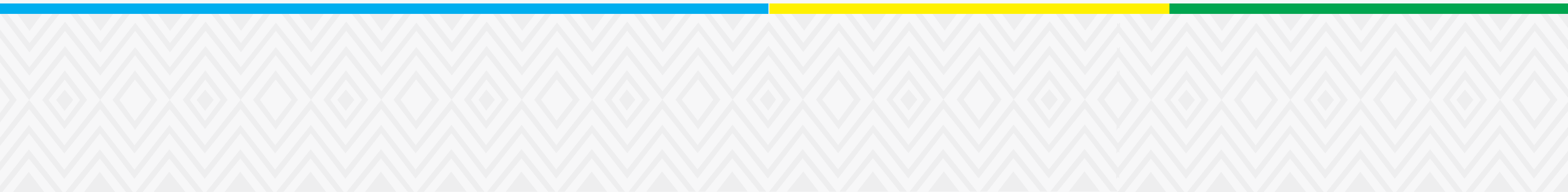
Republic of Rwanda

Ministry of Health

National Cancer Control Plan (NCCP) 2025-2029



National Cancer Control Plan (NCCP) 2025-2029

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Foreword

Cancer remains one of the most pressing public health challenges of our time, not only in Rwanda but across the globe. The burden of this disease continues to rise, fueled by demographic shifts, changing lifestyles, and limited access to timely prevention, diagnosis, and treatment services. In response, the Government of Rwanda has prioritized cancer control as a critical component of our national health agenda, aligning with Vision 2050's commitment to achieving universal health coverage and a high standard of living for all Rwandans.

The 2025-2029 National Cancer Control Plan (NCCP) builds on the foundation laid by the 2020-2024 NCCP, reflecting the progress achieved and the lessons learned over the past five years. This strategic plan was developed through an inclusive and evidence-based process, incorporating insights from stakeholders at all levels of the healthcare system. It is a product of collective efforts, demonstrating our national commitment to reducing the burden of cancer and improving the quality of life for those affected.

This plan is comprehensive, addressing all aspects of cancer control, including leadership and governance, prevention and early detection, diagnosis, treatment, palliative care, survivorship, research, and partnerships. It emphasizes multi-sectoral collaboration, innovative solutions, and sustainable financing mechanisms to ensure that cancer care is accessible, affordable, and equitable for every Rwandan.

Key achievements from the previous NCCP such as the expansion of HPV vaccination, the establishment of cancer treatment guidelines, and the integration of palliative care into national policies demonstrate our ability to make significant strides when we work together. However, we acknowledge the challenges that remain, including gaps in diagnostic and treatment capacity, disparities in access to care, and the need for more robust data systems and research to guide our efforts.

The 2025-2029 NCCP outlines strategic priorities and interventions designed to address these challenges, leveraging Rwanda's strengths and aligning with global health frameworks. By implementing this plan, we aim to reduce cancer incidence and mortality, increase early detection rates, and improve the quality of care and survivorship support for cancer patients.

I would like to extend my gratitude to all stakeholders who contributed to the development of this plan, including healthcare professionals, policymakers, researchers, civil society organizations, and development partners. Your dedication and collaboration are essential to achieving our shared vision of a Rwanda free from the preventable burden of cancer.

Let us all commit to working together to bring this plan to life and ensure that every Rwandan has the opportunity to live a healthy, cancer-free life.

Dr. Sabin NSANZIMANA

Minister of Health

Republic of Rwanda

Acknowledgment

On behalf of the Rwanda Biomedical Center (RBC), I am honored to present the 2025-2029 National Cancer Control Plan (NCCP), a comprehensive roadmap for reducing the burden of cancer in Rwanda. This plan is the result of dedicated efforts from a wide range of stakeholders and embodies our national commitment to improving the health and well-being of all Rwandans.

I would like to extend my heartfelt gratitude to the Ministry of Health for its visionary leadership and support throughout the development of this strategic plan. Your guidance and commitment to strengthening cancer control initiatives in Rwanda have been invaluable.

Special thanks go to our healthcare professionals, researchers, community health workers, and administrative staff who work tirelessly to provide cancer care and support to patients and their families. Your dedication inspires us to strive for excellence and equity in healthcare delivery.

This plan would not have been possible without the collaboration of our partners, including development agencies, non-governmental organizations, and the private sector. Your technical and financial contributions have been instrumental in shaping the strategies outlined in this document. We are deeply grateful for your continued partnership in the fight against cancer.

I also want to acknowledge the contributions of patients, caregivers, and advocacy groups who shared their experiences and insights during the planning process. Your voices have ensured that this plan reflects the real needs of those directly affected by cancer.

The 2025-2029 NCCP builds on the progress achieved under the previous plan, incorporating lessons learned and addressing gaps to further strengthen Rwanda's cancer control efforts. It represents a unified, evidence-based approach to tackling cancer through prevention, early detection, diagnosis, treatment, palliative care, research, and advocacy.

As we embark on the implementation of this plan, I call upon all stakeholders to remain committed and work collaboratively towards achieving the goals we have set. Together, we can make a significant impact in reducing the cancer burden and improving the lives of those affected.

Thank you to everyone who contributed to this critical effort. Your dedication and partnership are key to realizing our shared vision of a Rwanda free from the preventable burden of cancer.

Prof. Muvunyi Mambo Claude
Director General
Rwanda Biomedical Centre

Acronyms and abbreviations

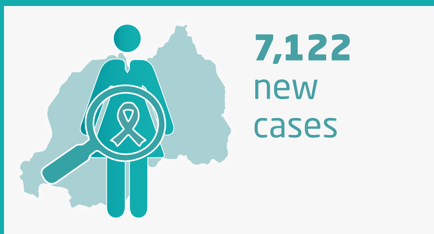
AYA	Adolescent/Young Adult
BCCOE	Butaro Cancer Centeer of Excellence
CBHI	Community-Based Health Insurance
CHUB	Centre Hospitalier Universitaire de Butare (University Teaching Hospital of Butare)
CHUK	Centre Hospitalier Universitaire de Kigali (University Teaching Hospital of Kigali)
CHW	Community Health Worker
CT	Computed Tomography
DESTEP	Demographic, Economic, Social, Technological, Environmental, and Political
DH	District Hospital
DHIS2	Distirct Health Information System 2.0
EPI	Expanded Programme on Immunization
FNA	Fine Needle Aspiration
GLOBOCAN	Global Cancer Observatory (WHO)
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HPV	Human Papillomavirus
IAEA	International Atomic Energy Agency
IARC	International Agency for Research on Cancer (WHO)
IEC	Information, Education, and Communication
KFH	King Faisal Hospital
LEEP	Loop Electrosurgical Excision Procedure
MOH	Ministry of Health
MRI	Magnetic Resonance Imaging
NCCP	National Cancer Control Plan
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organization
NICE	National Institute for Health and Care Excellence
PET	Positron Emission Tomography
PIH	Partners In Health
PSA	Prostate-Specific Antigen
RBC	Rwanda Biomedical Center
RMRTH	Rwanda Military Referral and Teaching Hospital

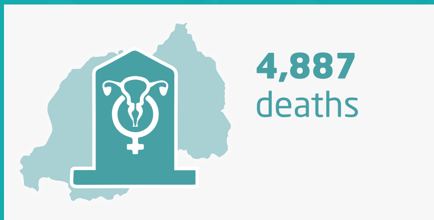
RN	Registered Nurse
RNCR	Rwanda National Cancer Registry
SOP	Standard Operating Procedures
SPECT	Single Photon Emission Computed Tomography
STEPS	STEPwise approach to surveillance (WHO survey on risk factors for NCDs)
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TA	Thermal Ablation
TWG	Technical Working Group
UTH	University Teaching Hospital
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

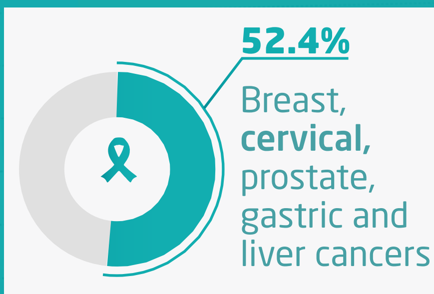
Executive Summary

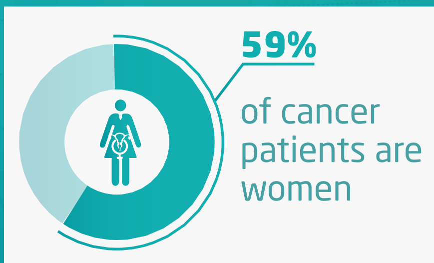
The 2025-2029 National Cancer Control Plan (NCCP) for Rwanda is a comprehensive, evidence-based strategy designed to address the growing burden of cancer through equitable and systematic interventions. Developed by the Ministry of Health in collaboration with the Rwanda Biomedical Center (RBC), this plan builds on the achievements of the 2020-2024 NCCP, aligning with Rwanda's Vision 2050, the National Strategy for Transformation (NST2), and global health frameworks such as the World Health Organization (WHO) Global Action Plan for Non-Communicable Diseases and the Sustainable Development Goals (SDGs).

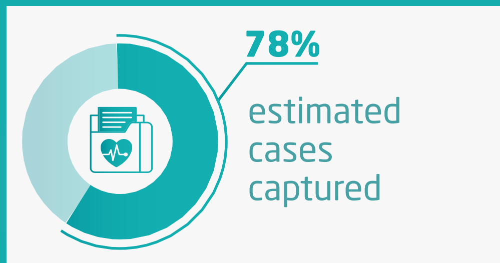
Cancer Burden in Rwanda











Cancer is a significant and escalating public health challenge in Rwanda with 7,122 new cases and 4,887 deaths recorded in 2022. The most prevalent cancers include breast, cervical, prostate, gastric, and liver cancers, which collectively account for 52.4% of all cases. Women are disproportionately affected, constituting 59% of cancer patients. Despite progress in data collection through the Rwanda National Cancer Registry (RNCR), underreporting persists, with only 78% of estimated cases captured. Without intervention, projections indicate a doubling of cancer cases by 2045, underscoring the urgency of robust prevention and control measures.

Strategic Pillars and Objectives

The NCCP is structured around six pillars:

Leadership, Governance, and Coordination: Strengthening multi-sectoral collaboration and policy frameworks.

Cancer Prevention and Early Detection: Expanding vaccination (e.g., HPV, HBV), screening (cervical, breast, colorectal, prostate), and public awareness campaigns.

Cancer Diagnosis: Enhancing imaging, pathology, and laboratory services to ensure timely and accurate diagnosis.

Cancer Treatment, Palliative, and Survivorship Care: Improving access to radiotherapy, chemotherapy, surgery, and palliative care.

Registration, Surveillance, and Research: Strengthening the cancer registry and fostering local research.

Partnerships, Advocacy, and Financing: Mobilizing domestic and international resources for sustainable cancer control.

Key Targets for 2025-2029

- Increase cervical cancer screening coverage from 29% to 70% among women aged 30–49.

- Achieve 50% coverage for breast cancer screening (target age to be defined).

- Reduce late-stage cancer diagnoses (Stages III/IV) from 60% to below 50%.

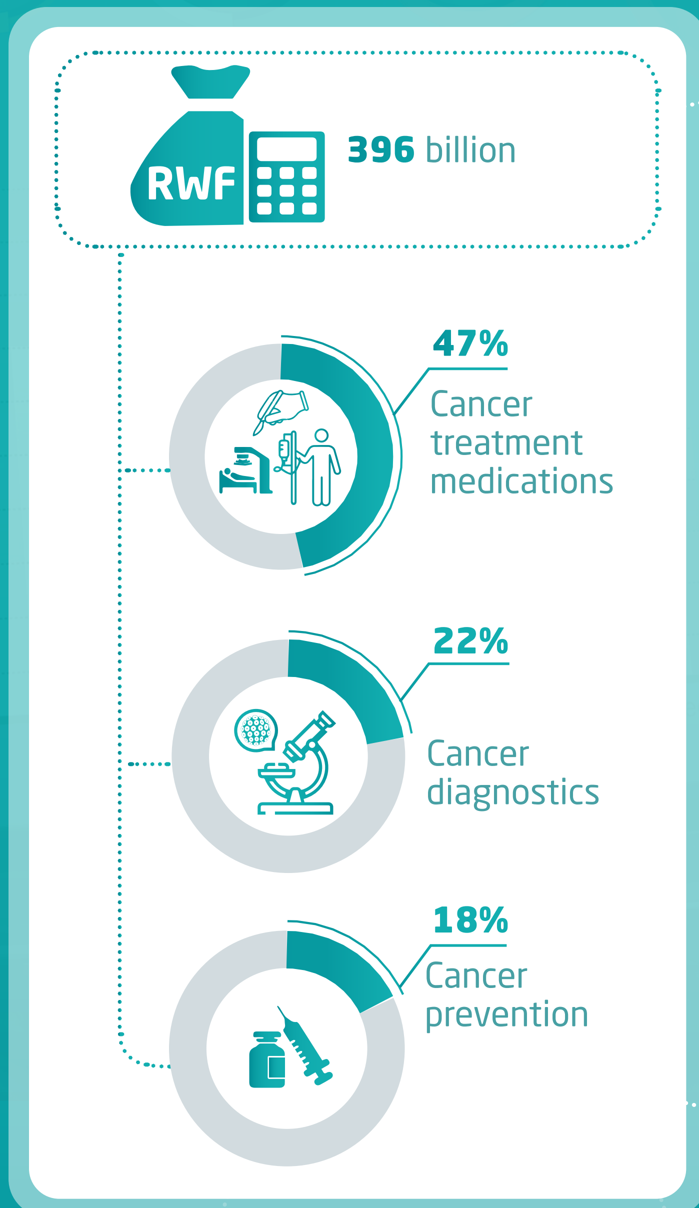
- Ensure 90% of cervical precancerous lesions receive treatment.

- Expand HPV vaccination coverage to >90% for girls aged 12 and explore inclusion of boys.

- Reduce tobacco use from 7.1% to 5% and alcohol consumption from 48.1% to 30%.

- Increase childhood cancer survival rates through early detection and specialized care.

Costing and Resource Requirements



The total estimated cost for implementing the NCCP over five years is **RWF 396 billion** (USD 283 million), with annual allocations ranging from RWF 69.1 billion to RWF 91.8 billion. The largest share (47%) is allocated to cancer treatment medications, followed by diagnostics (22%) and prevention (18%).

Key assumptions include a 3.44-3.69% annual inflation rate and a 10-20% annual increase in drug costs. The plan emphasizes cost-effective interventions, such as decentralized screening and telehealth, to maximize impact within budget constraints.

Implementation and Monitoring

The Cancer Diseases Unit at RBC will oversee NCCP execution, supported by a multi-stakeholder Technical Working Group. Progress will be tracked through an integrated Monitoring and Evaluation Framework, with annual reports and a mid-term review in 2027.

Conclusion

The NCCP 2025-2029 represents Rwanda's commitment to reducing the preventable burden of cancer through a patient-centered, multi-sectoral approach. By leveraging partnerships, innovative financing, and data-driven strategies, Rwanda aims to improve cancer outcomes, achieve equitable access to care, and contribute to global cancer control efforts. Successful implementation will require sustained political will, community engagement, and alignment with national and international health priorities.

CHAPTER 1: THE NEED FOR A NATIONAL CANCER CONTROL PLAN

1.1. Overview

This chapter details the burden of cancer at both global and local levels, highlighting current trends and anticipated future epidemiological shifts. It sets the stage for understanding the cancer control spectrum and identifies opportunities for strategic policy interventions to reduce disease incidence, decrease mortality in Rwanda. Additionally, this chapter emphasizes the importance of comprehensive cancer control planning in tackling this significant public health issue. The chapter also details the strategic planning process that guided development of Rwanda's NCCP 2025-2029.

The NCCP is achieved through the equitable and systematic implementation of evidence-based approaches across prevention, early detection, treatment, and palliative care, optimizing the use of available resources. The NCCP lays the foundation for programs that collaborate closely with healthcare providers to prevent and detect cancer early, deliver effective treatment, and ultimately improve survival outcomes and the quality of life for cancer patients. The knowledge derived from research, surveillance, and evaluation is translated into actionable strategies to guide these efforts.

1.2. Global Cancer Burden

The global burden of cancer has been increasing significantly over recent decades, posing a major health challenge worldwide. In 2022, there were approximately 20 million new cancer cases and 9.7 million deaths globally.[1] The number of people living within five years after a cancer diagnosis was estimated at 53.5 million, reflecting a substantial health and economic burden on individuals, families, and healthcare systems globally.[1] The lifetime risk of developing cancer is now about 1 in 5 people, and approximately 1 in 9 men and 1 in 12 women die from the disease.[2]

Several cancer types contribute disproportionately to the global burden. Lung cancer, with 2.5 million new cases, remains the most common cancer worldwide, accounting for 12.4% of total new cases, followed by breast cancer with 2.3 million new cases (11.6%), and colorectal cancer with 1.9 million new cases (9.6%).[2] Lung cancer is also the leading cause of cancer deaths, with 1.8 million deaths, followed by colorectal cancer and liver cancer. Gender-specific differences are evident, with breast cancer being the most common in women and lung cancer being the most common in men.[2]

The geographical distribution of cancer is influenced by various factors such as lifestyle, environmental exposures, and healthcare infrastructure.[3] High-income countries typically report higher incidence rates of cancers linked to lifestyle factors such as tobacco use, diet, and physical inactivity.[4] In contrast, low- and middle-income countries experience a higher prevalence of cancers associated with infections, such as cervical and liver cancers, due to limited access to vaccines, screening and treatment programs.[5]

Cancer risk is strongly associated with age, with incidence rates increasing significantly among older populations due to the accumulation of risk factors

over time and the reduced efficacy of cellular repair mechanisms. Additionally, exposure to carcinogens, lifestyle factors (such as tobacco use, unhealthy diet, and physical inactivity), and chronic infections (e.g., hepatitis and Human Papilloma Virus) are major contributors to cancer development.[6]

Despite advancements in cancer research and treatment, there remain significant disparities in cancer care and outcomes. For instance, only 39% of countries have included comprehensive cancer management services in their national health benefit packages, and only 28% of countries cover essential palliative care services.[2] Such gaps in coverage are especially pronounced in low-income countries, exacerbating cancer-related morbidity and mortality.[2]

The future burden of cancer is expected to increase further. By 2040, it is projected that the number of new cancer cases will reach 29 million annually, a 62% increase from the 18.1 million cases recorded in 2018.[1] This rising trend will be most pronounced in low- and middle-income countries due to a combination of population growth, aging, and increased exposure to risk factors.[7]

The global burden of cancer presents an urgent public health challenge, with significant variations in incidence, mortality, and survival across different regions and populations. Addressing this burden requires coordinated global efforts to expand access to prevention, diagnosis, treatment, and palliative care services, particularly in underserved regions.

To combat the growing cancer burden, a multi-faceted approach such as a National Cancer Control Strategy is required. This approach includes enhancing prevention measures such as vaccination against HPV and hepatitis B, tobacco control policies, and public health campaigns to encourage healthy lifestyle choices. Improving early diagnosis and screening programs can significantly reduce cancer mortality by facilitating treatment at earlier, more manageable stages.[8]

1.3. Cancer Burden in Rwanda

Cancer is becoming a significant and growing public health concern in Rwanda.[1,9] Over the past decades, cancer incidence and mortality rates have steadily increased, driven by various factors including aging populations, lifestyle changes, and limited access to preventive, early detection and treatment health services.[1] Among the various types of cancers affecting Rwandans, breast, cervical, stomach prostate and liver cancers are the most prevalent1 accounting for 52.4% of all cancers in Rwanda.

The WHO Global Cancer Observatory/International Agency for Research on Cancer (GLOBOCAN/IARC) has been consistently providing estimates on cancer diseases for Rwanda with observed reduction in estimated cases from 10,704 in 2018[1] 8,835 in 2020[11] and 7,122 in 2022[12] ***[Table 1, Figure 1, 2, 3]***. Despite this estimated reduction, data provided by Rwanda National Cancer Registry (RNCR) through countrywide case tracking shows a minimal increase in cumulative number of new cases registered.

