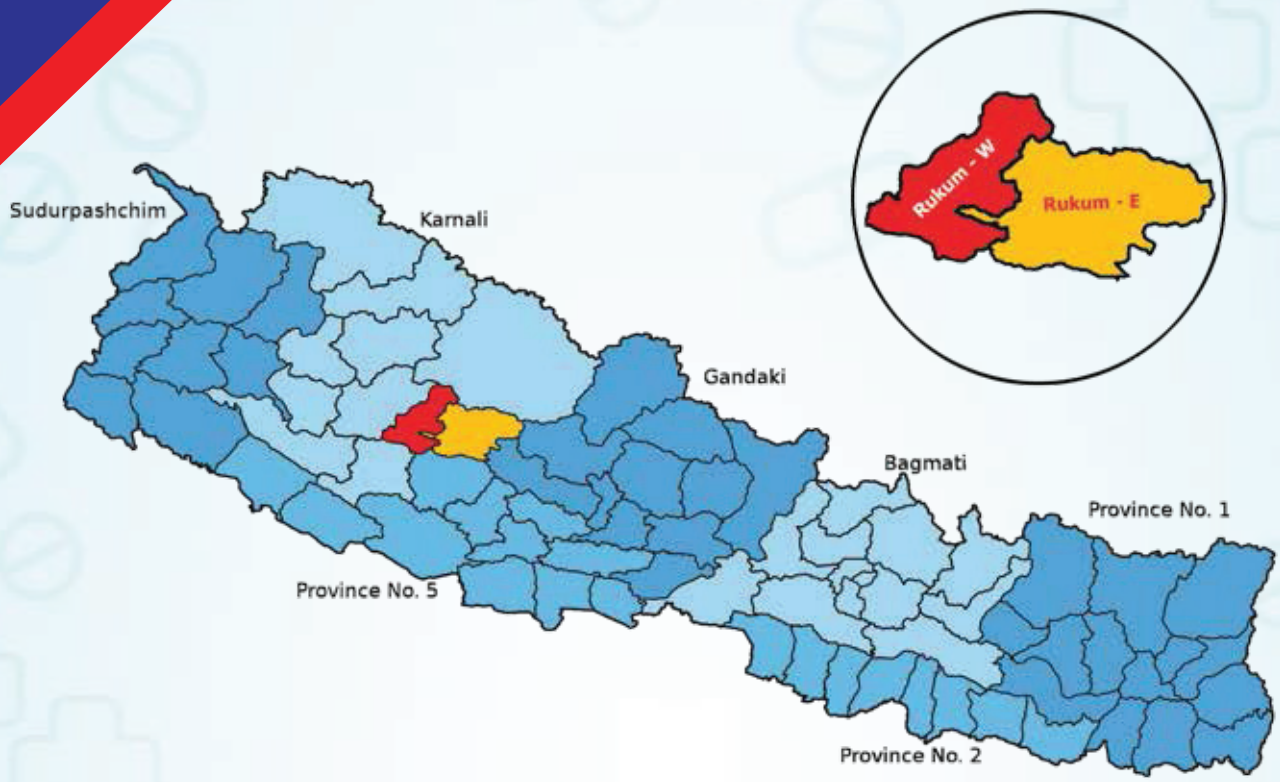

Cancer Incidence and Mortality in Rukum Districts in 2018

(East and West Rukum)

Government of Nepal

Nepal Health Research Council

Ramshah Path, Kathmandu

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Preface

The burden of Non Communicable Disease is increasing globally. Currently, Nepal is also facing increasing double burden Non communicable disease like other developing countries. The major NCDs like cardiovascular disease, cancer, diabetes and chronic respiratory diseases are increasing in recent years. Cancer has become one of the major public health issues in Nepal which demands huge investment for prevention and treatment. It is reported as fifth leading cause of death in Nepal. In this context population based evidence of cancer is the primary need of government of Nepal in order to develop country specific strategies and programs to prevent, control and treat the diseases.

Population Based Cancer Registry has been established by Nepal Health Research Council since January 1, 2018 in close collaboration with Ministry of Health and Population (MoHP), WHO country office Nepal and International Agency for Research on Cancer (IARC) Regional Hub, Mumbai. The main aim of the registry is generating evidence on cancer incidence, mortality, pattern and trends in Nepal. The findings of the study will help in the development of cancer control strategy as per the need of the country. It also helps in providing the information regarding the geographical variation in the pattern of cancer which eventually helps the national, provincial and local governments to plan and develop targeted interventions to control cancer. It will serve as a basis in developing evidence based cancer control and prevention programs for the policy makers and planners.

I would like to take this opportunity to thank all who have supported and contributed in establishing the registry and generating the evidence. I express my sincere gratitude to the support of MoHP, technical assistance of IARC, Regional Hub and WHO Country Office for Nepal. I am very thankful to BP Koirala Memorial Cancer Hospital, Chitwan for their strong support and collaboration to continue the Population based cancer registry in Nepal. I extend my thankfulness to all the hospitals, hospice, ayurvedic centers, pathology laboratories, social security and nursing division, civil registration, local bodies like municipalities, DHOs/ DPHOs, Health posts, ward offices and community leaders in helping us in providing the data. Finally, I appreciate NHRC team members for their continuous effort in making registry successful and providing such a valuable evidence to the country.

Prof. Dr. Anjani Kumar Jha

Chairman

Nepal Health Research Council

Contribution in Population Based Cancer Registry in Nepal

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Chief	Health Coordination Division, Ministry of Health and Population	Chairperson
Prof Dr. Anjani Kumar Jha	Executive Chairperson, Nepal Health Research Council	Advisor
Dr. Md. Khurshid Alam Hyder	Public Health Administrator, WHO Country Office for Nepal	Member
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Under Secretary	Ministry of Health and Population	Member
Director	B.P Koirala Memorial Cancer Hospital	Member
Director	Bir Hospital	Member
Director	Tribhuvan University Teaching Hospital	Member
Director	Civil Service Hospital	Member
Director	Patan Hospital	Member
Director	Bhaktapur Cancer Hospital	Member
Director	Kanti Children Hospital	Member
Director	Nepal Cancer Hospital & Research Center	Member
Director	Department of Civil Registration	Member
Dr. Sandhya Chapagain	Radiation Oncologist, Bir Hospital	Member cum Secretary

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Ms. Jyoti Mishra	Medical Record Officer, Grande International Hospital	Member
Representative	HMIS Division, Management Division	Member
Representative	Civil Registration Section	Member
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Abbreviations

AHW	Auxiliary Health Worker
AAR	Age Adjusted Rate
AAR/ASR	Age Adjusted or Age Standardized Rate
ASR	Age Specific Rate
BPKMCH	B.P Koirala Memorial Cancer Hospital
CR	Crude Rate
DCO	Death Certificate Only
FCHV	Female Community Health Volunteer
HMIS	Health Management Information System
IARC	International Agency for Research on Cancer
M/I	Mortality to Incidence
MoHP	Ministry of Health and Population
NCD	Non Communicable Disease
NHRC	Nepal Health Research Council
PBCR	Population Based Cancer Registry
PHC	Primary Health Center
SC	Steering Committee
SSDM	Siraha, Saptari, Dhanusha and Mohattari
TWG	Technical Working Group
WHO	World Health Organization

Executive Summary

Background

Nepal Health Research Council (NHRC), an autonomous government body, is responsible to promote and conduct, coordinate and regulate all kinds of research activities to improve the health status of the people in the country. In the recent health developments of the country, cancer has become one of the major challenges for the government in terms of prevention, control and provision of necessary cancer care services to the patients. In this regard, NHRC, in close collaboration with Ministry of Health and Populations, has started Population Based Cancer Registry (PBCR) since January 2018 aiming to provide necessary evidences on cancer cases to the government in order to plan and implement cancer control policies and strategies. The registry is technically supported by WHO and International Agency for Research on Cancer (IARC) Regional Hub, Tata Memorial Centre, India.

Three registries namely, Kathmandu Valley PBCR, Rukum PBCR and Siraha, Saptari, Dhanusha and Mohattari (SSDM) PBCR have been established covering 9 districts of the country representing urban, semi-urban and rural areas as well as the valley, hill, and terai regions in terms of geography. The objective of Rukum PBCR is to identify the cancer incidence, mortality and pattern of cancer in Rukum districts and to help in the development of cancer control strategies/activities to strengthen cancer care services in the areas.

Population Covered

The Rukum PBCR covers two districts, East and West Rukum with a total of 3 urban municipalities and 6 rural municipalities. The estimated population covered by the registry in 2018 is 2, 21,376.

Registration Method

The overall process of PBCR data collection is of active method. There are two major approaches to collect the registry data. The first one is through the health facilities that include data collection from the cancer and/or the general hospitals having diagnostic and cancer treatment facilities, pathology laboratories and social security section. Due to the lack of cancer treatment facilities in Rukum, the neighboring facilities where the patients from Rukum visit were taken. The data is collected from the records of the sources since January 2018 and recorded in the standard format. The second one is through the trained data enumerators mobilized in the communities. The enumerators personally visit the health coordinators, health post in-charges, FCHVs, ward chairpersons and community leaders to identify the cancer cases and visit the particular households to collect the information. The obtained data from all these sources are checked for the completeness and accuracy. Residence confirmation is done through individual phone call and the data are entered into the CanReg5 Software.

Findings

Over the year (2018), Rukum PBCR has registered 87 new cancer cases (44 males and 43 females) and 38 mortality cases (16 males and 22 females). The Age Adjusted incidence Rates (AAR) for male was 59.1 per 100,000 populations whereas the AAR for the females was 51.4 per 100,000 populations. Similarly, the age adjusted mortality rate for the males was 21.4 per 100,000 populations and for females, 25.1 per 100,000 populations. The Mortality to Incidence ratio (M/I) in Rukum district was 43.6%, which shows that the death case was under reported as compared to the registries in neighboring countries like India. Since the civil registration in Nepal is facing challenges to collect the death cases and for the death registered cases, the cause of death as cancer is not recorded at all. All the other possible ways to identify the

incident and death cases have been followed; however, we might have missed some of the death cases.

The **higher cancer incidence** is found among the age group **of 65-69 years in males and 55-59 years in females** with an **age specific rate of 372.4 and 254.5 per 100,000 populations** respectively. In male, the top leading cancer site is lung followed by stomach, thyroid, prostate, gallbladder and liver. Among females, the most common site is cervix uteri followed by lung, uterus, ovary and breast.

In 2018, 9% of primary unknown cases in males and 21% in females have been registered, that may be due to inadequate staging workup and documentation failing to establish the primary site of the cancer. Again, these kinds of cases represent the diagnostic quality, availability and accessibility of the diagnostic centers and the proper documentation of medical records.

As this is the first year report, there may be under registration of the cases. However, the community based approach of PBCR by mobilizing field enumerators and other stakeholders within the community has reduced the under-reporting of the cases to a greater extent. Besides, there is a plan to have cross sectional survey of the 5% population to check the completeness of the cancer registry in the future registries.

Because of the lack of cancer diagnostic and treatment facilities in Rukum, people have to travel 170 km to 1200 km for diagnosis and treatment of cancer. Hence, establishing the early detection centers in Rukum district is very important.

For some cases, the date of diagnosis and primary site relied on the verbal information of the patient and their relatives. Due to lack of scientific way of data recording and reporting in health facilities, the cases obtained through community could not be traced back in the hospitals affecting the exact representation of the cases. It is recommended to have digital and uniform medical recording system with some mandatory variables in all government and private health facilities. Similarly, MoHP, related provincial government and local authority are advised to develop cancer prevention and control strategies and intervention based on the evidence given by the registry.

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Background

Cancer is one of the major causes of death globally. The information on the incidence of cancer by age, sex, cause and location are vital to define the burden of the disease (1). Thus, cancer registries are often developed and the data are frequently used in epidemiological studies as well as in development of cancer control strategies by the government (2). The registries collect, store, interpret and report the data related to the cancer systematically and appropriately (3). Amongst the cancer registries, Population Based Cancer Registry (PBCR) identifies all cases of cancer of a specified population at a defined geographical location in a more systematic and scientific manner. The PBCR helps in calculation of incidences of cancer by location, site and socio-demographic characteristics with additional information on tumor histology, stages at diagnosis, place, nature of treatment, and survival (4).

Cancer incidences in Nepal are on rise with growing urbanization, changes in lifestyle, dietary habits, and high consumption of tobacco and alcohol (5). Found at every demographic and socio-cultural area, cancer possesses a high level of public health importance in Nepal. However, there is always a gap for authentic information on cancer incidences bottlenecking the planning and implementation of cancer control programs and policies more effectively. Thus, Nepal Health Research Council (NHRC) aiming to identify the incidence, trends, pattern and mortality of cancer cases in Nepal, has started the PBCR since January 2018 in close collaboration with Ministry of Health and Population (MoHP) and technically supported by WHO and International Agency for Research on Cancer (IARC).

Starting with Kathmandu Valley, the PBCR has been expanded to other districts as well in order to have representative information throughout the country. The current Rukum PBCR, for example, incorporates both east and west Rukum districts in province no 5 and Karnali province representing the hilly geographical region and the rural areas of the country. The objective of the Rukum PBCR is to generate evidence on cancer incidence, patterns and trends of disease and mortality related to cancer in the population of East and West Rukum enhancing the national capacity for sustainable PBCR in Nepal. The cancer registry data will be useful in planning cancer control programs including strengthening cancer care services.

East Rukum

Formerly, Eastern Rukum was the part of Rukum district, which was split into two districts as West and East Rukum after the state's reconstruction of administrative divisions as of 20 September 2015. This district is located in Province 5, and the headquarter is Golkhada, Kol, Putha Uttarganga. The total area of Eastern Rukum is 1,161.13 square kilometers (448.31 sq. mi) and the total population as of 2011 Nepal Census is 53018 individuals. The district is divided into 3 rural Municipalities as Bhume, Putha Uttarganga and Sinse. There is no urban Municipality in the district.

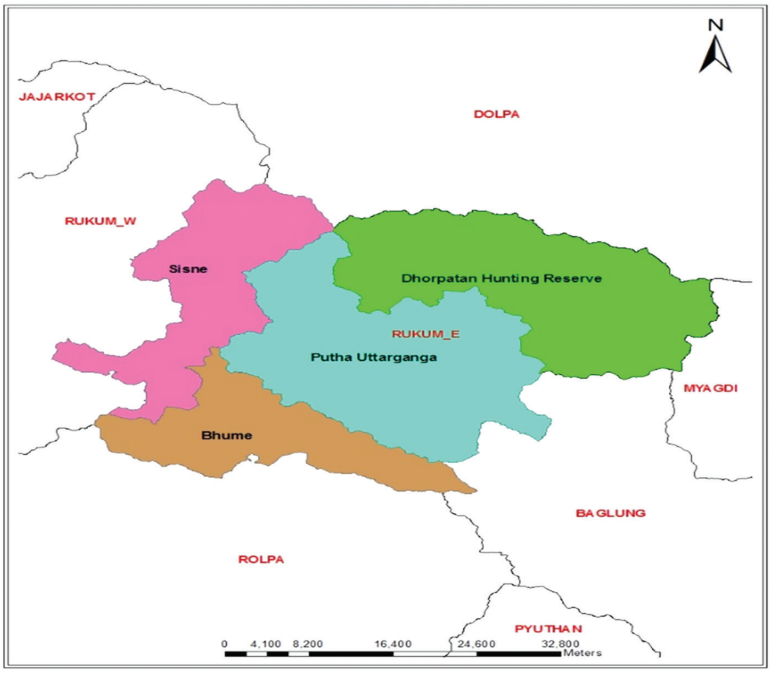


Figure 1Administrative division of East Rukum

West Rukum

Western Rukum is a part of Karnali province (Province no. 6), and Musikot is the districts headquarter. Located in the western hill, west Rukum comprises of three urban municipalities namely Musikot, Chaurjahari and Aathbiskot. There are three rural municipalities namely Banphikot, Tribeni and Sani Bheri in the district. The total area is 1,213.49 square kilometers (468.53 sq. mi) with the total population of 154,272 as of 2011 Nepal census.

Figure 2 Administrative division of West Rukum

Health Infrastructure in Rukum

The availability and accessibility of health facilities in eastern Rukum are very limited that there are only 15 health posts, 1 primary health centre and 22 community health units providing only primary health care services. In comparison to the Eastern Rukum, the availability of health facilities is better in the district, however, it is still very limited. It has 1 district hospital, 2 private hospitals, 26 health posts, 1 PHC and 27 community health units. Since there is neither cancer diagnostic nor treatment facility in both districts, people have to go to Nepalgunj or Chitwan or Kathmandu and even to India for diagnosis and treatment of cancer.

The nearest cancer diagnostic centre from Rukum is National Path lab, Dang that is around 170 km away, whereas the nearby diagnostic and treatment centers are Nepalgunj Medical College and Sushil Koirala Prakhar Cancer Hospital at about 435 km distance. Still in these areas, there is no comprehensive cancer treatment facility. Therefore, for the comprehensive treatment, patient needs to reach Chitwan, Kathmandu, or India where the distance ranges from 430 to 1200 km.

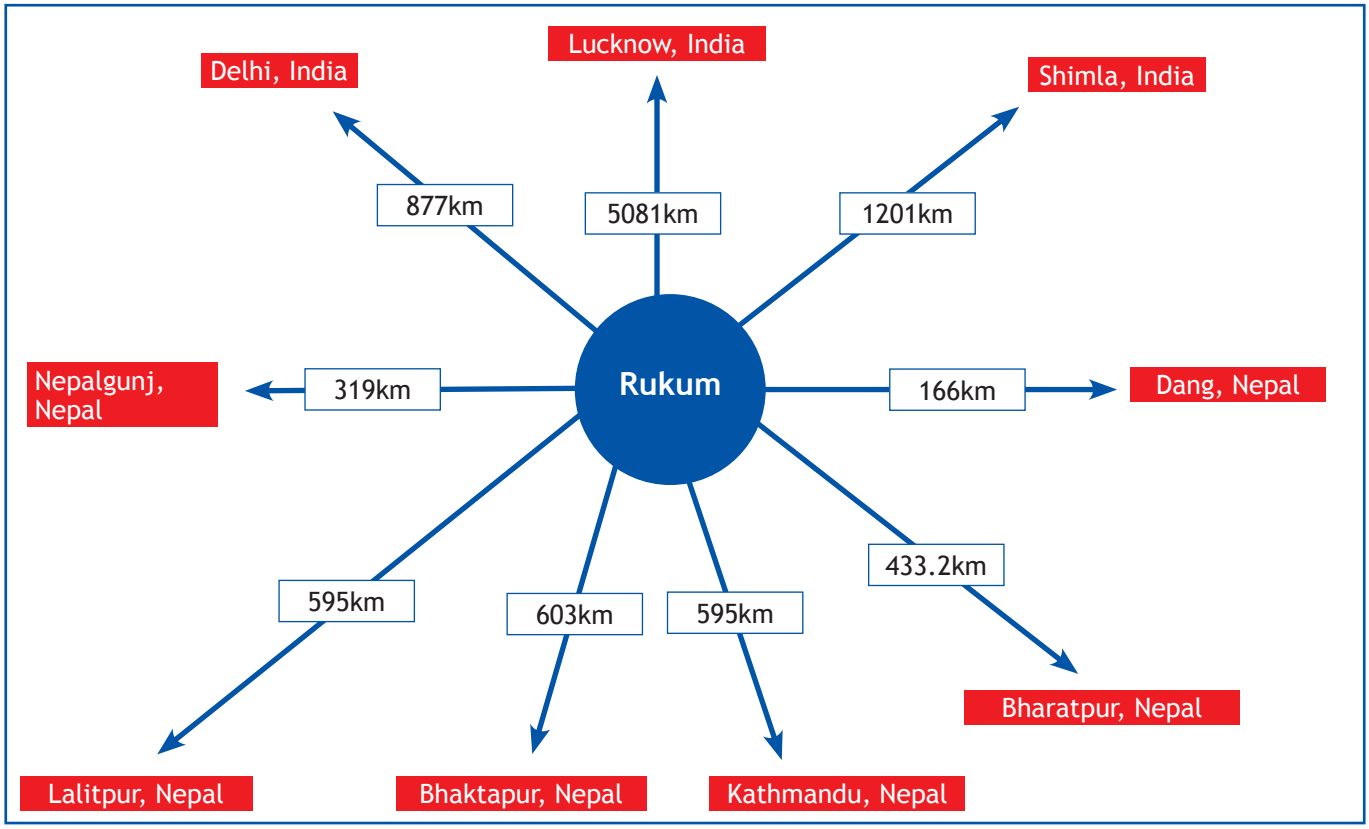


Fig 3: Distance from Rukum to cancer diagnostic and treatment centers

Population covered by Rukum, PBCR

The Rukum cancer registry covers three urban municipalities and six rural municipalities having a total population of 2, 08,567, which is 0.75% of the national population according to the census 2011. For the analysis purpose, the 2018 Population of Rukum District has been estimated on the basis of 2001 and 2011 census, which shows that the total population of Rukum District would be 2, 21,376, i.e. described in the table below:

Table 1. Estimated Population, Rukum District, 2018

District	Population			Remarks
	Male	Female	Total	
Rukum	101530	119846	221376	Based on the growth rate of 2001 and 2011

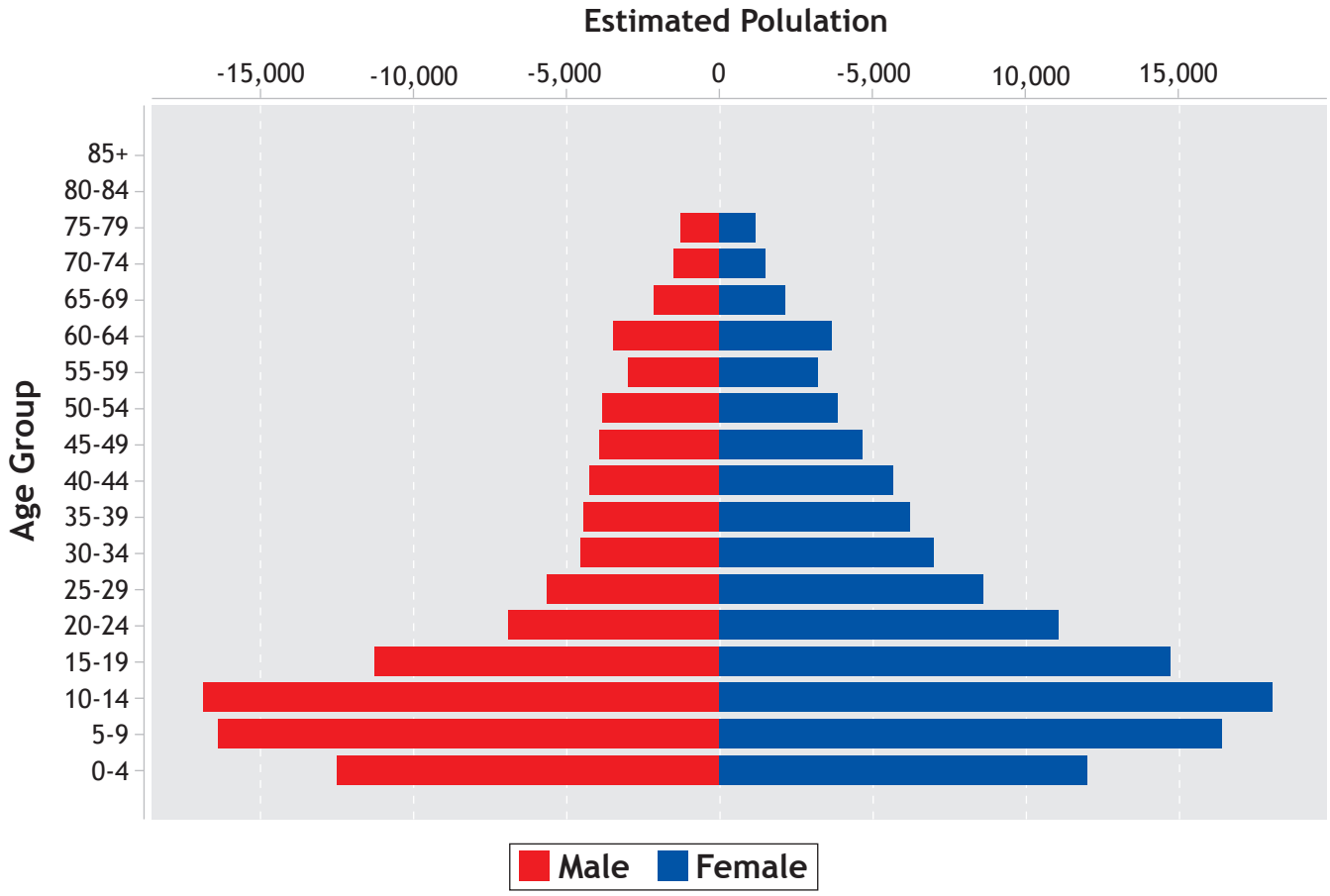


Fig. 4: Population Pyramid of Rukum as per the Population Estimate, 2018

Cancer Registration Methodology

NHRC has an in-house high level Steering Committee (SC) (with representatives from MoHP, WHO, and other stakeholders such as hospital directors and clinical oncologists), and a Technical Working Group (TWG) under the Steering Committee to manage operational task of PBCR. The TWG is responsible for the implementation of cancer registry program, which is chaired by Executive Chairperson of NHRC having the members of consultant oncologists, pathologists, research officer, medical record officer, and representatives from WHO, Health Management Information System (HMIS), civil registration, technical and non-technical assistant personnel.

