NNCR

Namibia National Cancer Registry

Inspire Hope • Activate Change • Impact Lives

WO 30

CANCER ASSOCIATION OF NAMIBIA

Strengthening Cancer Surveillance and Advocacy: Lessons from Namibia

Cancer surveillance remains one of the most crucial, yet often under-resourced, components of effective cancer control across Africa. In Namibia, the first systematic attempt at cancer case-finding was initiated in 1995 through a partnership between the Cancer Association of Namibia (WO30) and Rossing Uranium Mine (Pty) Ltd. The objective was straightforward yet transformative: to understand how many people were affected by cancer and where they were located. This pioneering initiative laid the foundation for what has evolved into the Namibia National Cancer Registry.

For more than three decades, the registry has been sustained through the leadership, operational commitment, and fundraising efforts of CAN. In the absence of a formally established and government-funded national cancer registry, this programme has remained Namibia's primary source of population-based cancer data.

Over time, the registry has expanded in scope and sophistication, generating valuable insights into cancer incidence, trends, and geographic distribution. These data are fundamental to informing evidence-based planning, resource allocation, prevention initiatives, advocacy efforts, and the evaluation of cancer control interventions. They provide policymakers and healthcare stakeholders with an increasingly clear picture of the country's cancer burden.

However, the journey has not been without challenges. Cancer surveillance in Namibia continues to be affected by limitations in reporting systems, inconsistent access to pathology and medical records, varying levels of integration across public and private sectors, and the absence of a comprehensive national policy framework that formally embeds cancer registration within the health system. These constraints inevitably affect the completeness and timeliness of data collection. Without robust and high-quality cancer data, efforts to advocate for improved services, strengthen prevention strategies, address inequities in access to care, and mobilise sustainable investment are significantly weakened.

… continued:

Strengthening Cancer Surveillance and Advocacy: Lessons from Namibia

This session will present Namibia's experience, highlighting achievements made possible through persistence, partnership, and civil society leadership, while also reflecting on the systemic challenges that continue to hinder comprehensive cancer surveillance. The Namibian experience demonstrates both the opportunities and complexities associated with civil society-led cancer registries and offers valuable lessons for countries facing similar gaps in surveillance capacity.

Ideally, population-based cancer registration should be embedded within and supported by national health systems under the stewardship of Ministries of Health, given its importance as a public health function. At the same time, Namibia's registry represents more than thirty years of institutional knowledge, infrastructure development, relationship-building, and financial investment by CAN.
Any future evolution of the registry should therefore ideally be built upon these existing strengths through meaningful collaboration, shared ownership, and a carefully considered approach that safeguards data quality, sustainability, and continuity of service.

The ultimate goal is not simply the transfer of responsibility, but the co-creation of a resilient national cancer surveillance system that serves the best interests of all Namibians affected by cancer.

HISTORY

The “The Registry” aka “Namibia National Cancer Registry (NNCR)” was started in 1995, when Rössing Uranium mine, in co-operation with the Namibian Ministry of Health (Oncology clinic) and the Cancer Association of Namibia, collected all cancer cases reported to the Windhoek state pathology laboratory and the single existing private pathology laboratory from 1979 to 1994. From 1995 onwards, the Cancer Association of Namibia commenced active registration of both pathology-based and clinical cases for four sentinel regions (Erongo, Oranjemund, Oshakati and Khomas).

• Cases that are diagnosed in South Africa are re-routed to the Namibian registry via a network of registries, which are technically supported by the International Agency for Research on Cancer (IARC).

• Since 2010 a more active case finding and pathology report input approach was initiated by CAN to build a stronger dataset.
“The Registry” is fully funded and managed by CAN.

The Namibia National Cancer Registry aims to provide a database of information that will ultimately lead to improved cancer prevention and control among the Namibian population.

Collaboration with Rhineland Cancer Registry, Germany

Mandate, Mission and Objectives of the Namibia National Cancer Registry (NNCR)

Mandated by the Board of the Directors of the Cancer Association of Namibia, the NNCR, as a programme within the Cancer Association of Namibia (WO30), aim to provide a database of information that will ultimately lead to improved cancer prevention and control in Namibia.

We have tasked ourselves with the CAN Board-instructed mandate to:

1) Monitor the incidence of cancer among the Namibian population on an ongoing basis;
2) Observe cancer trends to predict future cancer patterns in Namibia;
3) Provide information on the burden of cancer in different regions, and among different ethnic groups in Namibia;
4) Monitor the effects of cancer prevention programmes, early detection or screening, treatment and palliative care;
5) Provide information that will serve as a basis for research into cancer causes specific to the Namibian population.

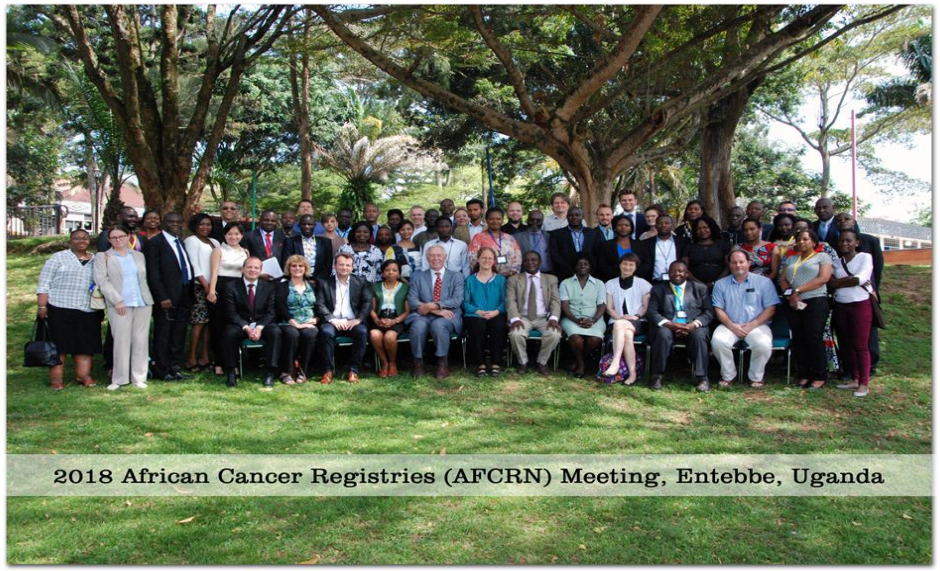
Our core Mission remains to:

1) Act as network agent between all relevant stakeholders to access cancer cases.
2) Collect and analyse cancer incidences.
3) Process data and build reputable data output.
4) Report on incidences to fight cancer.
5) Provide quality output data to Ministry of Health and Social Services for planning.

**At no point may the patient confidential information be compromised. Data entered by relevant stakeholders remain the responsibility of Cancer Association of Namibia!*

Our objectives are to answer these questions:

1) How many persons have been diagnosed with cancer and what types (cancer incidence) in Namibia?
2) Which forms of cancer have increased, which forms have decreased?
3) What are the differences between women, men and childhood cancer with regard to patterns of cancer cases?
4) Do lifestyle factors contribute to cancer incidence in Namibia?
5) Do environmental factors contribute to cancer incidence in Namibia?
6) Does ethnicity contribute to cancer incidence in Namibia?
7) Do instruments of early cancer detection have an effect?
8) Do individual forms of cancer appear more often in certain regions of the country?
9) How many persons that have fallen ill in the past 5 years are living in a specific region?
10) What is the role of immune-deficient factors (i.e. HIV) on cancer incidence in Namibia?

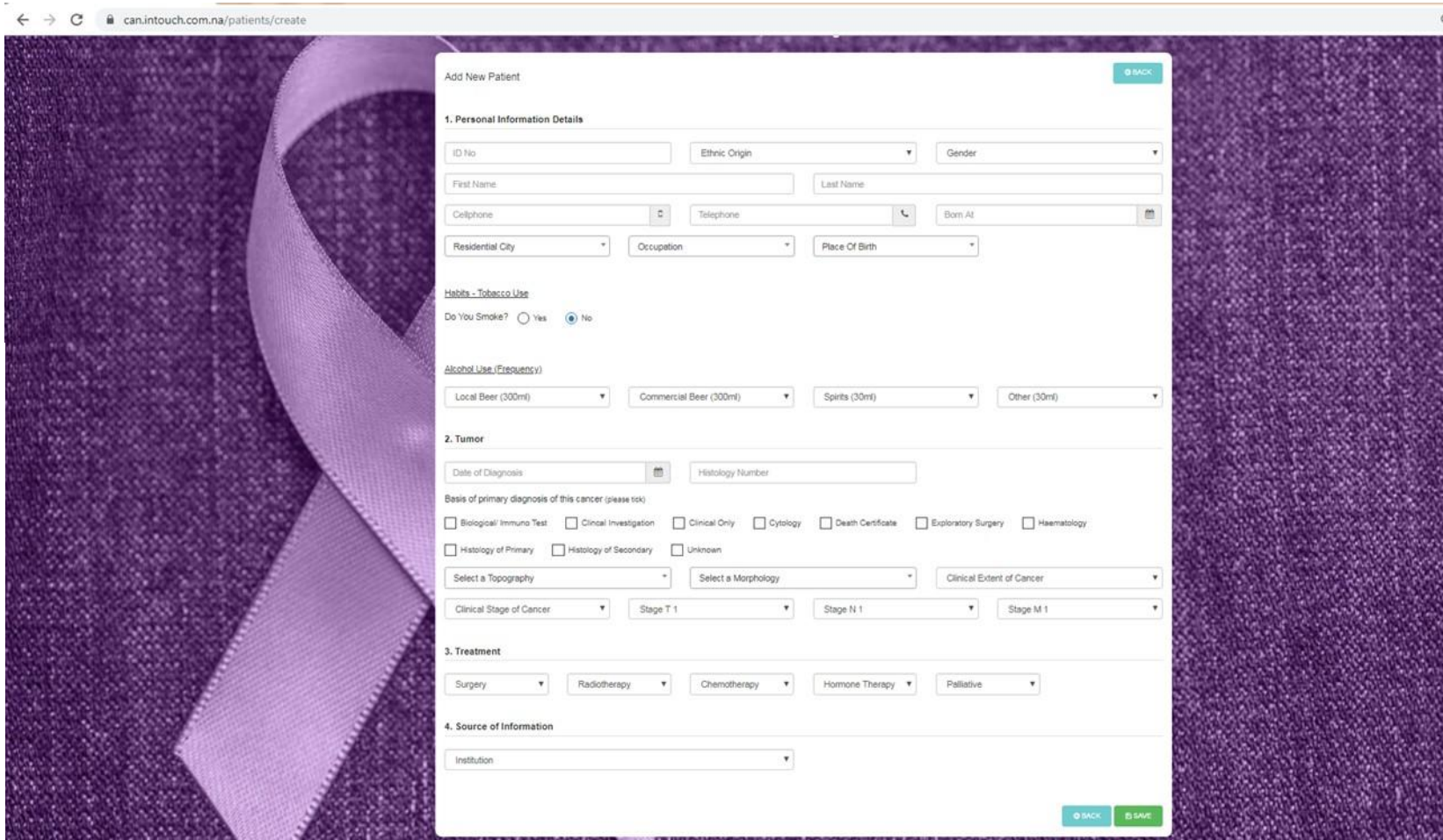


Software and Systems

PARATUS and InTouch Interactive Media has assisted CAN in the development of an online electronic portal for data submission, while **CanReg5** system is used for data entry, check and outputs.

Tumour site (topography) and histology (morphology) are recorded by CAN staff, according to the International Classification of Diseases for Oncology (ICD-O-3). Since 2010 ICD-10 has been used to code cancer site
Only selected staff are allowed access to registry data; the CanReg file is password protected, and the registry office is kept locked.

NNCR work in collaboration with the AFRICAN CANCER REGISTRY NETWORK (AFCRN), a network of fellow cancer registries in Africa, that partner with IARC, GLOBOCAN and WHO.



NAMIBIAN CANCER REGISTRY

CANCER NOTIFICATION FORM

Cancer Registration No: _____

1. PATIENT

Patient's No.: .....

I.D. Number: .....

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

Surname (Family name) .....

Date of Birth: Day ☐☐ Month ☐☐ Year ☐☐☐☐ Age ☐☐

Sex: ☐ (1=male, 2=female, 9=NK)

Marital Status: Single ☐ Married ☐ Divorced ☐ Widowed ☐

Residence address: ..... Code ☐☐☐☐

Occupation: ..... Industry .....

Place of Birth: ..... Code ☐☐☐☐

Telephone Number: .....

Ethnic Origin *(Please tick)*

1	☐ White	2.	☐ Baster	3.	☐ San/Bushman	4.	☐ Caprivian
5.	☐ Damara	6.	☐ Herero	7.	☐ Kavango	8.	☐ Coloured
9.	☐ Nama	10.	☐ Tswana	11.	☐ Ovambo	99.	☐ Other

HABITS

Tobacco Use

Do you Smoke?

No ☐

Yes ☐

What kind of tobacco do/did you smoke?