The total annual cancer cases from 2019 to 2023 as per RNCR were 4,983, 4,904, 5,261, 5,384 and 5,164 respectively ***[Figure 3]***. However, it is worthy to note that the RNCR record cases presenting in health facilities and currently is capturing 78% of estimated cases (5,548 vs. 7,122). Probable factors contributing to this data discrepancy includes underreporting of data in health facilities and likely a cohort of undiagnosed patients who are not included in the statistics, leading to an underestimation of the true cancer burden. Data from previous 5 years shows that the top five cancers in both sexes are breast, cervical, prostate, gastric and blood cancers. Cancers among women contribute 59% of the cases of the total 5-years

cases. The RNCR data corroborates with published data which suggests that majority of cancers are diagnosed at advanced stages.[13,14]

Cancer places an economic burden not only on social welfare and health systems but on national economies.[15] Disabilities and prolonged absences from the workforce lead to a fall in labor force participation, and consequently in GDP.[16] It is therefore imperative that Rwanda invests in programs and initiatives for cancer prevention, early detection and treatment and palliative care. There is a growing body of evidence confirming that investing in cancer prevention and control outweighs the costs of doing nothing and dealing with consequences.[17]

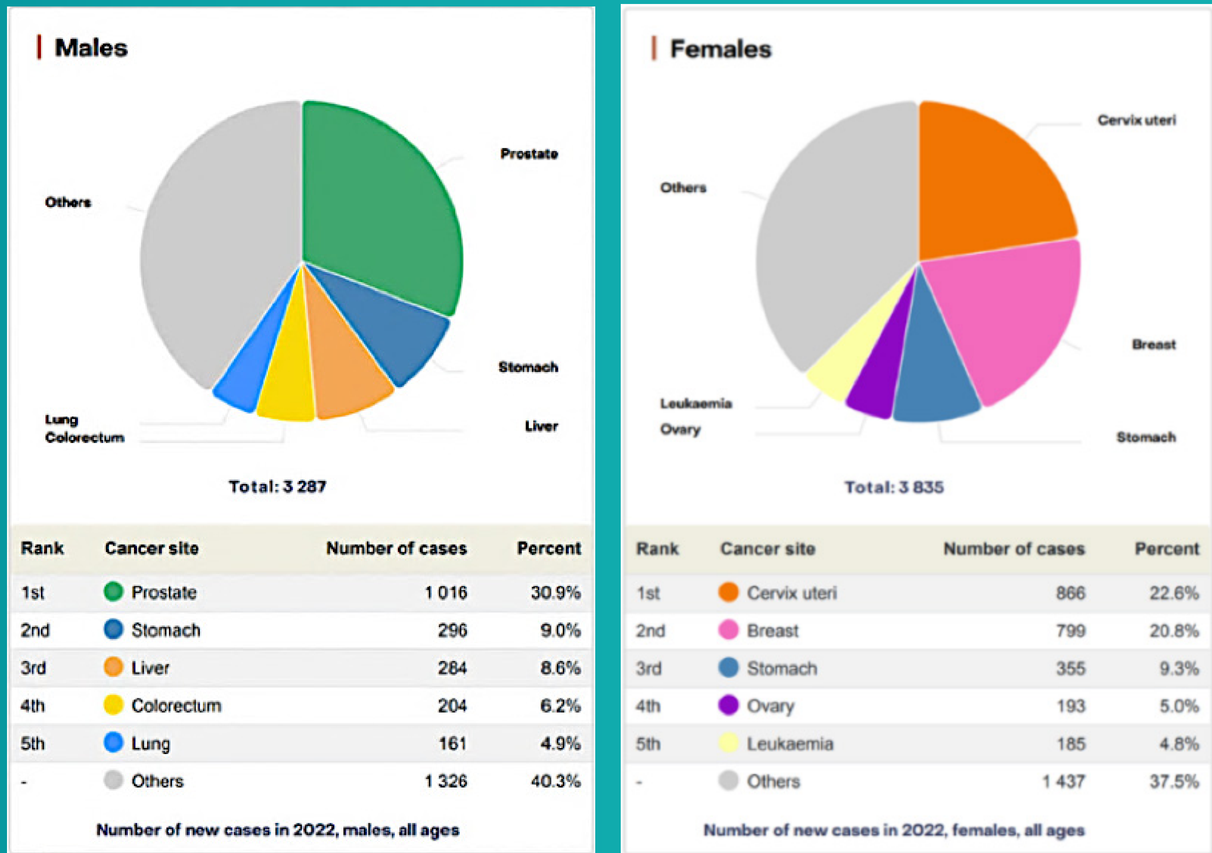
Table 1 provides an overview of cancer statistics in Rwanda from GLOBOCAN 2022, showing cancer incidence, mortality, and prevalence across genders. As of 2022, Rwanda had a total population of approximately 13.6 million, with males accounting for 6.7 million and females 6.9 million. In 2022, there were 7,122 new cancer cases (3,287 in males and 3,835 in females) with age-standardized incidence rates of 91.7 per 100,000 in males and 79.7 in females. The cumulative lifetime risk of developing cancer before age 75 is higher in males (10%) than in females (8.3%). Mortality data shows 4,887 cancer-related deaths, with an age-standardized mortality rate of 67 in males and 55.8 in females. Five-year prevalent cases total 14,954, with higher prevalence among females (8,615) than males (6,339), underscoring the significant cancer burden in Rwanda and gender-based differences in cancer outcomes.

Table 1: Cancer in Rwanda at a glance (Source GLOBOCAN 2022)

	Males	Females	Both Sex
Total Population	**6,689,540**	**6,910,926**	**13,600,466**
Number of new cancer cases	**3,287**	**3,835**	**7,122**
Age-standardized incidence rate	91.7	79.7	83.2
Risk of developing cancer before the age of 75 years (cum. risk %)	10	8.3	9
Number of cancer deaths	**2324**	**2563**	**4887**
Age-standardized mortality rate	67	55.8	59.4
Risk of dying from cancer before the age of 75 years (cum. risk %)	7	6.1	6.5
5-year prevalent cases	**6,339**	**8,615**	**14,954**

Figure 1 illustrates the distribution of new cancer cases among males and females in Rwanda for 2022, according to GLOBOCAN. Among males, prostate cancer is the most common, accounting for nearly 40% of cases, followed by stomach, liver, colorectal, and lung cancers. For females, cervical cancer leads, comprising around 22.6% of cases, with breast, stomach and ovary, and leukemia following. This data emphasizes the prominence of prostate and cervical cancers among males and females, respectively, in Rwanda.

Figure 1: Proportion of new cancer cases in Rwanda - GLOBOCAN 2022



Rank	Cancer site	Number of cases	Percent
1st	Prostate	1 016	30.9%
2nd	Stomach	296	9.0%
3rd	Liver	284	8.6%
4th	Colorectum	204	6.2%
5th	Lung	161	4.9%
-	Others	1 326	40.3%

Number of new cases in 2022, males, all ages

Rank	Cancer site	Number of cases	Percent
1st	Cervix uteri	866	22.6%
2nd	Breast	799	20.8%
3rd	Stomach	355	9.3%
4th	Ovary	193	5.0%
5th	Leukaemia	185	4.8%
-	Others	1 437	37.5%

Number of new cases in 2022, females, all ages

Figure 2 shows age-standardized rates for Rwanda's top cancers. Prostate cancer has the highest incidence (34.4) and mortality (23.9) in males, while cervical cancer leads for females with an incidence of 18.9 and mortality of 13.8. Stomach and breast cancers also have notable rates across both sexes. These numbers highlight prostate and cervical cancers as major health concerns in Rwanda.

Figure 2: Age Specific Rates -Incidence and Mortality rates, incidence per sex. [Source: Globocan 2022]

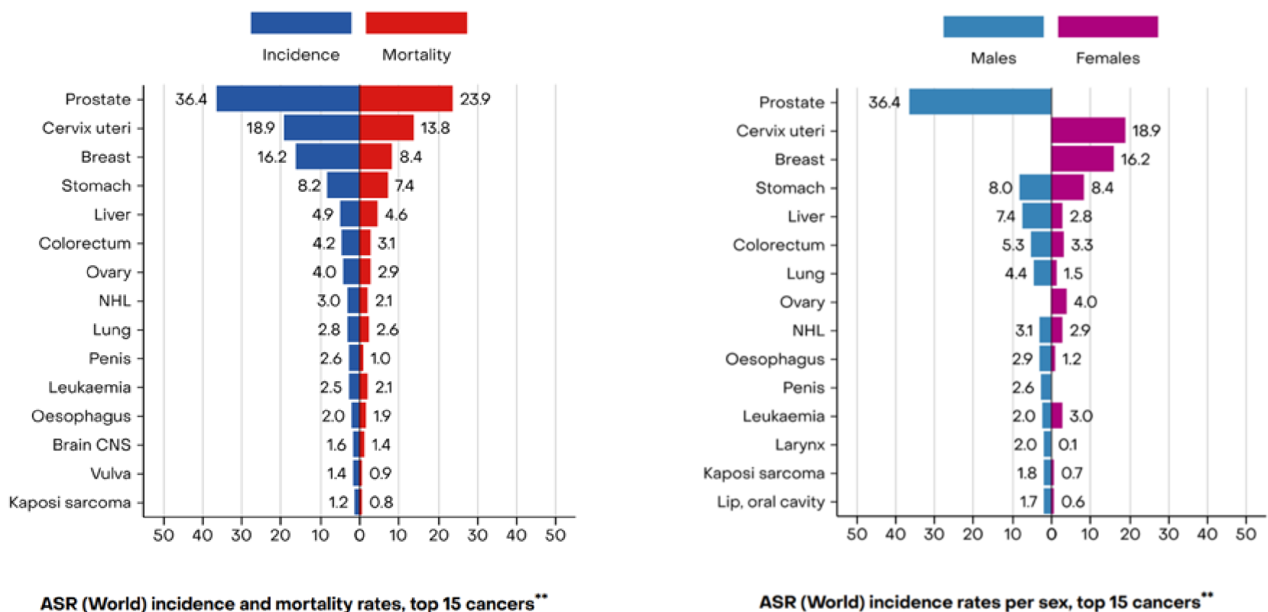
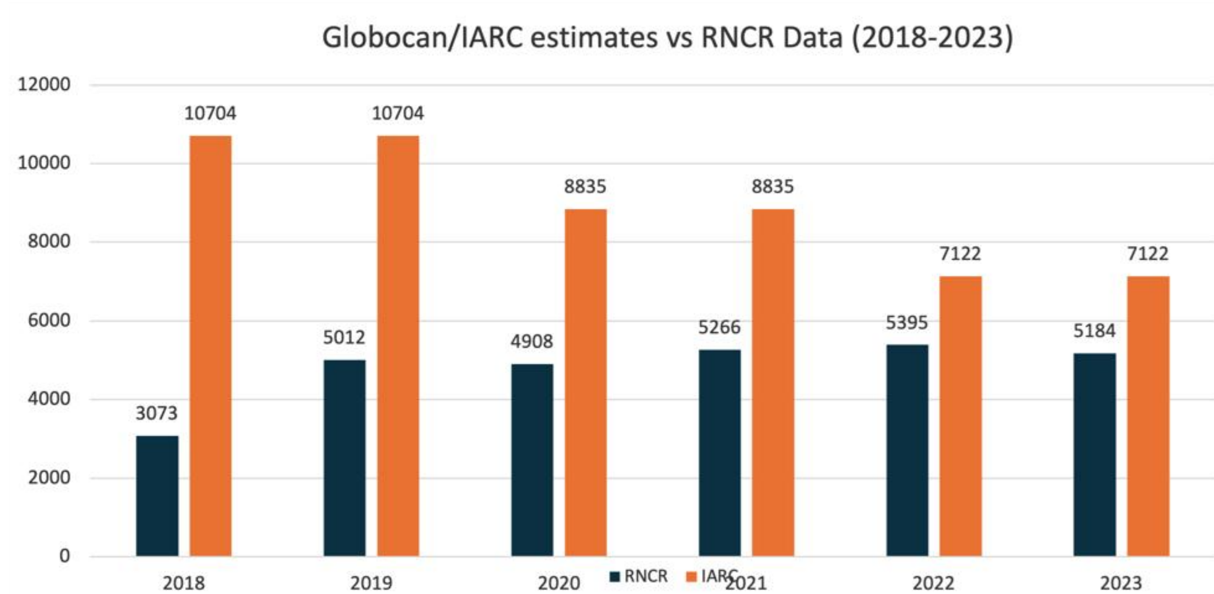


Figure 3 compares Rwanda National Cancer Registry (RNCR) cancer cases with GLOBOCAN/IARC estimates from 2018 to 2023. RNCR consistently reports lower numbers than GLOBOCAN/IARC, with notable differences in 2018 (3,073 vs. 10,704) and 2022 (5,395 vs. 7,122). This discrepancy highlights gaps in local cancer data collection, reporting or methodology used by IARC to estimate the annual incidence.

Figure 3: Globocan/IARC estimates vs RNCR Data from 2018-2023

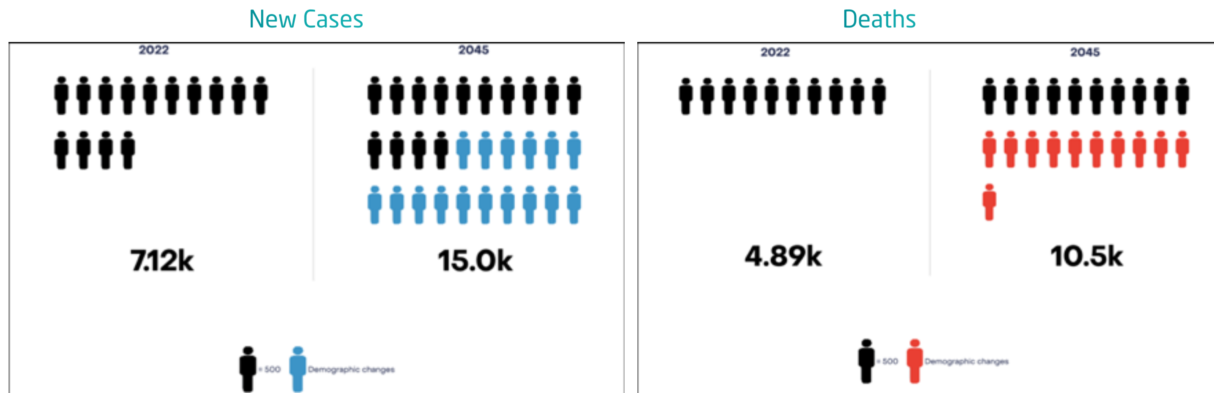


According to the National Institute of Statistics Rwanda, in 2023, cancer-related deaths in health facilities accounted for a small but notable proportion of overall mortality, with liver cancer representing 0.9% of deaths (ranking 13th), lymphomas and multiple myeloma also contributing 0.9% (ranking 14th), leukemia making up 0.8% (ranking 16th), and stomach cancer accounting for 0.7% (ranking 19th) among all causes of death for both sexes combined.[18]

1.4. The Need to update a National Cancer Control Plan

Since the launch of the first NCCP in 2019, progress has been made—including HPV vaccination, expanded screening,[19,20] and specialized treatment centers.[21,22,23] However, evolving cancer trends, healthcare advancements, and socioeconomic changes demand a revised strategy. The updated plan strengthens prevention, early detection, treatment, and palliative care while integrating new technologies and evidence-based approaches. By prioritizing locally tailored, multisectoral interventions, Rwanda aims to reduce cancer mortality and improve outcomes over the next five years.

Figure 4: Estimated number of new cases and deaths, respectively, from 2022 to 2045, both sexes, ages 0-85 [Source: Globocan 2022]

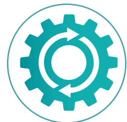


The Figures 4 illustrate the current and projected burden of cancer in Rwanda. In 2022, there were approximately **7.12** new cases and **4.89** cancer-related deaths, with these numbers expected to rise to **15 thousand** new cases and **10.5 thousand** deaths by 2045 if no effective prevention and control measures are implemented.

1.5. NCCP and Current Global and Rwanda's Cancer Control Policies

The NCCP for Rwanda (2025-2029) aligns with global and national policies to address cancer comprehensively. Globally, it follows the WHO's Global Action Plan for Non-Communicable Diseases (NCD) (2013-2030),[24] the Global Strategy for Cancer Control,[25] and the WHA 70.14 resolution on integrated cancer care.[26] It also supports the WHO's Global Breast Cancer Initiative (GBCI))[27], aiming to reduce breast cancer mortality by 2.5% annually.

The NCCP contributes to SDG [28], particularly targets 3.4 (reducing NCD mortality) and 3.8 (universal health coverage). It aligns with the Global Strategy for Cervical Cancer Elimination,[29,30] the Global Initiative for Childhood Cancer[31] (60% survival by 2030), and the Global Initiative for Cancer Registry Development (GICR).[32] Nationally, the NCCP is anchored in Rwanda's policy framework, Vision 2050[33], and the National Strategy for Transformation (NST2)[34],. It integrates with the Health Sector Strategic Plan (HSSP IV),[35,36] the NCD National Strategic Plan, Tobacco Control Law No. 08/2013, and the NCD Policy 2015.[37] By aligning with healthcare infrastructure expansion and universal health coverage, the NCCP strengthens Rwanda's health system while advancing global and national cancer control goals.



1.6. Approach for updating the National Cancer Control Plan 2025-2029

Data for 2025-2029 NCCP for Rwanda was collected through both qualitative and quantitative methods. The qualitative data collection involved conducting interviews with a wide range of stakeholders (n=359), including patients and their caregivers (n=94, community health workers (n=20), nurses leading health centers (n=72), district and provincial hospitals, referral and University teaching hospital administrators and policymakers (n=97), doctors (n=76), and nurses, as well as staff from private clinics and diagnostic centers. Policymakers were also interviewed to gather their insights.

Additionally, focus group discussions conducted through workshops provided further depth to both the qualitative and qualitative data.

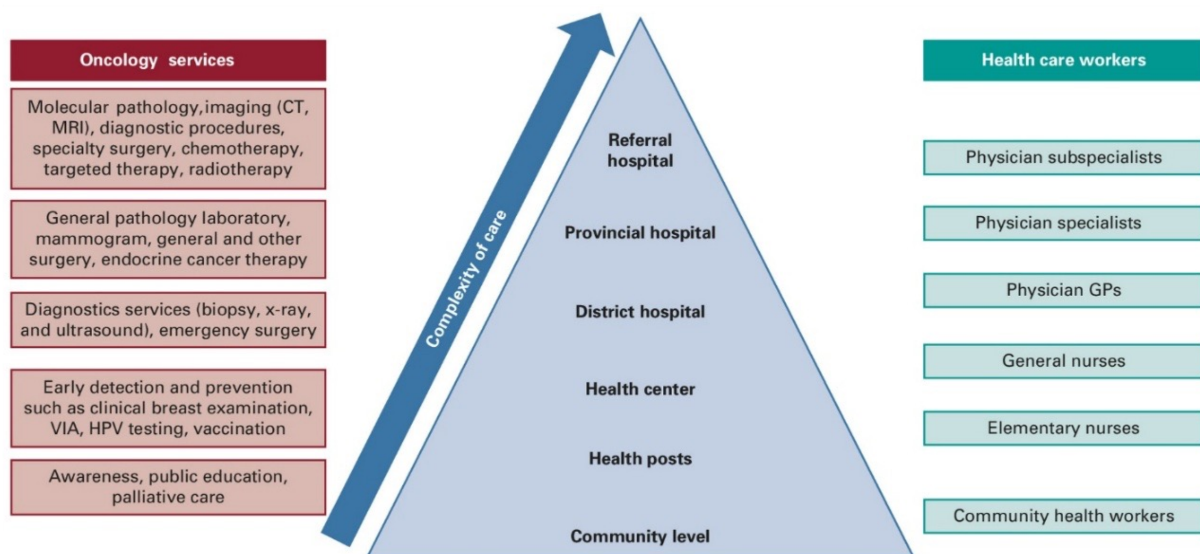
For the quantitative component, health assessment tools, modified from the IAEA imPACT mission tools, were used to evaluate the capacity of health facilities to provide cancer care. This assessment captured critical data on the infrastructure, resources, and readiness of facilities across Rwanda to deliver cancer-related services. Moreover, desk research was conducted to gather additional information on cancer epidemiology, health system performance, and existing cancer care frameworks globally and in Rwanda. This approach informed strategic recommendations, ensuring a comprehensive and evidence-based approach to the development of the NCCP for Rwanda.

