UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

TANZANIA POPULATION-BASED CANCER REGISTRY REPORT (2019–2023)

Strengthening Cancer Surveillance for Evidence-Based Action

July 2025

TANZANIA CANCER REGISTRY REPORT (2019–2023)

Citation

Ministry of Health, Tanzania Population-Based Cancer Registry Report 2019–2023 (2025). https://www.moh.go.tz

Disclaimer

This report contains an analysis of data obtained from all available and accessible data sources including hospitals, pathology laboratory reports, radiology departments, medical records, death certificates, postmortem/autopsy reports, and radiotherapy and oncology units. The information reflects the data at the time of cleaning and analysis of the report, as of April 2024. Due to the nature of data collection methods, the Cancer Registrars continue to receive and collect additional cancer data; thus, the data may be updated when deemed necessary.

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FOREWORD

The advent of Population-Based Cancer Registries (PBCRs) in Tanzania marks a pivotal moment in our nation's healthcare history. This report presents the inaugural results from five PBCRs in Tanzania—namely, the Dodoma, Kilimanjaro, Dar es Salaam, Mbeya, and Mwanza Cancer Registries. This report is a testament to our collective commitment to tackling the rising cancer burden in our country. The registries provide invaluable data that will guide cancer prevention, diagnosis, treatment, and research.

Cancer is an increasingly significant public health challenge in Tanzania, with rising incidence rates and associated morbidity and mortality. The establishment of PBCRs was a crucial step toward understanding the epidemiology of cancer in diverse regions of our country. By capturing detailed information on cancer cases, these registries enable us to identify patterns or trends, monitor the effectiveness of interventions, and allocate resources more effectively.

This report encapsulates the collaborative efforts of numerous stakeholders, including government, healthcare providers, non-governmental organizations, and international partners. It underscores the importance of reliable and comprehensive data in driving evidence-based policy and practice. The insights gleaned from this report will inform the development of targeted cancer control strategies, ultimately improving patient outcomes and enhancing the quality of life for those affected by cancer.

As we move forward, it is imperative that we continue to support, strengthen, and expand these registries, ensuring their sustainability, and integration into the broader health information system. The data they generate will be instrumental in shaping a future where cancer is detected early, treated effectively, and ultimately prevented. We extend our heartfelt gratitude to all who have contributed to this landmark initiative and look forward to continued collaboration in our fight against cancer.

Signature

Dr. Grace Magembe
CHIEF MEDICAL OFFICER
Ministry of Health

ACKNOWLEDGMENTS

This report represents the culmination of extensive efforts by a dedicated team of professionals and institutions. We extend our deepest gratitude to the Ministry of Health for its unwavering support and leadership in establishing and maintaining the Population-Based Cancer Registries in Dodoma, Kilimanjaro, Dar es Salaam, Mbeya, and Mwanza.
We are profoundly grateful to the Tanzania Cancer Registry team for their tireless work in data collection, management, and analysis. Their commitment to accuracy and thoroughness has been critical in producing this comprehensive report. Special thanks go to the registry staff in each region, who diligently reviewed and recorded data from hospital records, pathology reports, and death certificates, often under challenging conditions.

Our appreciation also extends to our international partners, including Vital Strategies, the International Agency for Research on Cancer (IARC), and the African Cancer Registry Network (AFCRN), for their financial, logistical, and technical support and guidance. Their expertise has been invaluable in ensuring that our registries meet international standards and that our data is of the highest quality.

We would like to express our gratitude to the healthcare providers and hospital administrators who played a pivotal role in diagnosing and reporting cancer cases. Their cooperation and dedication have been indispensable in making this registry a reality.
Lastly, we extend our heartfelt thanks to the patients whose records provided the data necessary for this report. We are committed to using this information to improve cancer care and outcomes in Tanzania.

Together, we have taken a significant step toward understanding and addressing the cancer burden in our country. We look forward to continued collaboration and progress in our shared mission to combat cancer and improve public health in Tanzania.

Signature
Dr. Nyembea H. J.
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ACRONYMS

AFCRN	African Cancer Registry Network
ADNCD	Assistant Director of Non-Communicable Diseases
ASIR	Age-Standardized Incidence Rate
ASR	Age-Standardized Rate
BMC	Bugando Medical Centre
BMH	Benjamin Mkapa Hospital
CE	Clinical Examination
CPS	Cancer Prevention Service
D4H	Bloomberg Data for Health Initiative
IARC	International Agency for Research in Cancer
ICCC	International Classification of Childhood Cancer
ICD-10	International Classification of Diseases
ICDO-3	International Classification of Disease for Oncology
KCMC	Kilimanjaro Christian Medical Centre
MoH	Ministry of Health
MV	Morphological Verification
MZRH	Mbeya Zonal Referral Hospital
NBS	National Bureau of Statistics
NCD	non-communicable disease
NGO	non-governmental organization
NOS	not otherwise specified
ORCI	Ocean Road Cancer Institute
PBCR	Population-Based Cancer Registry
PMNCD	Program Manager Non-Communicable Diseases
WHO	World Health Organization
WB	World Bank

DEFINITION OF KEY TERMS

No.	Key Terms	Definition
1	Cancer Registry	Cancer registries are essential organizations for the systematic collection, storage, analysis, interpretation, and reporting of data on cancer cases. There are two main types of cancer registries: hospital-based and population-based.
2	Population-Based Cancer Registry	Population-Based Cancer Registries (PBCRs) are essential systems for collecting, analyzing, and disseminating data on cancer occurrences within a defined population.
3	Hospital-Based Cancer Registry	Hospital-Based Cancer Registries (HBCRs) are essential information systems that collect, store, and manage data on cancer patients diagnosed and/or treated at specific healthcare facilities.
4	Population at Risk	This refers to the group of individuals who have the potential to develop a specific health condition or disease during a particular time. It is the total number of people who could potentially experience the health outcome of interest.
5	Basis of Cancer Diagnosis	These are several methods and techniques used to detect, identify, and confirm the presence of cancer. These methods can be broadly categorized into the following: Death Certificate Only (DCO), Clinical Examination (CE), and Morphological Verification (MV).
6	Death Certificate Only	This refers to a cancer diagnosis made solely based on the information provided on a death certificate, without any medical record or examination to confirm the diagnosis.
7	Clinical Examination	This involves diagnosing cancer based on physical examinations and medical history without the use of tissue samples or imaging studies for confirmation.
8	Morphological Verification	This is the diagnosis of cancer confirmed through the examination of body fluids and blood for cancer cells under a microscope, often obtained via biopsy or surgery, to identify the cancerous cells.

EXECUTIVE SUMMARY

The **Tanzania Cancer Registry Report (2019–2023)** provides an in-depth analysis of cancer trends and incidence within the catchment areas of five PBCRs in Tanzania—that is, Dodoma, Kilimanjaro, Dar es Salaam, Mbeya, and Mwanza. This report includes all cancers reported to the registry and diagnosed from 1 January 2019 until 31st December 2023. The Tanzania Cancer registry collected and managed this data using the cancer registration methods as guided by the International Agency for Research on Cancer (IARC), the International Association of Cancer Registries (IACR), and the African Cancer Registry Network (AFCRN). The findings, based on data collected, aim to guide evidence-based strategies for cancer control.

Key Findings

- **Cancer Burden:**
  - A total of **16,516 cancer cases** were recorded within the catchment areas, from **3,058** cases in year 2019, increasing to **3,448** cases in 2023.
  - Prostate cancer (ASIR=29.5 per 100,000) was the most common among men, while cervical cancer (ASIR=19.0 per 100,000) was the leading type among women.

- **Regional Variations:**
  - Kilimanjaro recorded the highest number of cancer cases 6,161 (37.3%), followed by Dar es Salaam 3,521 (21.3%), while Mwanza, Dodoma, and Mbeya reported 2,220 (13.4%), 2,999 (18.2%), and 1,615 (9.8%) cases, respectively.
  - Dodoma PBCR had the highest age-standardized incidence rates (all sites included) for both males (175.4 per 100,000) and females (195.3 per 100,000) compared to other registries, making it the registry with the greatest cancer burden in Tanzania.

- **Paediatric and Late-Stage Cancer:**
  - Childhood cancer constituted **3%–5%** of cases, with lymphoma (93), eye (93), kidney-urinary (85), and leukemia (83) being the most common.
  - Over 70% of cases recorded were unstaged, highlighting the need for improved documentation efforts from clinicians as well as staging training.

- **Diagnosis Methods:**

- For major cases, selected morphological verification (MV) accounted for **76.2% of diagnoses**, 22.0% were clinically diagnosed, whereas 1.8% were based on death certificates only.

Challenges

- **Data Completeness:** Incomplete records against expected cases in the catchment area impact the reliability of national estimates.

- **Underreporting:** There are numerous factors that have affected the completeness of cancer cases reported across all PBCRs—namely:
  - Lack of regulation/legislature to make cancer a reportable/notifiable medical condition.
  - Restricted access to cancer data by health establishments, particularly in the private sector.
  - Limited dedicated staff deployed for cancer registration to cover all cancer screening and diagnosing institutions within the PBCR catchment areas.

- **Proper documentation of place of residence is crucial:** There is a significant variation in age-standardized incidence rates among registries, with Dodoma (male: 175.5, female: 195.1) reporting the highest rates, while Mbeya (male: 43.1, female: 58.6) recording the lowest.

- **Overestimation of incidence rates due to:**
  - Long lag in population statistics update.
  - Incorrect documentation of place of residence by patients and clinicians.

Conclusion

This report underscores the growing cancer burden in Tanzania and the importance of PBCRs in shaping data-driven policies. By addressing the identified challenges and implementing recommended strategies, Tanzania can improve early detection, equitable resource distribution, and cancer care outcomes. Continued collaboration and investment are essential for sustained progress in cancer control. In the coming year, the Tanzania Cancer Registry will be launching the first-ever advisory committee for cancer control. Additionally, the team will focus on integrating the DHIS2 and CanReg systems, aiming to enhance data completeness and address challenges related to underreporting.

CHAPTER 1: INTRODUCTION

1.1. Background

Cancer has been noted as one of the major life-threatening, non-communicable diseases (NCDs) on a global basis. From the World Health Organization (WHO) globally, it is estimated that about 10 million people died from cancer in 2020, which is equivalent to one-sixth of deaths. Nevertheless, WHO estimates in 2022 showed that there were 44,931 new cancer cases in Tanzania, with an age-standardized incidence rate of 140.1 per 100,000 people. Among males, there were 18,215 new cases (132.8 per 100,000); and among females, 26,716 new cases (151.1 per 100,000). The most common cancers are prostate, oesophagus, and colorectal in males; and cervix uteri, breast, and colorectal in females. For both sexes combined, the leading cancers were cervix uteri, prostate, and breast. Given the alarming severity of cancer in the country, it is crucial to strengthen the Cancer Registration Initiative. This will provide valuable insights into current cancer trends and future projections, enabling data-driven decision making to improve prevention, early detection, clinical management, and care for patients requiring palliative support.

1.2. Cancer registration in Tanzania

At present, there are five operative Population-Based Cancer Registries (PBCRs) in Tanzania—namely Dar es Salaam (ORCI), Dodoma (BMH), Mbeya (MZRH), Kilimanjaro (KCMC), and Mwanza (BMC). The catchment areas for given PBCRs are listed in **Table 1**, as well as the geographical distribution in the map of Tanzania shown in **Figure 1**. The government of Tanzania, through the Ministry of Health, in collaboration with Vital Strategies via the Bloomberg Data for Health (D4H) and AFCRN, succeeded in establishing and strengthening these PBCRs since 2017. During this collaboration, five Population-Based Cancer Registries were supported, several registrars were trained, a national cancer registration plan was created and approved, and report templates were created. However, some of the registries including Kilimanjaro have existed since 2007 but did not operate optimally until 2017 after the initiative had started. Additionally, Dar es Salaam and Mwanza have been developed by expanding and strengthening established hospital-based registries. At the registries, all activities are done by Registry Directors and Registrars. The government ensured this to enhance good management of the registry and gather comprehensive cancer-related information.

This report, the first of its kind in Tanzania, utilizes data from the PBCRs to provide a comprehensive overview of cancer incidence and distribution across the country for a period of five years (2019–2023). It offers valuable insights into ways that national health strategies, NGOs, and international health organizations in Tanzania can address the increasing burden of disease and mortality that is due to cancer.

Table 1: Description of Population-Based Cancer Registries in Tanzania (catchment population)

PBCR (Region)	Location	Geographical Coverage	Annual Average Population (2019–2023)	Year Established
Dar es Salaam	Ocean Road Cancer Institute, Dar es Salaam	Ilala – Dar es Salaam City	1,649,912	2018
Dodoma	Benjamin Mkapa Hospital, Dodoma	Dodoma municipal	633,181	2018
Kilimanjaro	Kilimanjaro Christian Medical Centre, Moshi	Moshi municipal, Moshi, Rombo, Hai, and Siha districts	1,490,511	2017
Mbeya	Mbeya Zonal Referral Hospital, Mbeya	Mbeya Urban and Mbeya Rural	1,161,411	2018
Mwanza	Bugando Medical Centre, Mwanza	Ilemela municipal, Nyamagana, and Sengerema districts	1,036,781	2016
TOTAL			**5,971,796**	

Source: **National Bureau of Statistics**

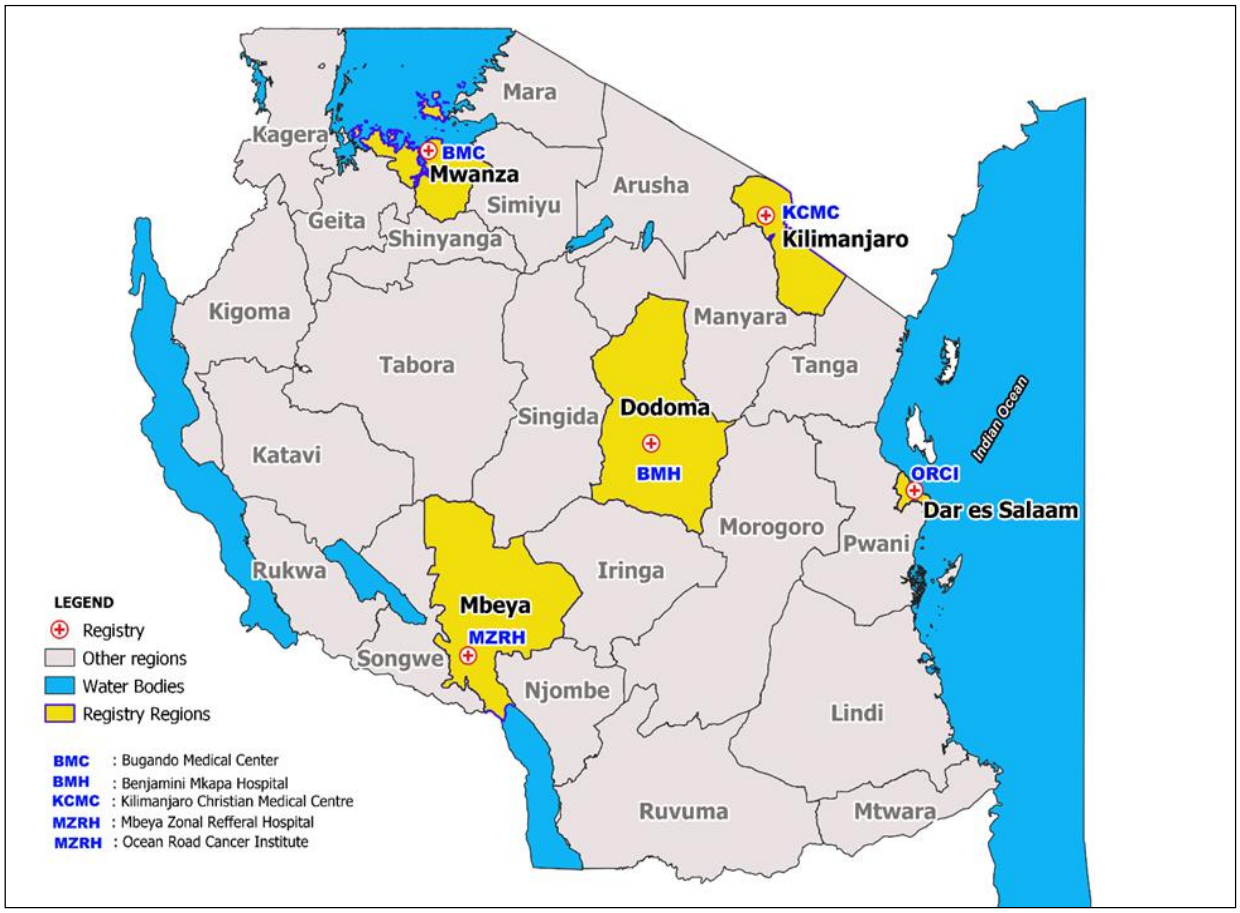

Figure 1: Map of Tanzania Showing the Distribution of Cancer Registries

1.3. Tanzania geographical and population distribution

With a land area of 947,300 square kilometers, Tanzania ranks as the 23rd largest country globally and the 13th largest in Africa. The country has a total population of 61.7 million and a population density of about 62 people per square kilometer (WB). The United Republic of Tanzania consists of mainland Tanzania and Zanzibar, a semi-autonomous area that comprises the Unguja and Pemba islands, which are located miles off the coast of the mainland in the Indian Ocean. Administratively, Tanzania is divided into 31 regions, with 26 on the mainland and 5 in Zanzibar. **Table 3** shows the population distribution of these regions during the 2022 Population and Housing Censuses.

According to the 2022 Census, the Dar es Salaam Region has 5.4 million people, making up 8.7% of the country's total population. Conversely, the region with the smallest population is Kusini Unguja (Unguja South) in Zanzibar, with 195,873 people, which is equivalent to 0.3% of the total population. Population Cancer Registries cover only Mainland Tanzania.

Table 2: Population of Tanzania (Mainland and Zanzibar), Census 2022

Tanzania Census	Total	Rural	Urban
Total Population, Tanzania	**61,741,120**	**40,196,497**	**21,544,623**
Male Population	30,053,130	19,719,451	10,333,679
Female Population	31,687,990	20,477,046	11,210,944
Total Population, Tanzania Zanzibar	**1,889,773**	**963,498**	**926,275**
Male Population	915,492	472,031	443,461
Female Population	974,281	491,467	482,814

Table 3: Tanzania Population Distribution by Region, Census Report 2022 (* indicates regions with PBCRs)

No.	Organization Level	Population	Population Density (persons/km^2)
1	**Tanzania**	**61,741,120**	**70**
	Tanzania Mainland	**59,851,347**	**68**
	Tanzania Zanzibar	**1,889,773**	**2**
2	**Dodoma***	3,085,625	75
3	Arusha	2,356,255	63
4	**Kilimanjaro***	1,861,934	141
5	Tanga	2,615,597	98
6	Morogoro	3,197,104	45
7	Pwani	2,024,947	62
8	**Dar es Salaam***	5,383,728	3,865
9	Lindi	1,194,028	18
10	Mtwara	1,634,947	98
11	Ruvuma	1,848,794	29
12	Iringa	1,192,728	34
13	**Mbeya***	2,343,754	62
14	Singida	2,008,058	41
15	Tabora	3,391,679	45
16	Rukwa	1,540,519	68
17	Kigoma	2,470,967	67
18	Shinyanga	2,241,299	119
19	Kagera	2,989,299	118
20	**Mwanza***	3,699,872	391
21	Mara	2,372,015	109
22	Manyara	1,892,502	43
23	Njombe	889,946	42
24	Katavi	1,152,958	25
25	Simiyu	2,140,497	85
26	Geita	2,977,608	148
27	Songwe	1,344,687	49

28	Kaskazini Unguja	257,290	632
29	Kusini Unguja	195,873	229
30	Mjini Magharibi	893,169	3,883
31	Kaskazini Pemba	272,091	474
32	Kusini Pemba	271,350	817

The 2022 population pyramid for Tanzania depicted in **Figure 2** shows a broad base, indicating a large young population, with the largest age groups being 0–4 and 5–9 years. There is a gradual tapering toward the top, reflecting fewer older individuals, with a relatively balanced distribution between males and females across all age groups.

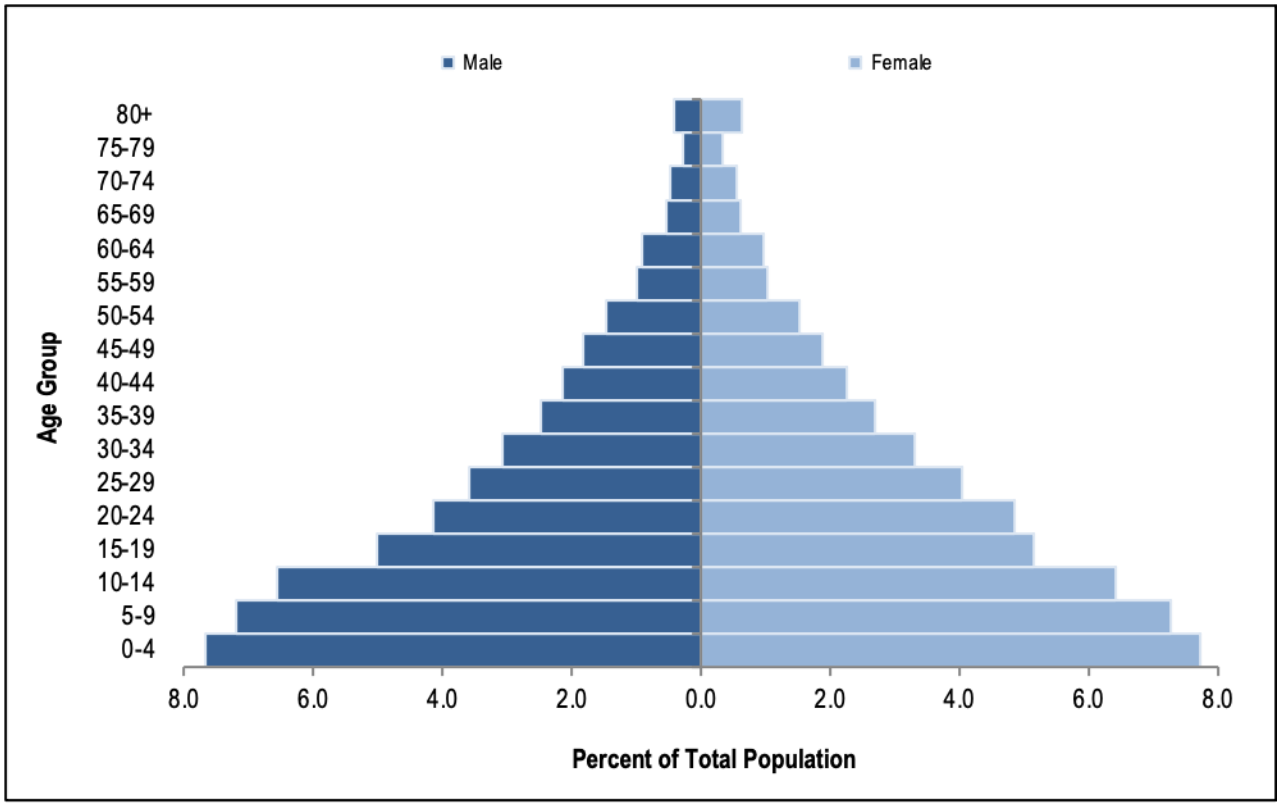

Figure 2: Population Pyramid (Five-Year Age Group) – Mainland Tanzania, 2022 Census

1.4. Rationale

Cancer is a rapidly growing public health challenge in sub-Saharan Africa, particularly in lower-middle-income countries (LMICs) where resources and healthcare infrastructure often fall short of meeting the population's needs. In recent years, cancer rates have risen in these regions, driven by a combination of aging populations, increased exposure to risk factors, and limited access to early detection and treatment. Despite these growing burdens, cancer remains underprioritized in comparison to other communicable diseases, contributing to significant gaps in awareness, funding, and policy attention. This report aims

to address these critical issues by exploring the current state of cancer care and control in sub-Saharan Africa’s LMICs, particularly Tanzania.

1.5. Aim and objective of the report

Overall aim

The objective of this report is to provide a comprehensive analysis of the state of cancer in Tanzania for five (5) years (2019–2023), including detailed data on cancer incidence, as well as geographic distribution. It also aims to identify common cancer types, highlight areas for improvement in care, and offer evidence-based recommendations to enhance cancer control efforts.

Specific Objective:

- Analyze incidence rates of cancer by male and female populations to identify any sex-based disparities in cancer types.
- Categorize cancer cases into specific age brackets (e.g. 0–14 years, 15–24 years, 25–44 years, 45–64 years, 65 years and older) to understand which age groups are most affected.

CHAPTER 2: METHODOLOGY

2.1. Data sources

The data for this information is sourced from hospitals, pathology laboratory reports, radiology departments, medical records, death certificates, postmortem/autopsy reports, and radiotherapy and oncology units in the catchment area across all registry sites in the country. The registries use all available sources to ensure the collection of most cases, including those diagnosed clinically (no pathological confirmation), and those that were diagnosed histologically.

I) Medical records: Outpatient and inpatient records, admission and discharge forms or books. If there are discrepancies between the diagnosis on admission and that on discharge, the discharge diagnosis is preferred.
II) Pathology records: Pathology reports, autopsy reports, and cytology and hematology reports.
III) Radiology records: CT scan reports, MRI reports, ultrasound reports, and mammography reports.
IV) Radiotherapy department.
V) Oncology department.
VI) Mortuary registers.

Death certificates

All death certificates are reviewed and matched with incident case records from the registries. Cases without a matching record are traced back to data sources for further verification. If a case cannot be located, it is recorded as diagnosed through a death certificate only.

2.2. Data collection

The Population-Based Cancer Registry utilizes both active and passive data collection methods to ensure comprehensive and accurate cancer surveillance. Registrars employ a Cancer Notification Form that captures mandatory variables such as patient name, residential address, age, sex, incidence date, the most valid basis of diagnosis, primary site, histological type, and behaviour. Optional variables include telephone number, ethnic group, laterality (specific site), stage, TNM classification, grade, treatment details, and follow-up status (date of last contact and vital status). Registrars do coding using the International Classification of Diseases for Oncology (ICD-O) standards, then input the collected, cleaned, and validated data into CanReg5 software for analysis and secure storage (**Figure 3**).

Active Case Finding

- Regular on-site visits: Cancer Registrars conduct on-site visits to data sources, requiring full-time dedication, adequate funding, and reliable transportation for comprehensive data collection. During these visits, they systematically review medical records, including patient files, pathology reports, and treatment logs, to identify cancer cases and capture relevant information.
- Outreach programs: Collaborate with health facilities to conduct community screenings and educational campaigns, promoting early detection and case reporting. Identified cases are then documented and recorded.

Passive Case Finding

- Case finding and data abstraction from all cancer sources are carried out by another party and notify the Registrar when cases are noted. The Registrar reviews the notification form upon receipt, codes the data, and enters it into the database.
- Administrative databases: Utilizing existing databases from government health systems to extract cancer-related data (CRVS).

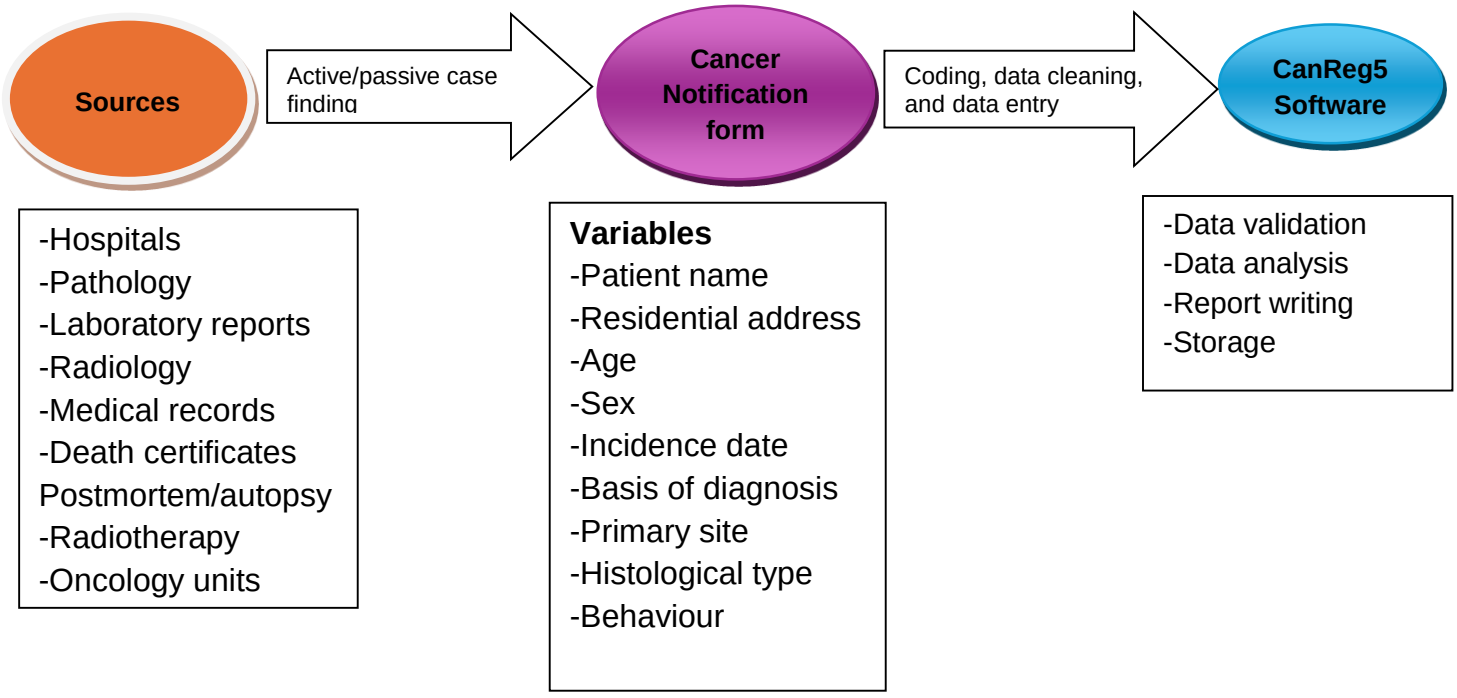

Figure 3: Cancer Registry Data Management in Tanzania

2.3. Data quality management and analysis

Data management and analysis up until this report were conducted encompassing the following steps:

i. **Data collection management:** A standard Cancer Notification Form, regular quality audits, refresher training, and updated tools and protocols have been implemented to ensure data entry consistency.

ii. **Data cleaning and validation:** Built-in validation checks within the system were utilized, and discrepancies were resolved by re-verifying with source documents and performing duplication checks. A follow-up was conducted at the original data source to clean up errors (including deleted data), unconfirmed cases, data with negative age, and data with unknown sex, to ensure accurate results.

iii. **Data storage and security:** Regular backups, including off-site storage, are maintained to prevent data loss. Also, personal identifiers were not used to safeguard sensitive patient information.

iv. **Data integration:** CanReg5 and CRVS were synchronized for all reporting years (2019–2023). Cancer-related deaths recorded in CRVS within the specific catchment areas for reporting periods were cross-checked with CanReg5. Any missing cases were added and classified as “Death Certificate Only” for diagnosis.

v. **Data coding:** International Classification of Diseases for Oncology Version 3 (ICD-O3) was used to categorize cancer types and anatomical sites, to facilitate uniformity and comparability.

2.4. Statistical analysis

Descriptive analyses were performed to summarize incidence rates of specific types of cancer. Age-standardized rates were also calculated to show cancer incidence over time:

i. **Age-specific rate:** The age-specific rate was calculated simply by dividing the number of cancer cases observed in each age category during a given time in a catchment population by the corresponding number of person-years in the catchment population at risk in the same age category and time. The result was expressed as an annual rate per 100,000 person-years.

ii. **Age-standardization rate:** An age-standardized rate (ASR) is a summary measure of the rate that a population would have if it had a standard age structure.

Standardization is necessary when comparing several populations that differ with respect to age, because age has a powerful influence on the risk of developing cancer. The ASR is a weighted mean of the age-specific rates; the weights are taken from population distribution of the world standard population produced by the World Health Organization (WHO). The ASR is also expressed per 100,000.

iii. **Cumulative risk:** Cumulative mortality is the probability or risk of individuals developing the disease during a specified period in a specific population. For cancer, it is expressed as the number of newborn children (out of 100, or 1,000) who would be expected to develop a particular cancer before the age of 75 (or 65 or 70) if they had the rates of cancer observed in the period in the absence of competing causes. Like the ASR, it permits comparisons between populations of different age structures.

iv. **Childhood cancer:** Results are presented based on the diagnostic groups defined in the **International Classification of Childhood Cancer** (ICCC3). Cases were grouped by age categories (0, 1–4, 5–9, and 10–14 years), with person-years at risk calculated to determine incidence rates. The results include the number of cases, relative frequency of different cancer types, age-specific incidence rates, crude incidence rates, and both age-standardized and cumulative incidence rates for children aged 0–14 years, expressed as an annual rate per **million**.

v. **National estimates:** National estimates were calculated in Microsoft Excel, version 13, after combining exported data from all registries, since all registries had their own separate report.

- First, a set of sex-, cancer-, and age-specific incidence rates for each registry (5-year age groups) was computed; then the age-specific rates were summed, and then the sum was divided by the number of registries (simple average).

- The resulting sex-, cancer-, and age-specific incidence rates were then applied to the national sex- and age-specific census population projections (for 2022 or 2023) to obtain numbers that were then rounded to the nearest integer.

CHAPTER 3: RESULTS AT REGISTRIES

3.1. Kilimanjaro Population-Based Cancer Registry (PBCR)

The Kilimanjaro Cancer Registry is in the Histopathology Department at Kilimanjaro Christian Medical Centre. The registry was established in 1998. The catchment area of the Kilimanjaro Cancer Registry includes five administrative areas: Moshi municipality, Moshi District, Rombo District, Hai District, and Siha District (**Figure 4**). This catchment area has an average annual population of approximately 1,490,511 (725,721 males and 764,790 females). The main economic activities in the catchment area include agriculture (crops and livestock), tourism, trade and small businesses, and fishing.

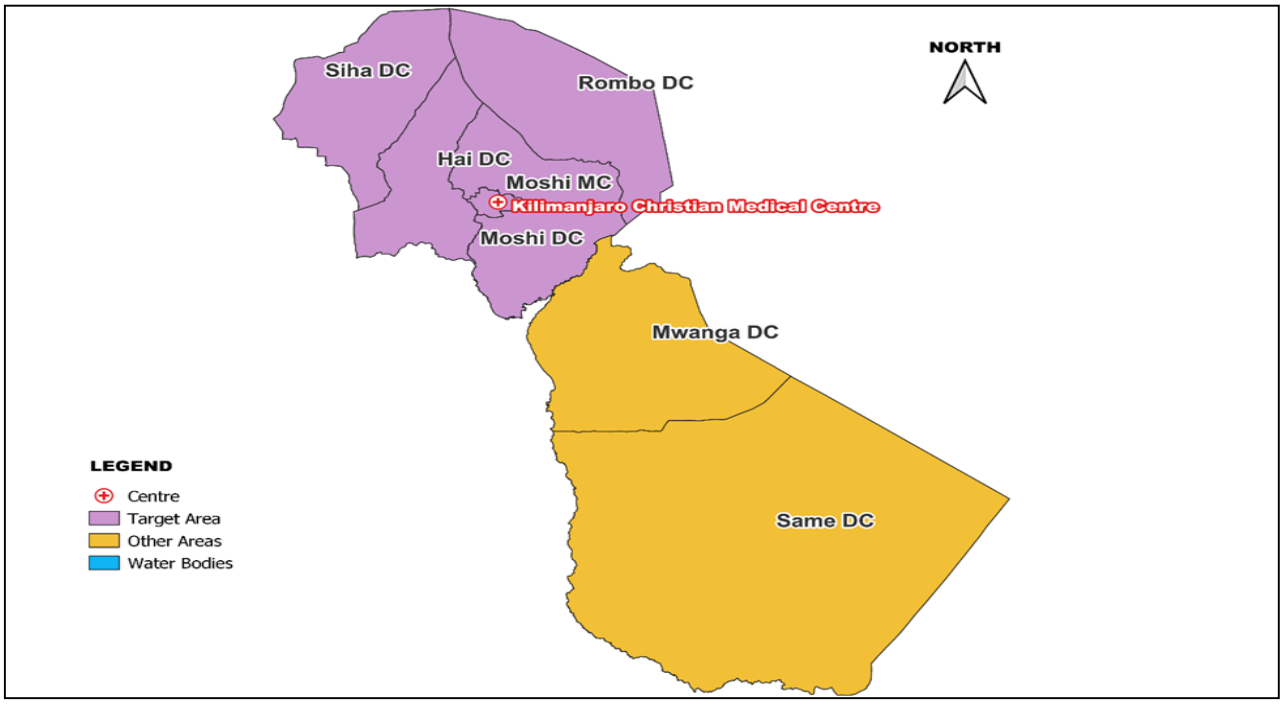

Figure 4: A Map Showing the Catchment Area of the Kilimanjaro Population-Based Cancer Registry

Figure 5 presents the catchment area population distribution of the Kilimanjaro PBCR by age and sex. The population distribution in the catchment area mirrors the national population pattern, with a majority being children and young adults.