1 ☐ Cigarettes

2 ☐ Pipe

3 ☐ Chewing Tobacco

Age when you started smoking? ☐☐

Age when you stopped smoking? ☐☐

Alcohol Use *(Frequency)*:

	Local Beer (300ml)	Commercial Beer (300ml)	Spirits (30ml)	Other (30ml)
Daily				
1 per week				
1 per week				
Never				

Reproductive History *(Female only)*

Age at first monthly period? ☐☐

How many children do you have (did have - include died) ☐☐

Age of first pregnancy? ☐☐

Age of last pregnancy? ☐☐

2. TUMOR

Date of incidence: (diagnosis) Day ☐☐ Month ☐☐ Year ☐☐☐☐

Histology No.: ☐☐☐☐☐☐☐☐

Basis of diagnosis of this cancer *(please tick)*

0. ☐ Unknown
1. ☐ Clinical only
2. ☐ Radiology / Sonargraphy
3. ☐ Exploratory Surgery / Autopsy
4. ☐ Specific biochemical / immunological tests
5. ☐ Cytology / Haematology
6. ☐ Histology of metastasis
7. ☐ Histology of primary
8. ☐ Autopsy with histology
9. ☐ Death certificate only
10. ☐ Recurrence

Primary site of the tumour / Topography..... T-Code C☐☐.☐

Histoological Type / Morhology:..... M-Code ☐☐☐☐☐/☐

Stage: ..... ☐☐ T: ☐ N: ☐ M: ☐

Clinical Extent of Cancer Local ☐ Regional ☐ Metastatic ☐

3. TREATMENT

Surgery ☐ Radiotherapy ☐ Chemotherapy ☐ Hormone Therapy ☐ Palliative ☐

(1=Yes, 2=No, 9=Unknown)

4. SOURCE OF INFORMATION

Institution/ward: _____ ☐☐☐

Case number: _____

Laboratory _____ ☐☐☐ Lab. Number _____

5. FOLLOW UP

Date of last contact _____ Day ☐☐ Month ☐☐ Year ☐☐☐☐

Status at last contact (1=alive, 2=dead, 9=NK) ☐

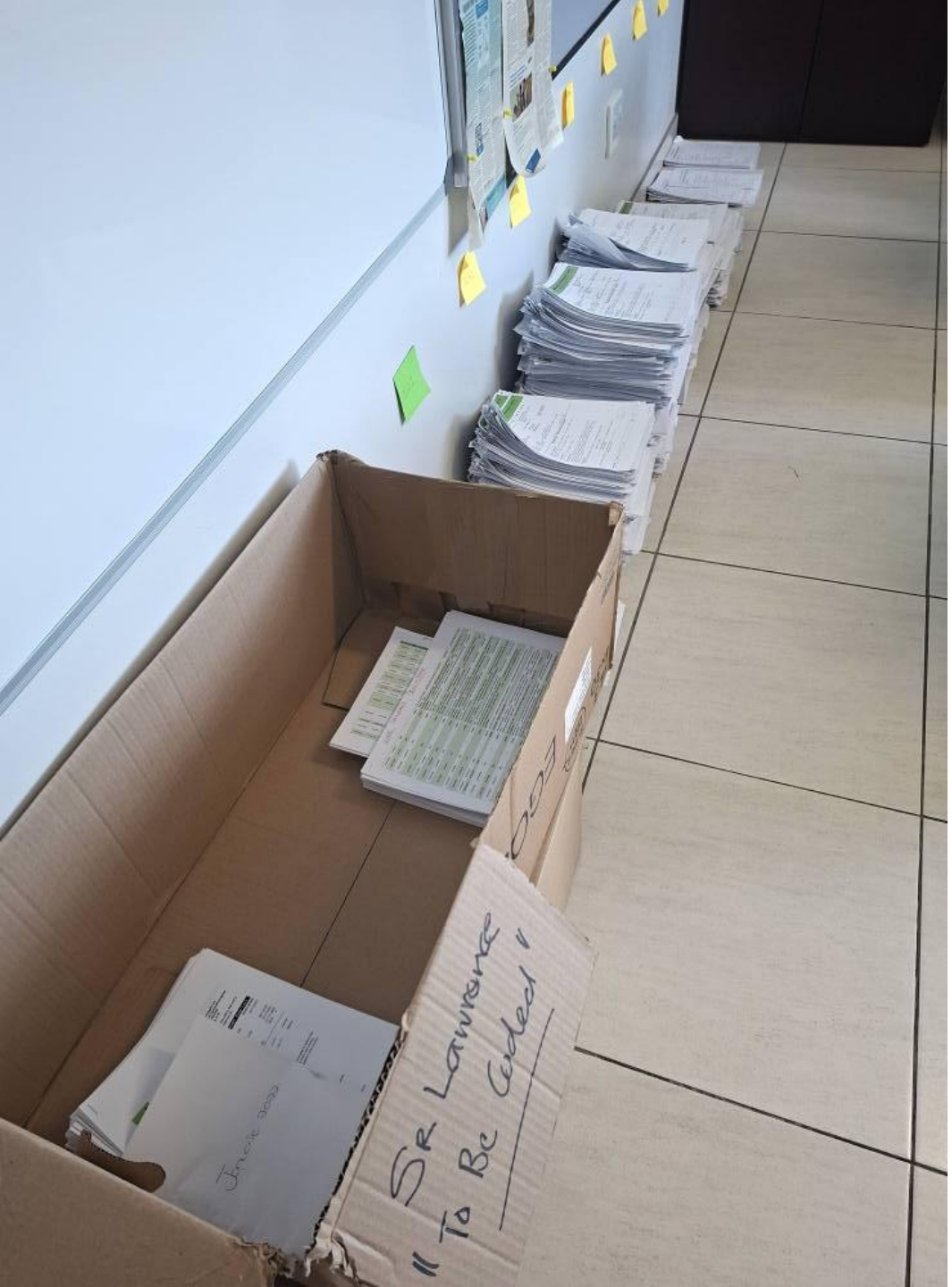
Date of Death Day ☐☐ Month ☐☐ Year ☐☐☐☐

Cause of death (1=this cancer, 2=other cause, 9=NK) ☐

Form filled by: _____ Date: _____ Signed: _____
(Print Name)

Data entered by: _____ Date: _____ Signed: _____
(Print Name)

Sentinel Area: Windhoek ☐ Swakopmund ☐ Walvis Bay ☐ Oshakati ☐
Oranjemund ☐


SR Lawrence
" To Be Coded "


When the Gas Runs Out
HPV vaccine
Nuwe deurbraak in navorsing oor 'cannabis'-blare
Sign up bonus!
CERTIFICATE
HPV vaccine: What does it protect against and for whom is it an option?
Heartbeat
The HPV Vaccine Roll-out in Namibia: Ethical and Legal Considerations
EGOS

Sources of information for the registry

- Windhoek Central Hospital (which includes the Dr AB May Cancer Care Centre) and Katutura Hospital
- Five private hospitals in Windhoek (Roman Catholic, Rhino Park, Medi-Clinic, Paramount and Lady Pohamba).
- Namibian Oncology Centre (NOC)
- At present, primary data collection takes place at the Dr AB May Cancer Care Centre and the Namibian Oncology Centre to which all cancer patients are supposed to be sent for assessment and possible treatment if state or private. Paramount Hospital, GVI Oncology in Namibia and several smaller chemotherapy-only treatment centres also serve as data collection and patient referral points.
- The 2 main pathology laboratories in the country, Namibian Institute of Pathology (NIP) and the private, PathCare.
- Dr Holm Pathology – C44 Skin CA and Melanoma.
- Some information on cases from Namibia is also received from the laboratory in Cape Town.

Patient details in addition to medical information (<u>if at least available</u>): NAME, SURNAME, ID or BIRTH, CONTACT DETAILS, REGION OF STAY, REGION OF BIRTH, LIFESTYLE INFLUENCERS then a **UNIQUE PATIENT IDENTIFIER NUMBER** is created per file.

This effort makes Namibia one of very few NATIONAL POPULATION-BASED cancer registries in Africa.

"A system that systematically collects information from multiple sources on all reportable neoplasms occurring in a geographically defined population." — IARC Global Cancer Observatory (GCO)

Data collection by the Namibia National Cancer Registry

The NNCR attempts to record, for each cancer patient, the first name and surname, date of birth or approximate age, I.D. number, gender, marital status, ethnic origin, current residential address, place of birth, tobacco and alcohol use, reproductive history (for females), date of diagnosis of cancer, histology number, tumour site and histology, clinical stage of disease, basis of diagnosis, treatment given, vital status, and date and cause of death.

Until late 2010 data from the cancer registration form were entered into CanReg4 Software (Cooke et al., 2001; Cook et al., 2005). The data were migrated to CanReg5 (http://canreg.iarc.fr) in late 2010 and the data were validated and duplicates were identified using check and conversion programs for cancer registries (Ferlay et al., 2005). Tumour site and histology were coded using ICD-0-3 (2) (Fitz et al., 2001) at the time of data entry, but were converted to ICD-10 for the tabulation of cases. Since 2010 ICD-10 has been used to code cancer site.

Confidentiality

The registry adheres to the guidelines of the IACR/IARC (2004) with respect to the preservation of confidentiality in connection with or during the process of collection, storage, use and transmission of identifiable data. Requests for the release of data should be made in writing to the registry; requests for data involving identification of individual subjects require special permission, involving appropriate safeguards for confidentiality.

Methods of registration

Case finding relies upon receipt of registration forms, completed by nursing staff in the admissions unit of AB May Cancer Centre, NOC and copies of pathology reports, as described above. Currently, there is no active case finding and follow-up in Namibia, unless conducted by staff of the Cancer Association of Namibia on an ad-hoc basis. Lack of funding in this regard hampers this part of the project, as only the Cancer Association of Namibia and some donors who agree on the urgency of data pertaining to incidence reports cover all costs pertaining to the NNCR.

Data management

The registry is housed at the **Cancer Association of Namibia** in a dedicated office. A desktop computer is used for data entry employing the specialised cancer registration software running in a Microsoft Windows environment. CanReg5 is employed. Prior to data analysis, the data were exported as a comma-separated-values dataset and these data were checked using the IARC check and conversion programs. This generated a set of data that were manually checked by registry staff that updated the data in CanReg5 for analysis.

CanReg – The Future

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Background

CanReg5 is an open source software package for population based cancer registries to enter, quality control, and store data, based on international standards. Technology, third party tools and libraries, has evolved quite a bit since CanReg5 was designed, some six years ago. This has allowed us to keep adding new functionality, like, for example advanced analytical functions. (Poster IACR 2012.)

Figure 1: The CanReg5 welcome screen.

Methods

IARC, in collaboration with the IARC Regional Hub for cancer registration in Mumbai, have designed, and will implement, a series of new features for the CanReg5 software based on analysis of feedback from the users as well as surveying available tools and libraries.

Migration Wizard

The aim of the migration wizard is to make migrations from CanReg4 to CanReg5 as easy as possible for the users. On most computers it should just be a matter of launching the tool, and deciding what CanReg5 table to store what CanReg4 variable.

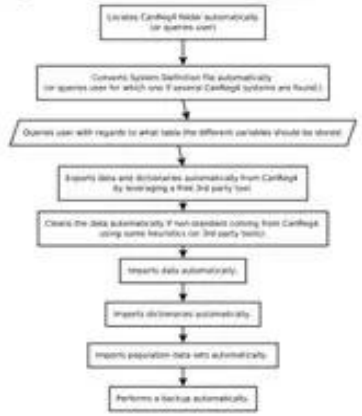


Figure 2: Flowchart showing new migration process.

Behind the scenes CanReg5 will use 3rd party tools to open the database files from a CanReg4 installation and extract the incidence data along with the dictionaries and the population datasets before it gets imported into the a new CanReg5 database.

International Agency for Research on Cancer

World Health Organization

Results

Easier migration from CanReg4

The first major update to the CanReg5 suite is an easy to use wizard to help the user migrate from CanReg4 - leveraging free third party software and libraries transparently. (See "Migration Wizard").

Web based registration

Another upcoming addition will be a facility to do web browser based registration.

Technology

We will be leveraging powerful modern standard compliant JavaScript libraries like jQuery, AngularJS, and a server side RESTful framework (using Java Play or Spark, for example) running on top of already existing CanReg5 code. Not only should such an interface be easier to maintain than the current Java Swing one, but it will also be more familiar for end users, and we will still get a nice decoupling of the UI and the core program.

Confidentiality

Confidentiality will also always be an issue for web based registration, but there are ways to make it secure enough. We will introduce the concept of "Write only" users where the users will only see the cases they are currently entering. This will limit the flow of sensitive information, but they will still get the benefits of, for example, cross validation checks. The data from such a tool would go into a "holding" database for the local users to verify and merge into the main database. We will also allow the option to only allow connections locally - even if data entry is done in a web browser.

Browser based analysis

By moving to a web interface we can leverage many of the emerging libraries for data visualization, like D3.js, to generate both interactive, and printable visualization of user data. (See poster "Web Based Visualization of Cancer Registry Data", Ervik et al, Ottawa 2014.)

Analysis

Another important upcoming addition is a wizard to facilitate tailoring of analytical tables, along with other new analytical functions.

One of the main areas of development in CanReg5 recently has been the addition of new high quality ready to print analytical output, ranging from graphs showing time trends to quality control tables. All these tools have been designed to be very configurable, but so far this functionality has only been accessible for "power users". We are designing a graphical user interface to run on top of this system, to allow users to have more control over their analysis in CanReg5. Since everything is file based users can share these configuration files to produce - and reproduce - comparable analytical output.

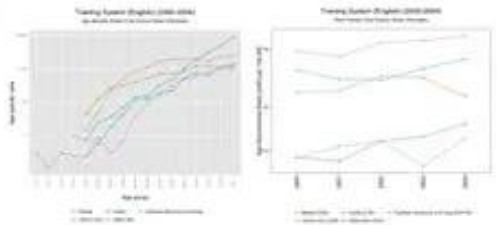


Figure 3: Examples of output of CanReg5 analytical tools.

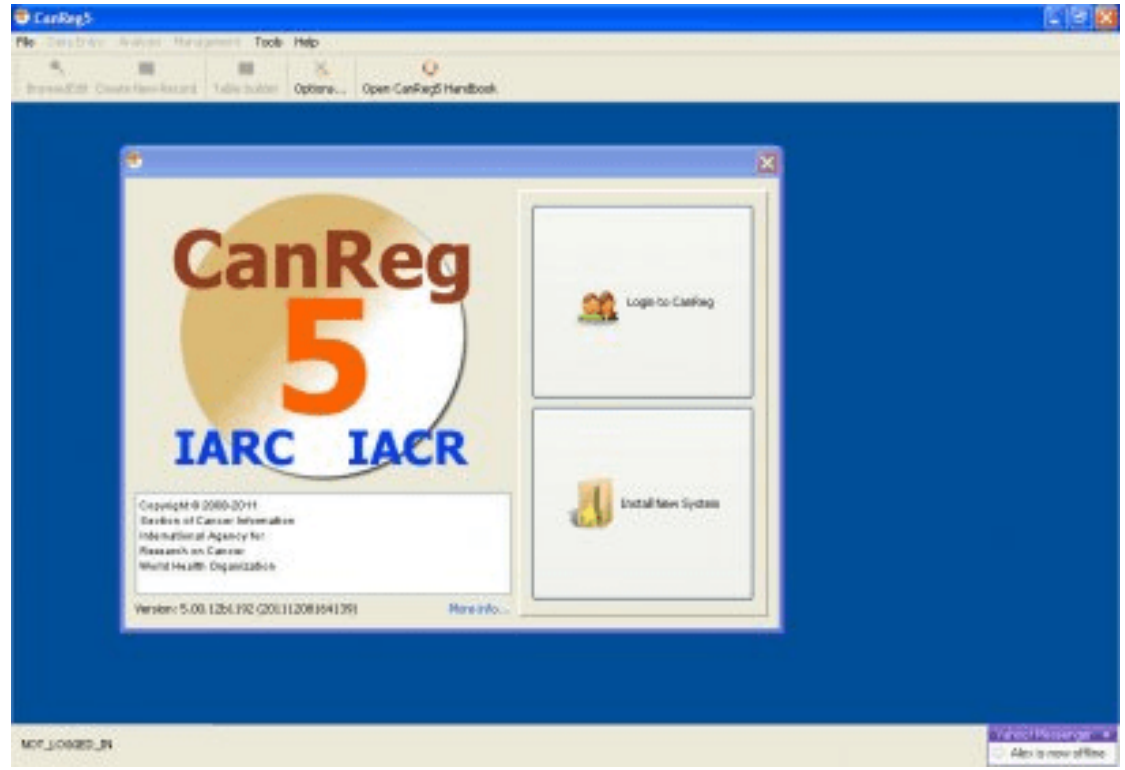
CanStaging – TNM staging tool integration

Users of CanReg5 can already use CanStaging (the online cancer staging tool developed by IARC, NICR, and UICC) by manually moving the generated variables into the CanReg5 registration forms, but this could also be better integrated into CanReg5.