CHAPTER 2:
SITUATIONAL ANALYSIS OF CANCER PREVENTION AND CONTROL IN RWANDA

2.1. Overview

This section provides a comprehensive overview of Rwanda's efforts in cancer prevention and control. It includes a critical review of the current cancer burden in Rwanda, an assessment of the implementation of the National Cancer Control Plan (NCCP) 2020-2024, highlighting successes and challenges as gathered from consultations with key stakeholders and impact mission that was conducted in January 2025. Rwanda's health system is built from a community level to referral hospitals/University teaching hospitals [Figure 5]. Based on this structure, a total of 359 interviews were completed across 59 health facilities, including 20 health centers, 20 district hospitals, 3 provincial hospitals, 10 level 2 teaching hospitals, 4 level-1 teaching hospitals, and 2 private health facilities, including diagnostic centers. This exercise provided detailed assessments of the achievements and gaps under each pillar of the NCCP 2020-2024, while also sharing their perspectives on the priorities for the upcoming NCCP 2025-2029. Additionally, an environmental analysis was conducted using the SOAR (Strengths, Opportunities, Aspirations, and Results) and Demographic, Economic, Social, Technological, Environmental, and Political (DESTEP) framework, to provide insights into the current landscape of cancer control and its future direction. The chapter concludes with a strategic direction and priorities that will shape Rwanda's cancer control efforts over the next five years, aligning with global best practices and addressing the unique local context.

Figure 5: Rwanda health system and oncology services (Source: Fadelu et al, 2022)



2.2. Assessment of the implementation of NCCP 2020-2024

2.2.1 Resources Availability for Cancer Care in Rwanda 2020-2024

This section provides a snapshot of the infrastructure and workforce dedicated to cancer diagnosis and treatment in Rwanda, covering human resources, diagnostic equipment, and surgical capacity.

2.2.1.1 Human Resources

As of now, Rwanda's formally trained cancer-related workforce is concentrated in a few major hospitals, with 17 oncologists (3 medical oncologists and 14 clinical oncologists), 20 pathologists, 20 radiologists, 6 medical physicists, 25 oncology nurses*, and 7 radiation therapy technologists (RTTs). The workforce distribution highlights centralization in urban centers, particularly at RMRTH.

2.2.1.2 Endoscopy, Pathology, Radiology and Surgical Capacity

Cancer diagnostic services in Rwanda include endoscopy, pathology, radiology, and surgical capacity, but remain limited and concentrated in urban centers. Upper and lower GI endoscopy is available in 19 facilities, though endoscopic ultrasound (EUS) is offered only at CHUK, KFH, and RMRTH. Pathology services exist in six institutions, but with limited immunohistochemistry at RMRTH and CHUB, and some samples outsourced internationally by Lancet Laboratories. Radiology services show variability; All public hospitals are equipped with conventional x-ray machines and ultrasound, there is a total of 13 CT scans in 12 health facilities, but only 5 have MRI machines (KFH, Gisenyi, Frontier, Legacy, and Mediheal Clinics), and just 6 facilities are equipped with mammography units (CHUK, KFH, RMRTH, Butaro, Wiwo, Legacy, and Mediheal Clinics). Surgical capacity is similarly constrained, with a total of 51 major operating theatres across university hospitals—CHUK (12), CHUB (11), RMRTH (8), KFH (7), Butaro (4), Rwamagana (4), and Kibagabaga (5).

2.2.2 NCCP 2020-2024 Implementation Status across the Five Pillars

The NCCP 2020-2024, was organized around five pillars: Cancer Prevention, Cancer Early Detection, Cancer Diagnosis and Staging, Cancer, Cancer Treatment, Palliative Care, Cancer information system and research, Cancer Coordination, Partnerships and Financing for Cancer Control. Each pillar had specific objectives and associated activities designed to reduce the cancer burden and improve patient outcomes. Based on desk research and evaluation of last NCCP, the following were the main achievements and challenges per each NCCP pillar.

2.2.2.1 Cancer Prevention

Over the last five years, the Ministry of Health (MoH) and its partners spearheaded extensive public health education campaigns to promote cancer prevention through lifestyle changes, targeting risk factors such as tobacco use, alcohol consumption, and unhealthy diets.[38,39] Efforts to increase physical activities.40 HPV vaccine which was approximately 91% for girls aged 9-14 years old in 2011-2018, to reduce the risk of cervical cancer.[41] There is wide spread of hepatitis B virus (HBV) vaccination and availability of Hepatitis C treatment.[42] By the time children reach five years old, Rwanda has effectively embraced routine adult vaccination, with 96% of adults having had vaccinations.[43,44]

Rwanda has ratified and domesticated international conventions, such as the WHO Framework Convention on Tobacco Control (FCTC), and has enacted the Tobacco Control Act, which imposes stringent restrictions on tobacco advertising, sales, and consumption.[45,46] The enforcement of stringent environmental regulations, as codified in national policies such as the Rwanda Environment Management Authority and Rwanda Standards Board guidelines, aims to mitigate exposure to environmental carcinogens and occupational hazards. These regulations include the prohibition

of asbestos use, control of industrial emissions, and promotion of clean energy initiatives to reduce indoor air pollution. Control of infectious diseases such as HIV has also contributed to significant reduction of HIV associated malignancies such as Kaposi Sarcoma.

The infrastructure for comprehensive health education remains limited, particularly in rural areas. Key cancer risk factors, including tobacco use, alcohol consumption, obesity, and poor nutrition, are not adequately addressed possibly due to insufficient resources and lack of continuous public education.

Tobacco

Tobacco use is a major risk factor of many cancers, responsible for cancers of the lung, mouth, throat, esophagus, pancreas, bladder and others. Rwanda has been a Party to the WHO Framework Convention on Tobacco Control since January 17, 2006. Current tobacco packaging only covers 30% of the product, which is below the recommended minimum of 50%. In terms of taxation, Rwanda's tobacco excise tax stands at 49%, significantly lower than the 70% recommended to effectively reduce tobacco consumption. The recent taxes changes, the tax on cigarettes doubled from RWF 130 to RWF 230 per pack along with an additional 36% tax on the retail prices.[47]

STEPs 2022 showed a percentage drop from 12.9 % to 7.1% of smokers. However, it should be noted that this decrease is still short of the 2018-2024 Health Sector Strategic Plan set a target of prevalence in current tobacco smokers at 6.32% by 2024 (MoH, 2018). Additionally, the STEPs 2022 showed that there was increased exposure to second-hand smoke at both home and workplace.

Alcohol

Alcohol consumption has been established to increase the risk of developing cancers such as those of the mouth, throat, esophagus, liver, and breast. Rwanda has several alcohol control measures, including excise taxes on beer, wine, and spirits, and a legal drinking age of 18 for both off-premises and on-premises sales. While there are restrictions on where and when alcohol can be sold, there are no national policies on alcohol advertising, sponsorship, or health warning labels. The legal blood alcohol concentration (BAC) limit is 0.08% for all drivers. These policies are relevant to cancer prevention, as excessive alcohol consumption is a known risk factor for various cancers, and stronger regulations could help reduce this risk.

When comparing with the 2012 STEPs survey, there has been a significant overall increase in alcohol consumption from 41.2% in 2012 to 48.1% in 2022. Heavy drinking has reduced from 23.5% to 15.2%. The prevalence of people who engages in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days) was 3.4% in 2022. These results show a need for increased efforts to curb alcohol consumptions in Rwanda.

Infectious diseases

Infectious diseases contribute to 15-20% of cancers globally, with higher rates in developing countries. In Rwanda, cervical cancer (HPV), gastric cancer (Helicobacter pylori), and liver cancer (HBV, HCV) are among the top five cancers, all linked to infections.

Rwanda was the first country in Africa to introduce a national HPV vaccination program, which has consistently achieved a coverage rate of over 90% for eligible girls.48 This program has vaccinated more than 1.2 million girls and women since its inception,49,50 making Rwanda one of the global leaders in HPV vaccination coverage, helping prevent cervical cancer effectively through school-based campaigns and strong healthcare systems support.

Rwanda has reached 99% national coverage for infant HBV immunization, benefiting over 7 million individuals. As per the viral hepatitis program report from July 2022 to June 2023, HBV vaccination was provided to 351,181 children as part of the pentavalent vaccine, 312 newborns of HBV-positive mothers, and 18,531 adults. Since 2015, Rwanda has screened approximately 5 million people for HBV, with 138,512 testing positive for HBsAg and 8,258 treated. For HCV, nearly 8 million individuals were tested, with 157,276 having antibodies, of which 63,404 (40.3%) had a detectable viral load and 59,654 were treated. In the current fiscal year, 579,584 people were screened, resulting in

11,621 antibody-positive cases and 2,781 eligible for treatment.[51]

Control of environmental exposure to carcinogens

Environmental carcinogen exposure includes factors such as air pollution, water contamination, exposure to chemicals, and occupational hazards. The Rwandan government has taken several steps to curb these exposures through policies and strategies aimed at environmental protection and sustainable development. Since the last NCCP, key initiatives include the revised Green Growth and Climate Resilience Strategy, which aims to position Rwanda as a low-carbon and climate-resilient economy by 2050. To reduce public exposure to carcinogens from vehicle emissions, Rwanda has eliminated taxes on electric cars, encouraging a shift toward cleaner transportation and improved air quality[52]. This strategy focuses on reducing emissions, promoting sustainable land use, and enhancing water resource management, while also integrating climate adaptation measures across various sectors.[53].

The government has also established the Green Climate Fund and developed the Nationally Determined Contributions (NDC) to align with international climate action goals. These efforts include a comprehensive approach to address air pollution and the promotion of green energy alternatives to limit reliance on biomass and reduce exposure to harmful pollutants.[54] Furthermore, policies such as the National Environment and Climate Change Policy guide Rwanda's efforts to mainstream environmental health considerations into all sectors, aiming to reduce public exposure to environmental carcinogens and promote healthier living conditions.[53]

Behavior changes for cancer prevention

Physical Activities

Physical inactivity contributes to the development of cancers like breast and colon by promoting obesity and metabolic dysfunction.

Comparing with results from the previous STEP survey (2012) using the former WHO recommendations on physical activity, there has been an improvement as people engaging in high physical activity increased from 61.5% in 2012 to 81.3% in 2022; the prevalence of moderate physical activity decreased from 25.2% to 11.1% and low levels of physical activity decreased from 13.3% to 7.5%. It is also important to note that the majority of total physical activity was work (64.5%) and transport (31.1%) related; the proportion of recreational total physical activity was only 4.5%.

At the start of previous NCCP, the rate of people over the normal range of weight was 17.1% with overweight (14.3%) and obesity at 2.8%. While the prevalence of overweight and obesity is still low compared to the global estimates, compared to the previous STEPs survey, there has been an increase in the prevalence of obesity from 2.8% to 4.3% and the increase was more observed in females.

Nutrition

As per the previous NCCP, the target was to increase consumption of vegetables and fruits by 20% in 2024, increase knowledge of general population about the link between nutrition and cancer, and improve general population behavior towards health diets.

As compared to STEPs survey of 2012 where 1 in 100 respondents consumed more than 5 servings of fruits or vegetables, in 2022 there was 10 in 100. This represents only 10% increase in fruit and vegetables intake in a period of 10 years. In the STEPs 2022, nearly 90% reported consuming less than 5 servings of fruits and vegetables per day as recommended by the WHO. The average daily intake of fruit and vegetables among the Rwandan population was 2.3 servings with no significant difference between men and women.

2.2.2.2 Cancer Screening and Early Detection

Cancer early detection in Rwanda has improved since NCCP 2020-2024, particularly for cervical and breast cancer, but nationwide coverage remains limited. Patient Navigation, piloted for breast, cervical, and Wilms tumor patients, shows promise in improving care coordination and shortening delays.[55,56] The needs assessment identified inadequate healthcare worker training, weak patient follow-up systems, and limited screening programs focused mainly on breast

and cervical cancers. Stakeholders recommend expanding screening to include prostate and colorectal cancers, increasing CHW involvement, and enhancing community outreach and referral systems to improve early detection outcomes.

Cervical Cancer

The recent NCCP included a robust cervical cancer screening and treat initiatives using HPV DNA Test and Visual Inspection with Acetic Acid (VIA) at district and health centers targeting women aged 25-65[56]. Women with positive precancerous lesions are immediately treated using thermo-ablative or Loop Electro Excision Procedure (LEEP) at the screening site[57,58,59].

From 2020-2024, 464,690 women in Rwanda were screened for cervical cancer using HPV and VIA methods. Of these, 322,504 (69.4%) underwent HPV testing, with 45,471 testing HPV-positive; 8,607 required further evaluation after positive VIA triage, while 28,388 were VIA-negative. Additionally, 142,186 women received VIA-only screening, with 9,144 positive results. In total, 17,751 VIA-positive cases were identified, leading to treatment with thermal ablation (12,917) and LEEP (164) [Table 2]. Over five years, 2,552 women were suspected of cervical cancer, emphasizing the need for improved early detection and referrals.

Table 2: Cervical Cancer Screening in Rwanda 2020-2024

		2020	2021	2022	2023	2024	TOTAL
0	Eligible women	1507983	1563652	1567062	1615149	1662619	-
1	Total screened for cervical cancer (HPV+VIA)	27858	76561	110307	132152	117812	464690
2	Total women screened with HPV	11121	51755	50111	95006	114511	322504
3	Total HPV Positive	2006	8126	6827	15925	12587	45471
4	Total HPV positive and VIA Triage positive	463	1526	1125	2929	2564	8607
5	Total HPV positive and VIA Triage negative	1078	3484	3579	9830	10417	28388
6	VIA only	16737	24806	60196	37146	3301	142186
7	VIA Screen positive	640	1247	2499	2119	2639	9144
8	Total VIA positive (screen and Triage)	1103	2773	3624	5048	5203	17751
9	Treated with TA	1166	3035	3233	5146	3402	12917
10	Treated with LEEP	10	29	16	63	46	164
11	Suspected cancer	365	451	646	662	428	2552

Figure 6: Number of new cases of cervical cancer per year (N= 3255) [Source: RNCR]

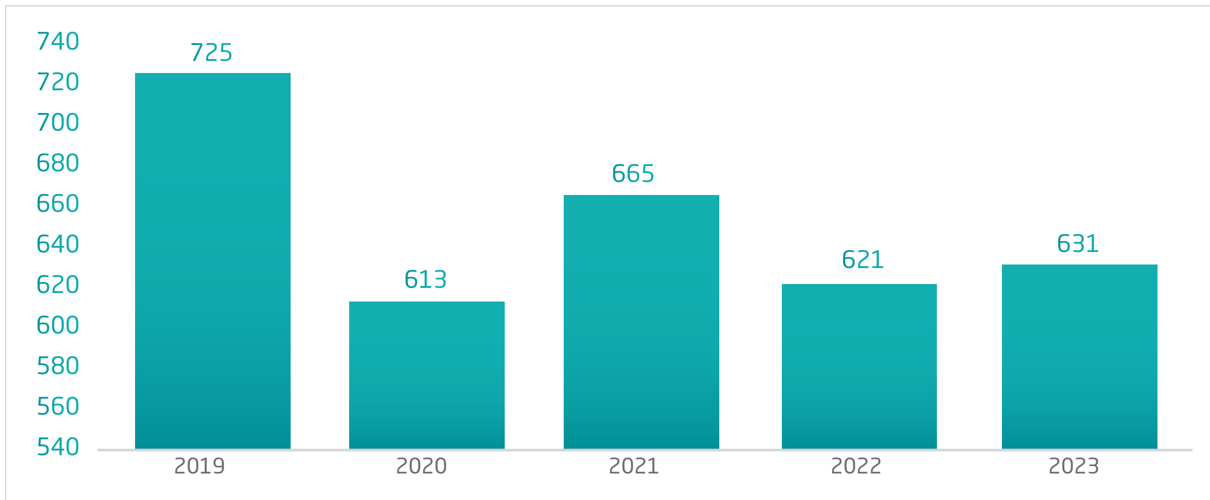
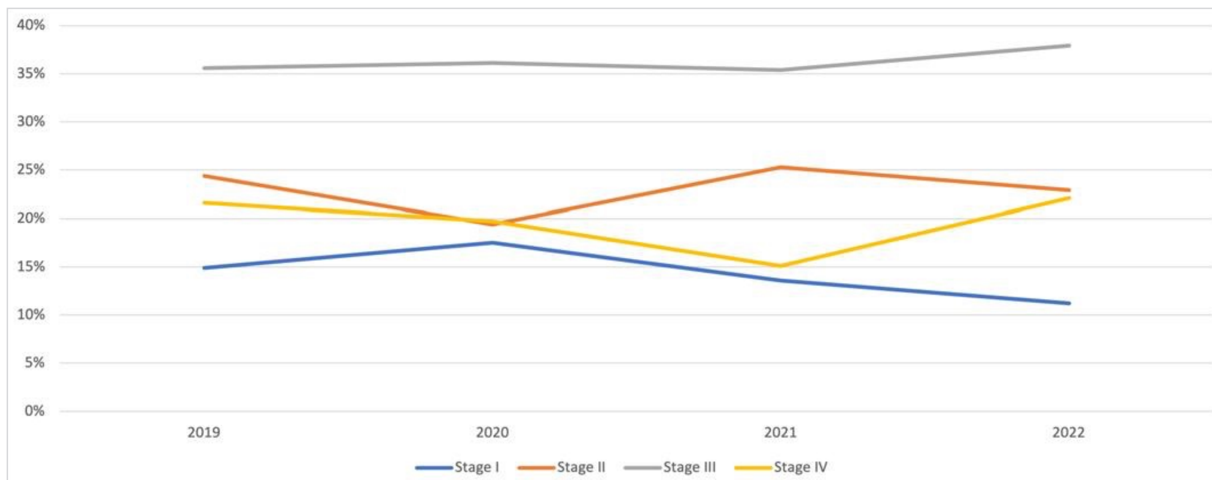


Figure 7: Proportion of Cervical Cancer Stage at Diagnosis by Incidence Year, n=1905, 58.5%



Breast Cancer

Breast cancer screening in Rwanda has made some progress in recent years, though challenges remain. While national screening program is yet to be established, the MoH through Rwanda Biomedical Centre and partners conducts awareness campaigns that encourage breast self-examination and clinical breast exams in both rural and urban areas where access to diagnostic services is insufficient.[60,61] Symptomatic patients are referred for diagnostic breast ultrasound and possible image guided core needle biopsy.[62]

In collaboration with several partners, breast cancer screening and early detection programs have been implemented. These programs usually go hand in hand with cervical cancer screening campaigns. One of such programs is Women's Cancer Early Detection Program (WCEDP),[63] through which women received clinical breast examination if they were receiving cervical cancer screening, or had breast concerns. Patients identified through these campaigns are referred for biopsy and further management at referral centers. However, through stakeholders' engagement it was reported that patients' poverty is the most consistently identified impediment to referral completion.

Table 3 provides data on opportunistic breast cancer screening activities conducted in Rwanda. The data spans from 2019 to September 2024, showing a significant increase in screening activities over the years, with a total of 521,143 people screened by clinical breast exam and 63 confirmed cases of breast cancer.

Table 3: Breast Cancer Screening in Rwanda 2020-2024

Indicator	2019	2020	2021	2022	2023	2024	Total
Number of people received screening with clinical breast exam	24632	32639	51802	105906	130256	175908	521143
Number of screened people with abnormal clinical breast exam	1425	2063	3585	4988	7217	6535	25813
Number of screened people with breast symptoms treated at health facility Health Centers and District Hospitals (HC&DH)	1031	1271	1655	1931	2966	1766	10620
Number of screened people received diagnosis with breast ultrasound	47	170	85	658	1317	1846	4123
Number of people with biopsy performed	17	35	57	114	143	164	530
Number of people with biopsy confirmed Breast cancer	-	-	2	32	4	25	63

RBC and partners continue to train nurses and community health workers at health centers across the country to conduct breast cancer screenings, and aims to cover all 30 districts.[64] However, there is still a need for more partnerships and funding to address the increasing prevalence of breast cancer, as most cases are still detected at a late stage.

