religion and site, Sindhudurg (2010- 2011)- Male

ICD-10	SITE	HINDU	MUSLIM	CHRISTIAN	NEO-BUDDHIST	UNKNOWN	TOTAL
00	Lip	5					5
01-02	Tongue	36	1				37
03-06	Mouth	78	1				79
09	Tonsil	4					4
10	Oth. Oropharynx	14				1	15
12-13	Hypopharynx	15					15
15	Oesophagus	18	1			1	20
16	Stomach	6		2			8
17	Small Intestine	2					2
18	Colon	14					14
20	Rectum	11					11
22	Liver	6					6
24	Gallbladder etc	2					2
25	Pancreas	6			1		7
30-31	Nose, sinuses etc.	1			1		2
32	Larynx	17				1	18
34	Lung etc.	24			1		25
40-41	Bone	2					2
43	Melanoma of Skin	2					2
44	Oth. Skin	2					2

ICD-10	SITE	HINDU	MUSLIM	CHRISTIAN	NEO-BUDDHIST	UNKNOWN	TOTAL
47+49	Soft Tissue & PNS	5				1	6
50	Breast	1					1
60	Penis	8			1		9
61	Prostate	6	1	1			8
62	Testis	2	1			1	4
64	Kidney	3					3
67	Urinary Bladder	8		1			9
71	Brain Nervous System	6					6
73	Thyroid	2				1	3
77	Sec. Lymph Node	10	1		1		12
78	Sec. Resp & Digestive	8			1		9
79	Sec. Others	1					1
81	Hodg. Dis	2					2
82-85,96	NHL	11				1	12
91	Lymphoid Leuk	5					5
92	Myeloid Leukemia	6			1		7
95	Leukemia Uns	2					2
Grand Total		351	6	4	7	7	375

ICD-10	SITE	HINDU	MUSLIM	CHRISTIAN	NEO-BUDDHIST	UNKNOWN	TOTAL
00	Lip	1					1
01-02	Tongue	11					11
03-06	Mouth	33	1		1	1	36
07-08	Salivary Gland	1					1
10	Oth. Oropharynx	8					8
12-13	Hypopharynx	6					6
15	Oesophagus	20	1	1	1	1	24
16	Stomach	6				1	7
18	Colon	3					3
20	Rectum	8					8
22	Liver	3					3
24	Gallbladder etc	1					1
25	Pancreas	1				1	2
30-31	Nose, sinuses etc.	3					3
32	Larynx	2					2
34	Lung etc.	8	1				9
40-41	Bone	2					2
44	Oth. Skin	3					3
47+49	Soft Tissue & PNS	3					3
50	Breast	93	4	3	1	5	106
51	vulva	2					2
53	Cervix	29	2	1			32

ICD-10	SITE						TOTAL
54	Corpus Uteri	6				1	7
56	Ovary	26	1				27
64	Kidney	2					2
67	Urinary Bladder	2					2
71	Brain Nervous System	2					2
73	Thyroid	3				1	4
74	Adrenal gland	1					1
77	Sec. Lymph Node	1					1
78	Sec. Resp & Digestive	7			1		8
79	Sec. Others					1	1
80	Unknown Prim	2					2
82-85,96	NHL	8		1			9
90	Multiple Myeloma	1					1
91	Lymphoid Leuk	2	1				3
92	Myeloid Leukemia	3					3
95	Leukemia Uns	2					2
Grand Total		315	11	6	4	12	348

Table 5(b) Incident Cases of Cancer by Religion and site, Sindhudurg (2010- 2011)- Female

Table 6(a) Number of Cancer Deaths by Age and Site, Sindhudurg (2010- 2011) - Male

ICD- 10	SITE	0-4	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
00	Lip										1						1
01-02	Tongue							1	2	4	2	3	2	2	3	3	22
03-06	Mouth						1	1	2	5	4	5	7	5	6	4	40
09	Tonsil													1		1	2
10	Oth. Oropharynx									2	2	1	1	1	1	1	9
12-13	Hypopharynx						1		1			1	1	5	1		10
15	Oesophagus							1			1	2	5	3	2		14
16	Stomach									2	1	1	1		1	1	7
17	Small Intestine														1		1
18	Colon								1	1	1	2	1	3	1	1	11
20	Rectum						2	1	1			1	2		1		8
22	Liver								1					2	1	1	5
24	Gallbladder etc								1							1	2
25	Pancreas									1				4		2	7
30-31	Nose, sinuses etc.											1		1			2