Data Collection Method

There are two major ways to obtain data for the registry. One was from the facilities, which include hospital, pathology laboratory, hospice, department of health service, social security section and civil registration. The registry personnel visited these sources at regular intervals and actively collected available data on cancer cases there. The data was collected from the records of the sources, and were recorded in the standard format. Ethical approval from Ethical Review Board (ERB) of NHRC was taken before inception of registry

Secondly, the data was collected through the community. Initially, orientation was given to the Health Coordinators in some Urban/Rural Municipalities, Health In-charges and the Female Community Health Volunteers (FCHVs). Primarily; the FCHVs collect data from the population through home visits and submit to the respective Health In-charges. Then the Health In-charges submit data to the Health Coordinators and the Health Coordinators to the NHRC office. However, this approach did not work satisfactorily due to less dedicated/motivated staffs in most of the areas.

In order to collect data on cancer cases, field enumerators were trained and mobilized in the fields. They visited each ward of urban/rural municipalities and met the ward chairpersons, municipality health coordinators, health post in-charges and community leaders to identify any cancer cases known or dead in their locality. Then the field enumerators visited the households of cancer cases, took the written consent and collected the required data. Besides this, the list of cancer cases who took recommendation from the ward/municipality for the treatment support from government was taken out and the patients were searched to obtain the remaining information.

In East and West Rukum, there are not any oncology related diagnostic and treatment facilities because of which people often visit various locations such as Kathmandu valley, Banke, Bardiya, Nepalgunj, and Chitwan and even to India for the investigation and treatment of cancer. Thus, coordination has been made with these diagnostic and treatment facilitates, and the data are being obtained on regular basis.

All the obtained data from health facilities and community were then checked and verified for the completeness and accuracy of the information. Patients or the contact person were contacted through phone call for residence confirmation and for any missing information. Finally, the data collected manually in the paper forms were electronically entered into CanReg5 software. The CanReg5 is software specially designed for cancer registry to enter, check, store and analyze the registry data. The unique feature of CanReg5 is that it identifies the potential duplicates based on the assigned variables and patient duplication can be easily identified from the software, which is a common issue in the cancer registry.

Confidentiality of each individual was maintained throughout the registration; and only data enumerator, research coordinator and the data entry person know the details of the patients. However, they are fully responsible for maintaining the confidentiality of the patient. The collected forms were being stored in separate cabinet and the sole responsibility retains within Cancer Registry section at Nepal Health Research Council.

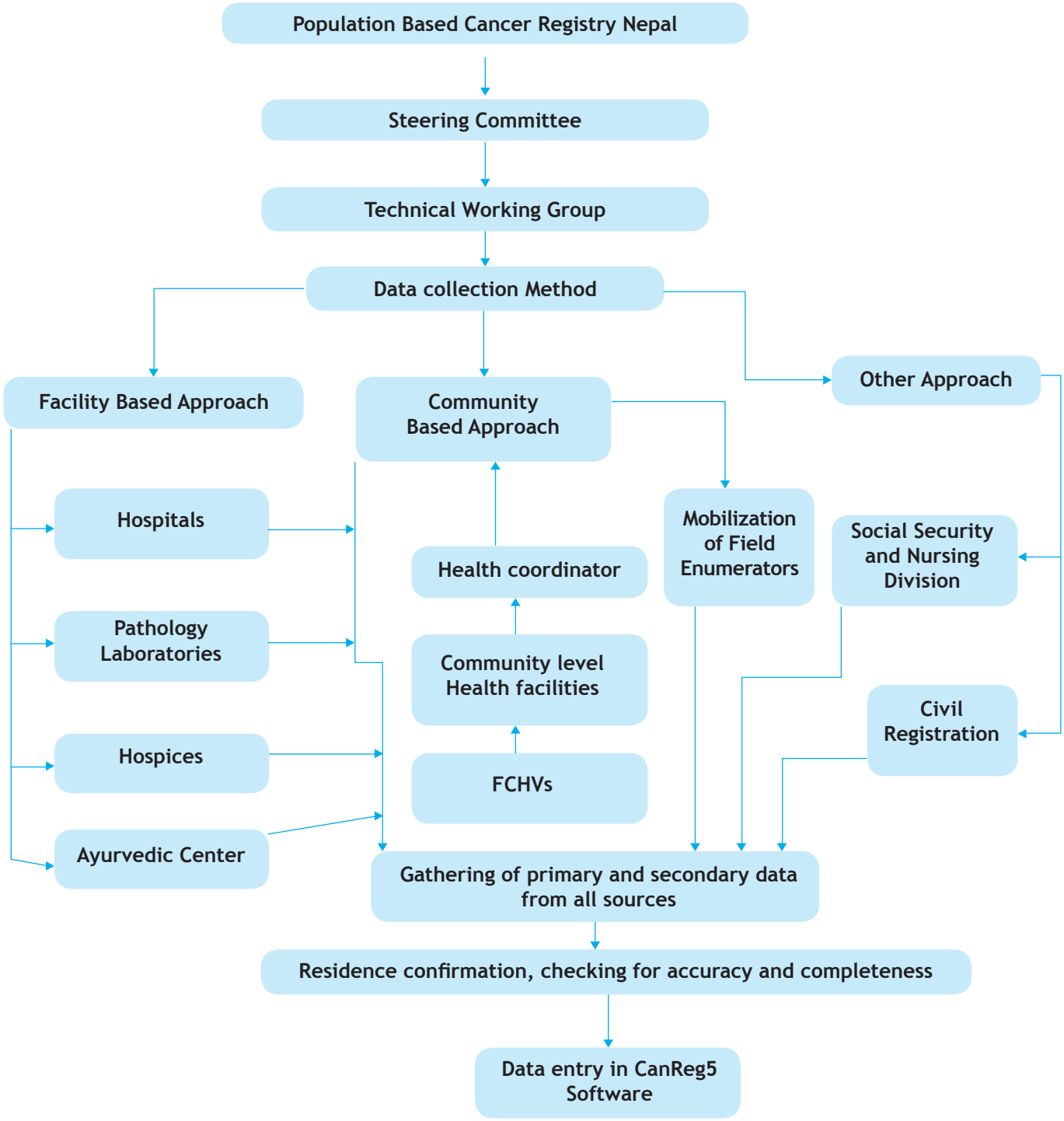


Figure 5 Flow Chart for Data Collection Process on Cancer Registry

Source of Data

Currently, there are 13 (government and private) hospitals in Kathmandu valley, 1 hospital in Chitwanand 1 in Banke are providing data for Rukum PBCR. Additionally, data are obtained from Department of Health Service, Social Security Section and the urban/rural municipalities and respective ward offices in Rukum districts. At the community levels, data are obtained through the data enumerators. The lists of the sources are presented in the table below:

Table 2 Sources of PBCR data collection

S.N	Institutions	Place
	Hospitals	
1	Bir Hospital	Kathmandu
2	Birendra Military Hospital	Kathmandu
3	Civil Service Hospital	Kathmandu
4	Grande International Hospital	Kathmandu
5	Kanti Children Hospital	Kathmandu
6	Om Hospital and Research Center	Kathmandu
7	Tribhuwan University Teaching Hospital	Kathmandu
8	Kathmandu Cancer Centre	Bhaktapur
9	Bhaktapur Cancer Hospital	Bhaktapur
10	National Cancer Hospital and Research Centre	Lalitpur
11	Nepal Cancer Hospital & Research Center	Lalitpur
12	Nepal Medicity Hospital	Lalitpur
13	Patan Hospital	Lalitpur
14	Nepalgunj Medical College and Teaching Hospital	Nepalgunj
15	B. P Koirala Memorial Cancer Hospital	Chitwan
	Other Sources	
1	Department of Health Service, Social Security Section	Kathmandu
2	Urban/ Rural Municipalities and Wards	Rukum

Community Involvement in Cancer Registration Process

The cancer patients in Rukum district always have to travel (60 kms to 590 kms) outskirts of the district since there are not any cancer care and treatment facilities within the district. It was thus very important to ensure the engagement of community people to identify the cancer cases from their respective communities. The community engagement was made possible through the mobilization of Female Community Health Volunteers (FCHVs) to identify cancer cases at particular locations, which have become the major sources of information for PBCR. Co-ordination and orientation have been made in such a way that primary data collections from grass root levels by FCHVs are reported to health posts and/or health coordinator in the urban/ rural municipality on periodic basis.

In addition to orientation and co-ordination between health service providers, the field enumerators have been hired, trained and mobilized into the fields in Rukum districts. They meet the health coordinators, health post in-charges, FCHVs and respective local representatives like ward chairperson, community leaders, and collect information on the presence of cancer cases in their locality. They are also responsible for raising awareness among the community people regarding the importance of PBCR.

Due to interaction programs, community people are aware and sensitized on PBCR that there has been a complete coverage of cancer cases in the locations. During 2018, we have interacted with 515 community people as described in table below:

Table 3 Involvement of Community Members in Cancer Registration Process

SN	Urban/Rural Municipality	Health Coordinator	Health post In charge/AHW	FCHVs	Ward person (Chairman/ secretary)
1	Musikot Municipality	1	10	45	10
2	Chaurjahari Municipality	1	9	38	18
3	Aathbiskot Municipality	1	9	47	19
4	Banfikot Rural Municipality	1	6	38	-
5	Sanibheri Rural Municipality	1	5	39	5
6	Tribeni Rural Municipality	1	8	37	4
7	Sisne Rural Municipality	1	5	42	-
8	Bhume Rural Municipality	1	5	47	-
9	Puthauttar Ganga Rural Municipality	1	6	54	-
	Total	**9**	**63**	**387**	**56**

Quality Control

Mortality to Incidence Ratio

The mortality to incidence (M/I ratio) represents the completeness and accuracy of cancer mortality data. In 2018, a total of 87 (44 male and 43 female) incidence of cancer cases and 38 (16 male and 22 female) mortality were registered. Hence, the overall M/I ratio is 0.43 (male: 0.36 and female: 0.51) and is comparable to other registries in Nepal as well as to rural registries in India.

Quality Control of Cases

To ensure quality of the data, all the data enumerators are trained for the abstraction of the cases and the collected data have been checked, verified and confirmed for the residence through individual phone calls from the NHRC office. Then, all the collected and entered data were checked for consistency and accuracy by the staffs at IARC, Regional Hub, Mumbai. In places where low incidences were found, the data enumerators revisited the communities for further identify the cases if missing.

Microscopic Verification of the Cases

Microscopic verified proportion is one of the internationally accepted indicators for data quality. As microscopic verification is considered gold standard for the diagnosis of cancer, the higher the proportion of microscopic verified cases, the more valid and accurate the data are.

In 2018, out of 44 male cancer cases, 56.8% were recorded on the basis of microscopic verification, 13.6% were through radiological investigation and clinically. The basis of diagnosis was recorded as verbal information in 27.3% of the cases. Verbal information refers to the cases found in the community, diagnosed as cancer, however could not find the report for basis of diagnosis and also could not find information at hospital where they were diagnosed and treated. The registry reported only 2.3% of Death Certificate Only (DCO) cases in males. Similarly, in females, out of 43 cases, the registry reported 55.8% diagnosed microscopically, 39.5% were recorded through verbal information and there were no any DCO cases. The overall microscopic verification was 56.3% of incident cases.

Average Number of Sources Per Case Registered:

Multiple sources for data collection decrease the possibility of any cancer cases leaving unreported. Hence, it increases the completeness as well as accuracy of registry data. The more the number of sources, the higher is the degree of coverage and completeness of the registry.

The cancer cases were counted as per the source of data obtained that one case is obtained from 2 to 4 sources. In Rukum, the source per case registered was 1.48 reflecting the good coverage of the sources.

Childhood Cancer Incidence Rates:

In 2018, only 3 pediatric cases were registered. The Age Specific Rate is mentioned in the table below. Pediatric cancer cases might have been missed by the registry.

Table 4 The Age Specific Cancer Incidence Rates among Children

Age Group	No. of cases	ASR per 100,000
0-4	0	0
5-9	1	3.1
10-14	2	5.7

Cancer cases Registered by Source of Registration: First Source of Information

In many facets, Rukum has stayed behind and challenged with infrastructure development, transportation, health and communication services. Being rural area and having no access to cancer diagnostic and treatment facilities within, the cancer patients scatter into various places for treatment. Hence, 41% cases have been captured from the community consulting FCHVs, and home visits by the enumerators. Besides community, the major source of data for Rukum PBCR was BPKMCH, Bharatpur that contributes 28.7% of the registered cases.

The cancer incidence registered by first source of registration is mentioned in the table below.

Table 5 Cancer Incidence Cases, 2018- First Source-wise Distribution

S.N	Name of the Source	Male	%	Female	%	Total	%
1	Community: Field Enumerators/FCHVs	17	38.6	19	44.2	36	41.4
2	B.P Koirala Memorial Cancer Hospital, Bharatpur	12	27.3	13	30.2	25	28.7
3	Bhaktapur Cancer Hospital	4	9.1	4	9.3	8	9.2
4	Nepal Cancer Hospital & Research Center	4	9.1	0	0.0	4	4.6
5	Civil Service Hospital	2	4.5	0	0.0	2	2.3
6	Bir Hospital	1	2.3	1	2.3	2	2.3
7	Birendra Military Hospital	1	2.3	1	2.3	2	2.3
8	Grande International Hospital	1	2.3	0	0.0	1	1.1
9	Patan Hospital	1	2.3	0	0.0	1	1.1
10	Nepal Medicity Hospital	1	2.3	0	0.0	1	1.1
11	Kanti Children Hospital	0	0.0	1	2.3	1	1.1
12	Tribhuwan University Teaching Hospital	0	0.0	1	2.3	1	1.1
13	National Cancer Hospital and Research Centre	0	0.0	1	2.3	1	1.1
14	Kathmandu Cancer Centre	0	0.0	1	2.3	1	1.1
15	Nepalgunj Medical College, Nepalgunj	0	0.0	1	2.3	1	1.1
Total		44	100.0	43	100.0	87	100.0

Findings

Cancer Incidence and Mortality- All Sites

In 2018, Rukum PBCR has obtained a total of 110 cancer cases from hospital and community. After residence confirmation, duplicate adjustment and verification of data, Rukum registry had registered 87 cancer cases at 2018. Among them, 44 were males and 43 females whereas the age adjusted incidence rate for male is 59.1 per 100,000 and for female 51.4 per 100,000 populations.

Rukum PBCR registered 38 mortality cases in 2018, out of which 16 were males and 22 were females. The age-adjusted mortality rate for male was 21.4 per 100,000 populations and for females it was 25.1 per 100,000 populations as shown in the figure below.

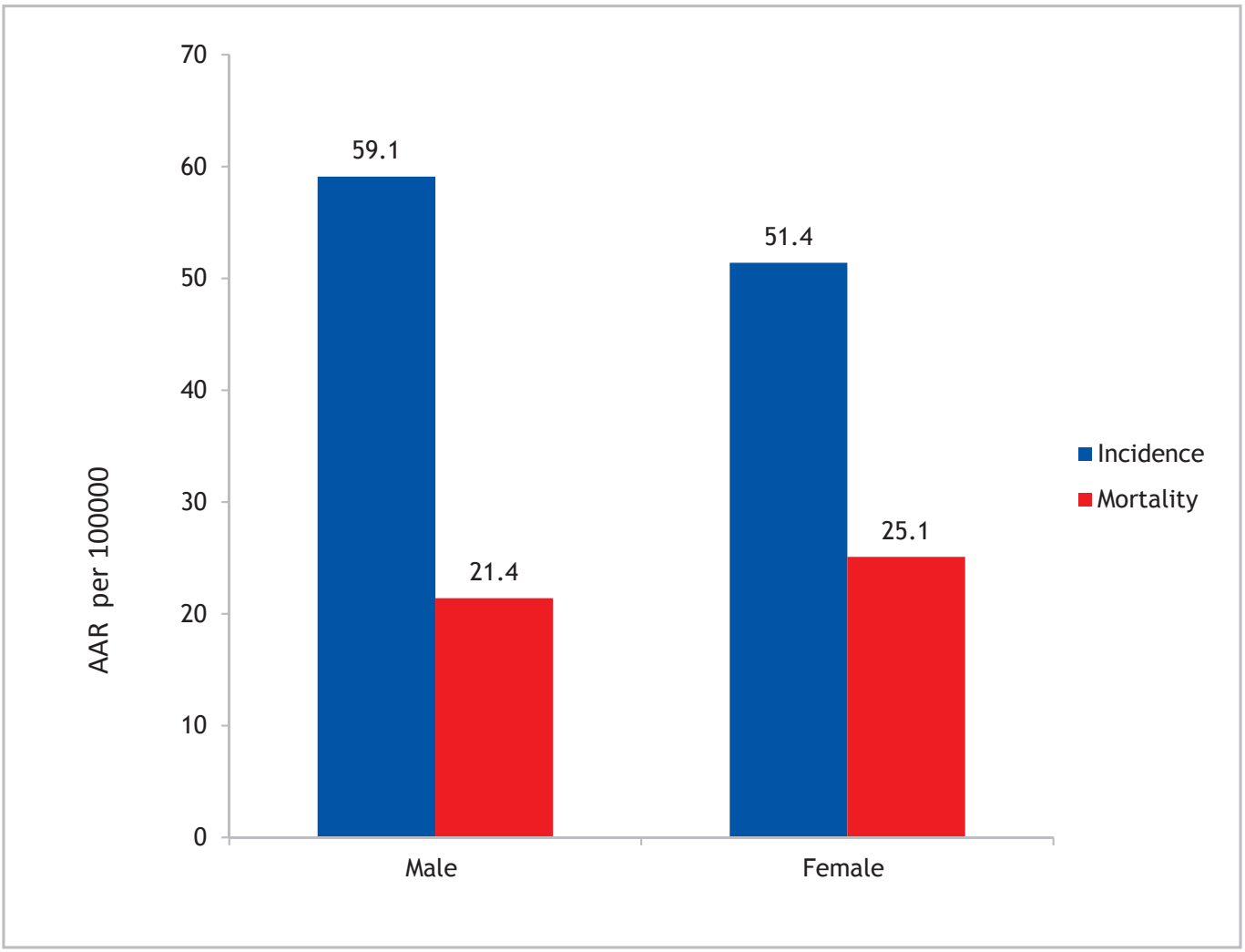


Figure 6 All Sites Cancer Incidence and Mortality Rate by Sex, Rukum, 2018

Cancer incidence in Rukum for Male was found to be peak at the age group of 65-69 years. Though the trend of cancer increment is not consistent with age, the incidence increases with age, and after 50-55 years of age, the incidence is increasing continuously until the 65-69 years of age. It is similar to the mortality cases as shown in the figure below.

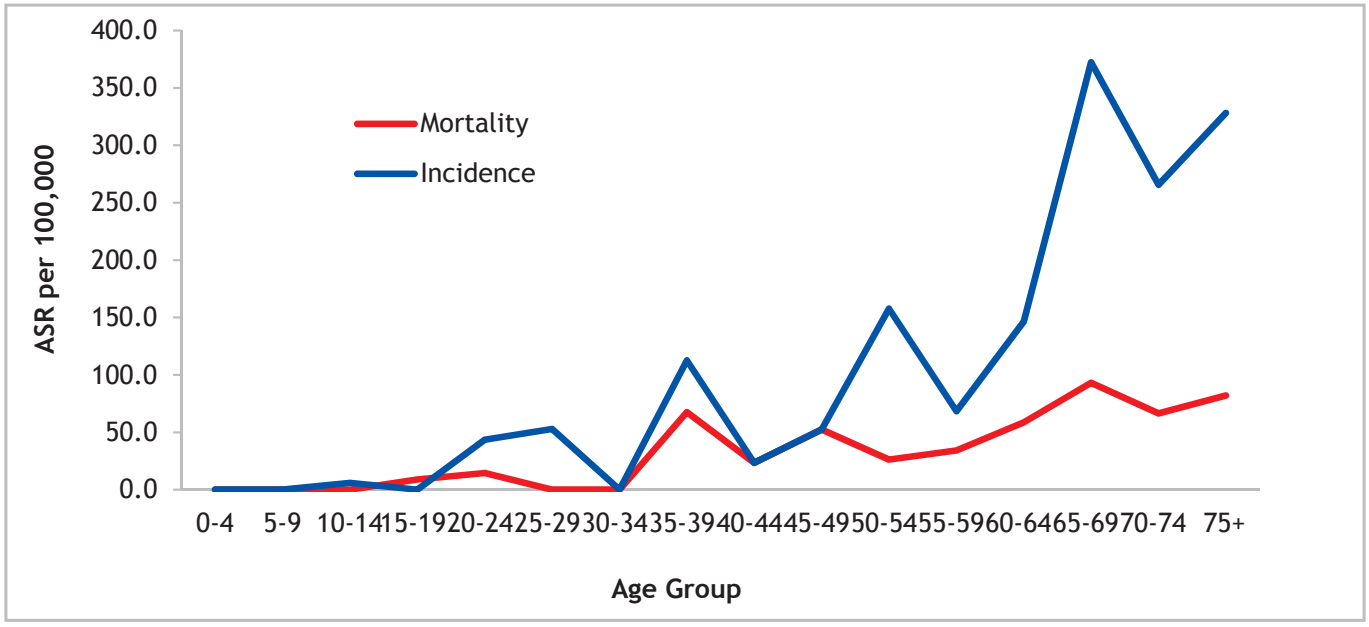


Figure 7. Age Specific Incidence and Mortality Rate: Male All Sites

Cancer incidence for females in Rukum started to increase by the age between 40-44 years that raised consistently and reached peak at 60-64 years of age, and it is similar to the mortality rate.

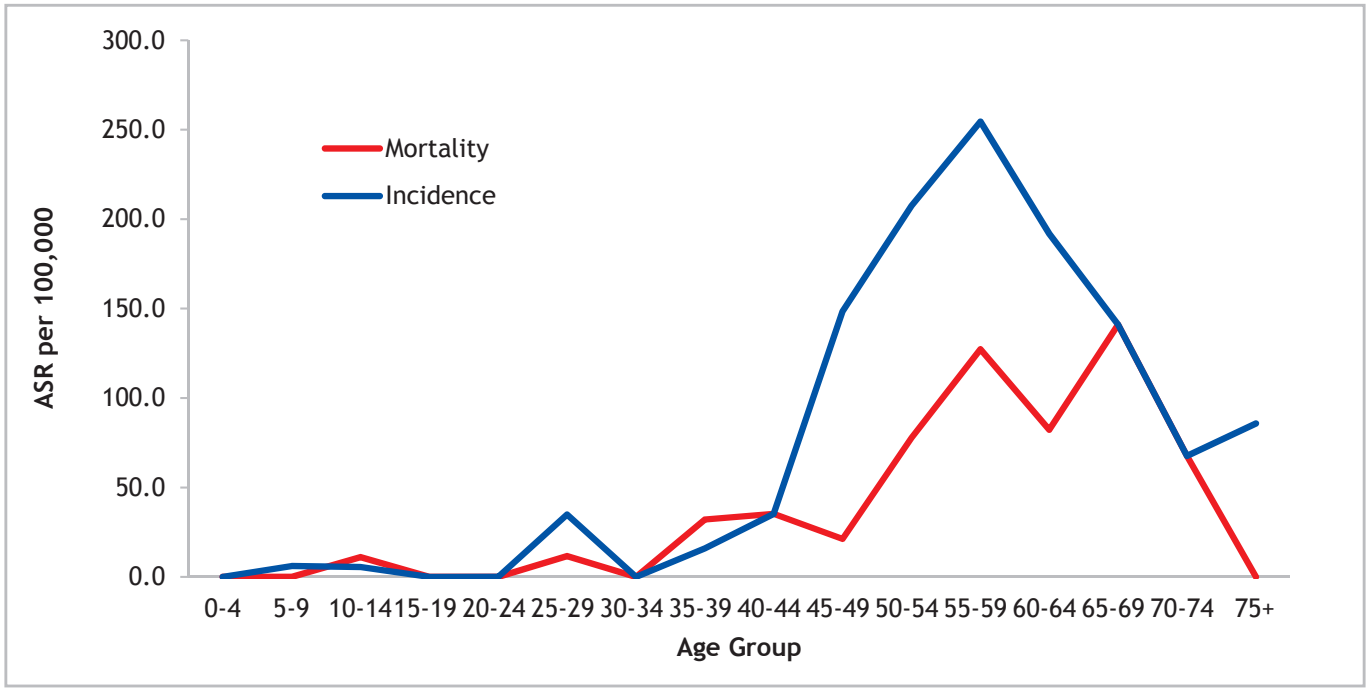


Figure 8 .Age Specific Incidence and Mortality Rate: Female All Sites

Leading Cancer Sites

The leading site in males in Rukum is lungs followed by stomach, thyroid, prostate, gallbladder and liver. Penis, larynx, colon and mouth have the same age adjusted rate and are the seventh leading sites in males. In females, the most common site is cervix uteri followed by lungs, uterus, ovary, breast, stomach, gallbladder, urinary bladder, larynx, rectum and mouth.