The last NCCP targeted to decrease stage III/IV Breast Cancer from 77% to 25% by 2024, however, as per the national cancer registry, in 2023, of the staged cases, 73% were stage III/IV [Figures 8 & 9]

Figure 8: Number of new cases of Breast cancer per year (N= 3464) [Source: RNCR]

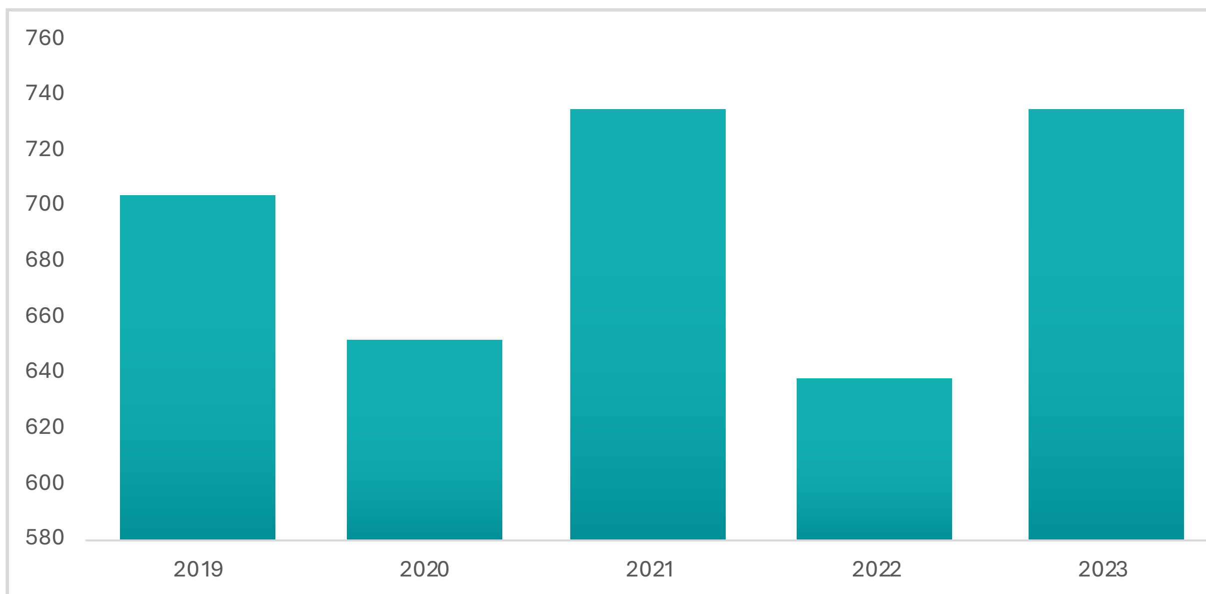
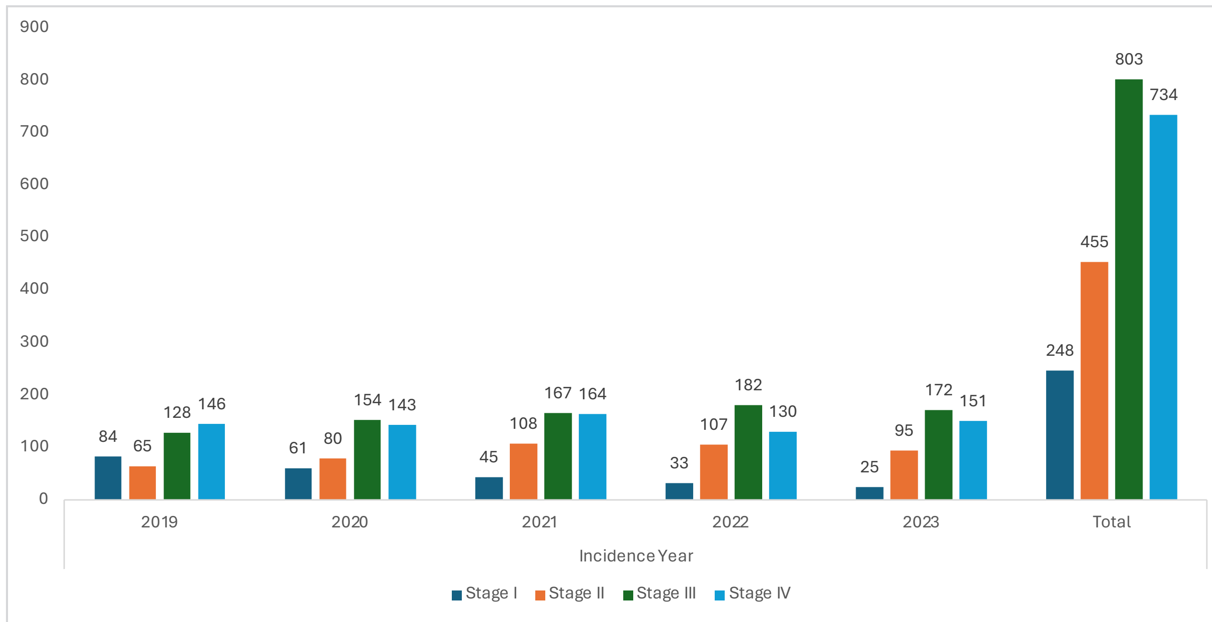


Figure 9: Numbers of Breast Cancer with known Stage at Diagnosis by Incidence Year, [n=2240, 65%] [Source: RNCR]



Colorectal Cancers

Colorectal screening was one of the previous NCCP strategy with the objective of increased early detection of colorectal cancers. This, however, did not materialize as currently no screening programs in place. Figure 10 shows the number of new cases and deaths of colorectal cancers while Figure 11 shows the proportions of colorectal cancer cases by Stage at diagnosis in the period 2019-2023 as per the National Cancer Registry.

Figure 10: Number of new cases (N= 1260) and death (N= 281) of colorectal cancers [Source: RNCR]

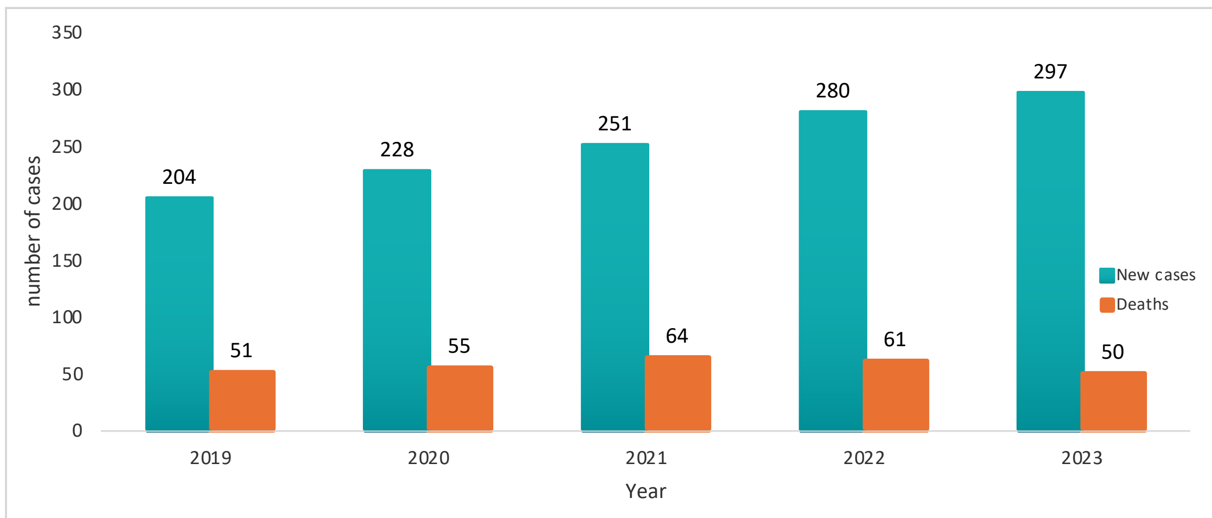
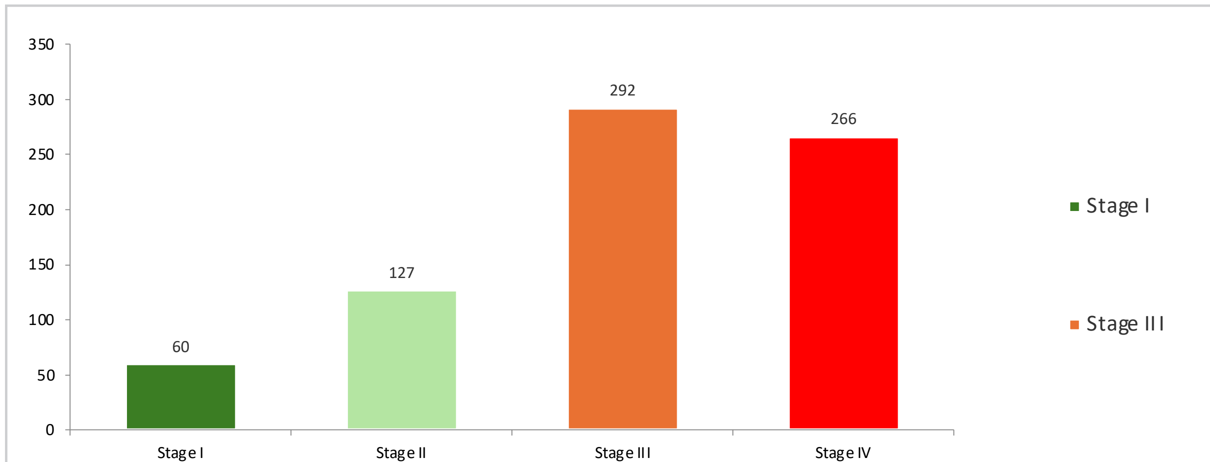


Figure 11: Proportions of colorectal cancer cases by Stage at diagnosis from 2019-2023 (N=745, 59%) [Source: RNCR]



Prostate Cancer Screening

Similar to colorectal screening, systematic prostate cancer screening has not been initiated at a national level. Only patients with symptoms are referred for prostatespecific antigen (PSA) serologic testing and digital rectal exams. Figure 12 shows Prostate Cancer Incidence and Mortality by year while Figure 13 shows proportion of Prostate cancer cases by stage at diagnosis cases in period 2019-2023 as per National Cancer Registry.

Figure 12: Prostate cancer Incidence (N=2386) and Mortality (N=426) by year [Source: RNCR]

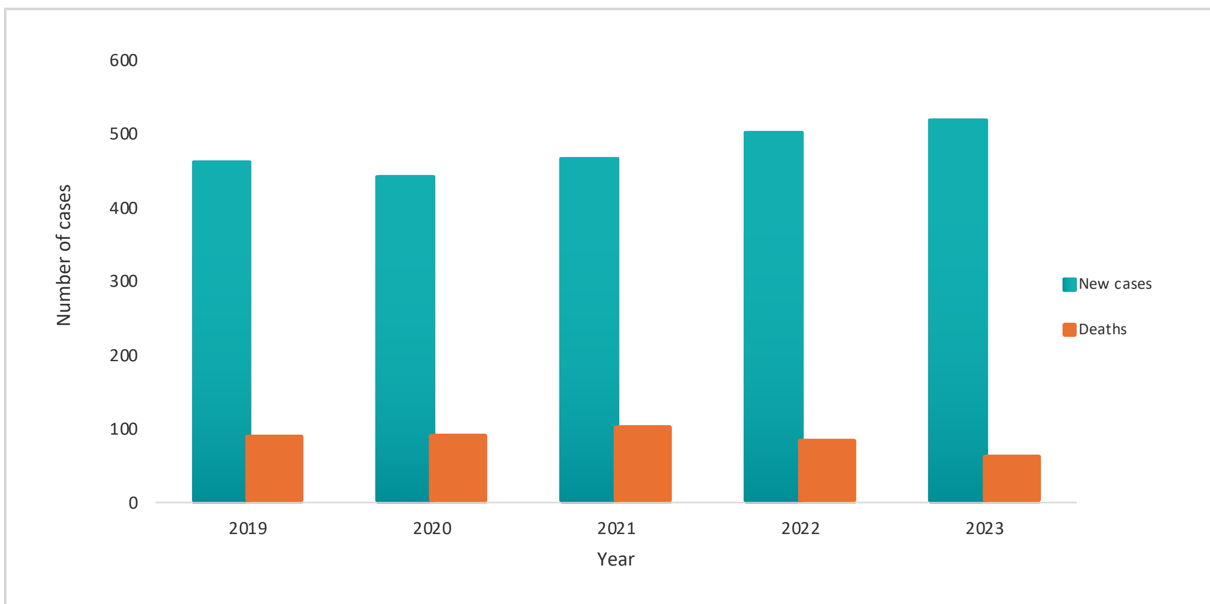
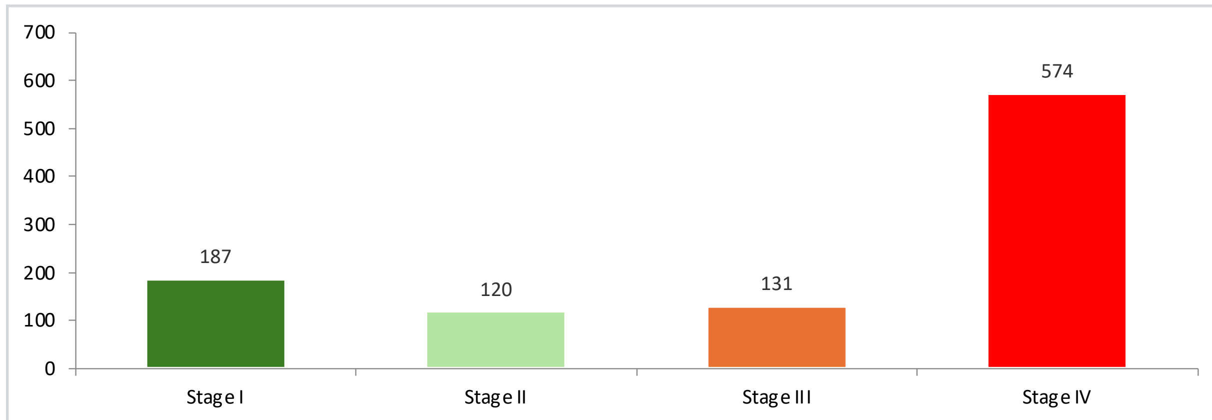


Figure 13: Proportion of Prostate cancer cases by stage at diagnosis cases from 2019-2023 (N=1012, 42%) [Source: RNCR]



Childhood Cancers

No particular efforts were implemented for early detection of childhood cancers. As of the period of last NCCP, a total of 1709 cases of childhood cancers were recorded [Figure 14]. Only 25% mostly solid tumors were properly staged or the records of their stages were retrieved. Of those with known stages, 34% were stage IV. Compared to adult cancers, a significant proportion of childhood cancers cases are diagnosed at early stage I & II (45%) [Figure 15]. Leukemia, nephroblastoma and retinoblastoma are the common histologies [Figure 16]. While evidences show screening of retinoblastoma improves survival, this has not been initiated in Rwanda.

Figure 14: Number of new cases of childhood cancer diagnosed per year (N =1709) [Source: RNCR]

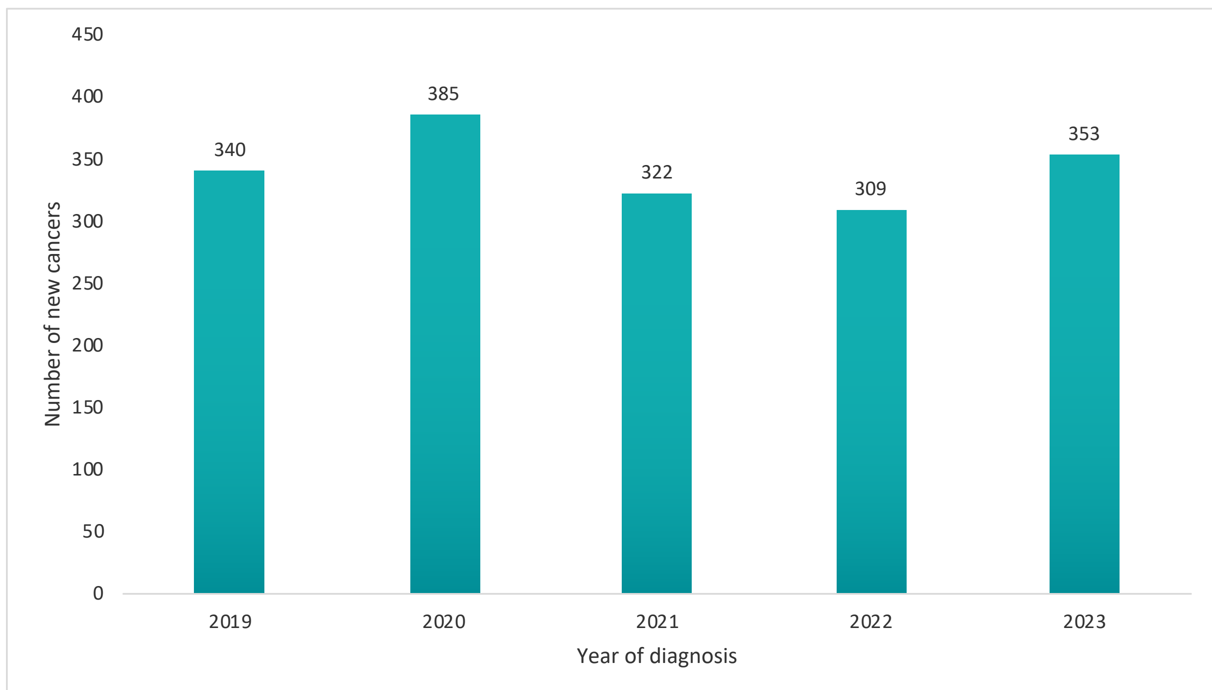


Figure 15: Number of new cases of solid childhood cancers with known stage from 2019-2023 (N=419, 25%) [Source: RNCR]

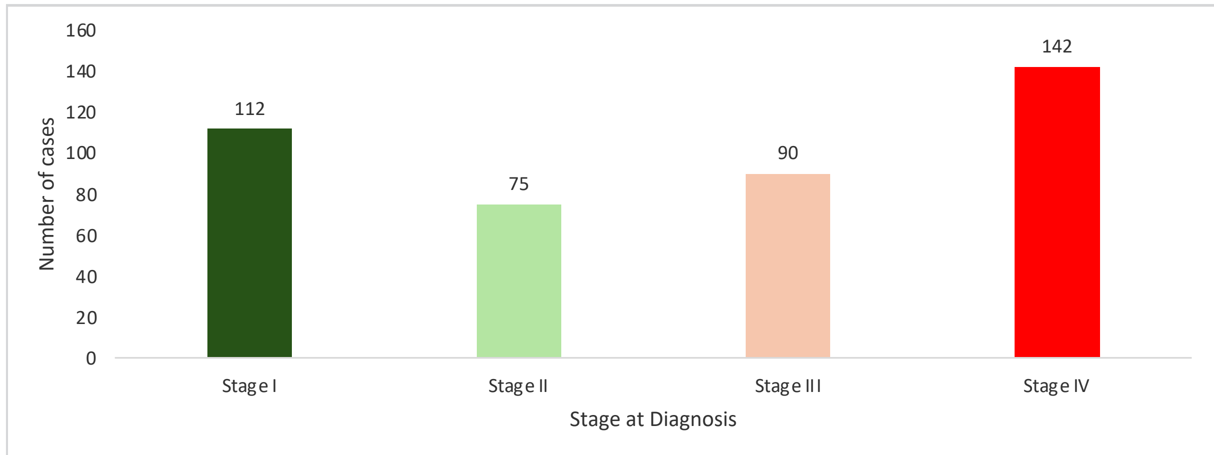
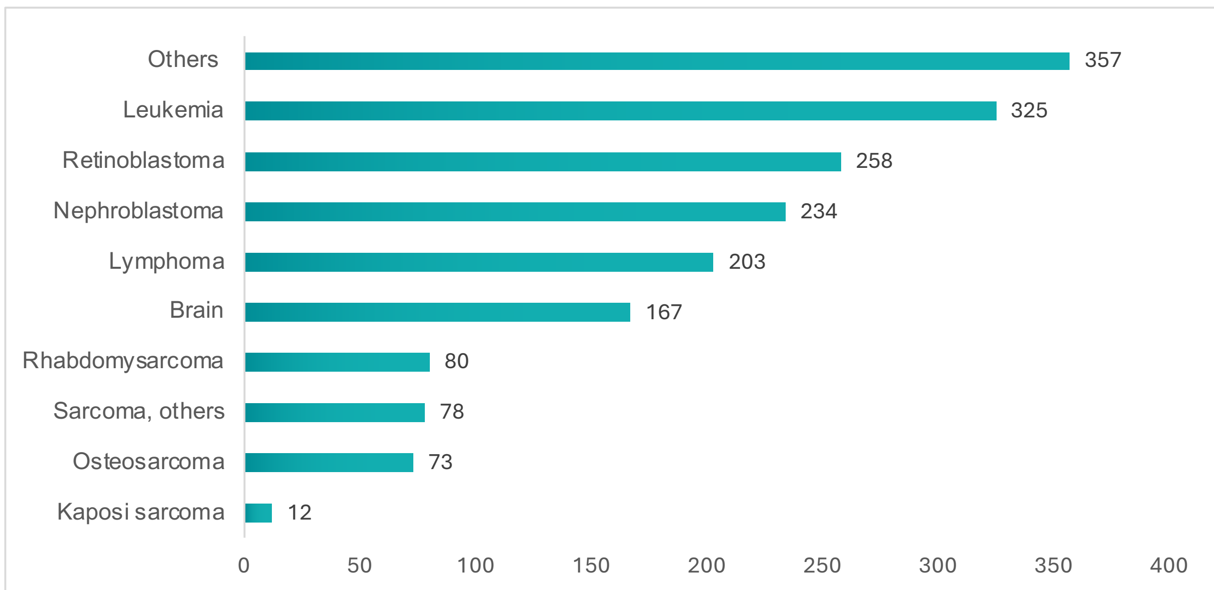


Figure 16: Childhood Cancers by Histologies - 2019-2023 [Source: RNCR]



2.2.2.3 Cancer Diagnosis and Staging

All public hospitals have basic clinical laboratory and few especially University Teaching Hospitals have advanced clinical labs used for diagnosing cancer. Medical imaging is a critical element of cancer care systems. In Rwanda, medical imaging is utilized at every step of the care continuum including: initial diagnosis, cancer treatment and follow up care. Most public and private hospitals have conventional and/or digital radiography facilities, ultrasound machines are available in all district hospitals, but only 6 institutions have mammography services. The MoH has prioritized the development of diagnostic facilities, including the decentralization of diagnostic imaging, increased access to tissue biopsy[65],[66],[67] and expansion of pathology labs as well as radiology capacity, particularly in district hospitals. Currently, in addition to conventional radiology capacity, the country has recently introduced various interventional radiology procedures at both KFH and RMRTH as new technology has become available.

