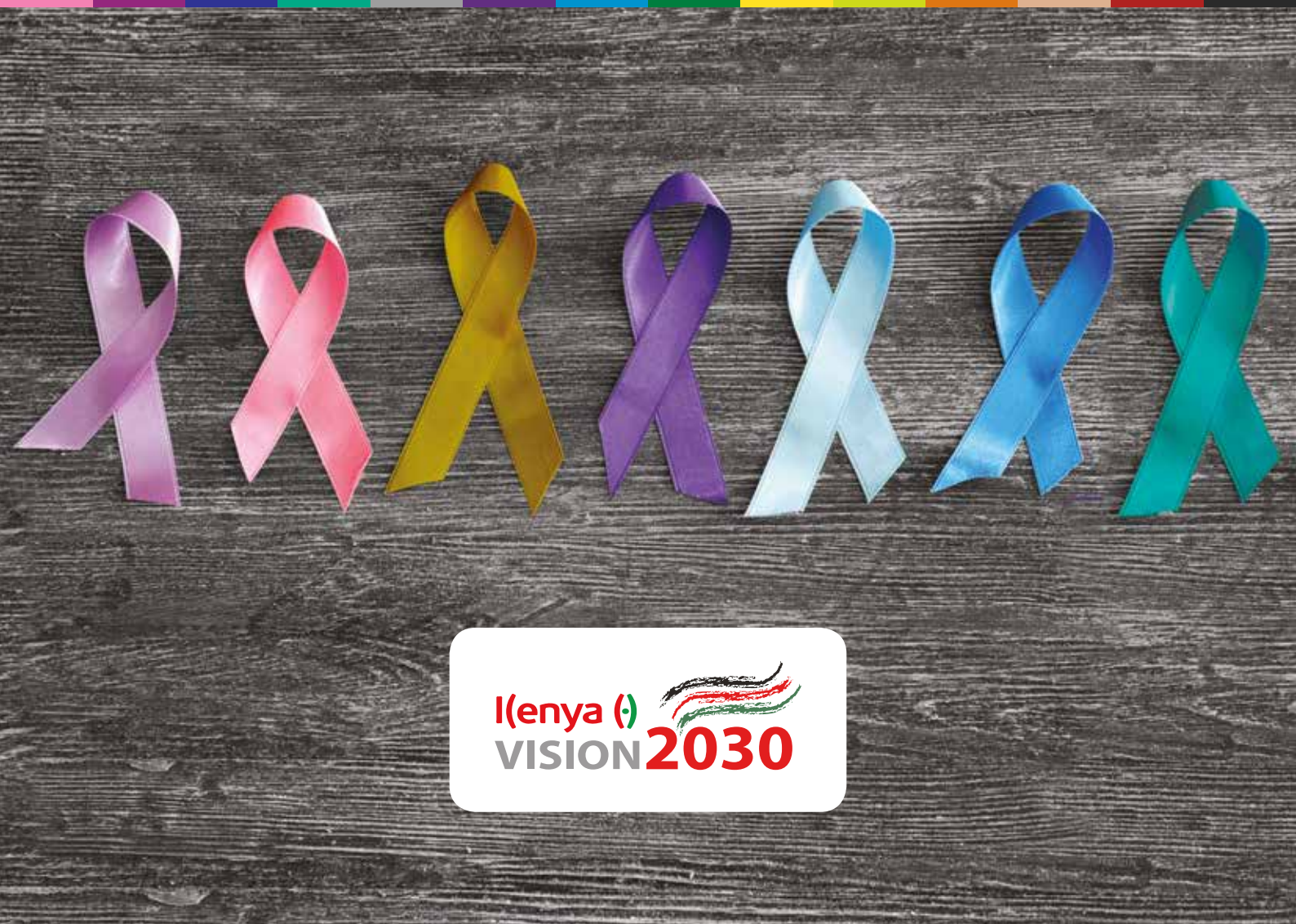
REPUBLIC OF KENYA

Ministry of Health

The National Cancer Control Strategy (2023–2027)



Ministry of Health

REPUBLIC OF KENYA

Vision, Mission and Core Values

The vision, mission and goals are aligned to the SDGs, Vision 2030, overall Ministry of Health vision and mission, and the Kenya Health Policy 2014-2030.

Vision

A nation free from the preventable burden of cancer.

Mission

To implement a coordinated and responsive cancer control framework that leads to reduced morbidity and mortality and improves the experiences and quality of life of patients living with cancer by the year 2028.

Goal

Reduce premature mortality from cancer in Kenya by a third by the year 2028.

Core values

1. Community and survivor involvement
2. Social Justice
3. Universal Health Coverage
4. Patient-centred approach
5. Evidence-based interventions
6. Equity
7. Inclusivity

Ministry of Health

The National Cancer Control Strategy (2023–2027)

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Nairobi, June 2023

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Foreword

Nakhumicha S. Wafula

A National Cancer Control Strategy is all about people. It is about preventing cancer across our population, diagnosing cancer early and providing optimal care to patients while maximising their quality of life. About 40% of all cancers can be prevented through avoidance of known modifiable risk factors, immunization and making our living environment healthier. This means that out of the 42,116 cases of cancer diagnosed every year in Kenya, around 16,846 could be prevented. Another one third can be cured if detected early and treated appropriately.

Kenya is a signatory to several global commitments on cancer which call for integration and scaling up of national cancer prevention and control efforts as part of national responses, in line with the 2030 Agenda for Sustainable Development Goals. In 2018, The United Nations General Assembly passed a political declaration for promotion of access to affordable diagnostics, screening, treatment and care, as well as vaccines that lower the risk of cancer. In 2019, another commitment was made to strengthen efforts to address non-communicable diseases and include cancer as part of universal health coverage.

This National Cancer Control Strategic Plan 2023-2027 is the country's third and builds on critical lessons learnt in implementing the second National Cancer Control Strategy 2017-2022. It is aligned to the Constitution of Kenya which guarantees all Kenyans the right to the highest attainable standards of healthcare and the Bottom-Up Economic Transformation Agenda 2022-2027 with a strategic pivot towards cancer prevention, strengthening primary-based healthcare and community health interventions as well as digitalization of cancer services. It operationalizes the Kenya Cancer Policy 2019-2030 and also outlines various guidelines that will need to be formulated by the Ministry for use across the cancer care continuum among other priority actions.

It is my hope that all stakeholders will collaborate and partner through concerted efforts in the implementation of this strategic plan towards reducing the overall disease burden and improving the quality of life for those affected by cancer.

Nakhumicha S. Wafula
Cabinet Secretary for Health

Acknowledgements

Harry Kimtai, CBS

The drafting of this strategic plan document involved an extensive process of multi-stakeholder engagements, and would not have been possible without the support, hard work, and efforts of the dedicated team of officers drawn from different departments and institutions within and outside the health sector. The Ministry of Health acknowledges the contributions and commitment from all stakeholders.

We would like to thank the leadership of the Ministry of Health for their stewardship and support especially the office of the: Cabinet Secretary Special thanks to the Acting Director General for Health, Acting Director of Family Health, the Head, Division of Non-Communicable Diseases, the Head of the National Cancer Control Program and the Acting Chief Executive Officer of the National Cancer Institute of Kenya, whose strategic guidance and contributions led to the successful development of this Strategic plan.

We would like to recognize and appreciate the technical input, commitment, and dedication of various experts from public, private, and faith-based institutions. In this regard, we particularly recognize the contribution of the Council of Governors and various county representatives, the consultant Prof. Nicholas Abinya from the Kenya Society for Haemato-Oncology, other professional bodies, the Kenya Palliative Care and Hospices Association, the Kenya Network of Cancer Organizations and other Civil Society Organizations and Patient Groups, academia, hospitals, development partners, regulatory bodies, industry, other MOH departments and the various Cancer Technical Working Groups for their inputs.

Lastly, in a special way, we wish to recognize the effort of global bodies, under the tripartite UN support mechanism for cancer control planning (International Agency for Research on Cancer (IARC), the International Atomic Energy Agency (IAEA) and the World Health Organization, for their technical support in conducting an imPACT assessment and drafting of the strategic plan. We appreciate financial support from the CDC/PEPFAR, BD, Astra Zeneca and FIND.

Harry Kimtai, CBS
Principal Secretary,
State Department for Medical Services

Executive Summary

Dr. Patrick Amoth, EBS

The Ministry of Health has spearheaded the development of this third national cancer control strategic plan building up from lessons learnt in implementing the second National Cancer Control Strategy 2017-2022, with a **vision** of a nation free from the preventable burden of cancer. The **mission** of this strategic plan is to implement a coordinated and responsive cancer control framework that leads to reduced morbidity and mortality and improves the experiences and quality of life of patients living with cancer by the year 2028. The ultimate goal is to reduce premature mortality from cancer in Kenya by a third by the same year.

It is structured along the cancer control continuum and identifies advocacy, partnerships, coordination, and financing, and strategic information, registration, research and surveillance as key pillars in cancer control. Since primary prevention of cancer cuts across several sectors outside the primary domain of the Ministry of Health, this strategic plan also adopts a multi-sectoral approach in reduction of the burden of cancer risk factors, including tobacco and alcohol use, occupational exposures, air pollution, unhealthy diets and physical inactivity.

The five pillars or key result areas include:

i. Cancer Prevention and Early detection
ii. Cancer Imaging, Pathology and Laboratory Medicine Diagnostic Services
iii. Cancer Treatment, Palliative care and Survivorship
iv. Cancer Advocacy, Coordination, Partnerships and Financing
v. Cancer Strategic Information, Research, Registration and Surveillance.

The Ministry through the National Cancer Control Program will work with all stakeholders to guide the implementation of the strategic plan, and track it using a comprehensive monitoring, evaluation, accountability and learning framework, with process, output and outcome indicators for each key result area. This supporting policy document aims at creating a comprehensive M&E framework for the country. Lastly, the strategic plan has a detailed governance and implementation framework, that outlines the roles of various actors in cancer prevention and control and coordination of technical teams through the Non-Communicable Diseases Intersectoral Coordinating Committee within which the Cancer Technical Working Group sits.

This strategic plan will be the blueprint document that will provide guidance for cancer prevention and control interventions and priority investments at national and county levels for the next five years. It envisions that prevention, control and management of cancers will be made more accessible and affordable to the population through collaboration and integration within the health systems to establish a robust platform for effective control of the disease.

Dr. Patrick Amoth, EBS
Ag. Director General For Health

Concepts and Terminologies

Cancer: encompasses a group of more than 100 distinct diseases with diverse risk factors and epidemiology which originate from most of the cell types and organs of the body, and which are characterised by unrestrained proliferation of cells that can invade beyond normal tissue boundaries and metastasize to distant organs.

Cancer control continuum: describes the various stages from cancer prevention, early detection, diagnosis, treatment, survivorship, and end of life.

National Cancer Control Program: a public health program designed to reduce cancer incidence and mortality and improve the quality of life of cancer patients, through the systematic and equitable implementation of evidence-based strategies for prevention, early detection, diagnosis, treatment and palliation, making the best use of available resources.

Early detection of cancer: a concept of timely diagnosis of cancer, that includes two components; early diagnosis (or down-staging) and screening. Early diagnosis focuses on detecting symptomatic patients as early as possible, while screening consists of testing healthy individuals to identify those having cancers before any symptoms appear.

Screening: the application of simple tests/procedures across a healthy population before they develop any symptoms of the cancer to identify those with cancers. Screening is currently recommended for four types of cancer: breast, cervical, colorectal and lung cancer depending on resource levels and existing capacity. Screening for prostate cancer is controversial and is currently not recommended for routine use especially at population level.

Multi-disciplinary team: this is a concept in cancer management that provides that patient care is provided by a all-rounder team, including core clinical services such as medical oncology, surgery, radiation oncology, pathology, palliative care, psycho-oncology, oncology nursing, nutrition and rehabilitation, as appropriate, to ensure patient-centred health care and clinical effectiveness.

Universal health coverage: providing healthcare in a framework that ensures that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship

imPACT assessment: this is a mechanism coordinated by the International Atomic Energy Agency to assess a country's cancer control capacities and needs and identify priority interventions to effectively respond to its cancer burden.

Acronyms and Abbreviations

ACSM	Advocacy, Communication and Social Mobilization
CHSSP	County Health Sector Strategic Plans
CIDP	County Integrated Development Plans
CQI	Continuous Quality Improvement
DHP	Digital Health Platform
DQA	Data Quality Audits
EBV	Epstein Barr Virus
eCHIS	Electronic Community Health Information System
EQA	External Quality Assurance
GBCI	Global Breast Cancer Initiative
GICC	Global Initiative for Childhood Cancer
GICR	Global Initiative for Cancer Registries
HBCR	Hospital-Based Cancer Registry
HBV	Hepatitis B Virus
HCV	Hepatitis C virus
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HRH	Human Resources for Health
ImPACT	integrated Mission of Programme of Action for Cancer Therapy
KDHS	Kenya Demographic and Health Survey
KEMSA	Kenya Medical Supplies Authority
KENPHIA	Kenya Population-based HIV Impact Assessment
KHFA	Kenya Health Facility Assessment
KHRO	Kenya Health Research Observatory
KHSSP	Kenya Health Sector Strategic Plan
LMIC	Low and Middle-Income Countries
M&E	Monitoring and Evaluation
MDT	Multi-Disciplinary Team
MEAL	Monitoring, Evaluation, Accountability and Learning
MoH	Ministry of Health
NCCP	National Cancer Control Program
NCD	Non-communicable Disease
NCI-K	National Cancer Institute of Kenya
NCRL	National Cancer Reference Laboratory
NHIF	National Health Insurance Fund
NVIP	National Vaccines and Immunization Program
PBCR	Population-Based Cancer Registry
PESTELE	Political, Economic, Social, Technological, Environmental, Legal and Ethics
PHC	Primary Health Care
PPB	Pharmacy and Poisons Board
QA	Quality Assurance
SDG	Sustainable Development Goals
STEPS	STEPwise Survey
SWOT	Strengths, Weaknesses, Opportunities and Threats
TWG	Technical Working Group
UHC	Universal Health Coverage
UNGA	United Nations General Assembly
WHA	World Health Assembly
WHO	World Health Organization

SECTION A

THE NEED FOR A STRATEGY

- Introduction
- Situation Analysis

42,116
annual incidences of cancer in Kenya.

27,092
deaths recorded in 2020.

CHAPTER 1

Introduction

1.1 Overview

This chapter describes the global and local burden of cancer, as well as the anticipated and projected changes in the future. It provides context to the cancer control continuum, outlining the opportunities for interventions at policy level to reduce the disease burden, mortality and socio-economic impact to households and communities. In addition, a case is made for cancer control planning in addressing the public health challenge. Finally, the chapter puts this strategic plan development process into focus outlining key processes involved.

The World Health Organization defines a National Cancer Control Program as a "public health program designed to reduce the incidence and mortality of cancer and improve the quality of life of cancer patients through the systematic and equitable implementation of evidence-based strategies for prevention, early detection, treatment, and palliation, making the best use of available resources". It works with health service providers to prevent cancer, diagnose cancer, treat cancer and increase survival and quality of life for those who develop cancer by converting the knowledge gained through research, surveillance and outcome evaluation into actionable strategies and actions.

1.2 The Global Burden of Cancer

Cancer is one of the four major non-communicable diseases which together with cardiovascular diseases, diabetes and chronic respiratory diseases cause over 60% of global mortality every year. These four major non-communicable diseases have four main shared risk factors namely, tobacco use, alcohol use, unhealthy diet and physical inactivity. An estimated 10 million deaths attributable to cancer are recorded annually with about 75% of these occurring in low and middle-income countries (LMICs). If nothing is done, the burden of cancer is projected to rise with a 60% increase in cancer cases anticipated globally over the next two decades with the greatest increase, an estimated 81% in new cases, in low- and middle-income countries. Cancer's impact on population health and development is inextricably linked to reduced productivity, unemployment, labour loss, and capital investment reductions.

Many LMICs are largely unprepared to tackle cancer. In 2019, for example, while more than 90% of high-income countries reported having comprehensive treatment services for cancer in their public health systems less than 15% of low-income countries reported having similar infrastructure. High-income countries have adopted prevention, early diagnosis and screening programs, which together with better treatment, have contributed to an estimated 20% reduction in the probability of premature mortality between 2000 and 2015, while low-income countries only saw a reduction of 5%.

> ***"At least 7 million lives could be saved over the next decade, by identifying the most appropriate science for each country situation, by basing strong cancer responses on universal health coverage, and by mobilizing different stakeholders to work together"***
>
> *Dr Tedros Adhanom Ghebreyesus,*
> *Director-General, WHO.*

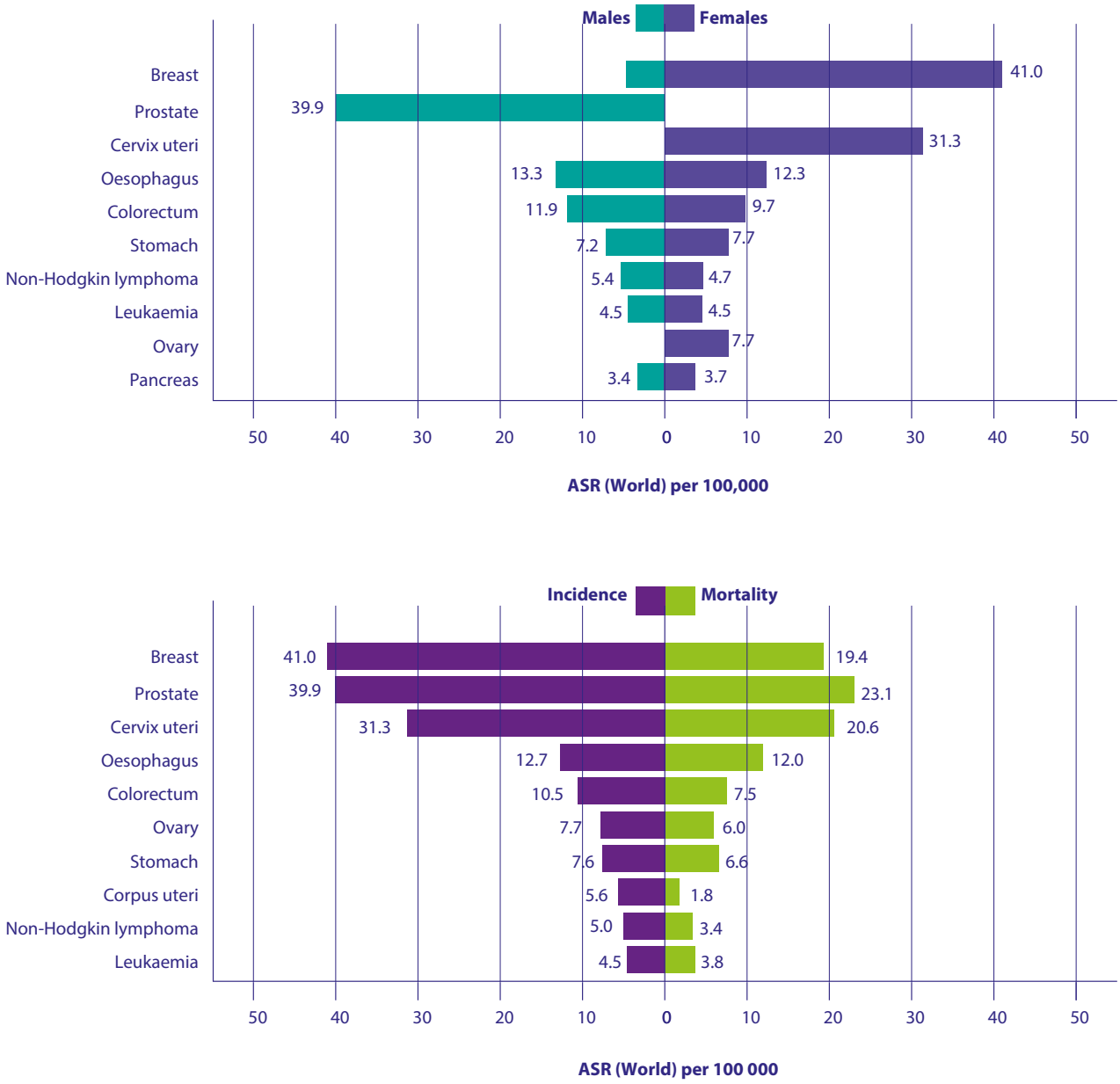


Figure 1: Cancer incidence and deaths in Kenya, 2020. (International Agency for Research on Cancer)

1.3 The Cancer Burden in Kenya

Cancer is the third leading cause of death in Kenya after infectious diseases and cardiovascular diseases. According to GLOBOCAN estimates in 2020, against a population of 53,771,300, the annual incidence of cancer was 42,116 with 27,092 deaths and the number of prevalence cases (5-year) was 82,620. This was reported as 54,156 cases among men and 28,464 cases among women.

The five commonest cancers in Kenya are breast, cervical, prostate, oesophageal, and colorectal. Women are disproportionately affected by cancer with a higher incidence recorded in women as compared to men. The risk of developing cancer before the age of 75 years in Kenya is 18% among women and 14.3% among men.