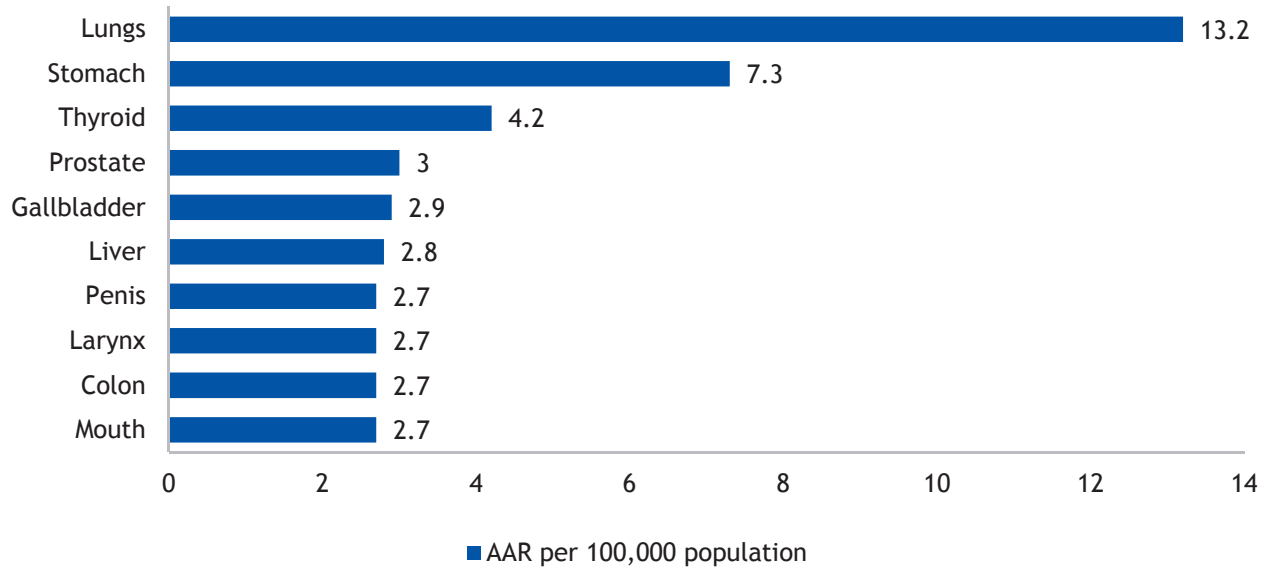


Figure 9. Leading Cancer Sites - Male (n=43)

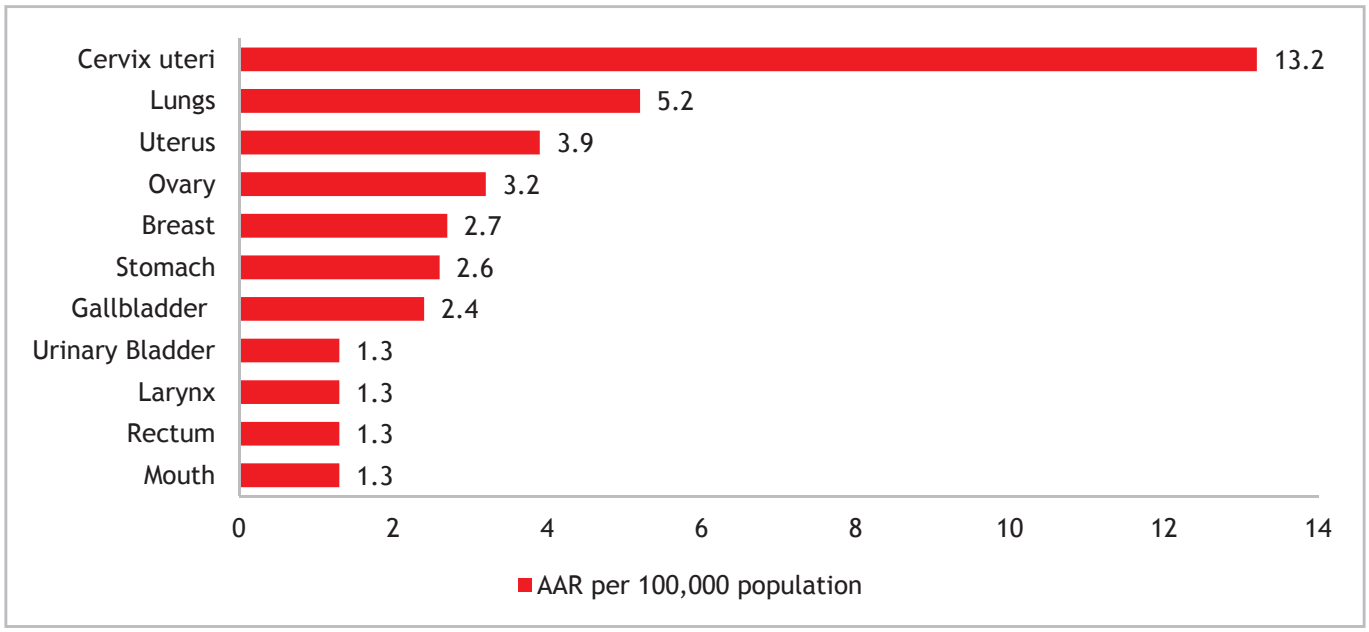


Figure 10. Leading Cancer Sites - Female (n=44)

Table 6. Cancer of Lung (C33-C34)

Description	Male	Female
Number of Cases	10	4
% of Total Cases	22.7	9.3
Crude Incidence Rate per 100,000 population	9.85	3.34
Age Adjusted Incidence Rate per 100,000 population	13.2	5.2
Truncated Rate per 100,000 population	15.1	11.2

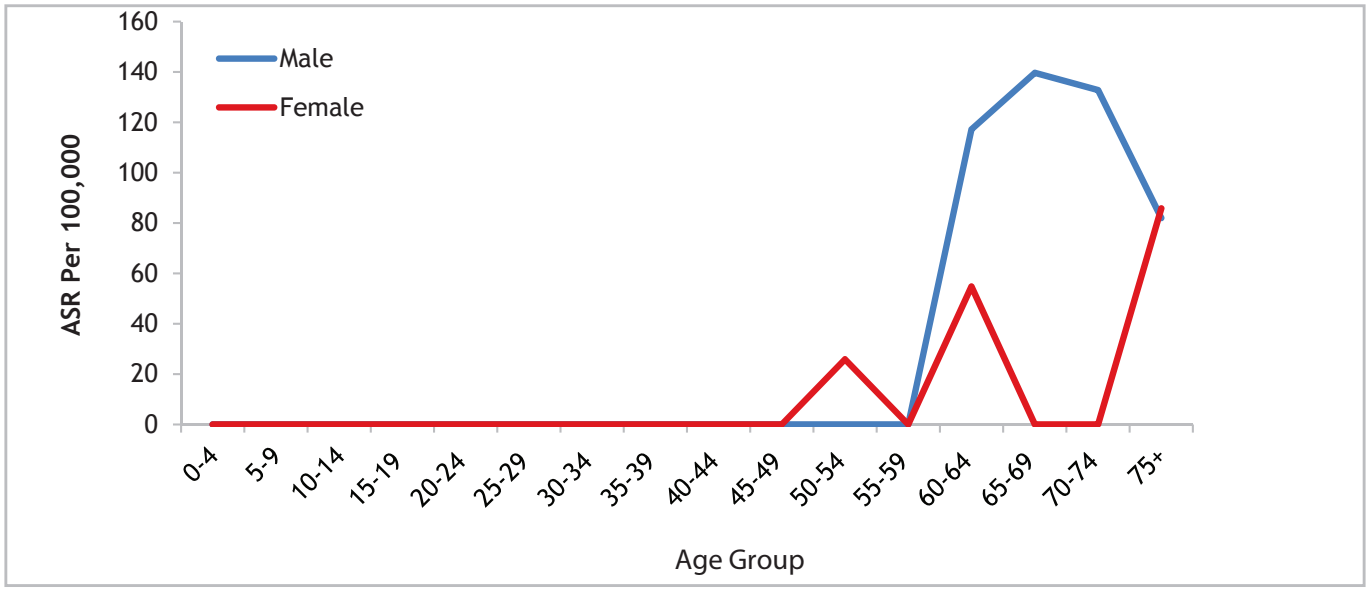


Figure 11. Age Specific Incidence Rate of Cancer Lung (C33-C34)

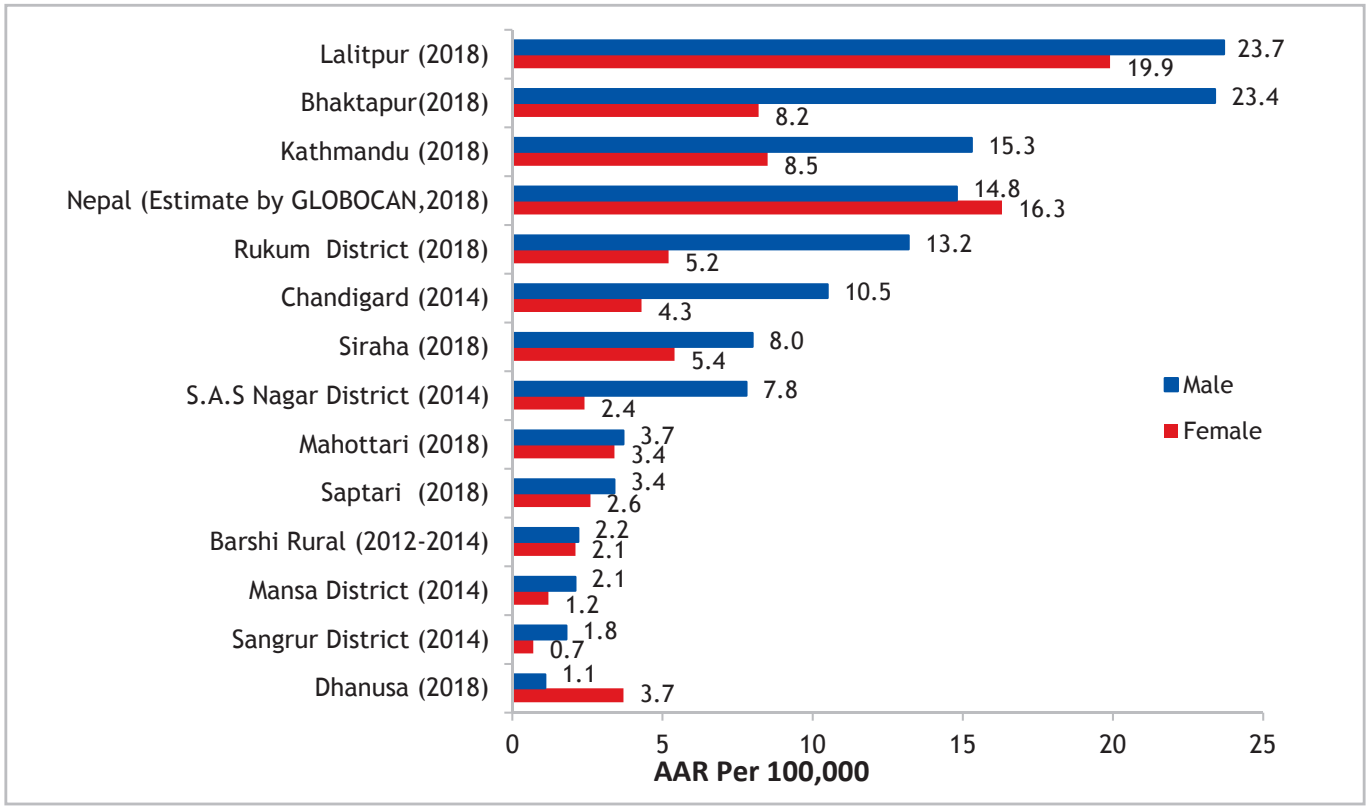


Figure 12. Comparison of Lung Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 7. Cancer of Stomach (C16)

Description	Male	Female
Number of Cases	5	2
% of Total Cases	11.4	4.7
Crude Incidence Rate per 100,000 population	4.92	1.67
Age Adjusted Incidence Rate per 100,000 population	7.3	2.6
Truncated Rate per 100,000 population	13.7	8.3

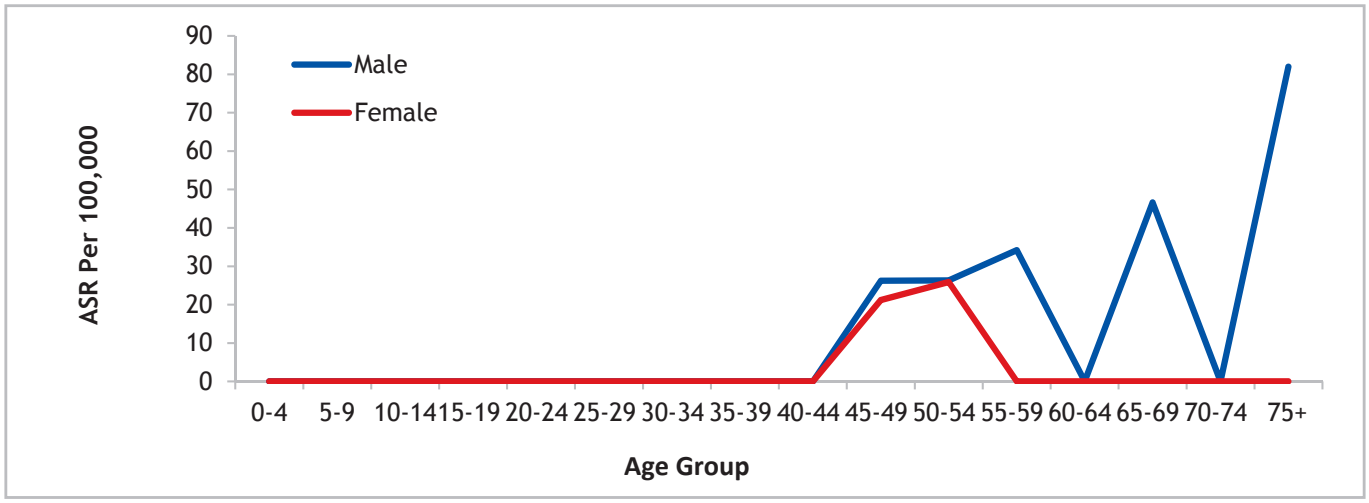


Figure 13. Age Specific Incidence Rate of Cancer Stomach (C16)

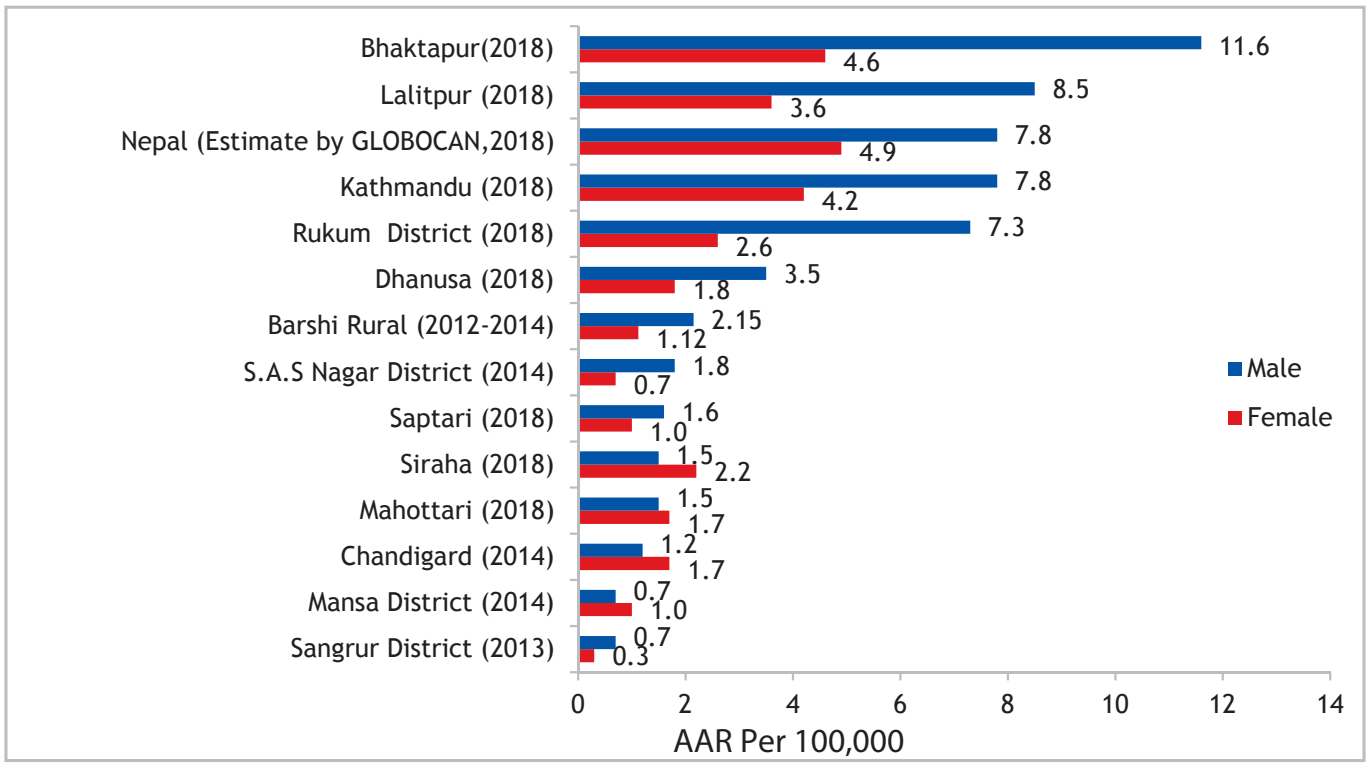


Figure 14. Comparison of Stomach Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 8. Cancer of Thyroid (C73)

Description	Male
Number of Cases	3
% of Total Cases	6.8
Crude Incidence Rate per 100,000 population	2.95
Age Adjusted Incidence Rate per 100,000 population	4.2
Truncated Rate per 100,000 population	3.8

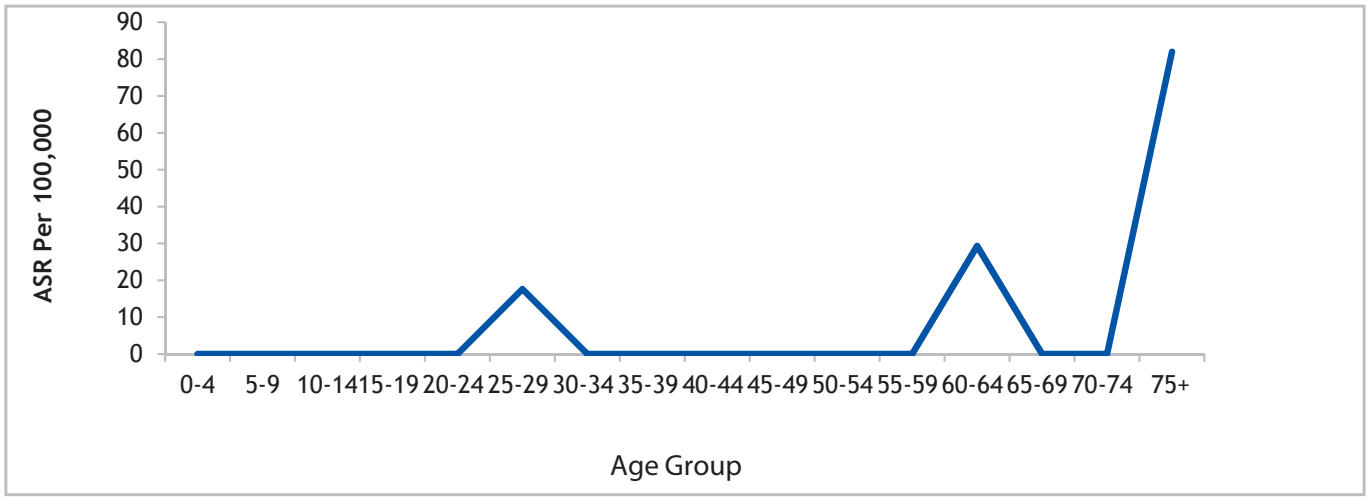


Figure 15. Age Specific Incidence Rate of Cancer of Thyroid (C73)

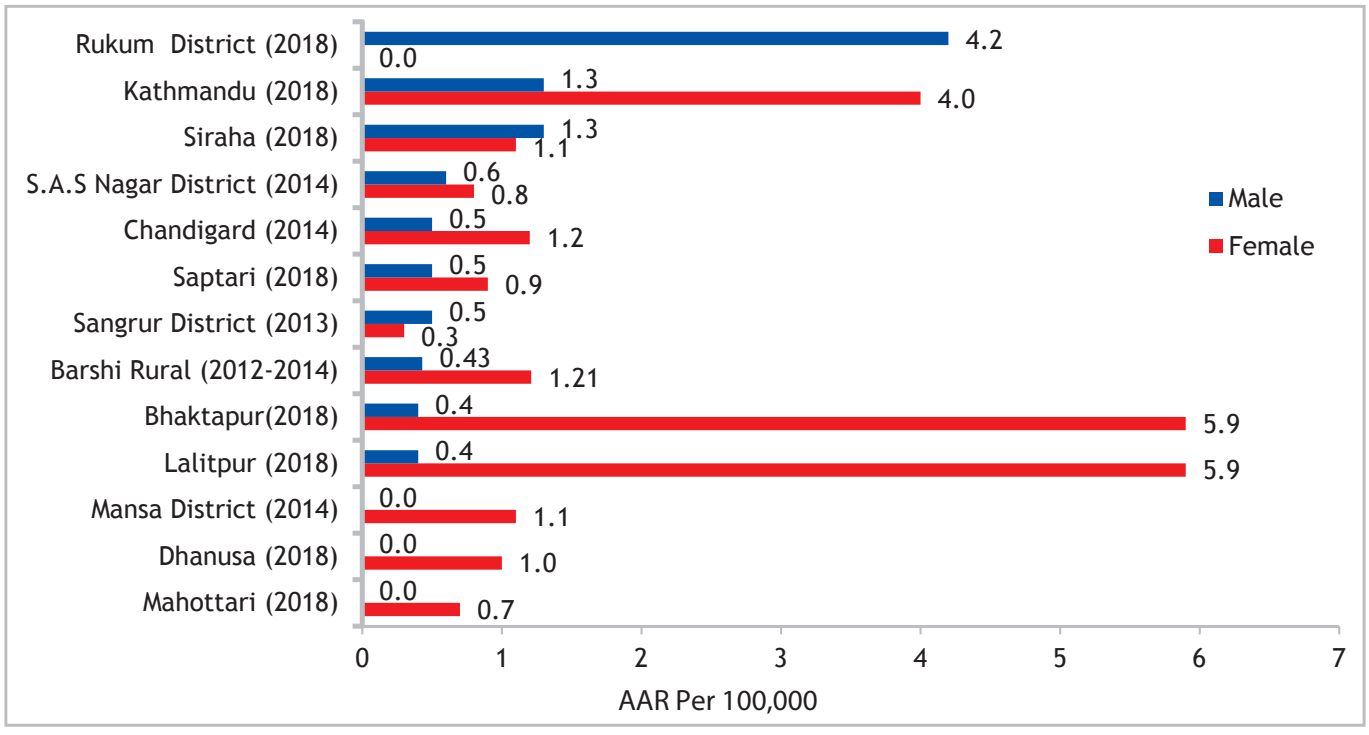


Figure 16. Comparison of Thyroid Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 9. Cancer of Prostate (C61)

Descriptions	Male
Number of Cases	2
% of Total Cases	4.5
Crude Incidence Rate per 100,000 population	1.97
Age Adjusted Incidence Rate per 100,000 population	3.0
Truncated Rate per 100,000 population	0.0