The needs assessment also identified a significant gap in nuclear medicine capabilities in Rwanda. At present, PET scans, SPECT imaging, bone scans, and radioactive iodine are not yet available in

Rwanda, although PET services are planned to be operational soon.

The government is committed to enhance health workforce education with the aim to ensure that "4x4" reform of quadrupling the production health care workers in the next four years is properly implemented in the clinical settings.[68] In line with this, the University of Rwanda Pathology residency program has increased the number of graduate pathologists in the country. Additionally, the University is also starting a residency program in clinical pathology.

Over these years, Butaro DH recorded the highest total number of cases (3,526), followed by CHUK (2,785), while King Faisal Hospital reported the fewest (765) [Table 4].

Table 4: Cancer Diagnosis per pathology laboratory in the 5 teaching Hospitals

	Case Year					
Laboratory	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
Butaro DH	676	663	513	732	942	3526
CHUK	600	519	415	642	609	2785
Rwanda Military Hospital	347	315	325	460	525	1972
CHUB	135	145	200	238	312	1030
King Faisal Hospital	128	129	107	121	280	765
Total	**1886**	**1771**	**1560**	**2193**	**2668**	**10078**

Table 5: Top 10 cancers diagnosed per the five-pathology laboratory - 2019-2023 [Source: RNCR]

Primary Site	**CHUB**	**BCCOE**	**CHUK**	**KFHR**	**RMRTH**	**Total**
Breast	95	935	129	194	242	1595
Cervix Uteri	150	381	379	19	269	1198
Prostate Gland	175	35	376	75	313	974
Gastroesophageal	148	90	423	25	235	921
Blood	38	493	96	19	27	673
Skin	54	235	89	14	102	494
Lymphatic	33	234	84	30	60	441
Eye And Adnexa	2	345	15	0	9	371
Colorectum	51	102	224	54	94	525
Brain	4	6	92	52	32	186
Liver	27	8	14	44	51	144
Others	253	664	875	246	545	2583
Grand Total	**1030**	**3526**	**2785**	**765**	**1972**	**10078**

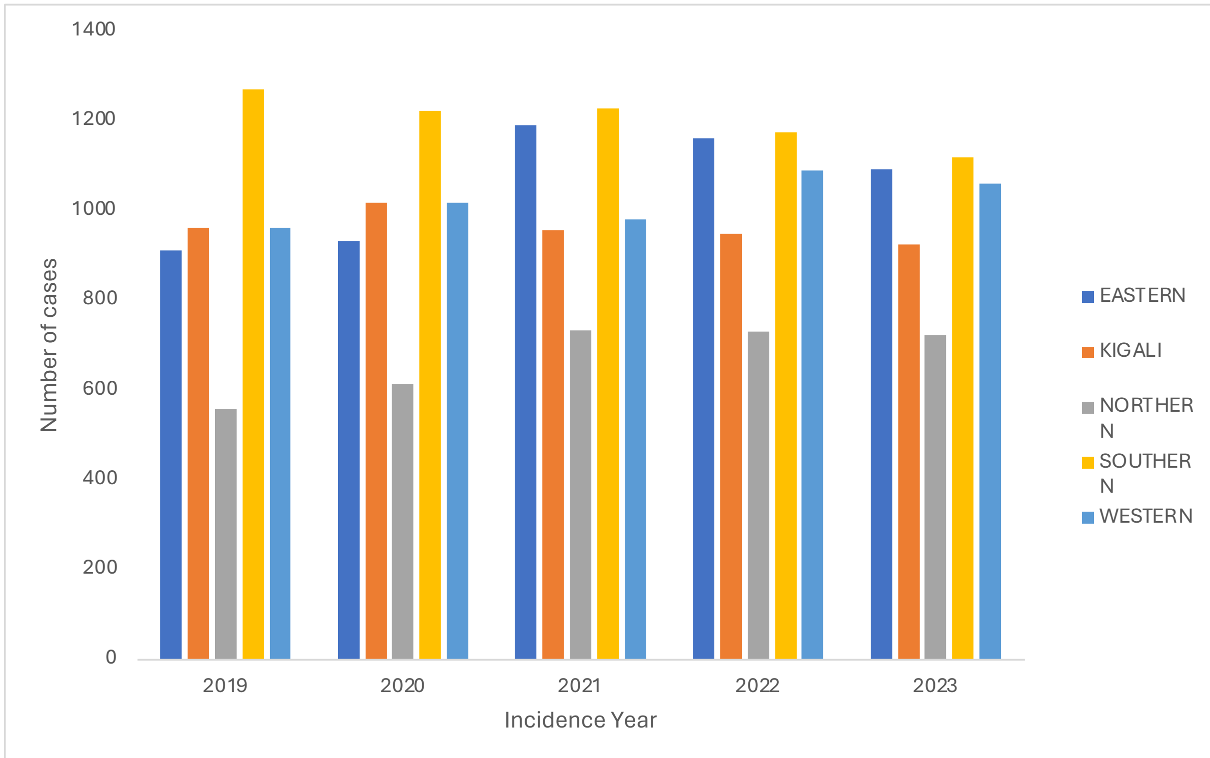
The basis for cancer diagnosis from 2019 to 2023 is predominantly through histology of the primary site, accounting for 9,595 (95%) cases out of 10,078 total diagnoses [Table 6].

Table 6: Basis of Cancer Diagnosis from 2019-2023

Basis of Diagnosis	2019	2020	2021	2022	2023	Total
Histology of primary	1746	1691	1518	2125	2515	9595
Clin. Invest. /Ult Sound	70	25	18	15	38	166
Cytology	53	40	10	26	36	165
Histology of metastasis	4	5	11	24	64	108
Clinical only	12	10	3	2	2	29
Laboratory test				1	12	13
Surgery/Autopsy	1				1	2
Total	**1886**	**1771**	**1560**	**2193**	**2668**	**10078**

As Figure 17 shows, the Southern Province has the highest total number of cancer cases from 2019 to 2023, with 6,011 cases.

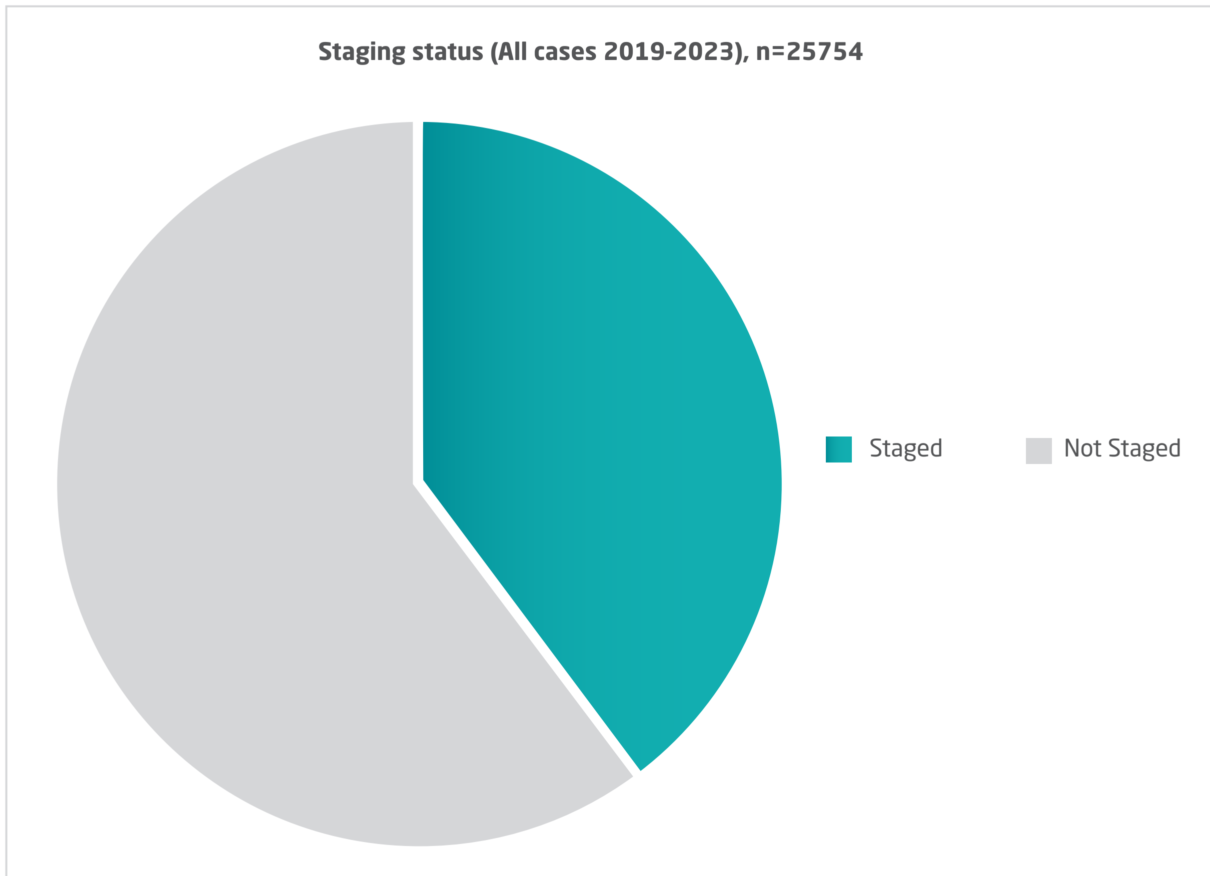
Figure 17: Number of Cancer cases per province - 2019-2023 [Source: RNCR]



The country has seen progress toward its NCCP targets, with reductions in late-stage breast cancer and increases in early colorectal cancer detection.

However, despite of all these progresses, 60 % of the registered cases through National Cancer Registry, were not staged [Figure 18].

Figure 18: Staging Status of All cases 2019-2023, n=25754

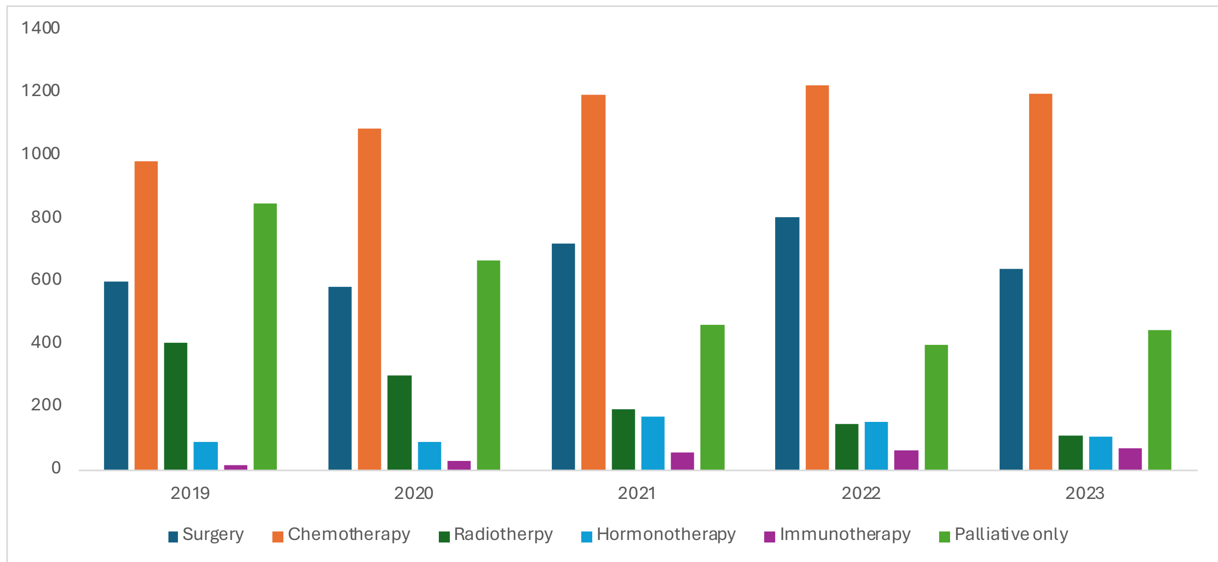


2.2.2.4 Cancer Treatment and Palliative care

Cancer services in Rwanda are centralized at three main facilities: the Rwanda Cancer Centre (RCC) in Kigali (the only radiotherapy provider, with brachytherapy expected by June 2025), Butaro Hospital, and King Faisal Hospital. Despite progress, treatment access remains limited, with radiotherapy capacity below the IAEA's recommended 4 units per million people.[69] Oncology surgery is available at major hospitals, while systemic cancer drugs will be covered by CBHI starting July 2025.[70] Workforce growth includes 17 oncologists, 25 nurse oncologists, 7 radiation therapists, and 5 medical physicists and specialized training programs.

Palliative care focuses on pain management (with morphine widely available), though psychosocial and end-of-life services need strengthening.[71,72] Over 64% of stage IV patients receive palliative care, and 516 nurses and 53,604 community health workers have been trained. Survivor programs provide psychological support, nutrition guidance, and rehabilitation,[73,74,75,76] improving long-term outcomes. According to RNCR, 2,815 which represents 64% of stage IV patients (among only those with known stage) got proper palliative care [Figure 19].

Figure 19: Number of cancer cases treated per treatment modality- 2019-2023 [Source: RNCR]



Rwanda's cancer patients face delays due to an unstreamlined referral system, following general pathways instead of prioritized routes. Without dedicated patient navigation, diagnosis and treatment are slowed, worsening outcomes. Adopting a time-bound referral model (like the UK's 14-day specialist access rule) could improve early care and survival rates.[77]

Rwanda's limited cancer centers force patients to travel long distances, with high costs and no lodging often leading to abandoned treatment. Expanding social support (e.g., Butaro's free lodging, counseling, and transport) nationwide could improve access and adherence. Additionally, CBHI covers only 90% of diagnostics/surgery, and previously excluding cancer drugs, leaving systemic therapies unaffordable. Many patients had to seek free care at Butaro or pay out-of-pocket at referral hospitals, deepening financial strain. However, starting July 2025, CBHI will be covering cancer drugs as well.

2.2.2.5 Cancer Information system and research

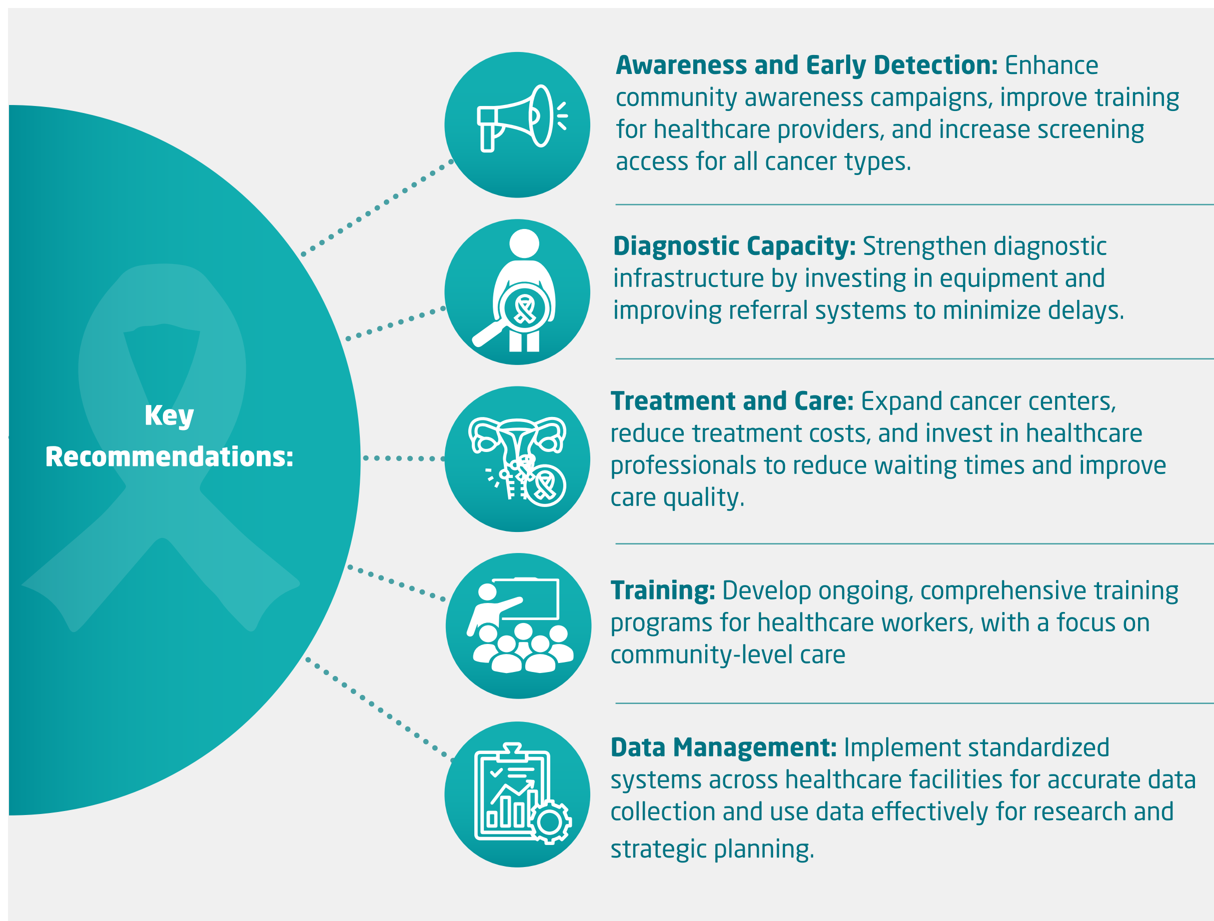
Since its relaunch in 2007, Rwanda's Cancer Registry has faced funding challenges but remains vital for tracking incidence, treatment outcomes, and survivorship. From 2019-2024, it recorded 25,754 cases, covering all hospitals, with data now integrated into the District Health Information System (DHIS2). The registry has joined international cancer registry networks. However, like much of Africa, Rwanda contributes <1% of cancer research on the continent, with limited genetic studies.[78,79] The majority of Rwanda's cancer research has been institution based and mostly implementation or health service research with very little research produced in basic research and experimental clinical trials.[10] However, when compared to 194 PubMed indexed cancer publication out of Rwanda or by Rwandan authors five years prior to NCCP 2020-2029, in the last five years, there has been 400 PubMed cancer publications on Rwanda. About 4 manuscripts published into peer reviewed journals using data from the RNCR. Majority of these research output is implementation research, health service research and majority epidemiological in nature with no clinical trials or translation research output.A key achievement was updating the National Health Research Agenda to include cancer research. However, challenges persist, such as too few cancer registrars, understaffing, and inconsistent EMR documentation, hindering accurate data collection and analysis of cancer burden and outcomes.