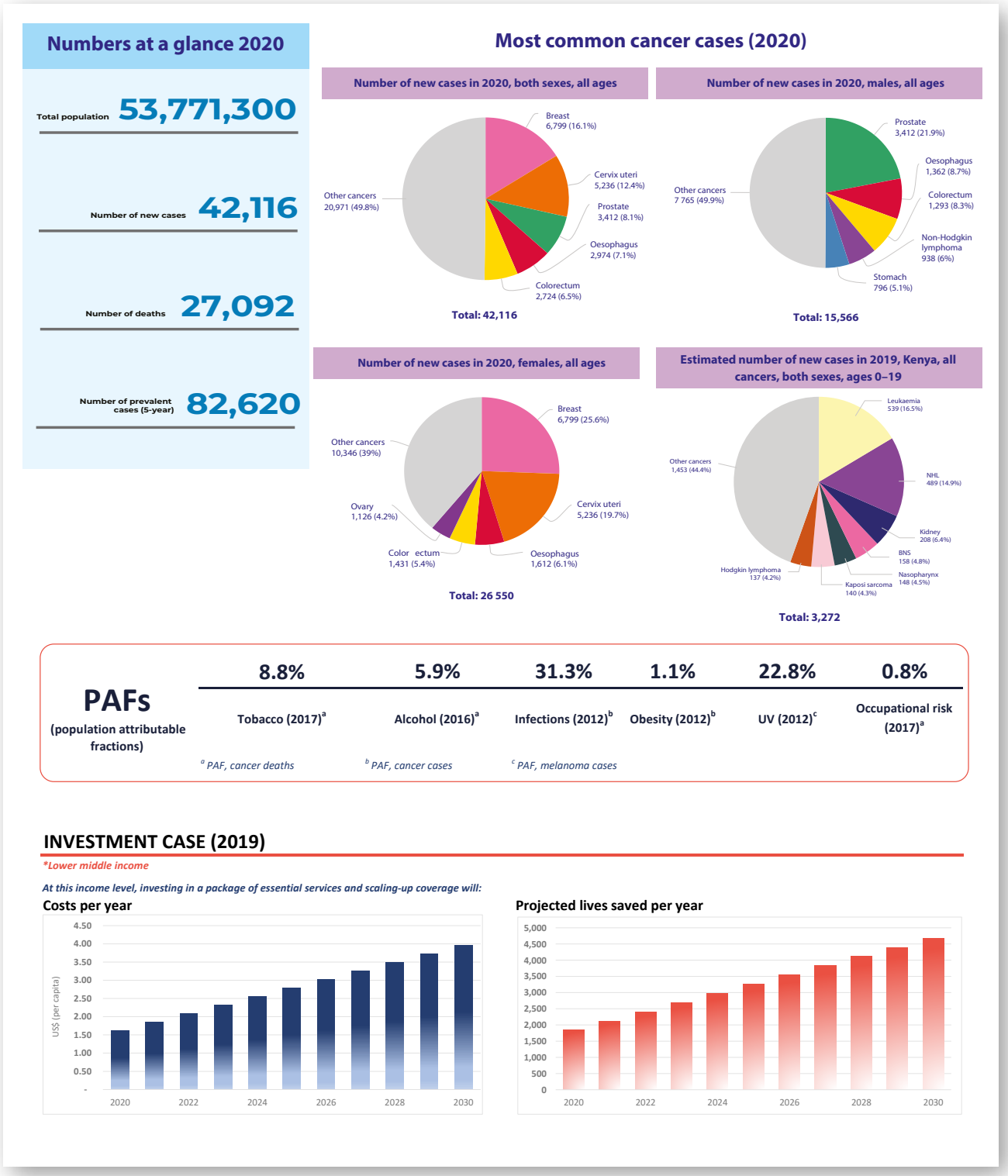


Figure 2: Kenya Cancer Country Profile 2020

Going by the current trends, it is projected that there will be an estimated 58,000 new cancer cases in Kenya in the year 2028 increasing to an estimated 95,217 incident cases by 2040 due to population growth, increased life expectancy, urbanization and increase in risk factors for cancer. This is depicted below for breast, cervical and prostate cancer:

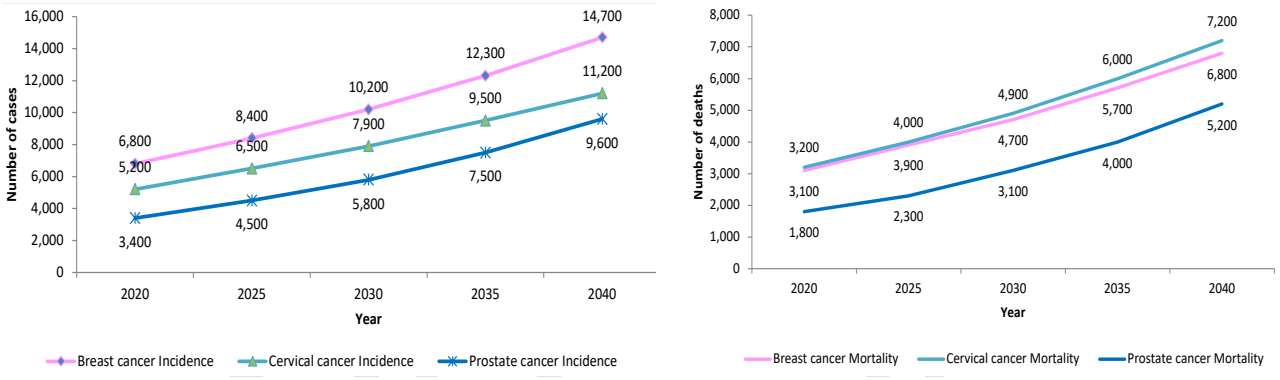


Figure 3: Trends and projections for three high burden cancers in Kenya by 2040. (Source: Global Cancer Observatory)

The cancer burden in Kenya is not uniformly distributed and seems to follow a pattern; some counties have a higher burden in certain areas, as shown in the map below. This implies that cancer control interventions and research, where possible, need to be aligned with local and regional priorities. Also, the cancer burden profile is different for different counties and regions and some cancer types have been noted to cluster around certain geographical areas. This information can guide prevention, early detection and treatment efforts sub-nationally.

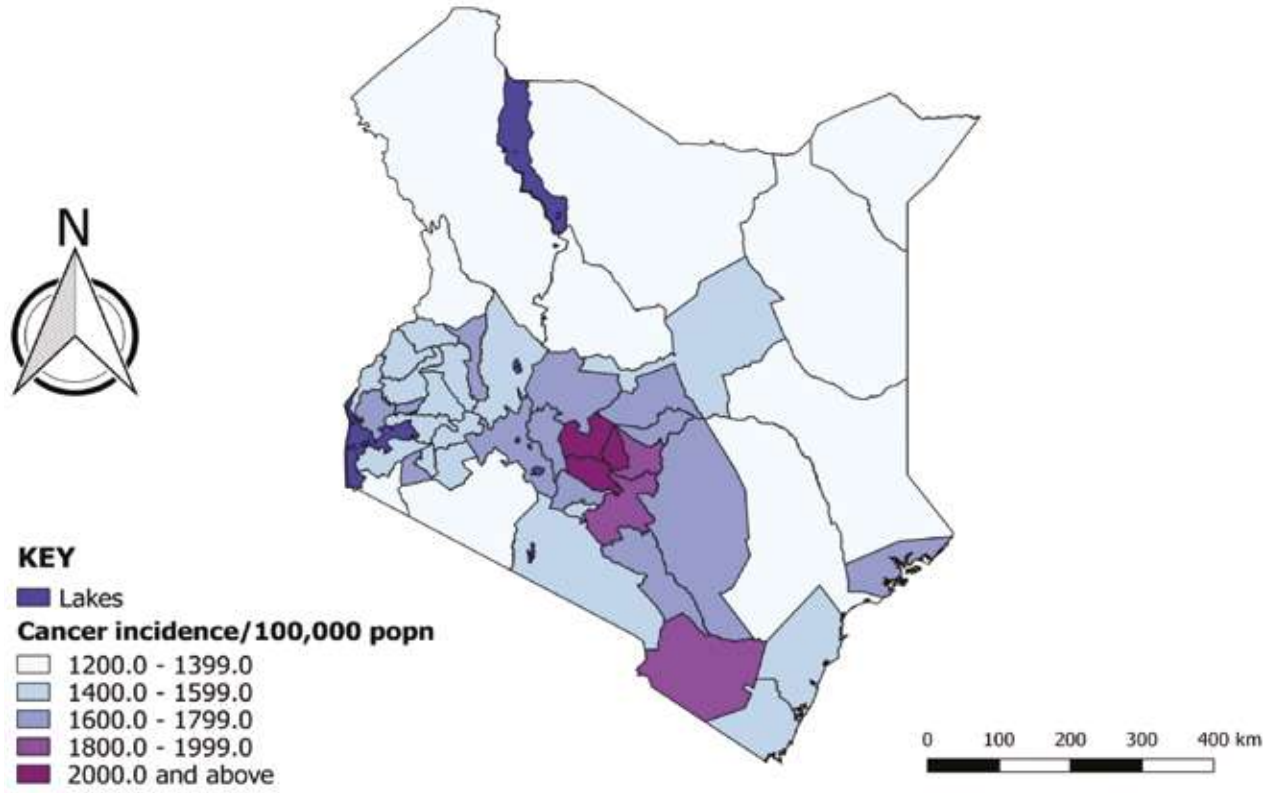


Figure 4: Cancer incidence by county, Kenya, 2019

1.4 Justification for a National Cancer Control Strategic Plan

The National Cancer Control Strategy 2023-2027 outlines key priority areas and strategic interventions in implementing the Kenya Cancer Policy 2019-2030. Cancer control planning is necessary in any resource setting to respond to the health impact, socioeconomic transformations and safeguard the health needs in populations by preventing cancer, detecting it early, curing it and caring for people affected by it. To plan cancer control wisely, it is therefore necessary to understand the local context, appreciate past experiences, and be ready to learn continuously. In addition, cancer control plans that are goal-oriented, people-centred, realistic, multisectoral and carefully prepared through a participatory and iterative process are more likely to move into effective implementation.

This national cancer control strategy has been designed to guide the country to put forward specific priority interventions towards cancer prevention and control based on existing disease burden, risk factor prevalence, global focal areas adapted to local context and available resources. This is being cognizant of the need to ensure cancer interventions remain a priority amidst competing national priorities such as the communicable disease burden. This strategic plan therefore provides a roadmap to inform strategic initiatives in cancer prevention and control amongst all stakeholders.

1.5 Target Audience

This strategic plan is of relevance to government and non-government agencies whose work impacts directly or indirectly on the delivery of services across the spectrum of cancer control, those involved in the management and delivery of cancer services across the continuum of care, persons living with cancer, their families and caregivers. By providing a clear roadmap on priority interventions, the strategy encourages all to work together in a multisectoral approach and enables all providers to have a common understanding of where they fit in the overall spectrum of cancer control towards achieving a common goal of reducing the disease burden and improving the quality of life of cancer patients.

1.6 Components of cancer control

Cancer control is structured into four main components:

a) **Prevention:** cancer prevention, especially if integrated with prevention of other chronic illnesses, offers greatest public health benefit. Evidence exists to prevent approximately 40% of all cancers. Most cancers are linked to tobacco use (responsible for 20-30% of all new cancer cases or cancer deaths), alcohol use (3-7%), overweight and obesity (3-10%), physical inactivity, deficient intake in fruits and vegetables (5%), or infectious agents. Tobacco consumption, for example, has been linked to tumorigenesis including but not limited to lung cancer, laryngeal-esophageal cancers, and bladder cancer. Obesity, diet and physical inactivity have been linked to different organ carcinogenesis, including breast cancer, lung cancer, and prostate cancer.
b) **Early detection:** involves diagnosing cancer at an early stage when it has a high potential for cure. Interventions are available which permit the early detection and effective treatment of around one third of cancers. Early detection encompasses two concepts: Early diagnosis and Screening.
c) **Diagnosis and treatment:** aims to cure disease, prolong life, and improve the quality of life after the diagnosis of cancer ensuring survivorship care planning and effective rehabilitation and reintegration.
d) **Palliative care:** meets the needs of all cancer patients from the point of diagnosis as well as those requiring relief from symptoms psychosocial and supportive care.

The highest contributor to health outcomes, up to 40%, are socioeconomic factors such as income/poverty levels, ethnicity, employment status and education level, another 30% are due to behavioural change (tobacco use, diet, exercise, alcohol and drug use, sexual activity), 20% is due to medical/clinical care services while physical environment (air, water, food) is responsible for 10% of health outcomes. Therefore, focusing on holistically

addressing socio-economic factors, behavioural and physical environment in tandem with investments in clinical/ medical services through a multifaceted whole of government approach and collaboration will help to advance health equity, improve health outcomes and well-being over the life course.

The World Cancer Report 2020 outlines ten key interventions, in three domains, that countries can consider, to effectively tackle the increasing burden from cancer:

- **Activate political will**
  1. Activate political will, strengthen governance and make a cancer control plan founded on UHC.

- **Set priorities and invest wisely**
  2. Identify priorities that are feasible, evidence- based and can be financed.
  3. Focus on WHO "best buys" for primary prevention of cancer such as breast and cervical cancer screening
  4. Prioritize and invest in early diagnosis of cancers.
  5. Implement effective, feasible cancer management interventions, ensuring high-quality value-based care.

- **Provide care for all**
  6. Strengthen information systems to improve planning and accountability.
  7. Fund priorities in cancer interventions, and ensure financial protection
  8. Build capacity through cancer centres and networks linked to strong primary care.
  9. Optimize the workforce and access to reliable, sustainable medicines and other products.
  10. Engage communities and civil society to achieve cancer control together.

1.7 Policy Context in Cancer Prevention and Control

1.7.1 Global Commitments on Cancer

The World Health Organization has published four specific cancer control initiatives:

a) **The Global Strategy to Accelerate the Elimination of Cervical Cancer:** The WHO launched this Strategy in 2020, with key targets for attainment by 2030 (at least 90% of eligible girls fully vaccinated against HPV by age 15 years, 70 percent eligible women screened using a high precision test at least twice by age 45 years, and 90% of women with precancerous lesions or cervical disease receiving treatment). Achievement of these targets by 2030 will put countries on the path to eliminate cervical cancer within a century.

b) **The Global Breast Cancer Initiative (GBCI)**: The WHO established this in 2021 to spur collective global action and provide momentum to halt the rising breast cancer burden through strengthening health systems. The Initiative seeks to avert about 2.5 million deaths by 2040, through achieving specific targets under each of the 3 pillars it anchors on: health promotion for diagnosis of 60% of breast cancers in early stages; timely diagnosis within 60 days of the first encounter with the health system, and 80% completion of comprehensive treatment. Following the breast cancer screening pilot in Nyeri County in 2019, a national breast cancer screening program was established in October 2021 in Kenya with the launch of a Breast Cancer Screening and Early Diagnosis Action Plan 2021-2025.

c) **The Global Initiative for Childhood Cancer:** This initiative was launched in 2018 and aims to achieve at least 60% survival for childhood cancer globally by 2030 through increased capacity of countries to provide quality services for children with cancer. Although childhood cancers cannot be prevented, there exist significant differences in survival rates with more than 90% achieved in most developed countries as compared to between 10-30% in Kenya. The establishment of a childhood cancer programme to spearhead the implementation of the CURE ALL framework to increase access, advance quality and save lives will be prioritized in this strategic plan to achieve 60% survival rates for childhood cancer by the year 2030.

d) **The Global Initiative for Cancer Registry Development**: Cancer surveillance is achieved through cancer registration. Cancer registries may be population-based (PBCR) or hospital based (HBCR), with rather different methods of working, and objectives while complementing each other. For cancer control planning, a functional PBCR is required to constantly provide surveillance data, burden and trends of cancer occurrence. PBCRs capture cancer cases resident in their catchment areas who may have been diagnosed or treated, including hospitals, medical laboratories, radiotherapy treatment centres, the hospices and vital statistics. As per IARC recommendations, a high quality PBCR should ideally achieve 20% of the national population coverage.

1.7.2 National legislations, policies, and commitments on Cancer

The Constitution of Kenya

It provides that every person has the right to the highest attainable standards of health.

Vision 2030

It aims to transform the country into a "newly industrialised middle income" country providing a high quality of life to all its citizens by 2030 in a clean and secure environment.

The Cancer Prevention and Control Act, 2012

This Act of Parliament provided for establishment of the National Cancer Institute of Kenya to provide policy advisory to the Cabinet Secretary of Health on matters relating to the treatment and care of persons with cancer and relative priorities for implementation of specific measures. It prescribes among others, functions that seek to ensure that cancer patients access quality, safe cancer care that upholds human dignity.

Kenya Health Policy 2014-2030

The Kenya Health Policy 2014-2030 defines Kenya's healthcare system in a hierarchical manner beginning with community health services, then progressing to primary care services, county referral services and national referral services. It identifies the rising burden of NCDs including cancer, and identifies various strategies to halt and reverse the rising burden of non-communicable conditions.

Kenya Health Sector Strategic Plan 2018-2023 (KHSSP)

The KHSSP summarizes various interventions implemented in cancer control in Kenya, including preventive measures to reduce the incidence of cancer (education on how to modify risk factors, vaccination and the scaling up of screening), measures to reduce late diagnosis of cancer and decentralization of cancer management.

Kenya Cancer Policy 2019-2030

The Kenya Cancer Policy 2019-2030 identifies the following eight themes for cancer control in Kenya: prevention and mitigation of risk factors, access to cancer screening and early detection, access to quality, affordable and sustainable cancer care, improve survivorship care coordination, strengthen regulation for quality cancer care, promote cancer surveillance and research, Support sustainable financing for cancer prevention and control, and Support effective governance, oversight and coordination of cancer control.

Kenya Palliative Care Policy 2021-2030

The Kenya Palliative Care Policy 2021-2030 aims to enhance palliative care services in Kenya by guaranteeing access to quality services at every point of demand through enhancing advocacy and communication, forging robust leadership and governance mechanisms, enhancing service delivery, ensuring availability and access to essential medicines and commodities, increasing human resource capacity, strengthening health information systems and research and ensuring adequate financing for palliative care.

National Non-Communicable Diseases Strategic Plan 2021/22 to 2025/26

The NCD strategy 2021/22 to 2025/26 identifies cancer as one of the four major NCDs in terms of disease burden and economic impact in Kenya. The strategy has singled out two cancer indicators (cervical cancer screening and HPV immunization) as part of key NCD impact indicators. The strategy also outlines interventions in reducing risk factors, including tobacco use, harmful use of alcohol, unhealthy diets and physical inactivity.

The Kenya Universal Health Coverage Policy 2020-2030

The implementation of Universal Health Coverage (UHC) in Kenya will adopt a primary health care-oriented(PHC) approach in service provision. PHC providers play an essential role in cancer control through provision of prevention, screening, early diagnosis, and referral services in an accessible, timely, appropriate manner, as well as providing ongoing care and connection between the community and secondary/tertiary levels of the healthcare system.

Therefore, investments in primary health care including those in infrastructural, commodities and supplies, service delivery, information management including digital health in primary health care settings should integrate relevant cancer prevention, screening and early diagnostic interventions. In Kenya, the primary healthcare (PHC) framework stipulates that the sub-county hospital will function as the "hub" in provision of primary health care and this provides an opportunity to leverage on the PHC framework for cancer-specific interventions.

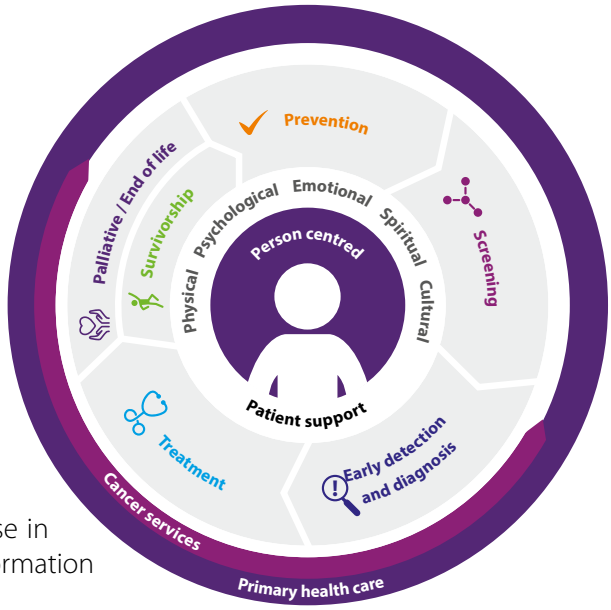


Figure 5: Cancer control in primary care. (Source: https://www.cancer.nsw.gov.au/what-we-do/working-with-primary-care)

Specific legislation relevant to cancer control

Other relevant policy and legislative instruments that guided the development of this strategy include:

- Kenya Essential Package for Health
- Tobacco Control Act 2007
- Alcoholic Drinks Control Act 2010
- The Kenya Health Act, 2017
- The Nuclear Regulatory Act, 2019
- The Occupational Safety and Health Act, 2007;
- The Food, Drugs and Chemical Substances Act Cap 254
- Public Health Act Cap 242
- Environmental Management and Coordination Act, 2002, Cap 387
- The Occupational Safety and Health – Medical Examinations Rules (Legal Notice 24 of 2005)
- The Data Protection Act 2019 (and the Data protection regulations 2021)

National Cancer-Specific Guidelines and Action Plans

- National Cancer Screening Guidelines 2018
- National Cancer Specimen Handling Guidelines 2020
- National Cancer Treatment Protocols 2019
- National Guidelines for Establishment of Cancer Management Facilities 2019
- Breast Cancer Action Plan 2021-2025

This third National Cancer Control Strategy is aligned to the global documents and cancer control initiatives as well as the Kenyan documents and in particular the National Non-Communicable Diseases Strategic Plan 2021/22 to 2025/26 and the Universal Health Coverage Policy 2020-2030 as it seeks to prioritise investments in primary health care for more effective cancer prevention and control.

1.8 The Development Process for the National Cancer Control Strategy 2023-2027

This cancer control strategic plan was developed through a highly participatory and iterative process involving stakeholders in the spirit of dialogue and consultation. It presents data on disease burden and existing control efforts, sets goals and objectives, selects populations, strategies and interventions that are based on burden of disease, equity considerations, feasibility and effectiveness of implementation, cost-effectiveness and appropriateness to the local context.

The Ministry of Health through the National Cancer Control Program conducted a final evaluation of the previous National Cancer Control Strategy 2017-2022 and requested for an imPACT review from the UN agencies (World Health Organization, International Atomic Energy Agency and International Agency for Research on Cancer) to provide an objective analysis of the status of cancer control in Kenya and make recommendations to inform key areas of focus in the new strategic plan. A National Focal Team was constituted in June 2022 which coordinated a series of discussions, meetings and workshops in June, November and December 2022 towards the strategy development with a consultant was on-boarded to guide the entire process. The development of this strategic plan was conducted through involvement of cancer stakeholders in three key steps:

1. Gap analysis was done based on the implementation of the previous strategic plan, as well as the current situation of existing cancer control efforts in the country.
2. Prioritization exercise to identify key result areas and set goals and objectives for cancer control in the next five years.
3. Identification of specific interventions under each key result area through multi-stakeholder engagements, based on feasibility, evidence-base and our national values.

The findings of the National Cancer Taskforce 2022 report were also considered in the drafting of this plan.

1.9 Key Result Areas (KRAs)

Action along the entire cancer control continuum will contribute in lowering the disease burden from cancer in Kenya. The specific areas highlighted for action are shown on the table below:

Table 1: Key results areas for the National Cancer Control Strategy 2023-2027

Key Result Area/ Strategic Focus Areas	Overarching goals
Prevention and Early Detection	Provide high quality and equitable cancer prevention and early detection services.
Cancer Imaging, Pathology and Laboratory Medicine	Provide accurate, efficient, accessible and timely cancer imaging, pathology and laboratory medicine diagnostic services for better patient outcomes
Treatment, Palliative care and Survivorship	Provide access to quality sustainable cancer care services and improve the quality of life for cancer patients.
Advocacy, Partnerships, Coordination and Financing	Forge and support effective advocacy and communication, partnerships and mobilize resources for a robust cancer control response in Kenya
Strategic information, Registration, Surveillance and Research	Implement a comprehensive monitoring, evaluation, accountability and learning framework, with mechanisms for data use, knowledge management continuous quality improvement.