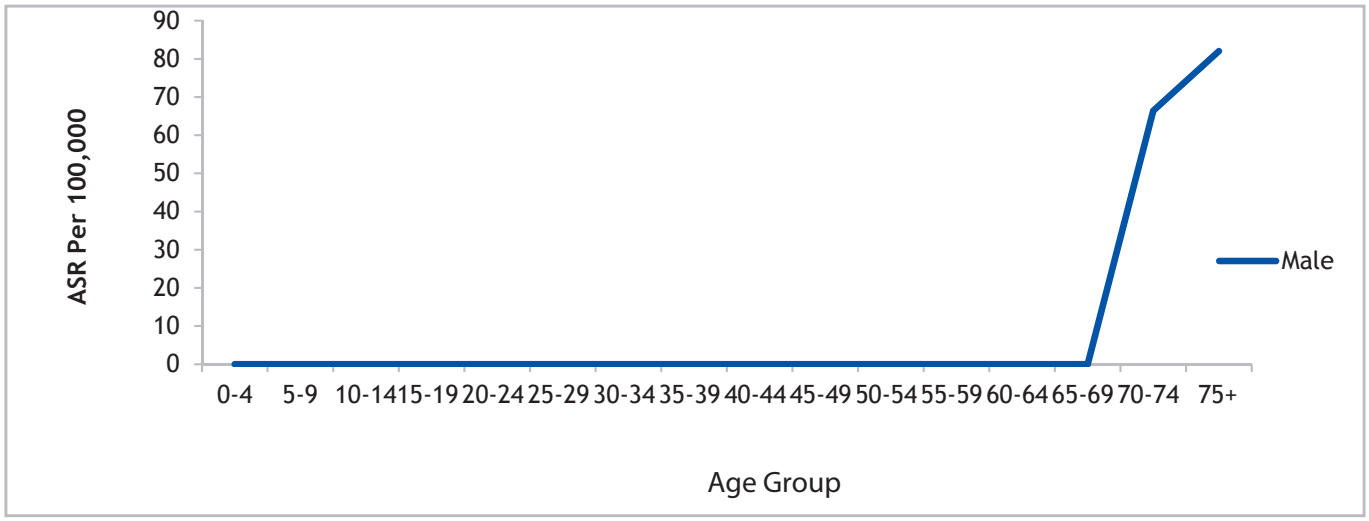


Figure 17. Age Specific Incidence Rate of Cancer of Prostate (C61)

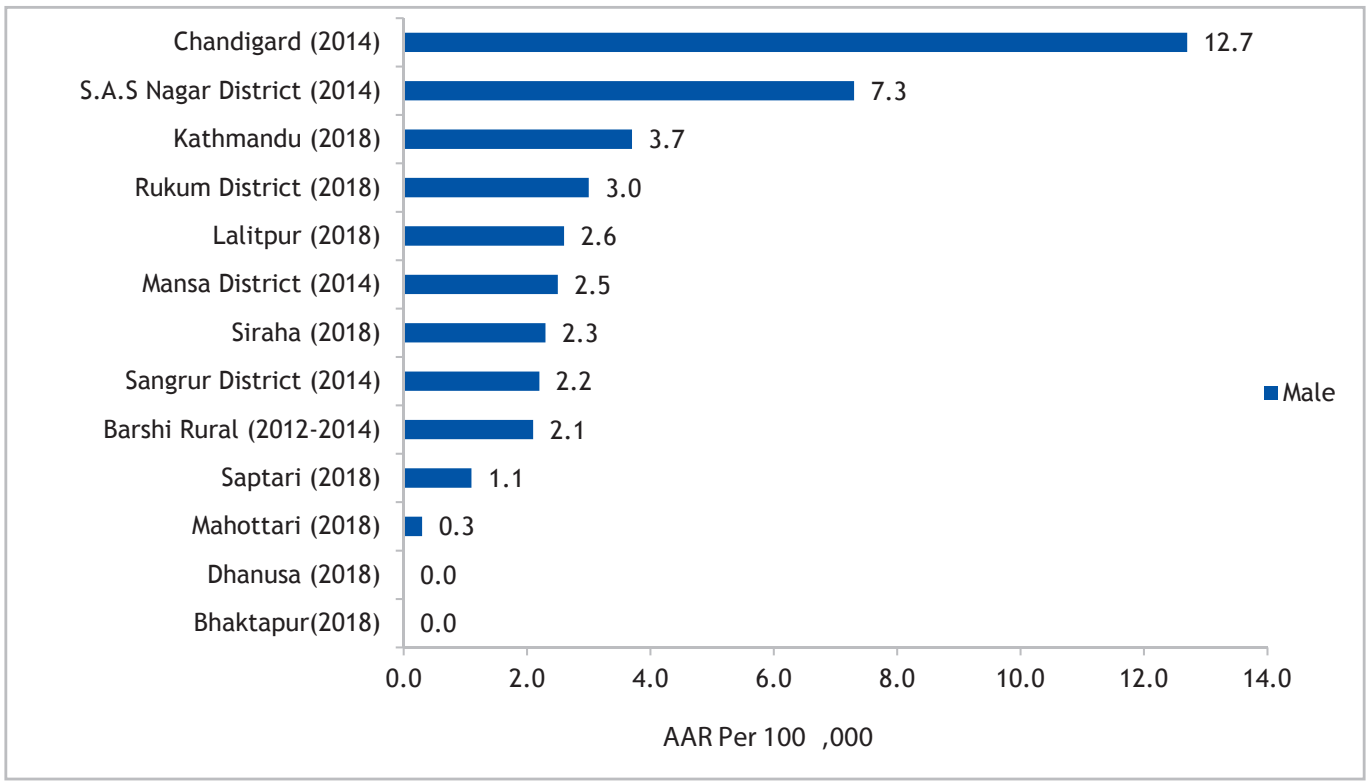


Figure 18. Comparison of Prostate Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 10. Cancer of Gallbladder (C23-24)

Description	Male	Female
Number of Cases	2	2
% of Total Cases	4.5	4.7
Crude Incidence Rate per 100,000 population	1.97	1.67
Age Adjusted Incidence Rate per 100,000 population	2.9	2.4
Truncated Rate per 100,000 population	9.3	7.6

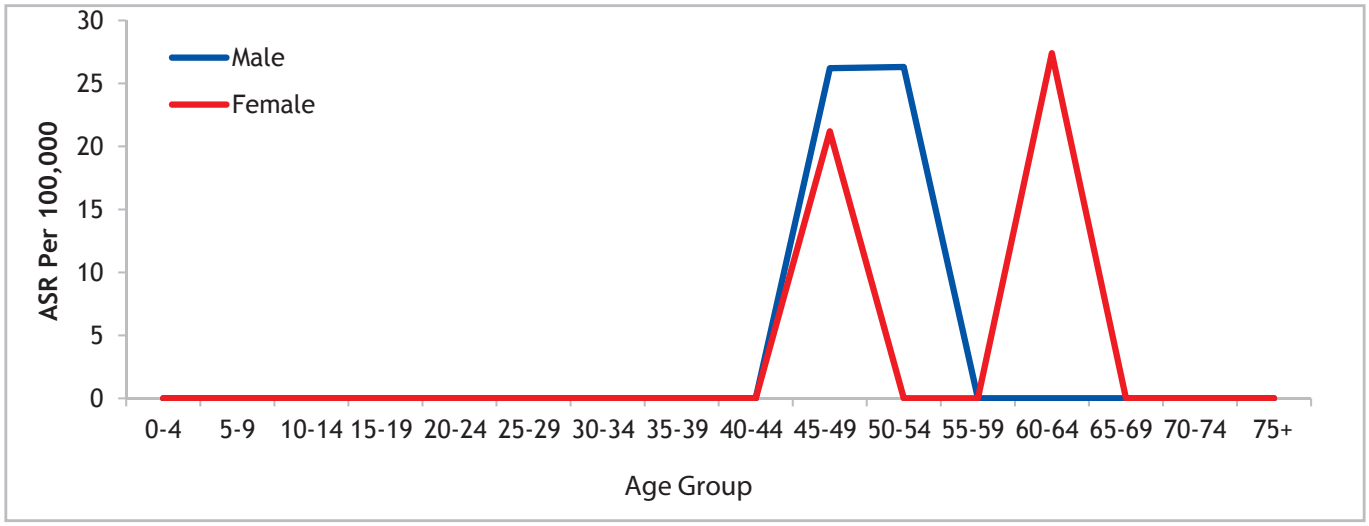


Figure 19. Age Specific Incidence Rate of Cancer of Gall Bladder (23-24)

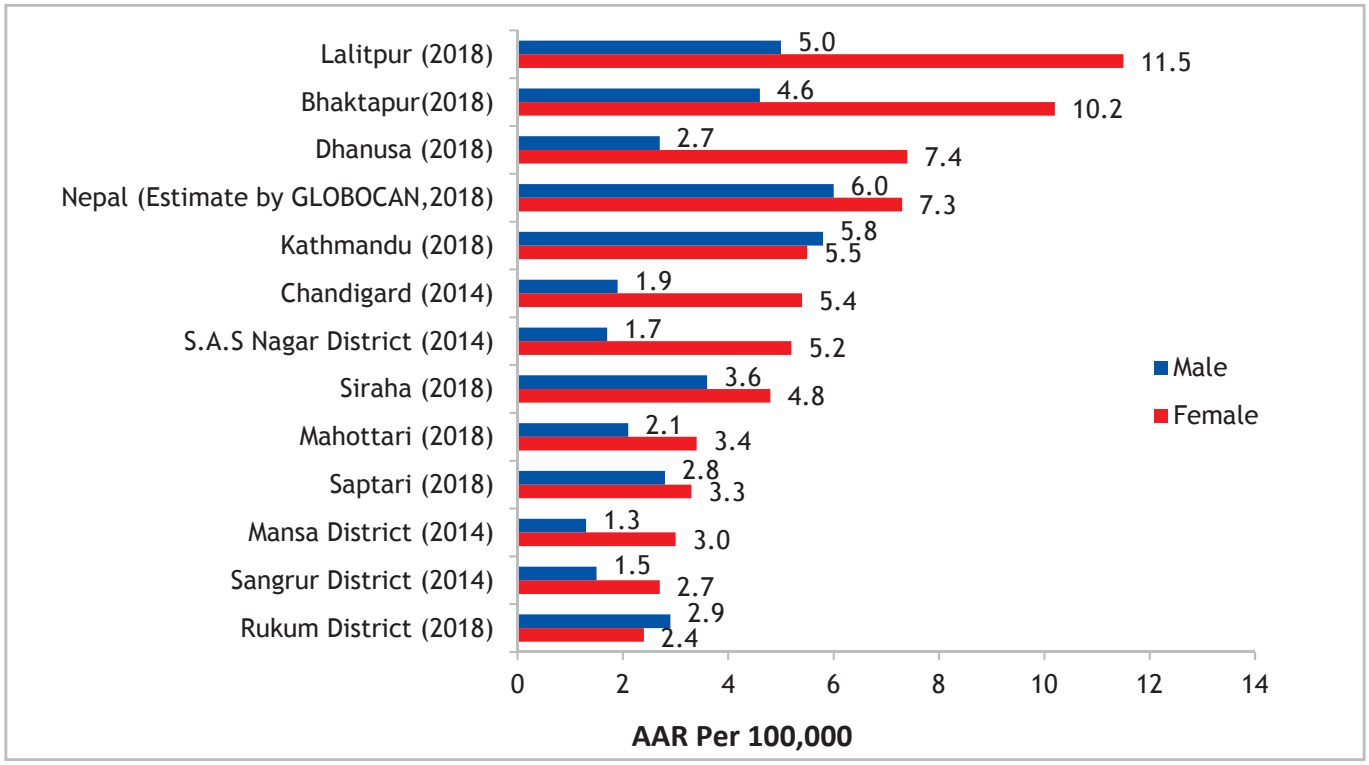


Figure 20. Comparison of Gall Bladder Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 11. Cancer of Cervix Uteri (C53)

Description	Female
Number of Cases	11
% of Total Cases	25.6
Crude Incidence Rate per 100,000 population	9.18
Age Adjusted Incidence Rate per 100,000 population	13.2
Truncated Rate per 100,000 population	42.7

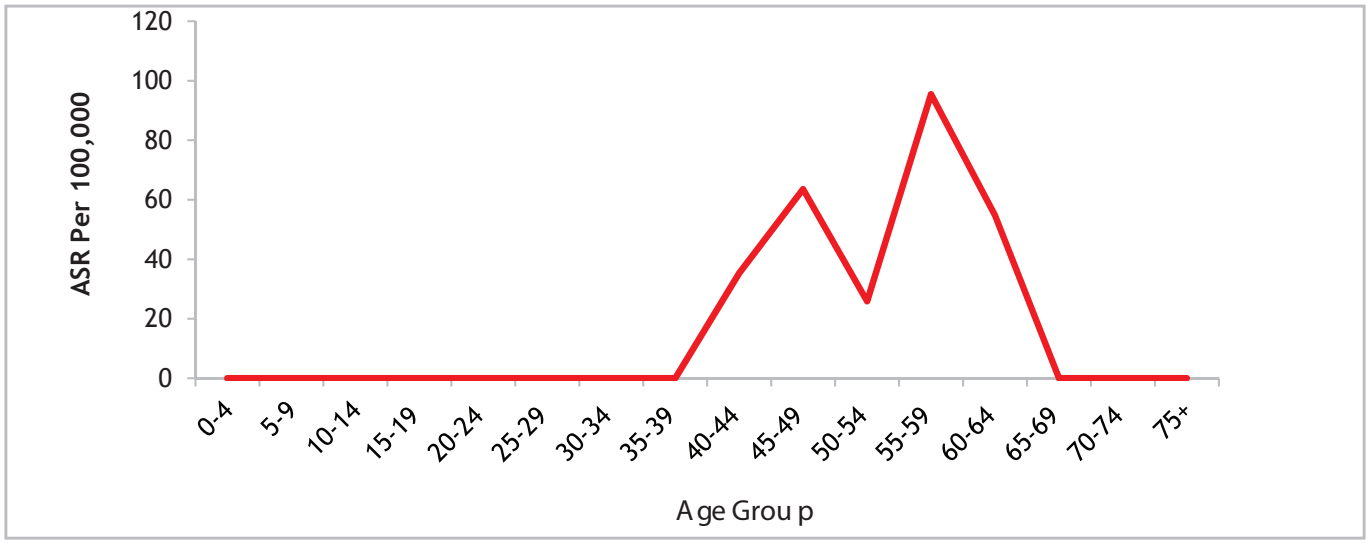


Figure 21. Age Specific Incidence Rate of Cancer of Cervix Uteri (C53)

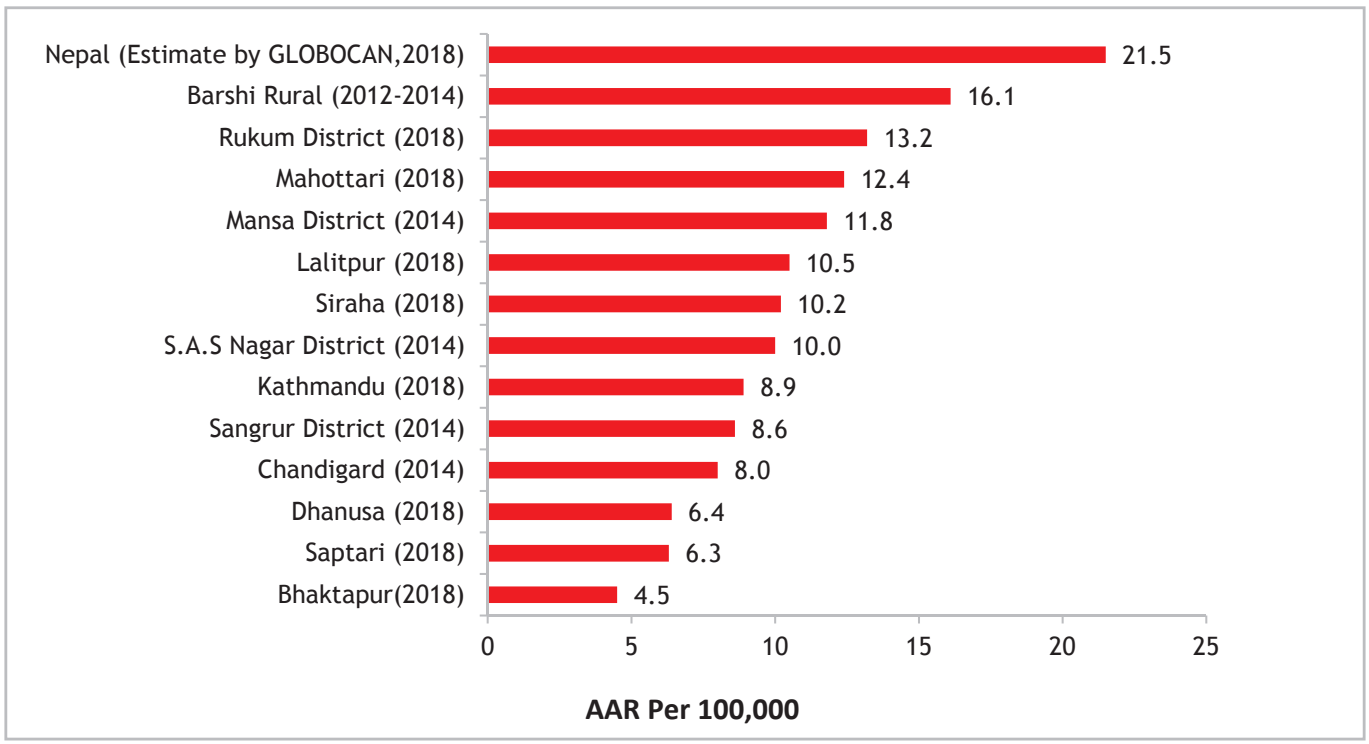


Figure 22. Comparison of Cervix Uteri Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 12. Cancer of Uterus Unspecified (C55)

	Female
Number of Cases	3
% of Total Cases	7.0
Crude Incidence Rate per 100,000 population	2.5
Age Adjusted Incidence Rate per 100,000 population	3.9
Truncated Rate per 100,000 population	8.3

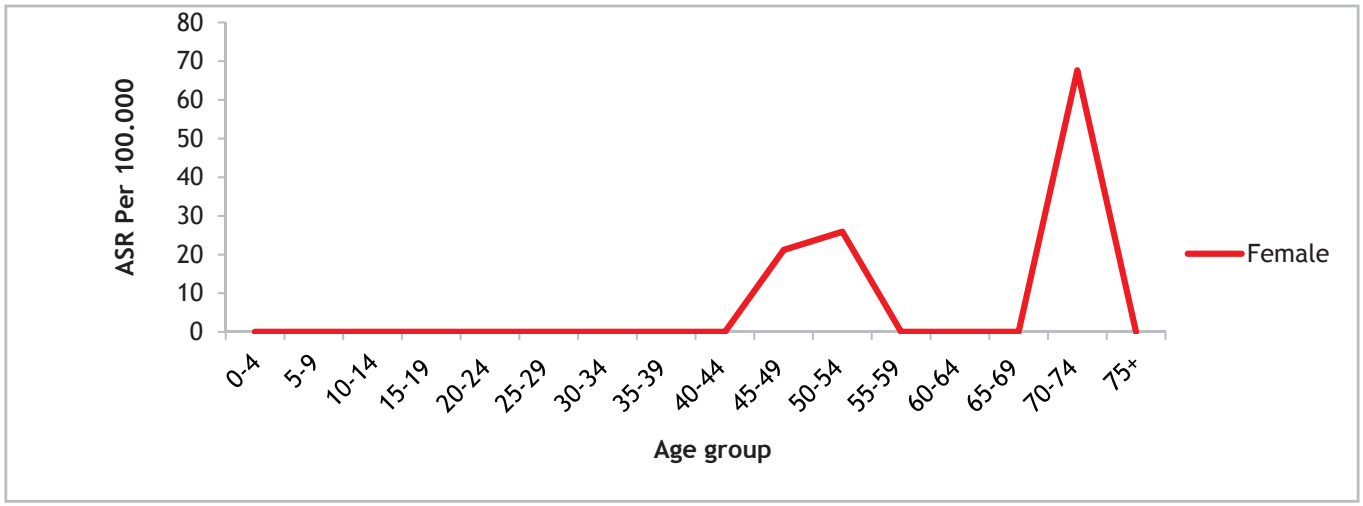


Figure 23. Age Specific Incidence Rate of Cancer of Uterus Unspecified (C55)

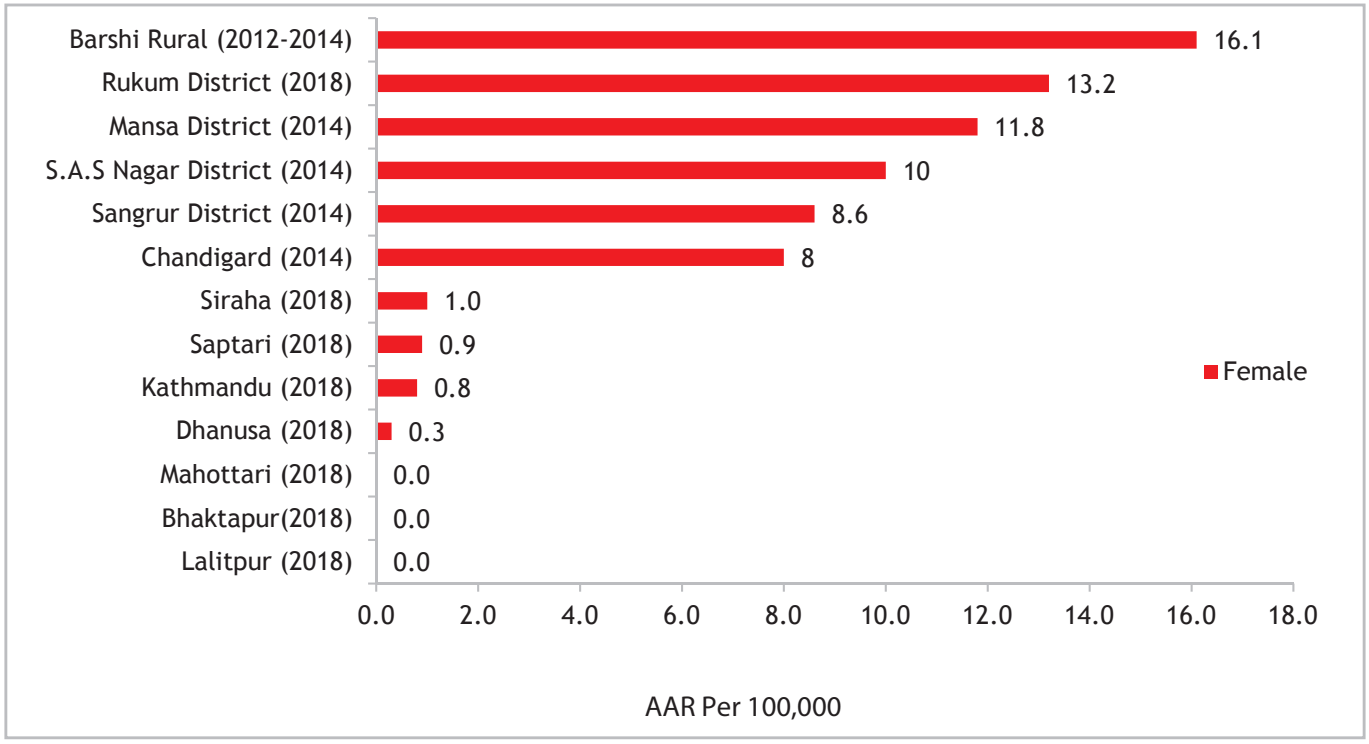


Figure 24. Comparison of Uterus Unspecified Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 13. Cancer of Ovary (C56)

Description	Female
Number of Cases	3
% of Total Cases	7
Crude Incidence Rate per 100,000 population	2.5
Age Adjusted Incidence Rate per 100,000 population	3.2
Truncated Rate per 100,000 population	7.2

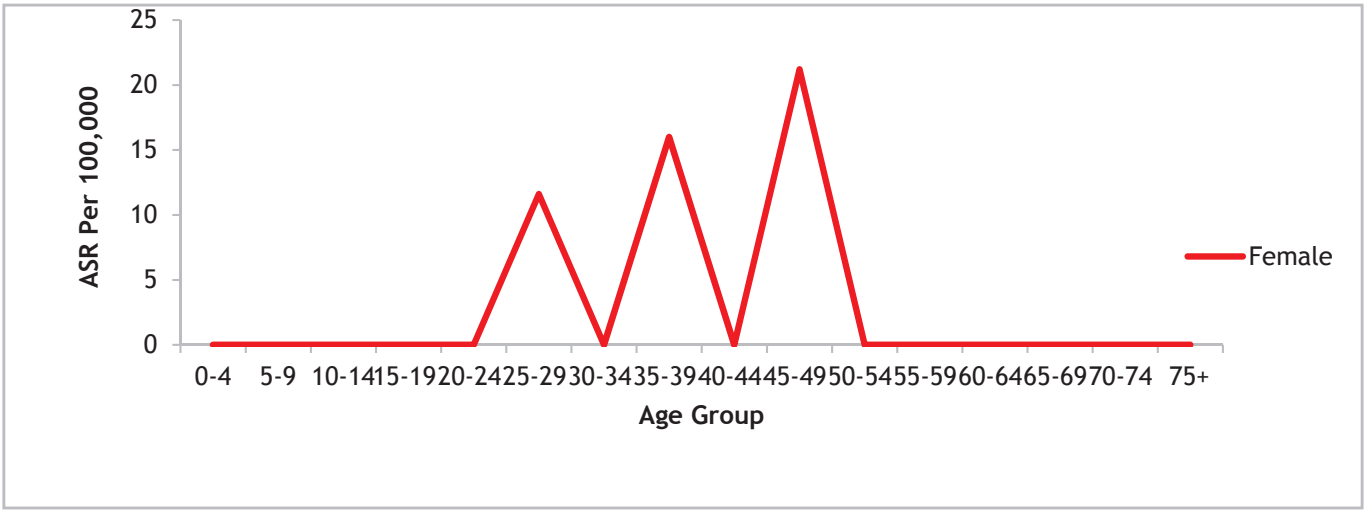


Figure 25. Age Specific Incidence Rate of Cancer of Ovary (C56)