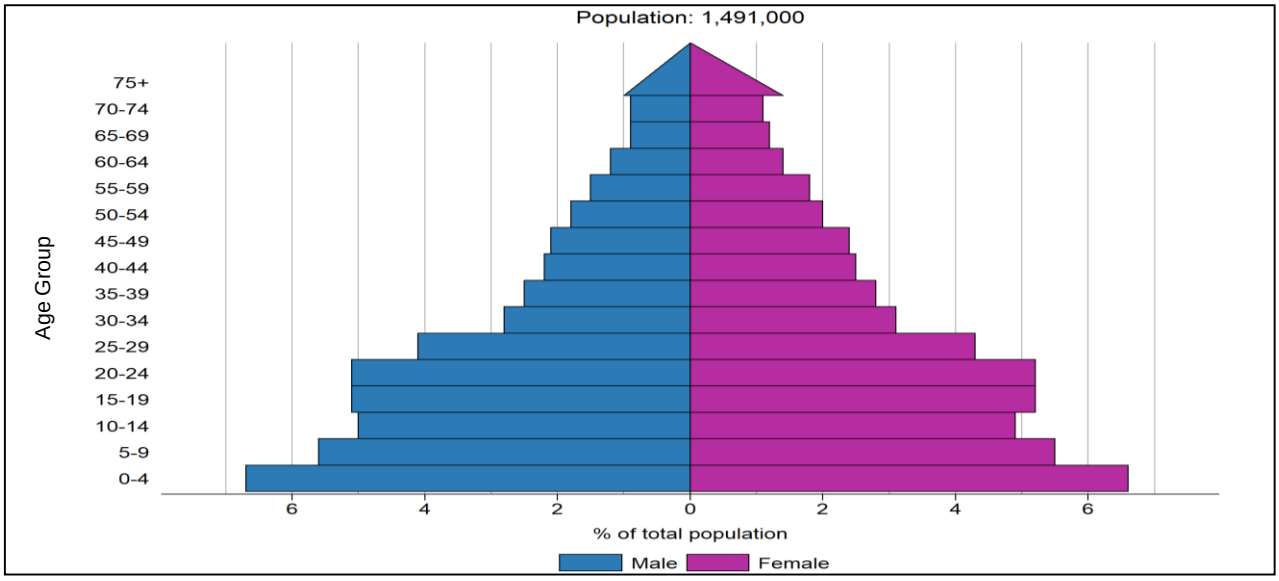

Figure 5: Kilimanjaro Population-Based Cancer Registry Catchment Area Population Distribution

3.1.1 Number of cancer cases in Kilimanjaro PBCR

Figure 6 below shows the number of cases registered from 2019 to 2023, During this period, the registry was able to capture a total of 6,161 cases of cancer. In 2020, there was a notable increase in the number of patients, reaching 1,377 compared to 1,252 in 2019. However, this upward trend did not continue; instead, the patient count began to decline, culminating in a total of 1,092 patients by 2023.

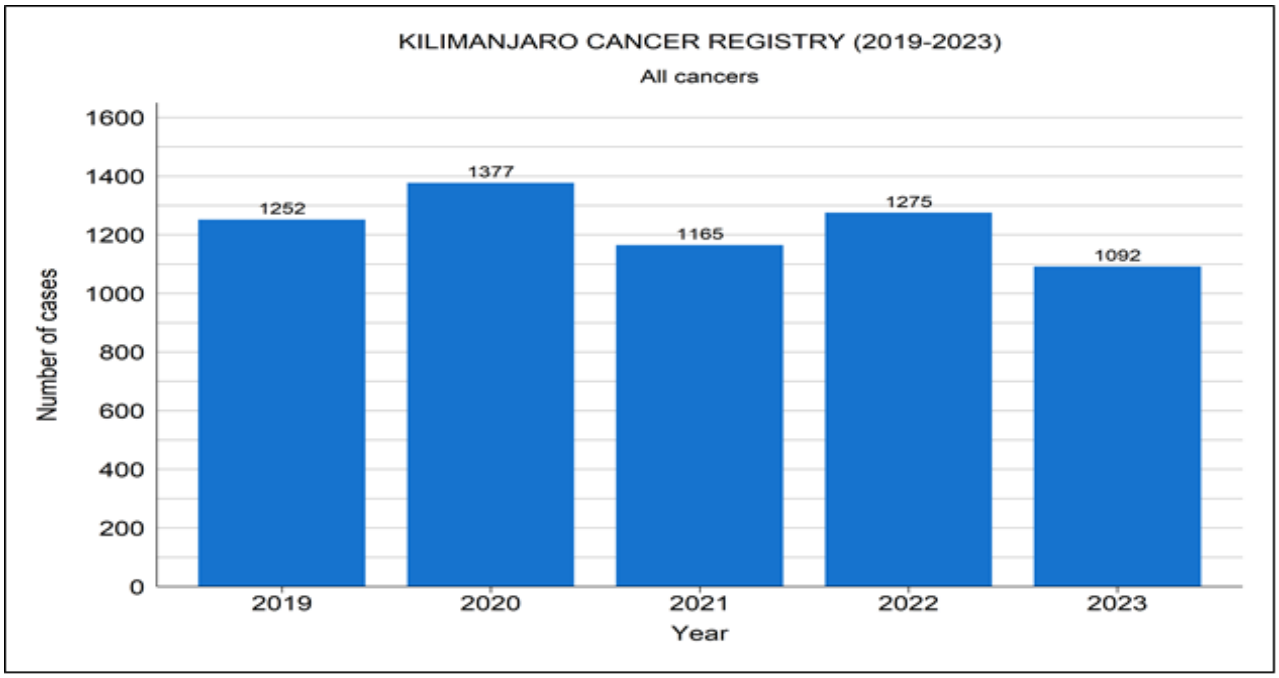

Figure 6: Number of cases in the Kilimanjaro PBCR, 2019–2023

3.1.2 Number of registered cancer cases by age and sex in Kilimanjaro, 2019–2023

Figure 7 below illustrates the total number of registered cancer cases by age group and sex distribution, as recorded by the Kilimanjaro PBCR between 2019 and 2023. The data indicate that males (3,222 cases) were having more cancer cases compared to females (2,939 cases). However, females tend to develop cancer at an earlier age, with cases rising significantly between 30 and 49 years. In contrast, cancer incidence among males peaks later, predominantly between the ages of 50 and 69.

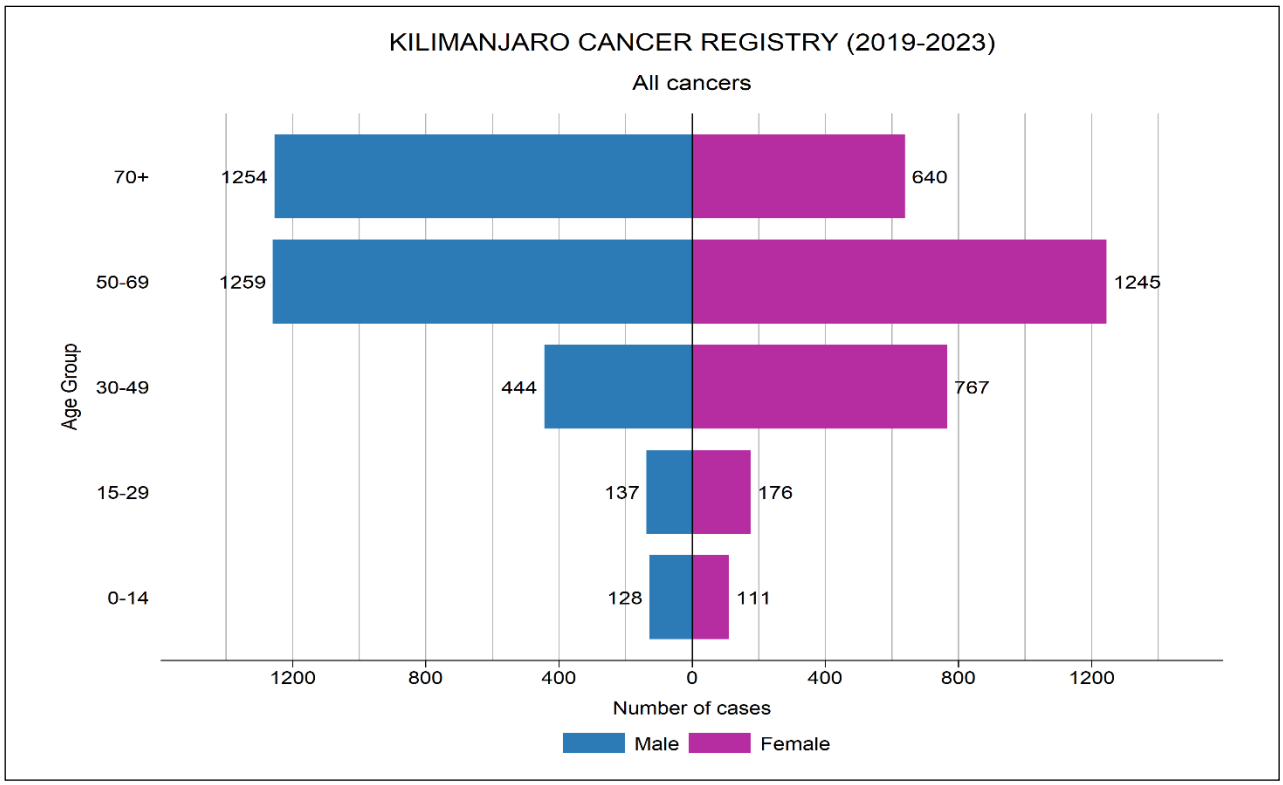

Figure 7: Number of Registered Cancer Cases by Age and Sex in Kilimanjaro, 2019–2023

3.1.3 The most common cancers registered at Kilimanjaro

Figure 8 below presents the most common cancers among males and females of all ages according to the Kilimanjaro PBCR for the period of 2019 to 2023. The most frequently diagnosed cancers vary between men and women. Among men, prostate cancer is the most common, with 940 cases, followed by oesophageal cancer, with 594 cases. For women, cervical cancer is the most common, with 611 cases, closely followed by breast cancer, with 554 cases. Oesophageal cancer is also significant among women, with 211 cases.

Rank	Cancer Site	Male	Cancer Site	Female
1	Prostate	940	Cervix	611
2	Oesophagus	594	Breast	554
3	Colon, rectum, anus	170	Oesophagus	211
4	Lymphoma	167	Colon, rectum, anus	173
5	Mouth & pharynx	162	Lymphoma	134
6	Liver	123	Mouth and Pharynx	123
7	Bladder	99	Stomach	116
8	Trachea, bronchus and Lun	86	Ovary	106
9	Leukemias	66	Corpus & uterus NOS	106
10	Kaposi sarcoma	62	Leukemia	69

Figure 8: Top 10 Cancer Cases by Sex in Kilimanjaro, 2019–2023

3.1.4 Age-specific incidence for both sexes at Kilimanjaro PBCR

The Kilimanjaro PBCR data indicates that prostate cancer is the most common cancer, primarily affecting men aged 75 and above. This is followed by oesophageal cancer (805 cases), which occurs in both men and women, but mostly men, predominantly from the age of 60 and above. Cervical cancer (611 cases) ranks third, mainly affecting women aged 50 and above. **Figures 9**, **10**, and **11** illustrate these trends in detail.

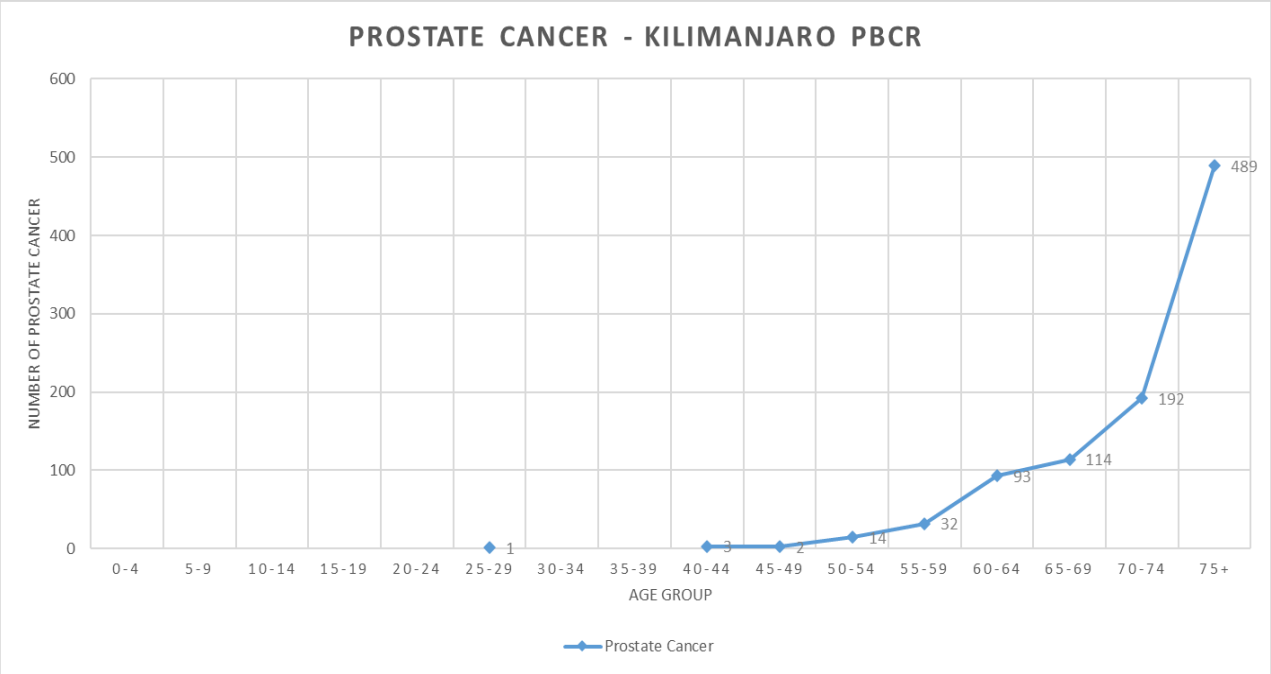

Figure 9: Age-Specific Incidence of Prostate Cancer in Males – Kilimanjaro PBCR

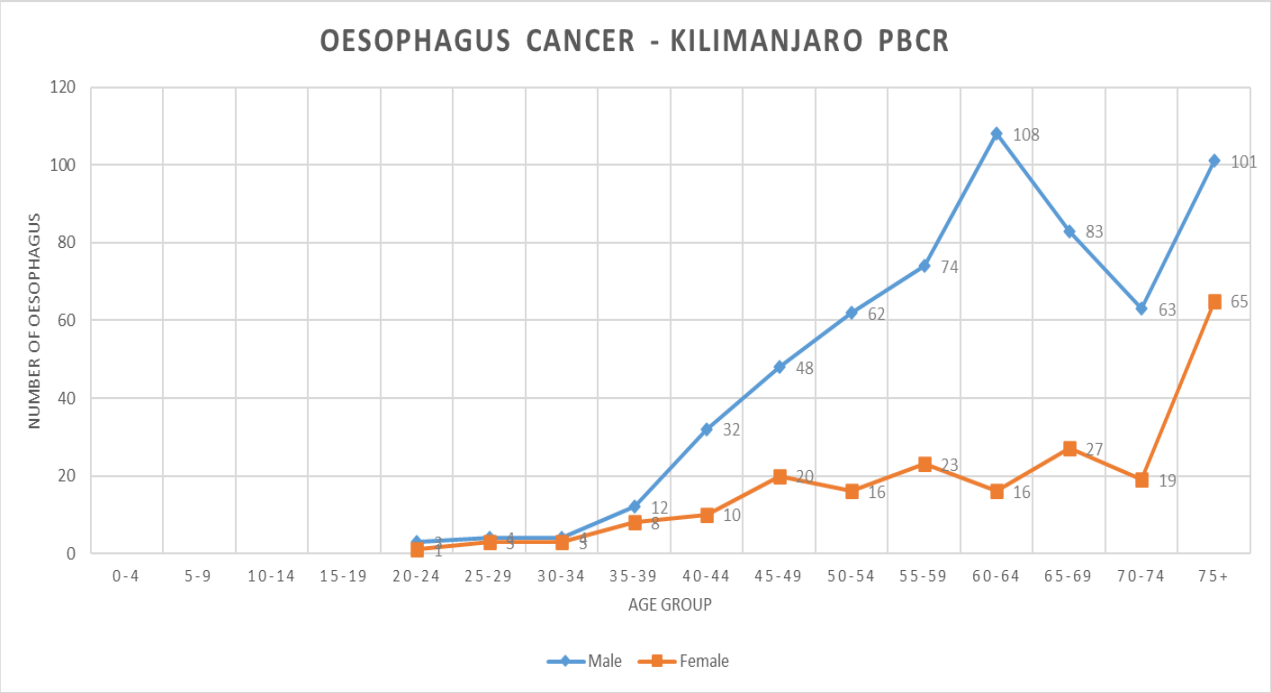

Figure 10: Age-Specific Incidence of Oesophageal Cancer in Females – Kilimanjaro PBCR

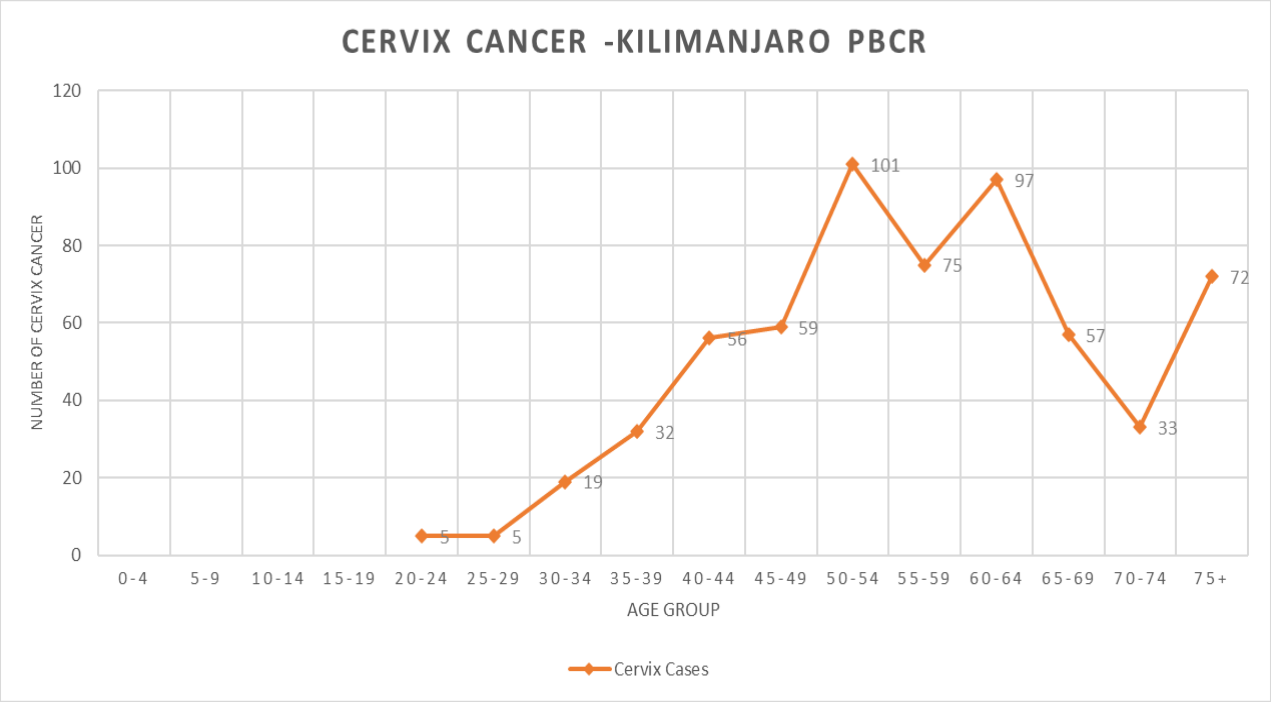

Figure 11: Age-Specific Incidence of Cervical Cancer in Both Sexes – Kilimanjaro PBCR

3.1.5 Basis of cancer diagnosis by site in Kilimanjaro, 2019–2023

Table 4 illustrates the percentage of cases of selected cancer sites based on the diagnosis method by site, as documented by the Kilimanjaro registry from 2019 to 2023. It is observed that most of all registered cancers (66.3%) were diagnosed through morphological verification (MV). Breast cancer, cervical cancer, prostate cancer, and leukemia were among the leading cancer sites that were registered based on MV at the Kilimanjaro PBCR.

Table 4: Basis of Diagnosis (DCO / Clinical / MV) by Site in Kilimanjaro, 2019–2023

Cancer Site	ICD-10	No. Cases	% total	Basis of Diagnosis		
				% DCO	% Clinical	% M. V
Mouth & pharynx	C00-14	285	5.3	3.5	24.6	71.9
Oesophagus	C15	805	15.1	4.8	42.7	52.4
Stomach	C16	288	5.4	7.6	26.0	66.3
Colon, rectum, anus	C18-21	343	6.4	4.7	21.6	73.8
Liver	C22	185	3.5	20.5	48.1	31.4
Pancreas	C25	65	1.2	23.1	41.5	35.4
Larynx	C32	59	1.1	5.1	20.3	74.6
Trachea, bronchus, lung	C33-34	151	2.8	14.6	53.0	32.5
Melanoma of skin	C43	31	0.6	0.0	12.9	87.1
Breast	C50	583	10.9	2.2	26.6	71.2
Cervix	C53	611	11.4	2.3	27.3	70.4
Corpus & uterus NOS	C54-55	106	2.0	1.9	31.1	67.0
Ovary & adnexa	C56	106	2.0	5.7	32.1	62.3
Prostate	C61	940	17.6	1.8	25.2	73.0
Testis	C62	9	0.2	11.1	44.4	44.4
Kidney & urinary NOS	C64-66,68	65	1.2	12.3	38.5	49.2
Bladder	C67	144	2.7	4.2	28.5	67.4
Brain & central nervous system	C70-72	52	1.0	13.5	59.6	26.9
Thyroid	C73	73	1.4	2.7	38.4	58.9
Lymphoma	C81-85,90,88,96	301	5.6	2.0	3.0	95.0
Leukaemia	C91-95	135	2.5	1.5	7.4	91.1
All sites	All	5,337	100.0	4.7	29.0	66.3

Source: **CanReg5**

3.1.6 Childhood cancer incidence in Kilimanjaro, 2019–2023

Table 5 below represents the incidence rates of various childhood cancers per 1,000,000 children from 0−14 years from 2019 to 2023, as documented by the Kilimanjaro PBCR. Leukemias had the highest incidence (of about 16.3%), followed by lymphomas (15.5%), and retinoblastoma (12.1%)—occurring mainly in children aged 0–4 years.

Table 5: The Incidence of Childhood Cancer (0–14 Years) per Million in Kilimanjaro, 2019–2023

ICCC3		Number of Cases						Rates per Million				
		0–4	5–9	10–14	All	M/F	% total	0–4	5–9	10–14	crude	ASR
	All	107	69	63	239	1.2	100.0	108.2	82.7	86.2	93.6	93.6
I	Leukaemias	13	14	12	39	1.2	16.3	13.1	16.8	16.4	15.3	15.3
II	Lymphomas	13	12	12	37	1.5	15.5	13.1	14.4	16.4	14.5	14.5
III	CNS neoplasms	1	2	3	6	1.0	2.5	1.0	2.4	4.1	2.3	2.4
IV	Neuroblastoma	2	0	0	2	1.0	0.8	2.0	0.0	0.0	0.8	0.8
V	Retinoblastoma	27	2	0	29	1.1	12.1	27.3	2.4	0.0	11.4	11.3
VI	Renal tumors	20	6	1	27	0.9	11.3	20.2	7.2	1.4	10.6	10.6
VII	Hepatic tumors	1	1	0	2	1.0	0.8	1.0	1.2	0.0	0.8	0.8
VIII	Malignant bone tumors	2	5	8	15	2.0	6.3	2.0	6.0	10.9	5.9	5.9
IX	Soft tissue sarcomas	6	7	4	17	1.1	7.1	6.1	8.4	5.5	6.7	6.6
X	Germ cell tumors	1	0	0	1	0.0	0.4	1.0	0.0	0.0	0.4	0.4
XI–XII	Other	21	20	23	64	1.1	26.8	21.2	24.0	31.5	25.1	25.1

***Source**:* **CanReg5**

3.2. Mwanza Population-Based Cancer Registry

The Mwanza Cancer Registry is in the Oncology Department at Bugando Medical Centre in the Lake Zone of Tanzania, managed by the Director of the registry. In addition, it is staffed by one permanent Registrar plus volunteers who are doing passive data collection. The registry was established in 2016 as an expansion and improvement of the hospital-based cancer registry that was established in 2015 with the support of the Duke Global Health Institute. The catchment area of the Mwanza Cancer Registry includes three

administrative areas: Nyamagana, Ilemela, and Sengerema District. This report will provide information about two districts, Nyamagana and Ilemela, which have a population of approximately 1,036,781 (499,331 males and 537,450 females) (**Table 1** and **Figure 12**). The main economic activities in the catchment area include agriculture (crops and livestock), trade, small businesses, and fishing.

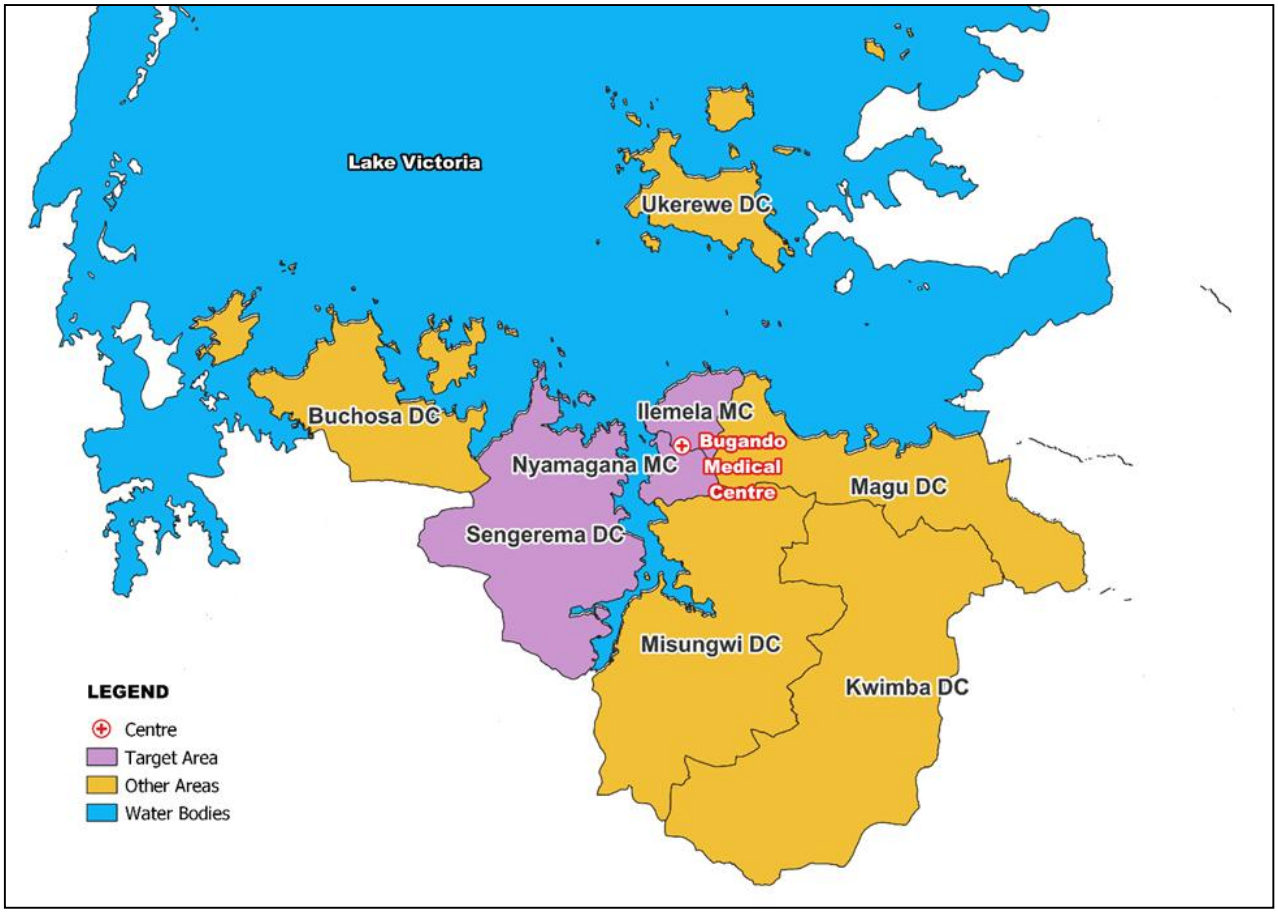

Figure 12: A Map Showing the Location Catchment Areas of the Mwanza Cancer Registry

Figure 13 is the pyramid presenting the population distribution of the Mwanza Population-Based Cancer Registry catchment area by age and sex. The population distribution in the catchment area mirrors that of the national population, with the majority being children and young adults.

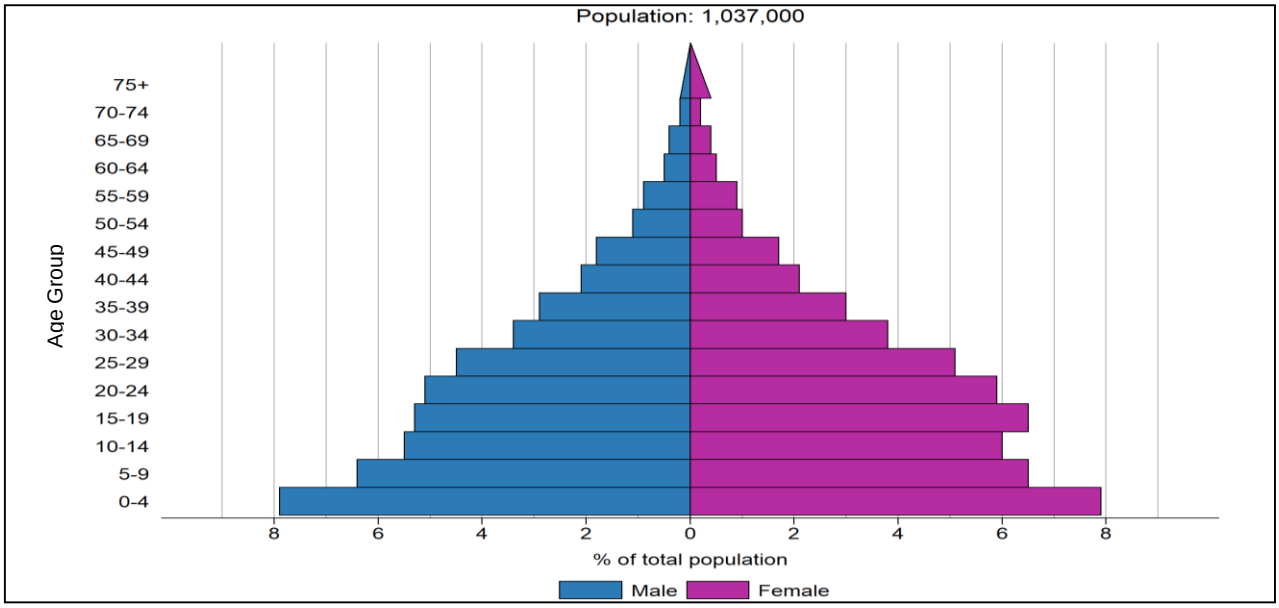

Figure 13: Mwanza Population-Based Cancer Registry Catchment Area Population Distribution

3.2.1 Number of cancer cases in Mwanza PBCR

Figure 14 below displays a bar chart with the total number of cases registered from 2019 to 2023. During this time, the registry was able to record 2,220 cases of cancer; the figure indicates an increasing trend in cancer case registration, with 368 cases in 2019 and 541 cases in 2023.

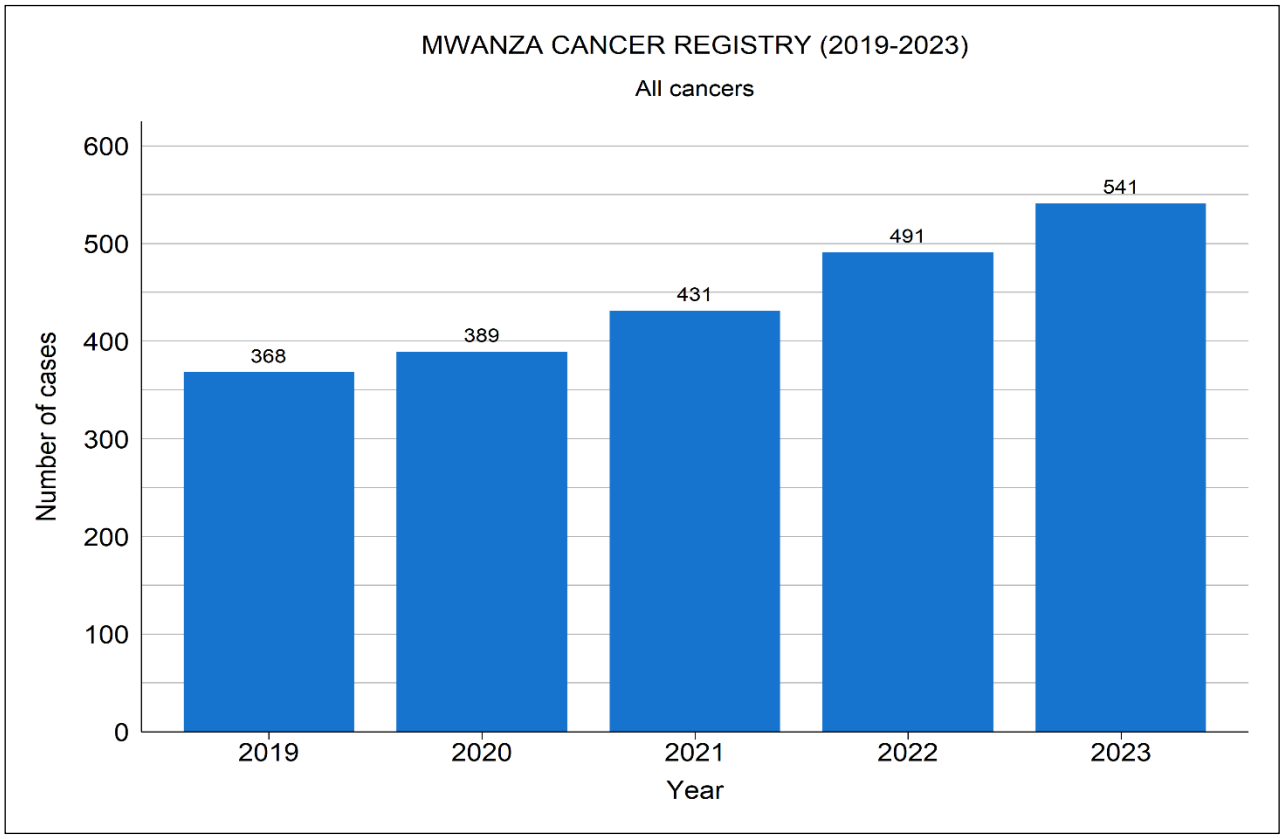

Figure 14: Number of cases in Mwanza PBCR, 2019–2023

3.2.2 Number of registered cancer cases by age and sex in Mwanza, 2019–2023

The bar chart (**Figure 15**) shows the distribution of cases by age group and sex. Most age groups had more female cases registered than male cases except for age group “0–14” and “70+.” Cancer cases among females surge earlier, with a notable increase between ages 30 and 49. Conversely, males experience a delayed peak, with the highest incidence rates appearing among the 50+ age group.