ICD-10	SITE	00-04	05-09	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
32	Larynx										1		3		2	2	4	12
34	Lung etc.										6	3	2	5	1		2	19
40-41	Bone			1														1
43	Melanoma of Skin										1					1		2
47+49	Soft Tissue & PNS											1			2			3
60	Penis													2	3	1		6
61	Prostate													1		2		3
64	Kidney														1	1		2
67	Urinary Bladder														2		3	5
71	Brain Nervous System		1		1								1	1				4
77	Sec. Lymph Node										1		1	1	3	1		7
78	Sec. Resp. & Digestive											1		2	3		3	9
82-85,96	NHL								2		1					2		5
91	Lymphoid Leuk		1		1													2
92	Myeloid Leukemia		1					2			1							4
Grand Total			3	1	2			6	6	9	25	18	24	32	44	28	27	225

Table 6(b) Number of Cancer Deaths by Age and Site, Sindhudurg (2010-2011) – Female

ICD-10	SITE	00-04	05-09	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
01-02	Tongue									2		1		1		1		5
03-06	Mouth								1	2	3	1	2	5	1	2	3	20
07-08	Salivary Gland														1			1
10	Oth. Oropharynx							1	1				1			1		4
12-13	Hypopharynx										1				2			3
15	Oesophagus						1	1			1		2	5	2	2	4	18
16	Stomach									1		2		1	1		1	6
18	Colon											1	1					2
20	Rectum											1			2	1		4
22	Liver											1		1				2
25	Pancreas														2			2
30-31	Nose, sinuses etc.														1		1	2
32	Larynx													1			1	2
34	Lung etc.									1			3		1	1	1	7
44	Oth. Skin										1							1
47+49	Soft Tissue & PNS				1									1				2
50	Breast							2	2	5	5	2	3	6	4		1	30

ICD-10	SITE	0-4	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
51	vulva														1		1
53	Cervix								1	1	1	3	1	3	3	1	14
54	Corpus Uteri									1							1
56	Ovary							1		1	1	4	1		4	1	13
67	Urinary Bladder										1			1			2
71	Brain Nervous System						1				1						2
73	Thyroid													1		1	2
74	Adrenal gland								1								1
77	Sec. Lymph Node															1	1
78	Sec. Resp. & Digestive										1	1	1	1	2	1	7
80	Unknown Prim															1	1
82-85,96	NHL										1	2			2		5
91	Lymphoid Leuk		1														1
92	Myeloid Leukemia										1		1				2
95	Leukemia Uns										1						1
Grand Total		1		2		1	4	6	13	19	13	21	25	22	19	19	165

Table 7(a) Average Age-Specific World Age Adjusted, Truncated (35-64) Cancer Death Rates per 100,000 persons, Sindhudurg (2010-2011)- Male

ICD-10	SITE	0-4	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
00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.9	8.7	5.4	9.9	6.3	6.9	15.3	16.7	2.6	2.6	5.7
03-06	Mouth	0.0	0.0	0.0	0.0	0.0	1.7	1.7	3.9	10.9	10.8	16.5	22.2	17.1	30.7	22.2	4.8	4.8	9.9
09	Tonsil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	5.6	0.2	0.2	0.0
10	Oth. Oropharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	5.4	3.3	3.2	3.4	5.1	5.6	1.1	1.1	2.5
12-13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.0	0.0	0.0	3.3	3.2	17.1	5.1	0.0	1.2	1.1	1.2
15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	2.7	6.6	15.8	10.3	10.2	0.0	1.7	1.6	3.7
16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	2.7	3.3	3.2	0.0	5.1	5.6	0.8	0.9	2.1
17	Small Intestine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.1	0.1	0.0
18	Colon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.2	2.7	6.6	3.2	10.3	5.1	5.6	1.3	1.3	2.5
20	Rectum	0.0	0.0	0.0	0.0	0.0	3.4	1.7	2.0	0.0	0.0	3.3	6.3	0.0	5.1	0.0	1.0	0.9	2.0
22	Liver	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	6.9	5.1	5.6	0.6	0.5	0.3
24	Gallbladder etc	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.2	0.2	0.3
25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	13.7	0.0	11.1	0.8	0.8	0.4