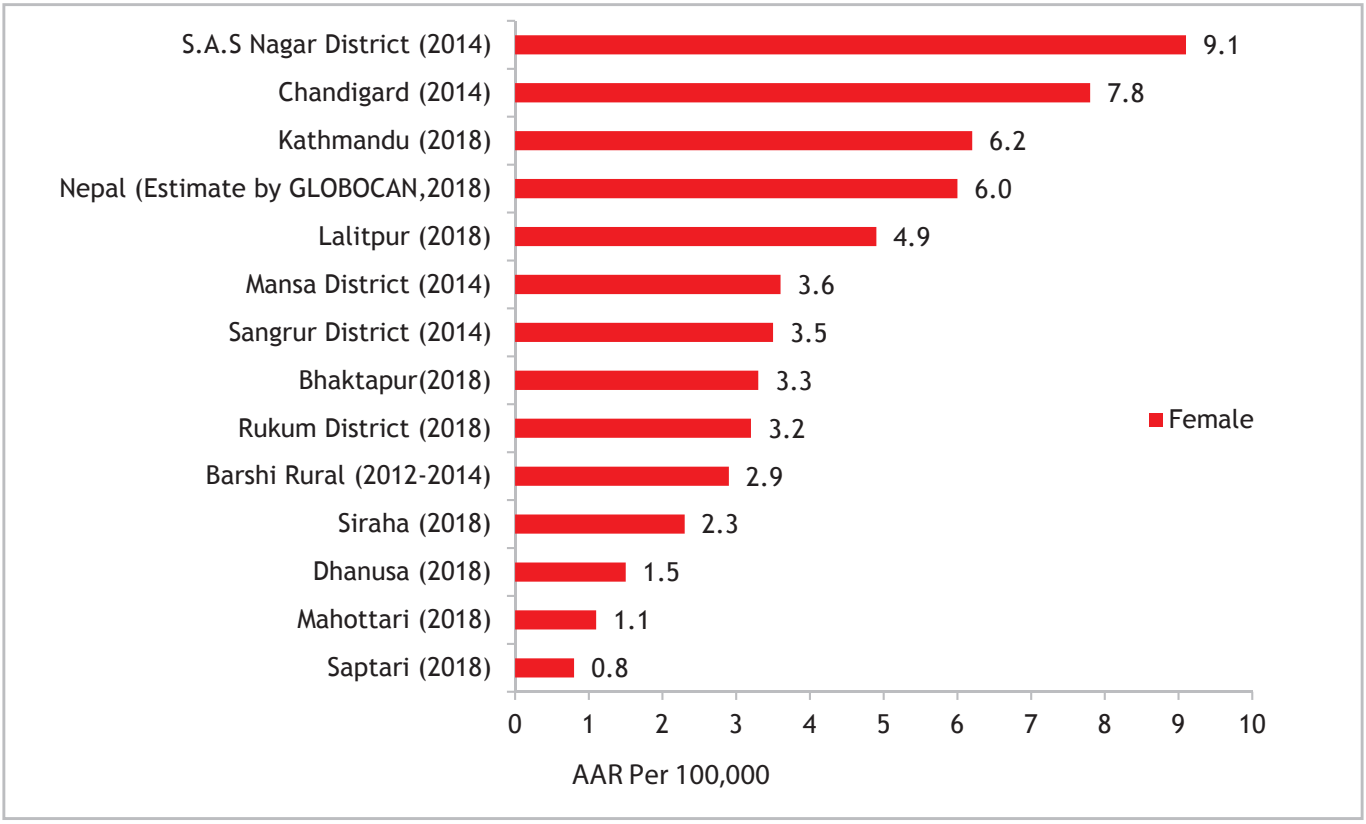


Figure 26. Comparison of Ovary Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Table 14. Cancer of Breast (C50)

Description	Female
Number of Cases	2
% of Total Cases	4.7
Crude Incidence Rate per 100,000 population	1.67
Age Adjusted Incidence Rate per 100,000 population	2.7
Truncated Rate per 100,000 population	4.1

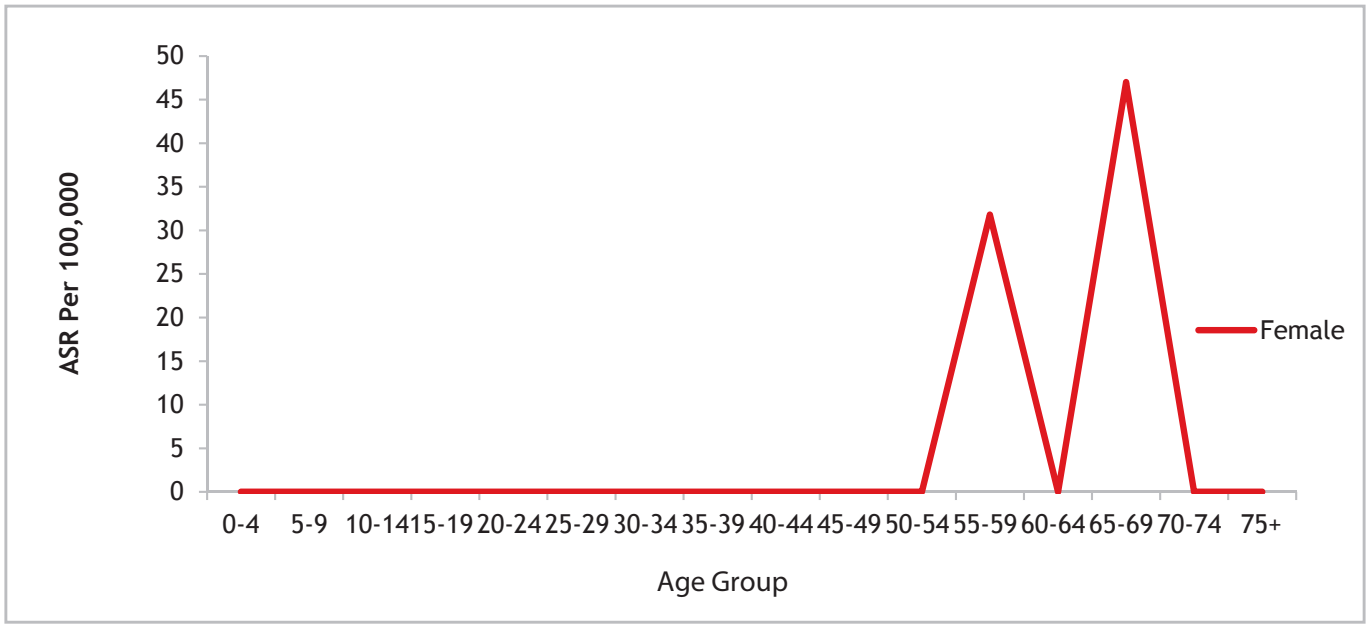


Figure 27. Age Specific Incidence Rate of Breast Cancer (C50)

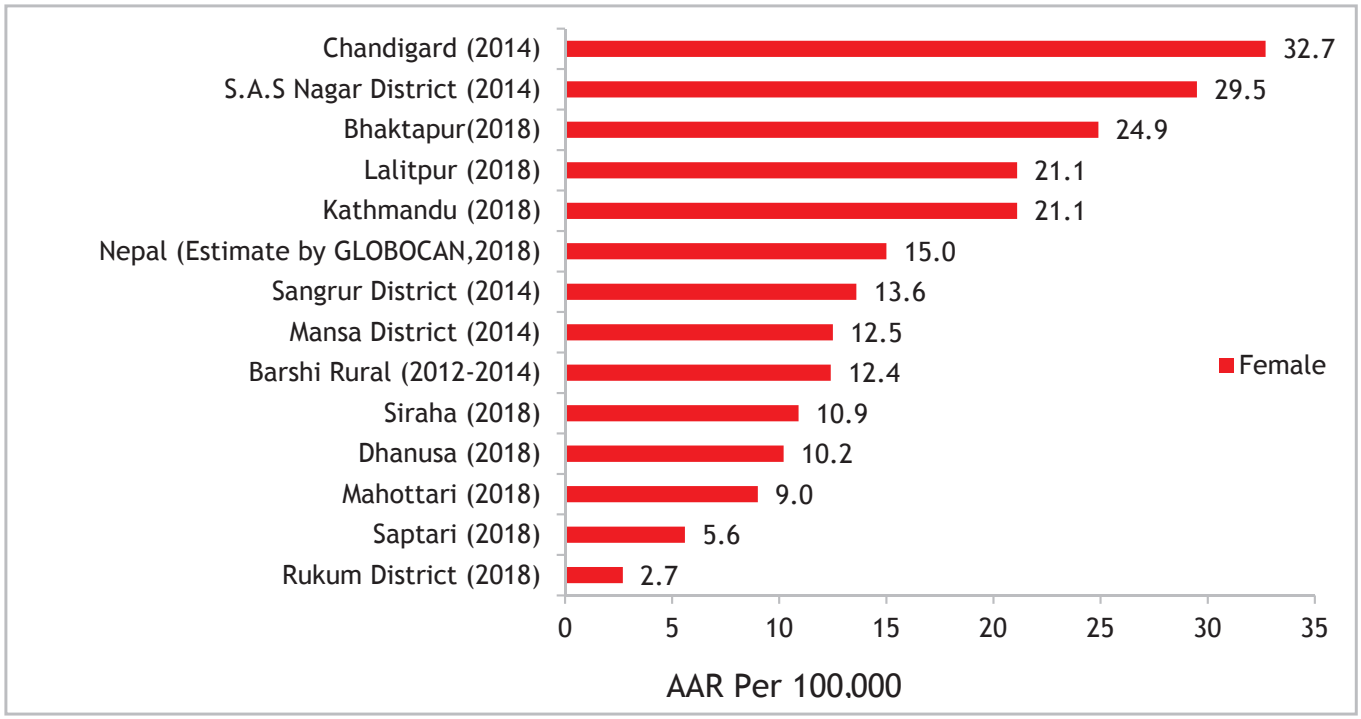


Figure 28 Comparison of Breast Cancer Incidence Rate with other Neighboring Registries **(Ref 6-10, 13)**

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 Intrathoracic Organ,	**C78**	Secondary Malignant Neoplasm of Respiratory and Digestive Organs,
C48	Retro Peritoneum and Peritoneum,	**C79**	Secondary Malignant Neoplasm of Other and Unspecified Sites,
C75	Other Endocrine Glands and Related Structures,	**C80**	Malignant Neoplasm Without Specification of Site
C76	Other and Ill-Defined, Secondary and Unspecified sites,	**C97**	Malignant Neoplasm of Independent(Primary) Multiple sites

All the Other and Unspecified cases in Rukum are primary site unknown for both males and females. In males, out of 44 cases, 4 cases (9.1%) are primary site unknown and in females among 43 cases, primary unknown cases are 9 (20.9%). The primary site unknown case represents the quality of diagnostic information, availability and accessibility of diagnostic services, inadequate diagnostic and staging workup and improper documentation in medical records. Since there are no cancer diagnosis and treatment facilities in Rukum district, people usually reach to the facilities in advanced stages where, in some cases primary site could not be ruled out. Besides this data were collected from patient/relatives in home visit, in cases where they don't have doctors note or report with them, patient/relative cannot specify the exact primary site, which remains as primary unknown. Due to the absence of electronic medical record system and scientific record keeping, sometimes the patients cannot be traced out even at the hospitals. Hence, unknown primary exists in such cases too.

It has been assumed that due to improvement in record keeping and diagnostic and treatment facilities in coming years, the percentage of primary site unknown will be decreased remarkably.

Table 15. Other and Unspecified Cases by Sex

ICD	Male		Female	
	Number	%	Number	%
C80	4	9.1	9	20.9

Table 16. Cancer of Other and Unspecified Sites (C80)

Descriptions	Male	Female
Number of Cases	4	9
% of Total Cases	9.1	20.9
Crude Incidence Rate per 100,000 population	3.94	7.51
Age Adjusted Incidence Rate per 100,000 population	**4.5**	**10.6**
Truncated Rate per 100,000 population	4.4	23.6

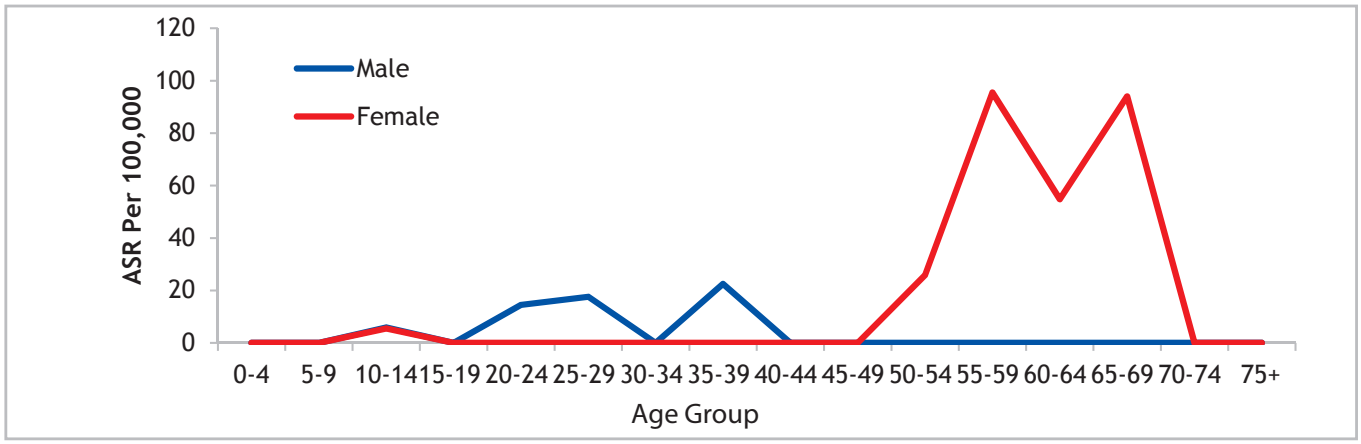


Figure 29. Age Specific Incidence Rate of Cancer of Other and Unspecified Sites

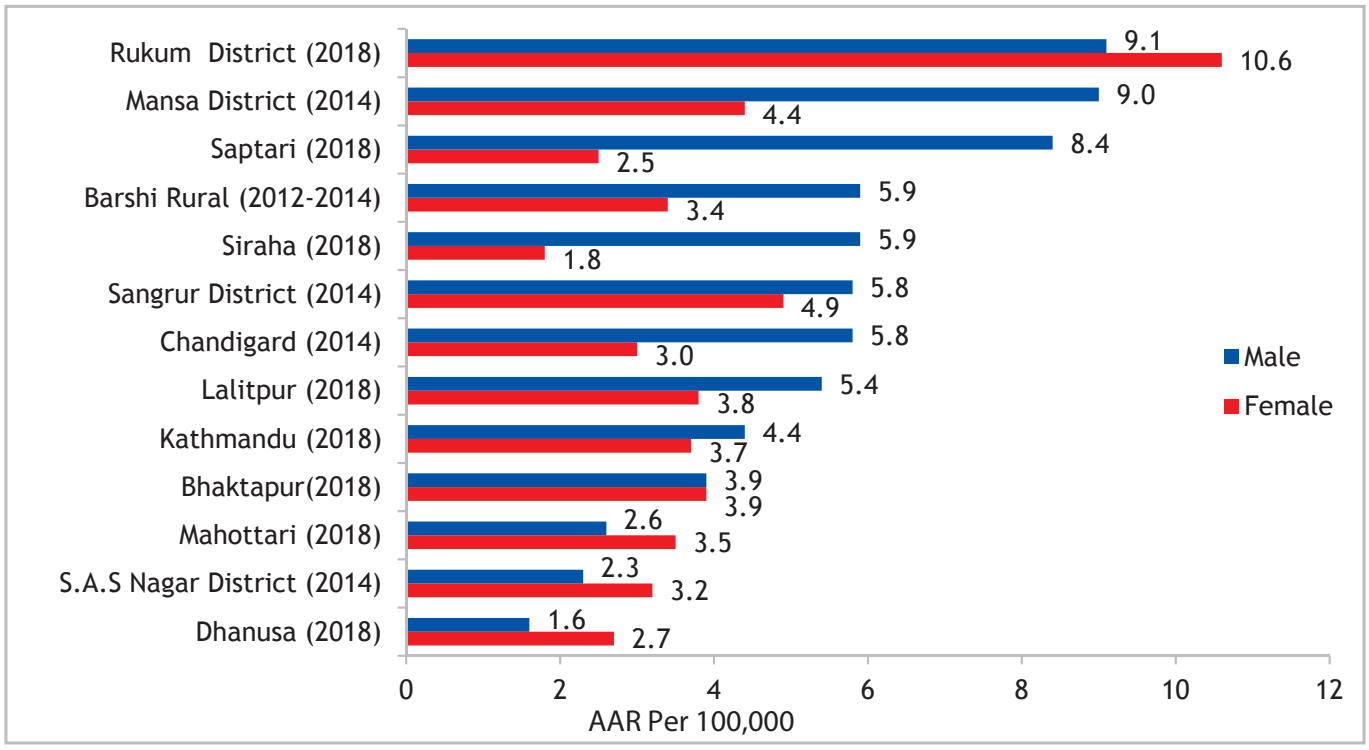


Figure 30. Comparison of Other and Unspecified Sites Cancer Incidence Rate with other Neighboring Registries **(6-10, 13)**

Comparisons of Cancer Incidence Rate with Other Registries

The age adjusted rate for all cancer sites for both male and female of Rukum for the year 2018 is compared with the rates of various districts of Nepal, rural areas and cities of India and the estimated incidence rate of Nepal given by GLOBOCAN (Figure 31 and 32). The AAR for males and females both in Rukum is less than the GLOBOCAN estimated rate for Nepal and India and urban areas of Nepal. However, it is comparable to the rural areas of India and also the semi urban areas of Nepal.

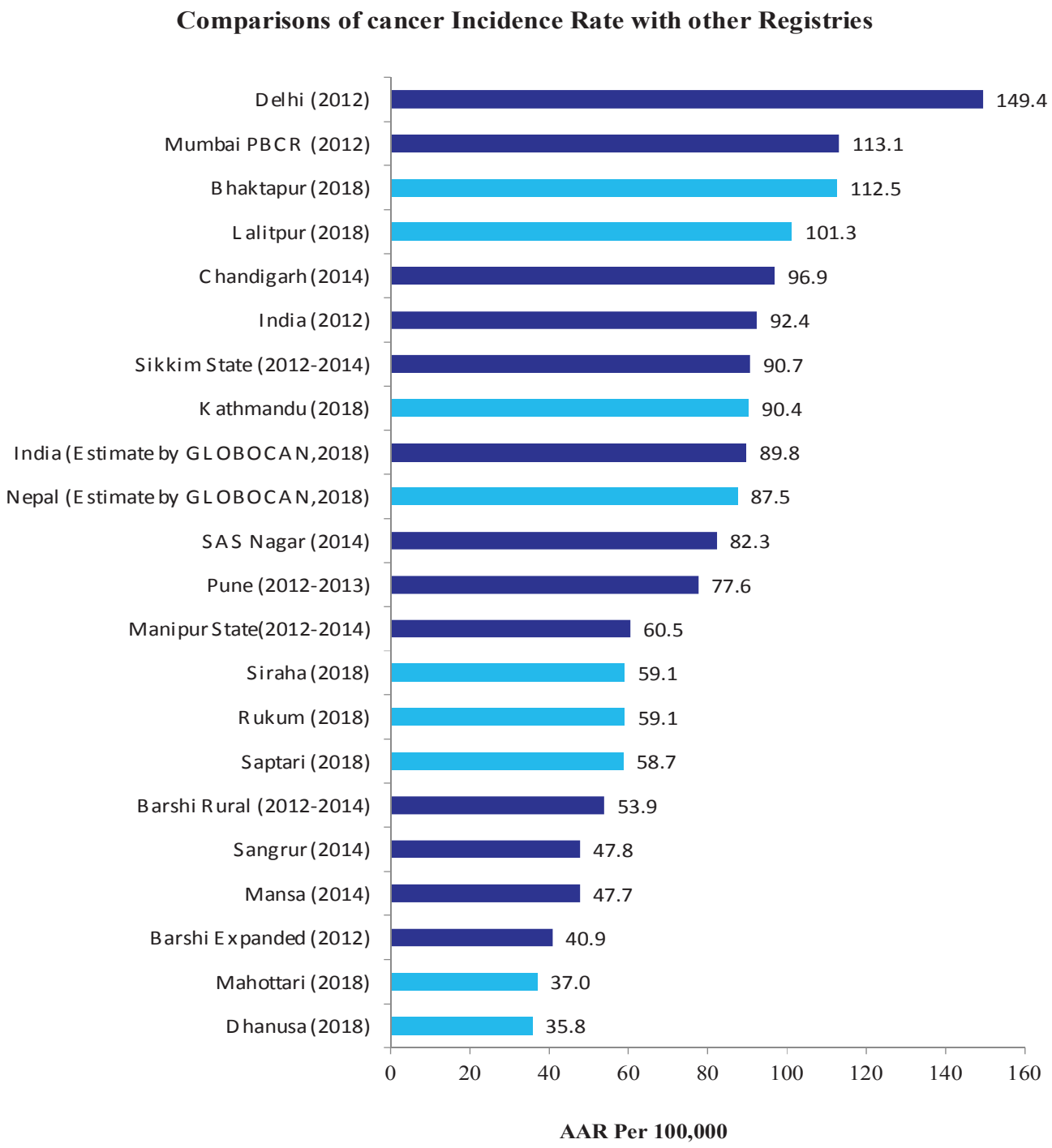


Figure 31. Age Adjusted Incidence Rate of All Cancer Sites in Males **(6-13)**

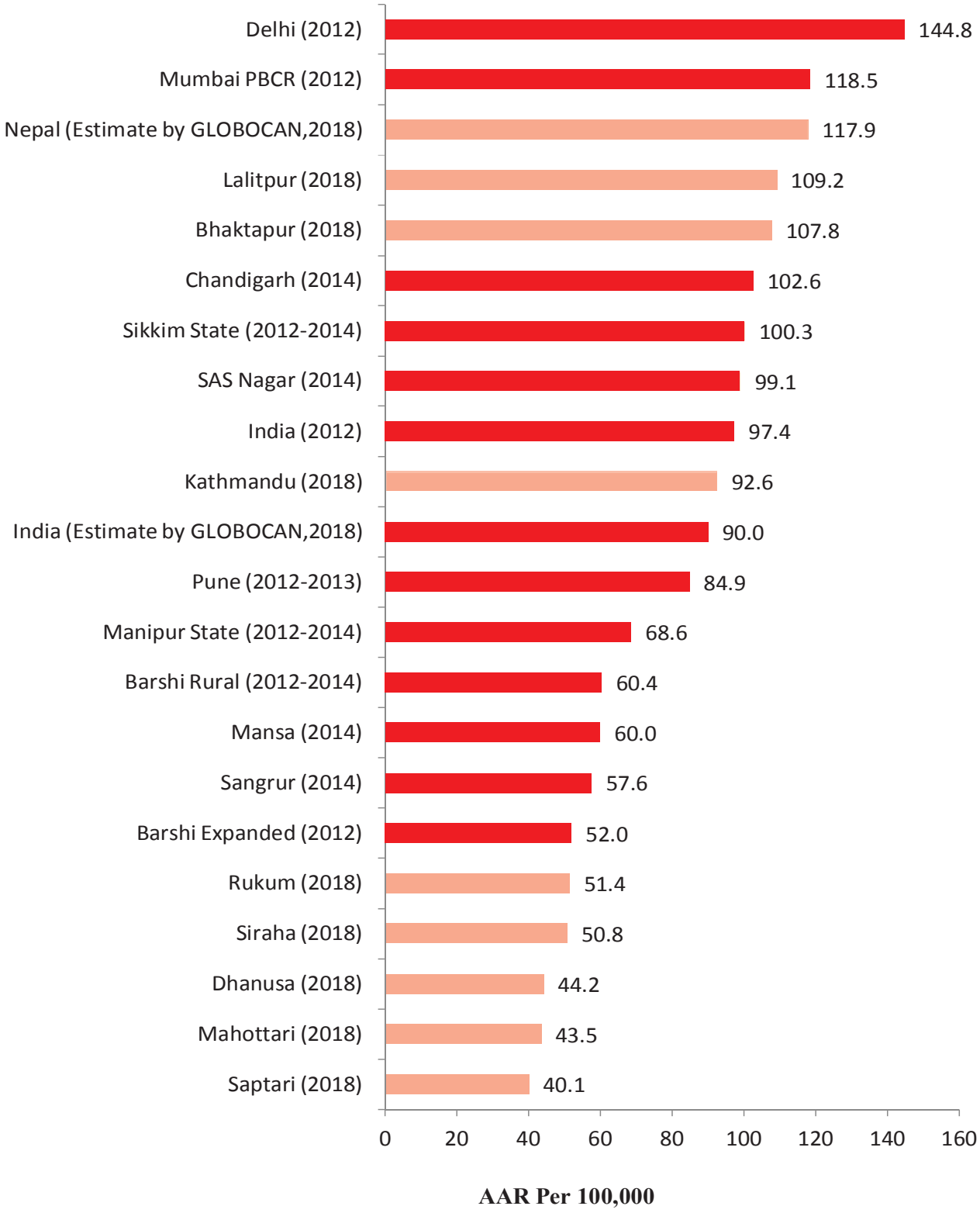


Figure 32. Age Adjusted Incidence Rate of All Cancer Sites in Females **(6-13)**

Challenges in Establishment of Rural Cancer Registry

The rural cancer registry in Nepal is in its initial phase. In this regard, there are many challenges while implementing rural PBCR in Rukum, which is one of the least developed districts of the country. As Rukum has no diagnostic and treatment facilities for cancer, it is very difficult to capture all the cases because patients visit several locations for diagnosis and treatment. Scattered data and the lack of scientific record keeping in the selected sources have made it difficult for complete retrieval of information from Rukum which required an extensive communication and verification process. However, due to persistent efforts in capturing all the possible neighboring health facilities, and mobilizing field enumerators in community to find the cases, the information was gathered as complete as possible.