Discussion and Conclusions

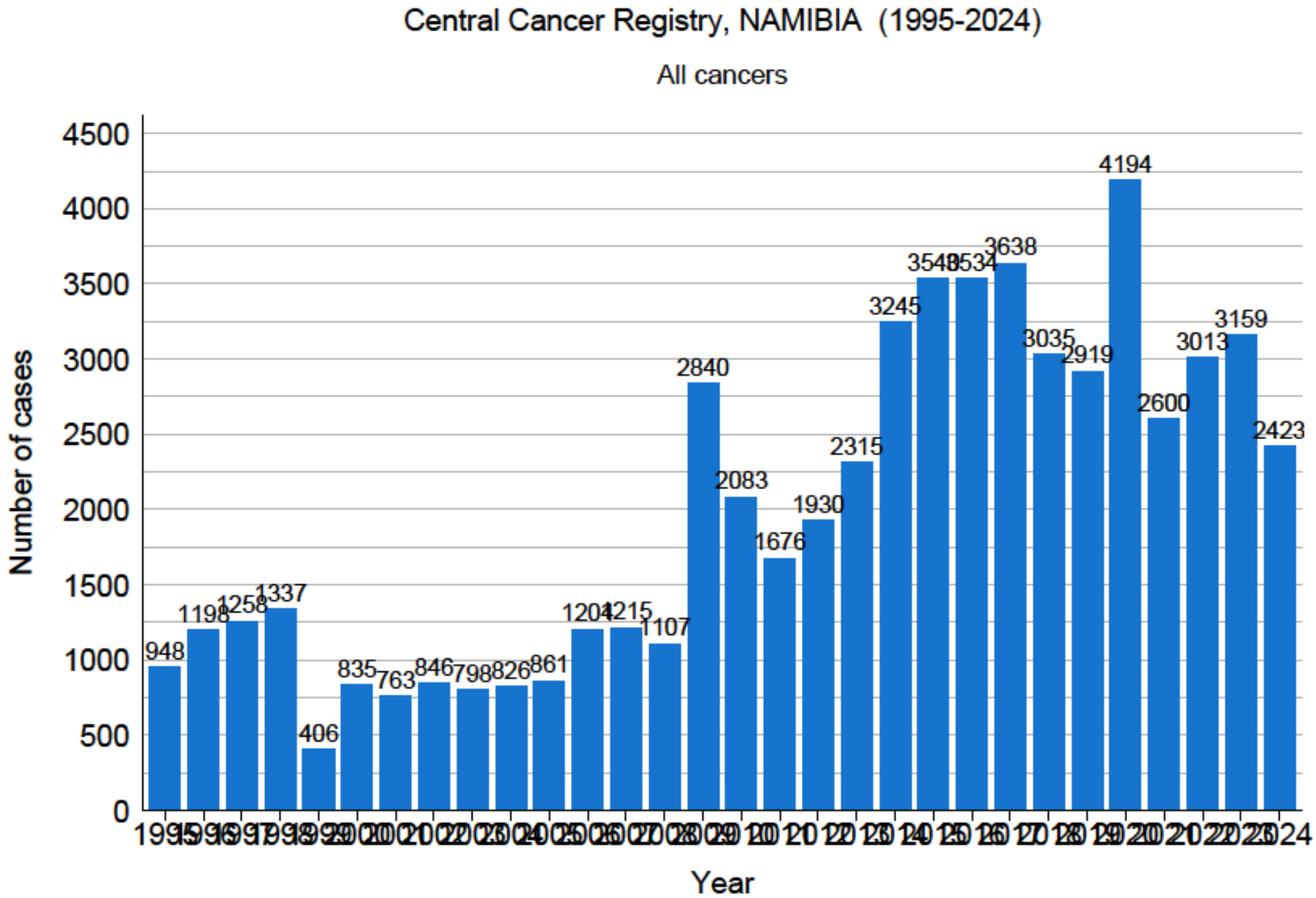
CanReg5 is still distributed free of charge to cancer registries worldwide.

References:
1. Wheeler: "Why Open Source Software", accessed April 2007, http://www.dwheeler.com/oss_fs_why.html
2. Ervik: "CanReg5 – The Handbook", accessed June 2014, (http://www.iacr.com.fr/CanReg5/CanReg5-instructions.pdf)
3. Cooke, Parkin, Farley: "CanReg4", 2002-2005 (http://www.iacr.com.fr/iacr_canreg4.htm)
4. Curado et al: International Rules for Multiple Primary Cancers (ICD-O 3), IARC Internal Report No. 2004/02, 2004

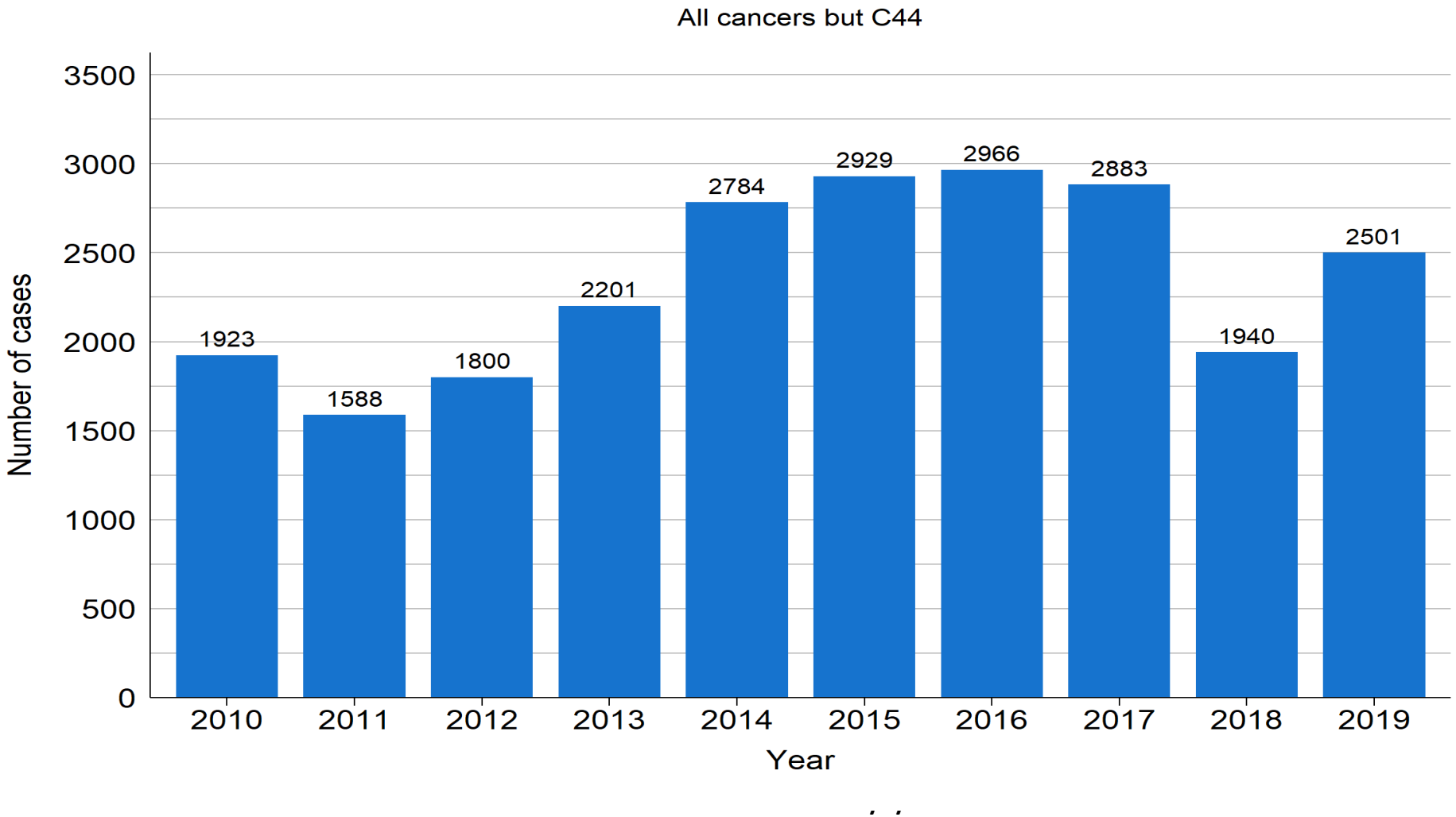


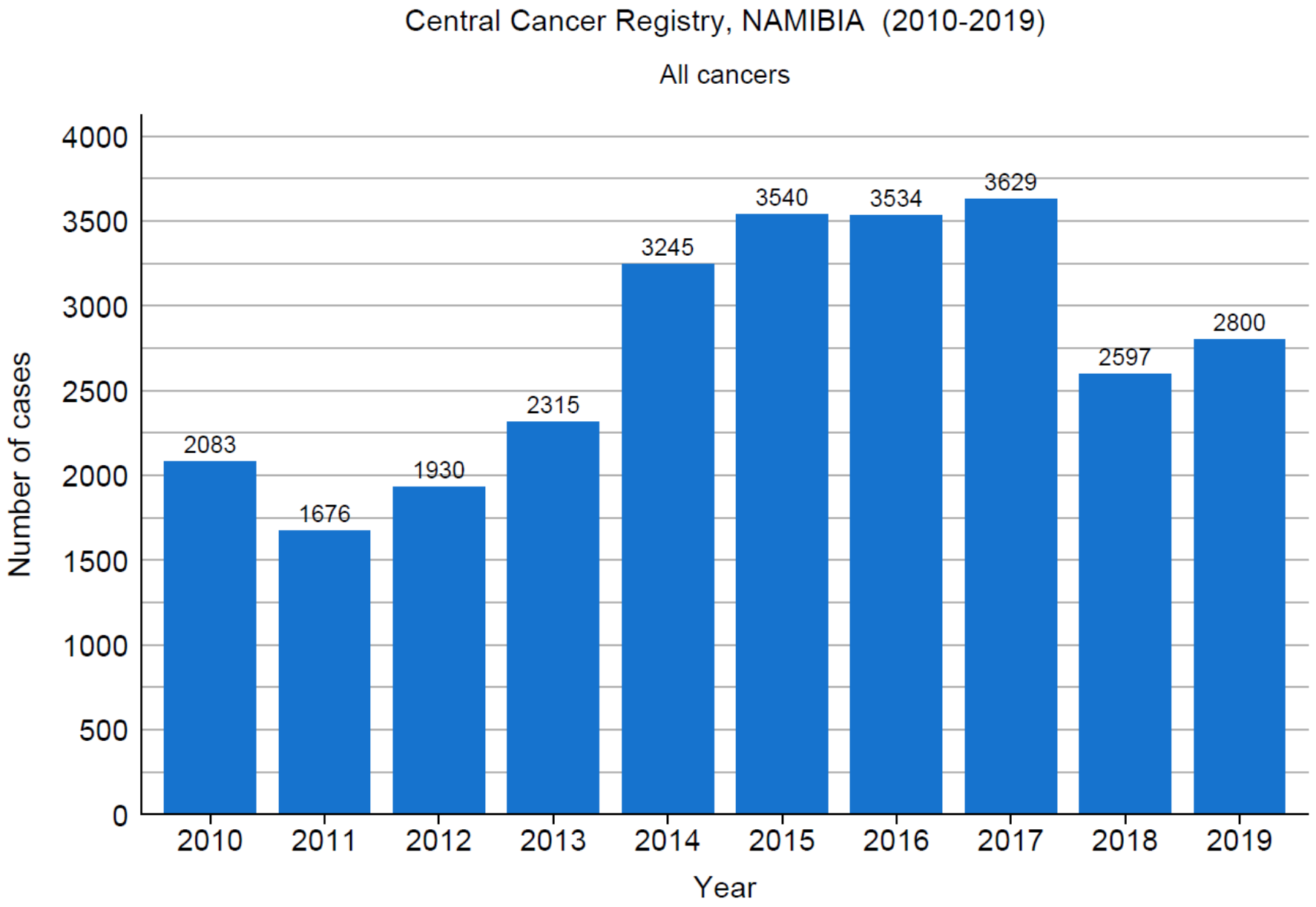
CanReg 5

Open source


Central Cancer Registry, NAMIBIA (1995-2024)
All cancers
Number of cases
Year
0
500
1000
1500
2000
2500
3000
3500
4000
4500
948
1198
1258
1337
406
835
763
846
798
826
861
1204
1215
1107
2840
2083
1676
1930
2315
3245
3548
3534
3638
3035
2919
4194
2600
3013
3159
2423