ICD-10	SITE	00-04	05-09	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
30-31	Nose, sinuses etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.4	0.0	0.0	0.2	0.2	0.4
32	Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	9.9	0.0	6.9	10.2	22.2		1.4	1.4	1.7
34	Lung etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	8.1	6.6	15.8	3.4	0.0	11.1		2.3	2.4	6.7
40-41	Bone	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.1	0.0
43	Melanoma of Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	5.1	0.0		0.2	0.2	0.4
47+49	Soft Tissue & PNS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	6.9	0.0	0.0		0.4	0.3	0.4
60	Penis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	10.3	5.1	0.0		0.7	0.7	0.8
61	Prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	10.2	0.0		0.4	0.3	0.4
64	Kidney	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	5.1	0.0		0.2	0.2	0.0
67	Urinary Bladder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	16.7		0.6	0.5	0.0
71	Brain Nervous System	0.0	1.1	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	3.3	3.2	0.0	0.0	0.0		0.5	0.5	0.8
77	Sec. Lymph Node	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	3.3	3.2	10.3	5.1	0.0		0.8	0.8	1.3
78	Sec. Resp. & Digestive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	6.3	10.3	0.0	16.7		1.1	1.0	1.3
82-85,96	NHL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	2.7	0.0	0.0	0.0	10.2	0.0		0.6	0.6	1.2
91	Lymphoid Leuk	0.0	1.1	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.2	0.2	0.0
92	Myeloid Leukemia	0.0	1.1	0.0	0.0	0.0	3.4	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0		0.5	0.4	0.4
Grand Total		0.0	3.3	1.2	0.0	3.2	10.1	10.3	17.6	54.7	48.4	79.0	101.3	150.8	143.1	150.1		27.0	26.3	47.1

Table 7(b) Average Age-Specific World Age Adjusted, Truncated (35-64) Cancer Death Rates per 100,000 persons, Sindhudurg (2010-2011)- Female

ICD-10	SITE	00-04	05-09	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
01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	2.6	0.0	2.4	0.0	4.2	0.0	0.6	0.6	1.5
03-06	Mouth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.1	6.4	2.6	5.2	12.1	2.7	8.4	13.9	2.3	2.1	5.0
07-08	Salivary Gland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.1	0.1	0.0
10	Oth. Oropharynx	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.0	0.0	0.0	2.6	0.0	0.0	4.2	0.0	0.5	0.4	0.6
12-13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	5.3	0.0	0.0	0.3	0.3	0.4
15	Oesophagus	0.0	0.0	0.0	0.0	0.0	1.4	1.6	0.0	0.0	2.1	0.0	5.2	12.1	5.3	8.4	18.5	2.1	1.7	2.6
16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	5.2	0.0	2.4	2.7	0.0	4.6	0.7	0.7	1.6
18	Colon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.2	0.2	0.8
20	Rectum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	5.3	4.2	0.0	0.5	0.4	0.4
22	Liver	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.4	0.0	0.0	0.0	0.2	0.2	0.7
25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0		0.2	0.2	0.0
30-31	Nose, sinuses etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	4.6	0.2	0.2	0.0
32	Larynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.6	0.2	0.2	0.3
34	Lung etc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	7.7	0.0	2.7	4.2	4.6	0.8	0.7	1.4
44	Oth. Skin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
47+49	Soft Tissue & PNS	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.2	0.2	0.3

ICD-10	SITE																		
50	Breast	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	10.3	10.7	5.2	7.7	14.6	10.7	0.0	4.6	3.5	3.2	8.4
51	vulva	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.1	0.1	0.0
53	Cervix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	2.6	7.7	2.4	8.0	12.6	4.6	1.6	1.4	2.5
54	Corpus Uteri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
56	Ovary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.1	2.6	10.3	2.4	0.0	16.7	4.6	1.5	1.3	2.8
67	Urinary Bladder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.7	0.0	0.0	0.2	0.2	0.4
71	Brain Nervous System	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
73	Thyroid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.6	0.2	0.2	0.3
74	Adrenal gland	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
77	Sec. Lymph Node	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.1	0.1	0.0
78	Sec. Resp. & Digestive	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.6	2.4	2.7	8.4	4.6	0.8	0.7	1.1
80	Unknown Prim	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.1	0.1	0.0
82-85,96	NHL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.2	0.0	0.0	0.0	8.4	0.0	0.6	0.6	1.3
91	Lymphoid Leuk	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
92	Myeloid Leukemia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.2	0.2	0.7
95	Leukemia Uns	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
Grand Total		0.0	1.4	0.0	2.5	0.0	1.4	6.5	9.8	26.8	40.7	34.0	54.1	60.7	58.7	79.5	87.9	19.1	16.9	35.3