Initially, one data source refused to provide the data. However, with continuous meeting and interaction with them, they cooperated to provide information on cancer. As newly established registry, many of the sources could not provide complete information, and thus every patient/relative was telephoned to receive full information on cancer cases.

In the data obtained from community, as most of the patients didn't have their diagnosis and treatment reports, the date of diagnosis and primary site of cancer depended upon patient's verbal information. Similarly, in the death cases and absentee patients, the information are based on relatives' verbal information. In such cases there might be chances of recall bias. However, the verbal information was linked with information available at the hospitals they visited. But it was not always easy and available to link the information because of the poor record keeping system of hospitals. Some people, due to social stigma of cancer, do not want to disclose their disease where some cases might have been missed.

An effective and smooth communication with the targeted people regarding identification of cancer cases is another challenge due to limited communication facilities in the district. Many areas in Rukum are still devoid of telecommunication with electronic communication being almost impossible. Hence, sending and receiving the information is quite challenging.

Despite all these challenges, every possible way to capture all the cancer cases and to collect as much as information possible was accomplished through regular coordination to the target persons, field visit, capturing all possible sources outside the districts and even phone calls to the patients and/or relatives.

Recommendations

According to the findings and challenges, the following are the recommendations that have been made for the effectiveness of registry impact.

1. We suggest and recommend Ministry of Health and Population (MoHP) to develop the national cancer control strategy which is an urgent and important need of the time.
2. Based on the findings of the PBCR data, intervention programs should be planned and launched in various regions of the country focusing on the special cancer site for that region. Concerned Provincial authority should be engaged in planning and intervention of the programs.
3. Establishment of a separate cancer wing in the MoHP to look after all the issues related to cancer.
4. Establishment of early detection centers are highly recommended in rural areas like Rukum.
5. As Lungs is common cancer in Rukum, the existing awareness program of smoking/tobacco cessation needs to be strengthened. Information Technology (IT) based and community based interventions for “quit tobacco” are good tools for this.
6. In Rukum, cervical cancer is the commonest in females. Cervical Cancer is one of the cancer amenable for all level of prevention and is the priority of Nepal Government. Activities like awareness, screening, vaccination, prevention, early detection and treatment tneed o be carried out in a systematic manner to cover the maximum population across the country.
7. Government should focus towards digitalization of uniformed medical recording system with some mandatory variable in all government and private health facilities. This will help to minimize work duplicate and save both human and financial resources at national level.
8. Death is one of the vital statistics, which is also link with human development index of the country; however, collecting death information is quite challenging in Nepal. Thus government should give emphasis towards strengthening the death recording system including cause of death.

Glossay: Stastistical 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 were diagnosed from 1st January 2018 to 31st December 2018 in Rukum.

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 1st January 2018 to 31st December 2018 in Rukum were 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 = Number of new cancer cases observed in the period 2018 multiplied by 100,000 divided by estimated population of the same year. This rate is called crude 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/ASR): 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 overtime.

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

Table 17. Number of Incidence Cases by Five Year Age Group and Site (ICD 10): 2018, Male Rukum

ICD 10	SITE	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	Mouth	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	2	4.5
C07-08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	2.3
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Esophagus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	Stomach	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-	1	5	11.4
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	Colon	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	2	4.5
C19-20	Rectum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	2	4.5
C23-24	Gallbladder etc.	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	4.5
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	2	4.5
C33-34	Trachea, bronchus and lung	-	-	-	-	-	-	-	-	-	-	-	-	4	3	2	1	10	22.7
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	Bone	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2	4.5
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	Penis	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	2	4.5
C61	Prostate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	4.5
C62	Testis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2.3
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2.3
C73	Thyroid	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1	3	6.8
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	4.5
C88	Immune-proliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukemia	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2.3
C95	Leukemia unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	1	-	1	1	-	1	-	-	-	-	-	-	-	-	4	9.1
ALL	All sites	-	-	1	-	3	3	-	5	1	2	6	2	5	8	4	4	44	100
ALLbC44	All sites but C44	-	-	1	-	3	3	-	5	1	2	6	2	5	8	4	4	44	100

*%= Relative Proportion of Cancer of All Sites, *O&U includes the sites (ICD-10:C80)*

Table 18. Number of Incidence Cases by Five Year Age Group and Site (ICD 10): 2018, Female Rukum

ICD 10	SITE	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	Mouth	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2.3
C07-08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Esophagus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	Stomach	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2	4.7
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	Colon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-20	Rectum	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	2.3
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C23-24	Gallbladder etc.	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	4.7
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2.3
C33-34	Trachea, bronchus and lung	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	1	4	9.3
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	Bone	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	2.3
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	4.7
C51	Vulva	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	Vagina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C53	Cervix uteri	-	-	-	-	-	-	-	-	2	3	1	3	2	-	-	-	11	25.6
C54	Corpus uteri	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C55	Uterus unspecified	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	3	7.0
C56	Ovary	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	3	7.0
C57	Other female genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	2.3
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2.3
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	Leukemia unspecified	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	2.3
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	1	-	-	-	-	-	-	-	1	3	2	2	-	-	9	20.9
ALL	All sites	-	1	1	-	-	3	-	1	2	7	8	8	7	3	1	1	43	100
ALLbC44	All sites but C44	-	1	1	-	-	3	-	1	2	7	8	8	7	3	1	1	43	100

*%= Relative Proportion of Cancer of All Sites, *O&U includes the sites (ICD-10: C80)*

Table 19. Average Annual Age Specific (ASR), Crude (CR), Age Adjusted (AAR) and Truncated (35-64 years) Incidence Rate per 100,000 populations in 2018, Rukum District-Males

ICD (10th)	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	ASR	TR
C00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	-	-	-	-	-	-	-	-	-	-	26.3	-	-	46.6	-	-	1.97	2.7	4.2
C07-08	-	-	-	-	-	-	-	-	-	-	-	-	-	46.6	-	-	0.98	1.4	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	-	-	-	-	-	-	-	-	-	26.2	26.3	34.2	-	46.6	-	82.0	4.92	7.3	13.7
C17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	-	-	-	-	-	-	-	22.5	-	-	-	-	-	46.6	-	-	1.97	2.7	4.4
C19-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	-	-	-	-	-	-	-	-	23.5	-	-	-	-	46.6	-	-	1.97	2.8	4.5
C23-24	-	-	-	-	-	-	-	-	-	26.2	26.3	-	-	-	-	-	1.97	2.9	9.3
C25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	22.5	-	-	26.3	-	-	-	-	-	1.97	2.7	8.6
C33-34	-	-	-	-	-	-	-	-	-	-	-	-	117.2	139.7	132.8	82.0	9.85	13.2	15.1
C37-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	-	-	-	-	14.5	17.6	-	-	-	-	-	-	-	-	-	-	1.97	2.6	-
C43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	-	-	-	-	-	-	-	22.5	-	-	-	34.2	-	-	-	-	1.97	2.7	8.8
C61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66.4	82.0	1.97	3.0	-
C62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	26.3	-	-	-	-	-	0.98	1.3	4.2
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	-	-	-	-	-	-	-	-	-	-	26.3	-	-	-	-	-	0.98	1.3	4.2
C73	-	-	-	-	-	17.6	-	-	-	-	-	-	29.3	-	-	82.0	2.95	4.2	3.8
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82 85,C96	-	-	-	-	14.5	-	-	-	-	-	-	-	-	-	66.4	-	1.97	2.5	-
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	-	-	-	-	-	-	-	22.5	-	-	-	-	-	-	-	-	0.98	1.4	4.4
C95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O&U	-	-	5.9	-	14.5	17.6	-	22.5	-	-	-	-	-	-	-	-	3.94	4.5	4.4
ALL	-	-	5.9	-	43.6	52.9	-	112.7	23.5	52.4	157.7	68.3	146.5	372.4	265.6	328.1	43.34	59.1	89.6
ALLbC44	-	-	5.9	-	43.6	52.9	-	112.7	23.5	52.4	157.7	68.3	146.5	372.4	265.6	328.1	43.34	59.1	89.6

**O&U include the sites (ICD-10: C80)*

Table 20. Average Annual Age Specific (ASR), Crude (CR), Age Adjusted (AAR) and Truncated (35-64 years) Incidence Rate per 100,000 populations in 2018, Rukum District-Females

ICD (10th)	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	ASR	TR
C00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	-	-	-	-	-	-	-	-	-	-	25.9	-	-	-	-	-	0.83	1.3	4.2
C07-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	-	-	-	-	-	-	-	-	-	21.2	25.9	-	-	-	-	-	1.67	2.6	8.3
C17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-20	-	-	-	-	-	-	-	-	-	-	-	31.8	-	-	-	-	0.83	1.3	4.1
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C23-24	-	-	-	-	-	-	-	-	-	21.2	-	-	27.4	-	-	-	1.67	2.4	7.6
C25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	-	-	-	25.9	-	-	-	-	-	0.83	1.3	4.2
C33-34	-	-	-	-	-	-	-	-	-	-	25.9	-	54.8	-	-	85.8	3.34	5.2	11.2
C37-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	-	-	-	-	-	11.6	-	-	-	-	-	-	-	-	-	-	0.83	0.9	-
C43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	-	-	-	-	-	-	-	-	-	-	-	31.8	-	47.0	-	-	1.67	2.7	4.1
C51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C53	-	-	-	-	-	-	-	-	-	63.6	25.9	95.5	54.8	-	-	-	9.18	13.2	42.7
C54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C55						-		-	-	21.2	25.9	-	-	-	67.6	-	2.5	3.9	8.3
C56	-	-	-	-	-	11.6	-	16.0	-	21.2	-	-	-	-	-	-	2.5	3.2	7.2
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	25.9	-	-	-	-	-	0.83	1.3	4.2
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.83	0.6	-
C82-85,C96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	-	-	-	-	-	11.6	-	-	-	-	-	-	-	-	-	-	0.83	0.9	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O&U	-	-	5.5	-	-	-	-	-	-	-	25.9	95.5	54.8	94.0	-	-	7.51	10.6	20.9
ALL	-	6.1	5.5	-	-	34.9	-	16.0	35.3	148.4	207.5	254.5	191.8	141.0	67.6	85.8	35.88	51.4	129.7
ALLbC44	-	6.1	5.5	-	-	34.9	-	16.0	35.3	148.4	207.5	254.5	191.8	141.0	67.6	85.8	35.88	51.4	129.7

**O&U include the sites (ICD-10: C80)*

Table 21. Age Group-wise Distribution of Cancer Mortality Cases in 2018, Rukum-Male

ICD 10	SITE	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	2	13
C03-06	Mouth	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	6.2
C07-08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	6.2
C15	Oesophagus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	Stomach	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	3	19
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	Colon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-2-	Rectum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	6.2
C23-24	Gallbladder etc.	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	6.2
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-34	Trachea, bronchus and lung	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	3	19
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4--41	Bone	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	6.2
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	Penis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C61	Prostate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C62	Testis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C9-	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukaemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukaemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	Leukaemia unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	3	19
ALL	All sites	-	-	-	1	1	-	-	3	1	2	1	1	2	2	1	1	16	100
ALLbC44	All sites but C44	-	-	-	1	1	-	-	3	1	2	1	1	2	2	1	1	16	100

%= Relative Proportion of Cancer of All Sites, O&U includes the sites (ICD-10: C80)

Table 21. Age Group-wise Distribution of Cancer Mortality Cases in 2018, Rukum-Female

ICD 10	SITE	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	Mouth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C07-08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	Stomach	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	4.5
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	Colon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-20	Rectum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	9.1
C23-24	Gallbladder etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-34	Trachea, bronchus and lung	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	3	14
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	Bone	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4.5
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2	9.1
C51	Vulva	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	Vagina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C53	Cervix uteri	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	2	9.1
C54	Corpus uteri	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C55	Uterus unspecified	-	-	-	-	-	-	-	1	-	-	1	-	1	-	1	-	4	18.2
C56	Ovary	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	3	13.6
C57	Other female genital organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	Immune-proliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukemia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	Leukemia unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	1	-	-	-	-	-	-	-	-	1	1	1	-	-	4	18.2
ALL	All sites	-	-	2	-	-	1	-	2	2	1	3	4	3	3	1	-	22	100
ALLbC44	All sites but C44	-	-	2	-	-	1	-	2	2	1	3	4	3	3	1	-	22	100

*%= Relative Proportion of Cancer of All Sites, *O&U includes the sites (ICD-10:C80)*

Table 22. Average Annual Age Specific (ASR), Crude (CR), Age Adjusted (AAR) and Truncated (35-64 years) Mortality Rate per 100,000 populations in 2018, Rukum District-Males

ICD (10th)	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	ASR	TR
C00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	-	-	-	-	-	-	-	45.1	-	-	-	-	-	-	-	-	2.0	0.1	0.4
C03-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C07-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	46.6	-	-	1.0	-	-
C15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	-	-	-	-	-	-	-	-	-	26.2	-	34.2	-	-	-	82.0	3.0	0.1	0.3
C17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	-	-	-	-	-	-	-	-	-	-	-	-	-	46.6	-	-	1.0	-	-
C23-24	-	-	-	-	-	-	-	-	-	-	26.3	-	-	-	-	-	1.0	1.3	4.2
C25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-34	-	-	-	-	-	-	-	-	23.5	-	-	-	29.3	-	66.4	-	3.0	0.1	0.3
C37-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	-	-	-	-	-	-	-	-	-	26.2	-	-	-	-	-	-	1.0	0.1	0.2
C43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-85,C96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O&U	-	-	-	8.9	14.5	-	-	22.5	-	-	-	-	-	-	-	-	3.0	0.2	0.2
ALL	-	-	-	8.9	14.5	-	-	67.6	23.5	52.4	26.3	34.2	58.6	93.1	66.4	82.0	15.8	21.4	44.0
ALLbC44	-	-	-	8.9	14.5	-	-	67.6	23.5	52.4	26.3	34.2	58.6	93.1	66.4	82.0	15.8	21.4	44.0

**O&U include the sites (ICD-10:C80)*

Table 23. Average Annual Age Specific (ASR), Crude (CR), Age Adjusted (AAR) and Truncated (35-64 years) Mortality Rate Per 100,000 populations in 2018, Rukum District-Females

ICD (10th)	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	ASR	TR
C00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C07-08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	-	-	-	-	-	-	-	-	-	-	25.9	-	-	-	-	-	0.8	0.1	0.2
C17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	-	-	-	-	-	-	-	-	-	-	-	-	-	94.0	-	-	1.7	0.1	-
C23-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C33-34	-	-	-	-	-	-	-	-	17.7	0.0	1.0	31.8	27.4	-	-	-	2.5	0.1	0.5
C37-38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.1	0.0
C43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C50	-	-	-	-	-	-	-	-	-	-	25.9	31.8	-	-	-	-	1.7	0.1	0.3
C51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C53	-	-	-	-	-	11.6	-	-	-	21.2	-	-	-	-	-	-	1.7	0.1	0.2
C54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C55	-	-	-	-	-	-	-	16.0	-	-	25.9	0.0	27.4	0.0	67.6	-	3.3	0.2	0.5
C56	-	-	-	-	-	-	-	16.0	17.7	-	-	31.8	-	-	-	-	2.5	0.2	0.5
C57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C82-85,C96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MPD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O&U	-	-	5.5	-	-	-	-	-	-	-	-	31.8	27.4	47.0	-	-	3.3	0.2	0.3
ALL	-	-	11.1	-	-	11.6	-	32.1	35.3	21.2	77.8	127.3	82.2	141.0	67.6	-	18.4	25.1	56.7
ALLbC44	-	-	11.1	-	-	11.6	-	32.1	35.3	21.2	77.8	127.3	82.2	141.0	67.6	-	18.4	25.1	56.7

**O&U include the sites (ICD-10:C80)*

Table 24. Incidence Cancer Case Distribution according to Basis of Diagnosis in 2018, Rukum-Male

ICD 10	SITE	Clinical		Radiological		Microscopic		Verbal Information		Death Certificate only		Total	
		No.	%	-	-	No.	%	No.	%	No.	%	No	%
C00	Lip	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-	-	-	-	-	-	-	-	-
C03-06	Mouth	-	-	-	-	1	50	1	50	-	-	2	4.7
C07-08	Salivary glands	-	-	-	-	1	-	-	-	-	-	1	2.3
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus	-	-	-	-	-	-	-	-	-	-	-	-
C16	Stomach	-	-	-	-	4	80	1	20	-	-	5	11.6
C17	Small intestine	-	-	-	-	-	-	-	-	-	-	-	-
C18	Colon	-	-	-	-	1	100	-	-	-	-	1	2.3
C19-20	Rectum	-	-	-	-	-	-	-	-	-	-	-	-
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	2	100	-	-	-	-	2	4.7
C23-24	Gallbladder etc.	-	-	-	-	1	50	-	-	1	50	2	4.7
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-
C34-31	Nose, sinuses etc.	-	-	1	100	-	-	-	-	-	-	1	2.3
C32	Larynx	-	-	-	-	1	50	1	50	-	-	2	4.7
C33-34	Trachea, bronchus and lung	-	-	-	-	7	77.8	2	32.2	-	-	9	20.5
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	Bone	-	-	2	100	-	-	-	-	-	-	2	4.7
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	-	-	-	-	-	-	-	-
C60	Penis	-	-	-	-	1	50	1	50	-	-	2	4.7
C61	Prostate	1	50	1	50	-	-	-	-	-	-	2	4.7
C62	Testis	-	-	-	-	-	-	-	-	-	-	-	-
C63	Other male genital organs	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	1	100	-	-	-	-	1	2.3
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	1	100	-	-	-	-	1	2.3
C73	Thyroid	1	33.3	-	-	-	-	2	66.7	-	-	3	7.0
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	-	-	-	-	-	-	-	-
C82-85, C96	Non-Hodgkin lymphoma	-	-	-	-	2	100	-	-	-	-	2	4.7
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukaemia	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukaemia	-	-	-	-	1	100	-	-	-	-	1	2.3
C95	Leukaemia unspecified	-	-	-	-	-	-	-	-	-	-	-	-
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-
MDS	Myelodysplastic syndromes	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	-	-	-	-	4	100	-	-	4	9.3
ALL	All sites	2	4.5	4	9.1	25	56.8	12	27.3	1	2.3	44	100

*O&U include the sites (ICD-10: C80)

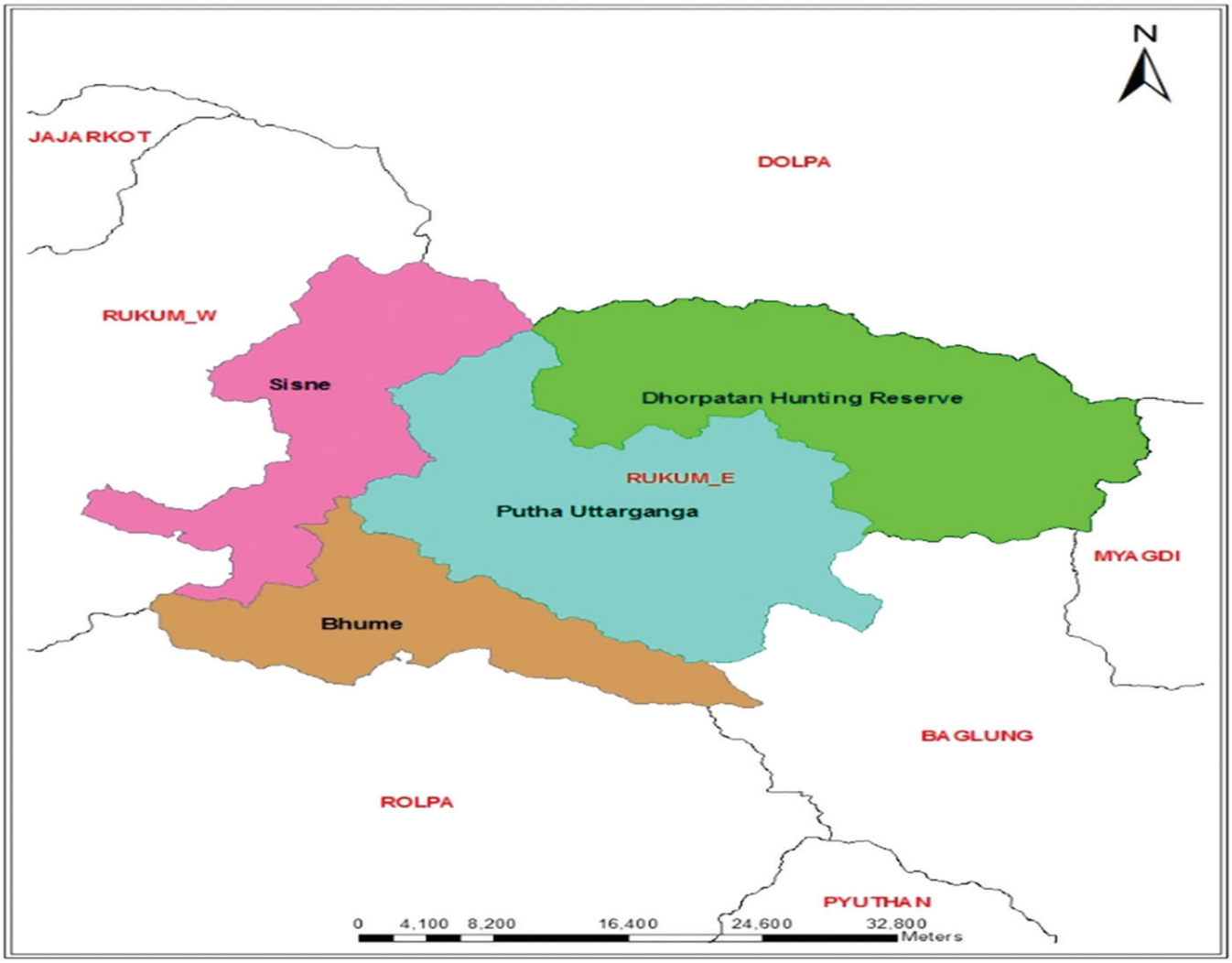
Table 25. Incidence Cancer Case Distribution according to Basis of Diagnosis in 2018, Rukum-Female