2.3. Coordination, partnership and financing for cancer control

Over five years, Rwanda's cancer control efforts have progressed slowly but steadily. The Cancer Diseases Unit remains central to these efforts, with consistent multi-stakeholder engagement and partnerships forming a stable foundation. However, challenges like limited resources and integrating cancer services persist. While collaborations with ministries and partners continue, faster progress requires renewed strategies. Financing remains a hurdle due to budget constraints and competing health priorities.. Despite allocating over 15% of its budget to healthcare (meeting the Abuja Declaration[80]), Rwanda's cancer services remain underfunded. Increasing dedicated funding for cancer care—including free comprehensive treatment—would reduce financial barriers, improve access, and boost survival rates.

2.4. Key recommendations from stakeholders interviews

The needs assessment conducted with stakeholders revealed a strong desire for a more integrated and patient-centered approach in the next NCCP. Stakeholders emphasized the need to scale up community-based screening programs, improve access to diagnostic and treatment services, and strengthen governance and coordination mechanisms. They also called for increased investment in research and innovation to address the unique challenges facing cancer control in Rwanda.



2.5. Achievements and barriers

The previous National Cancer Control Plan (NCCP) for Rwanda outlined ambitious targets across seven pillars, totaling 24 strategic objectives and 111 strategic actions. Notably, cancer prevention and early detection received the most emphasis, with 26 and 31 strategic actions, respectively. Previous NCCP highlights successes in specific areas but also indicates significant gaps that future plans need to address to meet Rwanda's comprehensive cancer control goals fully.

In the past five years, Rwanda has achieved nearly 91% HPV vaccination coverage for girls, expanded HBV and HCV initiatives, introduced HPV and VIA testing for early detection, and piloted breast cancer screening. Diagnostic capacity grew with more imaging facilities and trained specialists. Treatment advances include new cancer treatment guidelines, a medical oncology fellowship, and palliative care integration. Cancer registration expanded nationwide, research output increased, and multi-stakeholder partnerships were strengthened, enhancing Rwanda's cancer control efforts.

Table 7: Major achievement under each pillar of the NCCP 2020-2024

Pillar	Major Achievement
Cancer Prevention	Achieved approximately 91% coverage of the HPV vaccine for girls aged 12 years. Significant coverage for HBV vaccination and HCV treatment for those infected.
Cancer Early Detection	Implementation of HPV DNA test and Visual Inspection with Acetic Acid (VIA) at district and health centers. Piloting Breast Cancer screening programs
Cancer Diagnosis and Staging	Increased the number of health facilities with imaging capacity especially CT scan. Increased number human capacity for pathology, endoscopy and radiology-based cancer diagnosis. Residency and fellowship level training capacity at the University level
Cancer Treatment and Palliative Care	Development of the National Cancer Treatment Guidelines Established a new medical oncology fellowship program at the University of Rwanda, Palliative Care Guidelines included in the NCD policy.
Cancer Information System and Research	Cancer registration in all hospitals in the country Increased the number of PubMed-indexed cancer research publications from Rwanda
Coordination, Partnerships, and Financing	Established and strengthened multi-stakeholder collaborations and partnerships

2.6. Lessons Learnt

Various lessons were accrued from the implementation of the NCCS 2020-2024. The main ones are as follows:

- A multi-stakeholder involvement especially local government up to the village level is important. Stakeholder involvement should start at drafting of the strategic plan, but also implementation, monitoring and evaluation.
- It is good to borrow best practices elsewhere, but a Rwanda's health system programmatic approach is important for the success of the NCCP.
- It is important to integrate all NCCP components in the national health system as standalone programs tend to fail.
- Cost-effective and cost-benefit analysis is necessary for implementation of cancer control programs.
- Increased sustainable financing for cancer control with removal of user fee for all cancer control programs remains critical.

2.7. Landscape analysis of current and future factors to affect 2025-2029 NCCP success

2.7.1. Overview

Rwanda's 2025-2029 NCCP faces both opportunities and challenges. A DESTEP/SWOT analysis reveals key external factors—including demographic changes, economic constraints, technological gaps, and strong political commitment—alongside internal factors like workforce shortages versus growing international partnerships. While Rwanda's centralized cancer services and policy alignment are strengths, limited infrastructure and competing health priorities threaten progress. The NCCP's success hinges on leveraging early detection campaigns and sustainable financing while addressing systemic gaps in care delivery. This landscape will shape Rwanda's ability to reduce cancer burdens over the next five years.

2.7.2. SWOT and DESTEP Analysis of Rwanda's Cancer Control System (Aligned with WHO Health System Building Blocks)

Rwanda's cancer control demonstrates strong political commitment and prevention programs, but faces challenges like staff shortages and funding gaps. Economic pressures and cultural barriers pose threats, while opportunities exist in technology and global partnerships. The DESTEP analysis highlights how demographic changes, urbanization, and environmental factors increase cancer risks, while technological advances and political support offer solutions - presenting both challenges and opportunities for improving nationwide cancer care

Table 8: SWOT and DESTEP Analysis

WHO Building Block/ Dimension	Strengths	Weaknesses	Opportunities	Threats
Leadership & Governance	Strong political commitment; partnerships (WHO, Butaro model).	Fragmented policy implementation due to competing priorities.	Align with WHO Global Action Plan; strengthen policy frameworks.	Global funding volatility; shifting health agendas.
Health Financing	CBHI covers 90% of diagnostics/surgery.	Excludes cancer drugs; high out-of-pocket costs.	Expand insurance coverage; innovative financing (e.g., pooled funds).	Economic strain (COVID-19, inflation).
Health Workforce	Specialized centers (e.g., Butaro).	Shortage of oncologists; rural disparities.	Scale training programs; academic partnerships.	Brain drain; burnout.
Service Delivery	Successful screening/ vaccination programs; Butaro's integrated care.	Few cancer centers; delayed referrals; no navigation system.	Replicate Butaro's support model (lodging, transport).	Overburdened referral hospitals.
Medical Products & Tech	Partnerships for vaccines/diagnostics.	Drug access gaps; reliance on referrals.	Adopt telemedicine; local drug production.	Supply chain disruptions.
Health Information Systems	DHIS2-integrated registry; annual reports.	Inconsistent EMRs; incomplete data.	Strengthen real-time monitoring; AI for data analysis.	Data privacy/ security risks.

2.7.3. Key factors to impact success of NCCP 2025-2029

Table 9 outlines the potential negative and positive factors that could impact Rwanda's cancer control efforts. Key challenges include limited healthcare infrastructure and workforce, high prevalence of cancer risk factors, socioeconomic barriers, limited research capacity, and cultural beliefs that hinder early diagnosis and treatment. However, there are positive developments, such as the expansion of cancer care services, preventive campaigns, improved access through national health insurance, research capacity building, and community health education initiatives. These efforts collectively aim to address gaps in cancer care and improve outcomes across the country.

Table 9: Potential negative and positive factors to impact the success of NCCP 2025-2029

Potential Negative Impact Factors	Potential Positive Impact Factors
Limited cancer centers, diagnostic tools, and oncology specialists hinder care access.	New cancer centers (e.g., Butaro) and international training partnerships improve capacity.
High tobacco/alcohol use and poor diets drive cancer rates.	National prevention campaigns (smoking cessation, HPV vaccines, nutrition programs) reduce risks.
Cost, distance, and transport barriers delay rural cancer care.	Expanded health insurance (Mituelle de Santé) and community health workers enhance access.
Weak local research and data limit policy decisions.	National Cancer Registry and global research collaborations strengthen evidence-based strategies.
Cultural stigma and low health literacy delay screenings/treatment.	Community education and leader engagement boost early detection and adherence.

2.8. Strategic Focus Areas for NCCP 2025-2029

Based on needs assessment findings, the 2025-2029 Rwanda NCCP will focus on the following key strategic focus areas.

Leadership, Governance, and Coordination: Establishing strong leadership and governance structures to guide the implementation of the NCCP 2025-2029, ensuring effective coordination among key stakeholders and accountability in achieving strategic goals.

Prevention and Early Detection: Focus on national awareness campaigns, promoting vaccination (e.g., HPV), and establishing community-based prevention programs. Expand screening programs for breast, cervical, colorectal, and prostate cancers, and improve access to diagnostic services, emphasizing both early diagnosis and screening.

Diagnosis (Imaging, Pathology, and Clinical Laboratory): Enhance diagnostic capabilities through improved access to advanced imaging technologies, pathology services, and clinical laboratory infrastructure. Ensure early and accurate diagnosis to facilitate timely treatment.

Treatment, Palliative, and Survivorship Care: Strengthen treatment options to cure, prolong life, and improve the quality of life for cancer patients. Expand palliative care services and establish survivorship care programs, focusing on rehabilitation, psychological support, and follow-up care.

Partnerships, Advocacy, and Financing: Foster partnerships with international and local stakeholders, advocate for cancer care funding, and explore sustainable financing models to support the long-term implementation of cancer programs.

Registration, Surveillance, and Research: Strengthen cancer research and surveillance systems to monitor cancer trends, outcomes, and evaluate the effectiveness of cancer interventions, while promoting innovative research for improved cancer care strategies.

CHAPTER 3:
COORDINATION, PARTNERSHIP AND FINANCING FOR CANCER CONTROL

3.1. Overview

The new cancer control plan builds on progress made over the past five years, particularly in areas like HPV vaccination, cervical cancer screening, establishment of the radiotherapy center and national cancer registry.The situational analysis highlights the need to decentralize some cancer control continuum services and strengthen diagnostic capabilities to provide timely and accurate care across the country.

Moving forward, the NCCP 2025-2029 aims to decentralize cancer diagnostics and treatment services by expanding telepathology, upgrading regional infrastructure, and improving molecular testing. It also seeks to enhance prevention efforts by addressing modifiable risk factors such as tobacco smoking and excessive alcohol use, unhealthy diet, and physical inactivity through community-based interventions and public health campaigns. Expanding early detection efforts, including screening for breast, prostate, and colorectal cancers, is central to improving outcomes.

To ensure sustainability, the plan emphasizes strengthening partnerships, securing financing, and fostering international collaboration for cancer research and support. By addressing the gaps identified in the situational analysis, the NCCP aims to reduce the cancer burden and improve access to equitable, high-quality cancer care for all Rwandans.

3.2. Vision statement, mission statement, pillars, and guiding principles

3.2.1. Vision

A Rwanda free from the preventable burden of cancer, where all individuals have access to quality cancer prevention, early detection, treatment, and palliative care, ensuring longer and healthier lives.

3.2.2. Mission

To reduce cancer incidence, morbidity, and mortality in Rwanda through a strengthened healthcare system that promotes equitable access to prevention, screening, diagnosis, treatment, and survivorship care, supported by research, innovation, and multi-sectoral collaboration.

3.2.3. Pillars

- Strengthen the leadership, governance, and coordination for effective cancer control
- Reduce the burden of preventable cancers through enhancing prevention and early detection services
- Ensure timely and accurate cancer diagnosis for all patients
- Provide quality and equitable treatment, palliative, and survivorship care for cancer patients
- Build strong partnerships and secure sustainable financing for cancer control.
- Strengthen cancer registration, surveillance, and research to inform policy, and support evidence-based decision-making.

3.2.4. Guiding Principles

The planning, implementation, monitoring and evaluation of the national strategy for cancer prevention and control are underpinned by the following principles:

1. **Commitment:** Demonstrating strong government leadership and commitment to cancer control, ensuring sustained focus and resources to combat the disease.
2. **Integration:** Fully integrating cancer services into the existing healthcare system and decentralizing service delivery to ensure that all Rwandans, regardless of location, have access to care.
3. **Equitable Access:** Providing reliable, equitable access to cancer prevention, detection, and treatment services for all.
4. **Evidence-Based:** Utilizing the latest evidence and data to guide the implementation of high-quality, cost-effective interventions that are aligned with standards of care.
5. **Health Systems Strengthening:** Building and leveraging strong health systems, including community health networks, to enhance the delivery of cancer services nationwide.
6. **Partnership:** Strengthening partnerships at all levels, including with civil society organizations (CSOs), NGOs, research institutions, and local and international partners, to foster collaboration in cancer prevention and control.
7. **Education and Awareness:** Increasing public knowledge and awareness about cancer risk factors, screening, and early detection, while empowering healthcare professionals to provide comprehensive and timely cancer care.

3.3. Pillars, Objectives, Strategies and Strategic Actions

3.3.1. Pillar 1: Leadership, Governance, and Coordination

Goal: Strengthened leadership, governance, and coordination at all levels for effectve cancer control in Rwanda.

The Leadership, Governance, and Coordination pillar establishes a robust framework for cancer control through strengthened national and decentralized structures. At the national level, it reinforces the Technical Working Group (TWG) and Cancer Unit while implementing standardized communication and meeting frameworks. Provincial and district coordination mechanisms ensure localized implementation, complemented by systematic mainstreaming of cancer control across all relevant sectors. The pillar develops comprehensive policy and regulatory frameworks to guide implementation, supported by accountability systems including performance tracking and audits. Multi-sectoral collaboration is formalized through inter-ministerial agreements, while leadership development programs build capacity for effective program management across all levels of the health system.

Objective 1: Build leadership capacity for coordinated cancer control

Strategy 1: Establish a national multi-sectoral technical working group for cancer control coordination

Strategic Actions

1. Operationalize the National cancer control TWG to oversee national cancer initiatives, set clear goals, deliverables, and timelines for implementation.
2. Hold regular meetings of the national technical working group on cancer control to provide updates and address advancements in prevention and treatment strategies.

Strategy 2: Build leadership capacity in cancer control

Strategic Actions

1. Provide leadership training for healthcare professionals involved in cancer control planning and implementation.
2. Develop and implement a mentorship program for leaders in cancer care to enhance their leadership and health policy capabilities.
3. Disseminate the National Cancer Control Plan (NCCP) to local government and community leaders.

Objective 2: Strengthen governance structures for effective cancer control implementation

Strategy 1: Establish transparent and accountable governance structures for cancer control

Strategic Actions

1. Develop, approve, and distribute comprehensive cancer prevention policies through the Ministry of Health, targeting both modifiable and non-modifiable risk factors.
2. Develop, endorse, and promote policies for cancer treatment, palliative, and survivorship care under the Ministry of Health.
3. Strengthen regulatory frameworks for cancer care services, including accreditation of cancer centers and quality assurance.
4. Implement the NCCP Monitoring and Evaluation Framework to systematically collect and analyze data and track the implementation of cancer-related policies and inform decision-making processes.

Strategy 2: Establish a coordination framework for cancer prevention and control at the sub-national level to ensure data quality and service improvement.

Strategic Actions

1. Establish a functional multi-stakeholder cancer steering Committee at the district level to coordinate cancer prevention and control initiatives with clear goals, deliverables, and timelines for implementation.
2. Develop strategies to improve financial protection and access to prevention and treatment of cancer, improving insurance coverage and subsidizing treatment options.
3. Foster partnerships with public and private sectors to mobilize resources for cancer care, research, and awareness campaigns.

Objective 3: Establish an integrated, well-coordinated cancer control system across the healthcare network

Strategy 1: Strengthen integration of cancer control across health services

Strategic Actions:

1. Integrate cancer control into Rwanda's broader health systems, including primary healthcare, maternal and child health, and non-communicable diseases (NCDs) for early detection and management.
2. Develop a policy for community-level cancer prevention and awareness programs through local health workers, media, mobile health technologies, and community engagement.
3. Establish a framework for overseeing cancer treatment centers, ensuring effective access to care and continuous improvement.

3.3.2. Pillar 2: Cancer Prevention and Early Detection

Goal: Reduce the incidence of preventable cancers, increase the proportion of cancers detected early to improve treatment outcomes

Rwanda's cancer prevention strategy targets the top six cancers (57.4% of cases) through enhanced screening and prevention. While smoking rates fell to 7.1% (near the 6.32% target), alcohol use remains high (48.1%) and fruit/vegetable intake low (2.3 servings/day). HPV vaccination coverage is strong at 98%. The strategy will expand cervical/breast cancer screening, improve early detection for colorectal/prostate/gastric cancers, and develop a national screening policy and establish standard information, education and communication (IEC) materials. These efforts will be integrated across health programs to maximize impact.

Objective 1: Raise awareness of the general population on cancer prevention and control

Strategy 1: Establish standardized and harmonized IEC materials for cancer prevention and control

Strategic Actions:

1. Conduct a workshop to develop cancer prevention and control IEC tools.
2. Production of cancer prevention and control IEC materials.
3. Dissemination of cancer prevention and control IEC materials.

Strategy 2: Empowering Communities in Cancer Prevention and Control

Strategic Actions

1. Training of CHWs in cancer prevention and control especially raising awareness.
2. Conduct educational sessions to enhance community awareness on cancer prevention using different communication channels.
3. Conduct annual world cancer day celebrations.

Objective 2: Reduce exposure to modifiable cancer risk factors and address underlying social and environmental determinants

Strategy 1: Reduce prevalence of tobacco use and tobacco-related products from 7.1% to 5% by 2029

Strategic Actions

1. Conduct engagement meetings to strengthen tobacco (both smoke and smokeless) regulation, including increasing tobacco taxation from 49% to 70%.
2. Advocate for the establishment and enforcement of designated smoking areas to reduce passive smoking.
3. Develop and implement strategies to address the use of vaping devices, including both nicotine and non-nicotine delivery devices (e.g., e-cigarettes), through public education, regulation, and enforcement to reduce associated health risks.
4. Develop and distribute IEC materials on tobacco (both smoke and smokeless) as a cancer risk factor through print and electronic media.
5. Conduct awareness campaigns targeting both smokers and non-smokers, including school-aged children, to highlight tobacco (both smoke and smokeless) risks.
6. Build capacity of healthcare workers and teachers to conduct awareness on tobacco (both smoke and smokeless) as a cancer risk factor.
7. Provide cessation support services to help smokers reverse addictions.

Strategy 2: Reduce prevalence of alcohol use from 48.1% to 30% by 2029

Strategic Actions

1. Develop and distribute IEC materials on alcohol as a cancer risk factor.
2. Conduct awareness campaigns on alcohol-related cancer risks for all population groups, including school-aged children.
3. Train teachers to integrate alcohol risk factors into school health programs.
4. Conduct engagement meetings to increase taxes on alcohol advertisements.
5. Work with other programs to provide cessation and support services for alcohol addiction recovery.

Strategy 3: Reduce consumption of unhealthy diets and increase physical activity to combat obesity

Strategic Actions

1. Develop and distribute IEC materials and raise awareness on unhealthy lifestyle as cancer risk factors through print and electronic media.
2. Promote backyard gardens and train vulnerable households to grow healthy foods.
3. Decentralize workplace and community wellness programs to promote healthy lifestyles.
4. Establish and enforce regulations to restrict the marketing, sale, and accessibility of sugar-sweetened beverages and high-sugar products, particularly targeting protection of minors.
5. Strengthen protections for minors from exposure to unhealthy food and beverage advertising through stricter advertising regulations and monitoring mechanisms.
6. Implement a tax on sugar-sweetened beverages and other high-sugar products to reduce consumption and generate revenue for cancer prevention and health promotion initiatives.

Strategy 4: Reduce exposure to environmental and occupational risk factors

Strategic Actions

1. Conduct public workshops on environmental and occupational cancer risk factors such as asbestos and radon.
2. Conduct regular screenings for individuals exposed to occupational hazards.
3. Advocate for policy reviews and enforcement to limit exposure to environmental toxins.
4. Promote research on chemical and environmental factors in cancer causation.