NUMBER OF CASES BY YEAR, Namibia: 2010 – 2019
As at September 2025

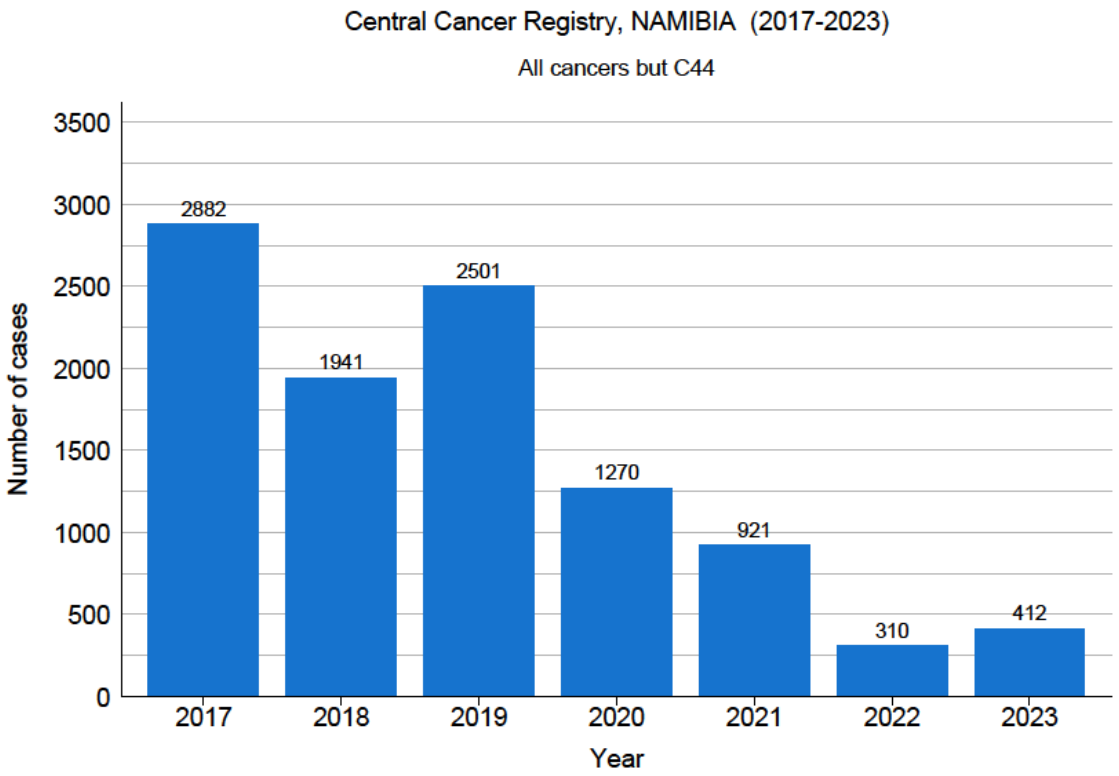


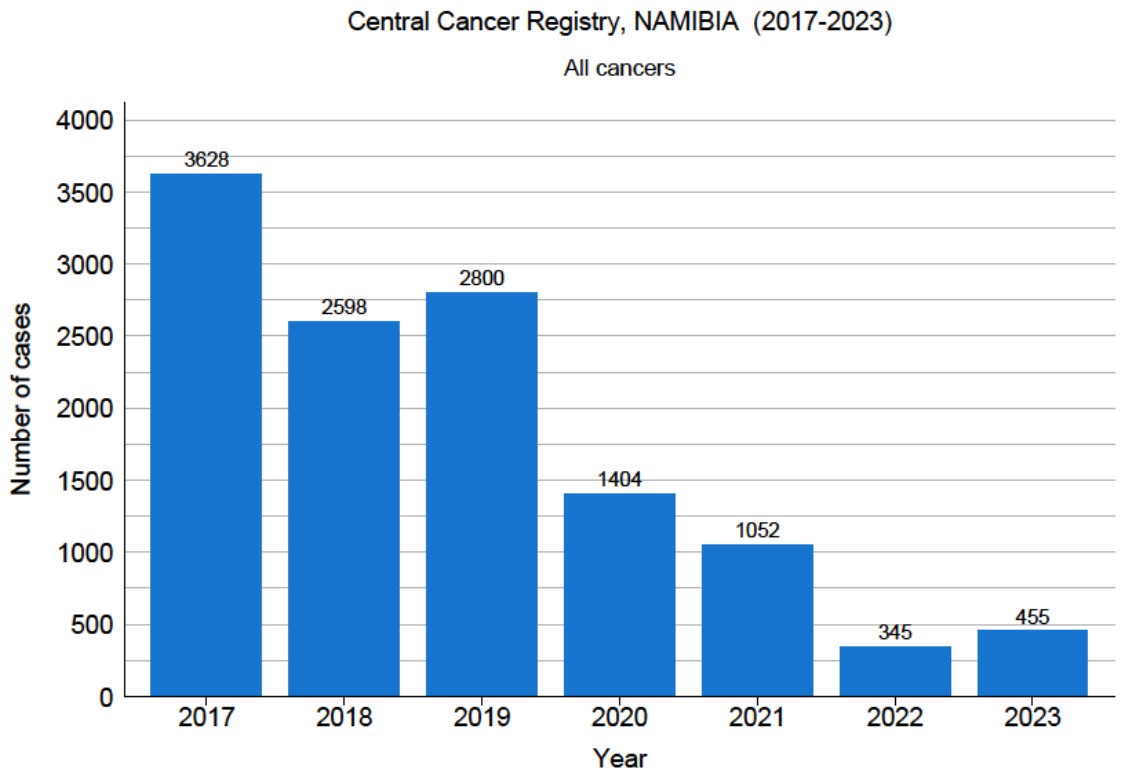


C44 Skin Cancers reported:

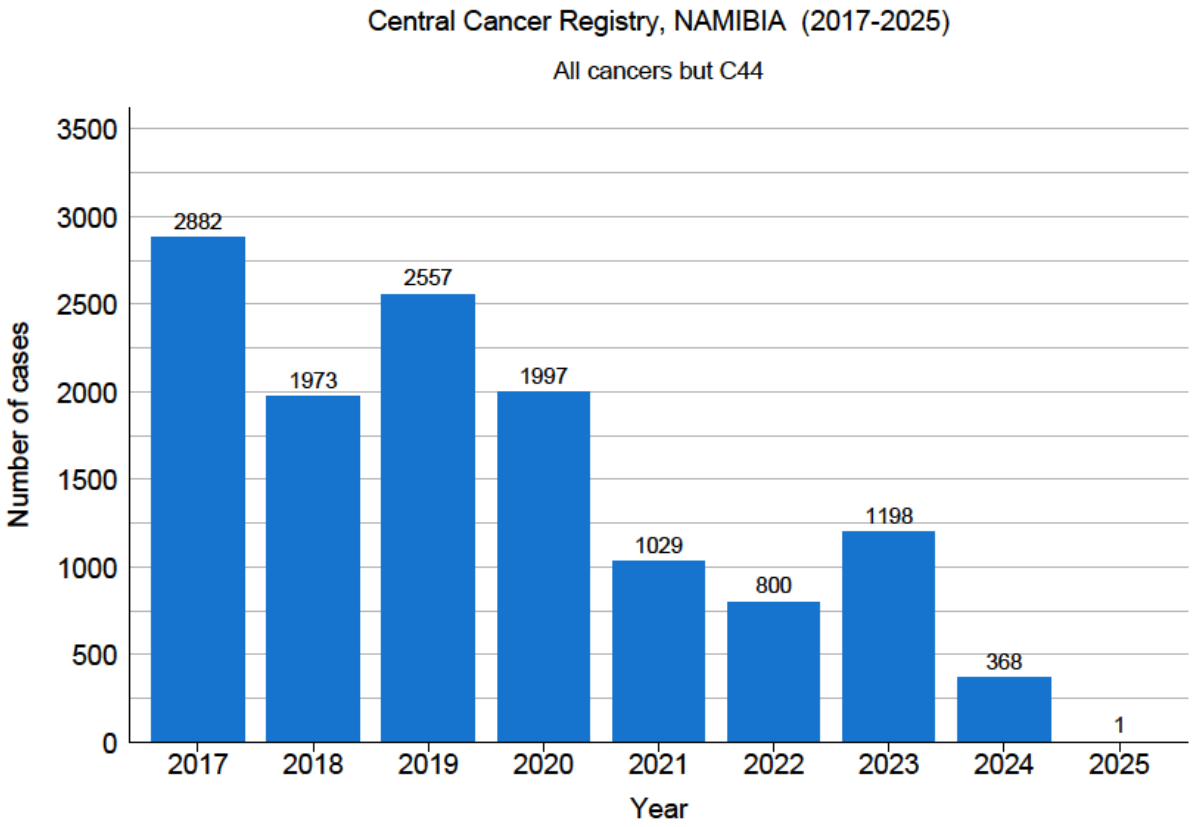
2010 - 160
2011 - 88
2012 - 130
2013 - 114
2014 - 461
2015 - 611
2016 - 568
2017 - 746
2018 - 657
2019 - 299

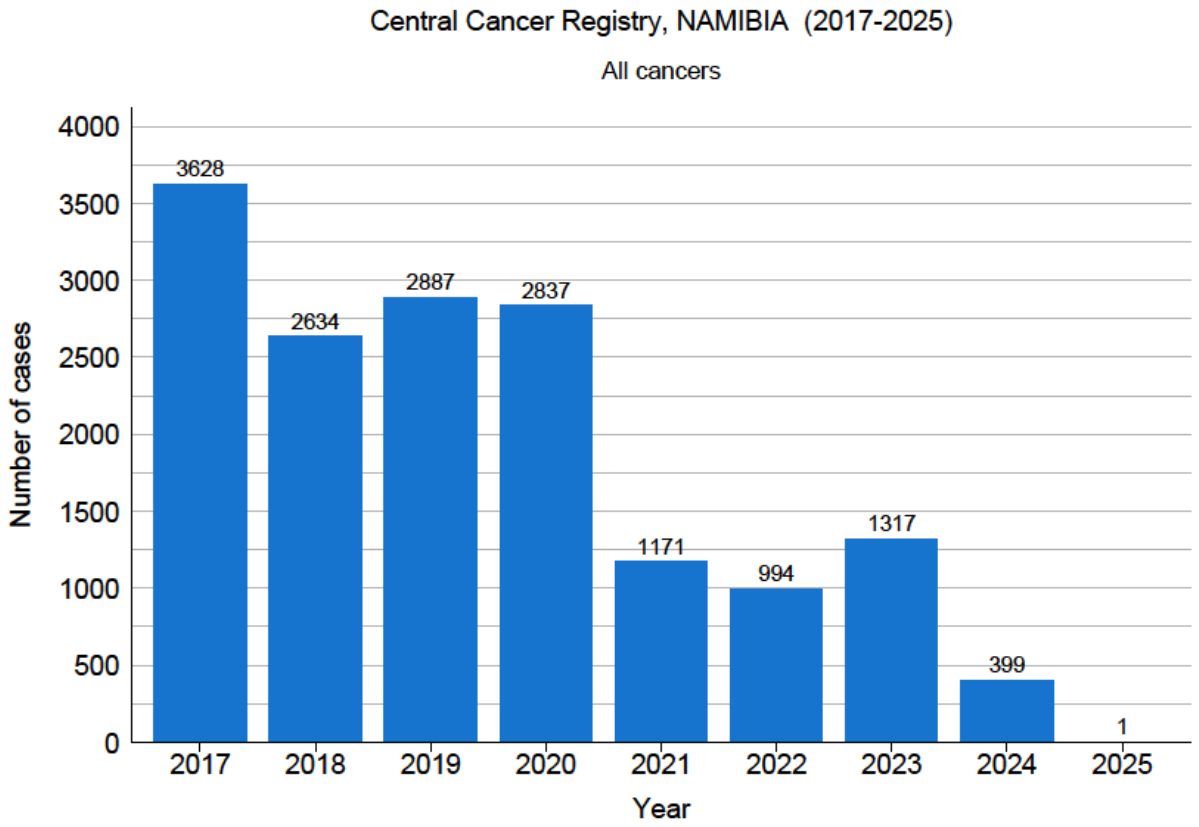
NUMBER OF CASES BY YEAR, Namibia: 2017 – 2023
as processed at 05.12.2025



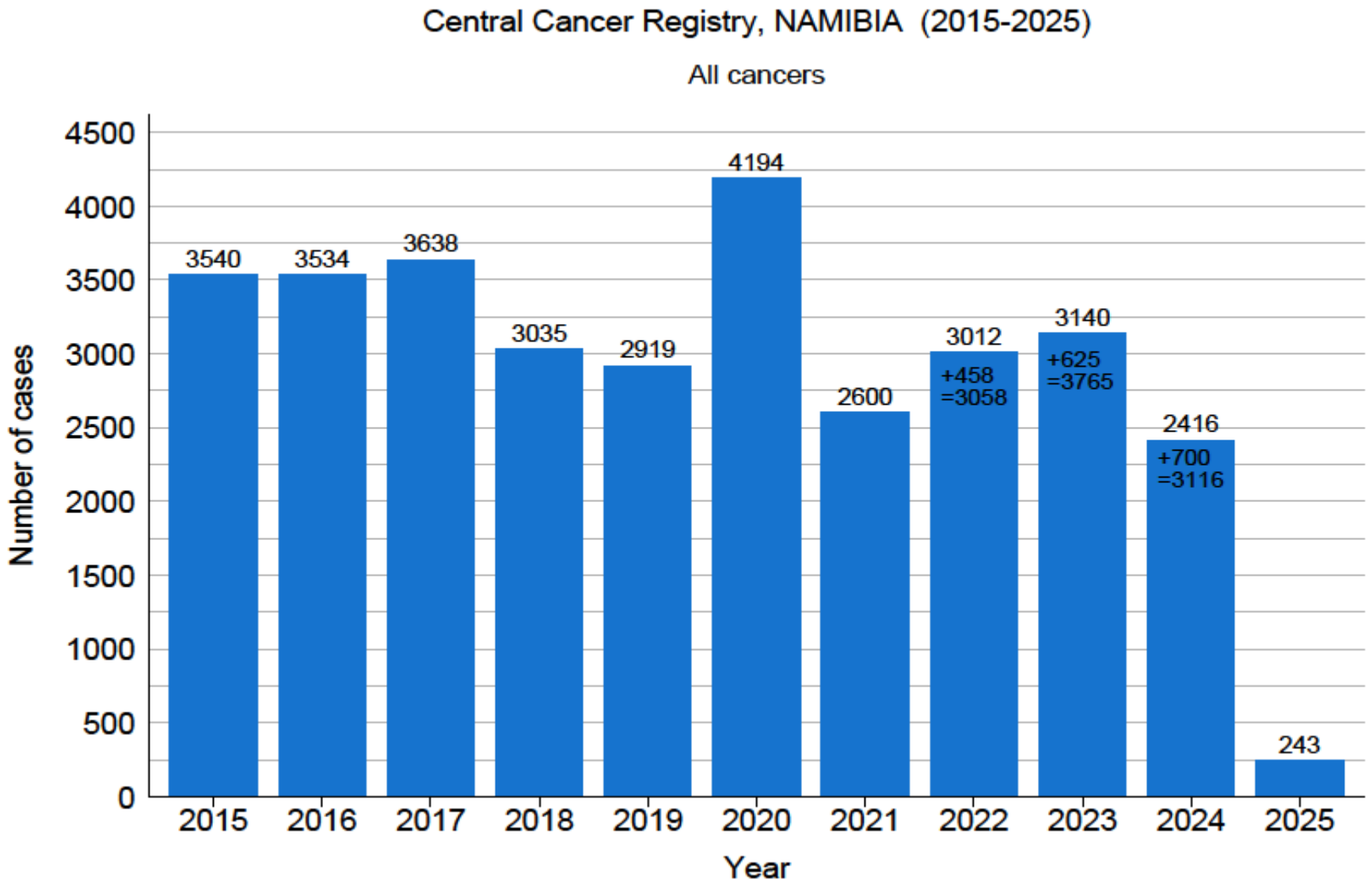


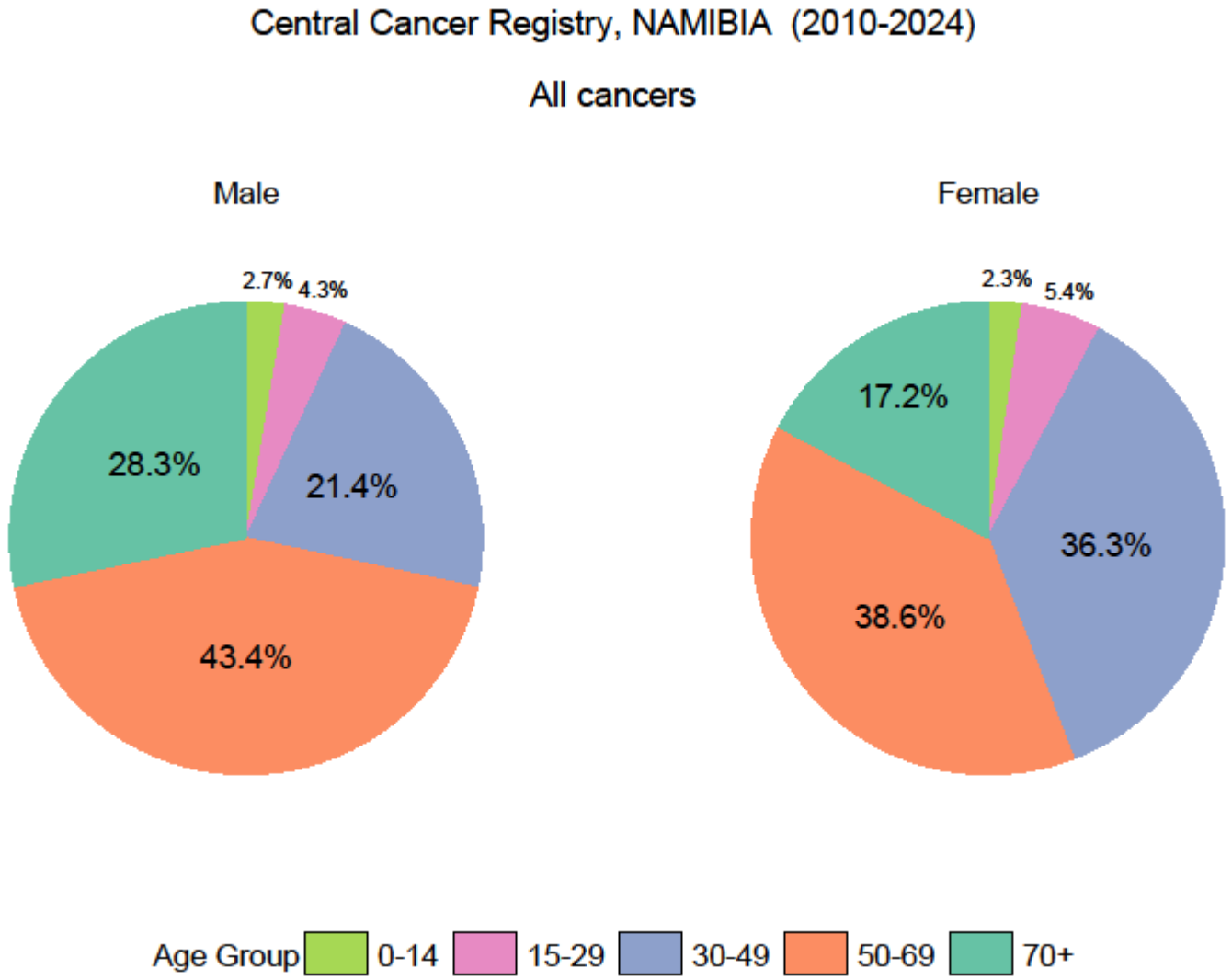
NUMBER OF CASES BY YEAR, Namibia: 2017 – 2025
as processed at 13.03.2026