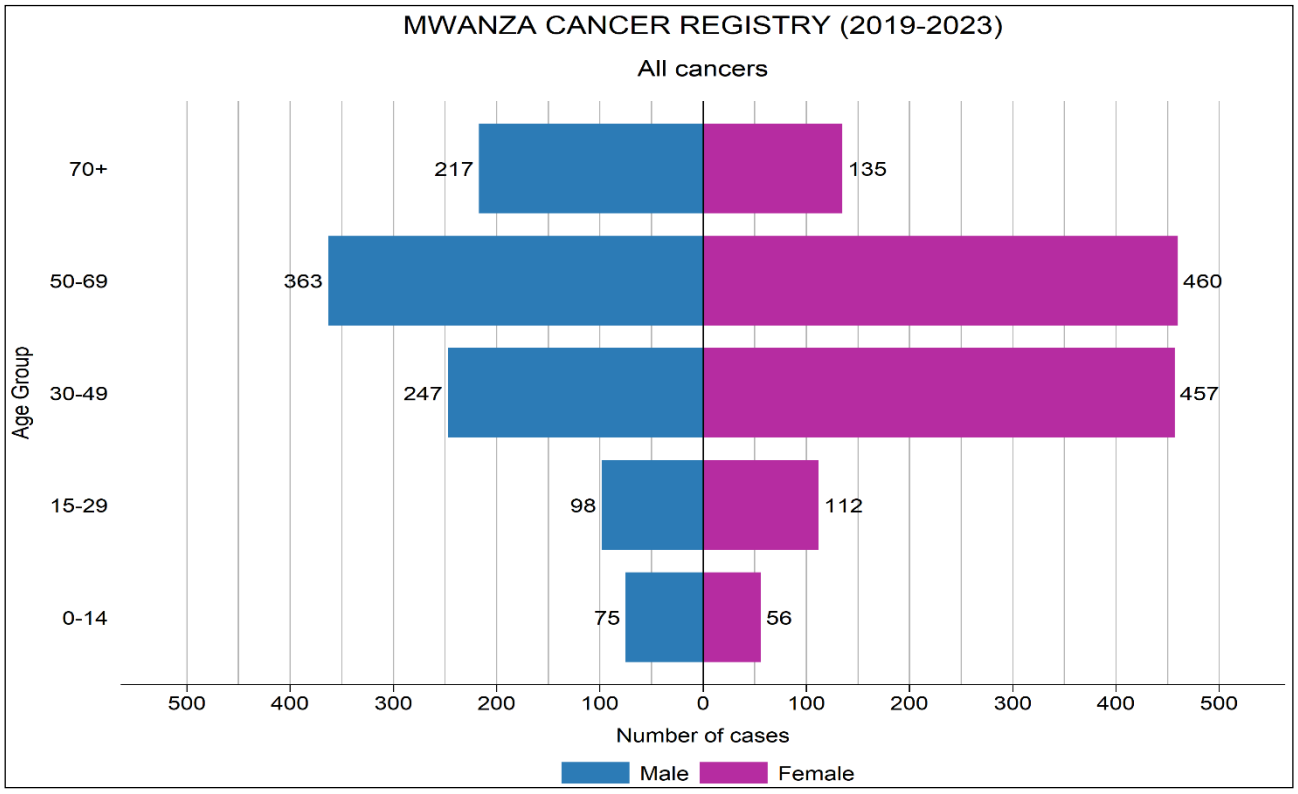

Figure 15: Number of Registered Cancer Cases by Age and Sex in Mwanza Cancer Registry, 2019–2023

3.2.3 The most common cancers registered by age and sex in Mwanza, 2019–2023

Figure 16 presents the most common types of cancers that were registered in the catchment area from 2019 to 2023. The most frequently diagnosed cancers vary between men and women. Among men, prostate cancer is the most common, with 210 cases, followed by oesophageal cancer, with 108 cases. For women, cervical cancer is the most frequent, with 286 cases, closely followed by breast cancer, with 273 cases. Oesophageal cancer is also significant among women, with 78 cases.

Rank	Cancer Site	Male	Cancer Site	Female
1	Prostate	210	Cervix	286
2	Esophagus	108	Breast	273
3	Lymphoma	81	Esophagus	78
4	Liver	75	Lymphoma	61
5	Colon, rectum, anus	68	Colon, rectum, anus	51
6	Mouth & pharynx	58	Ovary & adnexa	37
7	Bladder	46	Liver	36
8	Kaposi sarcoma	37	Mouth & pharynx	34
9	Leukemia	32	Leukemia	31
10	Other skin	28	Kidney	29

Figure 16: Top 10 Cancers by Sex, Mwanza Cancer Registry, 2019–2023

3.2.4 Age-specific incidence for both sexes at Mwanza PBCR

The Mwanza PBCR data shows that cervical, breast, and prostate cancers have the highest incidence in this population. Cervical and breast cancer cases peak around age 45, while prostate cancer primarily affects men aged 75 and above.

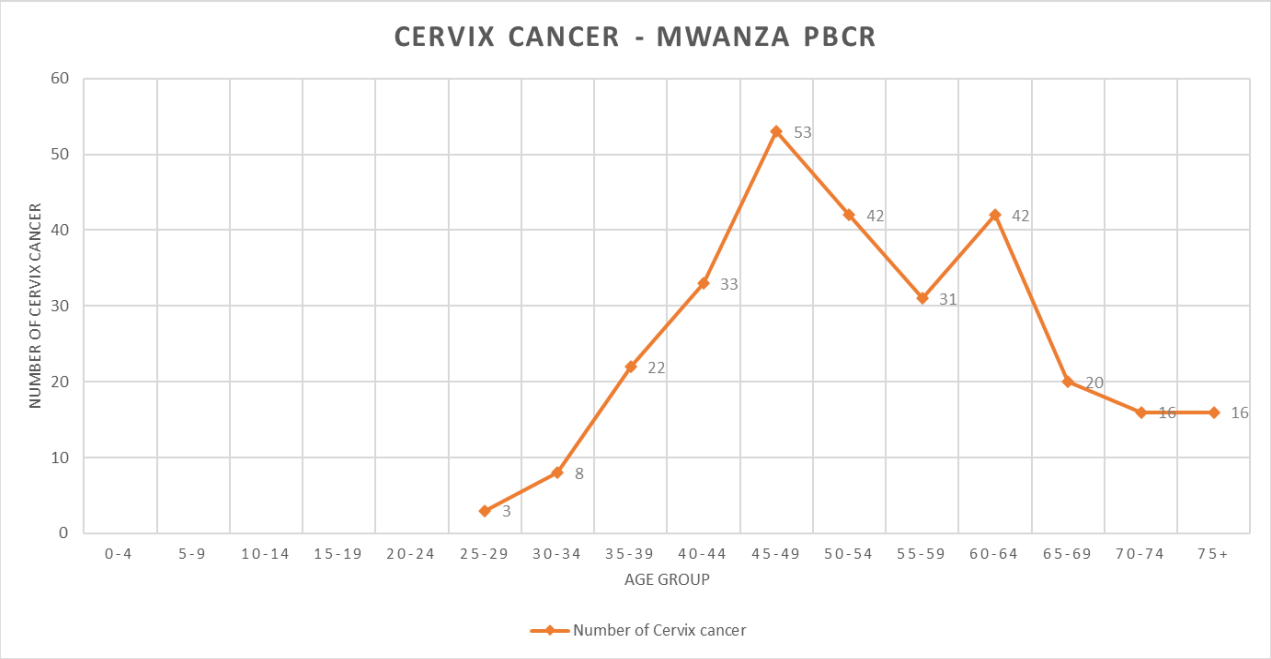

Figure 17: Age-Specific Incidence of Cervical Cancer among women – Mwanza PBCR

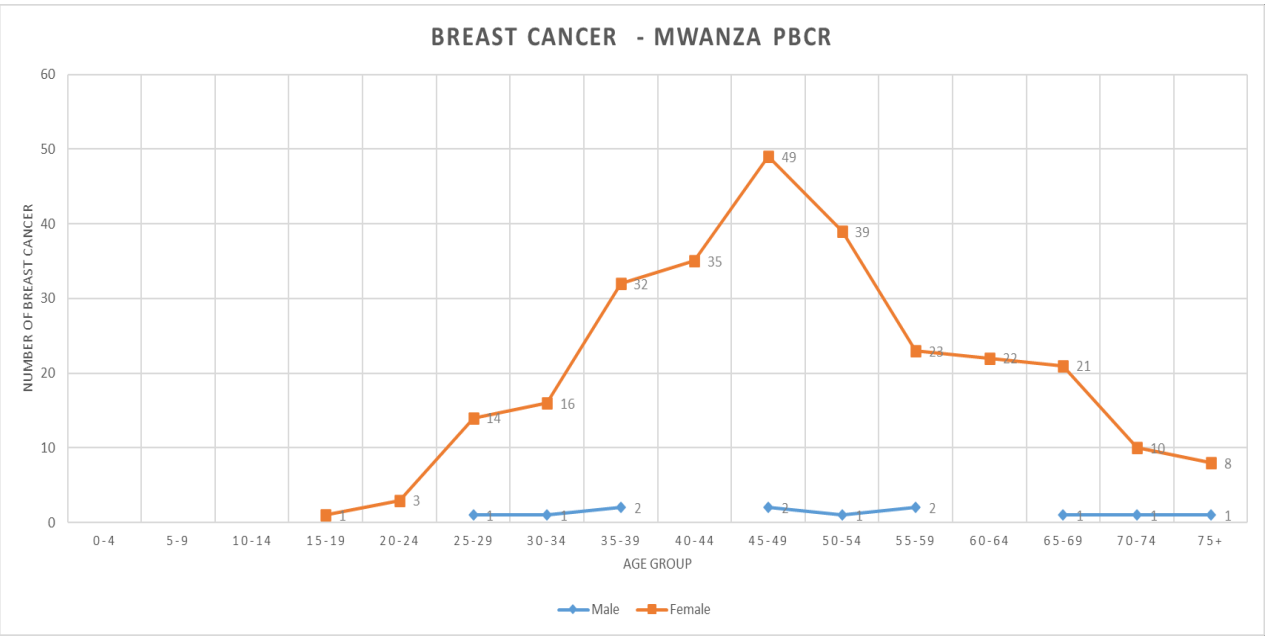

Figure 18: Age-Specific Incidence of Breast Cancer among Women and Men – Mwanza PBCR

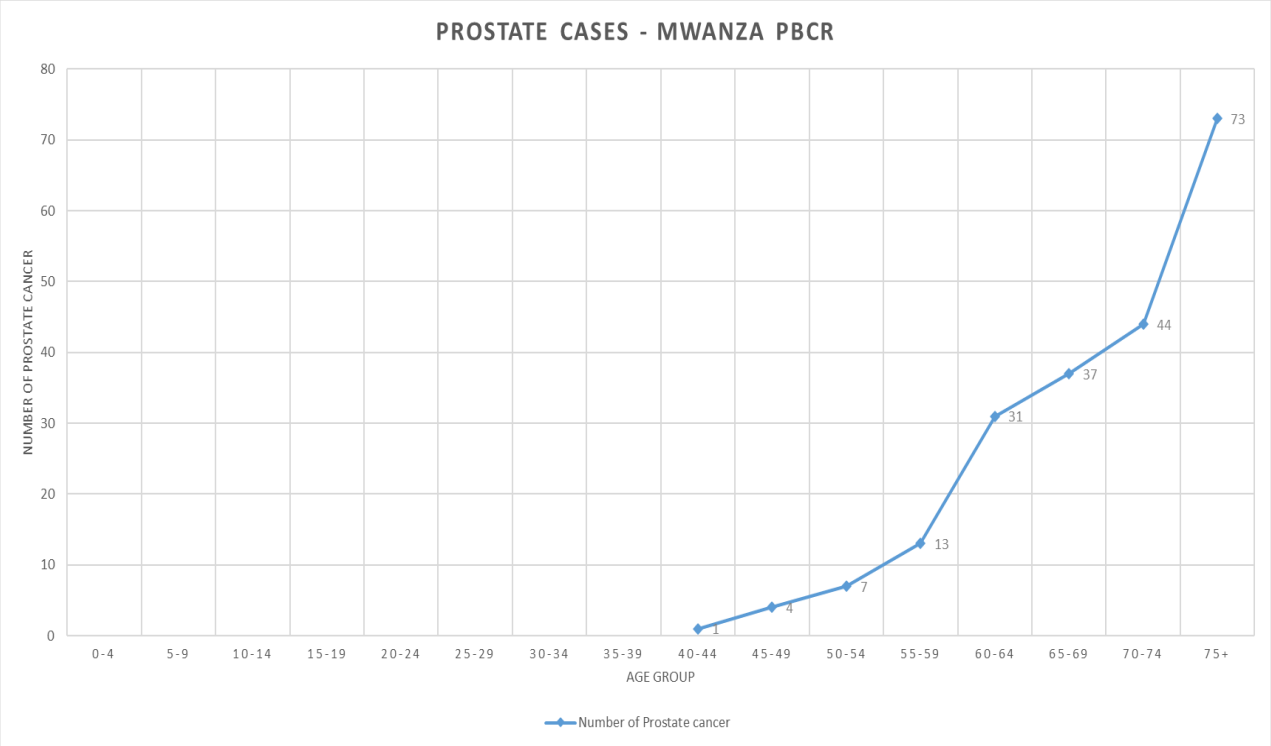

Figure 19: Age-Specific Incidence of Prostate Cancer among Men – Mwanza PBCR

3.2.5 Basis of diagnosis by site in Mwanza, 2019–2023

Table 6 below shows the percentage of cases at the major sites that were registered based on information from a death certificate only (DCO), clinical investigation, and with morphological verification (MV)—that is, based on cytology or histology (of the primary tumor, or a metastasis). It is observed that most of all registered cancers (78.4%) were diagnosed through MV. Cervical cancer (97.2%) and lymphoma (95.8%) were among the leading cancer sites that were registered based on MV at the Mwanza Cancer Registry. On the other hand, 21.0% of all cases were identified with a clinical basis of diagnosis.

Table 6: Basis of Diagnosis (DCO / Clinical / MV) by Site in Mwanza, 2019–2023

Cancer site	ICD-10	No. Cases	% total	Basis of diagnosis		
				% DCO	% Clinical	% M.V
Mouth & pharynx	C00-14	92	4.9	0.0	28.3	71.7
Oesophagus	C15	186	10.0	1.1	7.0	91.9
Stomach	C16	35	1.9	2.9	45.7	51.4
Colon, rectum, anus	C18-21	119	6.4	0.0	47.1	52.9
Liver	C22	111	5.9	1.8	50.5	47.7
Pancreas	C25	12	0.6	8.3	50.0	41.7
Larynx	C32	25	1.3	0.0	12.0	88.0
Trachea, bronchus, lung	C33-34	43	2.3	4.7	67.4	27.9
Melanoma of skin	C43	27	1.4	0.0	40.7	59.3
Breast	C50	284	15.2	0.4	12.3	87.3
Cervix	C53	286	15.3	0.0	2.8	97.2
Corpus & uterus NOS	C54-55	18	1.0	0.0	33.3	66.7
Ovary & adnexa	C56	37	2.0	2.7	43.2	54.1
Prostate	C61	210	11.2	0.0	21.0	79.0
Testis	C62	3	0.2	0.0	66.7	33.3
Kidney & urinary NOS	C64-66,68	45	2.4	0.0	37.8	62.2
Bladder	C67	73	3.9	0.0	27.4	72.6
Brain & central nervous system	C70-72	37	2.0	2.7	45.9	51.4
Thyroid	C73	20	1.1	0.0	15.0	85.0
Lymphoma	C81-85,90,88,96	142	7.6	0.0	4.2	95.8
Leukaemia	C91-95	63	3.4	0.0	4.8	95.2
All sites	All	1,868	100.0	0.6	21.0	78.4

Source: **CanReg5**

3.2.6 Childhood cancer incidence in Mwanza, 2019–2023

Table 7 below shows the incidence of childhood cancer, classified according to the International Classification of Childhood cancer (ICCC-3). It is observed that most cases of childhood cancer occurred among children aged 0–4 years with an incidence rate of 80.7 per million. Following this is the incidence of cancer among children aged 5–9, 63.1 per million. For children in the age group of 0–4, the incidence of renal tumours was 24.5 per million. Among children aged 5-9, the incidence of lymphomas was 13.5 per million

Table 7: Incidence of Childhood Cancer (0–14 Years) per Million in Mwanza, 2019–2023

ICCC3		Number of Cases						Rates per Million				
		0-4	5-9	10-14	All	M/F	% total	0-4	5-9	10-14	crude	ASR
	All	**66**	**42**	**23**	**131**	**1.3**	**100.0**	**80.7**	**63.1**	**38.8**	**63.1**	**62.9**
I	**Leukaemias**	**3**	**13**	**5**	**21**	**1.6**	**16.0**	**3.7**	**19.5**	**8.4**	**10.1**	**10.2**

II	**Lymphomas**	**8**	**9**	**7**	**24**	**2.4**	**18.3**	**9.8**	**13.5**	**11.8**	**11.6**	**11.6**
III	**CNS neoplasms**	**5**	**2**	**2**	**9**	**0.5**	**6.9**	**6.1**	**3.0**	**3.4**	**4.3**	**4.3**
IV	**Neuroblastoma**	**4**	**1**	**0**	**5**	**1.5**	**3.8**	**4.9**	**1.5**	**0.0**	**2.4**	**2.4**
V	**Retinoblastoma**	**8**	**1**	**0**	**9**	**8.0**	**6.9**	**9.8**	**1.5**	**0.0**	**4.3**	**4.3**
VI	**Renal tumors**	**20**	**4**	**0**	**24**	**0.6**	**18.3**	**24.5**	**6.0**	**0.0**	**11.6**	**11.4**
VII	**Hepatic tumors**	**3**	**1**	**0**	**4**	**0.3**	**3.1**	**3.7**	**1.5**	**0.0**	**1.9**	**1.9**
VIII	**Malignant bone tumors**	**2**	**0**	**1**	**3**	**0.0**	**2.3**	**2.4**	**0.0**	**1.7**	**1.4**	**1.4**
IX	**Soft tissue sarcomas**	**4**	**2**	**2**	**8**	**1.0**	**6.1**	**4.9**	**3.0**	**3.4**	**3.9**	**3.8**
X	**Germ cell tumors**	**0**	**0**	**1**	**1**	**0.0**	**0.8**	**0.0**	**0.0**	**1.7**	**0.5**	**0.5**
XI-XII	**Other**	**9**	**9**	**5**	**23**	**1.3**	**17.6**	**11.0**	**13.5**	**8.4**	**11.1**	**11.1**

Source: **Canreg5**

3.3. Dar es Salaam Population-Based Cancer Registry

The Dar es Salaam Cancer Registry is located at the Ocean Road Cancer Institute under the medical records and registry section of the Directorate of Cancer Preventive Services. The registry covers the population of Dar es Salaam in the Ilala district. It covers an area of 364.9 km^2 (140.9 sq mi) and is along the Indian Ocean. The city is divided into three administrative divisions—namely, Ilala, Kariakoo, and Ukonga, which have 36 wards altogether. According to the National Tanzania Census (2022), the population of Ilala was 1,649,912, with more females (856,181) than males (793,731). The main economic activities are business, tourism, small-scale farming, livestock keeping, and fishing (**Figures 20** and **21**).

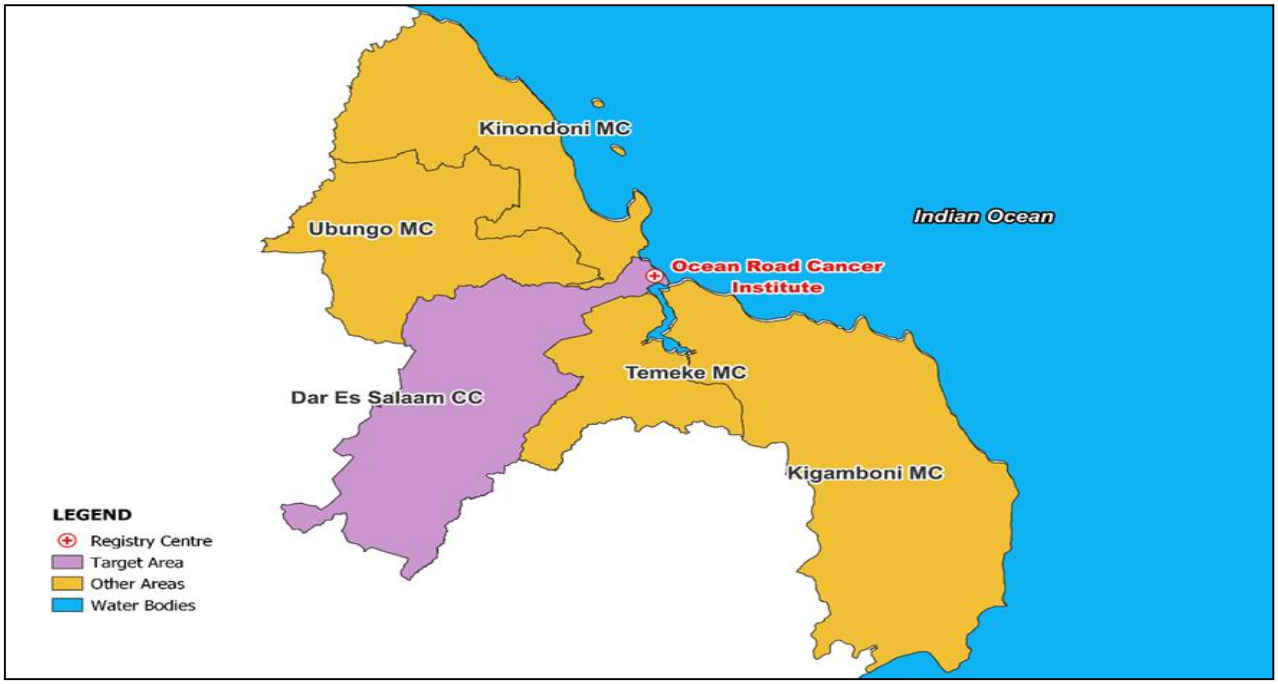

Figure 20: A Map Showing the Location Catchment Areas of Dar es Salaam Cancer Registry

The population pyramid of the catchment area (Figure 21) is similar to that of the national population, but like many large urban centres, shows an excess number of young adults (age groups 20–39) representing migrants to the city.

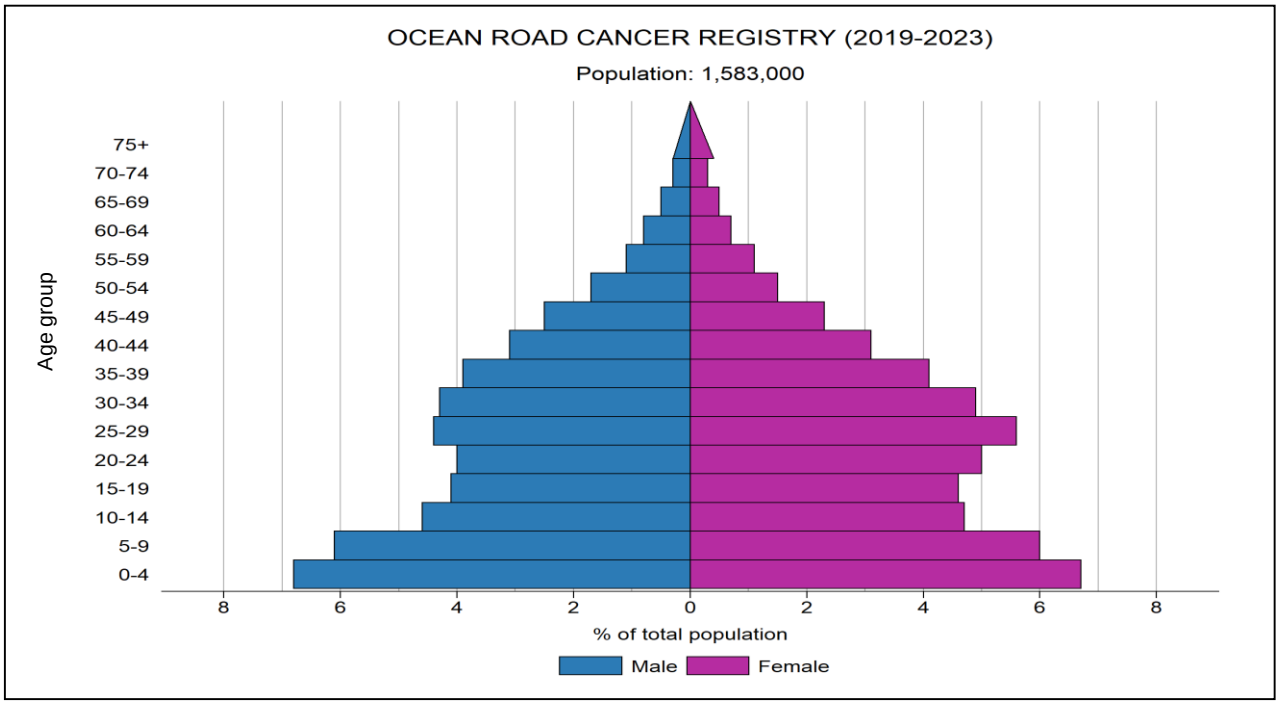

Figure 21: Dar es Salaam Population-Based Cancer Registry Catchment Area Population Distribution

3.3.1 Number of cases in Dar es Salaam PBCR

From 2019 to 2023, Dar es Salaam PBCR recorded a total of 3,521 cases of cancer. **Figure 22** shows a yearly increase in the number of cases recorded.

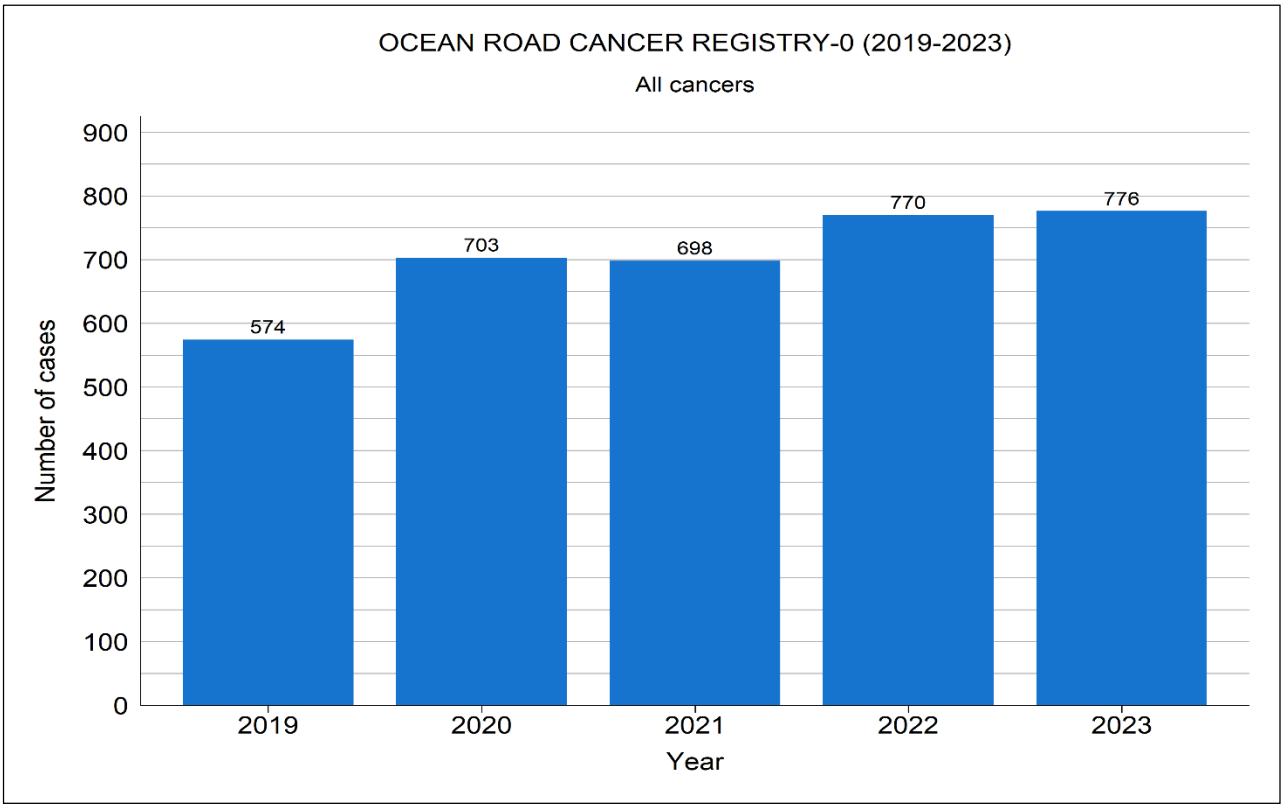

Figure 22: Number of Cases in Dar es Salaam PBCR, 2019–2023

3.3.2 Number of registered cancer cases by age and sex in Dar es Salaam, 2019–2023

The data illustrates the distribution of cancer cases by age group and sex, revealing that most age groups had a higher number of registered female cases compared to males. During this period, the number of registered cases among females aged 30–49 was more than twice that of males in the same age group.

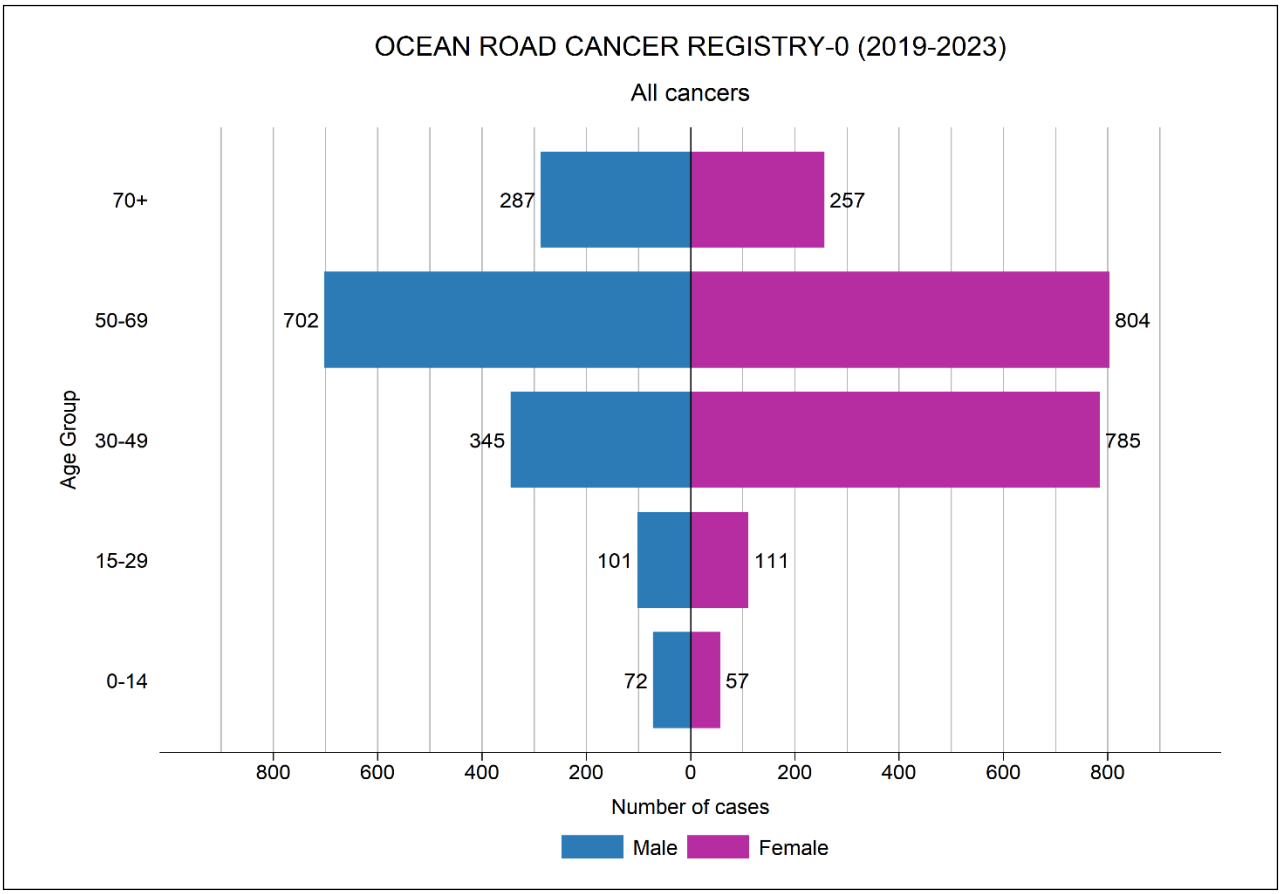

Figure 23: Number of Cases by Age and Sex in Dar Es Salaam Cancer Registry, 2019–2023

3.3.3 The most common cancers registered in Dar es salaam, 2019–2023

Overall cervical cancer had more cases (456) followed by breast cancer cases (337), and these two lead in the women's top 10 cases registered in the registry as well. In men, cases of cancer of the esophagus (242) are leading, followed by liver cancer cases (182), as shown in **Figure 24.**

Rank	Cancer Site	Male	Cancer Site	Female
1	Esophagus	242	Cervix	456
2	Liver	182	Breast	337
3	Colon, rectum, anus	173	Colon, rectum, anus	224
4	Prostate	162	Esophagus	150
5	Mouth & pharynx	151	Liver	133
6	Stomach	147	Mouth & pharynx	112
7	Trachea, bronchus, lung	54	Stomach	108
8	Pancreas	41	Trachea, bronchus, lung	47
9	Lymphoma	38	Kaposi sarcoma	45
10	Kaposi sarcoma	32	Lymphoma	39

Figure 24: Top 10 Cancers by Sex, Dar es Salaam Cancer Registry, 2019–2023

3.3.4 Age-specific incidence for both sexes at Dar es Salaam PBCR

The Dar es Salaam PBCR data reveals a high incidence of cervical, colorectal, and breast cancer, with most cases occurring between the ages of 45 and 55. This trend is illustrated in **Figures 25**, **26**, and **27**.