Strategy 5: Reduce exposure to infectious agents associated with cancer

Strategic Actions

1. Sustain HPV vaccination for 12-year-old girls to maintain 90% coverage by 2030 and beyond.
2. To explore introduction of HPV vaccines in boys and other high risk groups.
3. Promote HBV vaccination strategies to reduce infection rates.
4. Conduct awareness campaigns on reducing transmission of HPV, HIV, and other cancer-linked infections.
5. Implement targeted Hepatitis B screening and treatment in high-prevalence areas.
6. Sustain access to HCV treatment integrated in the existing health care system.

Objective 3: Address and mitigate non-modifiable risk factors including age, family history, and genetics

Strategy 1: Raise public awareness on familial and hereditary cancers

Strategic Actions

1. Integrate messages on hereditary cancers into existing IEC materials.
2. Develop IEC materials specific to familial and hereditary cancer risks.

Objective 4: Improve the rate of early detection of (common) cancers (Stage I and Stage II)

Strategy 1: Build the capacity of healthcare workers for early detection and linkage to care

Strategic Actions

1. Train health workers on baseline cancer skills to enhance early detection of cancers.
2. Conduct workshops to adopt a screening tool for identifying high-risk individuals.
3. Develop cancer screening and early detection guidelines and protocols.

Strategy 2: Increase the population coverage for cervical cancer screening and treatment of precancerous lesions to reach 70% coverage in 30-49 years old women by 2027

Strategic Actions

1. Review and update cervical screening guidelines and protocols.
2. Train community leaders, religious groups, and other trusted members of the community to promote screening and involve youth and men in awareness efforts.

3. Integrate cervical cancer screening with family planning and HIV programs.
4. Train healthcare providers in screening and treatment of precancerous lesions.
5. Procure cervical cancer screening consumables, materials and equipment
6. Strengthen the navigation system for patients suspected of cervical cancer.

Strategy 3: Enhance early detection of breast cancer

Strategic Actions

1. Develop breast cancer early detection strategic documents complying with GBCI guidelines.
2. Enhance community education and awareness on breast cancer.
3. Conduct mass screening campaigns for breast cancer.
4. Improve access to breast cancer early detection services.
5. Promote breast self-awareness and breast cancer awareness in communities, including among women, youth and men.
6. Train health care providers to conduct high-quality clinical breast exams and integrate breast health care into routine health center activities.
7. Implement breast ultrasound and core needle biopsy at DH level.
8. Pilot population based mammography screening.

Strategy 4: Initiate early detection of prostate cancer

Strategic Actions

1. Organize a workshop to develop a national guideline for prostate cancer screening.
2. Conduct public awareness campaigns on prostate cancer symptoms.
3. Train healthcare providers in prostate cancer screening including digital rectal exams and PSA testing.
4. Equip district hospitals to perform PSA testing.
5. Establish and strengthen referral systems for prostate cancer patients and suspects.

Strategy 5: Initiate the screening and early detection of colorectal cancer

Strategic Actions

1. Establish screening guidelines and protocols for colorectal cancer.
2. Organize trainings of health care providers on colorectal cancer screening, early detection, linkage to care.
3. Avail fecal occult blood testing for colorectal screening at primary health care level.
4. Train health care providers at referral hospitals to perform colonoscopy and sigmoidoscopy procedures.
5. Equip health facilities with needed materials for colorectal cancer screening.
6. Integrate colorectal cancer screening in eligible population in the routine service delivery at the health facilities.

Strategy 6: Increase early referral of childhood cancers

Strategic Actions

1. Create awareness on early detection of childhood cancers.
2. Train healthcare workers on early signs and clinical presentation of childhood cancers.
3. Integrate the Childhood Cancer Assessment Tool into Integrated Management of Childhood Illness (IMCI) for early referral.

3.3.3 Pillar 3: Cancer Diagnosis (Imaging, Pathology, and Clinical Laboratory)

Goal: Establish comprehensive diagnostic capacity for timely, accessible, efficient, and accurate diagnostic services.

Rwanda has strengthened cancer diagnostics with expanded imaging (mammography, MRI, interventional radiology) and pathology services across five major hospitals. However, critical gaps persist in advanced diagnostics (PET-CT, molecular testing) and rural access remains limited. While pathology training programs are increasing specialists, shortages in histopathologists and technicians cause delays. The strategy will prioritize: (1) introducing PET-CT and nuclear medicine, (2) decentralizing services, and (3) training more pathology experts to reduce diagnostic delays nationwide.

Objective 1: Equip all tertiary, referral, and teaching healthcare facilities with essential diagnostic tools for cancer screening, diagnosis, and treatment

Strategy 1: Conduct an assessment of existing diagnostic facilities to identify equipment and personnel gaps

Strategic Actions

1. Conduct an audit of cancer diagnostic facilities to identify gaps in equipment and staffing.
2. Develop a needs assessment tool tailored for cancer diagnostic services and apply it across facilities.
3. Develop a phased procurement plan prioritizing high-need areas for new diagnostic equipment based on the assessment done.
4. Discuss and finalize agreements encompassing warranties, maintenance services, and training arrangements for future, sustainable and effective use of purchased equipment.
5. Set up a periodic re-assessment schedule to ensure ongoing compliance with diagnostic standards.

Strategy 2: Develop capacity for precision diagnostics and interventional procedures

Strategic Actions

1. Establish partnerships with manufacturers for discounts or leases on essential diagnostic tools and respective maintenance.
2. Enhance specialized diagnostic labs through training and infrastructure support for precision diagnostics.
3. Establishing a task force to explore the use of artificial intelligence (AI) and to provide guidance on potential implementation of AI-powered diagnostics.
4. Equip all laboratories with necessary equipment and consumables for diagnosis.

Strategy 3: Standardize procedures and reporting

Strategic Actions

1. Create a task force to develop and regularly update a national standard operating procedure (SOP) manual for cancer diagnostics.
2. Disseminate SOPs through national training sessions and workshops.
3. Implement a feedback system to adapt SOPs based on laboratory needs and practitioner input.

Strategy 4: Improve access to diagnostic (pathology and imaging) services for screening, diagnosis, and follow-up

Strategic Actions

1. Establish effective specimen collection and transport systems from district and provincial hospitals to referral facilities.
2. Set up an equitable booking system to manage access to imaging modalities.
3. Partner with national reference laboratories to set up specialized molecular and genetic testing labs.

Objective 2: Establish quality assurance programs and accreditation system (ISO 15189:2022) for pathology labs, adhering to international standards

Strategy 1: Establish an accreditation system for imaging and pathology services

Strategic Actions

1. Collaborate with national and international accreditation bodies to create diagnostic service certification standards.
2. Conduct regular proficiency testing and quality audits to ensure diagnostic accuracy and reliability.

Strategy 2: Set benchmarks for turnaround time and accuracy

Strategic Actions

1. Develop key performance indicators for diagnostic services, including turnaround times and report accuracy.
2. Implement routine evaluations of diagnostic services based on established benchmarks.
3. Use data from evaluations to drive continuous improvements in diagnostic quality and efficiency.

Strategy 3: Ensure safety of diagnosing personnel

Strategic Actions 1:

1. Avail personnel protective equipment in the diagnostic services (labs, imaging)
2. Avail first aid kits such as emergency tools and medications in the diagnostic settings
3. Train lab and imaging staff on biosecurity and biosafety

Objective 3: Strengthen the availability and capacity of human resources to support cancer diagnosis

Strategy 1: Develop national training programs and scholarships

Strategic Actions

1. Recruit and train radiologists, pathologists, lab technologists and other related diagnostic cadres.
2. Partner with international institutions to enhance subspecialty training.
3. Design a sustainable training plan focusing on retention, continuous learning, and skills development.

Strategy 2: Partner with universities and training centers for continuous education

Strategic Actions

1. Develop ongoing education programs to keep personnel updated on evolving cancer diagnostics.
2. Offer short courses and certification programs for existing staff in emerging diagnostic techniques.

Objective 4: Enhance data management and reporting systems

Strategy 1: Implement standardized electronic medical record to facilitate interoperability across different clinical services

Strategic Actions

1. Implement electronic health record systems with integrated diagnostic (radiology and pathology) modules to facilitate quick data entry, sharing, and retrieval.
2. Establish a national cancer registry linkage to diagnostic centers to support tracking of cancer incidence and survival.
3. Adopt data security and privacy protocols to protect patient information.

Strategy 2: Strengthen data-sharing practices for cancer epidemiology

Strategic Actions

1. Train staff on using electronic systems for pathology and imaging data.
2. Set up data backup protocols to ensure data security and continuity.
3. Develop data-sharing standards that comply with privacy regulations.

3.3.4. Pillar 4: Cancer Treatment, Palliative, and Survivorship Care

Goal: Provide comprehensive and equitable treatment, palliative, and survivorship care for cancer patients.

Rwanda's cancer treatment services remain centralized at three facilities—Rwanda Cancer Center (sole radiotherapy provider), Butaro Hospital, and King Faisal Hospital—with ongoing expansions including brachytherapy and oncology surgeries, though critical gaps persist in radiotherapy access (only two machines), insurance coverage for systemic drugs, and specialized treatments like bone marrow transplants. While palliative care is transitioning to home-based models with emerging survivorship programs, challenges remain including morphine stockouts, uneven provider knowledge, and lack of a patient navigation system, prompting strategic focus on expanding drug coverage, decentralizing systemic therapies, strengthening palliative care training, and developing a comprehensive cancer care database to improve tracking and continuity of care.

Objective 1: Improve the service delivery and resources for cancer care and treatment

Strategy 1: Increase the accessibility to cancer care

Strategic Actions

1. Establish a chemotherapy infusion center in each province (CHUB, Provincial Hospitals in East & West) in addition to existing centers.
2. Expand radiation therapy capacity by establishing two radiation centers (South/CHUB; North/ BCCOE) in addition to RCC/RMH.
3. Increase specialized surgical oncology capacity by prioritizing access in provincial hospitals (East & West).
4. Establish a genetic cancer risk assessment and cancer-prone families' clinic.
5. Purchase cancer treatment medications, consumables and supportive medications
6. Avail fertility preservation services for eligible cancer patients

Strategy 2: Enhance human resources development

Strategic Actions

1. Train more specialized cancer care professionals, including surgeons, nurses, and pharmacists, nutritionist, physcho-oncologist.
2. Offer regular training, short courses, and symposiums on updated cancer care practices. Clear requirements on continuing medical education guidelines for specialists
3. Establish new and improve existing tumor boards for coordinated and multidisciplinary care teams.
4. Review of certification and recertification of cancer specialists.

Strategy 3: Improve cancer care service delivery

Strategic Actions

1. Ensure availability of oncology health products (cytotoxic chemotherapy drugs and blood products) in specialized centers and include them in public insurance coverage (CBHI).
2. Expand access to surgical and interventional procedures, including stents, chemoports, Peripherally Inserted Central Catheter lines, drains, tumor localization markers, and embolization.

3. Establish a quality control system to ensure consistent implementation of treatment guidelines through audits, training, and monitoring.
4. Ensure regular safety assessments and maintenance of radiation oncology machines in line with international standards.
5. Implement and monitor safety protocols for staff and patients handling chemotherapy.

Strategy 4: Leverage technology and innovative approaches to improve the reach and efficiency of cancer care services.

Strategic Actions

1. Establish telehealth platforms to provide remote consultations, follow-ups, and support services for cancer patients and their families.
2. Pilot and scale mobile health units or community-based service delivery models to ensure cancer care reaches rural populations.

Strategy 5: Enhance referral pathways

Strategic Actions:

1. Develop a national system for cancer patient navigation for both childhood and adult cancers.
2. Establish coordinated national Electronic Medical Record system, allowing interoperability between government and teaching hospitals.

Objective 2: Develop a comprehensive care program for pediatric and adolescent/young adult (AYA) cancers.

Strategy 1: Establish a dedicated pediatric and AYA cancer care framework.

Strategic Actions

1. Develop separate pediatric and AYA cancer treatment guidelines and integrate them into the national cancer strategy.
2. Create specialized pediatric and AYA oncology units in designated cancer centers.
3. Train healthcare providers on pediatric and AYA oncology care, including psychosocial and developmental needs.
4. Establish national pediatric and AYA cancer registries to improve data collection and inform policy decisions.

Objective 3: Improve and expand quality palliative and pain management services

Strategy 1: Increase access to palliative care

Strategic Actions

1. Expand the non-pharmacological palliative care approach and integrate it into the CHW (Community Health Worker) package.
2. Include home-based care (non-pharmacological) as part of the CHW package.
3. Establish an end-of-life psychosocial support program in district hospitals.

Strategy 2: Enhance human resources development for palliative care

Strategic Actions

1. Increase the number of healthcare providers trained in palliative care.

Strategy 3: Improve palliative care service delivery

Strategic Actions:

1. Review and Update the national Palliative care policy.
2. Draft national palliative care guidelines.
3. Reduce stock-outs of pain control and management options (e.g., morphine and other options) in district hospitals and health centers.

Objective 4: Develop a sustainable survivorship care program

Strategy 1: Establish hospital-based survivorship care programs

Strategic Actions

1. Build patient lodging facilities at designated cancer centers.
2. Establish hospital-based support groups at existing treatment centers.
3. Provide a holistic survivorship approach that includes nutrition, physical therapy, and psychological support.

Strategy 2: Enhance community engagement in cancer survivorship care

Strategic Actions

1. Increase public awareness of cancer survivorship in collaboration with cancer survivors.
2. Decentralize survivorship and long-term follow-up programs in district hospitals.

Strategy 3: Develop programs to support families and caregivers of cancer patients and survivors.

Strategic Actions

1. Establish family and caregiver support groups at cancer treatment centers.
2. Provide counseling and educational resources to families and caregivers to improve coping strategies and caregiving skills.
3. Offer financial and logistical assistance programs for caregivers to ease the burden of care.

Strategy 4: Ensure access to essential medicines for treating psychological distress in cancer patients.

Strategic Actions

1. Train healthcare providers in the identification and management of psychological distress among cancer patients.
2. Ensure the availability and affordability of psychotropic medicines in all cancer treatment facilities.

Objective 5: Strengthen patient navigation systems to support cancer survivorship, palliative care, and end-of-life care.

Strategy 1: Develop a comprehensive patient navigation program to enhance care coordination and support across the cancer care continuum.

Strategic Actions

1. Establish patient navigation roles and train navigators to assist patients and families in accessing survivorship, palliative, and end-of-life care services.
2. Develop and distribute resource guides and care pathways tailored to survivorship, palliative care, and end-of-life care needs.

3.3.5. Pillar 5: Registration, Surveillance, and Research

Goal: To generate evidence based data to inform National cancer control strategies

Rwanda's Cancer Registry, revitalized since 2007, has documented 25,754 cases (2019-2024) to guide cancer policy through incidence and outcome data while gaining international recognition, yet faces challenges including financial constraints, registrar shortages, and inconsistent electronic medical records that limit data quality and comprehensive national burden assessments, coupled with low research output representing less than 1% of Africa's cancer studies that remains focused on health services with minimal basic/translational work or clinical trials—prompting a strategic focus on strengthening the registry through increased funding, staffing and EMR integration while enhancing research capacity via training programs, academic partnerships, and diversified studies including clinical trials and translational research to improve Rwanda's cancer data and research landscape

Objective 1: Upgrade the functions of the cancer registry

Strategy 1: Enhance cancer registry infrastructure

Strategic Actions

1. Provide IT equipment and softwares for cancer registry
2. Integrate cancer registry with electronic medical records systems for data exchange

Strategy 2: Strengthen human resources for cancer registry management

Strategic Actions

1. Recruit cancer registrars for all cancer diagnostic and treatment centers.
2. Include cancer registrars on the structure of RBC

Strategy 3: Improve data quality for cancer control and planning

Strategic Actions

1. Standardize data abstraction forms with IARC/Globocan standards, tailored to Rwanda's needs.
2. Conduct quarterly monitoring and evaluation for data quality in the cancer registry.
3. Develop a national SOP for cancer data collection in hospitals.
4. Train cancer registrars and staff on data collection protocols.

Objective 2: Enhance ethics and data privacy in cancer research

Strategy: Develop and implement a cancer-specific data protection framework aligned with national data privacy laws within the national framework

Strategic Actions

1. Organize workshops to review national data protection laws and develop a cancer data-sharing framework.
2. Provide ethics and data-sharing training for cancer registrars and stakeholders.
3. Conduct regular security audits to ensure data privacy.

Objective 3: Conduct operational and applied medical research on cancer control

Strategy 1: Mobilize funding to support research priorities in cancer control

Strategic Actions

1. Organize workshops to develop cancer program reports to be shared potential funders
2. Advocate for more cancer research funding through policy briefs to the Joint Health Sector Review
3. Engage policymakers to discuss a proposal for a dedicated budget and funding needs for cancer research.
4. Develop Grant writing capacity building

Strategy 2: Develop and implement research on priority areas in cancer

Strategic Actions

1. Conduct a population-based study using the Rwanda Cancer Registry to determine cancer incidence, prevalence rates, and demographic factors.
2. Implement cost-effectiveness studies for targeted cancer screening programs, especially for high-burden cancers (e.g., cervical, breast, prostate).
3. Launch community-centered research to identify barriers and enablers to early cancer diagnosis in rural and underserved areas.
4. Establish low-cost, evidence-based interventions to measure treatment uptake, survival rates, and patient satisfaction

Strategy 3: Strengthen the national capacity for conducting and participating in cancer clinical trials.

Strategic Actions

1. Develop a streamlined regulatory framework to facilitate the approval and conduct of cancer clinical trials.
2. Build capacity by training healthcare professionals and researchers in clinical trial design, implementation, and management.
3. Increase patient awareness and engagement in clinical trials through targeted education and outreach programs.

Strategy 4: Build capacity for cancer research through collaborations and resources

Strategic Actions

1. Establish an oncology research repository linked to the national health research registry.
2. Host annual oncology research symposia for knowledge sharing and networking.
3. Establish an oncology knowledge management resource center for research and collaboration.
4. Establish partnerships with Academic institutions for Cancer research fellowship programs.

3.3.6. Pillar 6: Partnerships, Advocacy, and Financing

Goal: Creating a sustainable, equitable, and comprehensive cancer care system

Rwanda has maintained steady progress in cancer partnerships and financing, with the RBC's Cancer Diseases Unit coordinating multi-stakeholder engagement, though resource constraints and limited private sector involvement have hindered significant scale-up. While stable collaborations with government and development partners have sustained services, funding mechanisms remain unchanged, slowing implementation. The new strategy will prioritize diversifying financing through private sector engagement, increased government investment, and stronger international partnerships to accelerate cancer control efforts.

Objective 1: Leverage Collaborative Efforts across multiple sectors

Strategy 1: Optimize stakeholders' expertise, resources, and funds

Strategic Actions

1. Develop and regularly update the stakeholder map according to their levels of interest and influence.
2. Develop an engagement strategy tailored to each stakeholder group, informed by the stakeholder mapping matrix.
3. Involve key stakeholders in the decision-making process to identify financing opportunities and designate stakeholders to co-lead application processes.

Strategy 2: Strengthen partnerships with local and international organizations

Strategic Actions

1. Establish Memorandums of Understanding with key international and regional organizations to support cancer care initiatives.
2. Organize annual partnership forums to review progress, address challenges, and renew commitments to shared cancer care goals.
3. Engage international health bodies to share best practices and foster a collaborative learning environment.

Strategy 3: Enhance collaboration with private sector entities for resource mobilization

Strategic Actions:

1. Identify and engage private companies interested in Corporate Social Responsibility to support cancer initiatives.
2. Develop partnership models where private sector organizations can contribute to cancer care infrastructure, training, or outreach programs.
3. Create a "Cancer Care Champions" program to recognize private sector leaders who contribute significantly to cancer initiatives.

Objective 2: Raise awareness and build strong support among stakeholders, policymakers, and the public for collaborative efforts in cancer care

Strategy 1: Advocate for policy support for cancer care

Strategic Actions

1. Work with media to spotlight patient stories and push for better cancer policies via articles, interviews, and campaigns.
2. Utilize research findings to advocate for data-driven policies that support incremental budget allocations.