CHAPTER 2

Situation Analysis

2.1 Overview

This chapter outlines the situational analysis of cancer in Kenya, the findings of the final evaluation of the previous strategy, focussing on the key result areas. The key achievements as well as challenges that affected the implementation of the strategy are highlighted, and any emerging contextual realities from the implementation period stated. A thorough environmental scan, using both a Strengths, Weaknesses, Opportunities and Threats (SWOT) and Political, Economic, Social, Technological, Environmental, Legal and Ethics (PESTELE) analyses are included. Finally, strategic realities are highlighted, fitting global cancer control into the future of health.

2.2 Review of the previous strategic plan implementation (NCCS 2017-2022)

2.2.1 Key Achievements of the NCCS 2017-2022

The National Cancer Control Strategy 2017-2022 (NCCS) had ten guiding principles, five pillars, covering the entire cancer control continuum (each with its over-arching goal), 33 strategic objectives and 215 activities. As per the monitoring and evaluation framework, annual reviews, a mid-term evaluation and end-term evaluations were conducted.

Key Achievements of the NCCS 2017-2022

1. The development of Kenya Cancer Policy 2019-2030, the National Palliative Care Policy 2021-2030, the National Cancer Screening Guidelines, National Cancer Treatment Protocols, the guidelines for cancer specimen handling and the Breast Cancer Action Plan 2021-2025.
2. The piloting and rollout of Human Papillomavirus (HPV) testing for cervical cancer screening in public facilities.
3. Scale-up of cervical cancer screening across the country with a focus on achievement of the 90:70:90 targets by each county.
4. The pilot and rollout of a phased Breast Cancer Screening Program at population level.
5. The establishment of a National Cancer Reference Laboratory at the National Public Health Laboratories.
6. The centralised procurement of essential cancer medicines through the Kenya Medical Supplies Agency (KEMSA).
7. The decentralisation of cancer care with establishment of more public cancer centres.
8. The development and rollout of innovative digital e-learning platforms on early cancer diagnosis of cancer targeting primary health workers at the Ministry of Heath's Virtual Academy.
9. The development and rollout of cancer screening and treatment data tools (MOH 412, MOH 745, MOH 646, MOH 746) reporting on the Kenya Health Information System(KHIS) was achieved.

Against this background, the Kenyan health system is still assessed as having limited capacity to deliver cancer services generally, but with some centres having the enhanced capacity.

In the previous National Cancer Control Strategy 2017-2022, the interventions and strategic objectives were distributed per each pillar as shown in the table below:

Table 2: Structure of the National Cancer Control Strategy 2017-2022

Pillar	Strategic objectives	Interventions
1 (Prevention, screening and early diagnosis)	5	57
2 (Diagnosis, registration and surveillance)	9	40
3 (Treatment, palliative care and survivorship)	6	42
4 (Coordination, partnerships and Financing)	8	38
5 (Monitoring, evaluation and Research)	5	38
Total	**33**	**215**

Overall, 28% of the planned interventions were fully implemented, 65% were undergoing implementation at the time of the evaluation (this includes activities that were supposed to be continuous across the five- year period), while 7% of interventions were not commenced at all. The evolution of the implementation scorecard over the five years is shown in the table below:

Table 3: Implementation status for the National Cancer Control Strategy 2017-2022, at end-term

Year	Implementation status		
	Fully achieved (n,%)	Partially achieved (n, %)	Not achieved (n, %)
2018	42 (19.5)	94 (43.7)	79 (36.8)
2019	46 (21.4)	143 (66.5)	26 (12.1)
2020	52 (24.2)	144 (67.0)	19 (8.8)
2021	59 (27.5)	140 (65.1)	16 (7.4)

2.2.2 Challenges that hindered the achievement of the set targets during implementation of the previous plan

Some of the challenges encountered during the implementation of the NCCS 2017-2022 are listed below:

- The COVID-19 pandemic and the subsequent disruption in health systems, as well as focus on pandemic preparedness at both national and county levels.
- Some activities such as Colorectal Cancer Screening Pilot and planned public health surveillance frameworks such as the STEPS survey, vital for evaluating the NCCS were not performed due to inadequate financial resources
- Health system disruptions in the form of industrial action also affected implementation of various programs.
- Infrastructure and human resource constraints were a limiting factor.

2.2.3 Emerging Issues that affected achievements of planned targets

Four contextual realities during implementation of the NCCS 2017-2022, that have a bearing on cancer control in Kenya moving forward include:

- The roll-out of Universal Health Coverage (UHC) in the country as a social insurance.
- Pivot towards a primary-based healthcare provision with focus on prevention as well as digitalization.
- The tight fiscal space for donor led programs for communicable diseases and its bearing on integrated cancer prevention and control programs.

- Enactment of the Data Protection Act, which has a bearing on how health data is procured, stored, processed and utilized in the country.

2.2.4 Lessons Learnt

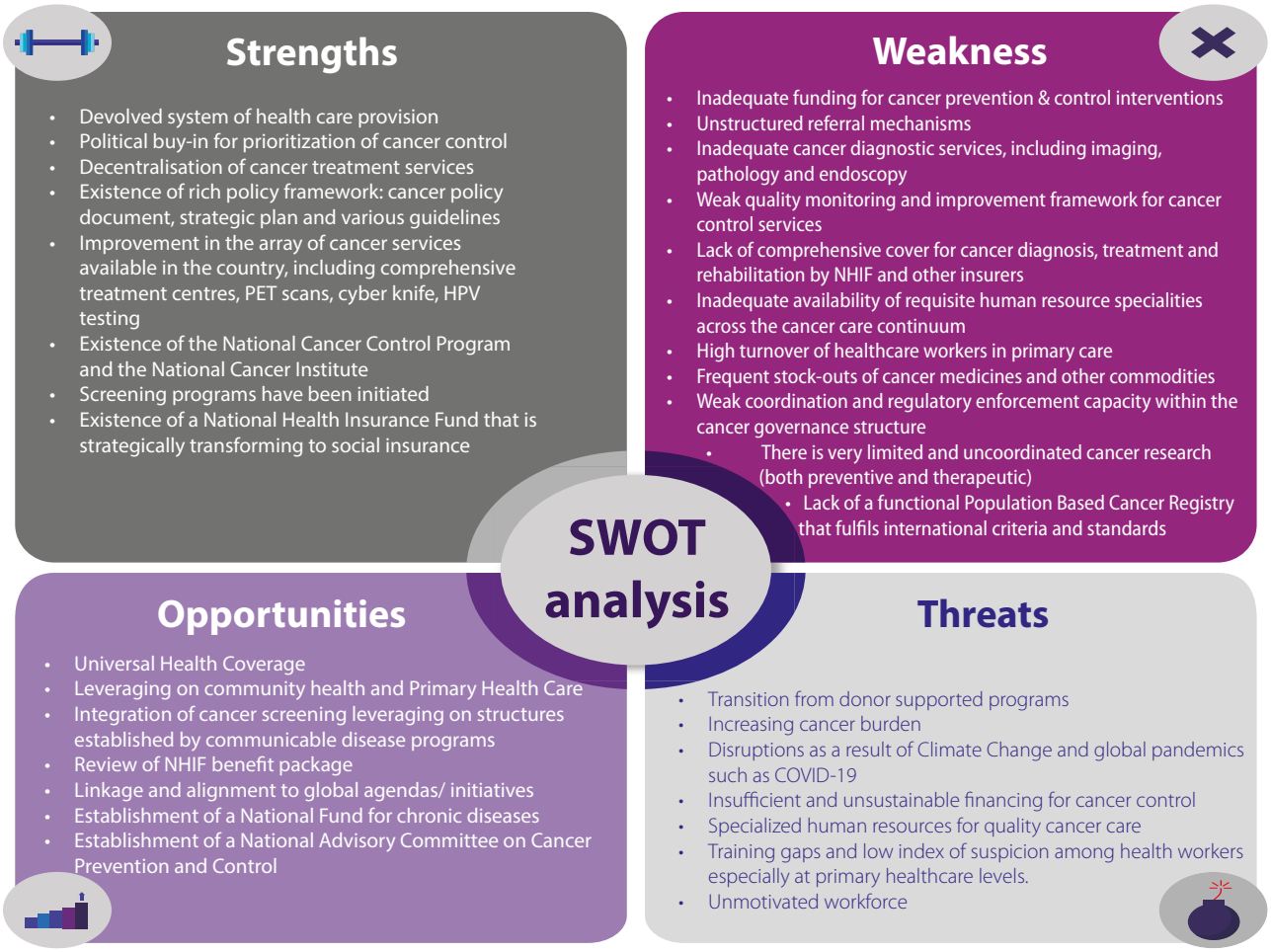
Various lessons were accrued from the implementation of the NCCS 2017-2022. The main ones are as follows:

- A multi-stakeholder involvement including county governments is not only important at drafting of the strategic plan, but also implementation, monitoring and evaluation.
- A health system programmatic approach is vital in implementing effective cancer control.
- Integration offers a sustainable approach in cancer control programs, especially in prevention and early detection and enhances implementation inefficiency.
- 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 cancer screening programs remains critical.
- Improving cancer governance and coordination to ensure policy cohesiveness in implementing cancer control interventions is key.

As recommended in the World Health Assembly resolution on cancer, an integrated approach that is aligned to the broader NCD agenda through primary prevention, coherence within broader health strategies and horizontal integration to ensure cancer services are delivered as part of a comprehensive package at appropriate levels of care with a focus on primary care has been prioritised in this National Cancer Control Plan.

2.3 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

Table 4: SWOT analysis



2.4 Political, Economic, Social, Technological, Environmental, Legal and Ethics (PESTELE) Analysis

Table 5: PESTELE analysis

Category	Factors	Description
Political (driven by government actions and policies)	Primary health care and Universal Health Coverage	PHC providers play an essential role in cancer control through provision of information on prevention, screening, early diagnosis, and referral in an accessible, timely, appropriate manner, as well as providing ongoing care and connection between the community and secondary/tertiary levels of the healthcare system.
Economic (related to the broader economy)	Economic transition	As Kenya grows economically, some contextual realities relevant to cancer control become evident. The country has to prepare for transition of donor-supported health programs to domestic financing. A good example is vaccination against HPV, one of the main interventions against cervical cancer, as Kenya transitions out of GAVI support from 2023. Strong advocacy is needed for adequate financing of cancer control interventions through mixed financing models for sustainability.
Social (shifts or evolutions in society)	Demographic and epidemiologic transition, urbanization (including "urbanization of rural areas)	The epidemiologic and demographic transition implies an increasing cancer burden, which requires robust planning for control. Urbanization favours development of cancers like breast, lung but at the same time lowers risks of infection related cancers like cervix, liver among others.
Technological	Digitization of patient health records and adoption of mhealth	The electronic community health system (eCHIS) which is currently being rolled out provides an opportunity for providing cancer prevention and screening services at the community level. The ongoing finalization of the integrated oncology electronic medical records system offers an opportunity in improving cancer data and linking it to both policy and practice.
Environmental	Environmental cancer risk factors and their mitigation	Environmental factors that are major cancer risk factors and require clear interventions for control include second-hand cigarette smoke, radon, indoor house pollution, climate change will also have impact on environmental risk factors apart from the physical disruptions and new pathogens it creates.
Legal (regulatory environment)	Devolution of healthcare provision	Interventions need to be aligned with county planning cycles; counties need to domesticate the interventions stated in the cancer control strategic plan.
Ethical	Ethical principles of equity and causing no harm	Cancer prevention and screening is supposed to be provided equitable in the population. Cancer diagnosis, treatment and survivorship care should be provided through a multi-disciplinary approach, with informed consent and should involve the patient and their caregivers.

2.5 Strategic Issues in the Future of Cancer

The field of oncology globally is expected to undergo major changes in the next 15 years (table 6). The policy choices outlined in this strategic plan aim to address the anticipated critical challenges/gaps by tapping opportunities that exist in the space.

Table 6: Future of cancer control

 **Potentially a negative impact on global cancer control**	 **Potentially a positive impact on global cancer control**
• A growing and ageing population • Cancer cases and deaths will continue to grow in LMICs • The tobacco industry will continue to seek further generations of nicotine addicted individuals, using traditional cigarettes and new/other nicotine products/new methods to take in nicotine • Urbanisation and a worryingly inability of the world to address climate change, may result in more people being exposed to carcinogens than today • The obesity epidemic will continue unchecked • There is a risk that the inequity gap between HICs and LMICs and within countries will grow unless we proactively address the availability of cancer medicines and treatment technologies in LMICs	• More countries will embrace the importance of HPV and HBV vaccination programmes to reduce the risk of infection related cancers in adults • There will be significant breakthroughs in our abilities to identify cancers earlier than ever before, inspiring more countries to introduce early detection and screening programmes for the most common cancers • There will be major advances in our ability to treat patients for many cancers and need for genomic medicine and research will grow. • The data revolution has the potential to give power to the patient for self-management, increase treatment effectiveness and better inform governments on what they should focus on to improve cancer survivorship.

SECTION B

THE STRATEGIC PLAN

2023–2027

OVERALL CANCER BURDEN

REDUCED

FOR

Women, Men, Children, Adolescents & Young Adults

CHAPTER 3

Strategic Framework Model

3.1 Overview

Cancer control requires a comprehensive approach along the cancer continuum from prevention to survivorship or end of life. An integrated national cancer response must be appropriate for the capacity of the health service and the epidemiological burden of disease.

The final evaluation of the NCCS 2017-2022 revealed specific gaps, especially in cancer diagnosis and registration. The interventions that were planned to improve both cancer pathology and imaging services across the country were either not started at all or were partially implemented. Therefore, these services remain unavailable to majority of the population, and patients with suspected cancer must contend with long distances and high cost to access diagnostic services. Scaling up diagnostic pathology and imaging improves early detection which in many cases is limited by lack of diagnostic capacity including basic pathology services required to diagnose a cancer. Stage at diagnosis is one of the most important predictors of cancer outcomes at the population level. Cancer registration especially at population level has also remained fragmented, with poor coordination. The country has not been able to publish a detailed cancer burden report, to guide cancer control planning in the last five years. PBCR systematically collect information on all neoplasms occurring in their defined catchment populations, using multiple sources, including hospitals, laboratories, and death certificates. Registry procedures allow identification of the same cancer case from different sources while avoiding duplicate registrations. HBCR are an integral part of hospital management, serving administrative purposes and aiding the review of performance (auditing the nature of cancer care delivered, and its outcome) (Table 7).

As part of interventions to strengthen cancer management in the country, the Ministry of Health established a cancer taskforce in 2021, to review the institutional framework for cancer management, assess the human resource capacity, technologies, medical products, infrastructure for cancer, analyse the actors and stakeholders locally and the global best practices in cancer care, review the adequacy of the existing legal and policy instruments for cancer response and recommend strategic interventions to reform the delivery of cancer services countrywide. The Taskforce Report outlined the main challenges in cancer prevention and control in Kenya as; the high cost of treatment; limited service availability across the care continuum; poorly coordinated cancer management and lack of national standards; lack of adequate human resource in availability and capacity; low public awareness on cancer; limited funding for cancer control and limited operational cancer research capacity (both preventive and therapeutic) to adequately inform policy direction.

The taskforce recommended among others, a "hub-and-spoke model" for cancer management with establishment of a centre of excellence as a learning resource and centre for cancer research, increased training of specialised cancer workforce and inclusion of essential cancer services in the Universal Health Care Benefit Package.

Therefore, the interventions proposed in the strategic plan are aligned to this extensive gap analysis on cancer control in Kenya.

Table 7: Comparison of the principle, setting and scope of action between population-based cancer registries (PBCRs) and hospital-based cancer registries (HBCRs).

	Population-based cancer registries	Hospital-based cancer registries
Aim	• To assess the impact of cancer on the covered community	• To evaluate clinical care in the hospital
Population	• Well-defined and enumerated	• Unknown, based on referral area
Data sources	• Hospital departments (oncology units, pathology departments, radiotherapy departments, haematology laboratories, paediatric wards) • Autopsy reports • Outpatient clinics • Laboratories • Death certificates • General practitioners • Screening programmes • Health insurance companies • Population registries • Hospices	• Hospital departments • Autopsy reports • Outpatient records • Hospital laboratories
Registration process	• Notification from data sources • Active case finding	• Records of care
Data items	• ID/contact information of patient • Demographic/exposure data • Disease (basic) • Treatment (basic) • Follow-up/outcome long-term	• ID/contact information of patient • Hospital/history of stay • Disease specific to children (extended) • Treatment (extended) • Follow-up/outcome short-term
Occurrence measure	• Frequency of cancer types in a population • Incidence rates	• Case reports • Frequency of cancer types among patients
Outcome measure	• Population-based survival (mortality rates)	• Evaluation and comparison of therapies
Timeliness	• Reporting within 1–5 years after diagnosis	• In real time
Use of data	• Community cancer control • Aetiology research	• Hospital cancer programme • Comparison of therapies
Ownership support	• Governments • Public bodies (nongovernmental organizations)	• Hospital

Source: Adapted from the WHO CureAll Framework

3.2 Vision Statement, Mission Statement and Core Values

Vision

A nation free from the preventable burden of cancer

Mission

To implement a coordinated and responsive cancer prevention and control framework that leads to reduced incidence, illness and premature deaths and improves experiences and quality of life of persons living with cancer by the year 2028.

Goal

To reduce premature mortality from cancer in Kenya by a third by the year 2028.

Core values

1. **Community and survivor involvement**: Cancer control is a whole-of-society approach, and cancer survivors are an integral part of the control efforts.
2. **Sustainability**: choose interventions that are feasible within the economic context of Kenya, and advocate for financing from both public and private actors.
3. **Improved access**: this includes financial access (cost of services), geographic access (availability of services within reasonable physical reach of the target population) and social access (acceptance/quality of services).
4. **Patient-centred**: cancer care should address patients' self-identified needs, respect their values, consider their preferences in decision-making and respond to their priorities for better health and wellness.
5. **Evidence based innovations**: selected interventions are backed by scientific evidence of efficacy.
6. **Equity and inclusivity**: everyone has an equal opportunity to prevent cancer, find it early, and get proper treatment and follow-up after treatment is completed.

3.3 Strategic Pillars, Objectives and Activities

3.3.1 Pillar 1: Cancer Prevention and Early Detection

Overarching goal: Provide quality and equitable cancer prevention and early detection services to reduce preventable burden of cancer.

The National Cancer Screening Guidelines 2018 outline high burden cancers amenable to population-level screening and/or early diagnosis interventions as cervical, breast, colorectal and prostate cancers which account for 43.1% of all new cancer diagnoses and 36.9% of deaths in the country (GLOBOCAN 2020). Around 5-10% of all cancers globally are attributed to genetic factors which are non-modifiable though amenable to early diagnosis and treatment.

Tobacco is the most important risk factor responsible for one in five cancers and one in three cancer-related deaths globally. As per the STEPS 2015 survey, tobacco use among adults was estimated at 13.3%. The mean age of smoking initiation was 20.8 years and exposure to second-hand smoke is 30% at the workplace and 24% at home. An estimated 19% of adults consume alcohol. About 1 in every 3 Kenyans are overweight or obese while only about 7% of Kenyans consume the recommended five servings of fruits and vegetables daily.

Some viral infections are known cancer risk factors and can be prevented through vaccination. Routine vaccination programs for prevention of Hepatitis B and Human Papillomavirus (HPV) are in place in Kenya. According to the KHIS data (2022), HPV vaccination coverage was 58% for the first dose, and 29% for the second dose, while 86% of one-year-olds have received the recommended three doses of Hepatitis B vaccine.

Kenya has established population-based screening programs for breast and cervical cancer with coverage for cervical cancer screening estimated to be at 31%. To achieve the WHO 90:70:90 cervical cancer elimination targets, at least 1.6 million women will need to be screened annually. The Breast Cancer Screening Program targets to reach 4.8 million women annually. Progressively, a population-based screening program for colorectal cancer will need to be established.

This strategy will also support the development, review and implementation of national laws, regulations, policies and guidelines related to cancer prevention and early detection as well as integration of key interventions into other public health programs.

Strategic objective 1.1: Reduce exposure to modifiable cancer risk factors and address underlying social and environmental determinants

Strategy 1: Reduce prevalence of use to tobacco and tobacco-related products and by-products from 13.3% to 6.5% by 2028

Activities

1. Advocate for increased excise taxation to the WHO recommended 70% of retail price, and continued use of pricing mechanisms to limit access to tobacco products.
2. Integrate tobacco control key messages in cancer awareness, education, and mass media campaigns.
3. Integrate tobacco control strategies into the cancer prevention and control interventions in the community, schools and workplaces.
4. Support provision of tobacco cessation services (counselling and pharmacotherapy) through integration at health facilities and cancer treatment centres.

Strategy 2: Reduce prevalence of alcohol use from 19% to 10% by 2028

Activities

1. Advocate for and participate in the review and comprehensive implementation of the Alcoholic Drinks Control Act 2010 and the County Alcoholic Drinks Control Acts.
2. Advocate for increased excise taxation on alcohol and alcoholic products.
3. Support the review and implementation of regulations on restrictions of marketing and promotion of alcoholic products.
4. Integrate key messages, information, education and communication materials on reduction of alcohol use in cancer awareness, mass media campaigns and public education in schools, workplaces and in the community.

Strategy 3: Reduce consumption of unhealthy diets, prevalence of physical inactivity, overweight and obesity

Activities

1. Integrate education and awareness interventions to promote healthy nutrition and physical activity and mitigate overweight and obesity in cancer control activities in schools, community and in health care facilities at all levels.
2. Support enactment of policies and legislation to increase taxation and reduce marketing and advertising of unhealthy foods and drinks, and to provide incentives for access to and sale of healthy foods.
3. Work with stakeholders to review policies on urban and city designs to promote active lifestyles.
4. Promote establishment of workplace and community wellness programs.

Strategy 4: Reduce exposure to environmental and occupational risk factors.