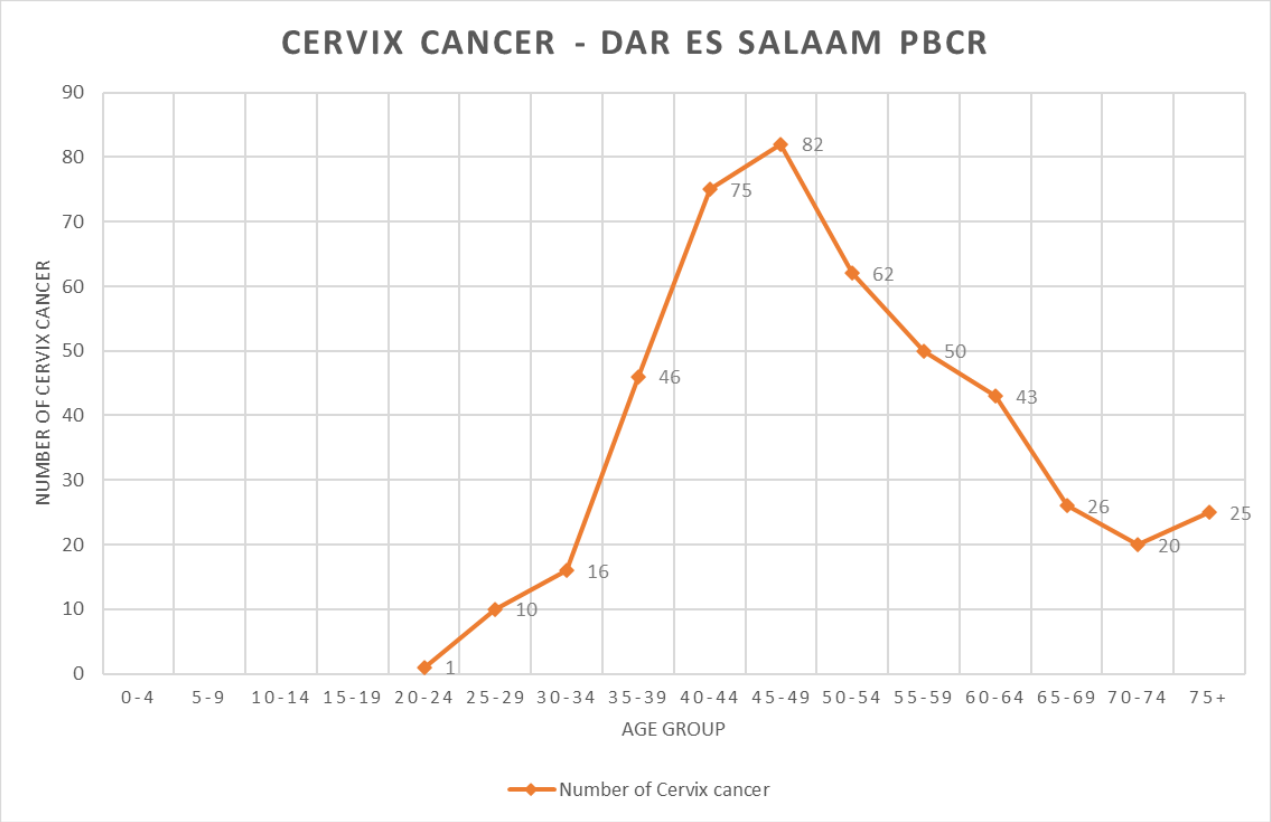

Figure 25: Age-Specific Incidence of Cervical Cancer among Women – Dar es Salaam PBCR

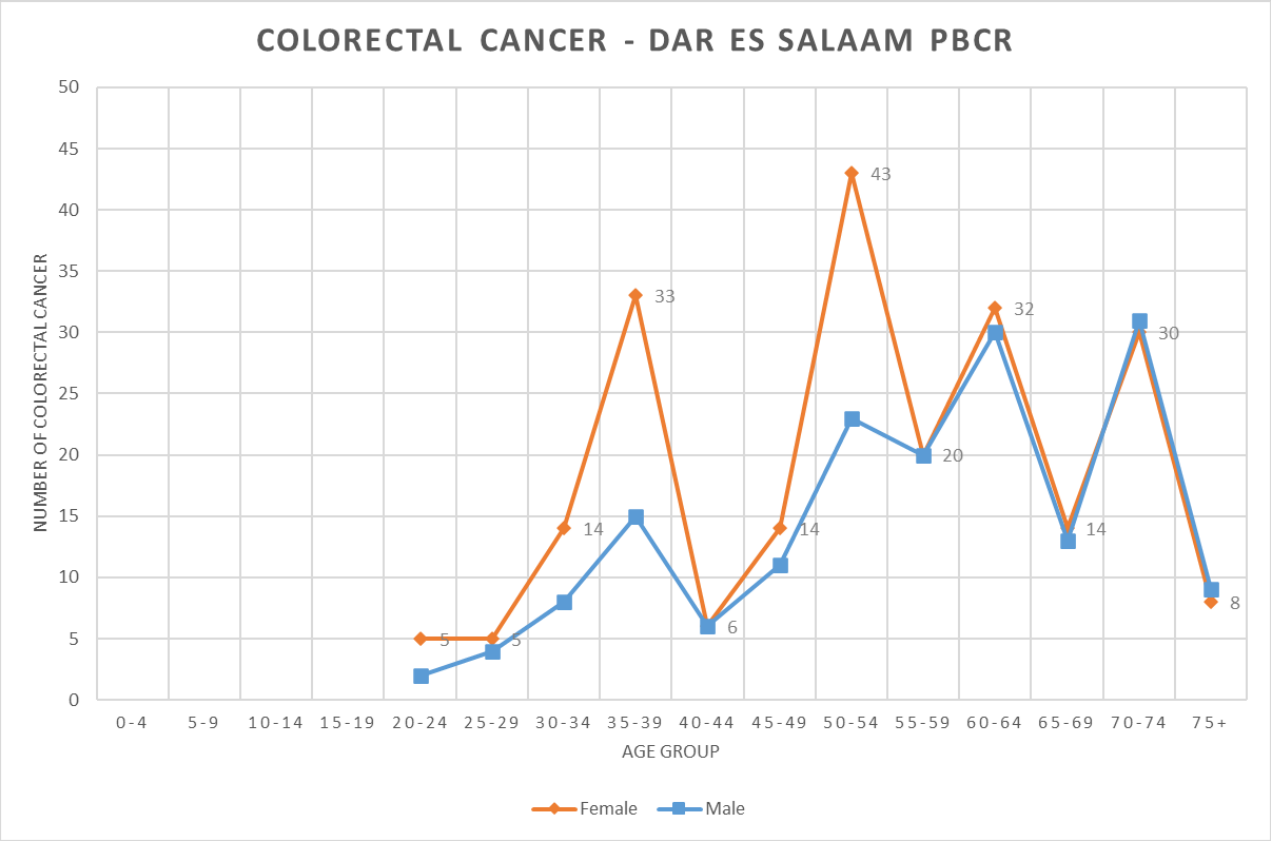

Figure 26: Age-Specific Incidence of Colorectal Cancer among Women and Men – Dar es Salaam PBCR

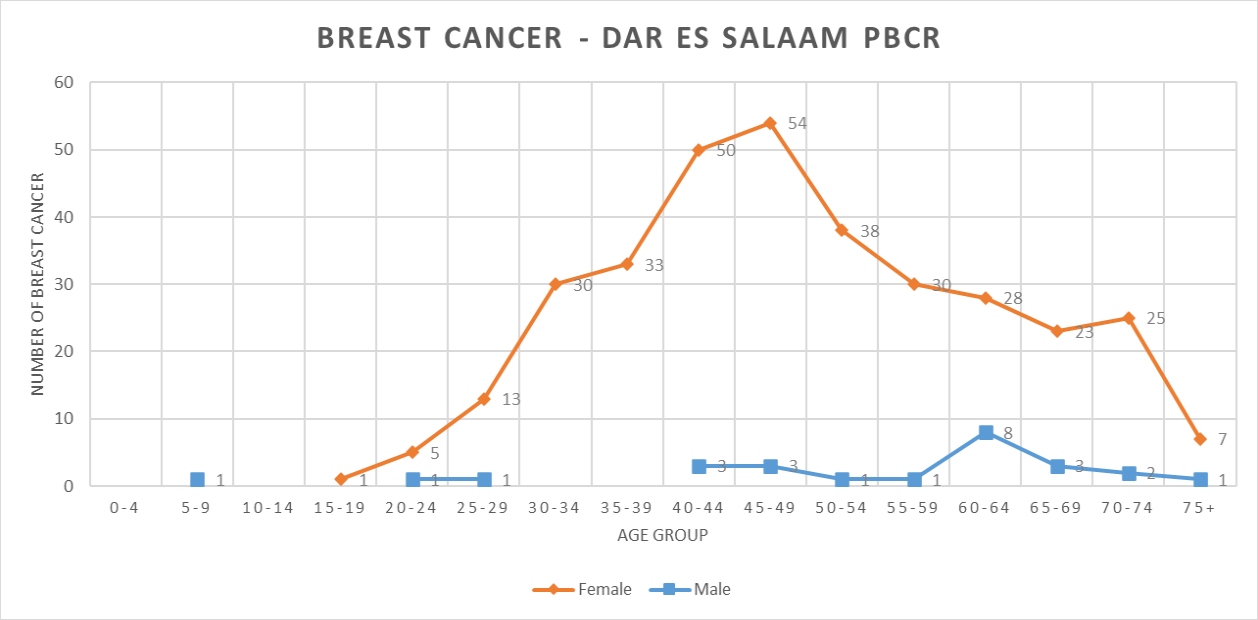

Figure 27: Age-Specific Incidence of Breast Cancer among Women and Men – Dar es Salaam PBCR

3.3.5 Basis of diagnosis by sites in Dar es Salaam, 2019–2023

Table 8 shows that 56.9% were diagnosed through morphological verification. A clinical basis of diagnosis occupied 42.2%, with stomach, lung, and pancreas being the leading types of malignancies with a clinical basis of diagnosis.

Table 8: Basis of Diagnosis (DCO / Clinical / MV) by Site in Dar es Salaam, 2019–2023

Cancer site	ICD-10	No. Cases	% total	Basis of diagnosis		
				% DCO	% Clinical	% M. V
Mouth & pharynx	C00-14	262	8.4	0.4	48.1	51.5
Esophagus	C15	391	12.6	1.0	59.6	39.4
Stomach	C16	254	8.2	0.0	79.9	20.1
Colon, rectum, anus	C18-21	395	12.7	0.3	66.3	33.4
Liver	C22	315	10.1	0.0	67.3	32.7
Pancreas	C25	75	2.4	1.3	76.0	22.7
Larynx	C32	30	1.0	0.0	66.7	33.3
Trachea, bronchus, lung	C33-34	101	3.2	2.0	76.2	21.8
Melanoma of skin	C43	4	0.1	0.0	0.0	100.0
Breast	C50	360	11.6	2.2	7.8	90.0
Cervix	C53	456	14.6	0.4	7.7	91.9
Corpus & uterus NOS	C54-55	19	0.6	0.0	5.3	94.7
Ovary & adnexa	C56	34	1.1	2.9	14.7	82.4
Prostate	C61	162	5.2	4.9	15.4	79.6
Testis	C62	9	0.3	0.0	44.4	55.6
Kidney & urinary NOS	C64-66,68	31	1.0	0.0	25.8	74.2
Bladder	C67	26	0.8	0.0	11.5	88.5
Brain & central nervous system	C70-72	33	1.1	0.0	21.2	78.8
Thyroid	C73	32	1.0	0.0	9.4	90.6
Lymphoma	C81-85,90,88,96	77	2.5	0.0	5.2	94.8
Leukemia	C91-95	47	1.5	0.0	2.1	97.9
All sites	All	3,113	100.0	0.9	42.2	56.9

Source: **CanReg5**

3.3.6 Childhood cancers incidence in Dar es salaam, 2019–2023

Table 9 provides the incidence rates of various childhood cancers per 1,000,000 children aged 0–14 from 2019 to 2023, according to data from the Dar es Salaam Population-Based Cancer Registry (PBCR). The overall rate of childhood cancers in Dar es Salaam PBCR is 45.5 per million children. The category “Other” includes a diverse range of less common or unspecified cancer types, with an incidence rate of 20.6 per million, making it the most common category. This is followed by renal cancers at 5.4 per million and leukemias at 4.7 per million.

Table 9: Incidence of Childhood Cancer (0–14 Years) per Million in Dar Es Salaam, 2019–2023

ICCC3		Number of cases						Rates per million				
		0-4	5-9	10-14	All	M/F	% total	0-4	5-9	10-14	crude	ASR
	All	45	39	42	126	1.2	100.0	42.0	40.7	56.9	45.5	45.9
I	Leukemias	2	3	8	13	2.2	10.3	1.9	3.1	10.8	4.7	4.9
II	Lymphomas	0	5	5	10	0.4	7.9	0.0	5.2	6.8	3.6	3.6
III	CNS neoplasms	3	2	0	5	1.5	4.0	2.8	2.1	0.0	1.8	1.8
IV	Neuroblastoma	0	0	1	1	0.0	0.8	0.0	0.0	1.4	0.4	0.4
V	Retinoblastoma	10	1	0	11	1.2	8.7	9.3	1.0	0.0	4.0	4.0
VI	Renal tumors	10	5	0	15	0.9	11.9	9.3	5.2	0.0	5.4	5.3
VII	Hepatic tumors	1	0	0	1	0.0	0.8	0.9	0.0	0.0	0.4	0.4
VIII	Malignant bone tumors	0	0	1	1	0.0	0.8	0.0	0.0	1.4	0.4	0.4
IX	Soft tissue sarcomas	4	0	2	6	0.5	4.8	3.7	0.0	2.7	2.2	2.2
X	Germ cell tumors	3	3	0	6	0.0	4.8	2.8	3.1	0.0	2.2	2.1
XI-XII	Other	12	20	25	57	1.3	45.2	11.2	20.9	33.9	20.6	20.9

Source: **CanReg5**

3.4. Mbeya Population-Based Cancer Registry

Mbeya Cancer Registry is a Population-Based Cancer Registry that was established in mid-2017, in the Pathology Department at Mbeya Zonal Referral Hospital. The aim was to obtain information on cancer occurrence in the population of the Mbeya district, as a representative of cancer incidence in the southern highlands zone (**Figure 28**). It is managed by a part-time Director (pathologist) and two Cancer Registrars. The Mbeya Population-Based Cancer Registry covers the population of the Mbeya district, which is composed of Mbeya City and the Mbeya Rural Councils. Most residents are members of the Safwa and Nyakyusa ethnic groups. According to the 2022 national census, the average annual population was 1,161,411 (554,616 males and 606,796 females).

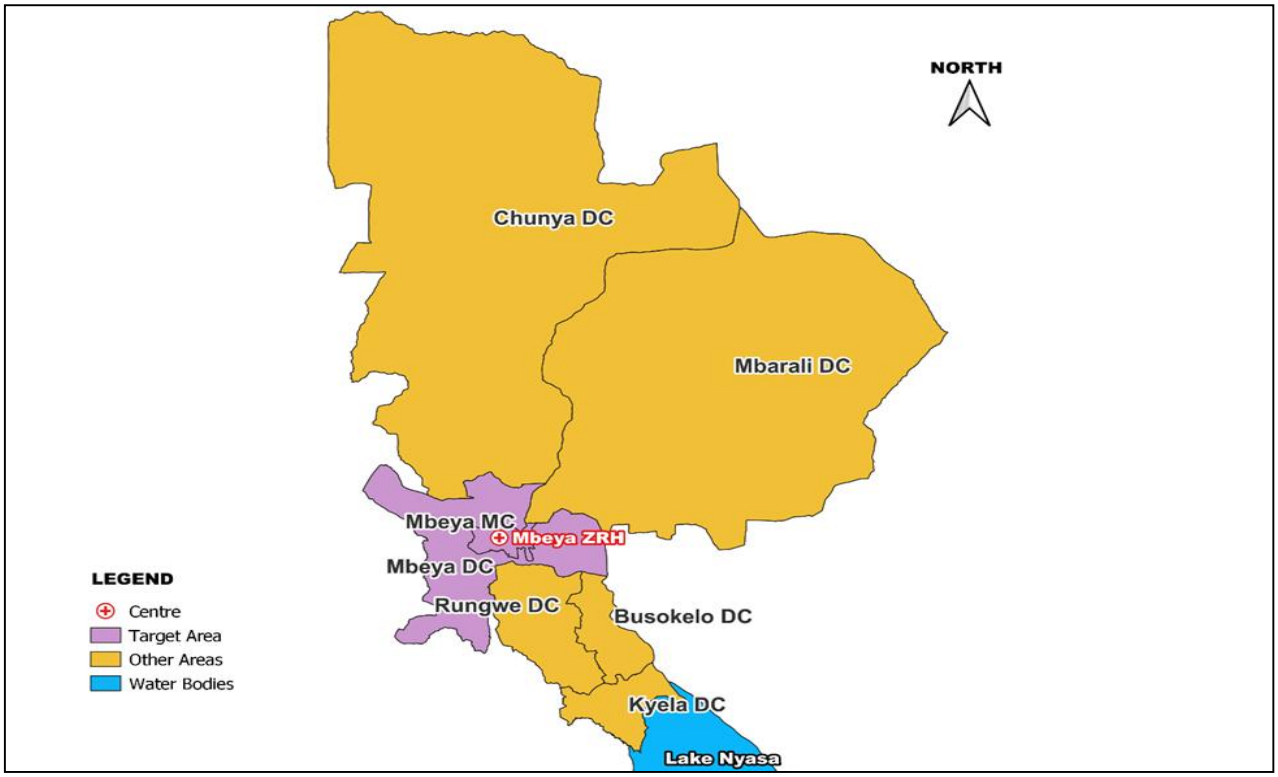

Figure 28: A Map Showing the Location Catchment Areas of Mbeya Cancer Registry

Figure 29 presents the catchment area population distribution of the Mbeya Population-Based Cancer Registry by age and sex. The population distribution in the catchment area mirrors the national population pattern, with a majority being children and young adults.

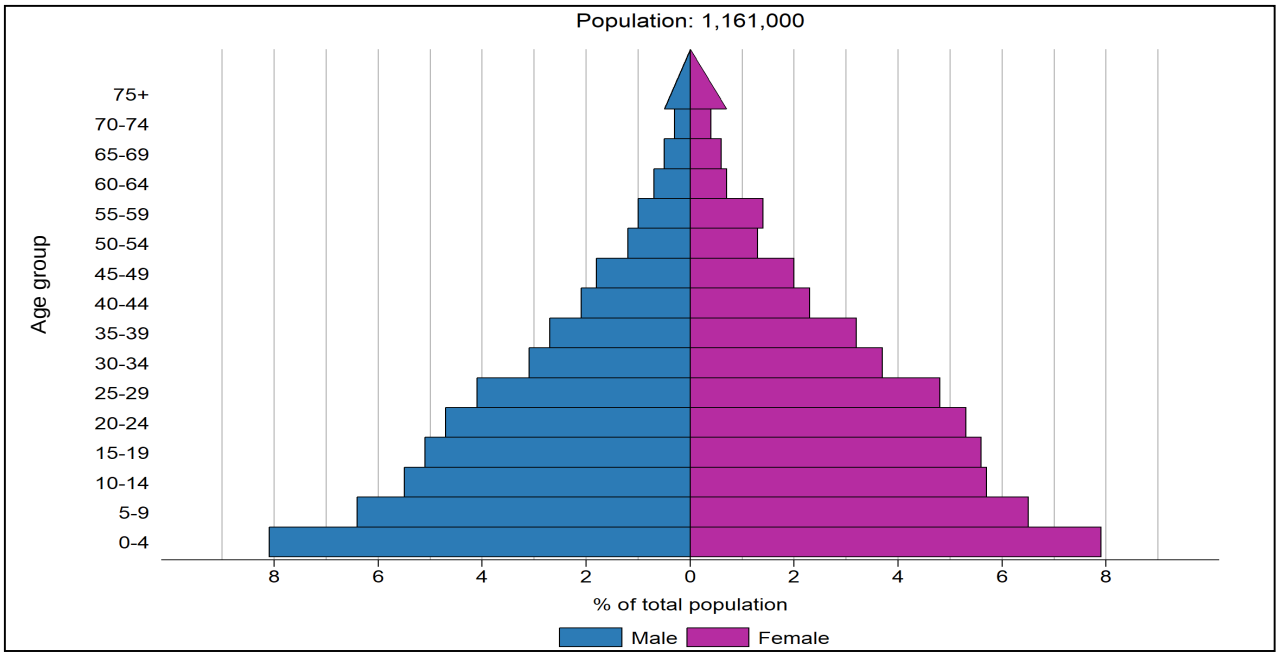

Figure 29: Mbeya Population-Based Cancer Registry Catchment Area Population Distribution

3.4.1 Number of cancers registered by year in Mbeya PBCR

Between 2019 and 2023, the Mbeya PBCR documented a cumulative total of 1,619 cancer cases. As illustrated in **Figure 30**, the data indicates a decrease in the number of cases from 2019 to 2020. However, this trend reversed starting in 2021, with a notable increase in the number of cases through 2023. Overall, the trend reflects an upward trajectory in cancer case numbers reported by the Mbeya Cancer Registry.

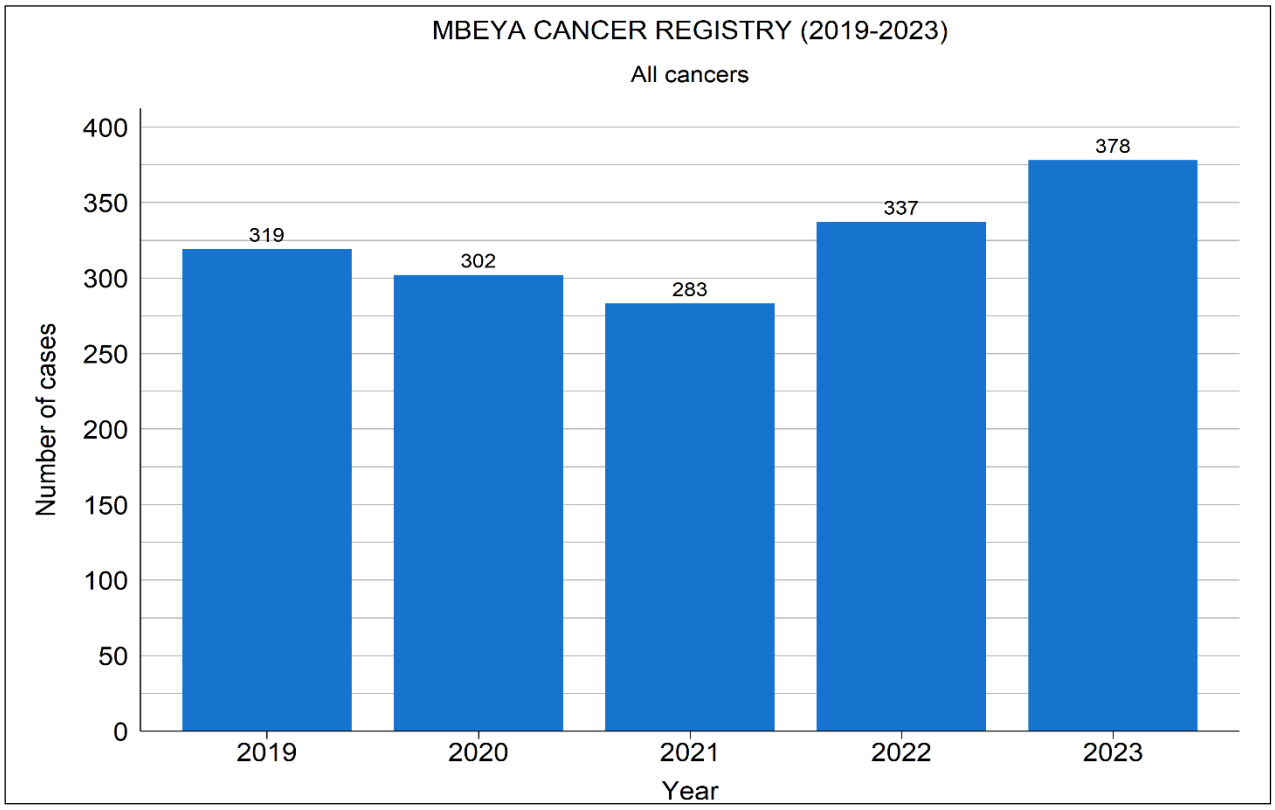

Figure 30: Total Number of Cases in Mbeya PBCR, 2019–2023

3.4.2 Number of cases registered by age and sex in Mbeya, 2019–2023

The Mbeya PBCR data indicates that, in most age groups, the number of recorded female cancer cases exceeds that of males. The burden is notably higher among females, particularly in the 30–49 and 50–69 age groups, where the number of cases in females was more than double that of males, as shown in **Figure 31**.

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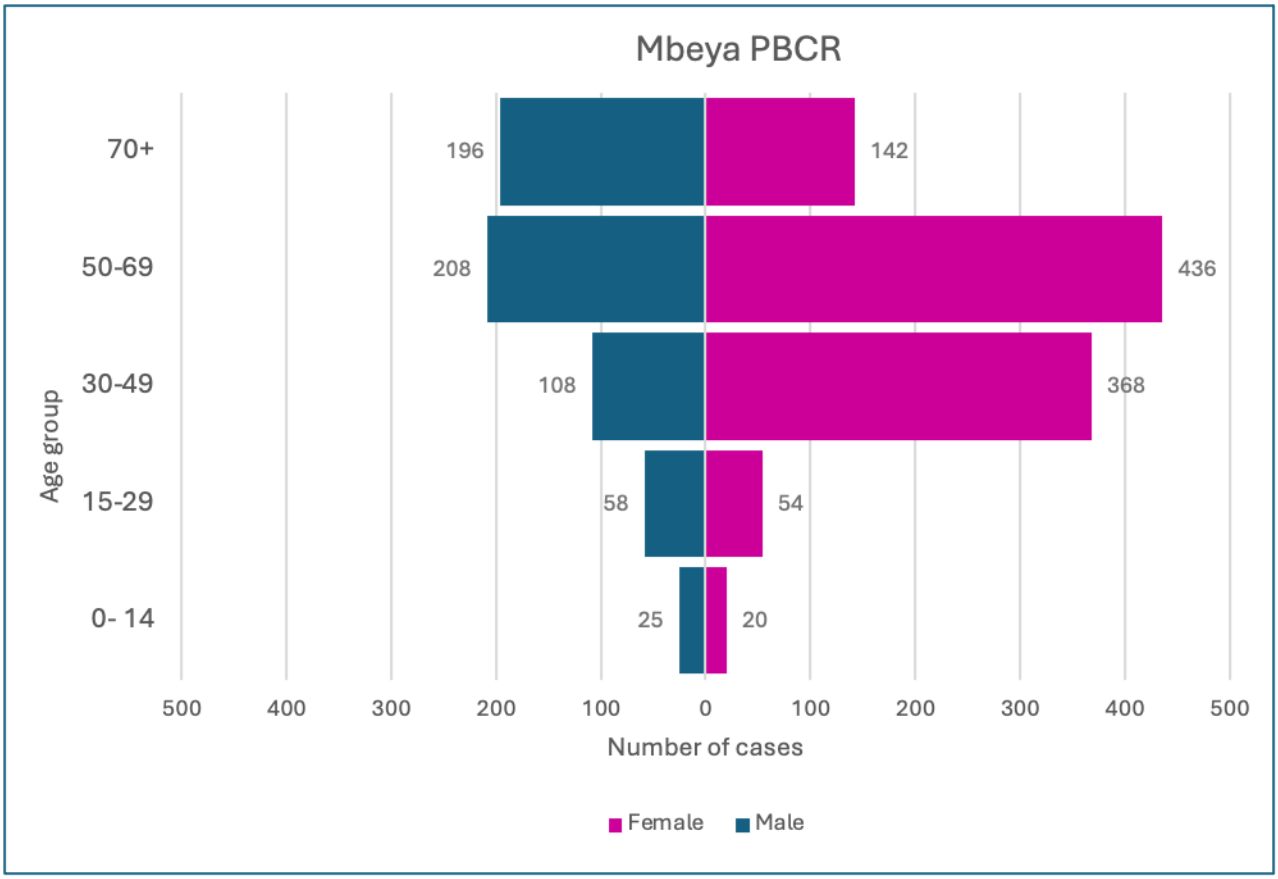


Figure 31: Number of Registered Cancer Cases by Age and Sex in Mbeya PBCR, 2019–2023

3.4.3 The most common cancers registered by age and sex in Mbeya, 2019–2023

The most frequently occurring cancers in the Mbeya Cancer Registry in the five-year period in females were cervix (the most diagnosed malignancy, with 426 cases), followed by breast (160 cases). The most diagnosed malignancy in men was prostate, with 209 cases, followed by Kaposi sarcoma (46); and colon, rectum, and anus (38 cases), as shown in **Figure 32**.

Rank	Cancer Site	Male	Cancer Site	Female
1	Prostate	209	Cervix	426
2	Kaposi sarcoma	46	Breast	160
3	Colon, rectum, anus	38	Colon, rectum, anus	39
4	Leukemia	34	Lymphoma	39
5	Lymphoma	29	Vulva	35
6	Liver	26	Other skin	25
7	Eye	23	Ovary	25
8	Mouth & pharynx	21	Kaposi sarcoma	24
9	Oesophagus	19	Corpus & uteri	23
10	Other skin	18	Liver	21

Figure 32: Top 10 Cancer Cases by Age and Sex in the Mbeya Cancer Registry, 2019–2023

3.4.4 Age-specific incidence for both sexes in Mbeya PBCR

Figures 33, **34**, and **35** show the age-specific distribution of cases of cervical, prostate, and breast cancer in Mbeya PBCR in 2019−2023.

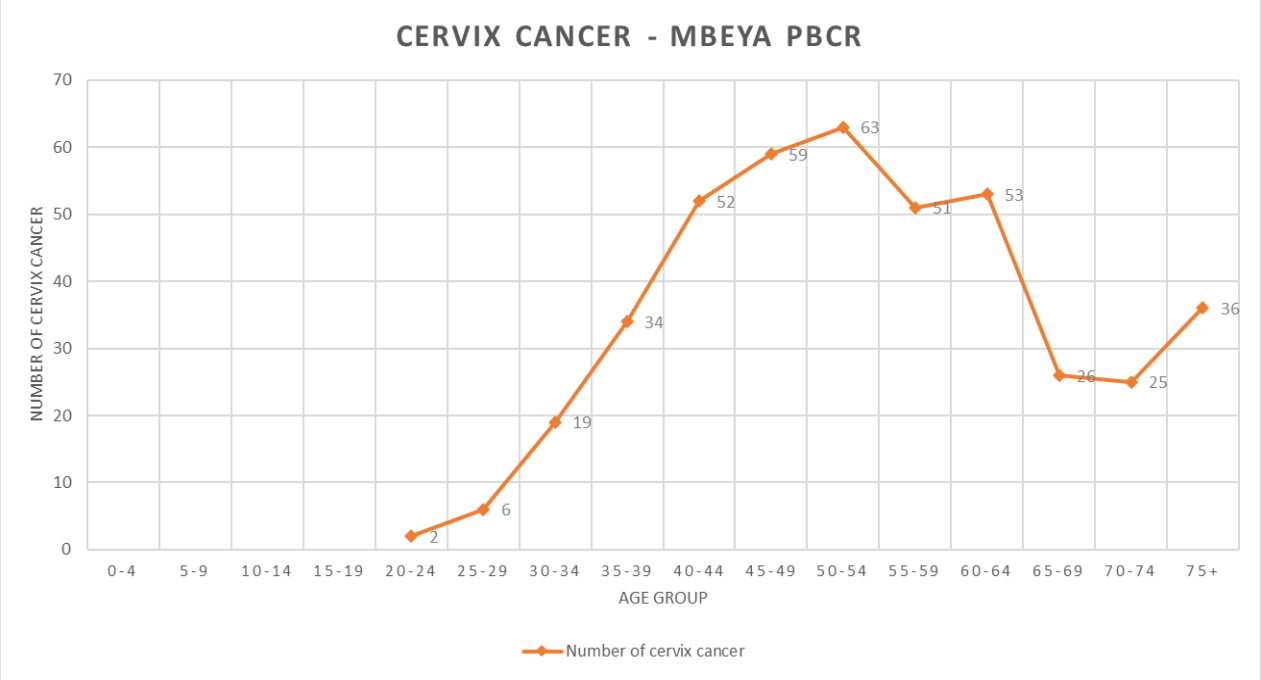


Figure 33: Age-Specific Incidence of Cervical Cancer among Women – Mbeya PBCR

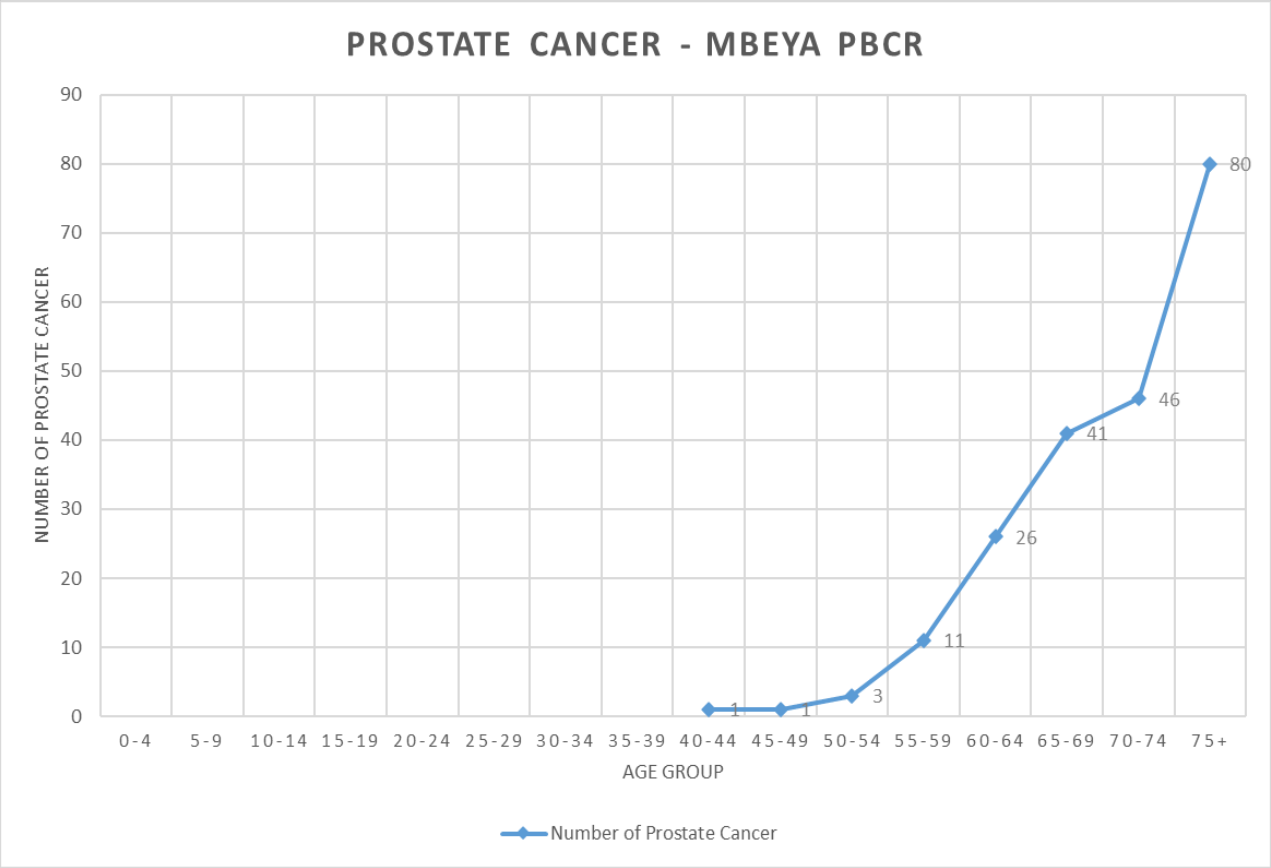


Figure 34: Age-Specific Incidence of Prostate Cancer among Men – Mbeya PBCR

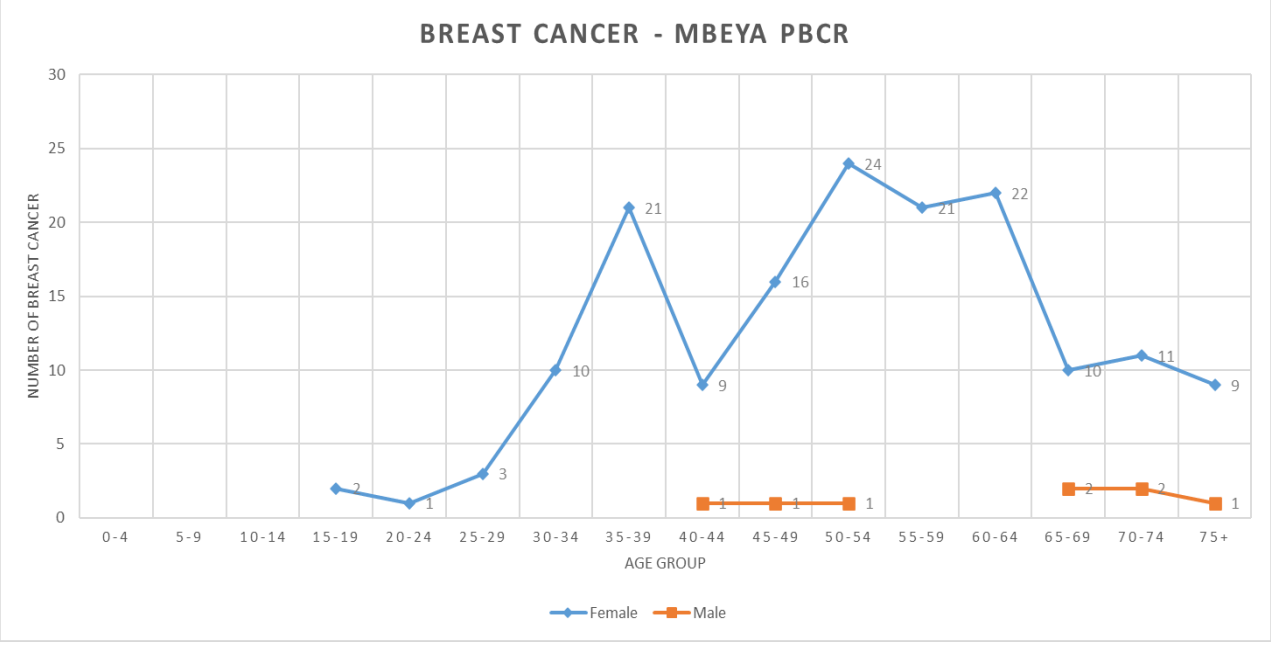


Figure 35: Age-Specific Incidence of Breast Cancer Among Women and Men – Mbeya PBCR

3.4.5 Basis of diagnosis by site in Mbeya, 2019–2023

Table 10 illustrates the percentage of cases according to basis of diagnosis by selected sites, as documented by the Mbeya registry from 2019 to 2023. It is observed that most of all registered cancers (90.0%) were diagnosed through morphological verification (MV). Mouth, larynx, ovary & adnexa, kidney & urinary, NOS, and thyroid were among the leading cancer sites that were registered based on MV at the Mbeya PBCR.