Strategy 2: Engage and empower cancer survivors and patient groups as advocates

Strategic Actions:

1. Train cancer survivors and patient advocacy groups on effective storytelling and advocacy techniques to raise public awareness.
2. Organize annual "Cancer Survivors Day" events to share personal stories and celebrate survivorship, aiming to reduce stigma and improve public support for cancer care.
3. Strengthen existing cancer survivors' network to become nationally recognized

Objective 3: Promote innovative financing models to ensure sustainable cancer care funding

Strategy 1: Improve resource allocation to cancer care

Strategic Actions:

1. Collaborate with health partners to integrate cancer prevention, early detection and surveillance with other chronic disease management programs (e.g., Hepatitis, HIV/AIDS) to share resources and funding.

Strategy 2: Increase involvement of international donors and development partners

Strategic Actions:

1. Develop a funding proposal highlighting key areas of need within the NCCP and share it with potential international donors.
2. Host annual donor engagement events to provide updates on cancer care progress and funding needs.
3. Create regular reports on impact and utilization of funds to demonstrate transparency and encourage continued support.

3.4. Resources requirement for NCCP 2025-2029

3.4.1. Overview

Implementing Rwanda's NCCP 2025-2029 will necessitate significant investments across multiple resource domains; financial, human, and infrastructural to achieve the ambitious targets outlined for prevention, early detection, diagnosis, treatment, palliative care, and research. Central to this effort is the principle of allocative efficiency, ensuring that resources are directed toward interventions and services that yield the greatest health benefits relative to cost. The plan also emphasizes value for money, integrating cost-effectiveness analysis and budget impact analysis into decision-making to prioritize high-impact, affordable interventions that can be sustainably financed within Rwanda's broader health system framework.

3.4.2. Summary of Budget Allocations for NCCP 2025-2029

The costing of Rwanda's 2025-2029 NCCP estimates the total required investment at RWF 396 billion (USD 283 million) over five years, with annual costs of RWF 91.8 billion, 76.3 billion, 84.5 billion, 69.1 billion, and 73.9 billion, respectively [Figure 20]. The costs encompass infrastructure, equipment, human resources, medications, and consumables. Cancer treatment medications (47%) are the primary cost driver, with Pillar 4, focusing on cancer treatment, palliative care, and survivorship, dominating the budget [Figure 21]. Assumptions include a 3.44% inflation rate for Y2 and 3.69% for Y3, Y4, and Y5, as well as a 20% increase in commodity, cancer drug, and supportive drug costs from Y1 to Y2, followed by 10% annual increases from Y3 to Y5 [Figure 20]. This comprehensive costing approach ensures resource allocation for enhanced, affordable, and sustainable cancer care in Rwanda for the next five years.

Figure 20: The total NCCP 2025-2029 Cost per year (RWF, Billions)

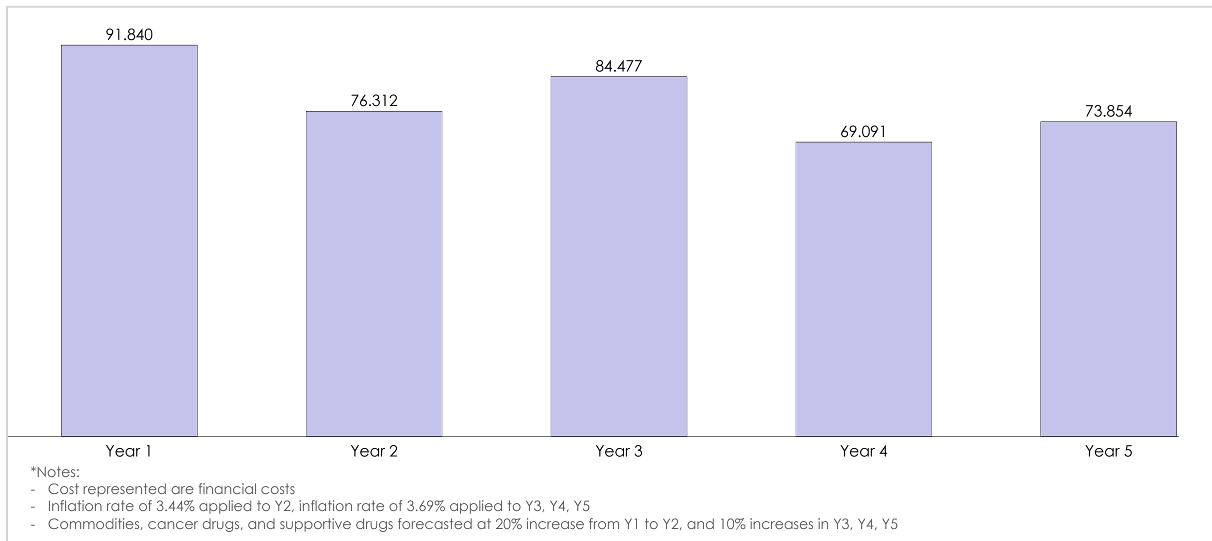


Figure 21: Distribution of Costs Across NCCP Pillars (RWF, Billions)

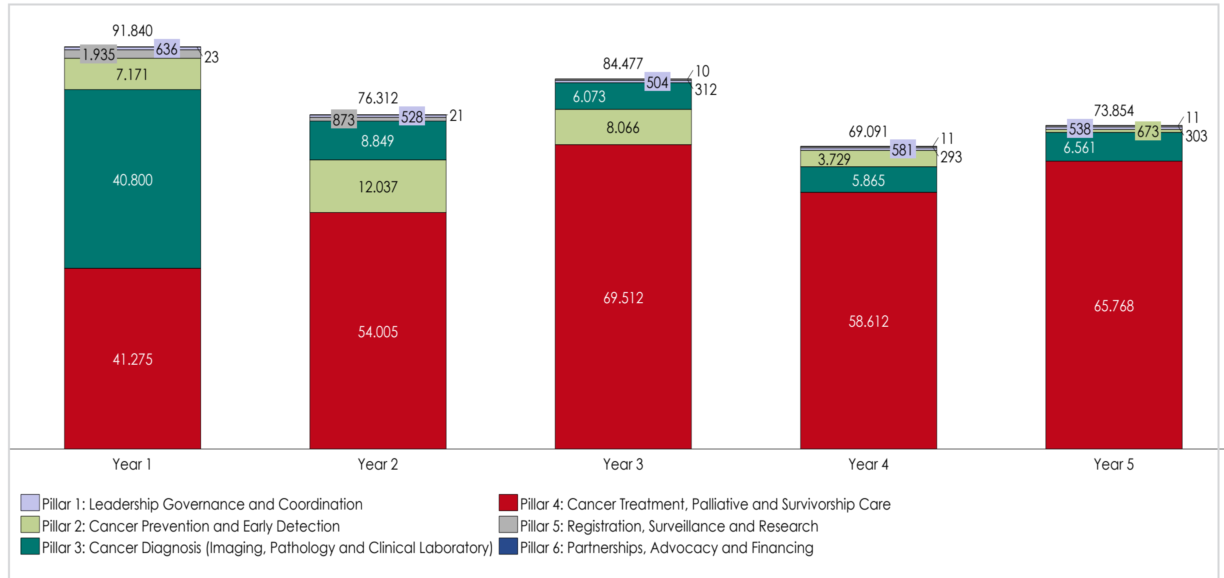
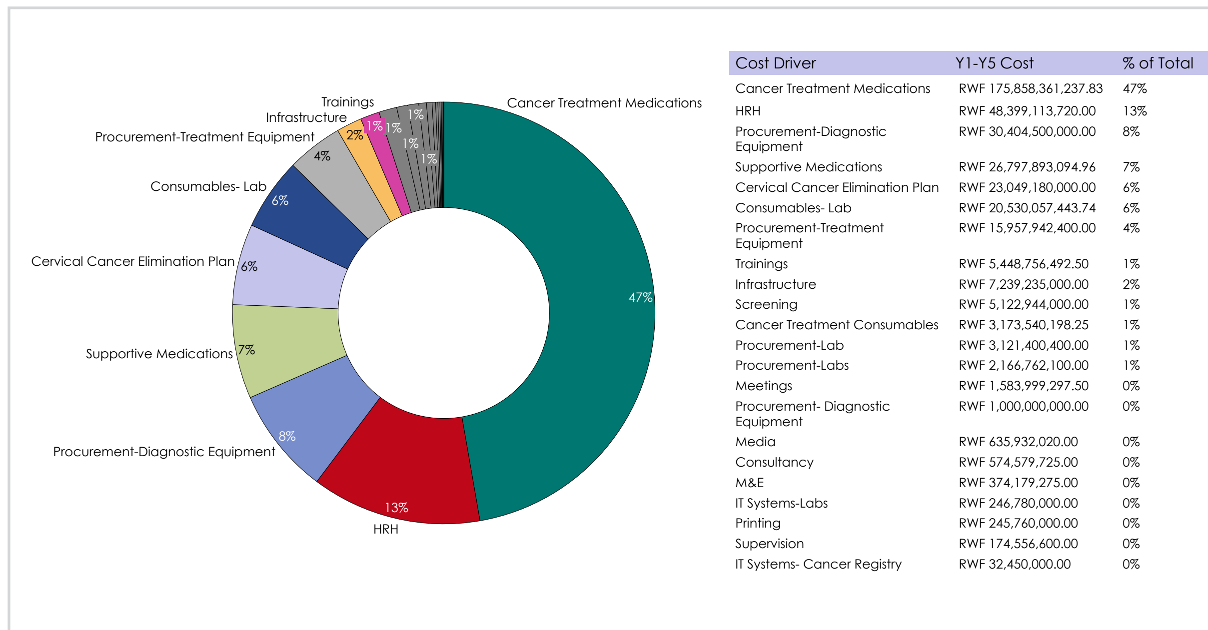


Figure 22: Key Cost Drivers in NCCP 2025-2029



Cost Driver	Y1-Y5 Cost	% of Total
Cancer Treatment Medications	RWF 175,858,361,237.83	47%
HRH	RWF 48,399,113,720.00	13%
Procurement-Diagnostic Equipment	RWF 30,404,500,000.00	8%
Supportive Medications	RWF 26,797,893,094.96	7%
Cervical Cancer Elimination Plan	RWF 23,049,180,000.00	6%
Consumables- Lab	RWF 20,530,057,443.74	6%
Procurement-Treatment Equipment	RWF 15,957,942,400.00	4%
Trainings	RWF 5,448,756,492.50	1%
Infrastructure	RWF 7,239,235,000.00	2%
Screening	RWF 5,122,944,000.00	1%
Cancer Treatment Consumables	RWF 3,173,540,198.25	1%
Procurement-Lab	RWF 3,121,400,400.00	1%
Procurement-Labs	RWF 2,166,762,100.00	1%
Meetings	RWF 1,583,999,297.50	0%
Procurement- Diagnostic Equipment	RWF 1,000,000,000.00	0%
Media	RWF 635,932,020.00	0%
Consultancy	RWF 574,579,725.00	0%
M&E	RWF 374,179,275.00	0%
IT Systems-Labs	RWF 246,780,000.00	0%
Printing	RWF 245,760,000.00	0%
Supervision	RWF 174,556,600.00	0%
IT Systems- Cancer Registry	RWF 32,450,000.00	0%

3.5. NCCP Implementation, Governance and Coordination

3.5.1. Overview

In Rwanda, a coordination and implementation of the strategic plan's execution lies within the Ministry of Health governance structure. This section clarifies the roles and responsibilities of all stakeholders involved in cancer control. To effectively address the growing cancer burden and respond to other public health threats that could hinder control efforts, the governance structure must be adaptive and flexible. The fight against cancer for the next five years will demand a well-coordinated, multisectoral, multidisciplinary, and whole-of-society approach.

The Cancer Diseases Unit, operating under the Division of Non-Communicable Diseases at Rwanda Biomedical Centre, is responsible for developing cancer strategic plans and guidelines that cover the entire spectrum of cancer care. The Cancer Diseases Unit disseminates these strategies, guides their implementation, and provides capacity-building and technical support to all districts and health facilities according to the policy documents. The Cancer Diseases Unit will oversee the implementation of this strategic plan, along with annual monitoring and evaluation against established targets.

The National Cancer TWG will serve as the National Cancer Control Steering Committee, primarily composed of clinicians and other experts. While the TWG establishes a foundation of national commitment and effective communication, it will be expanded to include additional stakeholders. This broader TWG will incorporate representatives from civil society, non-governmental organizations, and relevant cross-sector entities involved in cancer control to ensure a more comprehensive, collaborative approach. Ad hoc meetings will be convened as necessary to address emerging needs.

3.5.2. Roles and Responsibilities

In additional to the Cancer Disease Unit at RBC and the Technical Working Group, other stakeholders and partners will be crucial in implementing the NCCP. Table 11 in Appendix shows a list of all actors and their roles.

3.6. Monitoring the Rwanda NCCP: 2025 - 2029

3.6.1. Overview

The monitoring and evaluation of the NCCP for Rwanda's 2025-2029 cycle will be led by the Cancer Diseases Unit within RBC, in collaboration with the TWG on Cancer Control, which is comprised of experts from various cancer control disciplines. This effort will encompass comprehensive data collection, analysis, and interpretation to ensure effective tracking of the plan's progress and impact.

Monitoring Procedures

Throughout the implementation phase, monitoring will be supported by structured procedures:

1. Data Collection and Analysis: Indicators identified within the NCCP will be collected, interpreted, and analyzed to provide actionable insights on the plan's progress.
2. Annual Reports: The Cancer Diseases Unit will prepare annual monitoring reports, which will be reviewed and endorsed in the TWG meetings. **Following TWG endorsement, these reports will** be submitted to the Director General of RBC, who will then formally present them to the MoH. These reports will be disseminated to all relevant stakeholders for transparency and continuous engagement.

Mid-Term Review and Evaluation

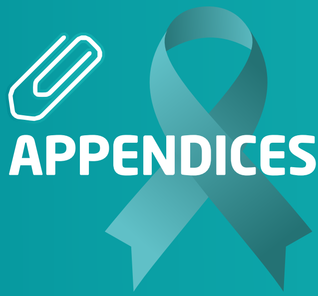
A mid-term review will be conducted in collaboration with the Ministry of Health, TWG, and partners, offering an in-depth evaluation of progress and challenges at the midpoint of the plan in 2027. This review will enable any necessary adjustments to objectives and actions for the latter half of the NCCP cycle. A final evaluation will take place at the end of 2029 to assess the overall achievements and identify lessons learned.

This data-driven approach ensures that Rwanda's NCCP is systematically tracked, reviewed, and adapted to optimize impact, thereby strengthening the country's response to cancer and supporting long-term health outcomes.

3.7. Common Results and Accountability Framework

Table 10: Common Results and Accountability Framework

Pillar	Targets	2024	2029
Prevention and Early Detection	Population level cervical cancer screening coverage (women aged 30-49 years)	29%	70%
	Breast cancer screening coverage	3.72%	50%
	HPV vaccination coverage in girls aged 12 years	91.%	>90%
	Colorectal Cancer Screening in eligible people	0	20%
	Prostate cancer early detection in eligible men	TBD	30%
	Treatment rate for those with cervical precancerous lesions	92%	95%
Cancer Diagnosis and staging	% of cancer patients diagnosed at stages I and II	30%	>50%
	Turnaround time for pathology (H&E) diagnosis of less than 14 days	TBD	>70%
	% of cancer patients completing medical imaging work up for staging within 1 month post pathology diagnosis	TBD	>70%
Treatment, Palliative and Supportive Care	Proportion of patients with cancer initiating any cancer treatment within 60 days post diagnosis	TBD	>80%
	% of patients with cancer receiving the treatment as per the national guidelines and protocols	TBD	>90%
	Proportion of patients with cancer completing the treatment as per the plan	TBD	>80%
	Proportion of clients in need of Palliative Care (PC) accessing services according to the national guidelines	TBD	>70%
	Childhood Cancer Survival rate	73.4%	80%
Research, Data and Surveillance	Annual publications using National Cancer Registry	1 per year	5 per year
Advocacy, Partnership and Financing	Cancer Budget as a proportion of total health budget (Annual increase of domestic funding allocated to cancer interventions)	Unkown	10%



4.1. Appendix I: Stakeholders roles and responsibilities

Table 11: Stakeholders roles and responsibilities

Actor	Roles and Responsibilities
Cancer Diseases Unit	• Disseminate and offer leadership in implementation of the national cancer control strategy. • Provide technical assist in in the implementation of the national cancer control strategy. • Build capacity on cancer prevention and control as per national cancer guidelines and strategies. • Coordination of partnerships and collaborations for cancer control through the Technical Working Group • Oversee operationalization of the National Cancer Control Strategy Monitoring and Evaluation
Other Ministry of Health Departments, Divisions and Programs	• Support the implementation of the National Cancer Control Strategy 2025-2029. • Participate and collaborate in TWG meetings and provide technical assist in as required. • Integrate cancer prevention and control in their programming. • Support community level activities to aid implementation of the National Cancer Control Strategy.
Districts/District Hospitals/Health Centers	• Implement national cancer prevention and control policies, strategies and guidelines. • Provide adequate infrastructure, equipment and commodities for screening, diagnosis, treatment, palliative care and survivorship services. • Provide and appropriately deploy adequate qualified personnel for cancer service delivery. • Mobilize and allocate adequate financial resources for cancer prevention and control. • Integrate cancer prevention and control into the broader county health sector plans and establish county cancer control programs. • Forge appropriate multi-sectoral partnerships at the county level. • Collect and report cancer data in KHIS and assist in cancer registries.
Other Ministries, public institutions and Agencies	• Collaborate with Ministry of Health in mainstreaming cancer prevention and control into their strategies and routine activities, including creation of a cancer focal/information desk. • Enforce the execution of the NCCP through a multi-sectoral approach for an effective cancer control response.

Non-State Actors - Civil Society and religious bodies	• Support cancer advocacy, communication and social mobilization activities. • Advocate for resources towards execution of this strategy. • Support provision of cancer prevention and control services.
Private sector	• Support cancer prevention and control interventions. Complement the ministry in service delivery. • Support training and capacity building of oncology health workforce. • Support local manufacturing of quality, health products and technologies.
Development partners, International NGOs, NGOs, CSOs, FBOs	• Mobilize resources for this strategic plan execution. • Provide technical, logistical and capacity building assist in.
Professional associations	• Advocacy and provision of guidance on cancer matters. • Support professional development of their respective cadres. • Support the implementation of the strategy.
Regulatory and statutory bodies	• Regulate and enforce aspects of this strategic plan related to their respective bodies. • Establish and update mechanisms for recognition, certification and registration of oncology cadres within their jurisdictions.
National and county legislatures	• Develop laws and regulations that assist in cancer prevention and control activities at both levels of government. • Allocate resources for execution of this strategic plan.
RMS Ltd	• Facilitate procurement, storage and distribution of essential cancer commodities and technologies identified by the Ministry for effective execution of this policy. • Collaborate with other stakeholders to assist in procurement and supply of cancer commodities.
RSSB/CBHI	• Provide timely, sustainable, comprehensive medical insurance package for cancer screening, diagnosis, treatment, palliative care and survivorship in line with defined standards of care by the Ministry.
Academic, Research and Health Training Institutions	• Conduct cancer education and training. • Conduct cancer research and apply it to inform and guide policy. • Collaborate to develop mechanisms for research data sharing. • Harmonize and standardize research ethics and approval processes.
Media	• Dissemination of accurate cancer information to create public awareness.
General public, individuals and communities	• Adopt healthy lifestyles and health-seeking behavior. • Participate actively in cancer prevention and control. • Enroll and sustain NHIF and/or other health insurance cover for financial and social protection. • Support cancer patients, survivors and their caregivers and reduce stigma and discrimination.
Survivors	• Champion cancer prevention and control measures.

4.2. Appendix II: Stakeholders involved in the NCCP's development

1. Partners in Health / Inshuti Mu Buzima
2. Rwanda Society of Obstetricians and Gynecologists
3. Rwanda Military Referral and Teaching Hospital
4. Research for Development Rwanda
5. University of Rwanda
6. Clinton Health Access Initiative
7. PFIZER
8. King Faisal Hospital Rwanda
9. Rwanda Non Communicable Diseases
10. Butaro Cancer Centre of Excellence
11. Rwanda Social Security Board
12. Rwanda Medical Supply
13. Rwanda Food and Drug Authority
14. Women's Cancer Relief Foundation
15. World Health Organization

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