ICD 10	SITE	Clinical		Radiological		Microscopic		Verbal Information		Death Certificate only		Total	
		No.	%	N0	%	No.	%	No.	%	No.	%	No	%
C00	Lip	-	-	-	-	-	-	-	-	-	-	-	-
C01-02	Tongue	-	-	-	-			-	-	-	-	-	-
C03-06	Mouth	-	-	-	-	1	100	-	-	-	-	1	2.3
C07-08	Salivary glands	-	-	-	-	-	-	-	-	-	-	-	-
C09	Tonsil	-	-	-	-	-	-	-	-	-	-	-	-
C10	Other oropharynx	-	-	-	-	-	-	-	-	-	-	-	-
C11	Nasopharynx	-	-	-	-	-	-	-	-	-	-	-	-
C12-13	Hypopharynx	-	-	-	-	-	-	-	-	-	-	-	-
C14	Pharynx unspecified	-	-	-	-	-	-	-	-	-	-	-	-
C15	Oesophagus			-	-	-	-	-	-	-		-	-
C16	Stomach	1	50	-	-	1	50	-	-	-	-	2	4.7
C17	Small intestine			-	-	-	-	-	-	-	-	-	-
C18	Colon			-	-	-	-	-	-	-	-	-	-
C19-20	Rectum	1	100	-	-	-	-	-	-	-	-	1	2.3
C21	Anus	-	-	-	-	-	-	-	-	-	-	-	-
C22	Liver	-	-	-	-	-	-	-	-	-	-	-	-
C23-24	Gallbladder etc.	-	-	-	-	2	100					2	4.7
C25	Pancreas	-	-	-	-	-	-	-	-	-	-	-	-
C30-31	Nose, sinuses etc.	-	-	-	-	-	-	-	-	-	-	-	-
C32	Larynx	-	-	-	-	-	-	-	-	-	-	1	2.3
C33-34	Trachea, bronchus and lung	-	-	-	-	3	75	1	25	-	-	4	9.3
C37-38	Other thoracic organs	-	-	-	-	-	-	-	-	-	-	-	-
C40-41	Bone	-	-	-	-	1	100					1	2.3
C43	Melanoma of skin	-	-	-	-	-	-	-	-	-	-	-	-
C44	Other skin	-	-	-	-	-	-	-	-	-	-	-	-
C45	Mesothelioma	-	-	-	-	-	-	-	-	-	-	-	-
C46	Kaposi sarcoma	-	-	-	-	-	-	-	-	-	-	-	-
C47,C49	Connective and soft tissue	-	-	-	-	-	-	-	-	-	-	-	-
C50	Breast	-	-	-	-	1	50	1	50			2	4.7
C51	Vulva	-	-	-	-	-	-	-	-	-	-	-	-
C52	Vagina	-	-	-	-	-	-	-	-	-	-	-	-
C53	Cervix uteri	-	-	-	-	9	81.8	2	18.2			11	25.6
C54	Corpus uteri	-	-	-	-	-	-	-	-	-	-	-	-
C55	Uterus unspecified	-	-	-	-	-	-	3	100	-	-	3	7.0
C56	Ovary	-	-	-	-	2	66.7	1	33.3			3	7.0
C57	Other female genital organs	-	-	-	-	-	-	-	-	-	-	-	-
C58	Placenta	-	-	-	-	-	-	-	-	-	-	-	-
C64	Kidney	-	-	-	-	-	-	-	-	-	-	-	-
C65	Renal pelvis	-	-	-	-	-	-	-	-	-	-	-	-
C66	Ureter	-	-	-	-	-	-	-	-	-	-	-	-
C67	Bladder	-	-	-	-	-	-	1	100			1	2.3
C68	Other urinary organs	-	-	-	-	-	-	-	-	-	-	-	-
C69	Eye	-	-	-	-	-	-	-	-	-	-	-	-
C70-72	Brain, nervous system	-	-	-	-	-	-	-	-	-	-	-	-
C73	Thyroid	-	-	-	-	-	-	-	-	-	-	-	-
C74	Adrenal gland	-	-	-	-	-	-	-	-	-	-	-	-
C75	Other endocrine	-	-	-	-	-	-	-	-	-	-	-	-
C81	Hodgkin disease	-	-	-	-	1	100	-	-	-	-	1	2.3
C82-85,C96	Non-Hodgkin lymphoma	-	-	-	-	-	-	-	-	-	-	-	-
C88	Immunoproliferative diseases	-	-	-	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma	-	-	-	-	-	-	-	-	-	-	-	-
C91	Lymphoid leukaemia	-	-	-	-	-	-	-	-	-	-	-	-
C92-94	Myeloid leukaemia	-	-	-	-	-	-	-	-	-	-	-	-
C95	Leukaemia unspecified	-	-	-	-	1	100	-	-	-	-	1	2.3
MPD	Myeloproliferative disorders	-	-	-	-	-	-	-	-	-	-	-	-
*O&U	Other and unspecified	-	-	-	-	1	11.1	8	88.9	-	-	9	20.9
ALL	All sites	2	4.7	-	-	24	55.8	17	39.5	-	-	43	100.0

*O&U include the sites (ICD-10: C80)

Ward wise Cancer Incident and Mortality Cases

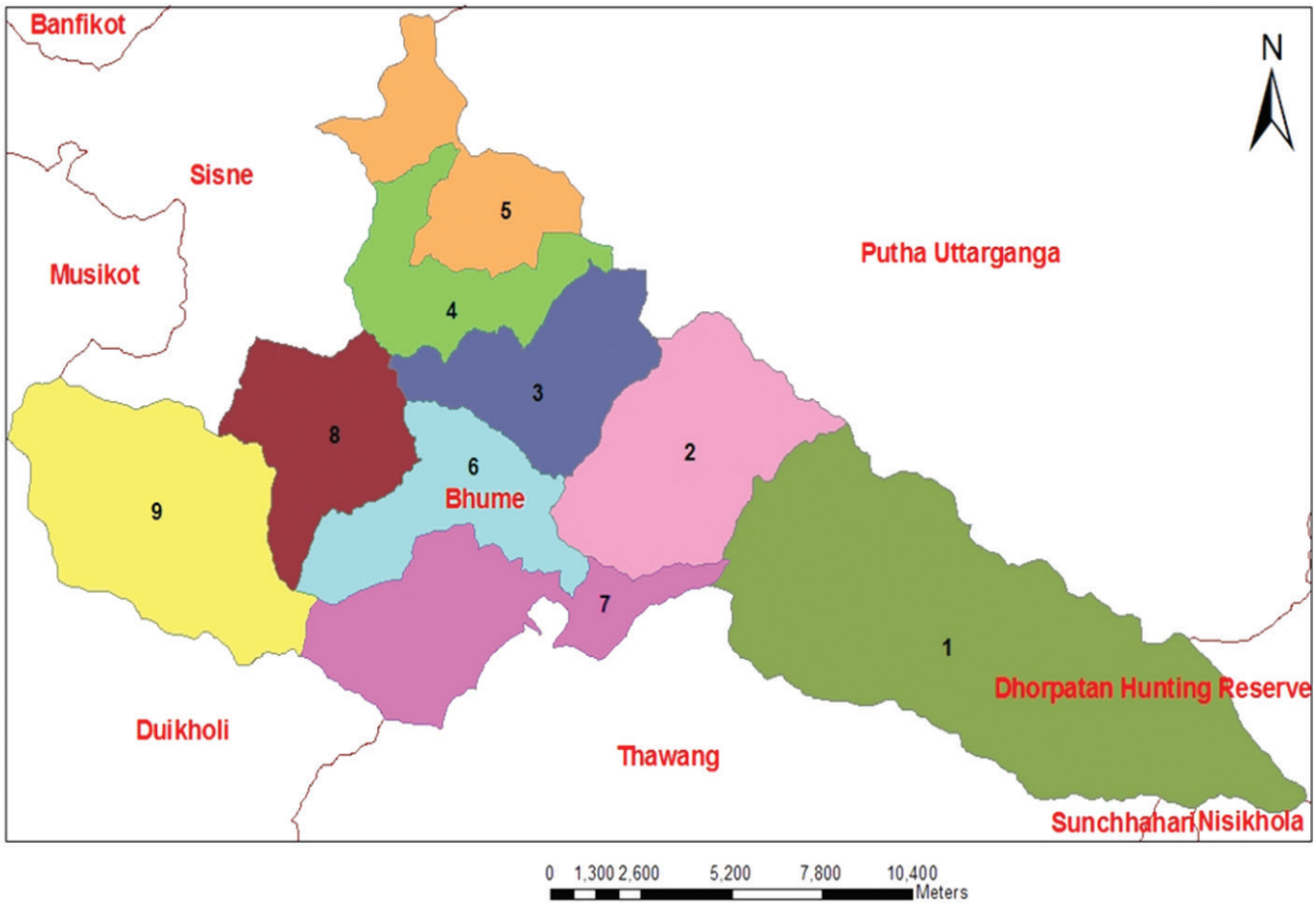
Urban/Rural Municipality wise Cancer Incidence and Mortality: Rukum East District



Urban/Rural Municipality wise Cancer Incidence and Mortality: Rukum East District

S.N	Municipality/Village Council	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	Bhume Rural Municipality	2	2	4	-	2	2
2	Sisne Rural Municipality	8	1	9	1	1	2
3	Putha Uttarganga Rural Municipality	5	1	6	-	-	-
4	Unknown	1	-	1	-	-	-
Total		16	4	2	1	3	4

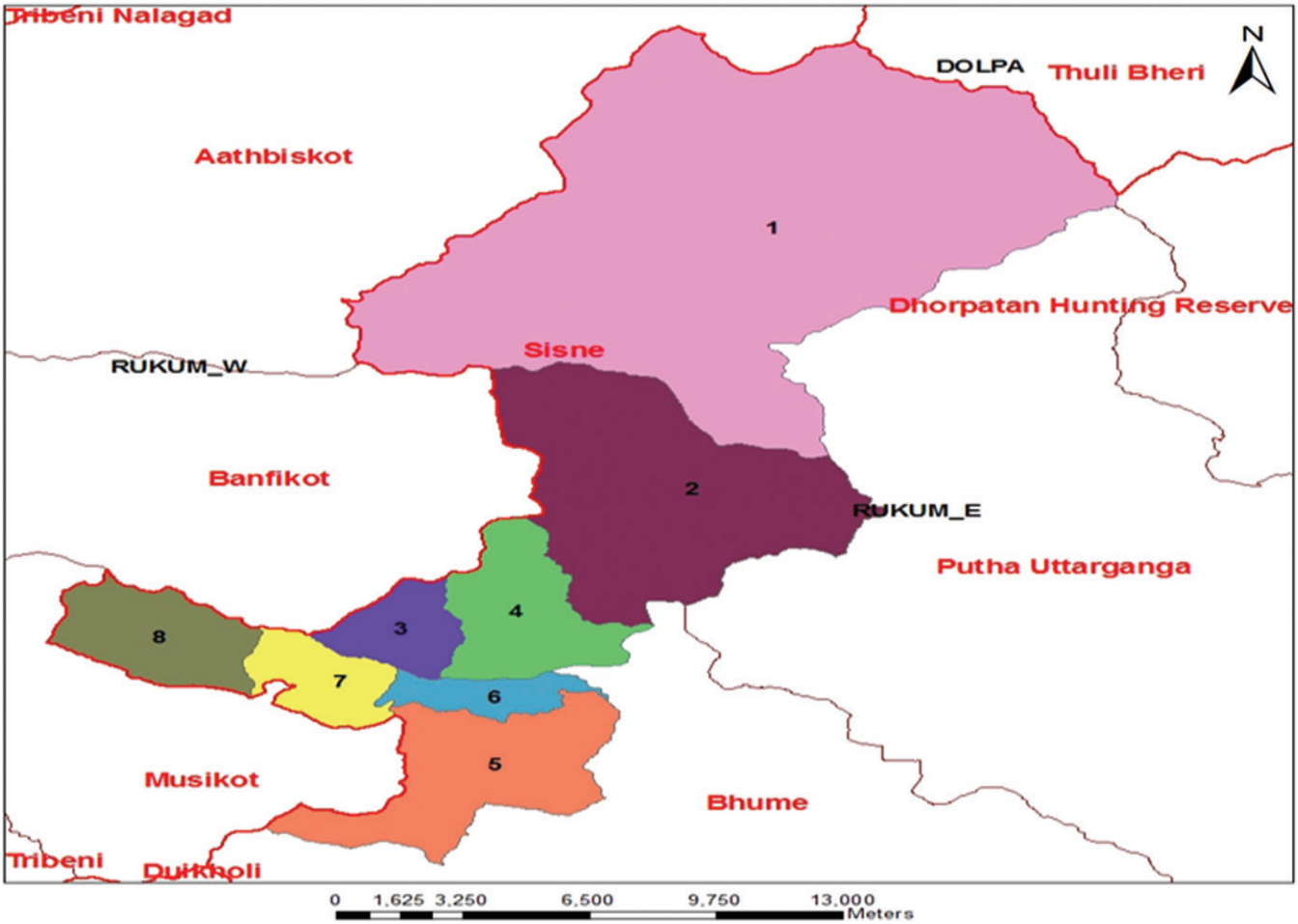
Ward wise Cancer Incidence and Mortality: Bhume Rural Municipality



Ward wise Cancer Incidence and Mortality: Bhume Rural Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	-	-	-	1	1
2	2	-	-	-	-	-	-
3	3	1	-	1	-	-	-
4	4	-	-	-	-	-	-
5	5	-	-	-	-	-	-
6	6	-	1	1	-	1	1
7	7	-	1	1	-	-	-
8	8	-	-	-	-	-	-
9	9	1	-	1	-	-	-
Total		2	2	4	-	2	2

Ward wise Cancer Incidence and Mortality: Sisne Rural Municipality



Ward wise Cancer Incidence and Mortality: Sisne Rural Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	1	-	1	-	-	-
2	2	1	-	1	-	-	-
3	3	-	-	-	-	-	-
4	4	-	-	-	-	-	-
5	5	2	-	2	-	1	1
6	6	1	-	1	1	-	1
7	7	2	1	3	-	-	-
8	8	1	-	1	-	-	-
Total		8	1	9	1	1	2

Ward wise Cancer Incidence and Mortality: Putha Uttarganga Rural Municipality

Ward wise Cancer Incidence and Mortality: Putha Uttarganga Rural Municipality

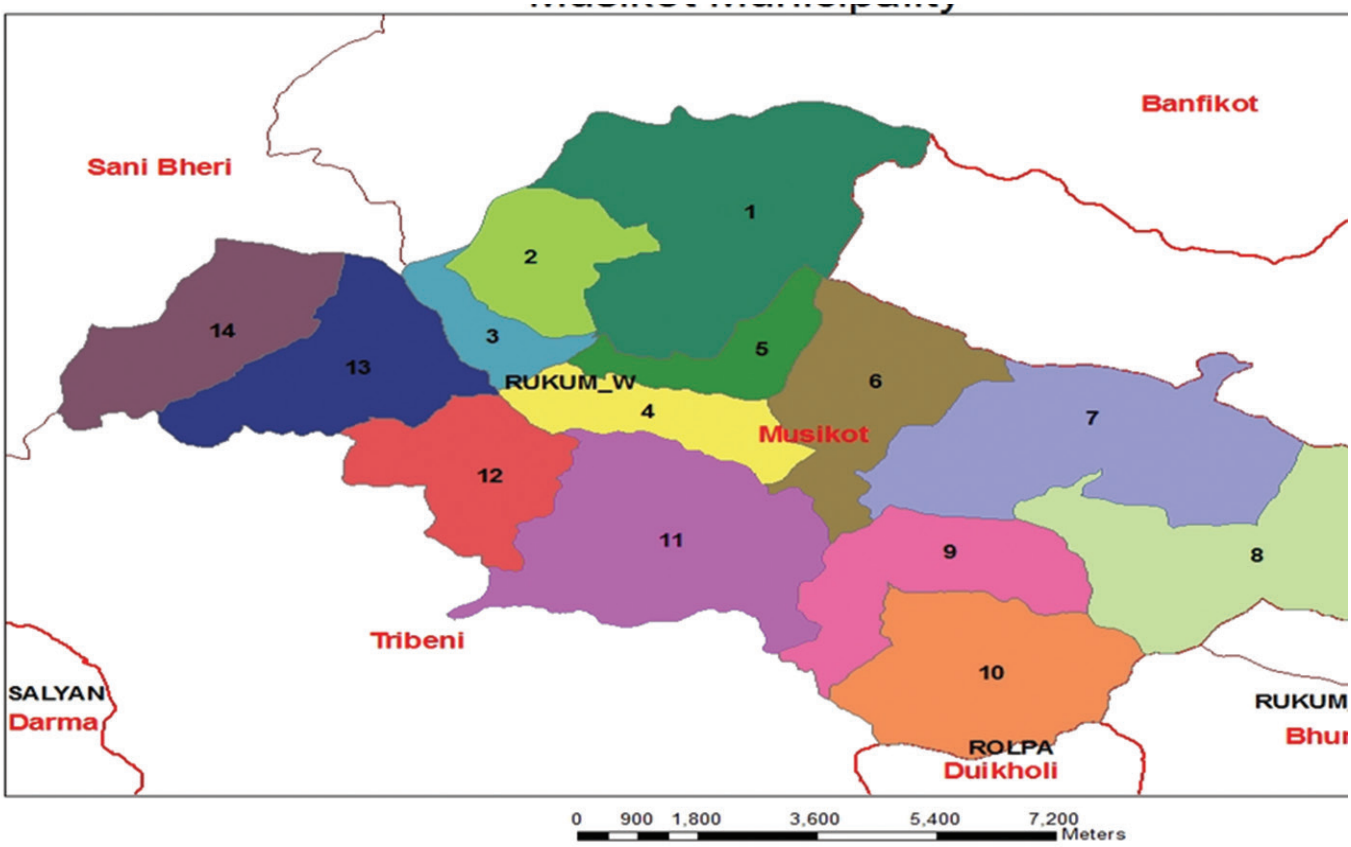
S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	-	-	-	-	-
2	2	-	-	-	-	-	-
3	3	-	-	-	-	-	-
4	4	-	-	-	-	-	-
5	5	1	1	2	-	-	-
6	6	1	-	1	-	-	-
7	7	1	-	1	-	-	-
8	8	-	-	-	-	-	-
9	9	2	-	2	-	-	-
1-	1-	-	-	-	-	-	-
11	11	-	-	-	-	-	-
12	12	-	-	-	-	-	-
13	13	-	-	-	-	-	-
14	14	-	-	-	-	-	-
Total		5	1	6	-	-	-

Urban/Rural Municipality-wise Cancer Incidence and Mortality: Rukum West District

Urban/Rural Municipality wise Cancer Incidence and Mortality: Rukum West District

S.N	Municipality/Rural Municipality	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	Musikot Municipality	3	13	16	1	5	6
2	Chaurjahari Municipality	5	7	12	2	3	5
3	Aathbiskot Municipality	4	6	10	4	4	8
4	Banphikot Rural Municipality	3	3	6	2	-	2
5	Tribeni Rural Municipality	6	4	10	4	3	7
6	Sani Bheri Rural Municipality	5	8	13	1	5	6
Total		25	41	67	14	20	34

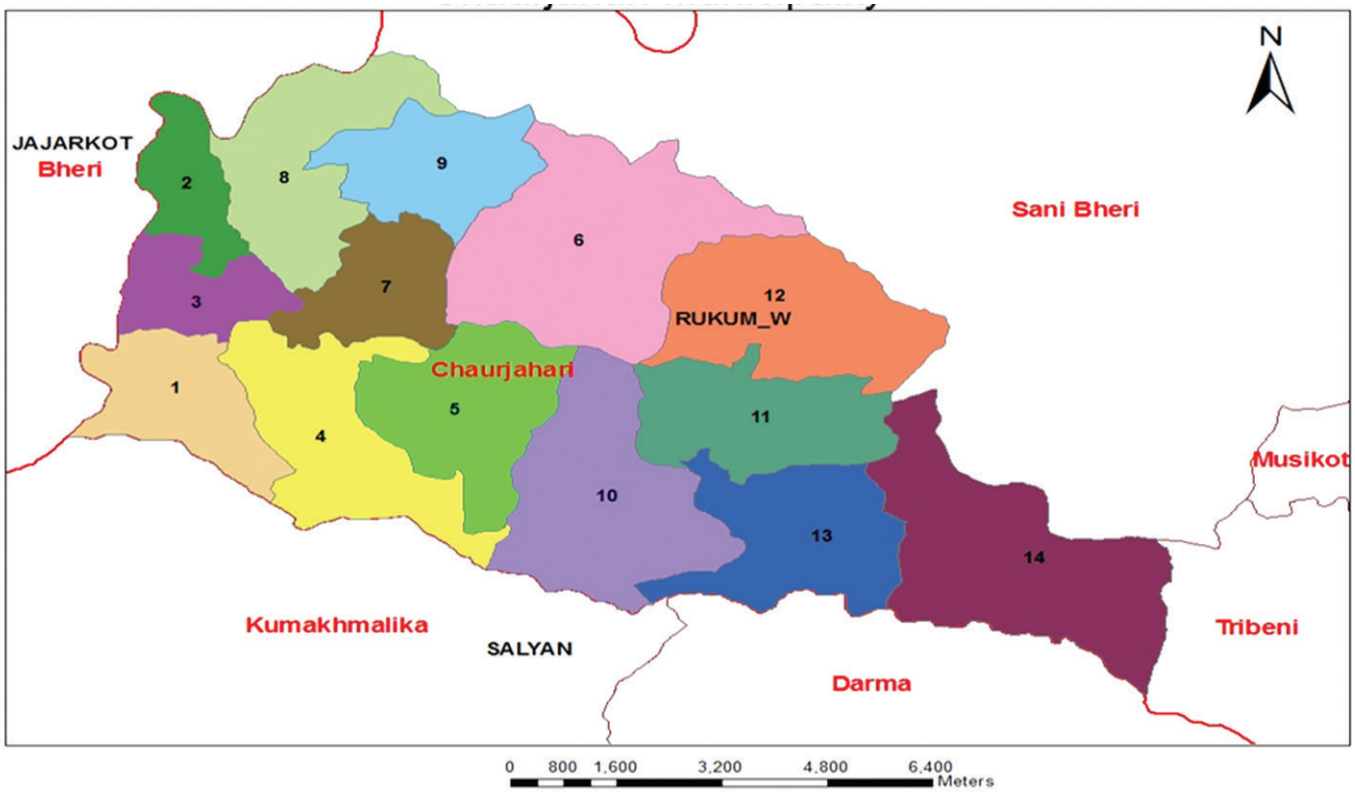
Ward wise Cancer Incidence and Mortality: Musikot Municipality



Ward wise Cancer Incidence and Mortality: Musikot Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	2	2	-	2	2
2	2	-	-	-	-	-	-
3	3	-	1	1	-	-	-
4	4	-	2	2	-	-	-
5	5	1	1	2	-	-	-
6	6	-	1	1	-	-	-
7	7	1	1	2	-	-	-
8	8	-	1	1	-	-	-
9	9	-	2	2	-	2	2
10	10	-	-	-	-	-	-
11	11	1	2	3	1	1	2
12	12	-	-	-	-	-	-
13	13	-	-	-	-	-	-
14	14	-	-	-	-	-	-
Total		3	13	16	1	5	6

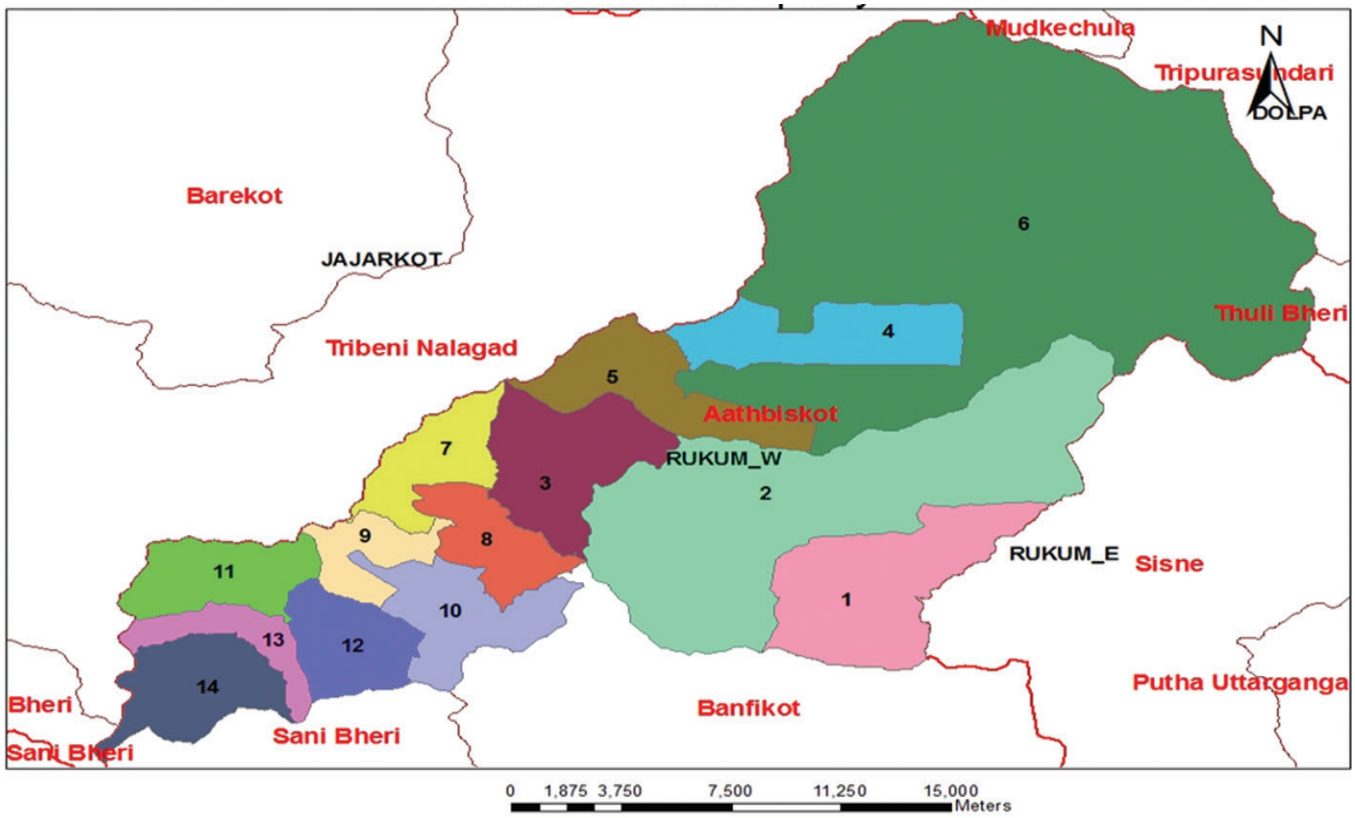
Ward wise Cancer Incidence and Mortality: Chaurjahari Municipality