Table 10: Basis of Diagnosis (DCO / Clinical / MV) by Site in Mbeya, 2019–2023

Cancer site	ICD-10	No. Cases	% total	Basis of diagnosis		
				% DCO	% Clinical	% M. V
Mouth & pharynx	C00-14	41	3.2	0.0	0.0	100.0
Oesophagus	C15	27	2.1	11.1	37.0	51.9
Stomach	C16	11	0.9	0.0	18.2	81.8
Colon, rectum, anus	C18-21	77	6.0	0.0	26.0	74.0
Liver	C22	47	3.6	4.3	48.9	46.8
Pancreas	C25	8	0.6	12.5	25.0	62.5
Larynx	C32	7	0.5	0.0	0.0	100.0
Trachea, bronchus, lung	C33-34	23	1.8	0.0	60.9	39.1
Melanoma of skin	C43	11	0.9	0.0	0.0	100.0
Breast	C50	168	13.0	0.0	3.6	96.4
Cervix	C53	427	33.0	0.0	5.2	94.8
Corpus & uterus NOS	C54-55	24	1.9	0.0	8.3	91.7
Ovary & adnexa	C56	25	1.9	0.0	0.0	100.0
Prostate	C61	210	16.2	0.0	4.3	95.7
Kidney & urinary NOS	C64-66,68	14	1.1	0.0	0.0	100.0
Bladder	C67	25	1.9	4.0	16.0	80.0
Brain & central nervous system	C70-72	9	0.7	0.0	44.4	55.6
Thyroid	C73	20	1.5	0.0	0.0	100.0
Lymphoma	C81-85,90,88,96	68	5.3	1.5	4.4	94.1
Leukaemia	C91-95	52	4.0	0.0	1.9	98.1
All sites	All	1,294	100.0	0.6	9.4	90.0

Source: **CanReg5**

3.4.6 Childhood cancer (0–14 years) in Mbeya, 2019–2023

Table 11 shows that the most common sites of childhood cancer in the Mbeya PBCR were leukemia (24.4%), lymphomas (11.1%), and soft tissue sarcomas (11.1%).

Table 11: Incidence of Childhood Cancer (0–14 years) per Million in Mbeya, 2019–2023

ICCC3		Number of Cases						Rates per Million				
		0-4	5-9	10-14	All	M/F	% total	0-4	5-9	10-14	crude	ASR
	All	15	10	20	45	1.2	100.0	16.2	13.3	30.6	19.3	19.4
I	Leukaemias	6	2	3	11	1.2	24.4	6.5	2.7	4.6	4.7	4.7
II	Lymphomas	2	0	3	5	0.7	11.1	2.2	0.0	4.6	2.1	2.2
III	CNS neoplasms	1	1	1	3	2.0	6.7	1.1	1.3	1.5	1.3	1.3
IV	Neuroblastoma	0	1	0	1	0.0	2.2	0.0	1.3	0.0	0.4	0.4
V	Retinoblastoma	2	1	0	3	0.0	6.7	2.2	1.3	0.0	1.3	1.3
VI	Renal tumors	2	2	0	4	1.0	8.9	2.2	2.7	0.0	1.7	1.7
VIII	Malignant bone tumors	0	1	4	5	1.5	11.1	0.0	1.3	6.1	2.1	2.2
IX	Soft tissue sarcomas	1	0	4	5	4.0	11.1	1.1	0.0	6.1	2.1	2.2
X	Germ cell tumors	1	0	1	2	1.0	4.4	1.1	0.0	1.5	0.9	0.9
XI–XII	Other	0	2	4	6	0.5	13.3	0.0	2.7	6.1	2.6	2.6

Source: **CanReg5**

3.5. Dodoma Population-Based Cancer Registry

The Dodoma Cancer Registry was established in May 2018, with support from Vital Strategies via Bloomberg Data for Health Initiative. The Dodoma Population-Based Cancer Registry is situated in Benjamini Mkapa Zonal Referral Hospital and managed by a Director and Cancer Registrar. The Dodoma Cancer Registry covers the population of all Dodoma Urban; the average annual population was 633,181 (309,634 males and 323,546 females). **Figures 36** and **37** present the catchment area population distribution of the Dodoma Population-Based Cancer Registry by age and sex. The population distribution in the catchment area mirrors the national population pattern, with a majority being children and young adults.

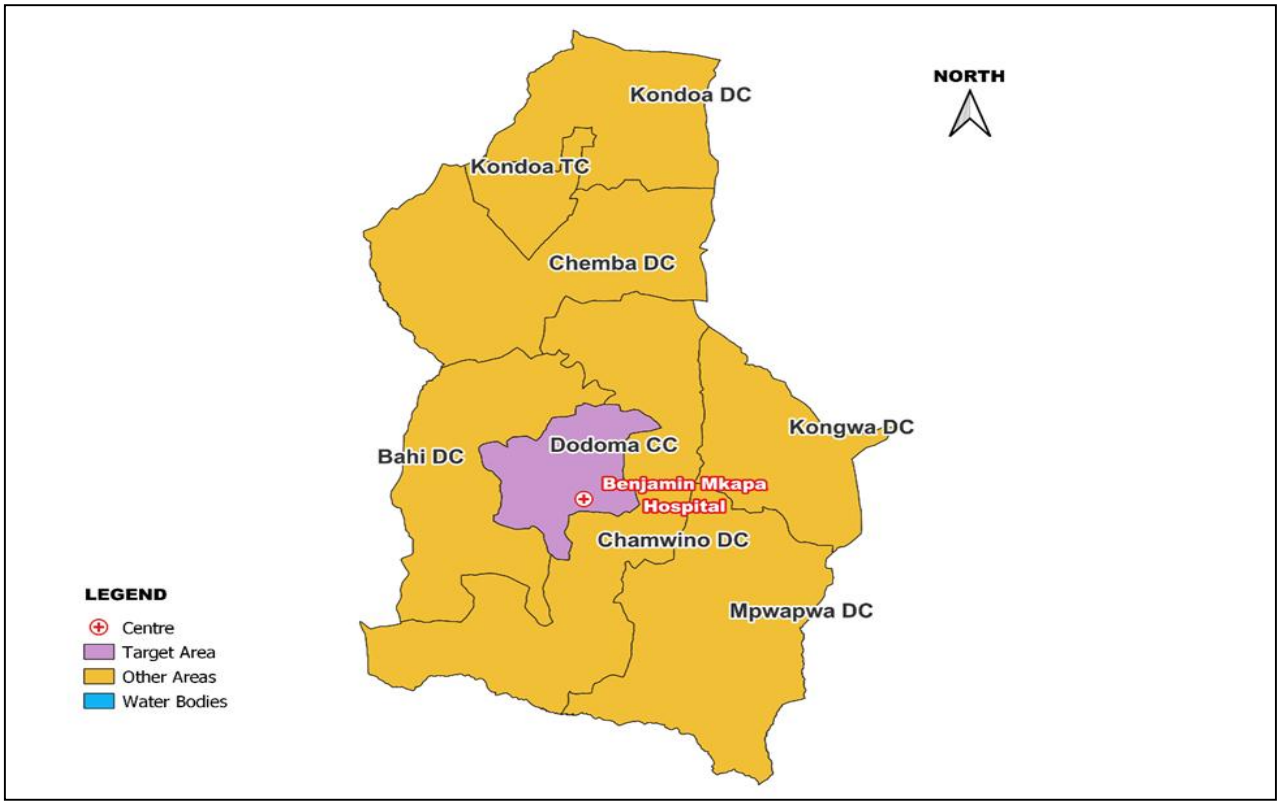


Figure 36: A Map Showing the Catchment Area of Dodoma Population-Based Cancer Registry

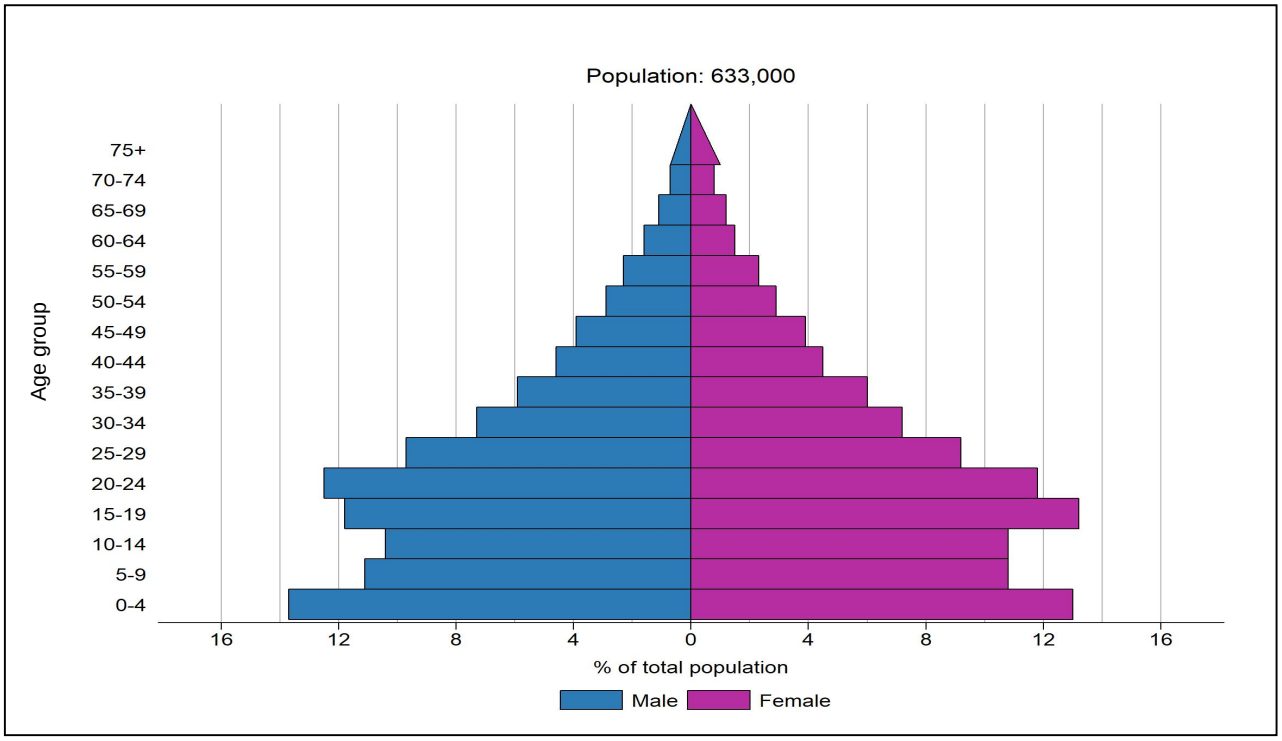


Figure 37: Dodoma Population-Based Cancer Registry Catchment Area Population Distribution

3.5.1 Number of cancer cases in Dodoma PBCR

From 2019 to 2023, the Dodoma Cancer Registry recorded a total of 2,999 cancer cases. **Figure 38** shows a slight decreasing trend from 545 cases in the year 2019 to 504 cases in 2020. However, this trend shifted from 637 cases in 2021, raising up to 661 cases in the year 2023. Overall, the data reveals an increasing trend in the number of cancer cases reported by Dodoma PBCR.

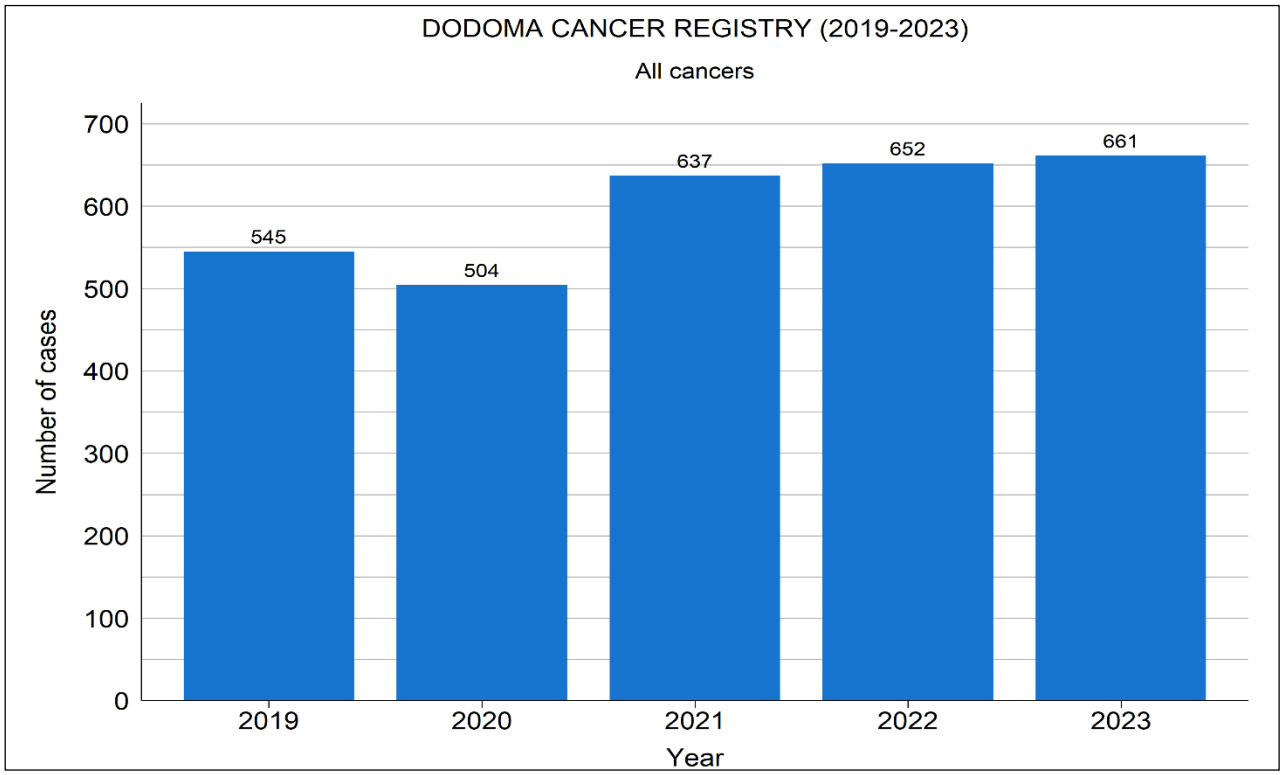


Figure 38: Total Number of Cases in Dodoma PBCR, 2019–2023

3.5.2 Number of Registered Cancer Cases by Age and Sex in Dodoma, 2019–2023

The data in Figure 39 illustrates the distribution of cancer cases by age group and sex, revealing that most age groups had a higher number of registered female cases compared to males. Notably, females tend to develop cancer at a younger age, starting from age 30. During this period, the number of registered cases among females aged 30–49 was more than three times that of males in the same age group.

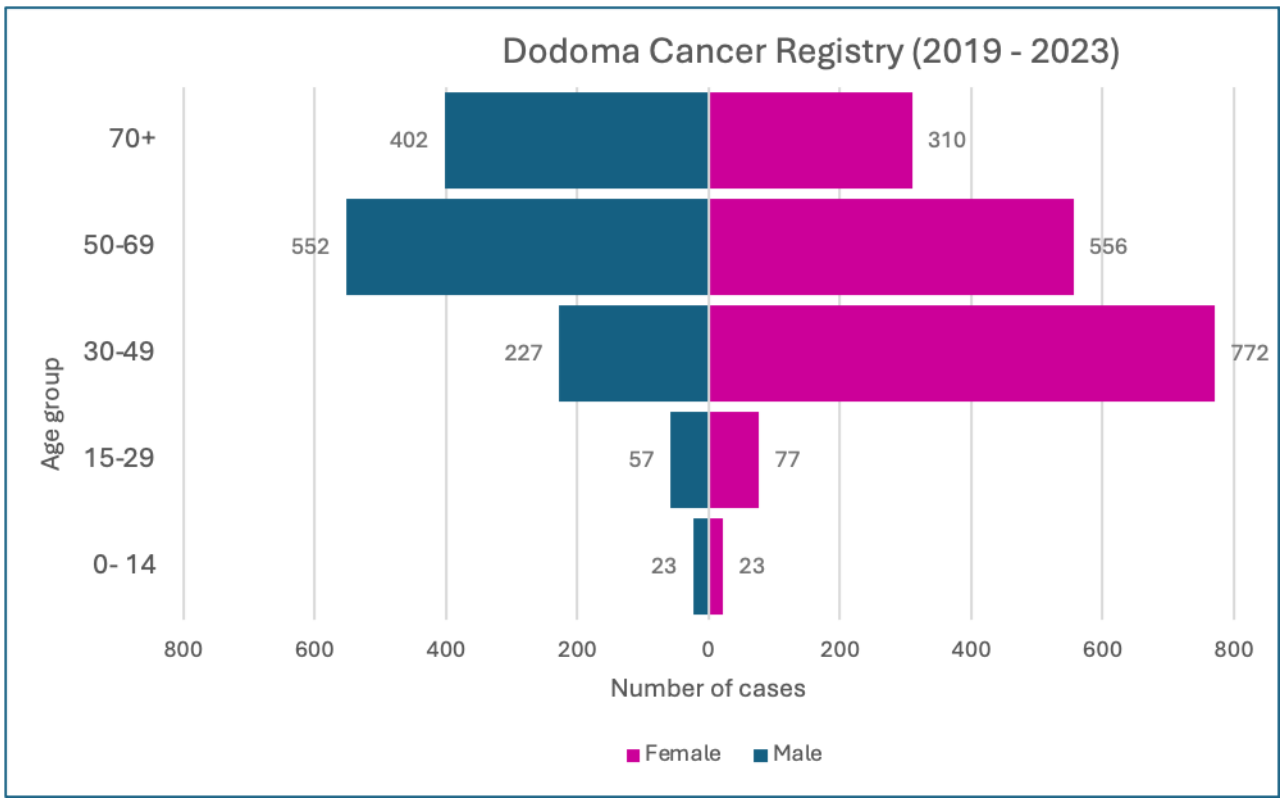


Figure 39: Number of Registered Cancer Cases by Age and Sex in Dodoma PBCR, 2019–2023

3.5.3 Most common cases registered by age and sex in Dodoma, 2019–2023

The most frequently occurring cancers in the Dodoma Cancer Registry in the duration of five years in females were cervix (the most diagnosed malignancy, with 699 cases), followed by breast (254 cases). The most diagnosed malignancy in men was prostate, with 331 cases, followed by oesophagus (242 cases); and colon, rectum, and anus (99 cases), as shown in **Figure 40**.

Rank	Cancer Site	Male	Cancer Site	Female
1	Prostate	331	Cervix	699
2	Oesophagus	242	Breast	254
3	Colon, rectum, anus	99	Oesophagus	100
4	Stomach	97	Colon, rectum, anus	94
5	Liver	77	Stomach	81
6	Mouth & pharynx	64	Bladder	56
7	Bladder	57	Liver	54
8	Lymphoma	34	Ovary	44
9	Kaposi sarcoma	27	Mouth & pharynx	40
10	Bone	23	Corpus uteri	39

Figure 40: Top 10 Cancer Cases by Age and Sex at the Dodoma PBCR, 2019–2023

3.5.4 Age-specific incidence for both sexes at Dodoma PBCR

Figures 41, **42**, and **43** shows the age-specific incidence of cervical, oesophageal, and prostate cancer in Dodoma PBCR. The highest incidence of these cancers is observed between the ages of 60 and 64, except prostate cancer, which peaks at age 75+.

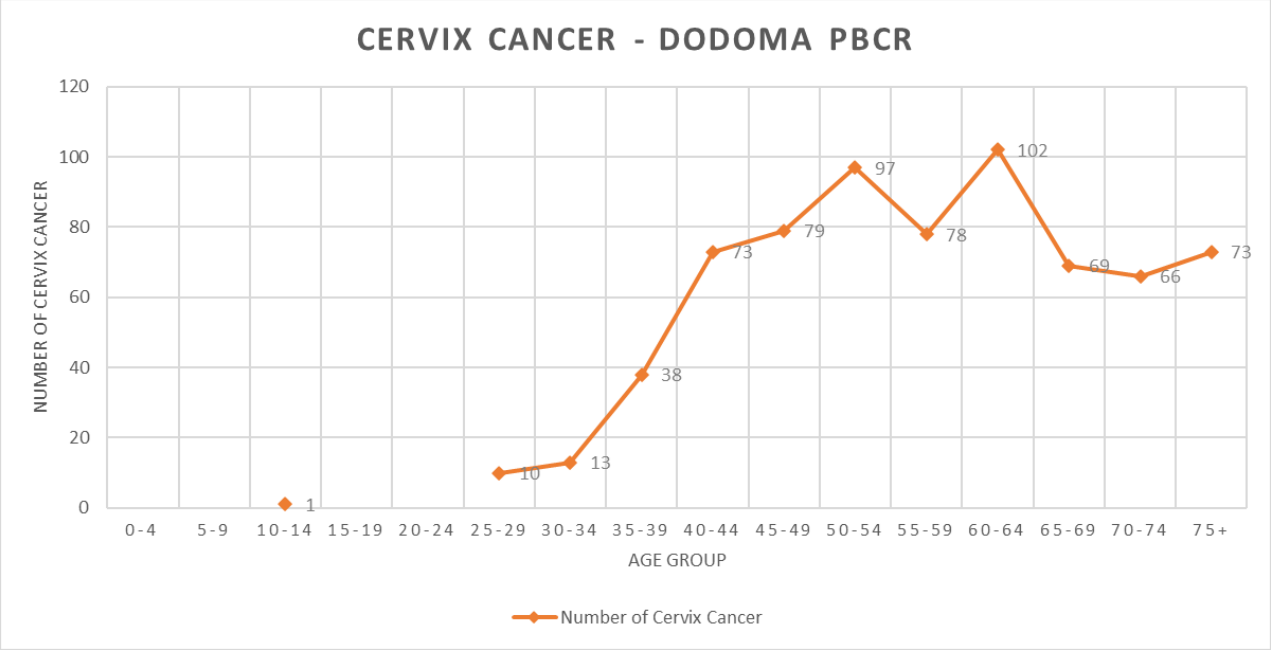


Figure 41: Age-Specific Incidence of Cervical Cancer among Women – Dodoma PBCR

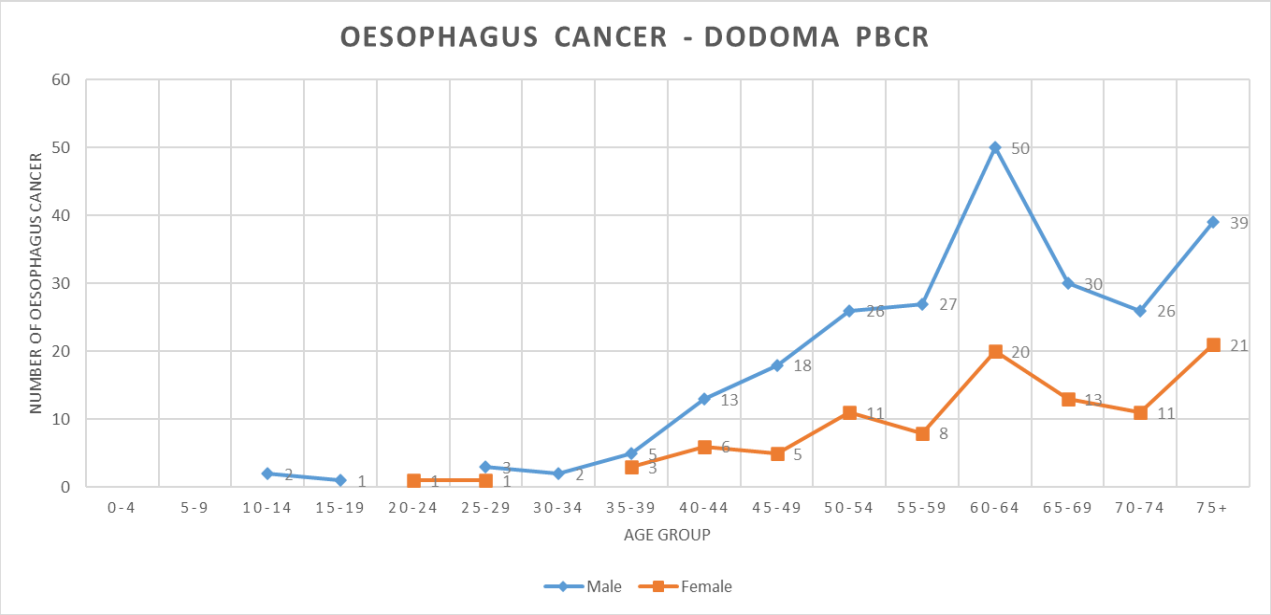


Figure 42: Age-Specific Incidence of Oesophageal Cancer among Women and Men – Dodoma PBCR

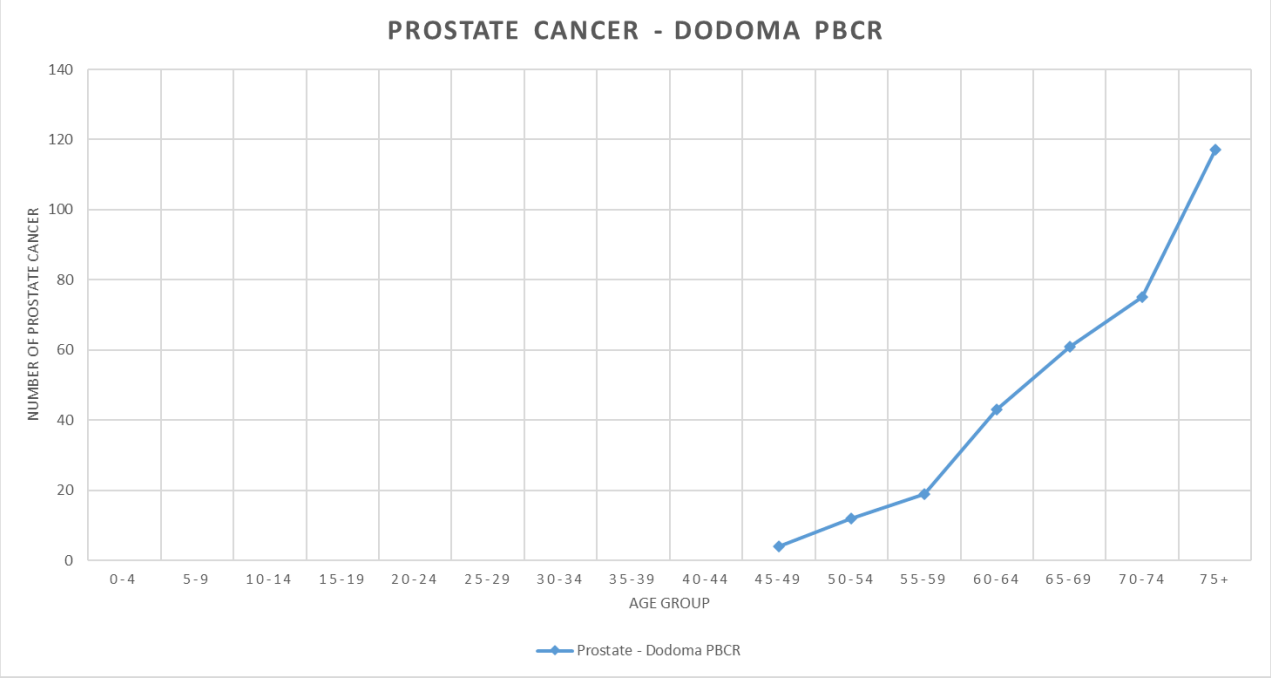


Figure 43: Age-Specific Incidence of Prostate Cancer among Men – Dodoma PBCR

3.5.5 Basis of Diagnosis by Site in Dodoma 2019–2023

Table 12 shows that no cases were registered based on information from a death certificate only (DCO), while for 91.9%, the basis of diagnosis was morphological verification (MV)—

that is, based on cytology or histology (of the primary tumor, or a metastasis), and 8.1% were based on clinical diagnosis.

Table 12: Basis of Diagnosis (DCO / Clinical / MV) by Site in Dodoma, 2019–2023

Cancer site	ICD-10			Basis of diagnosis		
		No. cases	% total	% DCO	% Clinical	% M. V
Mouth & pharynx	C00-14	103	3.8	0.0	1.9	98.1
Esophagus	C15	342	12.8	0.0	8.2	91.8
Stomach	C16	177	6.6	0.0	2.8	97.2
Colon, rectum, anus	C18-21	193	7.2	0.0	5.2	94.8
Liver	C22	130	4.9	0.0	25.4	74.6
Pancreas	C25	25	0.9	0.0	28.0	72.0
Larynx	C32	14	0.5	0.0	0.0	100.0
Lung, trachea, bronchus	C33-34	24	0.9	0.0	37.5	62.5
Melanoma of skin	C43	21	0.8	0.0	0.0	100.0
Breast	C50	281	10.5	0.0	8.2	91.8
Cervix	C53	699	26.1	0.0	3.4	96.6
Corpus & Uterus NOS	C54-55	39	1.5	0.0	7.7	92.3
Ovary & adnexa	C56	44	1.6	0.0	6.8	93.2
Prostate	C61	331	12.4	0.0	13.0	87.0
Testis	C62	7	0.3	0.0	0.0	100.0
Kidney & urinary NOS	C64-66,68	26	1.0	0.0	7.7	92.3
Bladder	C67	113	4.2	0.0	18.6	81.4
Brain & nervous system	C70-72	10	0.4	0.0	20.0	80.0
Thyroid	C73	14	0.5	0.0	7.1	92.9
Lymphoma	C81-85,90,88,96	68	2.5	0.0	0.0	100.0
Leukemia	C91-95	17	0.6	0.0	0.0	100.0
All sites	All	2678	100.0	0.0	8.1	91.9

Source: **CanReg5**

3.5.6 Childhood cancer (0–14 years) in Dodoma, 2019–2023

Table 13 shows a total of 47 childhood cancers (0−14) that were registered from 2019 to 2023. In this period, malignant tumors of the bone were the most frequently diagnosed, with nine cases, followed by renal tumors, with seven cases.

Table 13: Incidence of Childhood Cancer (0–14 Years) per Million in Dodoma, 2019–2023

ICCC3		Number of Cases						Rates per Million				
		0-4	5-9	10-14	All	M/F	% total	0-4	5-9	10-14	crude	ASR
	All	14	11	22	47	1.0	100.0	33.2	31.8	65.4	42.6	42.1
I	Leukemias	0	1	0	1	0.0	2.1	0.0	2.9	0.0	0.9	0.9
II	Lymphomas	1	0	2	3	2.0	6.4	2.4	0.0	5.9	2.7	2.6
III	CNS neoplasms	2	1	0	3	0.0	6.4	4.7	2.9	0.0	2.7	2.8
IX	Soft tissue sarcomas	0	1	3	4	1.0	8.5	0.0	2.9	8.9	3.6	3.5
V	Retinoblastoma	3	0	0	3	2.0	6.4	7.1	0.0	0.0	2.7	2.8
VI	Renal tumors	5	1	1	7	6.0	14.9	11.8	2.9	3.0	6.3	6.4
VIII	Malignant bone tumors	0	5	4	9	0.8	19.1	0.0	14.5	11.9	8.2	8.1
X	Germ cell tumors	0	0	6	6	0.2	12.8	0.0	0.0	17.8	5.4	5.2
XI–XII	Other	3	2	6	11	1.8	23.4	7.1	5.8	17.8	10.0	9.8

Source: **CanReg5**

CHAPTER 4: RESULTS OF NATIONAL ESTIMATES

4.1. Consolidated number of cancer cases registered from 2019 to 2023

Figure 44 below presents the consolidated number of all types of registered cancers from the five cancer registries in Mainland Tanzania from 2019 to 2023. The numbers of cases have increased over the past five years, with the highest numbers in 2022 (3,525) and 2023 (3,448).

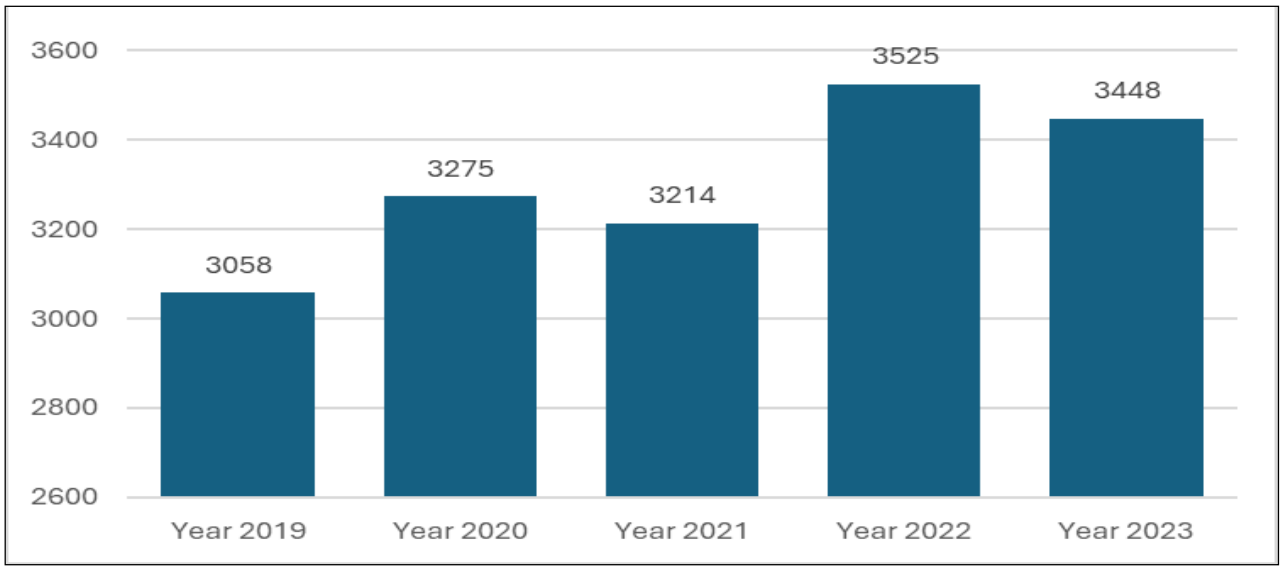


Figure 44: Consolidated Number of All Sites of Cancer Cases Registered by Year, 2019–2023

4.2. Number of Registered Cancer Cases by Age-Sex Distribution

Figure 45 below shows the age- and sex-specific number of cancer cases from 2019 to 2023 in Tanzania Mainland. Among the 16,516 cancers recorded, 7,586 (46%) were in males, whereas 8,930 (54%) were in females. More cancers were concentrated in individuals aged 50 and 69 in both males and females. However, the figure shows that women develop cancer early, starting at age 30, compared to the majority of men getting cancer starting at the age of 50. On the other hand, the lowest numbers were observed in those under 15 years of age for both sexes.

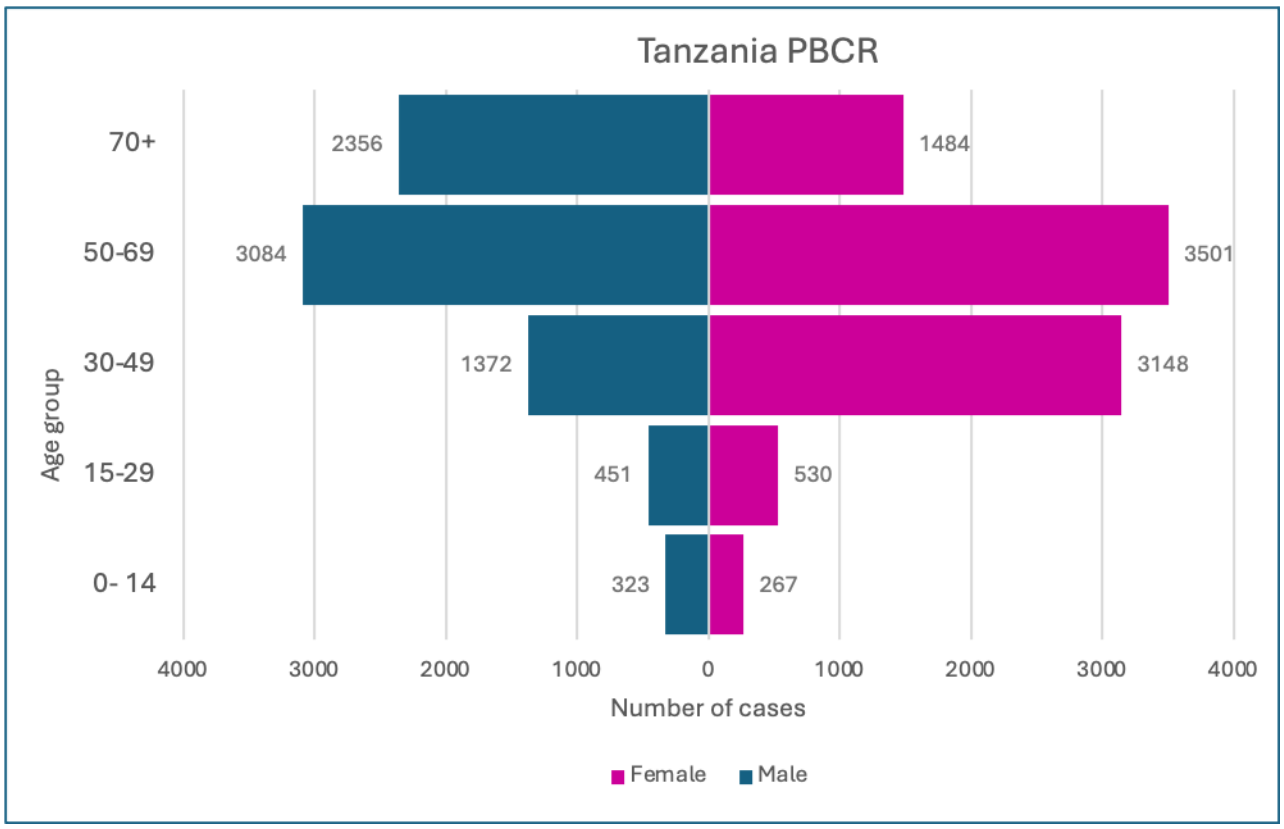


Figure 45: Number of Registered Cancer Cases by Age-Sex Distribution

4.3. Top 10 cancer sites

As indicated in **Figure 46**, among males and females, approximately 75% of cases were attributed to 10 cancer types. The analysis revealed that cervical, prostate, and oesophageal cancers consistently held the top positions over the past five years, accounting for the highest number of cases each year. Specifically, the highest number of cervical cancer cases were recorded in 2020, while the highest numbers for prostate and oesophageal cancer were noted in 2019.