Activities

1. Institute active surveillance programs for food, environmental and occupational risk factors for cancer.
2. Create public awareness and sensitize communities on environmental and occupational risk factors.
3. Advocate for the review, enactment and enforcement of existing policies, laws, regulations and guidelines to limit exposure to environmental and occupational toxins and pollutants.
4. Promote research on the role of chemicals, pesticides, environmental and occupational risk factors and pollutants, in cancer causation, including disaggregation of data by county/region.

Strategy 5: Reduce exposure to known infectious agents associated with cancer

Activities

1. Promote routine HPV vaccination in all eligible girls to achieve 90% HPV vaccination by 2030.
2. Promote strategies to reduce transmission of HPV, Hepatitis B and C, HIV, HHV-8, HTLV-1, EBV among others.
3. Develop and implement a targeted screening and treatment program for Hepatitis B Virus to address liver cancer in high prevalence counties.
4. Promote availability and appropriate use of diagnostic and therapeutic interventions for HBV, HCV, schistosomiasis, Helicobacter pylori, HIV infections, among others.

Strategic objective 1.2: Address non-modifiable risk factors including age, ethnicity, race, family history of cancer, and gender.

Strategy 1: Create awareness among the general public on familial and hereditary cancers

1. Integration of key messages on familial and hereditary cancers into existing cancer IECs.
2. Integrate content on familial and hereditary cancers in community health strategy materials.

Strategy 2: Build the capacity of health care workers for screening and linkage to diagnosis and care for familial and hereditary cancers

1. Integrate content on familial and hereditary cancers in training materials for primary health workers.
2. Promote training of health workers on early detection of familial and hereditary cancers.
3. Adopt a screening tool for use by primary health workers in identifying individuals with high risk of-familial and hereditary cancers.

Strategic objective 1.3: Improve secondary prevention of cancer through screening, early diagnosis and linkage to care

Strategy 1: Accelerate equitable access to quality cancer screening & early diagnosis interventions

1. Review and update the National Cancer Screening Guidelines.
2. Strengthen provision of organised cancer screening and early diagnosis services as appropriate at all health facilities.
3. Promote access to screening and early diagnosis for hard-to-reach groups and within communities through innovative mobile clinics and use of self care approaches.
4. Promote integrated programs for early identification of lung cancer in tuberculosis/chest clinics.
5. Strengthen implementation of the Breast Cancer Action Plan 2021-2025.

Strategy 2: Increase the diversity and capacity of the health workforce and health care service delivery systems for cancer screening and early diagnosis

1. Utilize harmonised training packages and facilitative tools for in-service training of Health Care providers.
2. Increase the number and diversity of trained health workers to deliver cancer prevention and screening services as per national screening guidelines in all counties.
3. Include cancer screening and early diagnosis content in pre-service training curricula of medical and other health workforce and training programs through collaboration with health training institutions.
4. Provide resources, incentives and technical assistance through mentorship to expand workforce and systems capacity to provide or link clients to culturally competent and accessible screening service.

Strategy 3: Optimise referral mechanisms and improve linkages to care to reduce loss to follow up

1. Identify and address health system factors that impact timeliness of diagnosis of symptomatic cancer and provide rapid linkages to confirmatory diagnosis.
2. Establish a national cancer screening data repository for longitudinal client tracking to support follow-up, provide feedback to referring facilities and conduct client navigation.
3. Integrate cancer screening into Electronic Community Health Information System (e-CHIS).
4. Strengthen integrated sample/specimen referral and tracking systems, including timely relay of results.
5. Train, mentor and deploy community and in-facility navigators to facilitate referrals and linkages to care.

Strategic objective 1.3: Strengthen early detection of childhood cancers

Strategy 1: Improve public awareness of childhood cancers and the importance of early detection

1. Integration of key messages on childhood cancers into existing public health promotion programs.
2. Train and engage community health workers, cancer survivors, administrators and other stakeholders to mobilise parents or guardians of children with symptoms to visit the nearest health facility.

Strategy 2: Build capacity of health care workers for early detection of childhood cancers

Activities

1. Train healthcare workers on early warning signs and clinical presentation of childhood cancers and importance of prompt referral.
2. Promote the use of the Childhood Cancer Assessment Tool for evaluation of children for possible cancer within the IMCI (integrated management of childhood illnesses) approach.
3. Establish targeted screening and cancer preventive surveillance services for children with retinoblastoma.

Strategic Objective 1.4: Strengthen multi-sectoral response and coordination in cancer prevention and early detection

Strategy 1: Strengthen the National Technical Working Group on cancer prevention and early detection

Activities

1. Review TWG membership and existing terms of reference annually to ensure appropriate multi-sectoral representation.
2. Establish/ strengthen the thematic committees through regular meetings (breast, cervical, risk-reduction, screening HPTs supply chain).
3. Participate in the various risk factor specific TWG meetings hosted by other Programs/ Divisions/ Ministries and feedback to the Cancer prevention & early detection TWG.
4. Promote knowledge exchange and sharing among relevant members and organizations through knowledge exchange/ consultative forums.

3.3.2 Pillar 2: Cancer Imaging, Pathology and Laboratory Medicine

Overarching goal: Provide accurate, efficient, accessible and timely cancer imaging, pathology and laboratory medicine diagnostic services for better patient outcomes

Diagnosis is the entry point to cancer care. Diagnosing cancer early is a critical first step in achieving higher survival rates, reducing treatment severity and improving the quality of life of people living with cancer. It forms the basis for guided biopsy, accurate staging, evidence-based treatment, follow-up and monitoring of patient outcomes, as well as research and planning. Early diagnosis is associated with better clinical outcomes and prognosis. It is, therefore, essential to prioritize access to timely, quality and comprehensive diagnostic services.

Cancer diagnostic services encompass pathology, laboratory medicine, diagnostic imaging, and interventional radiology specialities. In the country, challenges facing these aspects of diagnosis have contributed to a longer turnaround time for cancer diagnosis resulting in 70% of cancer cases being diagnosed in late stages of the disease. This strategy will seek to strengthen comprehensive cancer diagnostic services that function according to set standards. To achieve this, it will be important to equip health facilities with the necessary infrastructure and essential commodities, capacity build primary care providers on early diagnosis, and to optimize diagnostic networks across facilities, employing, where feasible, the latest technology available, digital tools and innovative models for service delivery.

Pathology services are inadequate and unevenly distributed across the country, with only about 10 counties currently providing these services. The National Cancer Reference Laboratory (NCRL) has been established to lead the provision of timely diagnostic specialised tests, expand diagnostic networks, quality assurance and accreditation programs, and provide capacity building and technical support to counties. The NCRL is also the designated National HPV Reference Laboratory that provides expertise and laboratory services for HPV detection in biological specimens, standardised up-to-date technical information, guidance and training on HPV laboratory practices, and quality assurance testing services linked to the development and use of international standard reagents. While cancer is a genetic disease, there exists very limited availability of genomic testing services in Kenya for diagnosis and treatment monitoring of cancers, and most tests are currently performed outside the country.

Radiology services include the fields of diagnostic radiology, interventional radiology, nuclear medicine, and image-guided interventions. There have been significant investments in infrastructure and equipment for diagnostic radiology and nuclear medicine through the Managed Equipment Services (MES) in all counties, and the availability of a cyclotron, as well as Positron Emission Tomography (PET) and a Single-Photon Emission Computed Tomography (SPECT) services in the country. However, challenges in carrying out quality assurance measurements

as well as the limited availability of requisite human resources has resulted in the low utilization of some services, such as mammography. This strategy seeks to address these gaps by working with relevant stakeholders to improve and further expand access to comprehensive cancer diagnostic imaging and interventional services.

Strategic objective 2.1: Strengthen cancer diagnostic imaging and interventional radiology services

Strategy 2.1.1: Strengthen coordination and standards for cancer imaging services

1. Strengthen the National Cancer Imaging Diagnosis Technical Working Group subcommittee.
2. Advocate for the development of national Quality Assurance (QA) and radiation safety and accreditation guidelines in collaboration with relevant regulatory bodies and professional bodies.
3. Develop and disseminate operational standards and guidelines for cancer imaging, including for childhood cancers.
4. Develop and implement guidelines for the utilisation of teleradiology services.
5. Advocate for the development of guidelines and a regulatory framework for the procurement, evaluation, installation, and commissioning of radiological equipment in collaboration with the relevant regulatory bodies.
6. Develop and disseminate an imaging diagnosis directory for cancer services.

Strategy 2.1.2: Increase access to quality, accurate, and efficient cancer diagnostic imaging services countrywide

Activities

1. Optimize and expand the range and scope of medical imaging equipment and services available in the different levels of care for cancer diagnosis.
2. Establish interventional radiology services at two additional national referral Hospitals and at the regional cancer centres.
3. Expand nuclear medicine services to KNH, MTRH, and at least three additional regional cancer centres.
4. Establish a national cloud-based radiology information system (RIS-PACS) in cancer facilities and integrate it with the existing local RIS in facilities with linkages to HMIS.
5. Develop and disseminate standardized structured staging and reporting templates and capacity build health care workers on their use to improve reporting standards (such as AJCC staging system for routine reporting, BIRADS system in mammogram and ultrasound reporting etc.).
6. Promote the development and implementation of PPPs to address gaps in cancer diagnostic imaging and interventional services.

Strategic Objective 2.2: Strengthen the cancer pathology diagnostic and Laboratory medicine services.

Strategy 2.2.1: Improve coordination and standards for cancer pathology services

Activities

1. Strengthen the National Pathology TWG committee.
2. Strengthen and equip the National Cancer Reference Laboratory to provide basic and advanced pathology and laboratory medicine services.
3. Develop and implement National Quality Assurance and safety guidelines for various levels of cancer pathology diagnosis and laboratory services in collaboration with relevant regulatory and professional bodies.
4. Establish and implement quality control mechanisms and external quality assurance (EQA) programs and ensure accreditation of all pathology laboratories.
5. Review and disseminate the national cancer specimen handling guidelines and develop algorithms for pathology diagnostics workup of priority cancers.
6. Develop and implement guidelines for the utilisation of telepathology services.
7. Develop protocols to guide cancer diagnosis for priority cancers.

Strategy 2.2.2: Increase timely access to quality and accurate cancer pathology and laboratory medicine services countrywide

Activities

1. Expand and improve the availability of histopathology laboratory infrastructure at national and all county referral hospitals.
2. Adopt and adapt innovative service delivery models such as rapid diagnostic and mobile testing facilities to enhance timely cancer diagnosis.
3. Establish frozen section services at the national referral hospitals.
4. Establish a national archiving system for tissue blocks and biobanking with linkage to the gross specimen image, whole slide image (WSI), and the final pathology report.
5. Work with National Tissue and Transplant Authority and other relevant stakeholders to improve testing for blood and blood products.
6. Strengthen and expand availability of HPV testing platforms for cervical cancer screening including point of care testing.
7. Expand the scope of pathology services integrated into the existing digital Laboratory Management Information Systems(LMIS) and develop linkages and interoperability with other platforms.
8. Strengthen formal partnerships between public and private diagnostic pathology laboratories to provide cancer diagnostic services.
9. Explore genomic testing services for improved cancer diagnosis, research, and treatment monitoring of cancer patients.

Strategic Objective 2.3: Strengthen the availability and capacity of human resources to support cancer diagnosis

Strategy 2.3.1 Enhance the availability of the human resource for cancer diagnosis

1. Promote appropriate recruitment of personnel at cancer imaging, pathology, and laboratory medicine facilities as per international and national standards by levels of care.
2. Advocate for the definition of the scope of practice, certification, and accreditation for pathologists, laboratory medicine professionals, radiologists, and other allied professionals.

Strategy 2.3.2 Enhance the capacity of human resources for cancer diagnosis

1. Design, develop and implement a common training plan based on the human resource needs/skills in cancer diagnosis with a focus on sustainability, retention, continuous learning, and improvement.
2. Develop and disseminate a training package for specimen handling, cytology, peripheral blood films (PBF), and bone marrow aspirate (BMA) and histopathology to improve early diagnosis of cancers.
3. Collaborate with local and international institutions to establish and strengthen local fellowship programs for subspecialty training in cancer diagnosis.
4. Work with health training institutions to include basic cancer diagnosis content in pre-service training curricula of medical and other health workforce and training programs.
5. Provide a directory of county cancer diagnostic services and local resources for laboratory personnel.

3.3.3 Pillar 3: Cancer Treatment, Palliative Care and Survivorship

Overarching goal: Ensure timely initiation of comprehensive treatment, strengthening access to quality sustainable care and improving the quality of life for cancer patients

Cancer management is one of the major components of effective cancer control programs and should be guided by the principles of Universal Health Coverage (UHC) including accessibility, comprehensiveness, affordability and timeliness. It encompasses surgery, systemic therapy, radiotherapy, nuclear therapy, bone marrow transplant,

palliative care, survivorship and rehabilitation services. It is offered through multidisciplinary teams to ensure patient-centred care and clinical effectiveness. These should include core clinical services such as medical oncology, surgery, radiation oncology, pharmaco-oncology, pathology, palliative care, psycho-oncology, oncology nursing, nutrition and rehabilitation, as appropriate.

Effective cancer management, therefore, requires a highly trained and qualified workforce, robust referral pathways and efficient health information systems with collaboration among facilities at all levels of care (including primary and secondary levels). The country faces significant challenges in the availability of a specialised oncology workforce to adequately manage cancer across the different cadres and the infrastructure for cancer care is limited. As of 2023, there were 12 comprehensive cancer treatment centers in the country (6 public, 6 private) with 58 oncologists and 11 medical physicists. The coverage for management of all cancers is about 28% with an estimated 11,040 cancer patients accessing treatment out of 42,000 cases diagnosed every year. Additionally, quality assurance strategies in surgical, clinical and medical oncology will be prioritized.

In line with the Government agenda, this strategic plan will prioritize the expansion of the oncology workforce and infrastructure, increased access to quality cancer care and essential cancer commodities and supplies, as well as the enhancement of the cancer care plans provided through the National Health Insurance Fund to achieve at least 80% treatment completion. The integration of cancer research into clinical cancer care, particularly outcomes and health systems research to inform policy and value-based investments will be prioritised. This strategy will support the implementation of the National Palliative Care Policy 2021-2030 towards improving access to palliative care services across all levels of care. By building strong primary care-based systems, leveraging on the UHC, a shift towards more outpatient and ambulatory care is encouraged.

In Kenya, the capacity for provision of childhood cancer care is limited with such services being offered mostly at the national referral hospitals and a few private facilities. This, among other factors, has contributed to low childhood cancer survival rates ranging between 20 to 30%, with those children who are referred promptly from lower facilities experiencing better treatment outcomes. In line with the Global Initiative for Childhood Cancer (2018), this strategy aims to increase the survival rate of children with cancer to 60% by 2030, and improve quality of life of children surviving cancer.

Strategic objective 3.1: Develop policies and strengthen coordination to guide relevant standards for provision of quality cancer management

Strategy 1: Development, review and dissemination of guidelines for cancer management

Activities

1. Review and disseminate the National Cancer Treatment protocols.
2. Develop and disseminate the National Radiotherapy Protocols.
3. Support the review and dissemination of the National Palliative Care Guidelines.
4. Develop guidelines for rehabilitation of children and adolescents with cancer.
5. Support the review and dissemination of guidelines for establishment of cancer centres.
6. Work with stakeholders to develop and implement policies and regulations on traditional and alternative medicine.
7. Advocate for development of a National Nuclear Policy and strategy for management of radioactive waste.

Strategy 2: Enhance coordination, regulation and standards for quality cancer care services

1. Strengthen the National Cancer Treatment, Palliative Care and Survivorship TWG.
2. Establish a National Center of Excellence for specialized cancer management to guide standards and practice.
3. Strengthen the framework for accreditation of facilities providing cancer management services.
4. Encourage the establishment and implementation of multidisciplinary teams in all facilities providing cancer care.
5. Support the integration of cancer research in all facilities providing cancer treatment services.

Strategic objective 3.2. Improve availability and capacity of a skilled multi-disciplinary team of oncology human resources for health across all levels of care.

Strategy 1: Improve availability of human resources for health in oncology

Activities

1. Develop and implement an Oncology Human Resource Development Plan.
2. Collaborate with local and international training institutions to establish and strengthen oncology training programs, fellowships and preceptorships.
3. Develop a mechanism for resource sharing of specialized human oncology workforce for service provision among counties.
4. Provide dedicated scholarships for training of a multidisciplinary team of oncology personnel.
5. Work with relevant stakeholders to address scopes of practice, recognition, accreditation, schemes of service, and career development for the various oncology cadres.
6. Provide workplace incentives and implement mechanisms for effective oncology human resource management.

Strategy 2: Strengthen the capacity of oncology workforce for quality service provision

1. Establish continuous professional development programs that enable mentorship, regular in-service training, exchange and knowledge transfer for oncology professionals.
2. Promote development of a framework to vet oncology practitioners before recognition or board certification.
3. Train and expand a diverse cancer workforce by further developing and promoting opportunities for capacity building and sensitization of health care workers including through e-learning.

Strategic objective 3.3: Increase access to timely cancer care services

Strategy 1: Improve availability of cancer treatment services

Activities

1. Establish and equip five additional comprehensive cancer centers and expand access to cancer management services at level 5 facilities.
2. Strengthen the capacity of national referral hospitals to efficiently provide comprehensive cancer care including bone marrow transplantation and other cell therapies.
3. Strengthen blood donor services and blood availability at national and regional cancer centres.
4. Adopt integrated electronic health management systems for oncology that are interoperable with existing digital health platforms.
5. Promote utilization of tele-health in the provision of cancer services.
6. Establish and optimise patient navigation between and within facilities across all levels.
7. Institute mechanisms for regular service audits to monitor treatment outcomes and establish quality assurance programs at cancer treatment centers.
8. Strengthen nuclear and radiation medicine regulation, knowledge and utilisation.

Strategy 2: Strengthen availability of palliative, rehabilitative and survivorship services

Activities

1. Develop a harmonized palliative care curriculum for training of health workers, community health volunteers and other key resource persons.
2. Ensure consistent availability of essential opioids and develop appropriate guidelines and SOPs to guide their appropriate use.
3. Ensure the availability of palliative care services in all county referral facilities with linkages to primary and community home-based care.
4. Address social and structural determinants of health that impede access and exacerbate disparities.

Strategy 3: Improve childhood cancer treatment, palliative care, survivorship and rehabilitation

Activities

1. Operationalise the childhood cancer Technical Working Group.
2. Advocate the provision of Universal health coverage for childhood cancer through integration as part of essential benefit package of services.
3. Establish paediatric oncology centres of excellence at the national referral hospitals and their care networks.
4. Provide a defined basic package of care for paediatric cancer management at the regional cancer centres.
5. Create an efficient system for expedited referral of children with suspected cancer to the regional cancer centres, then to the centres of excellence.
6. Define required competencies and skills mix of pediatric oncology human resources and promote their accreditation to optimize provision of childhood cancer care.

Strategy 4: Strengthen the supply chain of oncology health products and technologies

Activities

1. Strengthen the supply chain subcommittee to undertake accurate forecasting, quantification and supply chain planning including for childhood cancer.
2. Develop innovative strategies to improve access to affordable oncology health products and technologies including local manufacturing, pooled procurements, framework agreements and access programs.
3. Collaborate with PPB to enhance regulation, post-market surveillance activities and ensure quality of oncology health products and technologies.
4. Engage the national procurement agency and other stakeholders to ensure consistent availability of essential cancer health products and technologies for treatment, palliative care, rehabilitation and survivorship.

3.3.4 Pillar 4: Advocacy, Partnerships, Coordination, and Financing

Overarching goal: Forge and support effective advocacy and communication, partnerships, and mobilize resources for a robust cancer control response in Kenya

Kenya is a lower middle income economy with a life expectancy at birth of 66.1 years as of 2021. Kenya's 2021 Human Development Index (HDI) is 0.575, positioning it at 152nd out of 191 countries and territories. Cancer has a high level of stigma in many societies, usually considered a life-threatening illness synonymous with suffering and death. Stigma is a widespread and deep cultural concept with significant effects, dimensions, and consequences in the local context. It affects individuals, families, and even the effectiveness of public health programs; hence, it is important to address the methods that can reduce stigma or its effects on those affected through advocacy and communication. Overall, a lack of knowledge and awareness about cancer among the general population in Kenya contributing to poor health-seeking behaviours, has been identified as a major barrier to cancer screening, early diagnosis, and effective treatment. Therefore, a robust cancer communication strategy will be required to reduce stigma and improve awareness and access to cancer information and services while ensuring disability mainstreaming in cancer communication.

Successful cancer control greatly depends on having a clear, multisectoral coordination structure and effective partnerships that enable all stakeholders to define their value in a comprehensive cancer control framework to stimulate collective action by everyone. Sustained improvements in capability and capacity for cancer care will require the participation of state and non-state actors to implement programs and optimize the cancer ecosystem successfully. Like other low and middle-income countries, Kenya faces a challenge in financing access to cancer interventions. This is because of scarce healthcare resources, with the country's public expenditure on health as

a percentage of its gross domestic product (GDP) estimated at 2.2% and a third of its total health expenditure financed by out-of-pocket costs (OOPs). Given the rising burden of cancer, the access gaps, and the policy priority on access to care, sustained advocacy to ensure cancer control remains a priority and developing processes for explicit, evidence-based selection of cancer interventions are crucial.

This strategy will seek to provide training, sensitization and awareness programmes on prevention, early diagnosis, treatment, palliative care and control of cancer for all including but not limited to employees of all national departments, authorities and other agencies, communities, employees of private and informal sectors, media among other stakeholders with targeted programs for disadvantaged populations to ensure equity. It will also seek to address social determinants of health to ensure better health outcomes.

Strategic objective 4.1: Inform and empower the Kenyan population on cancer prevention and control and address cancer stigma

Strategy 4.1.1: Identify and map the appropriate communication tools based on stakeholder needs and current determinants of health

Activities

1. Finalize, launch, and disseminate the National Cancer Communication Plan.
2. Increase awareness of cancer-related stigma and disparities through data collection, analysis and dissemination of findings.
3. Identify and engage multisectoral stakeholders to support cancer communication and the reduction of cancer stigma.
4. Develop new and scale up effective, evidence-based interventions to improve health outcomes among priority populations and other populations or geographic areas experiencing disparities.
5. Develop and disseminate a cancer screening, diagnosis and treatment services directory that is publicly available.