Ward wise Cancer Incidence and Mortality: Chaurjahari Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	1	1	-	-	-
2	2	-	-	-	-	-	-
3	3	-	-	-	-	-	-
4	4	-	-	-	-	-	-
5	5	1	1	2	-	-	-
6	6	-	1	1	-	1	1
7	7	-	-	-	-	-	-
8	8	2	-	2	-	-	-
9	9	-	-	-	-	1	1
10	10	1	1	2	1	1	2
11	11	-	1	1	-	-	-
12	12	-	1	1	-	-	-
13	13	1	-	1	1	-	1
14	14	-	1	1	-	-	-
Total		5	7	12	2	3	5

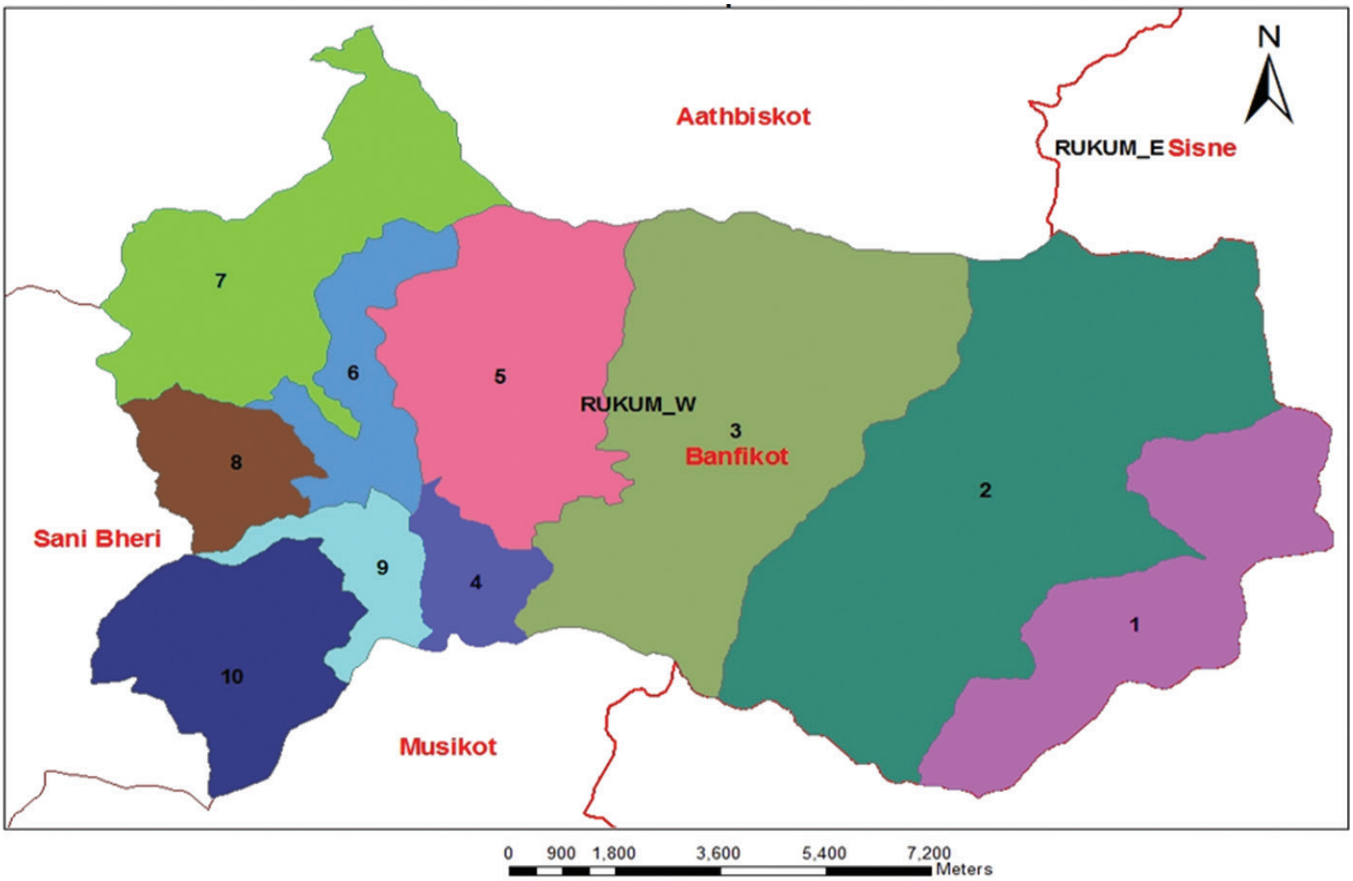
Ward wise Cancer Incidence and Mortality: Aathbiskot Municipality



Ward wise Cancer Incidence and Mortality: Aathbiskot Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	-	-	-	-	-
2	2	-	1	1	-	1	1
3	3	-	-	-	-	1	1
4	4	-	-	-	1	-	1
5	5	2	2	4	2	-	2
6	6	-	-	-	-	-	-
7	7	-	-	-	-	-	-
8	8	2	-	2	-	-	-
9	9	-	-	-	-	1	1
10	10	-	1	1	-	-	-
11	11	-	1	1	-	-	-
12	12	-	-	-	1	-	1
13	13	-	1	1	-	-	-
14	14	-	-	-	-	1	1
Total		4	6	10	4	4	8

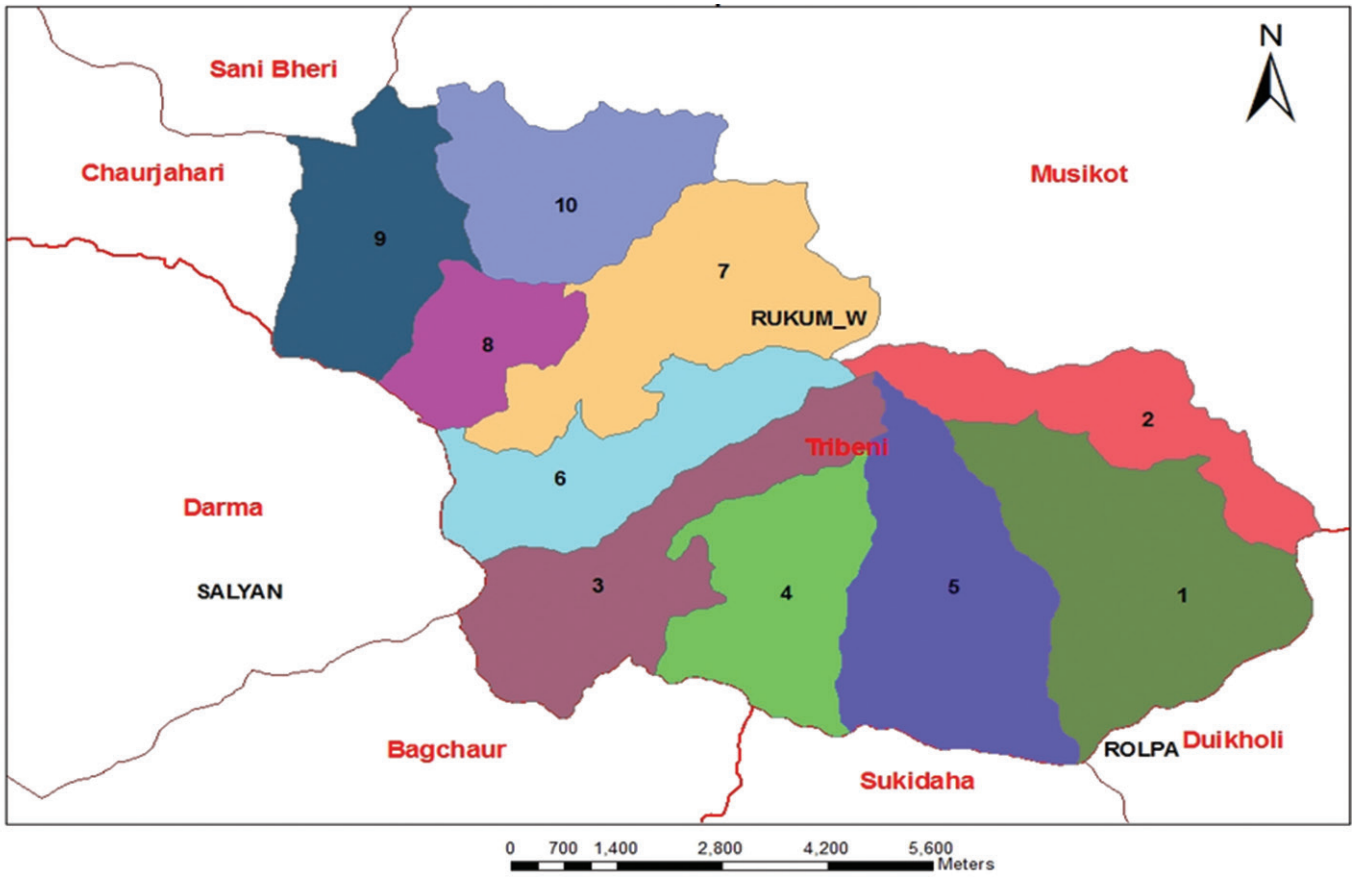
Ward wise Cancer Incidence and Mortality: Banfikot Rural Municipality



Ward wise Cancer Incidence and Mortality: Banfikot Rural Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	-	-	-	-	-
2	2	-	-	-	-	-	-
3	3	-	1	1	-	-	-
4	4	1	-	1	1	-	1
5	5	1	-	1	-	-	-
6	6	-	2	2	-	-	-
7	7	-	-	-	-	-	-
8	8	-	-	-	1	-	1
9	9	1	-	1	-	-	-
10	10	-	-	-	-	-	-
Total		3	3	6	2	-	2

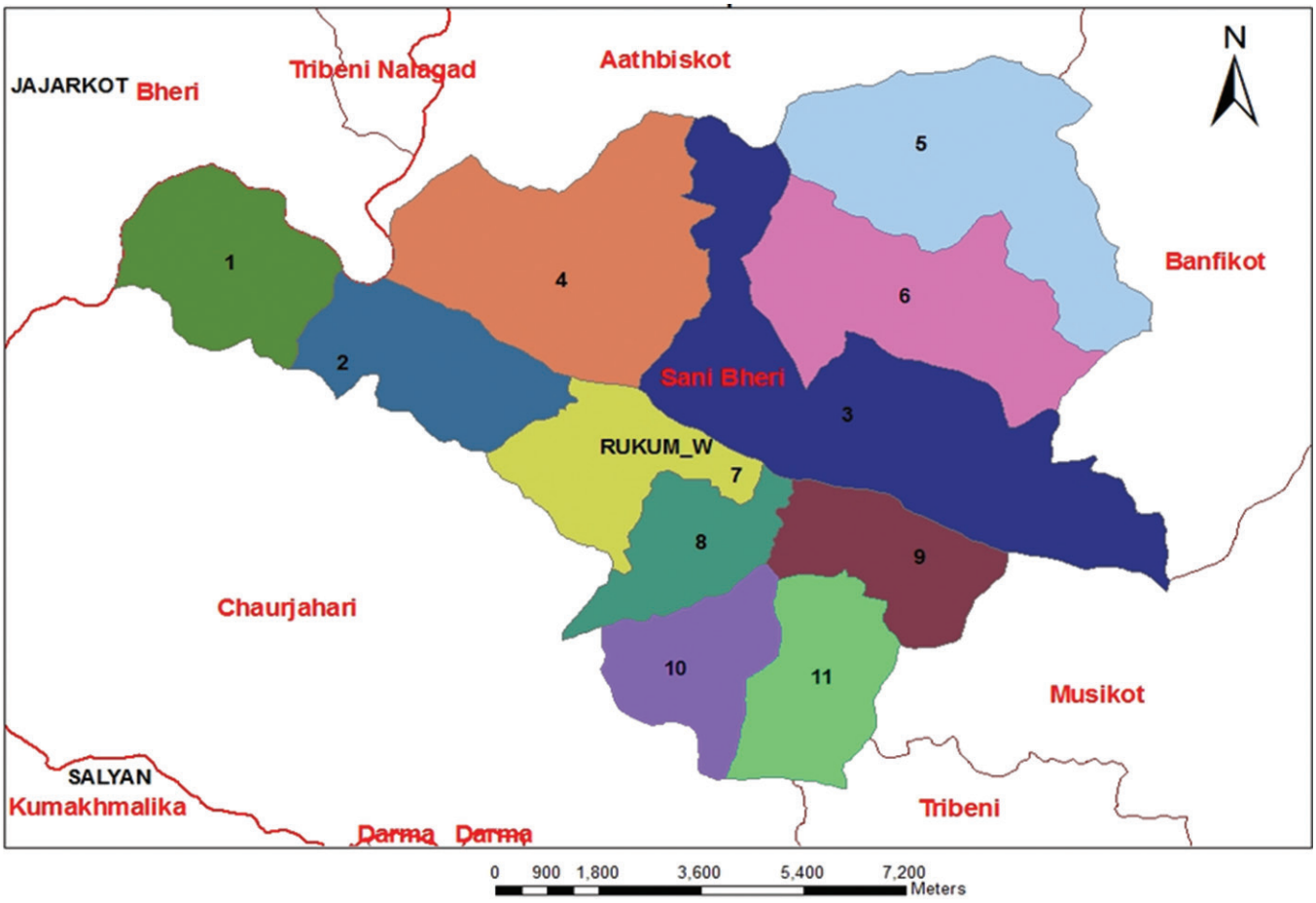
Ward wise Cancer Incidence and Mortality: Tribeni Rural Municipality



Ward wise Cancer Incidence and Mortality: Tribeni Rural Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	1	-	1	-	2	2
2	2	-	-	-	1	1	2
3	3	-	-	-	-	-	-
4	4	1	1	2	-	-	-
5	5	-	2	2	-	-	-
6	6	-	1	1	1	-	1
7	7	1	-	1	1	-	1
8	8	1	-	1	1	-	1
9	9	1	-	1	-	-	-
10	10	1	-	1	-	-	-
Total		6	4	10	4	3	7

Ward wise Cancer Incidence and Mortality: Sani Bheri Rural Municipality



Ward wise Cancer Incidence and Mortality: Sani Bheri Rural Municipality

S.N	Ward Number	Incidence Cases			Mortality Cases		
		Male	Female	Total	Male	Female	Total
1	1	-	1	1	-	1	1
2	2	-	1	1	-	-	-
3	3	1	1	2	-	-	-
4	4	-	-	-	-	-	-
5	5	-	1	1	-	-	-
6	6	-	1	1	-	-	-
7	7	2	-	2	1	1	2
8	8	2	3	5	-	2	2
9	9	-	-	-	-	-	-
10	10	-	-	-	-	-	-
11	11	-	-	-	-	1	1
Total		**5**	**8**	**13**	**1**	**5**	**6**

References

1. Cowdery, S. P., Sajjad, M. A., Holloway-Kew, K. L., Mohebbi, M., Williams, L. J., Kotowicz, M. A., . . . Pasco, J. A. (2019). Mapping Cancer incidence across Western Victoria: the association with age, accessibility, and socioeconomic status among men and women. *BMC Cancer, 19*(1), 892. doi: 10.1186/s12885-019-6070-x

2. Armstrong, B. K. (1992). The role of the cancer registry in cancer control. *Cancer Causes Control, 3*(6), 569-579. doi: 10.1007/bf00052754

3. Asgari, M. M. (2016). Utility and Limitations of Large Population-Based Data for Skin Cancer Outcomes. *J Invest Dermatol, 136*(11), 2128-2130. doi: 10.1016/j.jid.2016.07.031

4. Parkin, D. M. (2006). The evolution of the population-based cancer registry. *Nat Rev Cancer, 6*(8), 603-612. doi: 10.1038/nrc1948

5. Poudel, K. K., Huang, Z., Neupane, P. R., & Steel, R. (2017). Prediction of the Cancer Incidence in Nepal. *Asian Pac J Cancer Prev, 18*(1), 165-168. doi: 10.22034/APJCP.2017.18.1.165

6. Chandigarh Population-Based Cancer Registry Report: (2014) – Tata Memorial Center, Mumbai and Post Graduate Institute of Medical Education and Research (PGI), Chandigarh, India.

7. Sangrur Population-Based Cancer Registry Report: (2014) – Tata Memorial Center, Mumbai and Post Graduate Institute of Medical Education and Research (PGI), Chandigarh, India.

8. Mansa Population-Based Cancer Registry Report: (2014) – Tata Memorial Center, Mumbai and Post Graduate Institute of Medical Education and Research (PGI), Chandigarh, India.

9. Report of Population based cancer registry, Barshi: (2014) - Tata Memorial Centre, Mumbai, India.

10. SAS Nagar Population-Based Cancer Registry Report: (2014) – Tata Memorial Center, Mumbai and Post Graduate Institute of Medical Education and Research (PGI), Chandigarh, India11. Population Based Cancer Registry Report Mumbai 2012- Tata Memorial Centre, Mumbai and Post Graduate Institute of Medical Education and Research (PGI), Chandigarh.

12. National Cancer Registry Program-Indian Council of Medical Research:Three year report of PBCR 2012-2014 Delhi 2012.

13. Global Cancer Observatory (GLOBOCAN). Cancer Today, Data Visualization for Exploring the Global Cancer Burden in 2018. International Agency for Research on Cancer Lyon, France. 2018; Available on http://gco.iarc.fr/

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Dr. Reena Baidhya, Pathologist
Miss. Jeforsana Naveen Tamrakar, Nurse

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Dr. Ajay Jha, Oncologist
Mr. Rajaram Tajale, Administrator
Mr. Jaganath Bhurtel, Account Section
Mr. Prem Sujakhu, Medical Record Section

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Mr. Chandra B Shrestha

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Er. Ibrahim Ansari, IT Department
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Dr. Prativa Bista, Pathologist

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Miss Nagina Maharjan, Nurse
Mrs. Rekha Jha, Medical Record Section

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Mr.Ashok Dixit, Assistant Officer

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Dr. Abhimanyu Jha, Pathologist
Dr. Yogendra Prasad Singh, Surgeon
Dr. Anjan Shrestha, Pathologist
Mrs. Tulasi Pandey, Medical Record Section

Dr. Hari Prasad Dhakal, Pathologist
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Mrs. Sabita Poudel, Nursing Supervisor
Mr. Pradeep Thakuri, IT Section
Miss Sajina Maharjan, Medical record Department and Team

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Dr. Pankaj Barma, Oncologist
Dr. Sabina Maharjan, Oncologist
Mr. Tribhuwan Singh, Medical Record Department

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Dr. Bishnu P. Sharma, Director
Dr. Gyan Kayastha, Physician
Dr. Shivaraj K.C. Pathologist
Mrs. Gita Khanal, Nurse
Mrs. Meena Dawadi, Medical Record Section
Mr. Aswin K.C., Medical Record Section
Mr. Lok Bahadur Gurung, Administration

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Ms.Rangeeta Dhungana Nurse

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Dr. Pradeep Gyawali
Executive Chief
Nepal Health Research Council

नेपाल सरकार

स्वास्थ्य मन्त्रालय

(नीति, योजना तथा कार्यक्रम शाखा)

☎ ४२६२६४३

रामशाहपथ,

काठमाण्डौं

प.सं: २०७४।०७५(यो)

च.नं. १२०

नेपाल सरकार
स्वास्थ्य मन्त्रालय
रामशाहपथ, काठमाण्डौं

मितिः २०७४।११।२३

विषयः स्वीकृत वार्षिक कार्यक्रम पठाइएको सम्बन्धमा।

श्री नेपाल स्वास्थ्य अनुसन्धान परिषद्
रामशाहपथ, काठमाण्डौं।

चालु आ.ब. २०७४।७५ मा तहाँवाट सञ्चालन हुने ब.उ.शि.नं. ३७०१२७ स्वास्थ्य करकोषको कार्यक्रम र तहाँवाट पेश भएको नेपालमा जनसंख्यामा आधारित क्यान्सर रजिष्ट्रि (Population based Cancer Registry-PBCR) सम्बन्धी विस्तृत परियोजना प्रस्ताव (Detail Project Proposal) नेपाल सरकार (सचिवस्तर) मिति २०७४।११।२१ को निर्णयानुसार स्वीकृत भएकोले आवश्यक कार्यार्थ यसैसाथ संलग्न गरी पठाइएको छ। सबैकुरामा कार्यक्रम संशोधन नगर्नु हुन र कथंकदाचित संशोधन गर्नु पर्ने अवस्था आएमा त्यसबाट पर्ने असरहरु तथा संशोधन गर्नुपर्नाको पर्याप्त पुष्टयाई सहितको विवरण उपलब्ध गराउने व्यवस्था गर्नुहुन तथा कार्यक्रम संचालन गर्दा प्रचलित कानून एवं अख्तियारीको पालना गर्नुका अतिरिक्त वित्तीय पारदर्शिता, जवाफदेहिता र अनुगमन सम्बन्धी व्यवस्था अनुरुप नियमानुसार प्रगति विवरण यस मन्त्रालयको जनस्वास्थ्य प्रशासन, अनुगमन तथा मूल्यांकन महाशाखामा पठाउनु हुन समेत निर्देशानुसार अनुरोध गर्दछु।

२०७४।११।२३

(हरिकृष्ण फुयाँल)
शाखा अधिकृत

बोधार्थ:
श्री अर्थ मन्त्रालय,
बजेट तथा कार्यक्रम महाशाखा,
सिंहदरवार।

नेपाल सरकार

सङ्घीय मामिला तथा सामान्य प्रशासन मन्त्रालय

सिँहदरबार, काठमण्डौं

(स्थानीय तह समन्वय शाखा)

पत्र संख्या: २००४/७५

चलानी नं. 295

मिति : २०७५।०२।१३

विषय: आवश्यक सहयोग गरिदिने सम्बन्धमा ।

श्री महा/उपमहा/नगरपालिका सबै

श्री गाउँपालिका सबै ।

नेपाल स्वास्थ्य अनुसन्धान परिषद्को प. सं. ०७४/७५, च. नं. २६२२, मिति २०७५।०१।२० को पत्रबाट नेपाल सरकारको स्वीकृत कार्यक्रम अनुसार नेपाल स्वास्थ्य अनुसन्धान परिषद्ले आ. व. ०७४/७५ मा सञ्चालन गर्ने "जनसंख्यामा आधारित क्यान्सर रजिष्ट्री" (Population Based Cancer Registry, PBCR) सम्बन्धी कार्य गर्न हरेक नगरपालिका तथा गाउँपालिकाबाट क्यान्सर रोग लागेका बिरामीहरू तथा क्यान्सर रोग लागी मृत्यू भएंका मानिसहरूको सम्पूर्ण विवरण आवश्यक पर्ने भएकाले प्रत्येक स्थानीय तहले सो सम्बन्धी अभिलेख तयार गरी website मा राख्ने व्यवस्था गर्नुहुन, उक्त विवरण तयार गरी नेपाल स्वास्थ्य अनुसन्धान परिषदलाई उपलब्ध गराई दिनुहुनका साथै नेपालमा जनसंख्यामा अधारित क्यान्सर रजिष्ट्री सम्बन्धी परियोजना सञ्चालनमा आवश्यक समन्वय गरिदिनुहुन मिति २०७५।०२।१३ को नेपाल सरकार (सचिवस्तरीय) निर्णयानुसार अनुरोध छ।

केशवराज पार्थे

(शाखा अधिकृत)

बोधार्थ:

श्री नेपाल स्वास्थ्य अनुसन्धान परिषद्, रामशाहपथ, काठमाडौं ।

श्री सूचना तथा प्रविधि शाखा, website मा upload गर्नुहुन ।

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