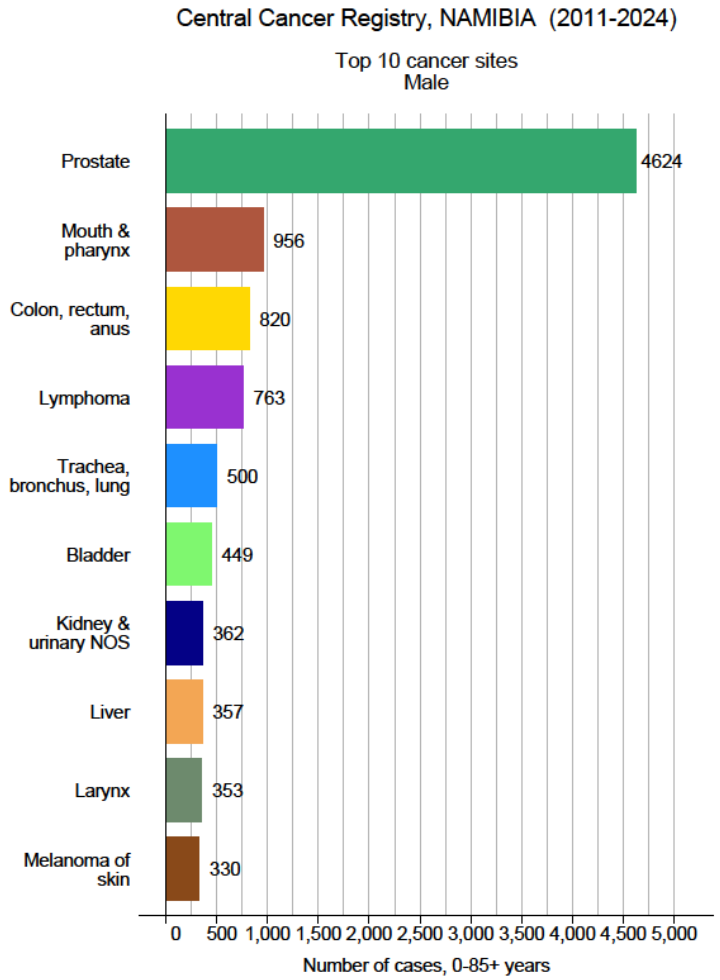
NUMBER OF CASES BY YEAR, Namibia: 2017 – 2025
as processed at 4 June 2026

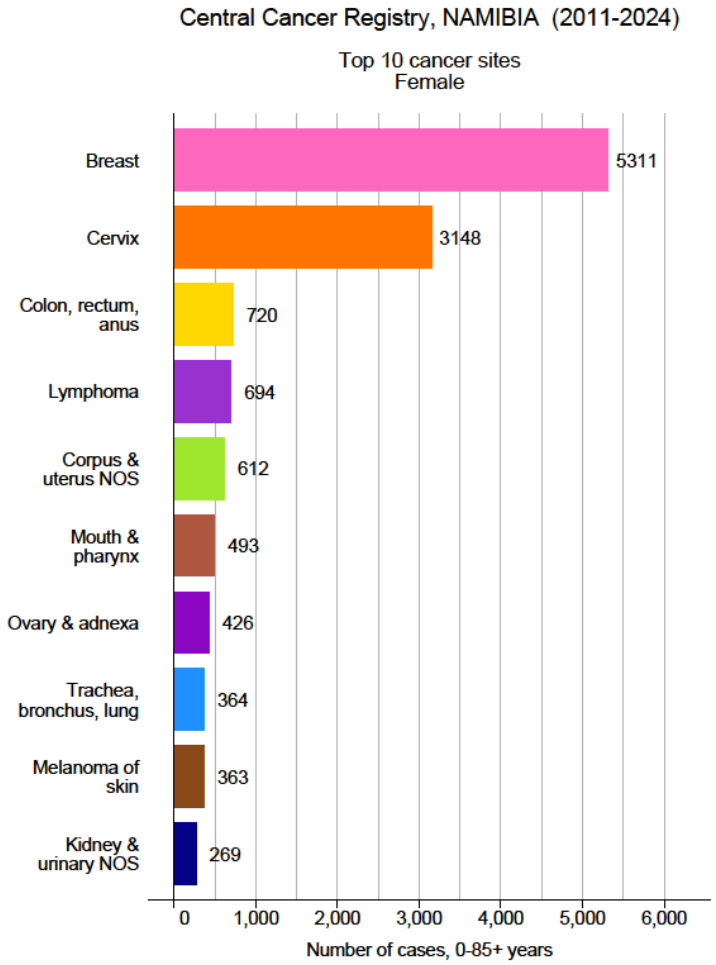




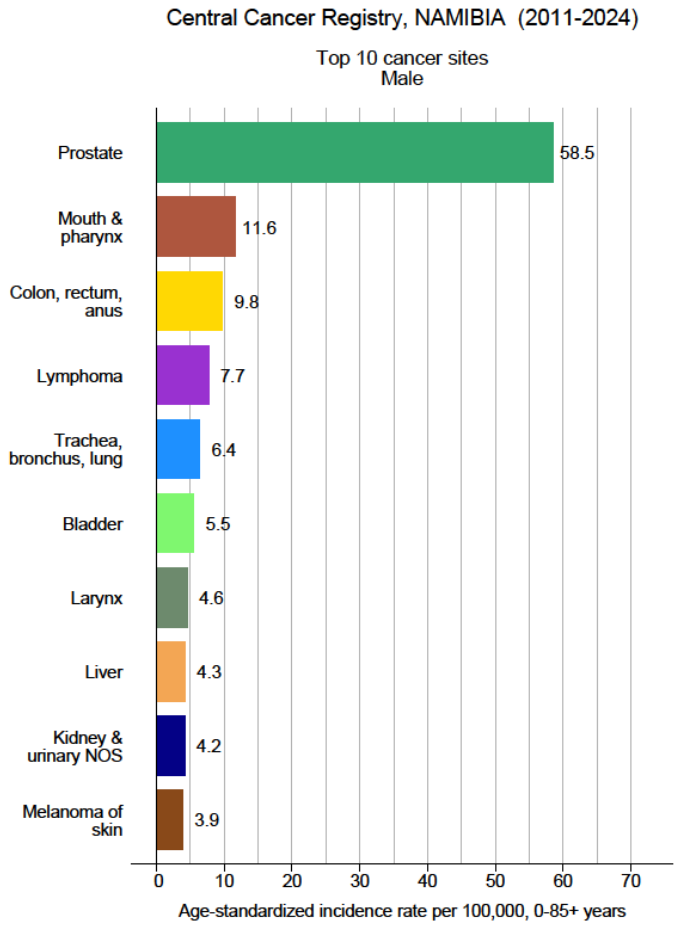
Pie chart, distribution of cases by age group and sex, Namibia: 2010 - 2024

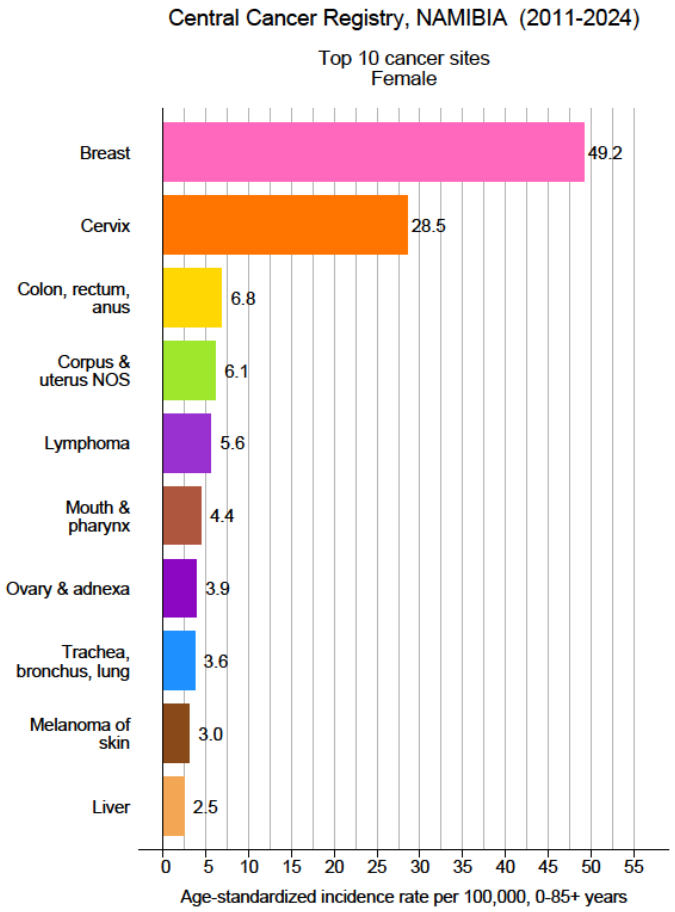
- **Top 10 cancers, number of cases, Namibia: 2011 - 2024**





- **Top 10 cancers, Age Standardized Rates, Namibia: 2011 - 2024**





CHILDHOOD CANCERS (0 TO 14 YEARS)

Table 2 shows incidence of childhood cancer, classified according to the International Classification of Childhood cancer (ICCC-3) (Steliarova-Foucher et al, 2005).

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	293	177	194	664	1.0	100.0	102.9	73.9	78.9	86.2	86.6
	Unknown	25	15	15	55	1.6	8.3	8.8	6.3	6.1	7.1	7.2
I	Leukaemias	35	29	23	87	1.2	13.1	12.3	12.1	9.3	11.3	11.4
II	Lymphomas	22	27	27	76	1.5	11.4	7.7	11.3	11.0	9.9	9.8
III	CNS neoplasms	10	10	14	34	0.7	5.1	3.5	4.2	5.7	4.4	4.4
IV	Neuroblastoma	21	11	1	33	0.7	5.0	7.4	4.6	0.4	4.3	4.5
IX	Soft tissue sarcomas	40	37	41	118	1.2	17.8	14.0	15.5	16.7	15.3	15.3
V	Retinoblastoma	65	9	0	74	0.8	11.1	22.8	3.8	0.0	9.6	10.1
VI	Renal tumors	56	17	4	77	1.0	11.6	19.7	7.1	1.6	10.0	10.4
VII	Hepatic tumors	3	5	4	12	1.0	1.8	1.1	2.1	1.6	1.6	1.6
VIII	Malignant bone tumors	0	6	22	28	0.8	4.2	0.0	2.5	8.9	3.6	3.4
X	Germ cell tumors	10	3	13	26	0.2	3.9	3.5	1.3	5.3	3.4	3.3
XI-XII	Other	6	8	30	44	0.8	6.6	2.1	3.3	12.2	5.7	5.4

Central Cancer Registry, NAMIBIA (2011-2024)