Strategy 4.1.2: Mainstream Advocacy, Communication, and Social Mobilization on cancer across all sectors

Activities

1. Train, equip, and mentor community health resource persons and other stakeholders to increase cancer awareness among the general public.
2. Conduct stakeholder capacity building at the national and county level on cancer ACSM.
3. Mobilize political commitment, involvement, accountability, and resource for cancer advocacy and communication activities.
4. Involve persons living with cancer, caregivers, and community leaders in cancer advocacy and communication.
5. Work with communities to reframe cancer services and cancer-related messaging so that they do not stigmatize people or behaviours.

Strategy 4.1.3: Promote knowledge sharing within and outside the health sector on cancer

Activities

1. Conduct a National Cancer Summit every two years and encourage county/regional cancer summits.
2. Provide support for counties to develop cancer action plans to implement the national cancer control strategy.
3. Observe priority cancer commemoration days from the community level.
4. Promote the establishment of county cancer control focal points under the NCD coordinators to oversee implementation of cancer control activities.
5. Establish a National Steering Committee on Cancer Prevention and Control with members health and non-health actors.

Strategy 4.1.4: Strengthening of supply chain management for cancer prevention and control health products and technologies (HPTs) at all levels

Activities

1. Develop a dashboard to track availability, forecast, and quantify use of HPTs (including equipment) for cancer prevention and control in health facilities.
2. Ensure availability of commodities, equipment, infrastructure at health facilities.
3. Review and update essential cancer prevention and control commodities and supplies in the Kenya Essential Medicines & Supplies Lists.
4. Support local manufacturing of commodities and technology transfer and nurture innovation.

Strategic objective 4.2: Strengthen engagement and partnerships at National and County levels

Strategy 4.2.1: Strengthen cancer control coordination structures

Activities

1. Implement the NCD coordination framework, strengthen the Cancer Technical Working Group and National Advisory Committe.
2. Strengthen the office of the county NCD coordinator or county cancer control focal person as a member of the county NCD committee to lead the implementation of cancer control activities.
3. Convene regular coordination meetings with counties to disseminate cancer policies and provide technical support on their implementation.
4. Develop a mechanism for sharing regional cancer control resources between counties, including human resources, infrastructure, and commodities.
5. Ensure continuity of essential cancer services during emergencies and pandemics.

Strategy 4.2.2: Strengthen the cancer control legislative framework

Activities

1. Amend the Cancer Prevention and Control Act 2012 to define key roles in the spirit of devolution and address emerging needs.
2. Amend the Alcoholic Drinks Control Act to increase excise taxation on alcohol.
3. Review of the Narcotic Drugs and Psychotropic Substances Act and development of appropriate regulations to improve access to opioids for use by cancer patients.
4. Support enactment of legislation to reduce the marketing and advertising of unhealthy foods and drinks.
5. Integrate cancer interventions in the counties annual work plan and integrated development planning processes.
6. Advocate for policies and legislation that promote access to essential cancer services including screening and diagnosis.

Strategic objective 4.3: Strengthen the National Cancer Control Program and the National Cancer Institute of Kenya

Strategy 4.3.1: Optimize the operational capacity of the National Cancer Institute of Kenya (NCI-K)

Activities

1. Establish Human Resource instruments and recruit adequate staff.
2. Build the capacity of the institute's staff to deliver on its mandate.
3. Support the appropriate infrastructural establishment and equipping of the National Cancer Institute as a learning resource.
4. Advocate for the establishment of a multisectoral cancer response advisory committee to address cancer on multiple fronts, supported by the NCI-K.

Strategy 4.3.2: Strengthen the National Cancer Control Program (NCCP)

Activities

1. Deploy adequate staff to deliver its mandate as per its staff establishment structure.
2. Build the capacity of NCCP Staff to deliver on its mandate.
3. Facilitate the NCCP to conduct capacity building, provision of technical support, supportive supervision to counties for cancer control and to develop and support policy implementation.
4. Adequately resource the development and regular dissemination of cancer prevention and control policies/guidelines.

Strategic objective 4.4: Strengthen partnerships for cancer prevention and control at all levels

Strategy 4.4.1: Strengthen multisectoral partnerships in cancer control

Activities

1. Establish an NCD/Cancer control Unit in all Ministries, Departments, and State Agencies.
2. Conduct stakeholder mapping and strengthen Public, Private, and People Partnerships to enhance cancer control across the continuum of care.
3. Promote strategic collaborations with cancer Health Products and Technologies manufacturers, emphasizing framework agreements and local manufacturing to enhance access to quality and affordable cancer commodities.
4. Work with regulatory bodies to streamline processes for the review, evaluation, and clearance of new cancer screening, diagnostic, and treatment health products and technologies, including those for cancer research and clinical trials.

Strategic objective 4.5: Increase innovative sustainable financing for comprehensive cancer prevention and control at national and county levels

Strategy 4.5.1: Strengthen innovative financing mechanisms for an effective cancer response

Activities

1. Increase public financing for cancer control including in the UHC benefit package.
2. Leverage on the chronic disease fund to cushion individuals from catastrophic health expenditure and impoverishment.
3. Adopt mixed financing models including Public, Private, and People Partnerships and Access Programs that provide end-to end solutions to support cancer prevention and control.
4. Support county governments to create cancer control annual work plans; and to allocate and ring-fence county budget lines for cancer prevention and control.
5. Advocate for the consolidation of financing from various levies and sin taxes to support cancer prevention and control.
6. Lobby for NHIF to improve cancer package to cover essential cancer services across the care continuum.

Strategy 4.5.2: Ensure adequate financing toward achieving a 60% survival rate for children with cancer

Activities

1. Advocate for the provision of sustainable, comprehensive cancer care for children as per the CURE ALL framework.
2. Advocate for Universal Health Coverage with differentiated care packages for children.
3. Institute mechanisms for facilitating and financing national/regional procurement of essential childhood cancer medicines, rehabilitative and other health products and technologies.
4. Create a social protection package for childhood cancer patients and their families for their protection against catastrophic expenditure.

3.3.5 Pillar 5: Strategic Information, Registration, Surveillance and Research

Overarching goal: Implement a comprehensive and sustainable monitoring, evaluation, surveillance, registration, research and knowledge management framework, to inform policy and practice

Monitoring and evaluation (M&E) is critical to cancer control programs. Effective M&E includes tracking of performance periodically, to guide corrective actions. Monitoring involves routine collection of data against well-defined indicators to provide detailed information on progress and gaps. Evaluation involves collection of data at discrete time-points to assess effectiveness or impact of cancer control interventions. A well-functioning integrated health information system is critical for effective M & E and continuous quality improvement in cancer control.

Cancer surveillance is primarily conducted through cancer registration. Cancer registries may be population-based (PBCR) or hospital based (HBCR), with rather different methods of working, and objectives while complementing each other. For cancer control planning, a functional PBCR is required to provide surveillance data, burden and trends of cancer occurrence. PBCRs capture cancer cases resident in their catchment areas who may have been diagnosed or treated, including hospitals (both government and private), medical laboratories, radiotherapy treatment centres, the hospices and vital statistics and use the CanReg software supported by IARC for data entry and management. As per IARC recommendations, a high quality PBCR should ideally achieve 20% of the national population coverage. Currently, the country has achieved approximately 11% coverage. The performance and quality monitoring of hospitals in providing diagnosis, treatment and after-care for cancer patients is monitored via HBCRs.

Kenya has two, high quality population-based cancer registries: the Nairobi cancer registry (NCR) established in 2001 and the Eldoret cancer registry (ECR) established in 1999. Efforts to establish additional PBCR have been undertaken in Mombasa, Kisumu, Nakuru and Meru, as well as hospital-based cancer registries (HBCR) at the regional cancer centres. Special cancer registries have also been established for childhood cancer, breast cancer and chronic myeloid leukaemia. This strategy seeks to harmonize cancer registration processes to achieve goals of both the HBCR and the PBCR.

High quality cancer research will contribute key inputs to knowledge synthesis, and the production of the evidence needed for effective prevention and control of cancer. While a national cancer research agenda exists, implementation has been sub-optimal due to poor coordination. Other key gaps include funding and training. Knowledge management and translation will also be covered with an emphasis on conversion of cancer research done in the country to inform policy.

Strategic objective 5.1: Strengthen availability, quality, demand and utilization of cancer data at both national and sub-national levels

Strategy 1: Enhance the coordination structures and optimise cancer surveillance data use.

Activities

1. Strengthen the Strategic information, Registration, Surveillance and Research Technical Working Group.
2. Increase reporting rates and utilization of cancer surveillance data.
3. Publish and disseminate cancer surveillance reports.
4. Advocate for inclusion of key cancer indicators in national and county surveys.

Strategy 2: Create a framework for service and data quality improvement at all levels

Activities

1. Adapt the national service and data quality protocol for cancer control.
2. Conduct periodic Service Quality Audits (SQA) and Data Quality Audits (DQA) and incorporate recommendations into continuous quality improvement (CQI).
3. Integrate cancer CQI into the Kenya Quality Model for Health (KQMH) structure.
4. Provide technical support to sub-national levels for Continuous Quality Improvement for all cancer control interventions.

Strategy 3: Implement a monitoring and evaluation framework for the National Cancer Control Strategic plan.

Activities

1. Launch and disseminate the Monitoring, Evaluation and Learning (MEAL) framework.
2. Conduct annual, mid-term and end-term and impact evaluation of implementation of the strategic plan and disseminate the findings to all stakeholders.

Strategic objective 5.2: Strengthen cancer registration in the country

Strategy 1: Enhance population-based (PBCR) and hospital-based cancer registration(HBCR)

Activities

1. Strengthen the existing Population Based Cancer Registries in Nairobi, Eldoret and Kisumu.
2. Establish two additional PBCR in Nakuru and Mombasa to achieve at least 20% population coverage in line with the IARC recommendations.
3. Establish, strengthen and sustain hospital-based cancer registries at all cancer treatment centres and ensure linkages to their respective PBCR and HMIS.
4. Adopt and utilize global standard guidelines for cancer registration and reporting to ensure efficiency and harmonization.
5. Establish mechanisms for auditing the cancer registration process and data quality.
6. Create awareness and utilization of data from cancer registries.
7. Enhance training and mentorship of health records and information officers on cancer registration in collaboration with the IARC regional cancer registration collaboration centre.
8. Publish annual cancer burden report based on PBCR and disseminate it to all stakeholders.

Strategy 2: Utilize interoperable health information technology, including application programming interfaces (APIs), clinical decision support tools, electronic health records and health IT products certified by MOH

Activities

1. Establish an integrated oncology database that is interoperable with other systems to include cancer registries, cancer screening and death registry.
2. Develop and disseminate standardized oncology application programming interfaces (API).
3. Finalize and roll-out the oncology modules within national EMR system, ensuring interoperability with KHIS and cancer registries.
4. Develop and disseminate clinical decision support tools and guidelines to support oncology digital health IT products.
5. Encourage and support patient access to and use of their individual health information in secure manner while ensuring privacy.

Strategic objective 5.3: Strengthen cancer research in Kenya

Strategy 1: Support and adequately resource a comprehensive cancer research agenda to inform policy

Activities

1. Revise the national cancer research agenda based on key priorities areas for cancer research in Kenya based on disease burden, patterns and trends.
2. Implement the national cancer research agenda.
3. Create a national cancer research repository for use by all stakeholders.
4. Create a knowledge translation/management mechanism for cancer research.
5. Create a data-sharing framework to promote cancer research and surveillance using data available at the established population-based cancer registries.

Strategy 2: Enhance adoption of cancer research into clinical and policy practice

Activities

1. Establish a cancer research centre of excellence in the country and optimise collaborations and synergy.
2. Make cancer research information available at the Kenya Health Research Observatory (KHRO).
3. Conduct cancer economic investment cases on priority cancer control topics in Kenya.
4. Develop and disseminate policy and evidence briefs from priority cancer research topics.
5. Formulate mechanisms for incorporating research findings into cancer protocols and policies.
6. Build research capacity for health care workers and other stakeholders at both national and sub-national level.
7. Expand community engagement in cancer research initiatives.

SECTION C

IMPLEMENTING THE STRATEGY

- Implementation and Coordination Framework
- Resource Requirements

CHAPTER 4

Implementation and Coordination Framework

4.1 Overview

A coordination and implementation framework guides the implementation process for the strategic plan, within the governance structure for health care provision in Kenya. It recognizes and spells out the roles and responsibilities of all stakeholders involved in cancer control. The governance structure should be both adaptive and flexible, to guide the country in responding to the rising cancer burden as well as other public health threats that can undermine the control efforts. The prevention and control of cancer will require a well coordinated multisectoral, multidisciplinary and whole-of-society approach with a focus for health-in-all-policies.

The National Cancer Control Program under the Division of Non-Communicable Diseases is mandated to formulate cancer policies and guidelines across the cancer care continuum, disseminate them and guide their implementation. It provides capacity building and technical support to all counties and health facilities as per the policy documents. The NCCP will coordinate implementation of this strategic plan as well as annual monitoring and evaluation against set targets through the NCD-ICC and the National Steering Committee on NCDs.

The National Cancer Institute-Kenya (NCI-K) is mandated to advise the Cabinet Secretary on areas of prioritization in policy formulation for the treatment and care of persons with cancer and the relative priorities to be given to the implementation of specific measures, set national standards for accreditation, ensure support for quality cancer data for planning, and provide regulation and designate institutions involved in cancer care.

The National Steering Committee on Cancer Prevention and Control is one of the committees of the National Steering Committee for NCDs that will receive advise on areas of focus for policy formulation for implementation of the national cancer response.

The National Cancer Coordination framework therefore fits into the overall NCD framework as per the figure 6 below:

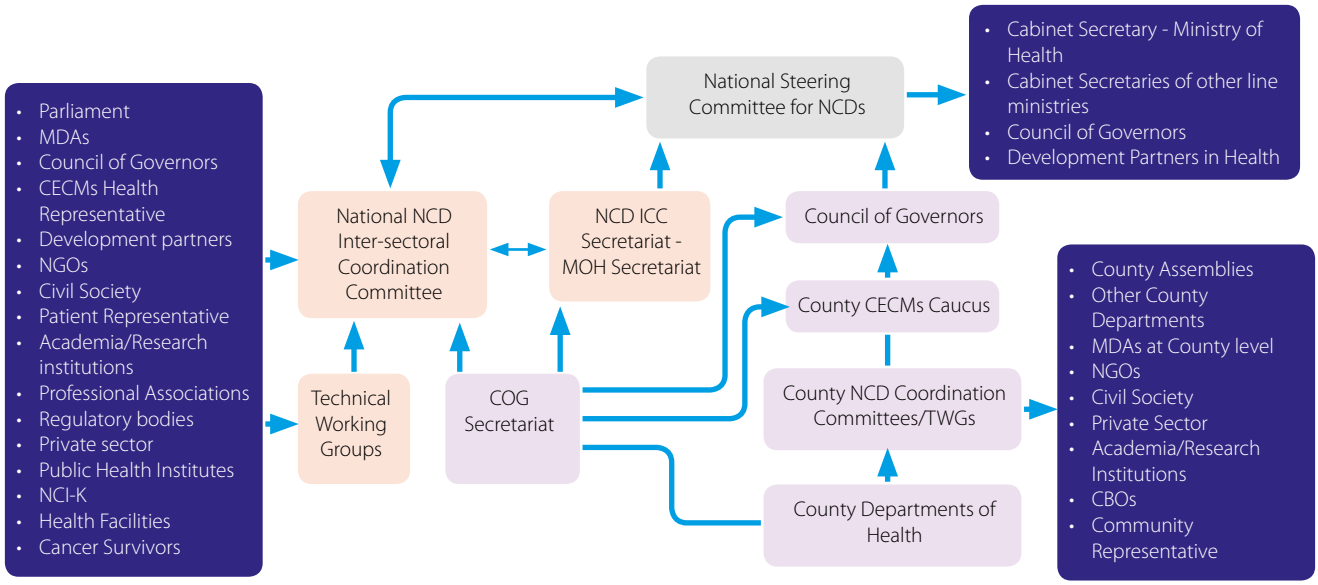


Figure 6: National NCD institutional and Accountability Framework (Adapted from the NCD Strategic Plan 2021-2026)

4.2 Institutional Framework

The Kenya Cancer Policy 2019-2030 outlines two levels of coordination for cancer control in Kenya:

a) **National level**: National level cancer control coordination is through the Non-Communicable Diseases Intersectoral Coordinating Committee (NCD-ICC) and the National Cancer Technical Working Group is represented at the NCD-ICC. The NCD-ICC brings together actors from other sectors, given the multisectoral nature of NCDs, and is composed of a number of Technical Working Groups (TWG) including a cancer TWG (figure 6). The National Steering Committee on Cancer Prevention and Control is one of the committees to be housed at the National Steering Committee on NCDs.

b) **County level**: At the county level, cancer prevention and control is domiciled under the multi-sectoral Non-Communicable Diseases Technical Working Groups, spearheaded by County NCD Coordinators. Dedicated cancer control focal points will oversee the implementation of cancer control activities while in health facilities, cancer services are integrated with other services as per Kenya Essential Package for Health.

4.3 Roles and Responsibilities

These are in line with the Kenya Cancer Policy 2019-2030 and the NCD strategy 2021-2026.

Table 8: Roles and responsibilities

Actor	Roles and Responsibilities
NCCP	1. Disseminate and provide leadership in implementation of the national cancer control strategy. 2. Provide technical support in the implementation of the national cancer control strategy. 3. Build capacity on cancer prevention and control as per national cancer guidelines and strategies. 4. Coordination of partnerships and collaborations for cancer control through the Technical Working Groups reporting to NCD-ICC.. 5. Oversee operationalisation of the National Cancer Control Strategy Monitoring, Evaluation, Accountability and Learning (MEAL) Framework. 6. Coordinate Cancer advocacy, communication and social mobilization (ACSM) in collaboration with all stakeholders.
Other Ministry of Health Departments, Divisions and Programs	1. Support the implementation of the National Cancer Control Strategy 2023-2027. 2. Participate and collaborate in TWG meetings and provide technical support as required. 3. Integrate cancer prevention and control in their programming as guided by Cancer TWGs. 4. Provide guidance for digital health solutions to aid implementation of the National Cancer Control Strategy. 5. Support community level activities to aid implementation of the National Cancer Control Strategy.
National Cancer Institute - Kenya	1. Provide policy advisory in cancer policy formulation for the treatment and care of persons with cancer and the relative priorities to be given for the implementation of specific measures. 2. Provide regulation of cancer centres, vocational centres and facilities providing care for cancer patients national standards and practice for high quality cancer care. 3. Support inter- and multi-sectoral collaboration and coordination of cancer prevention and risk-reduction. 4. Coordinate and collaborate with international and local bodies/institutions in cancer research. 5. Maintain a cancer register, catalogue store and ensure its linkage with the national health information systems and disseminate its results. 6. Support information and awareness creation and capacity building in collaboration with the NCCP, Ministry of Health Departments for implementation of objectives of the NCCP. 7. Establish a national cancer center of excellence for research and specialized training.

Actor	Roles and Responsibilities
County governments	1. Implement national cancer prevention and control policies, strategies and guidelines. 2. Provide adequate infrastructure, equipment and commodities for screening, diagnosis treatment, palliative care and survivorship services. 3. Provide and appropriately deploy adequate qualified personnel for cancer service delivery. 4. Mobilize and allocate adequate financial resources for cancer prevention and control. 5. Integrate cancer prevention and control into the broader county health sector plans and establish county cancer control programs. 6. Forge appropriate multi-sectoral partnerships at the county level. 7. Collect and report cancer data in KHIS and support cancer registries.
Other Ministries, State Departments and Agencies	1. 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. 2. Enforce the implementation of the NCCS through a multi-sectoral approach for an effective cancer control response.
Non-State Actors- Civil Society and religious bodies	1. Support cancer advocacy, communication and social mobilization activities. 2. Advocate for resources towards implementation of this strategy. 3. Support provision of cancer prevention and control services.
Private sector	1. Support cancer prevention and control interventions. 2. Complement the ministry in service delivery. 3. Support training and capacity building of oncology health workforce. 4. Support local manufacturing of quality, health products and technologies.
Development partners, International Non-Governmental Organizations (INGOs), NGOs, CSOs, FBOs	1. Mobilise resources for this strategic plan implementation. 2. Provide technical, logistical and capacity building support.
Professional associations	1. Advocacy and provision of guidance on cancer matters. 2. Support professional development of their respective cadres. 3. Support the implementation of the strategy.
Regulatory and statutory bodies	1. Regulate and enforce aspects of this strategic plan related to their respective bodies. 2. Establish and update mechanisms for recognition, certification and registration of oncology cadres within their jurisdictions.
National and county legislatures	1. Develop laws and regulations that support cancer prevention and control activities at both levels of government. 2. Allocate resources for implementation of this strategic plan.
KEMSA	1. Facilitate procurement, storage and distribution of essential cancer commodities and technologies identified by the Ministry for effective implementation of this policy. 2. Collaborate with other stakeholders to support procurement and supply of cancer commodities.
NHIF	1. 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	1. Conduct cancer education and training. 2. Conduct cancer research and apply it to inform and guide policy. 3. Collaborate to develop mechanisms for research data sharing. 4. Harmonise and standardise research ethics and approval processes.
Media	1. Dissemination of accurate cancer information to create public awareness.
General public, individuals and communities	1. Adopt healthy lifestyles and health seeking behaviour. 2. Participate actively in cancer prevention and control. 3. Enrol and maintain NHIF and/or other health insurance cover for financial and social protection. 4. Support cancer patients, survivors and their caregivers and reduce stigma and discrimination.
Survivors	1. Champion cancer prevention and control measures.

CHAPTER 5

Resource Requirements

5.1 Overview

National Cancer Control Programmes should focus on value for money, that is, cost-effectiveness and affordability, with the appropriate selection and maintenance of affordable innovative technologies. In this strategy, we will aim to continually assess cancer care interventions with the aim of prioritizing those interventions that will be publicly funded in Kenya. Drawing from the recommendations of the Health Benefit Package Advisory Panel, candidate cancer interventions will be assessed based on the following recommended priority setting criteria: burden of disease, equity, feasibility of implementation and effectiveness, cost-effectiveness, and affordability of the interventions. The table below outlines the list of interventions that were assessed to be cost-effective in the Kenyan setting by feasibility level. The interventions color-coded with light purple are deemed feasible given the current country capacity to delivery cancer care, while the ones color-coded white are deemed to only be feasible in selected centres in the country. It is worth noting that surgery and radiotherapy rarely have cost-effectiveness estimates since they are assumed to be usual care.