Cancer Sites	2019	2020	2021	2022	2023	Overall
Cervix	501	550	479	472	476	2478
Prostate	384	363	354	403	348	1852
Oesophagus	364	357	335	344	352	1752
Breast	306	318	355	404	296	1679
Colon, rectum, anus	135	168	222	294	312	1131
Mouth & pharynx	104	145	152	187	182	770
Liver	83	106	146	224	207	766
Lymphoma	111	118	124	132	140	625
Stomach	92	95	96	122	144	549
Bladder	49	48	36	51	42	226

Figure 46: Top 10 Cancer Sites in All Registries As Recorded from 2019 to 2023

4.4. Top 10 cancer sites for females from 2019 to 2023

As indicated by **Figure 47** below, cervical cancer, breast cancer; and cancers of the colon, rectum, and anus peaked at the top in the past five years.

Cancer Sites	2019	2020	2021	2022	2023	Overall
Cervix	501	550	479	472	476	2478
Breast	306	318	355	303	296	1578
Colon, rectum, anus	71	80	104	166	160	581
Oesophagus	87	107	101	91	69	455
Mouth & pharynx	39	59	63	71	77	309
Stomach	50	50	56	66	83	305
Lymphoma	50	51	54	58	60	273
Liver	30	33	57	53	71	244
Ovary & adnexa	37	40	43	45	47	212
Corpus & uterus NOS	28	35	30	36	39	168

Figure 47: Top 10 Cancer Sites for Females As Recorded from 2019 to 2023

4.5. Top 10 cancer sites for males from 2019 to 2023

As indicated by **Figure 48** below, prostate cancer, oesophageal cancer; and cancers of the colon, rectum, and anus were among the most frequent in the past five years. However, larger numbers (greater than 100) were recorded for liver cancer in 2022 and 2023, mouth and pharyngeal cancer in 2022, as well as stomach cancer in 2020 and 2021.

Cancer Sites	2019	2020	2021	2022	2023	Overall
Prostate	384	363	354	403	348	1852
Esophagus	286	259	243	250	252	1290
Colon, rectum, anus	64	88	118	128	152	550
Liver	53	73	89	171	136	522
Mouth & pharynx	65	86	89	116	105	461
Lymphoma	61	67	70	74	80	352
Stomach	42	45	40	56	61	244
Bladder	49	48	36	51	42	226
Kaposi sarcoma	60	41	40	39	28	208
Trachea, bronchus, lung	18	23	18	46	48	153

Figure 48: Top 10 Cancer Sites for Males As Recorded from 2019 to 2023

4.6. Top 10 childhood cancer sites from 2019 to 2023

As indicated in **Figure 49** below, lymphoma & reticuloendothelial neoplasms, retinoblastoma, renal tumors, and leukemia were among the top 10 childhood cancers between 2019 and 2023. Over the five-year period, lymphoma and retinoblastoma each accounted for 93 cases, renal tumors for 85 cases, and leukemia for 83 cases. Less frequently diagnosed but notable cancers included mouth and pharynx neoplasms (42 cases), CNS and miscellaneous intracranial/intraspinal neoplasms (26 cases), malignant bone tumors (24 cases), neuroblastoma (6 cases), and other malignant epithelial neoplasms (3 cases). Although annual case numbers fluctuated, retinoblastoma had the highest incidence in 2019 with 30 cases, followed by leukemia (22 cases) and lymphoma (20 cases), while renal tumors reported 14 cases in the same year. Other cancers showed smaller variations across years, reflecting their lower frequency and variability in diagnosis.

Cancer site	2019	2020	2021	2022	2023	Overall
Lymphoma & reticuloendothelial neoplasm	20	16	26	16	15	93
Retinoblastoma	30	22	23	11	7	93
Renal tumors	14	22	21	14	14	85
Leukemia, myeloproliferative & myelodyspalastic diseases	22	13	16	21	11	83
Mouth and pharynx neoplasms	3	3	7	16	13	42
CNS & miscellaneous intracranial/intraspinal neoplasms	4	4	6	7	5	26
Malignant of Bones, Joins and Articular Cartilage of Limbs	3	7	4	7	3	24
Malignant of Bones and Joints	0	3	2	0	4	9
Neuroblastoma & other peripheral nervous cell tumors	0	0	1	1	4	6
Other malignant epithelial neoplasms	0	0	0	0	3	3

Figure 49: Top 10 Leading Childhood Cancer Sites As Recorded from 2019 to 2023

4.7. Age-specific incidence for both sexes at Tanzania PBCR

Figures 50, **51**, and **52** show the age-specific incidence of cervical, prostate, and oesophageal cancers as the leading diagnosed cancers in Tanzania PBCRs. The highest incidence of these cancers is observed between the ages of 60 and 64, except prostate, which peaks at age 75+.

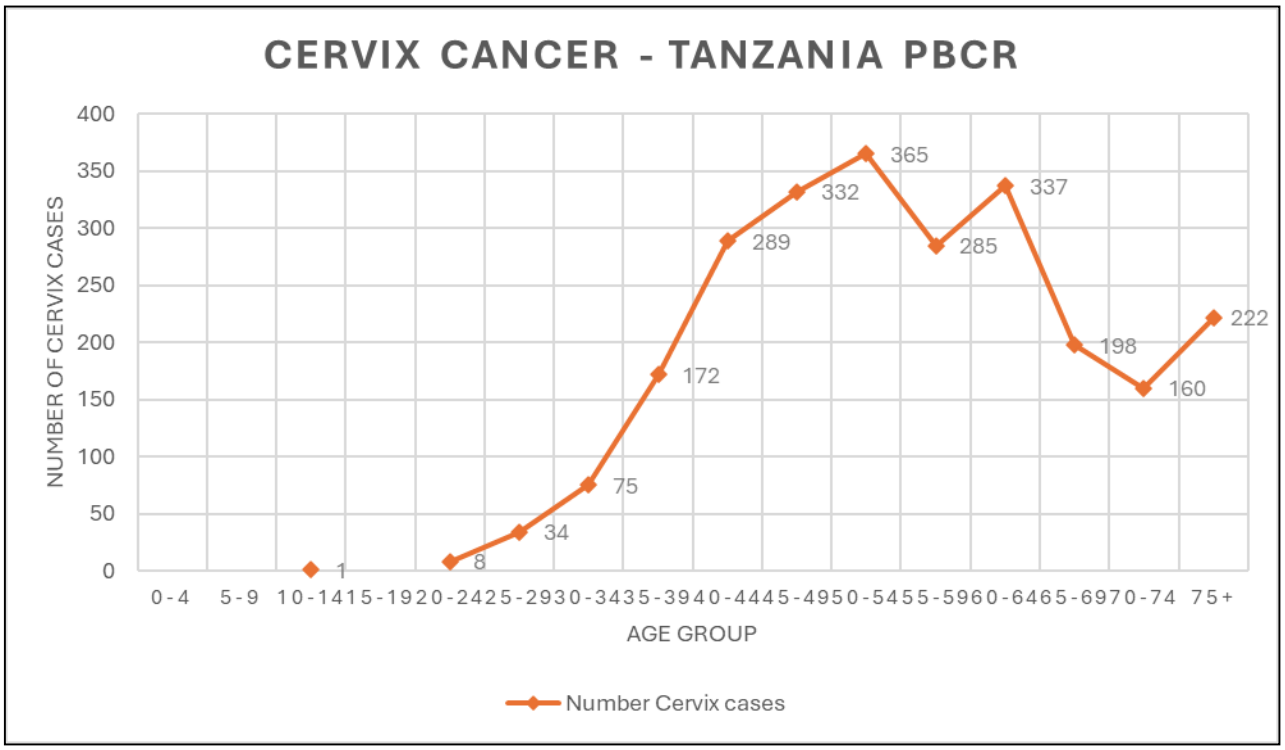


Figure 50: Age-Specific Incidence of Cervical Cancer among Women – Tanzania PBCR

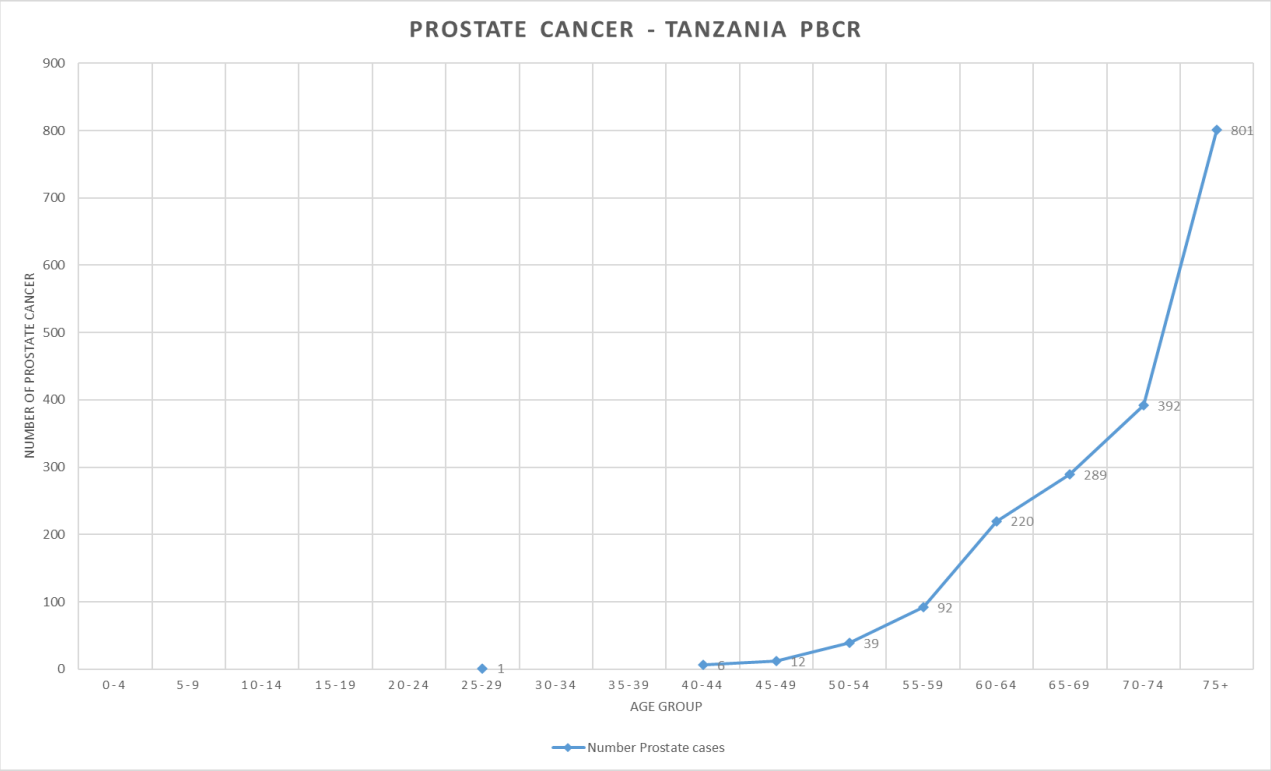


Figure 51: Age-Specific Incidence of Prostate Cancer among Men – Tanzania PBCR

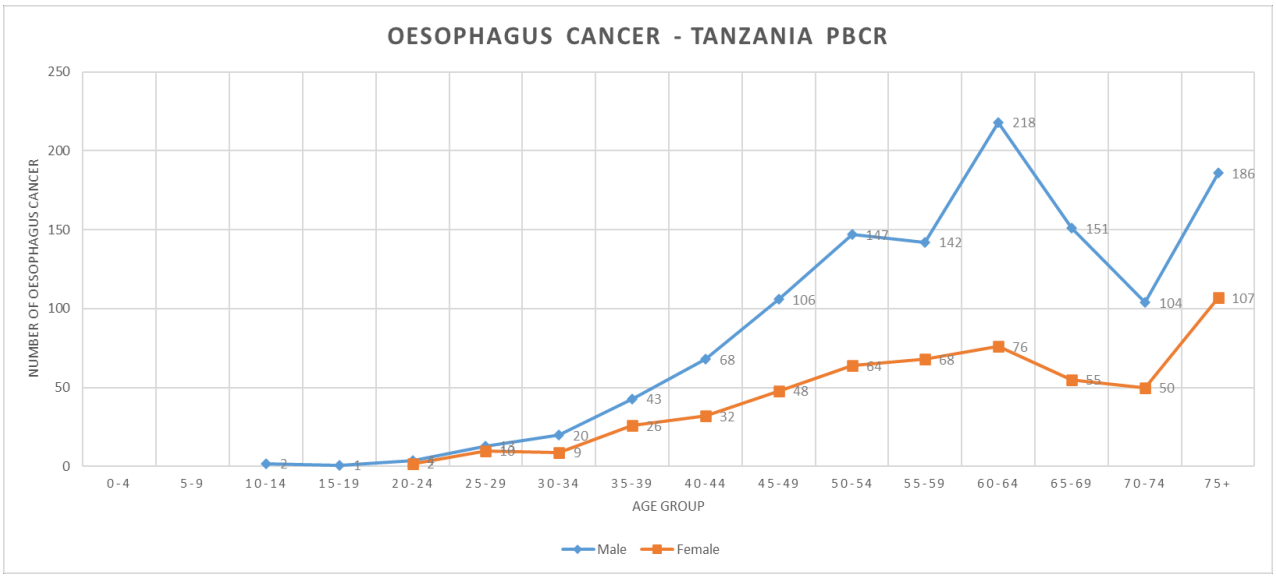


Figure 52: Age-Specific Incidence of Oesophageal Cancer among Women and Men – Tanzania PBCR

4.8. Age-standardized incidence rate for all sites, 2019–2023

Table 14 provides a summary of the sex-specific, age-standardized incidence rates per 100,000 people for data collected from 2019 to 2023. The data indicate that Dodoma CR

has the highest age-standardized incidence rates for both males (175.5) and females (195.1) compared to other registries. For males, Kilimanjaro CR follows Dodoma CR, with an incidence rate of 103.1, while Mwanza CR ranks third, with a rate of 99.6. For females, Mwanza CR is the second highest, with an incidence rate of 99.5; and Dar es Salaam CR is third, with an identical rate of 99.5.

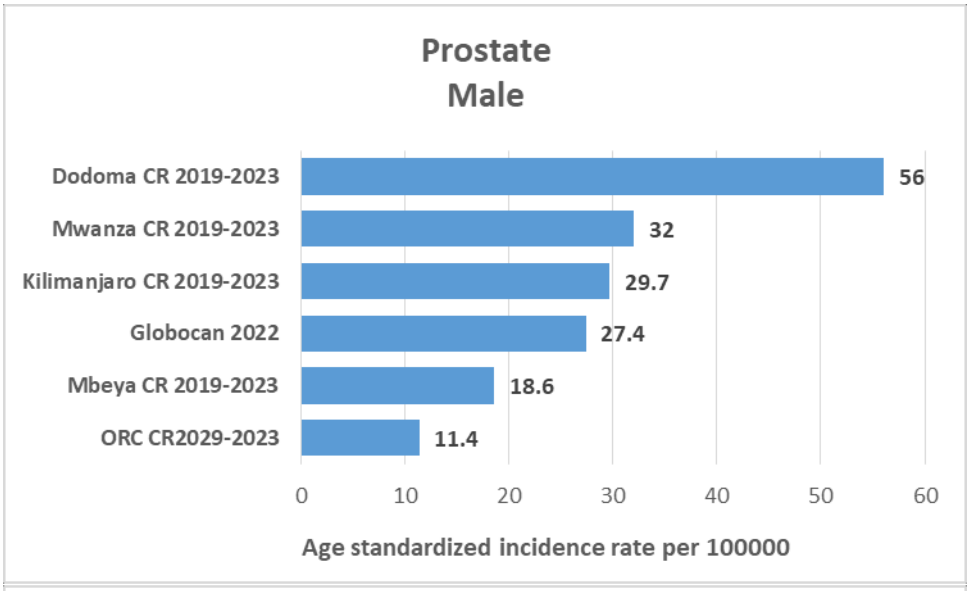
Table 14: Age-Standardized Incidence Rate for All Sites by Sex at All Registries, 2019–2023

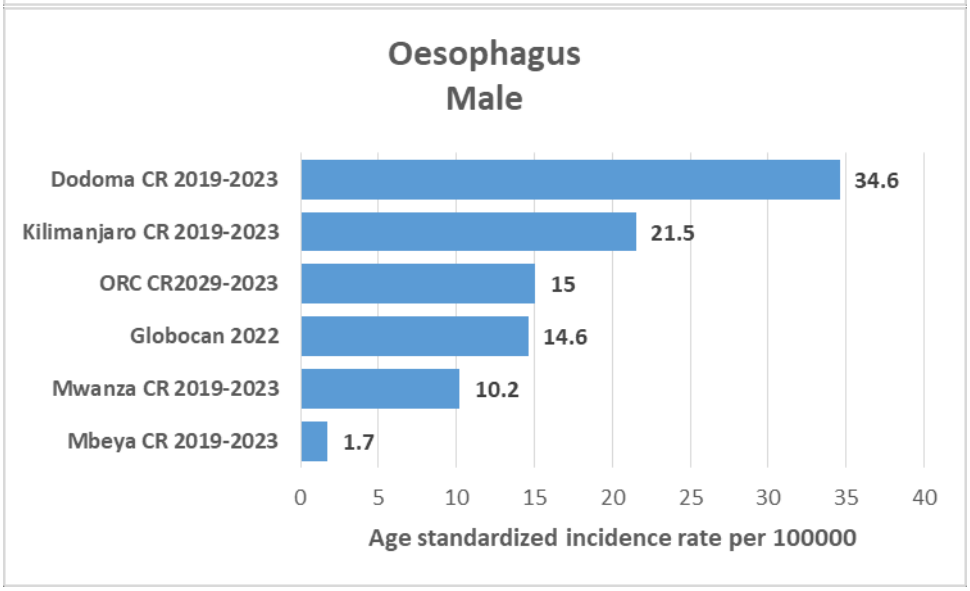
	MALE			FEMALE		
Rank	**Registry**	**Cases**	**ASR**	**Registry**	**Cases**	**ASR**
1	Dodoma CR	1262	175.4	Dodoma CR	1737	195.3
2	Kilimanjaro CR	3222	107.9	Mwanza CR	1220	100.4
3	Mwanza CR	1000	99.7	Dar es Salaam CR	2014	88.2
4	Dar es Salaam CR	1507	73.9	Kilimanjaro CR	2939	86.6
5	Mbeya CR	596	43.2	Mbeya CR	1020	58.8

Source: **CanReg5**

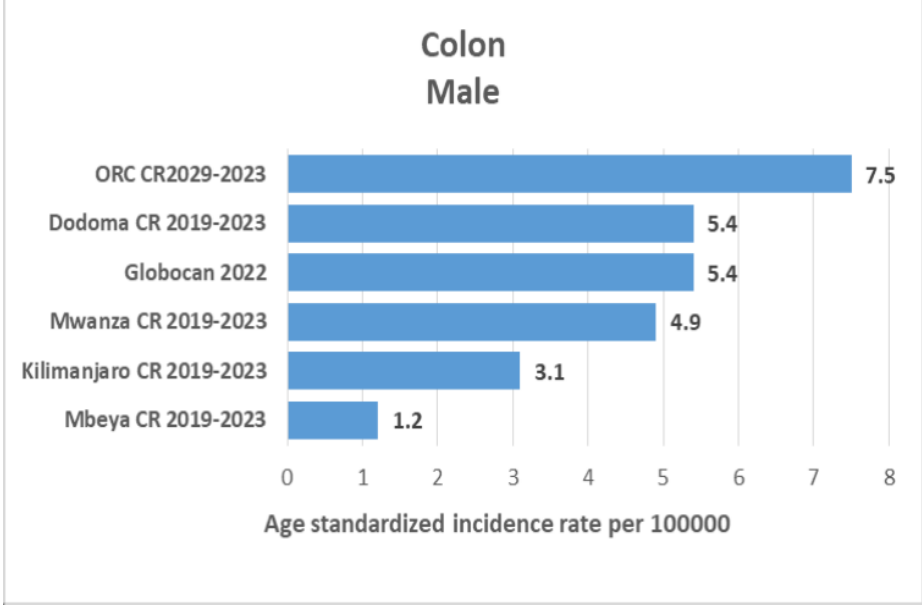
4.9. Age-standardized incidence rate for specific sites, 2019–2023

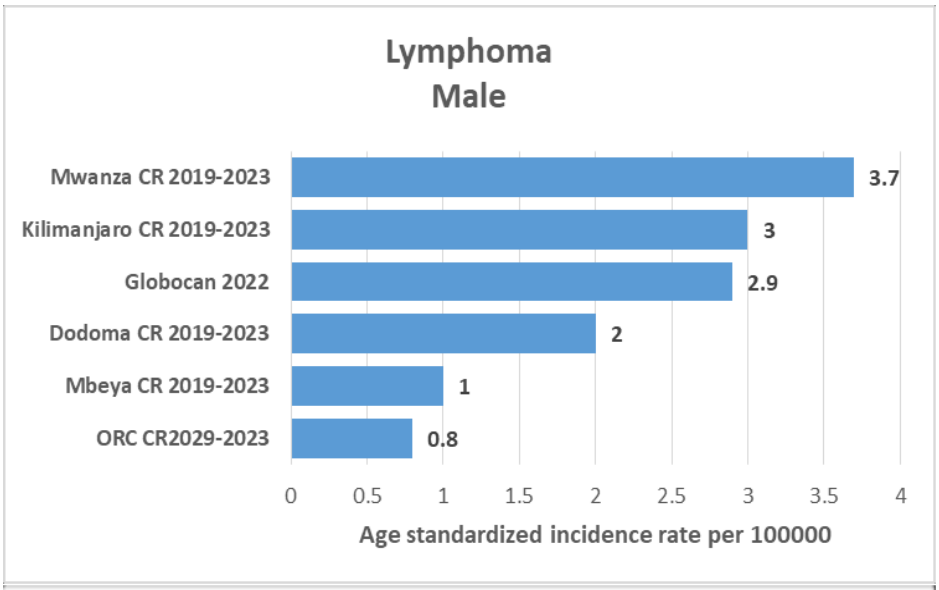
Compared to other registries, Dodoma has the highest incidence rates for many cancer sites. As illustrated in **Figure 53**, Dodoma ranks highest in cancer incidence rates per 100,000 for cervical cancer (82.6), prostate cancer (56), oesophageal cancer (34.6 for males and 12.9 for females), breast cancer (27.7), and liver cancer (9.1). In contrast, the Mbeya Cancer Registry shows a lower cancer burden, with its Age-Standardized Rates (ASRs) being comparatively lower for most cancer sites. Specifically, the ASR for oesophageal cancer is 1.7 for males and 0.6 for females, Female breast cancer is 9.4, liver cancer is 1.9, and colon cancer is 1.1.

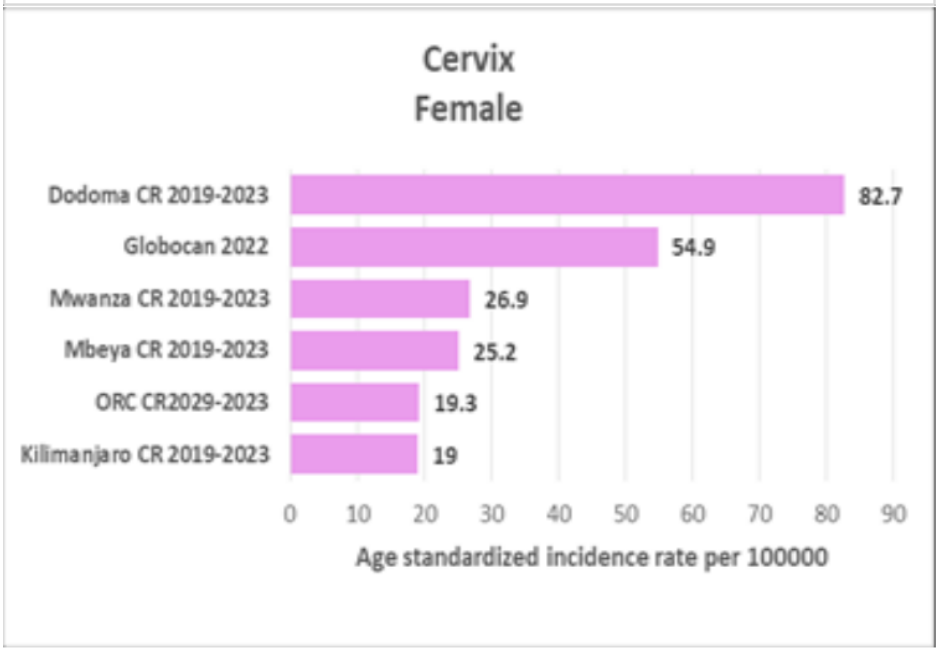


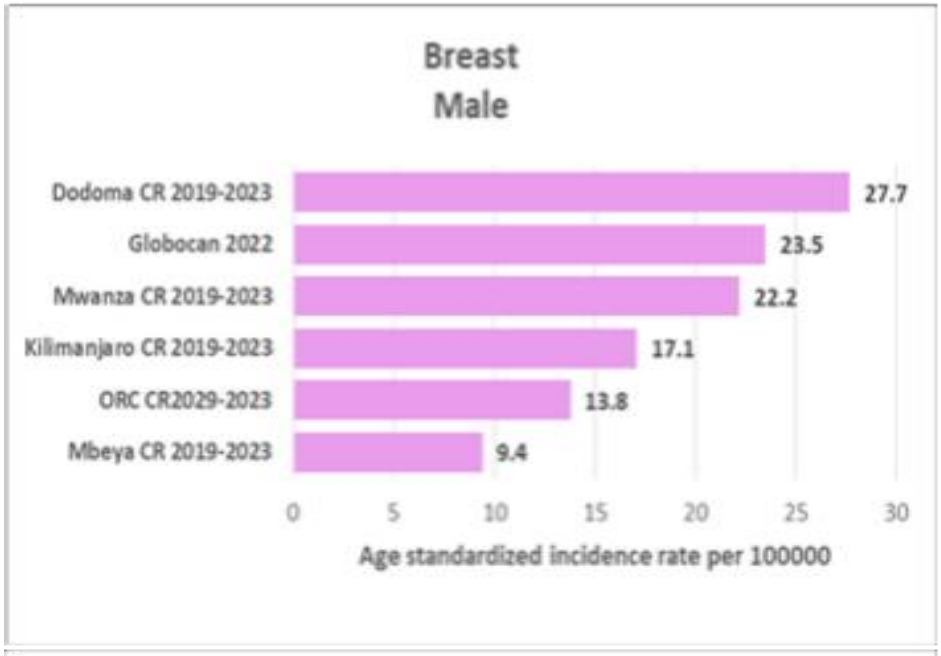


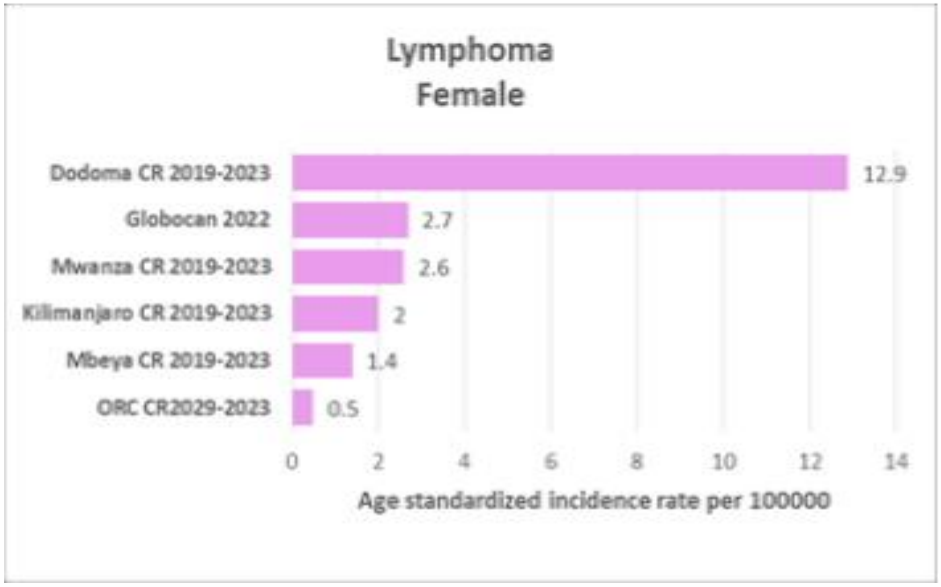

Liver
Female
Dodoma CR 2019-2023
Mwanza CR 2019-2023
ORC CR2029-2023
Kilimanjaro CR 2019-2023
Globocan 2022
Mbeya CR 2019-2023
9.1
6.6
6.5
4.2
3.6
1.9
0
2
4
6
8
10
Age standardized incidence rate per 100000


Colon
Male
ORC CR2029-2023
Dodoma CR 2019-2023
Globocan 2022
Mwanza CR 2019-2023
Kilimanjaro CR 2019-2023
Mbeya CR 2019-2023
7.5
5.4
5.4
4.9
3.1
1.2
0
1
2
3
4
5
6
7
8
Age standardized incidence rate per 100000


Lymphoma
Male
Mwanza CR 2019-2023
Kilimanjaro CR 2019-2023
Globocan 2022
Dodoma CR 2019-2023
Mbeya CR 2019-2023
ORC CR2029-2023
3.7
3
2.9
2
1
0.8
0
0.5
1
1.5
2
2.5
3
3.5
4
Age standardized incidence rate per 100000


Cervix
Female
Dodoma CR 2019-2023
Globocan 2022
Mwanza CR 2019-2023
Mbeya CR 2019-2023
ORC CR2029-2023
Kilimanjaro CR 2019-2023
82.7
54.9
26.9
25.2
19.3
19
0
10
20
30
40
50
60
70
80
90
Age standardized incidence rate per 100000


Breast
Male
Dodoma CR 2019-2023
Globocan 2022
Mwanza CR 2019-2023
Kilimanjaro CR 2019-2023
ORC CR2029-2023
Mbeya CR 2019-2023
27.7
23.5
22.2
17.1
13.8
9.4
0
5
10
15
20
25
30
Age standardized incidence rate per 100000


Lymphoma
Female
Dodoma CR 2019-2023
Globocan 2022
Mwanza CR 2019-2023
Kilimanjaro CR 2019-2023
Mbeya CR 2019-2023
ORC CR2029-2023
12.9
2.7
2.6
2
1.4
0.5
0
2
4
6
8
10
12
14
Age standardized incidence rate per 100000

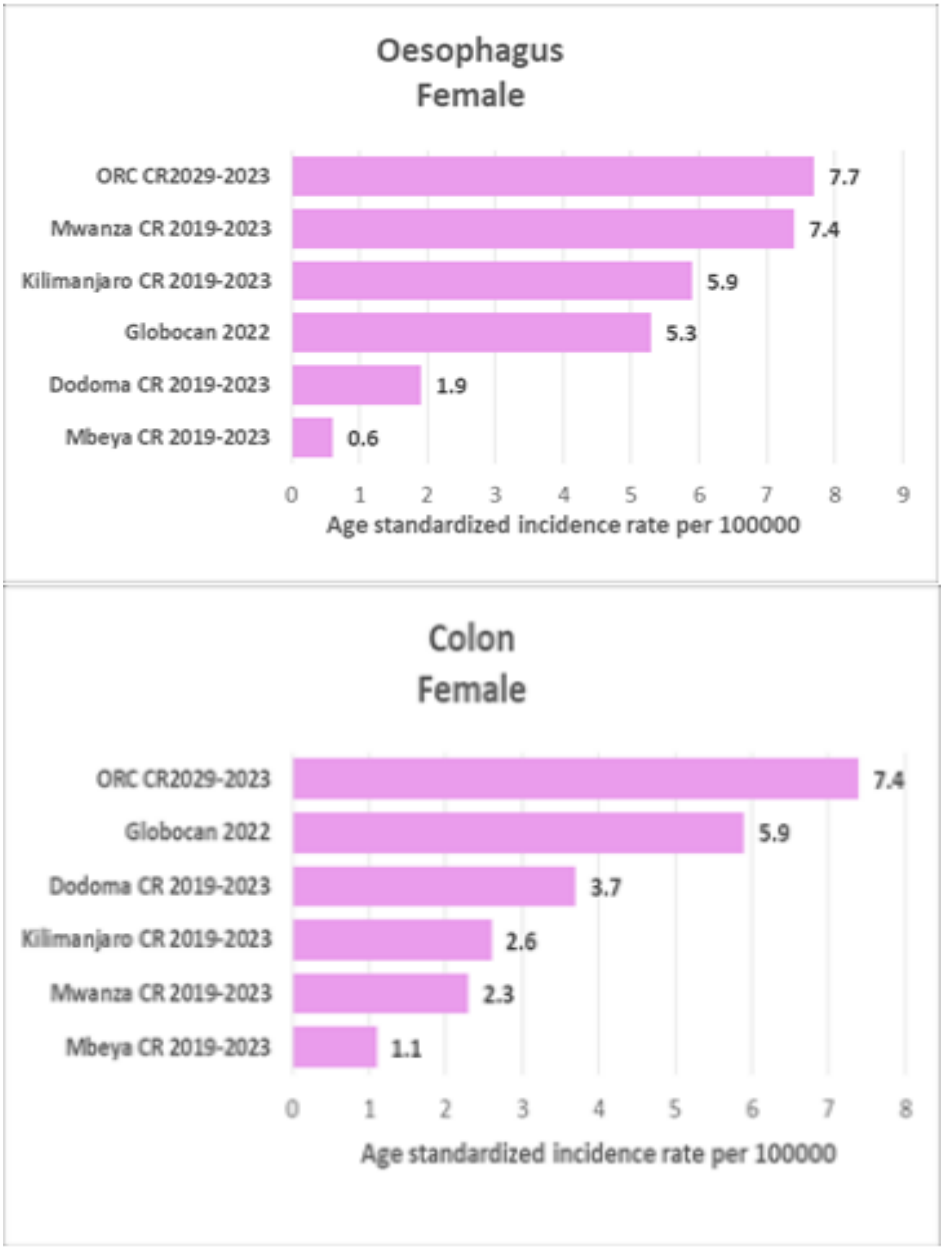


Figure 53: Age-Standardized Incidence Rate for Major Specific Sites of Cancer by All Registries

4.10. Stage of disease at diagnosis

Figure 54 displays the percentage of cancers according to stage at diagnosis in Tanzania from 2019 to 2023. Among cases with documented staging, approximately two-thirds (68%) were diagnosed at advanced stages, with Stage IV representing 36% and Stage III 32% of all staged cases. Early-stage diagnoses were less frequent, with Stage II accounting for

27% and Stage I only 5% of reported cases. Notably, 86% of all cases lacked documented staging, as shown in **Figure 55**, highlighting significant gaps in clinical documentation and data completeness or limited diagnostic facilities.