Table 8 (a) Incident Cases of Cancer by Mother Tongue and Site, Sindhudurg (2010-2011)- Male

ICD-10	SITE	HINDI	MARATHI	URDU	OTHERS	TULU	KONKANI	UNKNOWN	TOTAL
00	Lip		5						5
01-02	Tongue	1	35		1				37
03-06	Mouth		75	1			2	1	79
09	Tonsil		4						4
10	Oth. Oropharynx		15						15
12-13	Hypopharynx		15						15
15	Oesophagus	1	18					1	20
16	Stomach		7				1		8
17	Small Intestine		2						2
18	Colon		14						14
20	Rectum		11						11
22	Liver		6						6
24	Gallbladder etc		2						2
25	Pancreas		7						7
30-31	Nose, sinuses etc.		2						2
32	Larynx		18						18
34	Lung etc.		25						25
40-41	Bone		2						2
43	Melanoma of Skin		2						2
44	Oth. Skin		2						2

ICD-10	SITE	HINDI	MARATHI	URDU	OTHERS	KONKANI	UNKNOWN	TOTAL
47+49	Soft Tissue & PNS		6					6
50	Breast		1					1
60	Penis		8				1	9
61	Prostate		7			1		8
62	Testis		3				1	4
64	Kidney		3					3
67	Urinary Bladder		8				1	9
71	Brain Nervous System		6					6
73	Thyroid		2				1	3
77	Sec. Lymph Node	1	11					12
78	Sec. Resp. & Digestive		9					9
79	Sec. Others		1					1
81	Hodg. Dis		2					2
82-85,96	NHL		11				1	12
91	Lymphoid Leuk		5					5
92	Myeloid Leukemia		7					7
95	Leukemia Uns		2					2
Grand Total		3	359	1	1	1	5	375

Table 8 (b) Incident Cases of Cancer by Mother Tongue and Site, Sindhudurg (2010-2011)- Female

ICD-10	SITE	HINDI	MARATHI	URDU	OTHERS	KONKANI	UNKNOWN	TOTAL
00	Lip		1					1
01-02	Tongue		11					11
03-06	Mouth	1	33			1	1	36
07-08	Salivary Gland		1				0	1
10	Oth. Oropharynx		7		1		0	8
12-13	Hypopharynx		6				0	6
15	Oesophagus	1	21				2	24
16	Stomach		6				1	7
18	Colon		3				0	3
20	Rectum		8				0	8
22	Liver		3				0	3
24	Gallbladder etc		1				0	1
25	Pancreas		1				1	2
30-31	Nose, sinuses etc.		3				0	3
32	Larynx		2				0	2
34	Lung etc.		9				0	9
40-41	Bone		2				0	2
44	Oth. Skin		3				0	3
47+49	Soft Tissue & PNS		3				0	3
50	Breast		99		1	1	5	106

Code	Site							Total
51	vulva		2				0	2
53	Cervix		30	1		1	0	32
54	Corpus Uteri		6				1	7
56	Ovary	1	26				0	27
64	Kidney		1				1	2
67	Urinary Bladder		2				0	2
71	Brain Nervous System		2				0	2
73	Thyroid		3				1	4
74	Adrenal gland		1				0	1
77	Sec. Lymph Node		1				0	1
78	Sec. Resp. & Digestive		8				0	8
79	Sec. Others						1	1
80	Unknown Prim		2				0	2
82-85,96	NHL		8			1	0	9
90	Multiple Myeloma		1				0	1
91	Lymphoid Leuk	1	2				0	3
92	Myeloid Leukemia		3				0	3
95	Leukemia Uns		2				0	2
Grand Total		4	323	1	2	4	14	348