Table 9: Examples of cost-effective cancer interventions for Kenya

Intervention type	Cancer Condition	Intervention	Feasibility
Prevention	Cervical	HPV vaccination	All
Prevention	Liver cancers	HBV vaccination	Basic
Prevention	Liver cancers	Aflatoxin reduction - post-harvest storage & biocontrol	Basic
Prevention	Liver cancers	Reducing unsafe injections	Limited
Prevention	Tobacco-related	Increase taxation on cigarettes	All
Prevention	Tobacco-related	Strengthen regulation of tobacco sale and use	All
Screening & detection	Breast	Clinical breast exam	Basic
Screening & detection	Breast	Mammography	Enhanced
Screening & detection	Cervical	Visual inspection with acetic acid	Basic
Screening & detection	Cervical	DNA test, cytology	Enhanced
Screening & detection	Cervical	Rapid DNA test and treat with two visits	Limited
Screening & detection	Colorectal	Fecal immunochemical test	Enhanced
Screening & detection	Colorectal	Flexible Sigmoidoscopy	Enhanced
Screening & detection	Colorectal	Endoscopy	Maximal
Screening & detection	Liver cancer	Screen and treat for liver cancer in high-prevalence regions	Enhanced
Screening & detection	Oral cancer	Visual inspection in high-prevalence countries	Limited
Treatment	Breast	Surgery	All
Treatment	Breast	Hormones – Tamoxifen	Basic
Treatment	Breast	Chemotherapy - CMF or AC	Basic
Treatment	Breast	Hormones - Aromatase inhibitors	Enhanced
Treatment	Breast	Hormones - LH-RH agonists	Enhanced

Intervention type	Cancer Condition	Intervention	Feasibility
Treatment	Breast	Taxanes	Enhanced
Treatment	Breast	Trastuzumab	Enhanced
Treatment	Breast	Radiation	limited
Treatment	Breast	Chemotherapy - EC or FAC	Limited
Treatment	Breast	Growth factors	Maximal
Treatment	Breast	Bevacizumab	Maximal
Treatment	Breast	Hormones – Fulvestrant	Maximal
Treatment	Cervical cancer	Surgery	All
Treatment	Cervical cancer	Cryotherapy	Basic
Treatment	Cervical cancer	Chemotherapy (cisplation)	Enhanced
Treatment	Cervical cancer	Radiotherapy	Limited
Treatment	Cervical cancer	Trachelectomy	Maximal
Treatment	Cervical cancer	Brachytherapy	Maximal
Treatment	Colorectal cancer	Surgery	All
Treatment	Colorectal cancer	Chemo-radiotherapy preoperative, rectal	Enhanced
Treatment	Colorectal cancer	Folfox	Enhanced
Treatment	Colorectal cancer	Radiation, preoperative, rectal	Limited
Treatment	Colorectal cancer	Chemotherapy - classical 5-fluorouracil	limited
Treatment	Liver cancer	Antivirals or immune system modulators for hepatitis B	Maximal
Treatment	Liver cancer	Hepatitis C	Maximal
Treatment	Oral cancers	Surgery	All
Treatment	Oral cancers	Brachytherapy	Enhanced
Treatment	Oral cancers	Chemotherapy	Enhanced
Treatment	Oral cancers	Radiotherapy	Limited
Treatment	Paediatric cancers	Burkitt's lymphoma	Specialised centres
Treatment	Paediatric cancers	Hodgkin lymphoma	Specialised centres
Treatment	Paediatric cancers	Wilms tumor	Specialised centres
Treatment	Paediatric cancers	Acute lymphoblastic leukemia	Specialised centres
Treatment	Paediatric cancers	Intraocular retinoblastoma	Specialised centres
Treatment	Paediatric cancers	Sarcomas, brain tumors, acute myeloind leukemia, high risk neuroblastoma, other retinoblastomas	Specialised centres
Advanced disease	All cancers	Pain control	All
Advanced disease	All cancers	Home or hospice care	All
Advanced disease	All cancers	Palliative radiotherapy	Limited
Advanced disease	All cancers	Palliative surgery	limited
Advanced disease	All cancers	Palliative chemotherapy - classical drugs	limited
Advanced disease	All cancers	Palliative chemotherapy - next generation drugs	maximal

5.2 Summary Financial Requirements for the Cancer Strategy

This costing utilized the WHO economic costing model. The scenario adopted an anticipated scale-up of coverage of 3.5% per year (45% by 2028) with an anticipated downstaging of 2-3% per year, the range reflecting differences between cancer types. With these investments, the anticipated improvements in diagnostic and treatment quality are expected to improve by 5-10% the 5-year survival rate (stage-specific). Therefore, the resource requirements for the implementation of the National Cancer Control Strategy 2023-2027 is KES 49.2B as outlined below:

Table 10: Total National Cancer Control Strategy Implementation Costs (KES)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total programme costs	**997,452,083**	**1,181,368,285**	**1,342,971,780**	**1,491,805,500**	**1,614,133,551**	**6,627,731,200**
Total clinical costs	**2,534,999,424**	**3,057,183,644**	**3,551,161,586**	**4,007,916,787**	**4,432,765,129**	**17,584,026,570**
Screening programmes (cervix, colorectal -pilot, hepatits B)	359,131,681	413,265,692	466,981,749	514,916,760	563,090,463	**2,317,386,345**
Adult cancers	1,882,802,595	2,323,355,843	2,744,917,931	3,136,491,566	3,494,937,730	**13,582,505,665**
Childhood cancers	293,065,148	320,562,109	339,261,906	356,508,461	374,736,937	**1,684,134,560**
Total capital costs	**1,242,493,520**	**1,124,668,960**	**1,228,104,400**	**1,410,734,840**	**2,419,814,030**	**7,425,815,750**
Total costs per year	**7,309,944,450**	**8,420,404,534**	**9,673,399,352**	**10,918,373,914**	**12,899,477,840**	**49,221,600,090**

Table 11: Breakdown of Total Direct Clinical Costs (KES)

Sub-activity (specific clinical services)	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Early detection clinical services							
Provide screening of antenatal women and provision of antivirals for infection eradication in pregnant women found to be Hepatitis B positive	1.1.5.3	40,800,000	45,900,000	51,000,000	56,100,000	61,200,000	**255,000,000**
Conduct a colorectal cancer screening pilot to assess feasibility and best approach for national scale-up	1.3.1.3	12,512,000	14,076,000	15,640,000	17,204,000	18,768,000	**78,200,000**
Cervical cancer screening programme	2.2.2.4	305,819,681	353,289,692	400,341,749	441,612,760	483,122,463	**1,984,186,345**
Adult cancer clinical services							
Breast Cancer	3.3.1.1	668,427,349	835,534,187	984,635,270	1,106,966,190	1,250,871,795	**4,846,434,792**
Cervical Cancer		527,078,909	616,682,324	703,017,849	773,319,634	842,918,401	**3,463,017,118**
Colorectal Cancer		135,158,300	175,705,790	214,361,064	265,807,720	313,653,109	**1,104,685,984**
Prosate Cancer		308,092,409	394,358,284	485,060,689	582,072,827	640,280,109	**2,409,864,318**
Oesophageal Cancer		72,041,838	94,374,807	122,474,766	148,030,335	165,793,975	**602,715,721**
Gastric Cancer		51,612,828	67,612,805	85,661,698	101,723,922	113,930,793	**420,542,046**
Liver Cancer		25,449,480	34,102,303	41,948,348	49,503,132	52,968,351	**203,971,615**
Kaposi Sarcoma		94,941,481	104,985,343	107,758,247	109,067,805	114,521,195	**531,274,072**

Childhood cancer services							
Acute Lympoblastic Leukemia	3.3.3.3	105,217,863	115,739,649	122,947,099	129,381,978	137,144,896	**610,431,486**
Hodgkin's Lymphoma		50,816,344	55,897,978	59,251,857	61,621,931	64,086,808	**291,674,917**
Burkitt's Lymphoma		21,528,769	23,681,646	25,339,361	26,570,350	27,633,164	**124,753,291**
Retinoblastoma		19,838,402	23,806,082	25,948,629	29,030,971	31,643,758	**130,267,842**
Wilms'Tumor		21,443,054	21,871,915	22,309,353	22,755,541	23,210,651	**111,590,515**
Low Grade Glioma		25,376,525	26,137,820	26,921,955	27,729,614	28,561,502	**134,727,416**
Other childhood cancers		48,844,191	53,427,018	56,543,651	59,418,077	62,456,156	**280,689,093**
TOTAL CLINICAL SERVICES		**2,534,999,424**	**3,057,183,644**	**3,551,161,586**	**4,007,916,787**	**4,432,765,129**	**17,584,026,570**

Table 12: Breakdown of Total Programme Costs (KES)

Sub-activity (programme costs)	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total programme costs	N/a	997,500,000	1,181,400,000	1,343,000,000	1,491,800,000	1,614,100,000	6,627,800,000
NCCP activities		369,075,000	437,118,000	496,910,000	551,966,000	597,217,000	2,452,286,000
Training		69,825,000	82,698,000	94,010,000	104,426,000	112,987,000	463,946,000
Monitoring & evaluation		34,912,500	41,349,000	47,005,000	52,213,000	56,493,500	231,973,000
General programme management		105,598,000	124,294,000	140,760,000	155,946,000	168,482,000	695,080,000
Other (shared infrastructure costs)		418,089,500	495,941,000	564,315,000	627,249,000	678,920,500	2,784,515,000

5.3 Resource Mobilization Strategies

	Stakeholder	Area of Interest	Strategy	Key Performance Indicators
1	The National Treasury	Annual Budget	• Development of strategic concept notes and investment cases. • Actively participate in MTEF processes and annual budget estimate process. • Advocate for "sin-tax" on tobacco, alcohol, unhealthy diet excise taxation and Chronic Disease Fund to directly support cancer prevention and control. • Advocate for introduction of new taxes on goods/services such as fuel levy, lifestyle/luxury/wealth tax, air travel; policy for high turnover companies to dedicate a percentage of income as CSR to fund cancer prevention.	• Number of concept notes developed/ investment cases • Number of MTEF meetings and annual budget estimate process attended. • Percentage of excise taxation on tobacco, alcohol and unhealthy diet that is used to implement cancer prevention and control. • Percentage of Chronic Disease Fund utilized in cancer prevention and control. • Number of new taxes introduced to fund cancer prevention and control. • Number of high turnover companies providing CSR to support cancer control.
2	National & County Assembly	Budgetary Allocation process	• Lobbying for increased budgetary allocation to cancer. • Lobbying for adequate allocation of sin tax to cancer. • Advocate for inclusion of cancer screening, early diagnosis, treatment and palliative care in the Chronic Disease Fund.	• Percentage increase in budgetary allocation at national government and county level for NCCS.

	Stakeholder	Area of Interest	Strategy	Key Performance Indicators
3.	County Governments	County CIDPs and Annual Work Plans process	• Lobbying for a legislative framework in the county assembly for cancer resource mobilization and allocation. • Establish county cancer control programs.	• Number of counties with CIDPs/ AWPs that include NCCS priority strategies. • Number of counties with legislation to support cancer control and NCCS implementation.
4	Development Partners (International Financing Institutions World bank, IMF, UN partnerships, Global Program Partnerships, Bilateral donors)	Advancing health agenda by providing funding and alignment to global strategies and SDGs to leverage on pooled funding	• Joint round table funding opportunity meetings to ensure cancer is prioritized in policy priorities and budgets. • Identification of potential donors and improved visibility and recognition for enhanced collaboration. • Meaningful participation secured in at least four major intergovernmental forums.	• Number of development partners engaged and prioritizing NCCS strategies in budgets. • Number of potential donors identified for delivery of specific NCCS strategies. • Number of forums with meaningful participation and attendance.
5	Private Sector (Individual donors, Philanthropists, Foundations, Business Partners, Multistakeholder partnerships)	Corporate responsibilities, collaboration, and commercial.	• Engagement through pledges, and legacy income form individual donors, philanthropy to support cancer, foundations (institutional, family, corporate, umbrella)- and business partners on diverse modalities for engagement on cancer and integration of cancer into business activities or investments. • Establishment of sound Lease and Concession contracts. • Establish public-private partnerships leveraging on business sector expertise, innovation and data.	• Number of private sector organizations engaged for delivery of NCCS strategies. • Number of NCCS strategies implemented through engagement with private sector. • Number of lease and concession contracts on cancer established. • Number of public-private partnerships established for NCCS implementation.
6.	International Non-Governmental Organizations (INGOs), NGOs, CSOs, FBOs	Funding, provision of services, social accountability.	• Hold continuous dialogue meetings to ensure cancer is prioritized in policies. • Drafting and submitting responsive proposals. • Sharing information for support areas of interest.	• Number of dialogue meetings held.
7	Community	Lobbying for social financing models and increased funding at constituency and county level.	• Identification, appointment, and accreditation of eminent persons in the community as resource mobilization focal persons. • Creation of community support groups that leverage on financial literacy and creation of income generation projects for financial empowerment of survivors.	• Number of community health units with cancer resource mobilization focal persons. • Percentage of community support groups with income generation projects for cancer survivors.

SECTION D

MONITORING THE STRATEGIC PLAN

- Monitoring, Evaluation, Accountability and Learning (MEAL) Framework

CHAPTER 6

Monitoring, Evaluation, Accountability and Learning (MEAL) Framework

6.1 Overview

Monitoring and evaluation is a critical component of cancer control plans. High quality data provides information across the entire cancer control planning cycle, from the pre-planning phase (Making the Case for a Cancer Control Plan), planning (identifying the priorities and opportunities for having the most impact) to monitoring (performance of interventions, gaps and any areas requiring a change in strategy) and evaluation (were the program goals accomplished).

This strategy is aligned to the cancer control MEAL framework plan, and will provide a comprehensive framework for a data–driven implementation of this strategic plan. While the details are in the plan document and will not be repeated here, it is imperative to mention that the MEAL framework (2023-2030) has the following features:

a) It is aligned to the MoH M&E guiding frameworks and policies.
b) Its scope includes the entire cancer control continuum, including financing and partnerships.
c) It includes both process and output indicators as well as outcome indicators.
d) It has a clear definition of roles and responsibilities for various actors in supporting cancer M&E activities.
e) It has a clear data use and knowledge management plan.

6.2 Common Results and Accountability Framework (CRAF)

Each of the Key Result Areas has one main indicator for tracking and inclusion in ministry level indicators, as shown in the table below:

Table 13: Key indicators per pillar

Key Result Area/ Strategic Focus Areas	Key Indicator	Baseline	Target
Prevention and Early Detection	Cervical cancer screening coverage	42%	70%
	Breast cancer screening coverage	1%	30%
	Colorectal cancer screening coverage	<1%	30%
	HPV vaccination coverage	58%	90%
	Treatment for those with cervical pre-cancerous lesions or invasive cervical cancer	26%	90%
Cancer Imaging, Pathology and Laboratory Medicine Services	Advanced cancer detection rate	69%	50%

Key Result Area/ Strategic Focus Areas	Key Indicator	Baseline	Target
Treatment, palliative care and survivorship	Diagnosis to treatment initiation of <60 days		
	Proportion of cancer patients accessing safe, effective, quality essential medicines/treatment	23%	80%
	Childhood cancer survival rate	20%	60%
	Proportion of clients in need of Palliative Care (PC) accessing services	2%	50%
Advocacy, Partnerships, Coordination and Financing	Cancer budget as a proportion of total health Budget	0.8%	10%
Monitoring, Evaluation, Registration, Surveillance and Research	Increase coverage by high-quality PBCR to 20% of the general population	5%	20%

A detailed list of indicators per pillar is provided in the cancer Monitoring, Evaluation, Accountability and Learning (MEAL) framework.

CHAPTER 7

Appendices

Appendix 1: Implementation Matrix

Pillar 1: Cancer Prevention and Early Detection

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
1.1: Reduce exposure to modifiable cancer risk factors and address underlying social and environmental determinants	**1: Reduce prevalence of use to tobacco and tobacco-related products and by-products from 13.3% to 6.5% by 2028**	1. Advocate for increased excise taxation to the WHO recommended 70% of retail price, and continued use of pricing mechanisms to limit access to tobacco products	Conduct advocacy forums or attend ongoing forums to provide inputs	MoH DNCD, Division of Tobacco Control, Tobacco Control Board, Health Promotion, KETCA, ILA, NCCP,County Governments, NEMA, Civil Society	XX	XX	XX	XX	XX
		2. Integrate tobacco control key information , education and communication materials in cancer awareness, education, and mass media campaigns.	Develop/review the harmonized key information, education and communication materials in collaboration with Tobacco control stakeholders		X	X	X	X	X
			Conduct awareness, education, and mass media campaigns on tobacco and cancer and disseminate IEC materials within communities		XXXX	XXXX	XXXX	XXXX	XXXX
		3. Integrate tobacco control interventions into the cancer prevention and control activitiess in the community, schools and workplaces.	Conduct sensitization forums for community resource persons/ school Parent-Teacher Associations (PTAs)		X		X		X
			Provide health education and counselling services on tobacco cessation			XXXX	XXXX	XXXX	XXXX
			Promote smoke-free environments to limit second hand exposures		XX	XXXX	XXXX	XXXX	XXXX
		4. Support provision of tobacco cessation services (counselling and pharmacotherapy) through integration at health facilities and cancer treatment centres.	Sensitize health care workers on tobacco cessation in collaboration with Tobacco Control Unit		X	X	X	X	X
			Establish integrated tobacco cessation services and provide counselling services and essential pharmacotherapeutics			XXX	X	X	X
	2: Reduce prevalence of alcohol use from 19% to 10% by 2028	1. Advocate for and participate in the review and comprehensive implementation of the Alcoholic Drinks Control Act 2010 and the County Alcoholic Drinks Control Acts	To develop a framework for the comprehensive implementation of the County Alcoholic Drinks Control Acts	MOH-DNCD, NCCP, Division of Health Promotion, DASH, DCH, NACADA, Civil Society		X	X	X	X
		2. Advocate for increased excise taxation on alcohol	Advocacy meetings to lobby for differential taxation based on alcohol type and content						