Namibia Statistics Agency

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-	80-	85+	(%)	ICD (10th)
Lip	21	0	-	-	1	-	-	5	2	5	2	-	3	1	1	-	1	-	-	-	0.1	*C00*
Tongue	106	1	1	-	-	-	-	-	6	4	5	10	15	11	23	5	9	7	5	4	0.6	*C01-02*
Mouth	195	1	-	-	1	5	5	3	11	9	7	10	16	25	27	28	5	24	3	15	1.1	*C03-06*
Salivary glands	77	2	-	1	3	1	3	4	12	2	12	7	5	7	3	5	4	1	3	2	0.4	*C07-08*
Tonsil	39	0	-	-	-	-	-	1	1	3	2	3	3	4	7	2	3	6	2	2	0.2	*C09*
Other oropharynx	12	0	-	-	-	-	1	-	-	-	1	-	1	4	4	1	-	-	-	-	0.1	*C10*
Nasopharynx	38	1	-	1	1	1	5	3	3	-	8	1	2	2	5	3	1	-	-	1	0.2	*C11*
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	0.0	*C12-13*
Pharynx unspecified	7	0	-	-	-	-	-	-	1	-	-	-	-	1	1	2	1	-	1	-	0.0	*C14*
Oesophagus	137	1	1	-	-	-	-	2	4	4	6	10	17	20	18	14	10	15	8	7	0.8	*C15*
Stomach	179	0	-	-	-	-	4	5	9	13	11	19	22	14	18	19	15	13	10	7	1.0	*C16*
Small intestine	44	0	-	-	-	-	-	-	1	4	3	3	3	3	7	5	7	7	-	1	0.3	*C17*
Colon	426	0	-	-	1	1	5	4	9	20	37	30	47	73	43	55	34	37	20	10	2.5	*C18*
Rectum	235	0	-	-	-	-	3	4	13	9	17	24	17	22	34	33	21	17	12	9	1.4	*C19-20*
Anus	59	0	-	-	-	1	-	4	3	4	4	5	2	5	11	8	8	1	2	1	0.3	*C21*
Liver	265	0	4	5	3	1	6	5	12	13	12	21	25	29	42	33	16	15	14	9	1.5	*C22*
Gallbladder etc.	77	0	-	-	-	-	-	-	1	-	6	10	9	15	12	8	7	3	1	5	0.4	*C23-24*
Pancreas	65	0	-	-	-	1	1	3	-	2	2	4	7	5	16	7	7	6	1	3	0.4	*C25*
Nose, sinuses etc.	49	1	-	-	2	2	-	1	2	4	6	5	2	5	6	7	-	-	1	5	0.3	*C30-31*
Larynx	47	1	-	-	-	-	-	-	2	3	1	-	7	4	9	5	9	4	1	1	0.3	*C32*
Trachea, bronchus and lung	364	0	1	-	-	1	2	3	8	9	9	29	43	51	48	57	53	33	12	5	2.1	*C33-34*
Other thoracic organs	45	0	-	-	-	-	-	3	1	4	1	6	2	7	6	5	6	2	1	1	0.3	*C37-38*
Bone	235	3	2	6	20	28	13	16	22	9	11	22	13	10	18	18	9	6	7	2	1.4	*C40-41*
Melanoma of skin	372	10	-	-	-	2	2	4	19	9	13	38	21	26	40	45	32	27	36	48	2.1	*C43*
Other skin	*3201*	*39*	*1*	*2*	*4*	*12*	*29*	*49*	*105*	*121*	*128*	*196*	*248*	*267*	*300*	*403*	*403*	*340*	*291*	*263*	*18.4*	*C44*
Mesothelioma	6	0	-	-	-	-	-	-	-	-	1	-	-	-	4	-	1	-	-	-	0.0	*C45*
Kaposi sarcoma	738	2	5	5	11	17	34	74	161	150	99	65	31	22	20	11	12	8	3	8	4.2	*C46*
Connective and soft tissue	370	17	12	5	11	13	23	12	37	25	17	19	23	29	30	33	20	18	7	19	2.1	*C47,C49*
Breast	5327	20	2	1	1	4	26	104	329	425	658	678	639	623	534	410	356	222	166	129	30.7	*C50*
Vulva	203	0	-	-	-	2	3	2	13	27	46	37	17	17	14	7	4	6	5	3	1.2	*C51*
Vagina	174	2	7	-	-	-	6	1	10	8	22	18	13	17	23	16	16	6	3	6	1.0	*C52*
Cervix uteri	3150	9	2	1	-	5	10	44	195	335	439	404	351	325	285	241	164	151	90	99	18.1	*C53*
Corpus uteri	452	3	-	-	-	2	4	5	10	10	23	26	44	58	70	82	56	26	21	12	2.6	*C54*
Uterus unspecified	163	0	-	-	-	-	5	3	5	4	12	16	23	20	23	22	17	9	3	1	0.9	*C55*
Ovary	*426*	*1*	*3*	*2*	*14*	*9*	*18*	*17*	*27*	*28*	*32*	*44*	*45*	*39*	*50*	*40*	*25*	*20*	*4*	*8*	*2.5*	*C56*
Other female genital organs	42	0	-	-	-	-	-	-	6	3	3	5	5	3	5	4	3	4	-	1	0.2	*C57*
Placenta	23	0	-	-	-	-	5	5	1	4	4	1	-	2	-	1	-	-	-	-	0.1	*C58*
Kidney	255	0	49	20	2	7	10	5	11	12	11	15	24	26	29	20	9	3	2	-	1.5	*C64*
Renal pelvis	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	*C65*
Ureter	7	0	-	-	-	-	-	-	-	2	-	1	-	-	-	1	2	1	-	-	0.0	*C66*
Bladder	*232*	*0*	*2*	*1*	*-*	*-*	*2*	*3*	*5*	*14*	*20*	*14*	*21*	*24*	*28*	*16*	*22*	*23*	*21*	*16*	*1.3*	*C67*
Other urinary organs	6	0	-	-	-	-	-	-	-	-	-	-	1	-	2	2	-	1	-	-	0.0	*C68*
Eye	406	6	48	8	4	5	10	27	65	49	50	38	29	18	11	9	11	4	7	7	2.3	*C69*
Brain, nervous system	*148*	*0*	*9*	*11*	*9*	*11*	*2*	*9*	*11*	*4*	*8*	*19*	*14*	*12*	*13*	*7*	*2*	*7*	*-*	*-*	*0.9*	*C70-72*
Thyroid	254	0	-	-	-	6	7	20	29	29	30	35	28	17	24	8	7	7	3	4	1.5	*C73*
Adrenal gland	4	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	0.0	*C74*
Other endocrine	13	0	-	-	-	-	1	2	1	1	-	2	-	4	1	-	1	-	-	-	0.1	*C75*
Hodgkin disease	93	0	1	1	3	6	13	15	10	13	8	9	5	1	2	1	3	1	-	1	0.5	*C81*
Non-Hodgkin lymphoma	512	1	13	9	13	17	13	47	40	61	57	49	35	34	26	22	23	23	16	13	2.9	*C82-85,C96*
Immunoproliferative diseases	4	0	-	-	-	-	-	-	-	-	1	-	-	-	-	1	2	-	-	-	0.0	*C88*
Multiple myeloma	83	0	-	1	-	-	-	-	3	4	1	5	8	14	12	9	11	6	6	3	0.5	*C90*
Lymphoid leukaemia	66	0	10	10	3	3	2	2	2	3	3	2	1	2	8	1	6	3	2	3	0.4	*C91*
Myeloid leukaemia	114	0	3	7	9	6	5	8	8	5	9	12	6	7	7	3	7	6	2	4	0.7	*C92-94*
Leukaemia unspecified	8	1	2	1	-	-	1	2	-	-	-	-	-	1	-	-	-	-	-	-	0.0	*C95*
Myeloproliferative disorders	*9*	*0*	*-*	*-*	*-*	*-*	*1*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*3*	*1*	*1*	*2*	*1*	*0.1*	*MPD*
Myelodysplastic syndromes	*1*	*0*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*1*	*0.0*	*MDS*
Other and unspecified	993	8	7	6	9	6	11	25	58	59	78	97	117	113	131	94	56	51	32	35	5.7	*O&U*
All sites	20579	130	186	104	125	175	291	551	1284	1526	1936	2064	2011	2040	2051	1832	1498	1173	827	775		*ALL*
All sites but C44	17378	91	185	102	121	163	262	502	1179	1405	1808	1868	1763	1773	1751	1429	1095	833	536	512	100.0	*ALLbC44*

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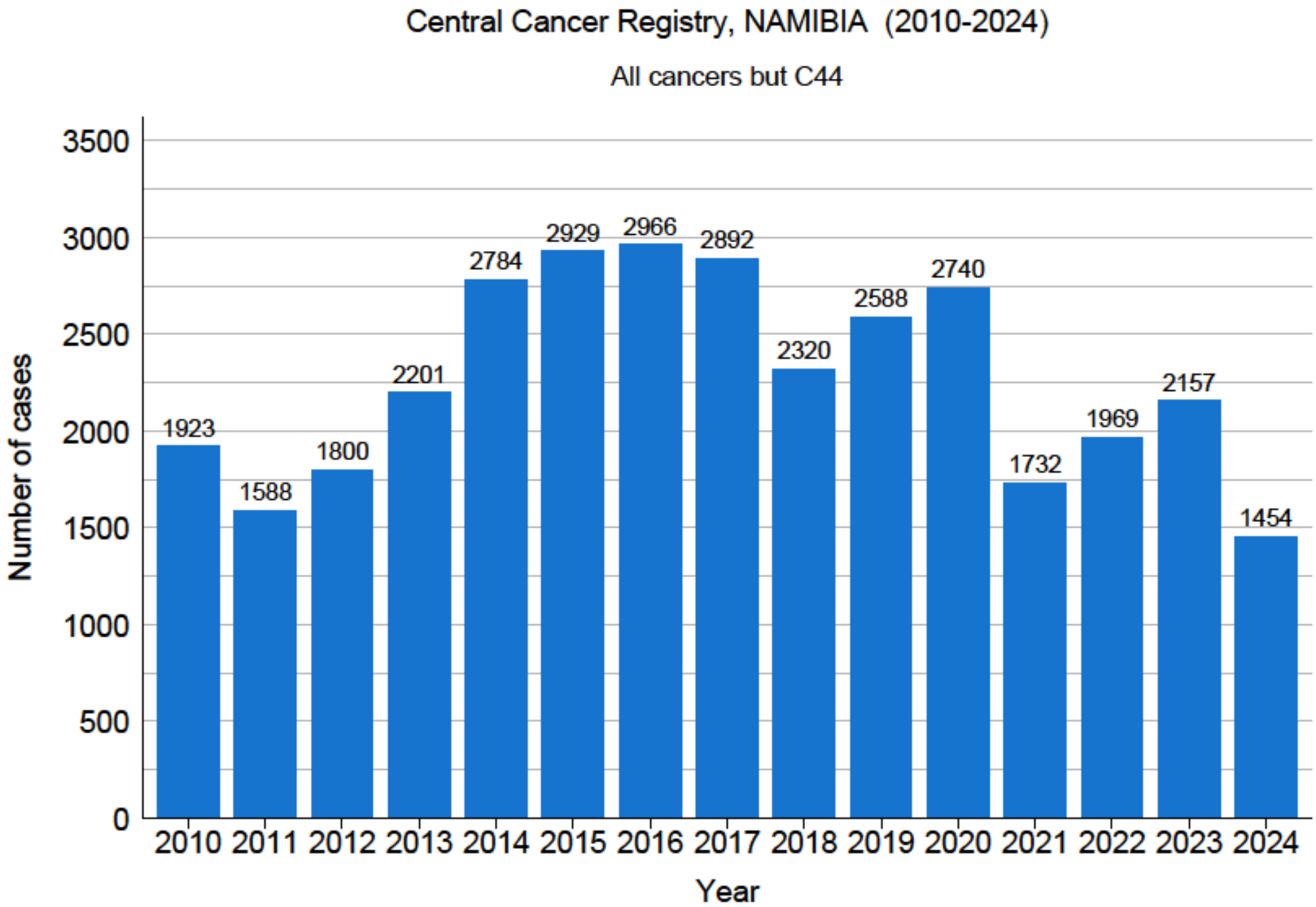
Central Cancer Registry, NAMIBIA (2011-2024)