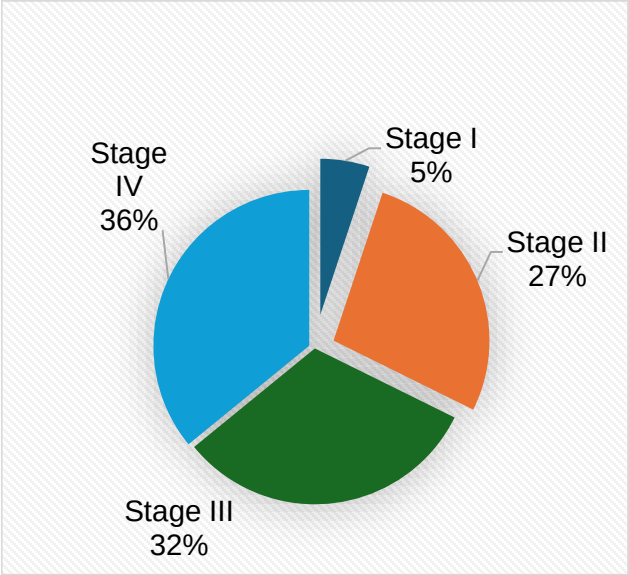


Figure 55: **Distribution of Cancer Cases by Stage at Diagnosis**

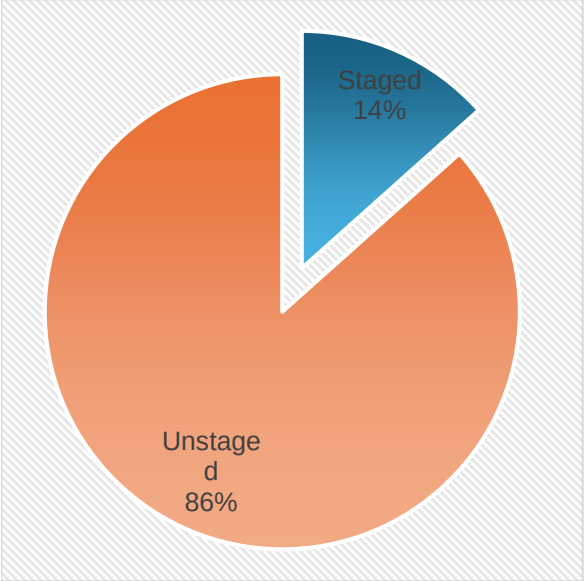


Figure 54: Proportion of unstaged cases

The below narratives define the meanings, characteristics, and prognoses of all these stages.

1. Stage I

- **Meaning:** The cancer is localized to the organ or site where it started. It is typically small and has not spread to nearby tissues or lymph nodes.
- **Characteristics:** Often considered an early stage of cancer.
- **Prognosis:** Generally, Stage I cancers have a good prognosis because they are usually easier to treat and may be curable.

2. Stage II

- **Meaning:** The cancer has grown larger or may have spread to nearby tissues but is still confined to the primary site and has not spread to distant parts of the body.
- **Characteristics:** There may be regional lymph node involvement, but it is limited.
- **Prognosis:** Treatment is more complex than Stage I, but many Stage II cancers are still potentially curable with appropriate treatment.

3. Stage III

- **Meaning:** The cancer is more advanced and has spread to nearby tissues and lymph nodes in the region but has not spread to distant organs.
- **Characteristics:** This stage may involve significant regional lymph node involvement, or the cancer may be larger and/or growing into nearby structures.
- **Prognosis:** Stage III cancers are more difficult to treat than Stage I and II, but they are still treatable, and the prognosis varies depending on the type and location of the cancer.

4. Stage IV

- **Meaning:** The cancer has spread to distant organs or parts of the body, making it metastatic. This is the most advanced stage.
- **Characteristics:** It may have spread to one or more distant sites, such as the liver, lungs, bones, or brain.
- **Prognosis:** Stage IV cancer is more challenging to treat, and while it can sometimes be managed for extended periods, it is generally considered not curable. Treatment is aimed at prolonging life and relieving symptoms.

5. Unstaged

- **Meaning:** This refers to cases where the cancer stage has not been determined due to insufficient information or when further testing is needed. It might also apply when the cancer is diagnosed at an advanced stage and the exact extent is difficult to assess.
- **Characteristics:** The cancer may be referred to as “unstaged” until more data is collected through imaging, biopsy, or surgery.

Since Registrars have received essential training on abstraction, it is assumed that in the upcoming years, the number of staged patients will increase.

CHAPTER 5: DISCUSSION

1. Regional Disparities in Cancer Incidence

Significant variations in cancer case numbers across regions highlight disparities in detection and reporting. Dodoma reported the highest incidence rates (male: 175.5, female: 195.1), while Mbeya had the lowest (male: 43.1, female: 58.6). These differences likely reflect variations in healthcare infrastructure, awareness, and registry efficiency, emphasizing the need for equitable resource allocation to improve data capture and cancer management.

2. Unstaged Cases Dominates

The high prevalence of unstaged diagnoses (over 80% across registries) highlights significant gaps in clinical documentation. As a result, registrars were unable to stage the cases effectively. This issue is also compounded by the registrars' limited training in essential Tumor, Node, Metastasis (TNM) staging.

3. Paediatric Cancer Incidence

Although paediatric cancers represented only 3%–5% of cases, their presence highlights a vulnerable population requiring attention. In Mwanza, paediatric cancers accounted for 4.7% of all cases, with leukemia and retinoblastoma being most common. Targeted programs focusing on early detection and specialized paediatric oncology services are essential for improving outcomes in this demographic.

4. Sex-Specific Cancer Trends

The data reveal clear gender-specific cancer trends, with prostate cancer (ASR: 29.9 per 100,000) being the most common in men, and cervical cancer (ASR: 18.8 per 100,000) leading in women. Breast cancer also showed a steady increase, particularly in urban areas such as Dar es Salaam. These trends underscore the importance of tailored prevention strategies, such as HPV vaccination and gender-specific screening programs.

5. Diagnostic Methodology and Data Gaps

While 62% of major selected cases were diagnosed through morphological verification, reliance on death certificates (14%) for cancer identification indicates gaps in diagnostic capabilities. In Dodoma, 18% of cases were diagnosed via death certificates, suggesting underreporting. Strengthening diagnostic services and active case findings are critical for improving the accuracy of cancer surveillance.

6. Rising Incidence of Specific Cancers

Certain cancer types, such as oesophageal cancer in men (ASR: 19.6 per 100,000 in Mwanza) are on the rise. Breast cancer cases in women have also increased, especially in urban areas like Dar es Salaam. These trends may be driven by lifestyle factors such as diet and tobacco use, pointing to the need for targeted prevention campaigns addressing these risks.

7. Geographical and Healthcare Access Challenges

Regions with large rural populations, like Mbeya, reported the lowest incidence rates, likely reflecting healthcare access and reporting challenges rather than actual disease burden. Expanding healthcare infrastructure and improving outreach in underserved areas are essential for equitable cancer care and accurate data reporting.

Appendices

Appendix 1: Cases by age group for male and female, all registries

KILIMANJARO CANCER REGISTRY (2019-2023)

KILI Population

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	16	0	-	-	-	-	-	-	-	2	-	1	2	-	3	2	3	3	0.6	*C00*
Tongue	22	0	-	-	1	-	-	-	-	-	-	3	3	1	4	5	3	2	0.8	*C01-02*
Mouth	22	0	-	-	1	-	-	-	-	-	1	1	-	2	2	6	2	7	0.8	*C03-06*
Salivary glands	22	0	1	-	1	2	-	-	3	-	2	3	2	-	3	3	-	2	0.8	*C07-08*
Tonsil	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C09*
Other oropharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.1	*C10*
Nasopharynx	13	0	-	-	1	-	1	2	1	1	1	1	1	1	1	-	-	2	0.4	*C11*
Hypopharynx	12	0	-	-	-	-	-	-	-	3	-	-	2	2	2	1	1	1	0.4	*C12-13*
Pharynx unspecified	14	0	-	-	-	-	-	-	-	1	1	-	1	3	-	3	1	4	0.5	*C14*
Oesophagus	211	0	-	-	-	-	1	3	3	8	10	20	16	23	16	27	19	65	7.3	*C15*
Stomach	116	0	-	-	-	1	1	3	2	2	4	6	7	13	22	11	8	36	4.0	*C16*
Small intestine	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	0.1	*C17*
Colon	94	0	-	-	-	-	3	3	3	7	7	6	6	13	7	6	10	23	3.3	*C18*
Rectum	56	0	-	-	-	-	-	-	-	5	4	3	7	5	6	5	10	11	1.9	*C19-20*
Anus	23	0	-	-	-	-	-	-	4	1	1	4	2	-	4	3	3	1	0.8	*C21*
Liver	62	0	1	-	-	2	1	1	3	4	5	5	6	8	7	1	4	14	2.1	*C22*
Gallbladder etc.	20	0	-	-	-	-	-	-	-	1	-	3	1	1	6	1	3	4	0.7	*C23-24*
Pancreas	22	0	-	-	-	-	-	-	-	4	2	1	1	3	1	1	3	6	0.8	*C25*
Nose, sinuses etc.	8	0	-	-	-	2	1	1	-	-	-	-	-	1	-	-	1	2	0.3	*C30-31*
Larynx	11	0	-	-	-	-	-	-	-	1	1	1	-	1	4	1	-	2	0.4	*C32*
Trachea, bronchus and lung	65	0	-	-	-	-	1	1	-	2	2	5	5	9	4	7	8	21	2.2	*C33-34*
Other thoracic organs	4	0	-	-	-	-	1	-	1	-	-	-	2	-	-	-	-	-	0.1	*C37-38*
Bone	32	0	2	1	4	3	6	3	1	2	1	1	-	-	2	1	3	2	1.1	*C40-41*
Melanoma of skin	25	0	-	-	-	-	-	-	3	3	3	-	1	2	2	3	5	3	0.9	*C43*
Other skin	*48*	*0*	*3*	-	*1*	*2*	*2*	*2*	*4*	-	*3*	*5*	*4*	*5*	*4*	*3*	*2*	*8*	*1.7*	*C44*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C45*
Kaposi sarcoma	34	0	-	-	-	1	1	5	9	5	-	2	1	3	1	1	1	4	1.2	*C46*
Connective and soft tissue	47	0	3	3	1	4	2	2	3	2	4	2	2	5	6	-	1	7	1.6	*C47,C49*
Breast	554	0	-	-	1	1	8	10	24	42	61	76	62	69	65	54	30	51	19.2	*C50*
Vulva	22	0	-	-	-	-	-	-	1	-	1	6	4	1	4	-	2	3	0.8	*C51*
Vagina	4	0	-	-	-	1	-	-	-	-	-	-	-	-	1	-	2	-	0.1	*C52*
Cervix uteri	611	0	-	-	-	-	5	5	19	32	56	59	101	75	97	57	33	72	21.1	*C53*
Corpus uteri	90	0	-	-	-	-	1	1	1	4	3	4	7	11	19	9	11	19	3.1	*C54*
Uterus unspecified	16	0	-	-	-	-	1	1	1	3	-	-	2	2	2	-	2	2	0.6	*C55*
Ovary	*106*	*0*	*1*	-	-	*5*	*6*	*5*	*6*	*4*	*5*	*14*	*13*	*8*	*14*	*12*	*5*	*8*	*3.7*	*C56*
Other female genital organs	2	0	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	0.1	*C57*
Placenta	10	0	-	-	-	1	1	4	2	-	1	1	-	-	-	-	-	-	0.3	*C58*
Kidney	27	0	12	2	-	-	-	-	-	-	-	3	1	3	2	-	1	3	0.9	*C64*
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*45*	*0*	-	-	-	-	-	-	*1*	-	*4*	*5*	*3*	*6*	*6*	*5*	*8*	*7*	*1.6*	*C67*
Other urinary organs	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	0.1	*C68*
Eye	49	0	14	2	-	1	2	2	5	2	2	2	5	4	1	2	1	4	1.7	*C69*
Brain, nervous system	*22*	*0*	*1*	*2*	*1*	-	-	-	*1*	*4*	*1*	-	-	*4*	*2*	*1*	*3*	*2*	*0.8*	*C70-72*
Thyroid	55	0	-	1	3	-	-	-	2	5	9	5	8	8	7	1	3	3	1.9	*C73*
Adrenal gland	3	0	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	0.1	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	32	0	3	-	2	3	3	8	4	2	3	-	1	1	1	-	1	-	1.1	*C81*
Non-Hodgkin lymphoma	72	0	1	7	2	5	6	2	7	6	3	2	5	3	7	4	5	7	2.5	*C82-85,C96*
Immunoproliferative diseases	6	0	-	-	-	-	-	-	-	-	2	-	-	1	2	-	1	-	0.2	*C88*
Multiple myeloma	24	0	-	-	-	-	-	-	-	1	-	1	2	4	6	5	3	2	0.8	*C90*
Lymphoid leukaemia	26	0	3	6	1	-	1	-	1	2	-	1	3	4	1	3	-	-	0.9	*C91*
Myeloid leukaemia	27	0	1	1	-	2	3	2	1	-	1	1	3	4	4	1	2	1	0.9	*C92-94*
Leukaemia unspecified	16	0	2	2	2	1	-	2	2	-	-	1	1	1	-	-	-	2	0.6	*C95*
Myeloproliferative disorders	*1*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	*1*	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	112	0	4	6	3	9	3	-	8	6	8	7	7	12	14	10	7	8	3.9	*O&U*
All sites	2939	0	52	34	25	46	62	68	127	167	212	261	301	323	364	257	213	427		*ALL*
All sites but C44	2891	0	49	34	24	44	60	66	123	167	209	256	297	318	360	254	211	419	100.0	*ALLbC44*

Filter used: Adrcode = 'x71' OR Adrcode = 'x72' OR Adrcode = 'x73' OR Adrcode = 'x74' OR Adrcode = 'x75' Table built Wed Feb 12 11:38:08 EAT 2025 by CanReg5.

KILIMANJARO CANCER REGISTRY (2019-2023)

KILI Population

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	1	0.1	*C00*
Tongue	39	0	-	-	-	-	-	-	-	1	2	2	2	3	16	4	3	6	1.2	*C01-02*
Mouth	19	0	-	-	-	-	-	-	1	1	2	-	2	2	2	2	2	5	0.6	*C03-06*
Salivary glands	30	0	-	-	2	2	-	-	-	-	-	3	7	-	7	2	2	5	0.9	*C07-08*
Tonsil	6	0	-	-	-	-	1	-	-	-	-	-	1	-	-	3	1	-	0.2	*C09*
Other oropharynx	16	0	-	-	-	-	-	-	-	-	4	-	4	2	2	2	1	1	0.5	*C10*
Nasopharynx	24	0	-	-	-	-	1	1	2	1	-	-	3	2	5	5	2	2	0.8	*C11*
Hypopharynx	18	0	-	-	1	1	-	1	-	1	-	-	2	2	5	1	-	4	0.6	*C12-13*
Pharynx unspecified	7	0	-	-	-	-	-	-	-	-	-	-	-	3	-	1	2	1	0.2	*C14*
Oesophagus	594	0	-	-	-	-	3	4	4	12	32	48	62	74	108	83	63	101	18.8	*C15*
Stomach	172	0	-	-	-	-	-	-	4	5	8	13	15	17	29	26	16	39	5.4	*C16*
Small intestine	6	0	-	-	-	-	-	-	-	-	-	-	-	1	2	1	1	1	0.2	*C17*
Colon	89	0	-	-	-	-	3	4	2	4	3	7	8	10	8	13	15	12	2.8	*C18*
Rectum	67	0	-	-	-	-	2	-	-	-	5	5	8	12	7	6	3	19	2.1	*C19-20*
Anus	14	0	-	-	-	-	1	-	-	3	-	-	1	-	3	2	1	3	0.4	*C21*
Liver	123	0	-	1	-	-	1	6	9	6	8	4	10	16	19	9	11	23	3.9	*C22*
Gallbladder etc.	17	0	-	-	-	-	-	-	-	1	-	-	1	4	5	2	2	2	0.5	*C23-24*
Pancreas	43	0	-	-	-	-	1	-	1	-	2	6	1	4	9	9	3	7	1.4	*C25*
Nose, sinuses etc.	10	0	1	-	-	-	-	1	1	4	-	-	1	1	-	-	1	-	0.3	*C30-31*
Larynx	48	0	1	-	-	-	-	-	-	-	1	4	3	7	14	5	1	12	1.5	*C32*
Trachea, bronchus and lung	86	0	-	-	-	-	-	1	2	4	6	5	7	8	13	9	14	17	2.7	*C33-34*
Other thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.0	*C37-38*
Bone	52	0	1	4	5	4	7	5	3	2	1	3	2	2	4	3	3	3	1.6	*C40-41*
Melanoma of skin	6	0	-	-	-	1	-	-	-	-	1	-	-	2	1	-	1	-	0.2	*C43*
Other skin	*57*	*0*	*1*	*1*	-	*3*	*3*	*4*	*1*	*4*	*4*	*11*	*5*	*2*	*5*	*4*	*6*	*3*	*1.8*	*C44*
Mesothelioma	1	0	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0.0	*C45*
Kaposi sarcoma	62	0	1	1	1	2	-	5	8	7	6	9	4	3	4	1	3	7	2.0	*C46*
Connective and soft tissue	35	0	4	1	1	3	4	-	5	3	-	2	3	2	1	2	1	3	1.1	*C47,C49*
Breast	29	0	-	-	-	1	-	1	1	1	1	5	2	3	3	3	1	7	0.9	*C50*
Penis	7	0	-	-	-	-	-	-	-	1	-	-	-	-	1	2	2	1	0.2	*C60*
Prostate	940	0	-	-	-	-	-	1	-	-	3	2	14	32	93	114	192	489	29.7	*C61*
Testis	9	0	-	-	-	1	-	1	-	1	-	-	2	-	1	2	1	-	0.3	*C62*
Other male genital organs	4	0	-	1	-	-	1	-	-	-	-	2	-	-	-	-	-	-	0.1	*C63*
Kidney	35	0	8	4	1	-	-	-	3	2	1	1	2	-	5	2	3	3	1.1	*C64*
Renal pelvis	1	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	0.0	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*99*	*0*	-	*1*	-	-	-	-	*2*	*1*	*2*	*3*	*8*	*9*	*11*	*21*	*7*	*34*	*3.1*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	47	0	15	4	2	1	2	1	3	3	5	3	2	1	2	1	-	2	1.5	*C69*
Brain, nervous system	*30*	*0*	-	*1*	*2*	*2*	-	-	*3*	*2*	*5*	*4*	*3*	*2*	*2*	-	*2*	*2*	*0.9*	*C70-72*
Thyroid	18	0	-	-	-	-	-	1	-	1	2	3	3	2	1	2	-	3	0.6	*C73*
Adrenal gland	5	0	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	*C74*
Other endocrine	1	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	24	0	2	-	3	3	2	2	3	1	2	2	-	-	-	-	4	-	0.8	*C81*
Non-Hodgkin lymphoma	97	0	7	5	5	7	5	5	7	2	10	6	6	3	11	3	5	10	3.1	*C82-85,C96*
Immunoproliferative diseases	9	0	-	-	-	1	2	-	2	-	-	-	1	2	-	1	-	-	0.3	*C88*
Multiple myeloma	37	0	-	-	-	-	-	-	-	-	3	3	6	5	5	7	5	3	1.2	*C90*
Lymphoid leukaemia	27	0	4	3	6	2	-	1	1	-	1	-	1	1	2	1	2	2	0.9	*C91*
Myeloid leukaemia	24	0	-	1	1	-	1	-	3	1	1	1	6	1	4	1	1	2	0.8	*C92-94*
Leukaemia unspecified	15	0	3	1	2	1	-	1	-	-	-	1	1	1	-	1	2	1	0.5	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	119	0	3	5	6	5	5	5	2	5	6	3	10	14	8	10	10	22	3.8	*O&U*
All sites	3222	0	55	35	38	40	45	52	74	80	129	161	219	255	419	366	395	859		*ALL*
All sites but C44	3165	0	54	34	38	37	42	48	73	76	125	150	214	253	414	362	389	856	100.0	*ALLbC44*

MWANZA CANCER REGISTRY (2019-2023)

Mwanza population for 2 Districts 2019

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0.1	C00
Tongue	5	0	-	-	-	-	-	-	1	1	-	-	2	-	1	-	-	-	0.4	C01-02
Mouth	13	0	-	-	-	-	1	4	-	-	1	1	1	1	-	1	1	2	1.1	C03-06
Salivary glands	3	0	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	0.3	C07-08
Tonsil	2	0	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	0.2	C09
Other oropharynx	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C10
Nasopharynx	9	0	-	-	-	2	-	3	1	-	-	-	2	1	-	-	-	-	0.8	C11
Hypopharynx	1	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	0.1	C12-13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C14
Oesophagus	78	0	-	-	-	-	-	1	4	5	5	12	9	14	9	3	8	8	6.5	C15
Stomach	16	0	-	-	-	1	-	-	-	-	1	1	1	2	3	6	1	-	1.3	C16
Small intestine	1	0	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	0.1	C17
Colon	25	0	-	-	-	-	2	3	1	-	1	4	3	2	1	3	3	2	2.1	C18
Rectum	17	0	-	-	-	-	-	-	1	-	1	2	1	3	2	1	2	4	1.4	C19-20
Anus	9	0	-	-	-	1	1	1	-	-	-	-	-	2	2	-	1	1	0.8	C21
Liver	36	0	2	1	-	-	1	2	5	2	3	2	1	4	4	1	3	5	3.0	C22
Gallbladder etc.	5	0	-	-	-	-	-	1	-	1	-	-	1	2	-	-	-	-	0.4	C23-24
Pancreas	6	0	-	-	-	-	-	-	1	-	-	1	1	-	2	-	-	1	0.5	C25
Nose, sinuses etc.	2	0	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	0.2	C30-31
Larynx	5	0	1	-	-	-	-	-	1	-	-	-	-	2	-	-	-	1	0.4	C32
Trachea, bronchus and lung	16	0	-	-	-	-	1	1	-	1	-	2	1	2	2	4	1	1	1.3	C33-34
Other thoracic organs	2	0	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	0.2	C37-38
Bone	21	0	-	-	-	6	2	2	2	1	1	-	4	-	2	-	-	1	1.8	C40-41
Melanoma of skin	17	0	-	1	-	1	-	1	1	1	-	1	3	1	-	3	2	2	1.4	C43
Other skin	*27*	*0*	-	-	-	-	*3*	*2*	*1*	*4*	*5*	*3*	-	*3*	-	*2*	*3*	*1*	*2.3*	C44
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	0.1	C45
Kaposi sarcoma	20	0	-	-	1	-	1	3	4	4	3	-	2	-	1	-	-	1	1.7	C46
Connective and soft tissue	15	0	1	-	1	-	-	3	2	1	2	2	1	1	-	-	1	-	1.3	C47,C49
Breast	273	0	-	-	-	1	3	14	16	32	35	49	39	23	22	21	10	8	22.9	C50
Vulva	10	0	-	-	-	-	-	-	1	-	3	2	1	1	1	-	-	1	0.8	C51
Vagina	3	0	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	0.3	C52
Cervix uteri	286	0	-	-	-	-	-	3	8	22	33	53	42	31	42	20	16	16	24.0	C53
Corpus uteri	13	0	-	-	-	-	1	1	-	2	1	-	-	2	3	2	1	-	1.1	C54
Uterus unspecified	5	0	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	0.4	C55
Ovary	*37*	*0*	-	-	-	*1*	*1*	*3*	*7*	*3*	*4*	*6*	*8*	*1*	*1*	-	*1*	*1*	*3.1*	C56
Other female genital organs	1	0	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0.1	C57
Placenta	8	0	-	-	-	-	1	2	2	-	3	-	-	-	-	-	-	-	0.7	C58
Kidney	28	0	12	3	-	1	2	-	-	-	-	2	3	1	-	1	1	2	2.3	C64
Renal pelvis	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1	C65
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C66
Bladder	*27*	*0*	-	-	-	-	-	-	*2*	*3*	-	*4*	*2*	*3*	*3*	*5*	*2*	*3*	*2.3*	C67
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C68
Eye	22	0	3	2	-	-	1	4	1	3	-	1	2	2	-	2	1	-	1.8	C69
Brain, nervous system	*21*	*0*	*6*	*1*	*1*	*2*	*1*	*3*	-	*2*	*1*	-	*2*	-	*1*	*1*	-	-	*1.8*	C70-72
Thyroid	10	0	-	-	-	1	-	-	1	2	-	2	2	1	-	1	-	-	0.8	C73
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	C74
Other endocrine	2	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	C75
Hodgkin disease	10	0	-	-	-	1	1	-	1	-	4	1	-	1	-	1	-	-	0.8	C81
Non-Hodgkin lymphoma	45	0	3	2	2	2	3	4	5	5	2	1	5	7	1	-	1	2	3.8	C82-85,C96
Immunoproliferative diseases	1	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	0.1	C88
Multiple myeloma	5	0	-	-	-	-	-	-	-	1	-	1	1	-	1	-	1	-	0.4	C90
Lymphoid leukaemia	8	0	1	1	1	-	-	-	-	-	-	2	1	1	-	-	1	-	0.7	C91
Myeloid leukaemia	13	0	-	-	-	1	-	-	-	1	2	4	1	2	-	1	1	-	1.1	C92-94
Leukaemia unspecified	10	0	1	4	-	-	-	3	-	1	-	-	-	1	-	-	-	-	0.8	C95
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	MPD
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	MDS
Other and unspecified	28	0	1	2	-	-	-	-	2	1	1	5	2	2	2	4	2	4	2.3	O&U
All sites	1220	0	32	18	6	21	26	65	74	102	113	168	146	122	109	83	66	69		ALL
All sites but C44	1193	0	32	18	6	21	23	63	73	98	108	165	146	119	109	81	63	68	100.0	ALLbC44

Filter used: Adrcode = '131' OR Adrcode = '137'

Table builtWed Feb 12 11:34:21 EAT 2025 by CanReg5.

MWANZA CANCER REGISTRY (2019-2023)

Mwanza population for 2 Districts 2019

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	1	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	*C00*
Tongue	12	0	-	-	-	-	-	-	-	2	1	2	-	3	1	-	3	-	1.2	*C01-02*
Mouth	10	0	-	-	1	-	1	-	-	-	1	-	2	-	2	1	1	1	1.0	*C03-06*
Salivary glands	9	0	-	-	1	-	-	-	-	2	-	2	-	2	-	-	1	1	0.9	*C07-08*
Tonsil	3	0	1	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	0.3	*C09*
Other oropharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	0.2	*C10*
Nasopharynx	17	0	-	-	1	-	2	3	-	-	3	1	1	1	1	1	1	2	1.7	*C11*
Hypopharynx	2	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	0.2	*C12-13*
Pharynx unspecified	2	0	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	0.2	*C14*
Oesophagus	108	0	-	-	-	-	1	3	5	9	10	17	14	12	16	10	1	10	11.1	*C15*
Stomach	19	0	-	-	-	1	-	-	2	-	1	-	-	-	2	3	5	5	2.0	*C16*
Small intestine	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	0.2	*C17*
Colon	46	0	-	-	-	-	1	3	1	1	3	9	5	3	5	7	4	4	4.7	*C18*
Rectum	13	0	-	-	-	-	-	-	2	-	2	-	1	5	1	1	-	1	1.3	*C19-20*
Anus	9	0	-	1	-	-	1	-	1	-	2	1	1	-	-	2	-	-	0.9	*C21*
Liver	75	0	1	-	-	-	-	4	10	12	6	6	4	6	13	2	4	7	7.7	*C22*
Gallbladder etc.	3	0	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	0.3	*C23-24*
Pancreas	6	0	-	-	-	-	-	-	-	1	-	2	1	-	-	1	1	-	0.6	*C25*
Nose, sinuses etc.	11	0	-	-	-	-	2	2	-	1	-	3	1	2	-	-	-	-	1.1	*C30-31*
Larynx	20	0	-	-	2	-	1	-	-	-	1	2	1	1	5	4	1	2	2.1	*C32*
Trachea, bronchus and lung	27	0	-	-	-	-	-	-	2	1	2	3	3	4	1	3	2	6	2.8	*C33-34*
Other thoracic organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C37-38*
Bone	17	0	2	-	1	3	2	2	-	2	-	1	1	1	2	-	-	-	1.7	*C40-41*
Melanoma of skin	10	0	-	-	-	1	-	-	-	2	-	1	1	-	1	2	1	1	1.0	*C43*
Other skin	*28*	*0*	-	*1*	-	*2*	*5*	*2*	*3*	-	*4*	*5*	*3*	*2*	-	-	*1*	-	*2.9*	*C44*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C45*
Kaposi sarcoma	37	0	-	1	-	1	1	5	6	5	7	-	4	1	3	1	1	1	3.8	*C46*
Connective and soft tissue	21	0	1	2	-	3	4	-	2	2	-	3	1	-	2	1	-	-	2.2	*C47,C49*
Breast	12	0	-	-	-	-	-	1	1	2	-	2	1	2	-	1	1	1	1.2	*C50*
Penis	4	0	1	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	0.4	*C60*
Prostate	210	0	-	-	-	-	-	-	-	-	1	4	7	13	31	37	44	73	21.6	*C61*
Testis	3	0	-	-	1	-	1	-	-	1	-	-	-	-	-	-	-	-	0.3	*C62*
Other male genital organs	1	0	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	0.1	*C63*
Kidney	15	0	8	1	-	1	-	-	-	-	-	1	2	-	-	-	1	1	1.5	*C64*
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C65*
Ureter	1	0	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0.1	*C66*
Bladder	*46*	*0*	-	-	-	*1*	-	-	*2*	-	*4*	*2*	*4*	*3*	*6*	*11*	*6*	*7*	*4.7*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	24	0	9	1	-	-	1	1	-	1	1	5	1	1	1	1	1	-	2.5	*C69*
Brain, nervous system	*16*	*0*	*2*	*2*	*1*	*1*	-	-	*1*	-	*1*	-	*1*	*2*	*4*	*1*	-	-	*1.6*	*C70-72*
Thyroid	10	0	-	-	-	1	-	1	-	1	2	1	-	-	2	2	-	-	1.0	*C73*
Adrenal gland	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	9	0	-	2	-	3	1	-	2	-	-	1	-	-	-	-	-	-	0.9	*C81*
Non-Hodgkin lymphoma	62	0	5	5	5	5	4	3	8	4	4	2	4	5	2	3	-	3	6.4	*C82-85,C96*
Immunoproliferative diseases	1	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	0.1	*C88*
Multiple myeloma	9	0	-	-	-	-	-	-	-	1	-	1	4	1	2	-	-	-	0.9	*C90*
Lymphoid leukaemia	6	0	1	1	1	-	1	-	-	-	2	-	-	-	-	-	-	-	0.6	*C91*
Myeloid leukaemia	16	0	-	1	1	1	1	7	1	-	-	-	-	1	1	1	1	-	1.6	*C92-94*
Leukaemia unspecified	10	0	-	6	2	-	-	-	-	-	1	-	1	-	-	-	-	-	1.0	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	34	0	1	-	-	1	2	-	2	2	2	3	2	3	6	3	2	5	3.5	*O&U*
All sites	1000	0	34	24	17	27	33	38	52	52	63	80	75	75	112	101	84	133		*ALL*
All sites but C44	972	0	34	23	17	25	28	36	49	52	59	75	72	73	112	101	83	133	100.0	*ALLbC44*

OCEAN ROAD CANCER REGISTRY-0 (2019-2023)

DAR-ES-SALAAM

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	0.1	*C00*
Tongue	9	0	-	-	-	-	-	-	-	2	-	3	2	-	1	1	-	-	0.5	*C01-02*
Mouth	19	0	1	3	-	-	-	-	3	-	-	1	-	-	3	1	4	3	0.9	*C03-06*
Salivary glands	8	0	-	-	-	-	-	-	-	3	-	1	1	1	1	-	-	1	0.4	*C07-08*
Tonsil	1	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	0.1	*C09*
Other oropharynx	7	0	-	-	-	-	-	1	1	-	1	-	1	1	1	-	-	1	0.3	*C10*
Nasopharynx	28	0	-	1	8	2	1	-	3	-	1	3	2	2	-	-	-	5	1.4	*C11*
Hypopharynx	37	0	-	-	-	-	1	1	3	5	2	2	3	2	4	5	3	6	1.9	*C12-13*
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C14*
Oesophagus	150	0	-	-	-	-	-	5	2	10	11	11	28	20	30	11	10	12	7.5	*C15*
Stomach	108	0	-	2	-	2	-	1	3	3	1	14	14	17	18	11	5	17	5.4	*C16*
Small intestine	5	0	-	-	-	-	-	-	-	-	-	1	2	1	1	-	-	-	0.2	*C17*
Colon	147	0	-	-	-	-	-	2	8	22	2	7	32	18	18	9	24	5	7.3	*C18*
Rectum	44	0	-	-	-	-	4	2	3	6	2	2	6	1	9	5	4	-	2.2	*C19-20*
Anus	33	0	-	-	-	-	1	1	3	5	2	5	5	1	5	-	2	3	1.6	*C21*
Liver	133	0	-	-	-	1	-	-	13	29	7	30	15	21	6	5	3	3	6.7	*C22*
Gallbladder etc.	3	0	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	0.1	*C23-24*
Pancreas	34	0	-	-	-	-	1	-	-	1	1	-	1	4	2	6	14	4	1.7	*C25*
Nose, sinuses etc.	24	0	-	1	1	1	3	2	1	2	2	2	2	2	2	2	1	-	1.2	*C30-31*
Larynx	13	0	-	-	-	-	-	-	1	1	2	2	1	-	1	2	1	2	0.7	*C32*
Trachea, bronchus and lung	47	0	-	-	-	-	-	3	2	1	1	3	5	4	12	3	6	7	2.4	*C33-34*
Other thoracic organs	5	0	-	-	-	1	-	-	-	-	-	-	-	1	1	-	1	1	0.2	*C37-38*
Bone	5	0	-	-	1	-	-	-	-	1	1	-	-	-	-	1	-	1	0.2	*C40-41*
Melanoma of skin	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1	*C43*
Other skin	*14*	*0*	-	-	*1*	-	*2*	*1*	*1*	*1*	*1*	*1*	*1*	-	*3*	*1*	-	*1*	*0.7*	*C44*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C45*
Kaposi sarcoma	45	0	-	-	-	1	2	4	7	10	9	6	3	-	1	-	-	2	2.2	*C46*
Connective and soft tissue	25	0	-	-	3	6	3	-	-	2	6	-	1	1	-	3	-	-	1.2	*C47,C49*
Breast	337	0	-	-	-	1	5	13	30	33	50	54	38	30	28	23	25	7	16.9	*C50*
Vulva	20	0	1	-	-	1	-	-	2	1	3	2	4	2	-	1	-	3	1.0	*C51*
Vagina	8	0	1	-	-	-	-	-	-	1	2	1	1	1	-	1	-	-	0.4	*C52*
Cervix uteri	456	0	-	-	-	-	1	10	16	46	75	82	62	50	43	26	20	25	22.8	*C53*
Corpus uteri	15	0	-	-	-	-	-	-	-	-	-	3	2	2	3	2	2	1	0.8	*C54*
Uterus unspecified	4	0	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	0.2	*C55*
Ovary	*34*	*0*	-	-	-	*1*	*3*	*1*	*2*	*4*	*3*	*5*	*3*	*3*	*5*	*3*	-	*1*	*1.7*	*C56*
Other female genital organs	2	0	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	0.1	*C57*
Placenta	1	0	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0.1	*C58*
Kidney	12	0	5	3	-	-	-	-	-	1	2	-	-	-	-	-	1	-	0.6	*C64*
Renal pelvis	6	0	-	-	-	-	-	-	-	1	2	1	1	-	-	1	-	-	0.3	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*12*	*0*	-	-	-	-	-	-	-	*2*	-	-	*1*	-	*4*	*1*	*2*	*2*	*0.6*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	19	0	4	2	2	-	-	-	1	1	-	1	3	-	1	3	-	1	0.9	*C69*
Brain, nervous system	*15*	*0*	*2*	-	-	*1*	-	*1*	-	*1*	*2*	*3*	*3*	-	-	-	*2*	-	*0.8*	*C70-72*
Thyroid	21	0	-	-	-	-	-	2	2	4	2	2	3	4	1	-	-	1	1.1	*C73*
Adrenal gland	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.1	*C74*
Other endocrine	3	0	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	0.1	*C75*
Hodgkin disease	13	0	-	-	4	2	-	2	-	-	1	1	1	1	-	-	-	1	0.7	*C81*
Non-Hodgkin lymphoma	14	0	-	2	1	-	-	-	2	-	4	2	-	-	1	2	-	-	0.7	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	12	0	-	-	-	-	-	1	-	-	-	-	-	4	2	3	1	1	0.6	*C90*
Lymphoid leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C91*
Myeloid leukaemia	11	0	-	1	1	-	2	3	1	1	-	-	-	-	-	1	1	-	0.6	*C92-94*
Leukaemia unspecified	8	0	-	-	2	-	-	1	1	1	-	-	-	-	1	1	1	-	0.4	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	41	0	2	1	1	-	1	2	3	5	2	7	4	1	5	4	1	2	2.0	*O&U*
All sites	2014	0	16	16	25	21	30	60	116	208	201	260	254	195	216	139	136	121		*ALL*
All sites but C44	2000	0	16	16	24	21	28	59	115	207	200	259	253	195	213	138	136	120	100.0	*ALLbC44*

Filter used: Adrcode = 'x21'

Table builtWed Feb 12 11:46:09 EAT 2025 by CanReg5.