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		3. Support regulations on restrictions on marketing and promotion of alcoholic products	Development of draft regulations		X	X	X	X	X
			Meetings for stakeholder sensitization/approvals						
			Conduct a pre-publication to MPs and Senate						
		4. Integrate key messages on avoidance of alcohol use in cancer awareness, mass media campaigns and public education in schools, workplaces and in the community.	Conduct desk review of the existing messages				X		
			Develop integrated information, education and communication materials		X	X	X	X	
			Disseminate messages on alcohol and cancer in schools, workplaces and communities		X	X	X		X
	3: Reduce consumption of unhealthy diets, prevalence of physical inactivity, overweight and obesity	1. Integrate education and awareness activities to promote healthy nutrition and physical activity and mitigate overweight and obesity in cancer control activities in schools, community and in health care facilities at all levels.	Review and update nutrition and physical activity content in cancer training materials and job aids for CHVs/HCWs	MOH - NCCP, DND, DCH,Health Promotion, County Governments, Division of Nutrition and Dietetics, KEBS, Ministry of Agriculture, Civil society, Transport, Public Works	X			X	
			Sensitization of community health workers on commemoration of key cancer days within their community health units		X	XXXX	XXXX	XXXX	XXXX
			Establish/strengthen health literacy programs on cancer prevention that incorporate physical activity and health nutrition within communities		X	X			
			Sensitizate health workers to provide health education on importance of healthy diets, physical activity and address overweight and obesity within health facilities			XXXX	XXXX	XXXX	XXXX
		2. Support enactment of policies and legislation to reduce marketing and advertising of unhealthy foods and drinks, and provision of incentives for sale of healthy foods	Conduct advocacy forums to increase taxation on sugar-sweetened beverages (SSBs), trans fats and unhealthy foods and drinks, Front of pack labelling		X	X	X	X	X
		3. Work with stakeholders to review policies on urban and cities designs to promote active lifestyles.	Engage stakeholders and support conduct of desk review of existing policies to highlight gaps		X	X	X	X	X
			Engage stakeholders and conduct workshops/meetings to develop draft policies for approval, dissemination and use		X	XXX			
			Encourage adoption of car free days by counties to promote active lifestyles		X		X	X	
			Advocate for creation of public parks, children play areas, bicycle and pedestrian paths in public roads to encourage safe mobility		XX	XXXX	XXXX	XXXX	XXXX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		4. Promote establishment of workplace and community wellness programs (Physical fitness areas, public/ workplace gyms, community tournamnets)	Hold consultative forums with relevant stakeholders		X	X	X	X	X
			Advocate to establish a Cancer/ NCD unit in MDAs		X	X	X	X	
			Provide capacity building and technical assistance to MDAs and communities to establish wellness programs		x	x	x	x	x
	Strategy 4: Reduce exposure to environmental and occupational risk factors.	1. Institute surveillance for environmental and occupational risk factors.	Establish an environmental and occupational risk factor committee in the TWG .	MOH-NCCP, Environmental Health, NEMA, MOL-DOSHS, PCPB, KEPHIS, KEBS, WRMA, Min of Water, County Governments, Cancer Research Center, NCI-K Min of Agriculture & Livestock Development, MOE, Min of Trade, KRA, Academia, Kenya Maritime Authority, KEMRFI ,					
			Conduct a baseline survey of the known environmental & occupational carcinogens in the country, including mapping out hotspot counties/regions		X	X	X	X	X
			Dissemination of baseline and periodic review findings through reports and policy briefs.		X	X	X	X	X
			Develop and implement a framework for multistakeholder engagement, and define required policies and regulations		X	X	X	X	X
			Establish mechanisms for active and continuous surveillance and reporting of known carcinogens in air, food and water in Kenya and institute corrective measures undertaken			XXXX	XXXX	XXXX	XXXX
			Conduct regular knowledge exchange and consultative forums with risk-reduction actors and stakeholders		x	x	x	x	x
		2. Create public awareness and sensitize communities on environmental and occupational risk factors	Create key risk communication messages		x				
			Sensitization forums for Community resource persons			X			
			Integrate key messages in school health programs/ community/ administrative among other forums			x			
		3. Advocate for the review, enactment and enforcement of existing policies, regulations and guidelines to limit exposure to environmental and occupational toxins and pollutants	Conduct targeted capacity building of policy makers, implementers, regulators and other stakeholders		x	x	x	x	x
			Conduct advocacy forums with relevant stakeholders		X				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		4. Promote preventive research on the role of pesticides, environmental pollution, and other environmental agents, and disaggregation of data by county/region to address the most prevalent cancers in that county/region.	Include as priority area in the Cancer research agenda		x				
			Development and dissemination of the research agenda			XXXX	XX		
			Establish a comprehensive and active causal research and surveillance program on carcinogens in food/water/air at the cancer research center			XX	XXXX	XXXX	XXXX
	5: To reduce exposure to known infectious agents associated with cancer	1. Promote routine HPV Vaccination in all eligible girls to achieve 90% HPV vaccination by 2030, in collaboration with relevant stakeholders.	Review and update HPV prevention and vaccination content in existing school health programs and curriculums	MOH-NVIP, NCCP, Health Promotion,DASH, NASCOP, NPHLS, DCH, RMNCH, KTTA, KEMRI, UNICEF, WHO, County Governments	X		X		X
			Develop specific messages addressing barriers to the uptake of HPV vaccination		XX	XX	XX	XX	XX
			Advocate for the inclusion of HPV vaccination in the mother & child health booklet and in high school entry checklist.		X	X	X	X	X
			Sensitize healthcare workers to integrate HPV vaccination as part of routine vaccinations targeting adolescent girls (e.g. COVID-19) including in high-risk populations such as those living with HIV		X	X	X	X	X
		2. Promote healthy sexual behaviour to reduce transmission of HPV, Hepatitis B and C, HIV, HHV-8, HTLV-1, EBV	Integrate messages on behaviour change in existing cancer IEC materials		X	X	X	X	X
			Integrate content on the role of healthy sexual behaviour in prevention in sensitization activities for health workers & opinion leaders		X	X	X	X	X
		3. Develop and implement a targeted screening and treatment program for Hepatitis B Virus to address liver cancer in high prevalence counties	Advocate for expanded HBV immunisation through adoption of HBV vaccine birth dose		X	X	X	X	X
			Advocate for provision of antivirals early for infection eradication in pregnant women found to be Hepatitis B positive		XXXX	XXXX	XXXX	XXXX	XXXX
			Advocate for routine adult vaccination in high-risk settings e.g. STI clinics, drug treatment centres, prisons, etc.		XXXX	XXXX	XXXX	XXXX	XXXX
			Encourage/advocate for migration from serology to Nucleic Acid Testing for HBV in all blood donations		x	X	X	X	X
			Advocate for the review and implementation of the National Guidelines of the Control and Management of Viral Hepatitis 2018		.	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		4.Promote availability and appropriate use of diagnostic and therapeutic interventions for HBV, HCV, schistosomiasis, Helicobacter pylori, and HIV infections	Map the availability and interventions and identify needs/gaps through TWG		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct meetings with relevant stakeholders to address the gaps identified						
	6: Strengthen multi-sectoral response and coordination in the mitigation of modifiable risk factors	Strengthen the National TWG on cancer prevention and early detection.	Review TWG membership & existing terms of reference annually	MOH-NCCP	X	X	X	X	X
			Hold quarterly coordination meetings		XXXX	XXXX	XXXX	XXXX	XXXX
			Establish/ strengthen the thematic committees through regular meetings (breast, cervical, risk-reduction)		XXXX	XXXX	XXXX	XXXX	XXXX
			Participate in the various risk factor specific TWG meetings hosted by other programs/ Units/ Divisions and feedback to the Cancer prevention & early detection TWG		XXXX	XXXX	XXXX	XXXX	XXXX
1.2: Address non-modifiable risk factors including age, race, ethnicity, family history of cancer, and gender.	**1. Create awareness among the general public on familial and hereditary cancers**	Integration of key messages on familial and hereditary cancers into existing cancer IECs.	Identify priority familial and hereditary cancers and develop harmonized key messages on them	MOH-NCCP, DCH, DHP, Div. oof Neonatal & Child Health, DASH, County Governments,	XX				
			b. Integrate key messages in existing cancer awareness, education, and mass media campaigns		x				
		Integrate content on familial and hereditary cancers in community health strategy materials	Review and update content on familial and hereditary cancers in cancer training materials for CHVs		x	x			
			Conduct sensitization of CHVs			X	X		
	2. Build the capacity of health care workers for screening and linkage to diagnosis and care for familial and hereditary cancers	1. Integrate content on familial and hereditary cancers in training materials for primary health workers.	Conduct workshops to develop content on familial and hereditary cancers	MOH-NCCP, County Governments, Professional Organizations	x				
		2. Train health workers on early detection of familial and hereditary cancers	Conduct sensitization through physical and virtual platforms			X			
			Develop & distribute health workers job aids			X			
		3. Adopt a screening tool (a scoring system) for use by primary health workers in identifying individuals with high risk of familial and hereditary cancers	Expert panel engagements to develop the tool		X				
			Hold forums to disseminate the tool and service audits to ensure utilization		x				
1.3: Improve secondary prevention of cancer through screening, early diagnosis and linkage to care	**1: Improve access to quality cancer screening & early diagnostic services**	1. Review and update the National Cancer Screening Guidelines.	Engage consultant to guide & support the process	MOH-NCCP, NORL, County Governments, FBOs, Partners	X				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Conduct a comprehensive desk review of the document to inform process		X				
			Engage multidisciplinary expert panels/stakeholder workshops to update and validate the guidelines		XX				
			Launch and dissemination		XX				
			Conduct annual service audits to monitor implementation status			X	X	X	X
		2. Strengthen provision of organised cancer screening and early diagnosis services at all health facilities [through integration, use of digital technologies and innovative service delivery models such as use of community health volunteers, self-care strategies, mobile screening outreach services and rapid diagnostic clinics (RDCs)]	Strengthen integration of cancer screening services into various service delivery points including reproductive Health, HIV, Outpatient Department, Maternal and Child Health, among others.		XXXX	XXXX	XXXX	XXXX	XXXX
			Include cancer screening in routine integrated facility mobile community outreach		XXXX	XXXX	XXXX	XXXX	XXXX
			Define and implement self-care packages for cancer screening/ early diagnosis and integrate self-care services such as HPV self sampling for cervical screening within facilities		XXXX	XXXX	XXXX	XXXX	XXXX
			Establish rapid diagnostic clinics services in all county referral hospitals		XXXX	XXXX	XXXX	XXXX	XXXX
		3.Conduct a National Colorectal Cancer Screening pilot	Develop concept note on colorectal cancer screening pilot		XX				
			Conduct a colorectal cancer screening pilot to assess feasibility and best approach for national scale-up		x	XXX			
			Develop an implementation framework for the colorectal cancer screening pilot findings			x	X		
	2: Capacity building of health workers for cancer screening and early diagnosis	1. Conduct periodic training needs assessments in all counties	Develop a structured data collection tool	MOH-NCCP, County Governments, Partners, Health training institutions, Professional bodies,	XX				
			Conduct data collection in all 47 counties and analyse data			XXX			
			Report writing and dissemination of findings in relevant forums			x	X		
		2. Utilise harmonised training packages and job aids for in-service training of primary Health Care providers, based on the national cancer screening guidelines	Engage expert panels and conduct workshops to review/develop content as per guidelines and needs assessment		XX				
			Conduct capacity building using the training materials, job aids and facilitative tools in all the 47 counties		X				
			Adapt and upload the content on the e-learning platforms and disseminate links for use by all health worlkers to augment skills-based trainings		x				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		3. Increase the number and appropriately deployed trained health workers on cancer screening in all counties.	Sensitize counties on appropriate deployment of trained cancer screening personnel		X				
			Provide mentorship and supportive supervision of personnel trained on cancer screening						
			Promote availability of screening supplies, commodities and equipment for use by trained personnel		x				
		4. Strengthen cancer screening and early diagnosis content in pre-service training of all relevant cadres through collaboration with health training institutions.	Review pre service training material to include cancer screening and early diagnosis		XX				
			Conduct training for faculty of pre-service training health institutions such as KMTC to include cancer screening content		X	XX			
			Support availability of cancer screening equipment in skills-lab for pre-service trainings						
	3:Optimise referral mechanisms to reduce lost to follow ups	1. Establish a national cancer screening data repository for longitudinal client tracking to support follow-up, provide feedback to referring facilities and assist with patient navigation	Develop permanent register for line-listing of screened clients to facilitate follow-up and invitations for routine screening.	MOH-NCCP, HMIS, DCH, NORL, County Governments, Partners	x	X			
			Develop cancer screening tracker on the KHIS to maintain database of clients with abnormal screening results			X			
			Train and promote use of patient navigators in screening facilities			XX			
			Create and update directories of facilities offering pre-cancer treatment in all counties.		x	X			
			Conduct rollout of Cancer Screening EMR/EPMS at all screening facilities with reports feeding to KHIS.		XXXX	X	X	X	X
		2. Integrate cancer screening into Electronic Community health Information System (e-CHIS)	Collaborate with DCH to review the Community Strategy data tools to include cancer screening indicators		XX				
			Sensitization of community strategy resource persons on cancer screening reporting requirements			X			
		3.Strengthen integrated sample/specimen referral and tracking systems, including results relay	Leverage on existing Laboratory Information Management System (LIMS) for cancer screening sample referral and tracking and relay of results, with linkage to KHIS			X			
			Develop a cancer screening dashboard for display screening performance			XX			
		4. Train, mentor and deploy community and in-facility patient navigators to facilitate referrals	Train community health workers on cancer awareness, case finding and referral, social support and adherence support	MOH, Counties					

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Train and promote use of patient navigators in screening facilities through task-shifting						
1.3: Strengthen early detection of childhood cancers	**1: Improve public awareness of childhood cancers and the importance of early detection**	1. Integration of key messages on childhood cancers into existing public health promotion programs.	Review and update the key messages	MOH-NCCP, HMIS, DCH, NORL, County Governments, Partners	x	X			
			Integrate the key messages into existing IECs for print, electronic and social media			XX			
		2. Train and engage CHVs to mobilise parents or guardians of children with symptoms to visit the nearest health facility.	Conduct CHV trainings in all counties		XXXX	XXXX	XXXX	XXXX	XXXX
	2: Build capacity of health care workers for early detection of childhood cancers	1. Train healthcare workers on clinical presentation of childhood cancers and prompt referral	Develop/review and disseminate health worker job aids and other facilitative tools on childhood cancers warning signs	MOH-NCCP, HMIS, DCH, NORL, County Governments, Partners					
			Sensitisation of health care workers using both physical and e-learning platforms						
			Build and expand capacity of healthcare workers in genetic counselling in county referral hospitals to address the needs of those requiring genetic testing and their families		X				X
		2. Promote the use of the Childhood Cancer Assessment Tool for evaluation of children for possible cancer within the IMCI (integrated management of childhood illnesses) approach	Conduct orientation for the assesment tool and advocate for its inclusion as a standard requirements for all sick children						
			Incorporate the Childhood Cancer Assessment Tool into the IMCI booklet/guideline		XX		XX	XXXX	XXXX
		3.Establish targeted screening and cancer preventive surveillance services for children with retinoblastoma and other hereditary cancer predisposition syndromes.	Hold review meetings on childhood hereditary cancers		XX	XX	XX	XX	XX
1.4: Strengthen multi-sectoral response and coordination in cancer prevention and early detection	**1: Strengthen the National TWG on cancer prevention and early detection and its committees**	1.Review TWG membership and existing terms of reference annually to ensure appropriate multi-sectoral representation	Build the capacity of the multi-sectoral committees on their roles and responsibilities	MOH-NCCP, Civil Society, Relevant Partners,	XX	XX	XX	XX	XX
			Hold quarterly coordination meetings		XXXX	XXXX	XXXX	XXXX	XXXX
		2.Establish/ strengthen the thematic committees through regular meetings (breast, cervical, risk-reduction, screening HPTs supply chain)	Conduct membership and TOR review process and hold monthly/ quarterly meetings.		XXXX	XXXX	XXXX	XXXX	XXXX
		3. Participate in the various risk factor specific TWG meetings hosted by other Programs/ Divisions/ Ministries and feedback to the Cancer prevention & early detection TWG	Map and engage cancer relevant TWGs in other programs Programs/ Divisions/ Ministries		XXXX	XXXX	XXXX	XXXX	XXXX
			Create schedule of TWG meetings/ events to attend		X	X	X	X	X
		4. Promote knowledge exchange and sharing	Conduct regular knowledge exchange/ consultative forums		XXXX	XXXX	XXXX	XXXX	XXXX

Pillar 2: Cancer Imaging, Pathology and Laboratory Medicine

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
2.1: Strengthen cancer Diagnostic imaging and interventional radiological services	**2.1.1: Strengthen coordination and standards of cancer imaging services**	1. Strengthen the National Cancer Imaging Technical Working Group subcommittee.	Revise TORs and review membership	NCCP	XX				
			Review Membership		XX				
			Quarterly TWG Meeting and reports		XXXX	XXXX	XXXX	XXXX	XXXX
		2. Advocate for the development of national Quality Assurance (QA) and radiation safety and Accreditation guidelines in collaboration with relevant regulatory bodies and professional bodies	Develop and disseminate policy briefs on awareness on radiation safety	TWG, KENRA, Professional bodies	X	X	X	X	X
			Promote application of evidence-based radiation safety recommendations and guidance tools		X	X	X	X	X
			Develop and disseminate audit materials for quality assurance			XX			
			Strengthening end-user education, training and surveillance programs		X	X	X	X	X
		3. Develop and disseminate operational standards and guidelines for cancer imaging, including for childhood cancers	Develop dose reference levels for radiographic, mammography and CT scan examinations	TWG	XXXX				
			Define the equipment specifications in the essential equipment list including for paediatric populations		XX	XX			
			Develop and disseminate the imaging referral guidelines including for paediatric populations			XXXX			
			Develop guidelines for setting up paediatric imaging infrastructure			XXXX			
		4. Strengthen utilisation of tele-radiology services for cancer diagnosis	Conduct situational analysis and comprehensive desk review	TWG	XXX				
			Develop guidelines for teleradiology services		XXX				
			Dissemination and sensitization of users on teleradiology services			XXX			
		5. Develop and disseminate an imaging diagnosis directory for cancer services	Desktop Review	TWG		XXX			
			Stakeholder consultation meeting			XXX			
			Technical Development workshops			XX			
			Peer/External Review			XX			
			Internal and External Validation meetings			X	X		
			Finalization and Launch			X	X		
			Dissemination and conduct service audits to ensure utilization				XXX		

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
	2.1.2: Increase access to quality, accurate and efficient cancer diagnostic imaging services countrywide	1. Upgrade and expand the range and scope of medical imaging equipment and services available in the different level of care for cancer diagnosis	Develop a baselines survey tool for radiology and interventional radiology services	NCCP, Counties, National Hospitals	XX				
			Conduct a situational analysis of cancer radiology and interventional radiology services		XX				
			Sensitization of the Counties and different level of care on the equipment and human resource required for cancer diagnosis			XXXX			
			Equip the different level of care as per the attached annex			X	X	X	X
		2. Establish and strengthen availability of interventional radiology services at national referral Hospitals and cancer centres	Strengthen availability of services at the national referral hospitals	National Referral Hospital, Reginal Cancer Centre, County, NCCP		XXXX			
			Establish interventional radiology services at five high volume regional cancer centers			XX	XX	XX	XX
			Training and capacity building of human resources on interventional Radiology			XXXX			
		3. Establish nucclear medicine services at KNH, MTRH and at least additional three regional ancer centres to provide diagnostic and therapeutic radionuclide services	Acquire PET-CT and SPECT-CT equipment at KNH and MTRH	KNH, MTRH, Counties, Regional Cancer Centres			XXXX		
			Acquire nuclear medicine equipment for regional cancer centre (PET CT)				XXXX		
			Avail radionuclides and other commodities for provision of nuclear medicine services						
			Train and capacity build the staff on nuclear medicine			XX	XX		
		4. Establish a national cloud-based radiology information system (RIS-PACS) in cancer facilities and integrate with the existing local RIS in facilities with linkages to HMIS	Desktop review to identify what is in place	NCCP, TWG, HMIS	XX				
			Stakeholder consultation meeting		XX				
			Development of a cloud based radiology information system		XX	XX			
			Integrate radiology services to the existing Radiology Information Systems			X	XXX		
		6. Develop and disseminate standardized protocols and structured reporting templates such as AJCC staging system for routine reporting, BIRADs system in mammogram and ultrasound reporting	Desktop Review and development of draft protocols	TWG	XXX				
			Conduct stakeholder consultation meetings/workshops to refine and validate protocols						
			Launch and disseminate the protocols		XXX				
			Conduct regular service audits to monitor utilization of protocols			XXX	X		

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		7. Promote the development and implementation of PPPs to address gaps in cancer diagnostic imaging and interventional radiology services.	Develop a framework PPP guiding template document	NCCP, Counties		XXXX			
			Identify facilities for PPP countrywide			X	XXX		
			Engage the institutions and implement				XXX	X	
2.2: Strengthen the cancer pathology diagnostic and Laboratory medicine services	**2.2.1: Improve coordination and standards of cancer pathology services**	1. Strengthen the National Pathology Technical Working Group subcommittee	Revise Terms of Reference	NCCP, NCRL	XX				
			Review Membership		XX				
			Quarterly Technical Working Group Meeting		XXXX	XXXX	XXXX	XXXX	XXXX
		2. Strengthen and equip the National Cancer Reference Laboratory to provide basic and advanced pathology and laboratory medicine services	Commision the National Cancer Reference Laboaratory	NCRL,NCCP	XXXX				
			Establish immunohistochemistry services and define the antibody panels starting with breast cancer		XXXX				
			Expand the range of recommended tumour markers available as per international standards			XXX	X		
			Establish flow cytometry services at NCRL						
			Establish liquid biopsy services amd define the antigen and antibody panels				XX	XX	
		3. Develop and implement national Quality Assurance and safety guidelines for various levels of cancer pathology diagnosis and laboratory services in collaboration with relevant regulatory and professional bodies.	Desktop review and development of draft guidelines	TWG	XX	X			
			Conduct stakeholder consultation meetings/workshops to refine and validate guidelines		XX	X			
			Launch and disseminate the guidelines			XX			
			Conduct regular service audits to monitor utilization of guidelines			XX	X		
		4. Review and disseminate the national cancer specimen handling guidelines and develop algorithms for pathology diagnostics workup of priority cancers	Conduct Technical workshops and meetings to review, update and validate the guidelines	TWG	XX	X			
			Publish the updated version and disseminate						
			Conduct regular service audits to monitor use and assess implementation			X	XXX		
		5. Establish a national archiving system for tissue blocks with linkage to the gross specimen image, whole slide image (WSI) and the final pathology report	Establish block archiving cabinets, register and retrieval systems	NCRL	XX	XX			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Establish an electonic storage for images with linkage to tissue blocks and gross specimens		XX	XX			
			Establish the cloud/server storage and interface with digital health platform and laboratory information management system			XXXX			
		6. Develop and implement guidelines for the utilisation of tele-pathology services.	Desktop scoping review and development of first draft of guideleines	TWG	XXX				
			Conduct stakeholder consultation meetings/workshops to refine and validate the guidelines		XXX				
			Launch disseminate and monitor implementation			XXX			
	2.2.2: Increase access to quality and accurate cancer pathology and laboratory medicine services countrywide	1. Establish and improve pathology laboratory infrastructure at national and county referral hospitals and expand the range and scope of services provided	Conduct periodic assessments of cancer pathology laboratory infrastructure	TWG, NCCP, Counties	XX				
			Develop technical support tools for support to the counties in histopathology at the National Cancer Reference Laboratory			XXXX	XXXX	XXXX	XXXX
			Establish immunohistochemistry services at the regional cancer centre sites.				XXX	X	
			Establish histopathology services at all county referral facilities countrywide			XXXX	XXXX	XXXX	XXXX
		2. Establish and implement quality control mechanisms, external quality assurance (EQA) and ensure the accreditation of all pathology laboratories.	Train the lab personnel at NCRL and county laboratories on laboratory quality management systems	NCRL, TWG, KENAS		XXXX			
			Develop the prerequisite documents and SOPs on laboratory quality management systems		XX	XX			
			Define the scope for accreditation and implement it in a phased approach			XX	XXXX	XXXX	XXXX
			Enroll the NCRL and county pathology labs for external quality assurance program with a specific scope of accreditation			XX	XXXX	XXXX	XXXX
		3. Adopt and adapt the use of innovative service delivery models such as telepathology and the use of mobile testing facilities to enhance care pathways between primary and secondary facilities for cancer diagnosis.	Operationalise the whole slide imaging system at NCRL with linkage to consultants and other institutions locally, regionally and internationally	NCRL, NCCP	XX	XX			
			Establish multi-institutional MDTs with focus on pathology and second opinions		XX	XX			
			Define and establish range/scope of cancer diagnostic services and map sites to be provided with mobile testing facilities/vans		XXXX				
			Equip and provide mobile testing platforms/services tailored to specified hard-to-reach settings			XXX	XXXX	XXXX	XXXX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		4. Strengthen- and expand availability of HPV testing services for cervical cancer screening including point of care testing, integrated (GeneXpert) and molecular testing platforms	Conduct validation and accreditation of new HPV testing equipment in collaboration with regulatory bodies	NCCP, NPHLS, TB program, NASCOP	XXXX	XXXX	XXXX	XXXX	XXXX
			Strengthen and implement an quality assurance assurance system for HPV testing at all testing sites		XXXX	XXXX	XXXX	XXXX	XXXX
			Provide capacity building and technical support to activate additional testing sites based on need		XXx	XXXX	XXXX	XXXX	XXXX
			Strengthen sample referral mechanisms leveraging on integrated systems from the community level		XXXX	XXXX	XXXX	XXXX	XXXX
			Leverage on established digital systems to streamline and enable timely reporting of results		XXXX	XXXX	XXXX	XXXX	XXXX
			Maintain, update and regularly disseminate a directory of all HPV testing sites at NCRL		XXXX	XXXX	XXXX	XXXX	XXXX
		5. Establish frozen section services at the national referral hospitals	Acquire cryostat equipment for the national referral hospitals	NCCP, Directorate of Healthcare Services, National Referral Hospital			XXXX		
			Train Histotechnologists on the use of the cryostats				XXXX	XXXX	XXXX
			Train and capacity build pathologist on the use and reporting of frozen sections				XXXX	XXXX	XXXX
		6. Work with stakeholders to establish and strengthen availability of blood and blood products at cancer treatment centers	Institute mechanisms to expand availability of irradiation services for blood and blood products at the national and regional cancer centers	MOH-NCCP, Kenya National Tissue and Blood Authority, NPHLS, Counties, KESHO	XXXX	XXXX	XXXX	XXXX	XXXX
			Establish and strengthen availability of apheretic equipment for timely provision of apheretic and pooled platelets to all national referral and ten regional cancer centers			XXXX	XXXX	XXXX	XXXX
			Sensitization on need for testing of transfusion transmitted infections including Cytomegalovirus (CMV)		x	x	x	x	x
			Build capacity of human resources for provision of haemato-oncology and bone marrow transplant services		x	x	x	x	x
		7. Expand the scope of pathology services integrated into the existing digital Laboratory Management Information Systems(LMIS) and develop linkages and interoperability with other platforms	Integrate histopathology service to the existing digital Laboratory Management Information Systems(LMIS) and develop linkages with the cancer registries and HMIS	NCRL, NCCP, HMIS	XXXX				
			Establish dictaphone/voice recognition capabilities across all levels to reduce on report turnaround times.			XXXX			
			Integrate basic cancer genomic testing panels to LIMS				XXXX	XX	
			Integrate immunohistochemistry testing services to the LIMS		XXXX				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		8. Strengthen formal partnerships between public and private diagnostic pathology laboratories in the provision of cancer diagnostic services.	Design and establish scope of public and private partnerships for complementing laboratory testing	NCRL, Counties, NCCP	X	X	X	X	X
			Establish mechanism for external quality assurance parnerships		XX	XX			
		9. Establish integrated genomic testing services for improved cancer diagnosis, research and treatment monitoring of cancer patients	Define and establish the scope of genomic services available at NPHLS for clinical use	TWG, NCRL, HMIS			XX	XX	
			Specify and avail customised genomic testing panels based on our disease burden				XX	XX	
			Establish integrated sample referral systems for genomic services				XX	XXXX	XXXX
			Establish an integrated reporting system feeding into a national database for longitudinal tracking				XX	XXXX	XXXX
2.3: Strengthen availability and capacity of human resource to support cancer diagnosis	**2.3.1 Enhance availability of human resource for cancer diagnosis**	1. Improve the Human Resource availability at cancer imaging, pathology and laboratory medicine facilities to align to international standards as per level of care	Advocate for the recruitment and appropriate deployment of personnel at cancer imaging, pathology and laboratory medicine facilities countrywide as per international and national standards by levels of care	MOH, Counties, National Referral Hospitals, Ministry of Education	X	X	X	X	X
			Define and implement career progression pathways for oncopathology, imaging and laboratory professionals in the field of cancer			XX			
			Work with stakeholders to advocate for establishment of additional local training programs for the various cadres involved in cancer diagnosis		X	X	X	X	X
			Conduct meetings with the relevant professional bodies to continuously outline the the gaps and needs in cancer diagnosis space		X	X	X	X	X
		2. Advocate for the definition of the scope of practice, certification, and accreditation for pathologists, laboratory medicine professionals, radiologists and other allied professionals	Define the procedure for certification of oncology professionals in diagnosis	Professional Bodies, TWG, NCCP, NCI-K	XX	XX			
			Develop the regulations and procedure for certification of oncology profesionals in collaboration with the regulatory bodies		XX	XX			
	2.3.2 Enhance capacity of human resource for cancer diagnosis	1. Design, develop and implement a common training plan based on the human resource needs/skills in cancer diagnosis with a focus on sustainability, retention, continuous learning and improvement.	Conduct a human resource needs assessment in cancer diagnosis	MOH, Counties, National Referral Hospitals, Ministry of Education					
			Conduct workshops to develop a commong training plan		XXXX				
			Conduct regular evaluation to monitor the implementation of the plan		X	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		2. Develop and disseminate a training package for cytology, peripheral blood films (PBF) and bone marrow aspirate (BMA) and histopathology to improve early diagnosis of cancers	Stakeholder consultative meetings to develop a common training curriculum and its facilitative tools (manuals, job aids, etc)	NCRL, NCCP, Counties, Professional bodies,	XX				
			Conduct validation of the curriculum and facilitative tools		XX	X			
			Conduct annual training and mentorship for laboratory staff countrywide			XX			
			Provide technical support and regular service audits to ensure utilization			X	XXX		
		3. Collaborate with local and international institutions to increase the number of fellowship programs for subspecialty training	Work with training institutions to increase the number of residency and fellowship programs in radiology and pathology available	TWG, MOH-HR, NCCP, NCI-K, Ministry of Education, Professional Associations	X	X	X	X	X
			Collaborate with international institution for scholarship and placement for subspecialty training		X	X	X	X	X
			Work with local training institions for placement to upgrade their skills to introduce new programs not available in institutions		X	X	X	X	X