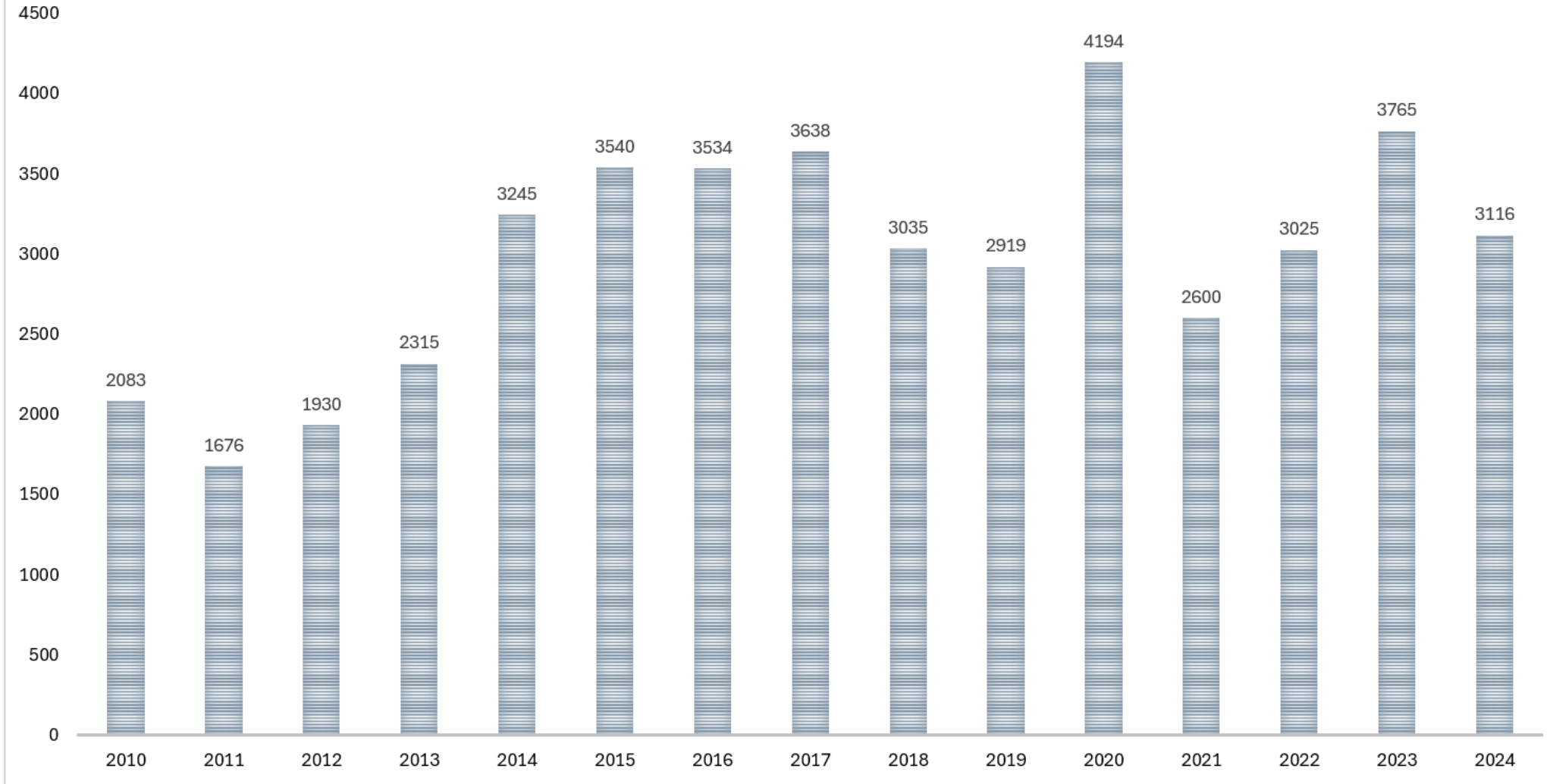
Namibia Statistics Agency

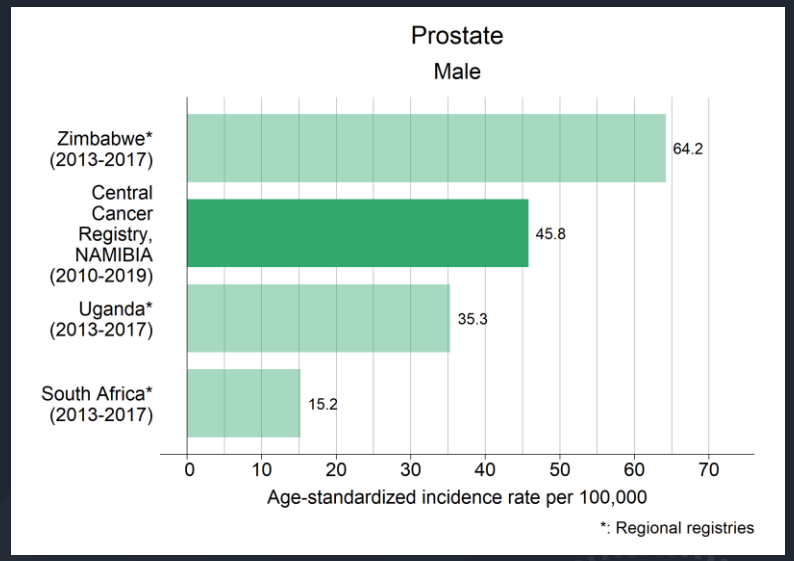
Cases by age group (Period) - Male

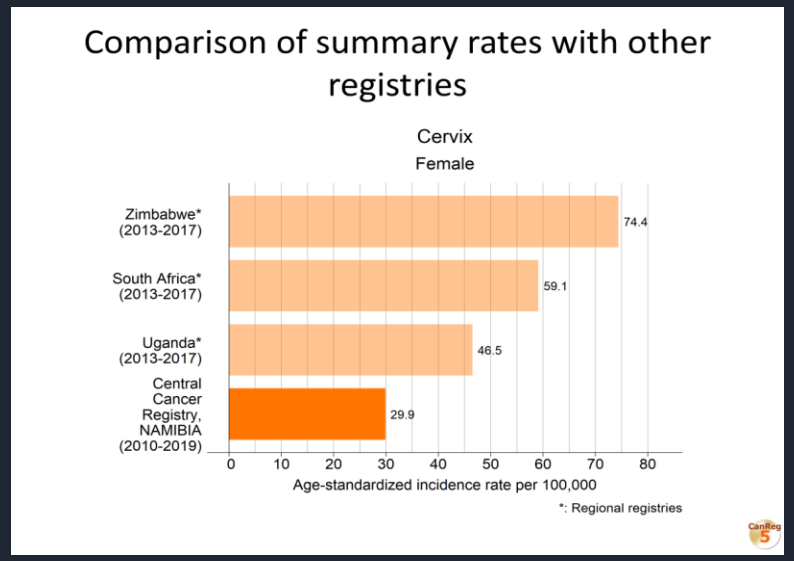
SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85+	(%)	ICD (10th)
Lip	34	0	-	-	-	-	1	1	1	2	1	-	1	2	5	6	4	3	3	4	0.2	*C00*
Tongue	239	2	-	-	1	-	-	-	9	2	9	21	50	34	36	22	25	9	13	6	1.6	*C01-02*
Mouth	325	3	-	2	2	5	3	4	12	2	12	28	42	42	56	41	32	18	10	11	2.2	*C03-06*
Salivary glands	114	0	-	2	2	-	4	4	6	9	10	20	6	8	10	12	12	5	3	1	0.8	*C07-08*
Tonsil	81	3	-	-	-	1	-	2	3	2	2	7	8	8	14	8	16	3	2	2	0.6	*C09*
Other oropharynx	21	0	-	-	-	-	-	-	-	2	-	1	1	-	3	3	4	6	1	-	0.1	*C10*
Nasopharynx	65	0	-	2	6	2	6	1	-	2	9	9	10	7	4	3	1	1	2	-	0.4	*C11*
Hypopharynx	52	0	-	1	-	-	-	-	-	2	1	-	7	12	8	9	4	5	3	-	0.4	*C12-13*
Pharynx unspecified	32	1	-	-	-	3	-	-	1	-	1	1	1	6	5	5	6	2	-	-	0.2	*C14*
Oesophagus	301	0	-	-	1	-	1	-	3	5	8	17	40	44	51	55	29	22	16	9	2.0	*C15*
Stomach	246	1	-	-	-	-	-	3	5	5	19	14	25	39	35	30	29	19	16	6	1.7	*C16*
Small intestine	41	0	-	-	-	-	-	-	8	-	1	2	5	4	10	5	1	3	2	-	0.3	*C17*
Colon	494	1	-	-	-	1	4	9	13	32	23	44	56	67	61	58	62	44	14	5	3.4	*C18*
Rectum	260	0	1	-	1	-	4	5	10	15	21	22	29	27	39	21	23	18	18	6	1.8	*C19-20*
Anus	65	0	-	-	-	2	4	-	-	5	6	10	14	3	3	2	8	2	2	4	0.4	*C21*
Liver	359	2	8	-	3	1	3	5	19	16	20	42	47	51	51	32	25	24	4	6	2.4	*C22*
Gallbladder etc.	43	0	-	-	-	-	-	-	1	1	3	2	3	7	8	5	2	4	2	5	0.3	*C23-24*
Pancreas	76	0	-	-	-	-	-	-	1	-	5	8	9	10	14	8	8	8	1	4	0.5	*C25*
Nose, sinuses etc.	55	2	2	-	-	1	3	3	2	6	3	1	6	6	4	5	4	4	2	1	0.4	*C30-31*
Larynx	353	0	-	-	-	-	-	1	5	3	7	19	37	54	54	56	57	31	21	8	2.4	*C32*
Trachea, bronchus and lung	501	1	-	-	-	-	4	4	8	10	25	30	46	89	75	75	68	39	20	7	3.4	*C33-34*
Other thoracic organs	58	0	2	-	-	1	-	4	3	1	4	8	5	5	11	3	2	4	3	2	0.4	*C37-38*
Bone	247	3	1	8	15	29	19	18	23	8	13	11	14	14	12	19	15	8	6	11	1.7	*C40-41*
Melanoma of skin	332	2	-	-	-	2	2	1	13	6	11	14	31	32	45	37	50	38	33	15	2.3	*C43*
Other skin	*5891*	*8*	*-*	*3*	*6*	*14*	*45*	*32*	*125*	*149*	*202*	*306*	*405*	*605*	*727*	*871*	*834*	*727*	*548*	*284*	*40.1*	*C44*
Mesothelioma	27	0	-	-	-	-	-	-	1	-	2	1	3	-	6	6	1	5	1	1	0.2	*C45*
Kaposi sarcoma	1507	7	4	7	10	33	17	73	251	255	262	177	105	89	62	41	41	26	23	24	10.3	*C46*
Connective and soft tissue	364	14	10	11	9	14	13	11	33	18	19	19	29	32	31	30	27	24	12	8	2.5	*C47,C49*
Breast	167	0	-	-	-	-	1	-	7	6	20	11	16	24	11	23	21	13	11	3	1.1	*C50*
Penis	184	1	-	-	-	1	-	3	8	9	20	30	30	16	18	17	12	12	3	4	1.3	*C60*
Prostate	4644	21	3	-	1	1	1	2	16	14	26	102	224	518	725	863	803	637	354	333	31.6	*C61*
Testis	97	1	4	5	3	5	2	10	12	10	17	6	7	5	1	3	1	2	1	2	0.7	*C62*
Other male genital organs	21	0	1	-	-	1	2	-	-	-	2	2	2	2	2	1	2	1	2	1	0.1	*C63*
Kidney	325	0	34	13	3	3	2	3	4	6	27	31	23	52	34	40	22	15	13	-	2.2	*C64*
Renal pelvis	3	0	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	0.0	*C65*
Ureter	27	0	1	-	-	-	-	-	-	-	-	-	2	2	6	5	3	7	-	1	0.2	*C66*
Bladder	*450*	*1*	*-*	*2*	*1*	*1*	*2*	*2*	*2*	*5*	*9*	*26*	*27*	*46*	*66*	*79*	*62*	*49*	*46*	*24*	*3.1*	*C67*
Other urinary organs	7	0	-	-	-	-	-	-	-	-	-	1	2	1	-	1	-	2	-	-	0.0	*C68*
Eye	416	1	45	3	1	7	6	28	35	73	51	48	23	27	22	14	14	10	3	5	2.8	*C69*
Brain, nervous system	*141*	*0*	*9*	*6*	*10*	*8*	*4*	*4*	*15*	*9*	*13*	*13*	*10*	*15*	*10*	*6*	*4*	*3*	*2*	*-*	*1.0*	*C70-72*
Thyroid	75	0	-	1	-	4	1	2	10	6	7	4	6	3	9	10	4	3	2	3	0.5	*C73*
Adrenal gland	9	0	2	-	-	-	-	-	-	-	-	1	-	1	1	3	-	1	-	-	0.1	*C74*
Other endocrine	9	0	-	-	-	-	-	1	1	2	-	1	-	1	3	-	-	-	-	-	0.1	*C75*
Hodgkin disease	90	0	1	4	8	10	10	11	6	7	10	1	6	5	4	2	2	1	-	2	0.6	*C81*
Non-Hodgkin lymphoma	563	1	13	23	12	15	16	35	43	48	55	68	45	43	45	25	28	18	14	16	3.8	*C82-85,C96*
Immunoproliferative diseases	12	0	-	-	-	-	-	1	-	-	1	-	1	-	-	4	3	2	-	-	0.1	*C88*
Multiple myeloma	98	1	-	-	-	-	2	1	2	2	6	7	10	27	16	11	7	4	-	2	0.7	*C90*
Lymphoid leukaemia	125	0	10	11	9	9	5	2	5	5	4	6	13	9	4	5	10	10	4	4	0.9	*C91*
Myeloid leukaemia	123	0	11	3	4	7	4	15	6	7	7	11	12	8	12	6	5	1	2	2	0.8	*C92-94*
Leukaemia unspecified	17	0	2	4	1	2	-	2	-	-	-	-	1	2	1	1	1	-	-	-	0.1	*C95*
Myeloproliferative disorders	*7*	*0*	*-*	*-*	*-*	*-*	*-*	*-*	*2*	*-*	*-*	*1*	*-*	*-*	*2*	*1*	*1*	*-*	*-*	*-*	*0.0*	*MPD*
Myelodysplastic syndromes	*7*	*0*	*-*	*-*	*-*	*1*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*2*	*-*	*2*	*1*	*1*	*-*	*-*	*0.0*	*MDS*
Other and unspecified	779	9	5	4	3	4	10	22	37	38	38	62	71	95	93	101	63	62	29	33	5.3	*O&U*
All sites	20579	86	169	115	112	188	201	325	767	805	1012	1266	1567	2202	2526	2691	2459	1956	1267	865		*ALL*
All sites but C44	14688	78	169	112	106	174	156	293	642	656	810	960	1162	1597	1799	1820	1625	1229	719	581	100.0	*ALLbC44*

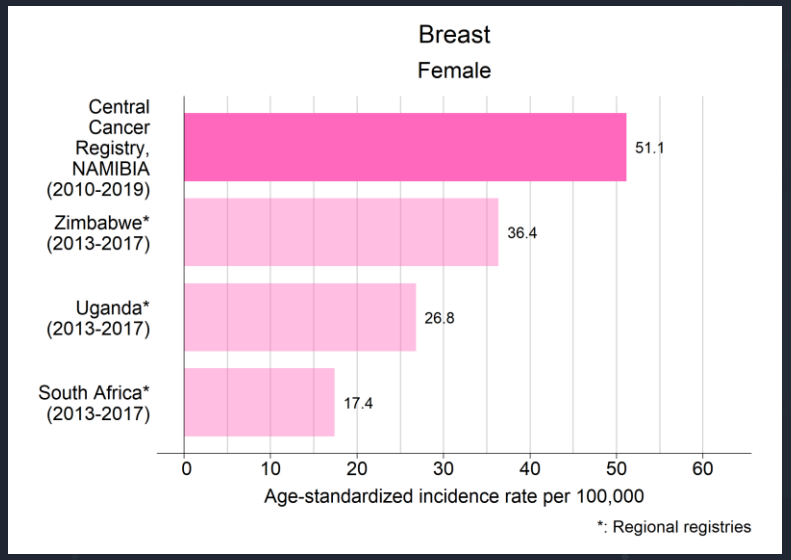

Central Cancer Registry, NAMIBIA (2010-2024)
All cancers but C44
Number of cases
3500
3000
2500
2000
1500
1000
500
0
1923
1588
1800
2201
2784
2929
2966
2892
2320
2588
2740
1732
1969
2157
1454
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024
Year

CENTRAL CANCER REGISTRY, NAMIBIA
ALL CANCER CASES (INCL C44) REPORTED 2015 - 2024

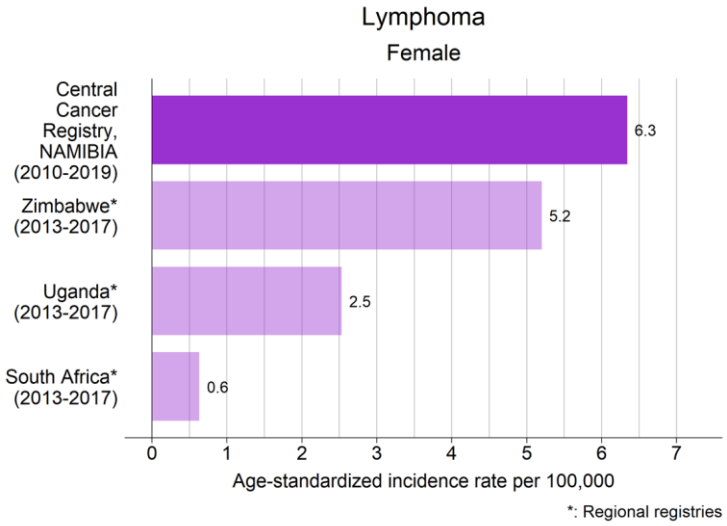


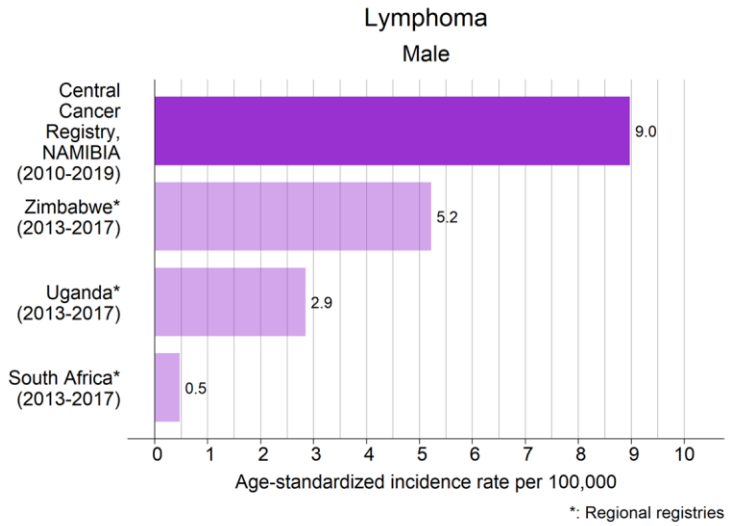






- **A comparison of the age-standardised incidence rates in Central Cancer Registry, NAMIBIA (2010-2019) with those observed in South Africa (2013-2017), Uganda (2013-2017) and Zimbabwe (2012-2017)**