OCEAN ROAD CANCER REGISTRY-0 (2019-2023)

DAR-ES-SALAAM

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	10	0	-	-	-	-	-	1	-	1	1	-	3	-	1	1	2	-	0.7	*C00*
Tongue	19	0	-	-	-	-	1	-	-	-	2	-	2	4	1	7	1	1	1.3	*C01-02*
Mouth	18	0	1	2	-	-	-	-	-	2	1	3	2	1	3	-	2	1	1.2	*C03-06*
Salivary glands	17	0	-	-	3	2	2	-	-	2	-	2	2	-	3	1	-	-	1.1	*C07-08*
Tonsil	4	0	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	1	0.3	*C09*
Other oropharynx	4	0	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	1	0.3	*C10*
Nasopharynx	37	0	1	1	2	3	1	2	1	3	2	1	3	4	3	4	1	5	2.5	*C11*
Hypopharynx	38	0	-	1	-	-	2	2	-	4	2	-	5	4	6	4	1	7	2.5	*C12-13*
Pharynx unspecified	4	0	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2	0.3	*C14*
Oesophagus	242	0	-	-	-	-	-	3	9	17	12	23	44	28	41	24	9	32	16.2	*C15*
Stomach	147	0	1	-	-	-	-	1	1	3	4	17	14	18	49	10	10	19	9.8	*C16*
Small intestine	2	0	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	0.1	*C17*
Colon	144	0	-	-	-	-	1	4	8	13	4	6	21	16	24	10	29	8	9.6	*C18*
Rectum	19	0	-	-	-	-	1	-	-	2	2	2	1	1	4	3	2	1	1.3	*C19-20*
Anus	10	0	-	-	-	-	-	1	-	-	-	3	1	3	2	-	-	-	0.7	*C21*
Liver	182	0	1	-	-	-	7	11	16	12	33	16	51	10	3	10	4	8	12.1	*C22*
Gallbladder etc.	1	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	0.1	*C23-24*
Pancreas	41	0	-	-	-	-	3	1	-	-	1	-	1	3	3	11	14	4	2.7	*C25*
Nose, sinuses etc.	30	0	-	1	1	1	1	2	1	7	2	1	5	2	3	1	2	-	2.0	*C30-31*
Larynx	17	0	-	-	-	-	-	-	-	-	3	3	-	2	1	5	1	2	1.1	*C32*
Trachea, bronchus and lung	54	0	-	-	-	-	-	2	1	2	2	3	13	4	11	8	7	1	3.6	*C33-34*
Other thoracic organs	6	0	-	1	-	-	1	-	-	-	-	-	1	-	-	3	-	-	0.4	*C37-38*
Bone	8	0	-	-	-	2	3	-	-	-	-	-	-	-	-	1	1	1	0.5	*C40-41*
Melanoma of skin	3	0	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1	0.2	*C43*
Other skin	*9*	*0*	-	-	*1*	*1*	-	-	*2*	*1*	-	-	*1*	*1*	*1*	-	-	*1*	*0.6*	*C44*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C45*
Kaposi sarcoma	32	0	-	-	-	-	-	1	5	6	7	4	3	2	3	-	1	-	2.1	*C46*
Connective and soft tissue	17	0	-	-	1	2	3	1	-	1	-	2	1	2	3	-	-	1	1.1	*C47,C49*
Breast	25	0	-	1	-	-	1	1	-	-	3	3	1	1	8	3	2	1	1.7	*C50*
Penis	3	0	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	0.2	*C60*
Prostate	162	0	-	-	-	-	-	-	-	-	1	1	3	17	27	36	35	42	10.8	*C61*
Testis	9	0	3	3	-	1	-	-	1	-	-	-	-	-	1	-	-	-	0.6	*C62*
Other male genital organs	4	0	-	-	-	-	1	-	-	-	1	2	-	-	-	-	-	-	0.3	*C63*
Kidney	9	0	5	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	0.6	*C64*
Renal pelvis	5	0	-	-	-	-	-	-	-	1	-	1	1	-	1	-	-	1	0.3	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*14*	*0*	-	-	-	-	-	-	*2*	-	*2*	*1*	*1*	-	*2*	-	*2*	*4*	*0.9*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	21	0	10	3	-	-	-	1	1	2	-	-	1	-	2	-	1	-	1.4	*C69*
Brain, nervous system	*18*	*0*	*1*	*2*	-	-	*1*	*1*	*3*	*1*	-	*1*	*1*	*2*	*1*	*1*	-	*3*	*1.2*	*C70-72*
Thyroid	11	0	-	1	-	-	1	-	-	1	2	1	-	1	2	1	-	1	0.7	*C73*
Adrenal gland	1	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	18	0	-	2	-	3	3	2	1	1	-	-	2	-	2	1	1	-	1.2	*C81*
Non-Hodgkin lymphoma	17	0	-	1	-	1	-	2	2	1	-	1	-	1	2	3	1	2	1.1	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	3	0	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	0.2	*C90*
Lymphoid leukaemia	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	*C91*
Myeloid leukaemia	15	0	-	1	1	-	1	2	1	-	2	1	2	-	-	1	3	-	1.0	*C92-94*
Leukaemia unspecified	12	0	1	1	4	-	1	1	-	1	-	1	1	-	-	-	-	1	0.8	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	44	0	4	1	4	2	3	2	-	4	3	4	2	3	4	5	2	1	2.9	*O&U*
All sites	1507	0	29	24	19	18	38	45	55	90	93	107	196	130	220	156	134	153		*ALL*
All sites but C44	1498	0	29	24	18	17	38	45	53	89	93	107	195	129	219	156	134	152	100.0	*ALLbC44*

MBEYA CANCER REGISTRY (2019-2023)

Mbeya population 2019

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C00*
Tongue	2	0	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	0.2	*C01-02*
Mouth	6	0	-	-	-	-	-	-	-	2	-	1	1	-	-	1	1	-	0.6	*C03-06*
Salivary glands	3	0	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1	0.3	*C07-08*
Tonsil	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C09*
Other oropharynx	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C10*
Nasopharynx	7	0	-	-	1	-	-	-	1	-	-	-	-	3	1	-	1	-	0.7	*C11*
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0.2	*C12-13*
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C14*
Oesophagus	8	0	-	-	-	-	-	-	-	-	-	-	-	3	1	1	2	1	0.8	*C15*
Stomach	6	0	-	-	-	-	1	-	-	-	-	1	-	-	2	-	2	-	0.6	*C16*
Small intestine	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	0.2	*C17*
Colon	16	0	-	-	-	-	-	-	2	-	-	1	4	-	2	3	2	2	1.6	*C18*
Rectum	16	0	-	-	-	-	-	1	1	2	-	-	3	1	2	5	1	-	1.6	*C19-20*
Anus	7	0	-	-	-	-	-	1	1	1	1	-	1	-	1	-	-	1	0.7	*C21*
Liver	21	0	-	-	-	-	-	-	-	-	8	3	1	3	3	3	-	-	2.1	*C22*
Gallbladder etc.	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.1	*C23-24*
Pancreas	6	0	-	-	-	-	-	1	1	-	-	-	-	1	-	2	-	1	0.6	*C25*
Nose, sinuses etc.	13	0	-	-	-	2	-	-	1	-	-	-	2	1	4	1	-	2	1.3	*C30-31*
Larynx	2	0	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	0.2	*C32*
Trachea, bronchus and lung	13	0	-	-	-	-	-	1	-	1	2	2	-	2	2	-	1	2	1.3	*C33-34*
Other thoracic organs	3	0	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	1	0.3	*C37-38*
Bone	12	0	-	-	2	2	1	1	-	-	2	-	1	-	2	-	1	-	1.2	*C40-41*
Melanoma of skin	9	0	-	-	-	-	-	-	-	1	1	1	1	2	1	-	1	1	0.9	*C43*
Other skin	*25*	*0*	-	-	*1*	-	-	-	-	*1*	*2*	*3*	*6*	*1*	*1*	*1*	*1*	*8*	*2.5*	*C44*
Mesothelioma	2	0	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	0.2	*C45*
Kaposi sarcoma	24	0	-	-	-	-	2	3	4	7	3	3	2	-	-	-	-	-	2.4	*C46*
Connective and soft tissue	9	0	-	-	1	-	-	1	-	2	-	-	2	1	2	-	-	-	0.9	*C47,C49*
Breast	160	0	-	-	-	2	1	3	10	21	9	17	24	21	22	10	11	9	16.1	*C50*
Vulva	35	0	-	-	-	-	1	1	6	4	4	8	3	2	3	2	-	1	3.5	*C51*
Vagina	3	0	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	-	0.3	*C52*
Cervix uteri	426	0	-	-	-	-	2	6	19	34	52	59	63	51	53	26	25	36	42.8	*C53*
Corpus uteri	18	0	-	-	-	-	-	-	-	1	1	1	3	-	3	5	1	3	1.8	*C54*
Uterus unspecified	5	0	-	-	-	-	-	-	2	-	-	-	-	-	-	1	2	-	0.5	*C55*
Ovary	*25*	*0*	-	-	*1*	-	*2*	*2*	*1*	*3*	*1*	*2*	*4*	*1*	*3*	*2*	*2*	*1*	*2.5*	*C56*
Other female genital organs	2	0	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	0.2	*C57*
Placenta	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C58*
Kidney	2	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	*C64*
Renal pelvis	2	0	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	0.2	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*13*	*0*	-	-	-	-	-	-	-	*1*	*1*	*1*	*1*	-	*3*	-	*3*	*3*	*1.3*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	17	0	-	-	-	-	-	-	2	2	3	1	1	-	4	2	1	1	1.7	*C69*
Brain, nervous system	*4*	*0*	-	*1*	-	-	-	-	-	-	*1*	*1*	-	-	*1*	-	-	-	*0.4*	*C70-72*
Thyroid	17	0	-	1	-	-	1	1	1	1	1	-	1	1	5	3	1	-	1.7	*C73*
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	7	0	-	-	-	-	-	2	2	-	-	2	1	-	-	-	-	-	0.7	*C81*
Non-Hodgkin lymphoma	28	0	1	-	2	-	-	2	2	2	2	5	3	4	1	1	2	1	2.8	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	4	0	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	0.4	*C90*
Lymphoid leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C91*
Myeloid leukaemia	9	0	1	-	-	2	-	1	2	2	1	-	-	-	-	-	-	-	0.9	*C92-94*
Leukaemia unspecified	9	0	3	-	1	2	-	-	-	-	-	1	1	1	-	-	-	-	0.9	*C95*
Myeloproliferative disorders	*2*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	*1*	-	-	*1*	*0.2*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	17	0	-	1	-	1	1	-	2	2	2	3	-	2	-	1	1	1	1.7	*O&U*
All sites	1020	0	6	5	9	11	13	30	62	91	97	118	132	103	125	76	65	77		*ALL*
All sites but C44	995	0	6	5	8	11	13	30	62	90	95	115	126	102	124	75	64	69	100.0	*ALLbC44*

Filter used: Adrcode = '100' OR Adrcode = '101' OR Adrcode = '109'

Table builtWed Feb 12 11:56:12 EAT 2025 by CanReg5.

MBEYA CANCER REGISTRY (2019-2023)

Mbeya population 2019

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C00*
Tongue	3	0	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	0.5	*C01-02*
Mouth	9	0	-	-	-	1	2	-	1	-	-	1	-	-	-	-	3	1	1.6	*C03-06*
Salivary glands	4	0	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	0.7	*C07-08*
Tonsil	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C09*
Other oropharynx	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C10*
Nasopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.3	*C11*
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.3	*C12-13*
Pharynx unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.2	*C14*
Oesophagus	19	0	-	-	-	-	-	-	-	-	1	-	1	1	3	4	5	4	3.3	*C15*
Stomach	5	0	-	-	-	-	-	-	-	-	1	2	-	-	-	1	1	-	0.9	*C16*
Small intestine	4	0	-	-	-	-	1	-	-	-	-	1	1	1	-	-	-	-	0.7	*C17*
Colon	19	0	-	-	-	1	-	2	5	-	-	3	-	2	3	1	1	1	3.3	*C18*
Rectum	11	0	-	-	-	1	-	-	1	-	1	2	-	1	-	3	1	1	1.9	*C19-20*
Anus	8	0	-	-	-	-	-	-	-	-	2	2	-	1	2	1	-	-	1.4	*C21*
Liver	26	0	-	-	-	-	-	3	-	1	5	1	3	2	7	-	2	2	4.5	*C22*
Gallbladder etc.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C23-24*
Pancreas	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.3	*C25*
Nose, sinuses etc.	2	0	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	0.3	*C30-31*
Larynx	5	0	-	-	-	-	-	-	-	-	-	-	-	1	1	3	-	-	0.9	*C32*
Trachea, bronchus and lung	10	0	-	-	-	-	-	-	1	-	-	1	3	1	2	-	2	-	1.7	*C33-34*
Other thoracic organs	2	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.3	*C37-38*
Bone	11	0	-	1	2	2	3	-	-	-	-	1	-	-	1	-	1	-	1.9	*C40-41*
Melanoma of skin	2	0	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	0.3	*C43*
Other skin	*16*	*0*	-	-	-	*1*	*3*	*1*	*1*	-	-	*1*	-	*4*	*1*	*1*	*1*	*2*	*2.8*	*C44*
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.2	*C45*
Kaposi sarcoma	46	0	-	-	1	2	-	3	3	4	8	7	5	4	3	4	1	1	7.9	*C46*
Connective and soft tissue	9	0	2	-	1	1	-	-	2	1	-	-	-	-	-	1	-	1	1.6	*C47,C49*
Breast	8	0	-	-	-	-	-	-	-	-	1	1	1	-	-	2	2	1	1.4	*C50*
Penis	15	0	-	-	-	-	-	-	-	1	1	3	2	2	1	-	1	4	2.6	*C60*
Prostate	209	0	-	-	-	-	-	-	-	-	1	1	3	11	26	41	46	80	36.1	*C61*
Testis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C62*
Other male genital organs	1	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	*C63*
Kidney	6	0	1	1	-	-	-	-	-	-	-	-	-	-	1	1	-	2	1.0	*C64*
Renal pelvis	1	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*12*	*0*	-	-	-	-	-	-	-	-	-	-	*1*	*1*	*1*	*3*	*2*	*4*	*2.1*	*C67*
Other urinary organs	3	0	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	1	0.5	*C68*
Eye	23	0	2	1	-	-	1	1	2	3	2	4	4	-	2	-	1	-	4.0	*C69*
Brain, nervous system	*5*	*0*	*1*	-	*1*	-	-	-	*1*	-	-	-	*1*	-	-	-	*1*	-	*0.9*	*C70-72*
Thyroid	3	0	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	0.5	*C73*
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	5	0	-	-	1	1	2	-	-	-	1	-	-	-	-	-	-	-	0.9	*C81*
Non-Hodgkin lymphoma	20	0	1	-	-	3	2	2	1	3	2	1	2	-	2	-	-	1	3.5	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	4	0	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1	0.7	*C90*
Lymphoid leukaemia	4	0	-	-	1	1	-	-	-	-	-	1	-	-	-	-	1	-	0.7	*C91*
Myeloid leukaemia	23	0	-	2	-	2	3	7	-	2	2	1	-	1	1	-	-	2	4.0	*C92-94*
Leukaemia unspecified	7	0	2	-	1	1	1	1	-	-	-	-	-	-	-	1	-	-	1.2	*C95*
Myeloproliferative disorders	*4*	*0*	-	-	-	-	-	-	-	-	-	-	*1*	*2*	-	-	*1*	-	*0.7*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	23	0	-	-	1	-	-	1	2	2	1	2	4	-	2	3	2	3	4.0	*O&U*
All sites	595	0	9	5	11	18	18	22	21	18	30	39	35	39	61	73	75	121		*ALL*
All sites but C44	579	0	9	5	11	17	15	21	20	18	30	38	35	35	60	72	74	119	100.0	*ALLbC44*

DODOMA CANCER REGISTRY (2019-2023)

Dodoma

Cases by age group (Period) - Female

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	2	0	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	0.1	*C00*
Tongue	4	0	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	0.2	*C01-02*
Mouth	13	0	-	-	-	1	-	1	3	-	1	-	1	-	-	-	-	6	0.8	*C03-06*
Salivary glands	5	0	-	-	-	-	-	-	-	1	1	1	-	-	1	-	1	-	0.3	*C07-08*
Tonsil	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C09*
Other oropharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.1	*C10*
Nasopharynx	9	0	-	-	-	-	-	-	1	2	-	2	-	-	1	1	2	-	0.5	*C11*
Hypopharynx	3	0	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	0.2	*C12-13*
Pharynx unspecified	2	0	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	0.1	*C14*
Oesophagus	100	0	-	-	-	-	1	1	-	3	6	5	11	8	20	13	11	21	5.8	*C15*
Stomach	81	0	-	-	-	-	-	1	8	5	6	5	9	10	7	12	9	9	4.7	*C16*
Small intestine	4	0	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	0.2	*C17*
Colon	33	0	-	-	-	-	-	1	3	1	4	3	5	3	7	1	2	3	1.9	*C18*
Rectum	36	0	-	-	-	-	1	1	1	7	4	2	3	2	4	5	-	6	2.1	*C19-20*
Anus	25	0	-	-	-	-	-	1	-	-	2	5	2	4	1	3	5	2	1.5	*C21*
Liver	54	0	-	-	-	1	-	6	8	8	4	2	6	1	8	5	3	2	3.1	*C22*
Gallbladder etc.	5	0	-	-	-	-	-	-	-	-	-	1	3	-	-	-	1	-	0.3	*C23-24*
Pancreas	12	0	-	-	-	-	-	-	-	-	1	-	1	1	4	2	3	-	0.7	*C25*
Nose, sinuses etc.	8	0	-	-	-	1	-	-	-	-	3	-	1	1	-	1	-	1	0.5	*C30-31*
Larynx	4	0	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	1	0.2	*C32*
Trachea, bronchus and lung	12	0	-	-	-	-	1	-	-	-	1	1	5	1	1	1	-	1	0.7	*C33-34*
Other thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	0.1	*C37-38*
Bone	23	0	-	1	4	2	-	1	1	2	-	2	2	-	4	1	3	-	1.3	*C40-41*
Melanoma of skin	12	0	-	-	-	1	-	-	1	-	1	-	3	1	-	3	-	2	0.7	*C43*
Other skin	*22*	*0*	*1*	-	-	*2*	-	*2*	*3*	*2*	*1*	*1*	*4*	-	*4*	-	-	*2*	*1.3*	*C44*
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0.1	*C45*
Kaposi sarcoma	16	0	-	-	-	-	-	4	3	2	1	-	1	-	3	2	-	-	0.9	*C46*
Connective and soft tissue	13	0	-	-	1	2	2	-	1	2	1	1	-	1	2	-	-	-	0.8	*C47,C49*
Breast	254	0	-	-	-	-	3	7	8	25	41	23	40	25	36	18	19	9	14.8	*C50*
Vulva	15	0	-	1	-	-	-	-	-	3	2	3	1	1	1	1	-	2	0.9	*C51*
Vagina	8	0	-	-	-	1	-	-	-	-	2	-	2	-	2	-	-	1	0.5	*C52*
Cervix uteri	699	0	-	-	1	-	-	10	13	38	73	79	97	78	102	69	66	73	40.8	*C53*
Corpus uteri	11	0	-	-	-	-	-	-	-	-	1	1	2	-	2	4	-	1	0.6	*C54*
Uterus unspecified	28	0	-	-	-	1	1	1	2	4	3	4	3	2	1	3	2	1	1.6	*C55*
Ovary	*44*	*0*	-	-	*5*	-	-	*3*	*3*	*3*	*8*	*2*	*4*	*4*	*3*	*3*	*3*	*3*	*2.6*	*C56*
Other female genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C57*
Placenta	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C58*
Kidney	9	0	-	1	-	-	-	-	-	1	-	1	-	1	1	1	2	1	0.5	*C64*
Renal pelvis	1	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	0.1	*C65*
Ureter	1	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	0.1	*C66*
Bladder	*56*	*0*	-	-	-	-	*3*	-	*2*	*3*	*2*	*4*	*8*	*8*	*5*	*11*	*4*	*6*	*3.3*	*C67*
Other urinary organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0.1	*C68*
Eye	19	0	1	1	-	2	-	-	4	6	3	2	-	-	-	-	-	-	1.1	*C69*
Brain, nervous system	*6*	*0*	*2*	*1*	-	-	*1*	-	-	-	-	-	-	-	*2*	-	-	-	*0.3*	*C70-72*
Thyroid	13	0	-	-	-	-	3	-	-	-	-	4	2	1	1	-	1	1	0.8	*C73*
Adrenal gland	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0.1	*C74*
Other endocrine	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1	*C75*
Hodgkin disease	6	0	-	-	-	1	-	-	-	-	2	1	1	-	-	-	1	-	0.3	*C81*
Non-Hodgkin lymphoma	22	0	1	-	-	-	-	1	3	6	2	1	4	-	1	-	1	2	1.3	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	7	0	-	-	-	-	-	-	-	-	1	1	3	-	1	-	1	-	0.4	*C90*
Lymphoid leukaemia	5	0	-	-	-	1	-	-	-	-	-	1	1	1	-	-	1	-	0.3	*C91*
Myeloid leukaemia	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	0.1	*C92-94*
Leukaemia unspecified	2	0	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	0.1	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MDS*
Other and unspecified	24	0	-	-	1	-	1	1	1	2	2	2	3	2	3	2	-	4	1.4	*O&U*
All sites	1737	0	5	6	12	16	18	43	71	127	181	160	231	159	232	165	147	164		*ALL*
All sites but C44	1715	0	4	6	12	14	18	41	68	125	180	159	227	159	228	165	147	162	100.0	*ALLbC44*

Filter used: Adrcode = 'x31'

Table builtWed Feb 12 11:41:17 EAT 2025 by CanReg5.

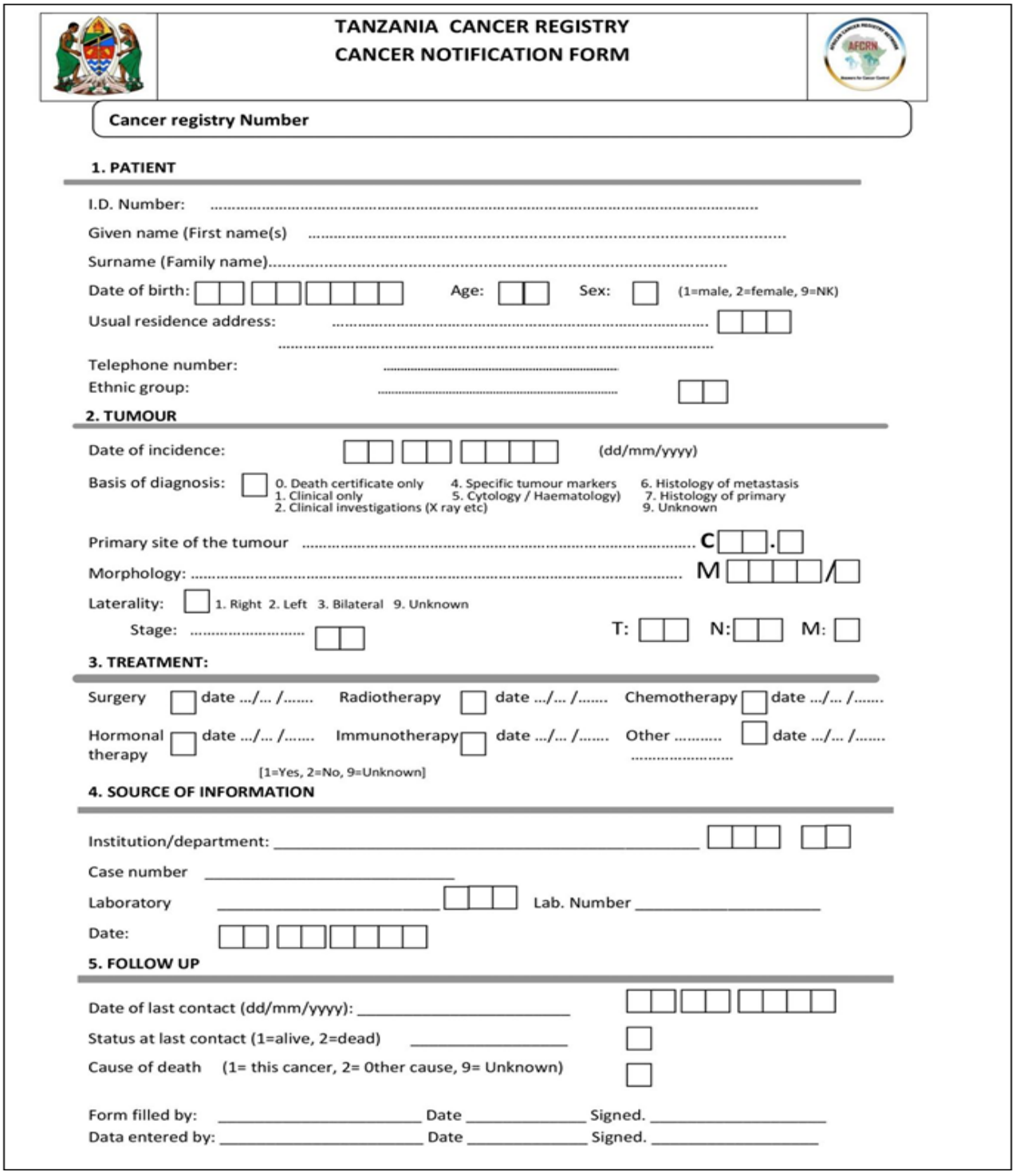
DODOMA CANCER REGISTRY (2019-2023)

Dodoma

Cases by age group (Period) - Male

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	(%)	ICD (10th)
Lip	2	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.2	*C00*
Tongue	9	0	-	-	-	-	-	-	-	-	-	1	1	4	-	1	1	1	0.7	*C01-02*
Mouth	5	0	-	-	-	1	-	-	-	-	1	1	-	-	1	-	1	-	0.4	*C03-06*
Salivary glands	7	0	-	-	-	-	-	-	3	-	-	-	1	1	-	1	1	-	0.6	*C07-08*
Tonsil	4	0	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	-	0.3	*C09*
Other oropharynx	5	0	-	-	-	-	-	-	-	-	-	-	1	-	1	3	-	-	0.4	*C10*
Nasopharynx	20	0	-	-	-	-	-	3	1	-	5	-	-	2	5	1	2	1	1.6	*C11*
Hypopharynx	6	0	-	-	-	-	-	-	-	-	-	-	1	2	1	-	2	-	0.5	*C12-13*
Pharynx unspecified	6	0	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	2	0.5	*C14*
Oesophagus	242	0	-	-	2	1	-	3	2	5	13	18	26	27	50	30	26	39	19.4	*C15*
Stomach	97	0	1	-	-	-	-	-	2	6	3	7	7	14	13	18	11	15	7.8	*C16*
Small intestine	5	0	-	-	-	-	-	-	1	-	-	-	-	-	3	-	-	1	0.4	*C17*
Colon	45	0	-	-	-	-	1	1	5	3	2	7	6	3	2	6	4	5	3.6	*C18*
Rectum	42	0	-	-	-	-	2	2	4	3	4	2	5	4	6	3	3	4	3.4	*C19-20*
Anus	12	0	-	-	-	-	-	-	1	1	-	4	2	1	2	-	1	-	1.0	*C21*
Liver	77	0	-	-	-	-	2	6	7	4	8	7	5	7	9	7	5	10	6.2	*C22*
Gallbladder etc.	8	0	-	-	-	-	-	-	-	-	-	-	2	2	2	-	-	2	0.6	*C23-24*
Pancreas	13	0	-	-	-	-	-	-	-	1	2	-	1	2	1	2	3	1	1.0	*C25*
Nose, sinuses etc.	8	0	-	-	-	-	1	1	-	1	-	-	1	-	-	-	2	2	0.6	*C30-31*
Larynx	10	0	-	-	-	-	-	-	-	-	1	-	1	1	1	3	-	3	0.8	*C32*
Trachea, bronchus and lung	12	0	-	-	-	-	-	1	-	-	-	3	-	1	4	-	1	2	1.0	*C33-34*
Other thoracic organs	2	0	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	0.2	*C37-38*
Bone	23	0	-	4	-	3	3	2	1	1	1	1	3	-	-	2	1	1	1.8	*C40-41*
Melanoma of skin	9	0	-	-	1	1	-	-	-	-	-	-	1	1	1	2	2	-	0.7	*C43*
Other skin	*15*	*0*	*1*	-	-	-	-	*1*	*1*	-	-	*1*	*4*	-	*1*	*1*	*1*	*4*	*1.2*	*C44*
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	0.1	*C45*
Kaposi sarcoma	27	0	-	-	-	-	1	2	-	7	4	-	8	1	1	1	2	-	2.2	*C46*
Connective and soft tissue	15	0	-	-	2	1	-	-	-	1	3	4	1	1	1	1	-	-	1.2	*C47,C49*
Breast	27	0	-	-	-	-	-	1	-	2	-	2	2	3	8	1	4	4	2.2	*C50*
Penis	4	0	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	-	0.3	*C60*
Prostate	331	0	-	-	-	-	-	-	-	-	-	4	12	19	43	61	75	117	26.5	*C61*
Testis	7	0	-	-	1	-	-	-	1	-	-	-	1	1	1	1	1	-	0.6	*C62*
Other male genital organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C63*
Kidney	14	0	5	-	1	-	-	-	1	-	1	-	-	1	2	1	1	1	1.1	*C64*
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C65*
Ureter	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C66*
Bladder	*57*	*0*	-	-	*1*	-	-	*1*	*3*	*3*	*4*	*7*	*4*	*3*	*6*	*3*	*5*	*17*	*4.6*	*C67*
Other urinary organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C68*
Eye	18	0	2	-	-	1	1	-	1	1	4	4	2	-	1	1	-	-	1.4	*C69*
Brain, nervous system	*4*	*0*	-	-	-	-	*2*	-	*1*	-	-	-	-	-	*1*	-	-	-	*0.3*	*C70-72*
Thyroid	1	0	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	0.1	*C73*
Adrenal gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C74*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C75*
Hodgkin disease	7	0	-	-	2	-	-	1	-	1	-	-	-	1	1	-	-	1	0.6	*C81*
Non-Hodgkin lymphoma	21	0	-	-	-	2	2	2	2	-	2	-	3	4	2	1	1	-	1.7	*C82-85,C96*
Immunoproliferative diseases	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C88*
Multiple myeloma	6	0	-	-	-	-	-	-	-	1	1	-	-	1	1	1	-	1	0.5	*C90*
Lymphoid leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C91*
Myeloid leukaemia	7	0	-	-	-	-	-	-	-	-	2	2	1	1	-	1	-	-	0.6	*C92-94*
Leukaemia unspecified	2	0	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	0.2	*C95*
Myeloproliferative disorders	*0*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*0.0*	*MPD*
Myelodysplastic syndromes	*1*	*0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*1*	*0.1*	*MDS*
Other and unspecified	28	0	-	1	-	1	2	1	-	2	1	3	2	3	5	2	3	2	2.2	*O&U*
All sites	1262	0	9	5	10	12	17	28	37	44	66	80	107	112	178	155	164	238		*ALL*
All sites but C44	1247	0	8	5	10	12	17	27	36	44	66	79	103	112	177	154	163	234	100.0	*ALLbC44*

Appendix 2: Cancer Registries Notification Form



TANZANIA CANCER REGISTRY
CANCER NOTIFICATION FORM

Cancer registry Number

1. PATIENT

I.D. Number: .....

Given name (First name(s) .....

Surname (Family name).....

Date of birth: ☐☐ ☐☐ ☐☐☐☐ Age: ☐☐ Sex: ☐ (1=male, 2=female, 9=NK)

Usual residence address: ..... ☐☐☐

.....

Telephone number: .....

Ethnic group: ..... ☐☐

2. TUMOUR

Date of incidence: ☐☐ ☐☐ ☐☐☐☐ (dd/mm/yyyy)

Basis of diagnosis: ☐ 0. Death certificate only 1. Clinical only 2. Clinical investigations (X ray etc) 4. Specific tumour markers 5. Cytology / Haematology) 6. Histology of metastasis 7. Histology of primary 9. Unknown

Primary site of the tumour ..... C☐☐.☐

Morphology: ..... M☐☐☐☐/☐

Laterality: ☐ 1. Right 2. Left 3. Bilateral 9. Unknown

Stage: ..... ☐☐ T: ☐☐ N:☐☐ M: ☐

3. TREATMENT:

Surgery ☐ date .../... /..... Radiotherapy ☐ date .../... /..... Chemotherapy ☐ date .../... /.....

Hormonal therapy ☐ date .../... /..... Immunotherapy ☐ date .../... /..... Other ..... ☐ date .../... /.....

[1=Yes, 2=No, 9=Unknown]

4. SOURCE OF INFORMATION

Institution/department: _____ ☐☐☐ ☐☐

Case number _____

Laboratory _____ ☐☐☐ Lab. Number _____

Date: ☐☐ ☐☐ ☐☐☐☐

5. FOLLOW UP

Date of last contact (dd/mm/yyyy): _____ ☐☐ ☐☐ ☐☐☐☐

Status at last contact (1=alive, 2=dead) _____ ☐

Cause of death (1= this cancer, 2= 0ther cause, 9= Unknown) ☐

Form filled by: _____ Date _____ Signed. _____

Data entered by: _____ Date _____ Signed. _____

Appendix 3: List of participants

No.	Name	Designation/Specialty	Institution
1	Dkt. Omary Ubuguyu	ADNCD	MoH
2	Edith Bakari	PM -NCD	MoH
3	Caroline A Mrema	National Cancer Coordinator	MoH
4	Asha Gembe	DM&HTN Coordinator	MoH
5	Kristy Friesen	Cancer Registry Administrator	Vital Strategies
6	Julius P. Alloyce	Country Coordinator for Cancer Registries	MoH/VS
7	Riksum Kazi	Senior Security, Safety and Travel Manager	Vital Strategies
8	Ephrahim Magafu	Statistician	MoH/VS
9	Gisbert Msigwa	Statistician	MoH/VS
10	Galus Alfred Sililo	Statistician	MoH
11	Dr. David Mpalale	Epidemiology	MoH
12	Agatha Kuya	Dietician	MoH
13	Happiness Hadji	NCD Administrator	MoH
14	Sigilbert Mrema	Epidemiologist	IHI
15	Dr Godbless Mfuru	Epidemiologist	MoH/FELTP
16	Syabo Mwaisengela	Data Analyst	MoH
17	Dr Bernard Gombanila	Nuclear Physicist	BMC
18	Franco Afyusisye	CanReg Consultant	BMC
19	Dr. Crispin Kahesa	Director of Cancer Prevention Service	ORCI
20	Dr. Glory Frank Makupa	Oncologist	KCMC
21	Mdoka Omary Maulid	Statistician	NBS
22	Salum Kalonge	Cancer Registrar	KCMC
23	Jafari Mohamed	Cancer Registrar	ORCI
24	Jonas Valerian	Cancer Registrar	BMH
25	Emmapaula Hezron	Cancer Registrar	MZRH

Appendix 4: List of facilities in the catchment areas of the registries

CANCER REGISTRY NAME	CATCHMENT AREA
Mwanza	Bugando Medical Centre
	Sengerema DDH
	Sekou Toure RRH
	Kamanga Medics
	Nyamagana DH
	CF Hospital
	Aga Khan Hospital
	Shree Hindu Mandal
Kilimanjaro	Mawenzi Hospital
	St Joseph
	Mwambo Hospital
	TPC Hospital
	Kibosho Hospital
	Marangu Hospital
	Faraja Hospital
	St Monica
	Kilema Hospital
	Siha Hospital
	Kibong'oto Hospital
	Charlotte Hospital
	Hai Hospital
	Machame Hospital
	Rombo Hospital
	Huruma Hospital
	Ngoyoni hospital
Dodoma	Makay Pathology Lab
	Lancet Lab
	Dodoma RRH
	Benjamin Mkapa Hospital
	St Gema Hospital
	DCMC
ORCI	Muhimbili NH
	Aga Khan Hospital
	Hindu Mandal
	Besta Diagnostic
	Amana Hospital
	Ekanywa Hospital

	Temeke Hospital
	Tabata OPD Clinics
	Mnazi Mmoja Hospital
	Ibrahim Haji
	Kairuki Hospital
	TMJ Hospital
	Tumaini Hospital
	Mwananyamala Hospital
	RITA
Mbeya	Mbeya Zonal RF
	Mbeya RRH
	Ks Hospital
	Uyole District Hospital
	Mbalizi Council Designated Hospital

PICTURE ATTACHMENT

Team participated in the first report writing in Tanzania; Ministry of Health, Vital Strategy, Registrars, National Bureau of Statistics and Data Impact

Site visit conducted at KCMC for data quality enhancement

Data entry in Mbeya Cancer Registry