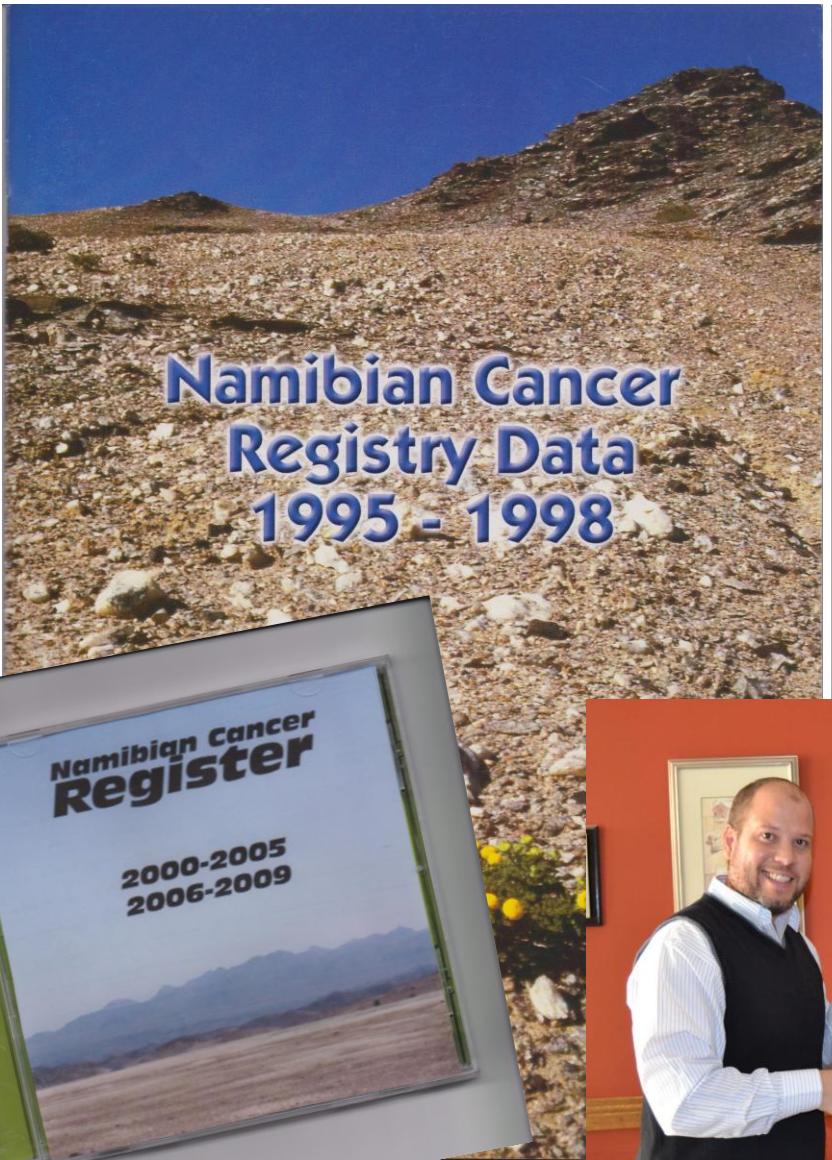


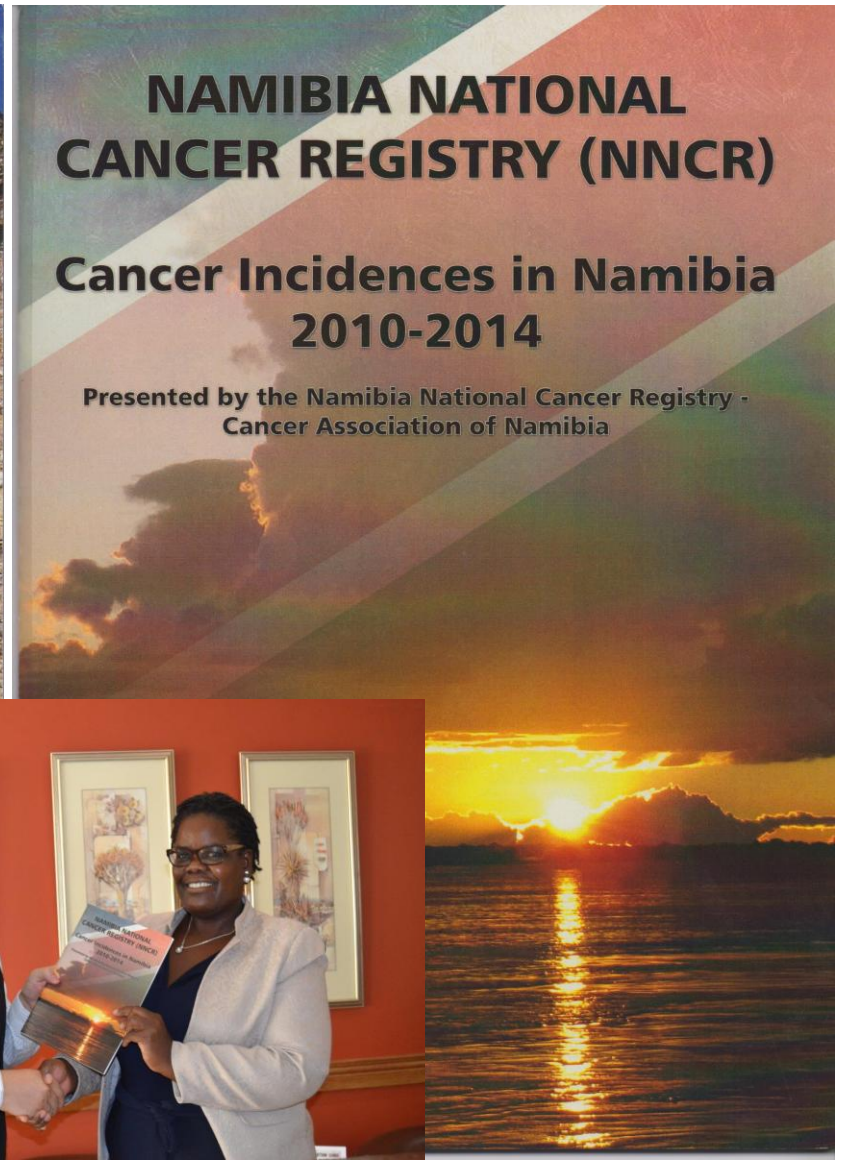


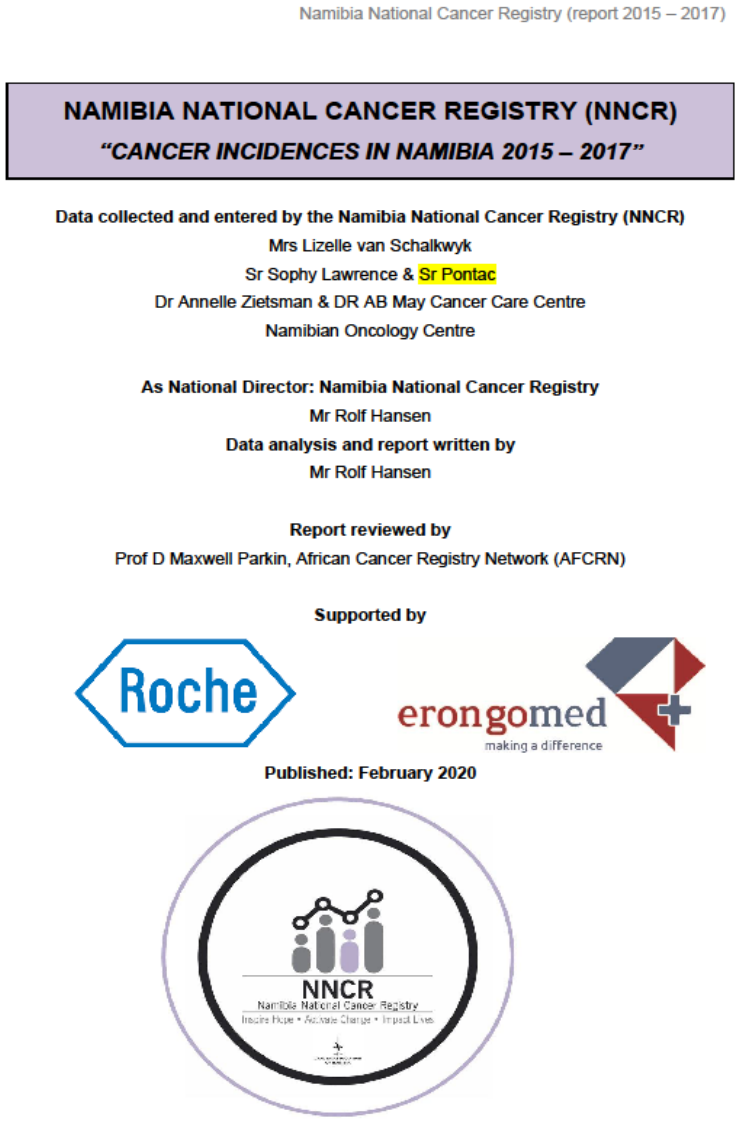
- **A comparison of the age-standardised incidence rates in Central Cancer Registry, NAMIBIA (2010-2019) with those observed in South Africa (2013-2017), Uganda (2013-2017) and Zimbabwe (2013-2017)**

There are 4 published reports on the registry's results: *1995-1998; 2000-2005; 2006-2009; 2010-2014*

- **2015 - 2017 Data is ready for publication (Draft Report completed, never published)**
- **2019 - 2024 is being coded and entered currently.**







Namibia National Cancer Registry (report 2015 – 2017)

NAMIBIA NATIONAL CANCER REGISTRY (NNCR)

"CANCER INCIDENCES IN NAMIBIA 2015 – 2017"

Data collected and entered by the Namibia National Cancer Registry (NNCR)

Mrs Lizelle van Schalkwyk

Sr Sophy Lawrence & Sr Pontac

Dr Annelle Zietsman & DR AB May Cancer Care Centre

Namibian Oncology Centre

As National Director: Namibia National Cancer Registry

Mr Rolf Hansen

Data analysis and report written by

Mr Rolf Hansen

Report reviewed by

Prof D Maxwell Parkin, African Cancer Registry Network (AFCRN)

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Published: February 2020

NNCR
Namibia National Cancer Registry

Current position of “The CAN / Namibia Registry”

Extracted and Coded data up to 31 Dec 2025 – not yet fully entered with CANREG5.

Lack of resources, funding, data remains a challenge. All is CAN’s responsibility.

NCCP - CAN support MoHSS for a revival of draft (2024). Process again ongoing with imPACT mission during June 2026.

NORA Studies, AFCRN continental data, local data research – adhoc.

CURRENT CHALLENGES EXPERIENCED

NNCR
Namibia National Cancer Registry
Inspire Hope • Activate Change • Impact Lives

• **National Cancer Control Planning:** While a Draft National Cancer Control Plan has been developed through contributions from both internal and external stakeholders, Namibia has yet to formally adopt and implement a National Cancer Control Plan. Finalisation and parliamentary endorsement of this important framework would provide strategic direction and strengthen coordinated national responses to cancer prevention, diagnosis, treatment, palliative care, and survivorship.

• **Cancer Notification and Reporting:** Cancer has not yet been designated as a nationally reportable disease. As a result, comprehensive case-finding, systematic patient follow-up, and access to complete, high-quality population-based cancer data remain challenging, impacting planning and evidence-informed decision-making.

• **Sustainable Financing for Cancer Registration:** The ongoing operational costs associated with maintaining the cancer registry continue to rely predominantly on the financial commitment and support of the Cancer Association of Namibia. Long-term sustainability would benefit from broader institutional and domestic investment in cancer surveillance systems.

• **Health System Capacity Constraints:** Healthcare professionals at key referral facilities, including Windhoek Central Hospital (incorporating the Dr AB May Cancer Care Centre), Katutura Intermediate Hospital, and Oshakati Intermediate Hospital, remain deeply committed to patient care despite increasing workloads and resource limitations. Challenges such as ageing infrastructure, equipment constraints, medication shortages, and competing clinical priorities may affect the consistency and timeliness of data collection activities required for the cancer registry.

• **Challenges in Data Integration and Completeness:** Namibia's two major pathology service providers, the Namibian Institute of Pathology (NIP) and PathCare, continue to support cancer registration efforts by sharing available data. However, historical gaps in datasets, including incomplete records from certain periods, as well as limitations related to information systems and legal requirements governing patient confidentiality, can complicate the accurate linkage and verification of cancer cases across healthcare settings.

• **Expanding Diagnostic Landscape:** Since 2018, and particularly following the COVID-19 pandemic, the number of smaller private pathology laboratories operating within Namibia has increased. While this reflects expanded diagnostic capacity, mechanisms to ensure the routine submission of data from all providers to the national cancer registry have not yet been fully established, potentially affecting the completeness of national cancer incidence estimates.

Hopes for Future -
to build on what has been established already…

A high-quality Namibia National Population-based Cancer registry therefore requires:

- Clear legal and policy frameworks, including mechanisms for cancer notification;
- Systematic reporting from **all public and private diagnostic and treatment facilities**;
- Sustainable financing and dedicated human resources;
- Robust data quality assurance systems; and
- Collaboration across government, healthcare providers, laboratories, civil society, and academia.

What would make a good Namibian Population-Based Cancer Registry?

1. Nationally Coordinated and Legally Mandated : A strong cancer registry should be formally recognised within national health legislation, policy and budget frameworks, with cancer designated as a reportable disease. This would ensure systematic notification of cancer cases across the country and strengthen data completeness.

2. Built on Existing Strengths : Namibia already possesses more than three decades of registry experience, datasets, relationships, and operational systems developed by the Cancer Association of Namibia. A future model should build on these foundations rather than duplicate or disregard them.

3. Collaborative in Governance : Cancer surveillance should not rest solely on one institution. A national registry should operate through a multi-stakeholder governance framework involving:

- Ministry of Health and Social Services;
- Cancer Association of Namibia;
- Public hospitals and oncology services;
- Private healthcare providers;
- Pathology laboratories;
- Universities and researchers; and
- Patient representatives.

What would make a good Namibian Population-Based Cancer Registry?

4. Population-Based in Scope : The registry should capture all cancers diagnosed among Namibian residents, regardless of whether patients are treated in the public or private sector; in urban or rural settings; or within Namibia or, where possible, through cross-border referral systems.

5. Adequately Resourced : Quality cancer registration requires dedicated investment in:
a) trained personnel;
b) information systems;
c) transport and field verification activities;
d) data management infrastructure;
e) quality assurance processes; and
f) ongoing professional development.
Cancer registration should therefore be recognised as an essential public health investment rather than an optional activity.

6. Integrated with Health Information Systems : A modern registry should progressively integrate with:
6.1)pathology reporting systems;
6.2) hospital medical records;
6.3) mortality databases;
6.4) radiology and treatment centres; and
6.5) electronic health information platforms.
Integration improves efficiency and reduces duplication.

What would make a good Namibian Population-Based Cancer Registry?

7. Focused on Data Quality : A good registry is not simply one with large volumes of data; it is one with **high-quality data**. The registry should continuously strive for:

7.1) Completeness;
7.2) Accuracy;
7.3) Timeliness;
7.4) Comparability;
7.5) Validity.

These are internationally recognised indicators of registry performance. It is therefore our recommendation that Namibia does not "reinvent the wheel" by trying to "build" its own software and data management system, but benchmark with countries like Rwanda on integration models of DHIS-CANREG5.

8. Used to Drive Action : Cancer data should inform:

8.1) National Cancer Control Planning and Programme implementation;
8.2) Prevention and screening strategies;
8.3) Health workforce planning;
8.4) Budgeting and Procurement decisions;
8.5) Service expansion;
8.6) Research and advocacy initiatives.

Data collection should ultimately translate into better patient outcomes.

The registry exists to improve the lives of people affected by cancer. Every statistic represents an individual, a family, and a community.

Acknowledgement

Namibia Institute of Pathology Limited

PathCare

AFRICAN CANCER REGISTRY NETWORK
AFCRN
Answers for Cancer Control

WO 30
CANCER ASSOCIATION OF NAMIBIA

noc
namibian ONCOLOGY centre

Ministry of Health & Social Services

"A population-based cancer registry is not merely a database; it is an essential public health instrument. Without accurate cancer surveillance, countries cannot adequately plan services, allocate resources, evaluate interventions, or measure progress towards national and global cancer control targets."