Pillar 3: Cancer Treatment, Palliative Care and Survivorship

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Stakeholder engagement meetings and workshops to update, refine and validate the draft document		X				
			Conduct internal and external document review			X			
			Publish updated version and disseminate			X			
			Conduct annual service audits to monitor implementation			X	X	X	X
		Develop and disseminate the National Radiotherapy Protocols Treatment Protocols	Conduct internal and external document review	TWG	X				
			Conduct internal and external validation		X				
			Launch and dissemination		XX				
			Conduct annual service audits to ensure implementation			X	X	X	X
		Review and disseminate National Palliative Care Guidelines.	Conduct a comprehensive desk review of the document to inform process and develop draft	TWG	XX				
			Stakeholder engagements and meetings to develop/refine and validate the draft document		XX				
			Conduct internal and external document review		X	XX			
			Launch and dissemination			XX			
			Conduct annual service audits to ensure implementation				X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Develop guidelines for rehabilitation of children and adolescents with cancer	Stakeholder engagements and workshops to review the draft document, refine and validate document	TWG		XX			
			Conduct internal and external document review			XX	X		
			Launch and dissemination				X		
			Conduct annual service audits to ensure implementation				X	X	X
		Review and disseminate guidelines for establishment of cancer centres	Stakeholder engagement to review document	NCI-K	X				
			Conduct internal and external document review			X			
			Launch and dissemination			X	X	X	X
		Work with stakeholders to develop and implement policies and regulations on traditional and alternative medicine.	Conduct mapping of alternative medicine policies and services available in Kenya	TWG		X			
			Review existing policies and identify key gaps as relates to cancer care and develop advisory document			XXX			
			Disseminate and implement advisory document recommendations				X	X	X
	Strategy 2: Enhance coordination, regulation and standards for quality cancer care services	Strengthen the National Cancer Treatment, Palliative Care and Survivorship TWG	Review/revise Terms of Reference (TORs)	NCCP	XX				
			Review membership		XX				
			Hold Quarterly TWG Meetings		XXXX	XXXX	XXXX	XXXX	XXXX
		Strengthen centres of excellence for specialized cancer management to guide standards and practice	Conduct a feasibility/baseline assessment / identify site	Dept of Health Infrastructure and DNCDs-NCCP, NCI-K		X			
			Stakeholder engagement to develop the concept document			X			
			Approval of concept document			X			
			Launching the centre of excellence				X		
		Encourage the establishment and implementation of multidisciplinary teams in all facilities providing cancer care in line with the National Cancer Treatment Protocols	Develop and validate a standard TOR template as outlined in National Cancer Treatment Protocols(pg. 4) and define outputs for the MDT	TWG	X				
			Stakeholder engagement for validation		X				
			Disseminate TORs for domestication and reporting by the cancer treatment centers			XX			
			Enable monthly submission and monitoring of de-identified MDT reports on the National Oncology Dashboard		X	XXXX	XXXX	XXXX	XXXX
		Support the integration of cancer research in all facilities providing cancer treatment services including outcomes research	Conduct annual sensitization forums/webinars on importance of cancer research	TWG	X	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Define and submit the priority areas of cancer treatment research with focus on value-based care and outcomes research to inform the national research agenda		XX				
			Write joint proposals based on the national research agenda and submit for funding		XX	XXXX	XXXX	XXXX	XXXX
			Facilitate and promote training programs in cancer research		X	X	X	X	X
Strategic Objective 3.2: Improve availability and capacity of a skilled multi-disciplinary team of oncology human resources for health across all levels of care.	**Strategy 1: Improve availability of human resources for health in oncology**	Develop and implement an Oncology Human Resource Development Plan	Constitute a focal team to drive the process	TWG	X				
			Develop TORs and define outputs for the focal team		X				
			Conduct workshops to develop the plan			XX			
			Validation and dissemination of Oncology HR development plan			XX	X	X	X
		Work with local and international training institutions to establish and strengthen oncology training programs, fellowships and preceptorships	Conduct a baseline assessment/ situational analysis of current status	MOH-HR, NCCP, NCI-K		XXXX			
			Hold meetings with training institutions and other stakeholders to sensitise on need			X	XXXX	XXXX	XXXX
			Participate and support workshops to develop specific training content/packages/ curricula		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct annual surgical oncology preceptorships at regional cancer centers		X	X	X	X	X
		Develop a mechanism for resource sharing of specialized human oncology workforce for service provision among counties	Conduct stakeholder sensitization and engagement meetings	MOH, COG, Counties	X	XX	XX	XX	XX
			Hold meetings to develop the framework for resource sharing		X	X	X	X	X
			Disseminate a framework for resource sharing			X	X	X	X
		Provide dedicated scholarships for training of a multidisciplinary team of oncology personnel	Baseline assessment/survey	TWG, MOH HR, NCCP	X	X			
			Define the priority areas/ cadres and annual requirement for submission to HR			XX			
			Prepare and regularly disseminate policy briefs and factsheets to document the need			X	X	X	X
			Promote a policy that ensures integration/inclusion of a budget for provision of oncology training scholarships in all upcoming oncology projects or programs			XX	XX	XX	XX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Work with relevant stakeholders to address scopes of practice, recognition, accreditation, schemes of service, and career development for the various oncology cadres	Conduct a comprehensive baseline assessment of current status of various oncology cadres, scopes of practice, recognition, schemes of service and career development.	TWG, MOH-HR, NCCP, NCI-K, Professional bodies, Counties, regulatory bodies	X	X			
			Conduct meetings/workshops with stakeholders to develop a joint technical advisory, reviewed schemes of services and other relevant addendum documents			XXX			
			Engage with relevant institutions to disseminate advisory/scheme of service/other documents and facilitate their implementation				XXX		
			Periodically monitor and evaluate the status of implementation				X	X	X
		Provide workplace incentives and implement mechanisms for oncology human resource management to ensure availability	Work with HR to implement policies that provide reward for exemplary service and workplace incentives to ensure a motivated oncology workforce	Facilities, Counties	X	X	X	X	X
			Support implementation of policies that ensure employed personnel serve the required number of hours as per the terms of service		X	X	X	X	X
	Strategy 2: Strengthen the capacity of oncology workforce for quality service provision	Establish continuous professional development programs that enable mentorship, regular in-service training, exchange and knowledge transfer for oncology professionals.	Conduct a desk review to document current status	TWG , Professional Associations		XX			
			Prepare a status report for implementation			XX			
			Promote and monitor establishment of facility work improvement teams and audits				XX	XXXX	XXXX
			Collaborate with professional bodies such as Kenya Society for Haematology and Oncology (KESHO) to establish and support oncology mentorship programs			XX	XX	XX	XX
		Strengthen capacity building (pre-service) on basic aspects of cancer prevention and management	Conduct a baseline survey of health training institutions and specific courses currently incorporating cancer content in their curriculums	TWG		XX			
			Hold workshops to sensitize lecturers based on assessment report and available cancer training packages			X	X	X	X
			Provide technical support for curriculum reviews of health training programs to include cancer content			X	X	X	X
			Conduct end-term survey to demonstrate change in practice/ impact		X	X	X	X	X
		Develop a framework to vet oncology practitioners before recognition or board certification	Conduct a comprehensive baseline assessment of current status of various oncology cadres	KMPDC, NCI-K, NCK, COC, Professional associations		XX			
			Hold sensitization meetings with stakeholders			X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Develop and disseminate framework to all oncology workforce			X	X	X	X
		Strengthen capacity building and sensitization of primary health care workers on early diagnosis and referrals for cancer including through use of innovative e-learning platforms	Develop/review/update harmonised and standardised training packages and curriculum for use for training of primary health workers countrywide and update on e-learning and other platforms	NCCP, TWG, Professional organizations, Counties, KMTC	XX	XX	XX	XX	XX
			Conduct regular webinars based on training materials to sensitize primary health care workers and sensitize HCWs to onboard e-learning		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct annual reviews of training content review and update of the cancer e-learning materials			X	X	X	X
			Conduct skills-based trainings based for specific training packages (e.g. Chemosafe, Patient navigation, etc) and monitor their implementation		XX	XX	XX	XX	x
		Develop and implement support structures for the oncology work force to improve the work environment	Conduct scoping exercise to determine specific HCW needs	NCCP, NCI-K,Division of Mental health, TWG, Counties, KENRA	XX				
			Develop and validate draft comprehensive document and SOPs		X	XX			
			Institutionalise the protocols and SOPs and monitor their use			X	XX	XX	XX
			Institute occupational health and safety programs at all cancer centers for safe chemotherapy administration, mental health, radiation safety among others			X	X	X	X
Strategy 3.3: increase access to timely comprehensive cancer care services	**Strategy 1: Improve availability of cancer treatment services**	Establish and equip five additional comprehensive regional cancer centres	Conduct baseline assessment	MOH - NCCP, Health infrastucture, regulatory bodies, Counties	XXX				
			Conduct project implementation and recruit relevant personnel		X	XXXX	XXXX	XXXX	XXXX
			Launch and operationalise facilities					XXXX	X
		Strengthen the capacity of national referral hospitals to efficiently provide comprehensive cancer care to include hematology -oncology	Needs assessment and submission of report	NCCP, National Referral Hospitals	XX				
			Support for establishment of required infrastructure and equipping including bone marrow transplant facilities in at least two national referral hospitals by 2028			XXXX	XXXX	XXXX	X
			Promote recruitment of relevant personnel			XX	XX	XX	XX
			Launch and operationalise				X	X	X
		Strengthen blood donor services, and transfusion transmitted illness testing at referral and regional cancer centers	Improve availability of irradiation services for blood and blood products	NCCP, Kenya National tissue and Blood Authority, Facilities, Counties	XXX	XXX	XXXX	XX	XXXX
			Improve access to apheretic and pooled platelets		XXX	XXX	XXXX	XX	XXXX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Sensitization on need for testing of transfusion transmitted infections including Cytomegalovirus (CMV)		XXX	XX	XX	XX	XX
			Establish isolation units and ensure hygiene						
		Adopt integrated electronic health management systems for oncology that are interoperable with existing digital health platforms	Conduct stakeholders engagement forums	NCCP, HMIS	XXX				
			Define the required scope for the linkages		X	XXXX			
			Develop and validate SOPs for the required linkages			XX	X		
			Implement the SOPs for the linkages			XX	XXXX	XXXX	XXXX
		Promote utilization of tele-health in the provision of cancer services	Define scope of cancer services and guidelines that can be used for telehealth/telemedicine	TWG, HMIS, Ministry of ICT		XX			
			Promote provision of infrastructure for telemedicine at the regional and national facilities and communities			XX	XX	XX	XX
			Sensitization of health workers at regional centers and national refrral hospitals on telehealth and telemedicine		XX	XX	XX	XX	XX
		Establish and optimise patient navigation between and within facilities across all levels of care	Develop guideline/protocol for patient navigation and referral	NCCP, TWG	XX				
			Disseminate and implement guidelines/protocol			XX	XX	XX	XX
			Develop and implement a short course on patient navigation			XX	XX	XX	XX
		Institute mechanisms for regular audits to monitor treatment outcomes	Develop and disseminate clinical audit template	TWG , NCI-K, NCCP	XX				
			Issue an advisory to cancer centers on the use of clinical audit tool			XX			
			Revise reporting tools to include clinical audits to monitor outcomes			XX			
			Sensitize facilities on utlization of the templates and reporting mechanisms			X	XXXX	XXXX	XXXX
		Work with the relevant stakeholders to strengthen nuclear and radiation medicine regulation, knowledge and utilisation	Develop/implement national guidelines for radionuclide therapy, appropriate to various health care levels and evidence based	NCCP, KENRA	X	X			
			Develop/implement policy on cancer treatment equipment maintenance and replacement plan			XXXX			
			Define and update differentiated care plans for the various radiotherapy and radionuclide therapy services based on cancer guideline to guide reimbursement of cancer services by NHIF			XX	XX	XX	XX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
	Strategy 2:Strengthen availability of palliative, rehabilitative and survivorship services	Develop a harmonized palliative care training package and curriculum for training of health care workers	Conduct workshops to develop/ finalise harmonised training curriculum and- other training materials	TWG, Counties	XX				
			Validate and launch harmonised training package		X	X			
			Conduct training and mentorship every two years in all counties			X		X	
		Promote the establishment of cancer hostel facilities at comprehensive cancer treatment centres.	Conduct feasibility and needs assessment	NCCP, NCI-K, Health infrastructure, Counties	X	X			
			Develop and disseminate bankable documents for use by possible financiers			XX			
			Forge partnerships and collaborations for resource mobilisations			X	X	X	X
			Establish and equip hostels facilities						
		Strengthen availability of oral morphine and develop appropriate guidelines and SOPs to guide its appropriate use in facilities providing palliative care services	Create an oral morphine solution directory of facilities for dissemination to patients and providers	TWG, Counties	XX				
			Develop and implement SOPs on morphine use		XXX	XXXX	XXXX	XXXX	XXXX
			Capacity build health care workers on appropriate use of oral morphine solution and its safe storage		XX				
			Advocate for inclusion of oral morphine solution as a strategic commodity in UHC benefit package and ensure sustained financing			XX	XX	XX	XX
		Establish palliative care services in all county referral facilities with linkages to primary and community home-based care	Conduct mapping exercise to establish current status and develop a concept note	TWG, Counties	X				
			Stakeholder engagements/ workshops to sensitize on the need to establish facilities or integrate care		X	X	X	X	X
			Promote establishment of home based care for management of palliative care patients in the community health units		X				
			Promote capacity building of community health workforce on palliative care using the cancer CHV curriculum (has component on palliative care)		X	X	X	X	X
	Strategy 3: Improve childhood cancer treatment, palliative care, survivorship and rehabilitation	Operationalise the childhood cancer TWG	Review/revise Terms of Reference (TORs)	NCCP	XX				
			Review membership		XX				
			Hold Quarterly TWG Meetings		XXXX	XXXX	XXXX	XXXX	XXXX
			Meeting reports		XXXX	XXXX	XXXX	XXXX	XXXX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Advocate for implementation of the paediatric cancer differentiated care package by NHIF	Prepare factsheets and other appropriate information packages for relevant audiences	NCCP, NHIF	X	X	X	X	X
			Disseminate the factsheets and other information packages		X	X	X	X	X
		Establish paediatric oncology centres of excellence at the national referral hospitals with their respective hostel facilities.	Conduct baseline needs assessment	NCCP, Dept of Health care services, National referral Facilities	XX	X			
			Recruit appropriate and relevant personnel		XX	XXXX	XXXX	XXX	
			Launch and operationalise facilities					XXX	
		Establish paediatric cancer management services at the regional cancer centres	Conduct needs assessment	NCCP, Counties	X	X	X	X	X
			Promote recruitment of paediatric oncology personnel for provision of services		X	X	X	X	X
			Provide technical support for intergration of pediatric oncology service at the regional centers		X	XX	XX	XX	XX
		Create an efficient system for expedited referral of children with suspected cancer to the regional cancer centres, then to the centres of excellence	Train and deploy patient navigators within facilities to facilitate referrals	TWG, Counties	XX	XX x	XXX	XX	XX
			Capacity build more health workers at primary health facilities on early diagnosis and referral using the already available MOH training materials		XXXX	XXXX	XXXX	XXXX	XXXX
			Establish mechanisms for client reminders, follow up and address structural barriers during referral		XX	XXXX	XXXX	XXXX	XXXX
	Strategy 4: Strengthen the supply chain of oncology health products and technologies	Strengthen the supply chain subcommittee to undertake accurate forecasting, quantification and supply planning	Review/revise Terms of Reference (TORs) and review membership	NCCP	XX				
			Review membership		XX				
			Hold monthly committee meetings and promptly address emerging issues as highlighted on the Oncology Dashborad		XXXX	XXXX	XXXX	XXXX	XXXX
			Submit quarterly consumption and forecasting reports to Pillar 3 TWG		XXXX	XXXX	XXXX	XXXX	XXXX
		Develop strategies to improve access to affordable oncology health products and technologies including local manufacturing, pooled procurements and zero rating	Promote the increase of Access Programs for innovator molecules	NCCP, HPT, TREASURY	X	X	X	X	X
			Advocate for establishment of framework agreements with manufacturers for direct purchase of essential oncology medicines		X	X	X	X	X
			Liaise with HPTs and HTA to institute tax exemptions for priority essential oncology HPTs through the National Treasury		X	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Develop policies and regulations that promote local production of oncology HPTs		X	X			
			Advocate for increased budgetary allocations to expand list of publicly funded essential/ basic chemotherapy medicines in KEML from 15 to at least 50 by 2028		XX	XX	XX	XX	XX
			Promote technology transfer for local production of generic oncology medicines and biosimilars.		X	X	X	X	X
		Collaborate with PPB to enhance regulation, post-market surveillance activities and ensure quality of oncology health products and technologies	Conduct regular meetings to review status of regulation, registration and post market surveillance for oncology HPTs and report to Pillar 3 TWG	NCCP, PPB,HPTs, KEMSA, MEDS	XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct annual post-market surveillance of oncolgy HPTs in collaboration with TWG and publish reports		XX	XX	XX	XX	XX
			Ensure monthly reporting of pharmacovigilance forms of oncology on the National Oncology Dashboard and institute corrective mechanisms in liaison with PPB		XXX	XXXX	XXXX	XXXX	XXXX
			Promote the streamlining of processes for regulation of oncology clinical trials		X	X	X		X
		Engage KEMSA and MEDS to ensure consistent availability of essential cancer health products and technologies for treatment, palliative care, rehabilitation and survivorship	Hold monthly committee meetings and promptly address emerging issues as highlighted on the National Oncology Dashborad	NCCP, KEMSA, MEDS	XX				
			Review and disseminate monthly reports on essential drugs available at KEMSA		XXX	XXXX	XXXX	XXXX	XXXX
			Share forecasting data to inform procurement of essential medicines		XXX	XXXX	XXXX	XXXX	XXXX
			Hold Quarterly supply chain subcommittee Meetings		XXXX	XXXX	XXXX	XXXX	XXXX

Pillar 4: Advocacy, Partnerships, Coordination and Financing

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
To have an empowered and informed population in cancer prevention and control and reduce cancer stigma	**Strategy 1: Identify and map the appropriate communication tools based on stakeholder needs and current determinants of health**	Finalize, launch and disseminate the National Cancer Communication Strategy	Conduct workshops and meetings	NCCP	XXX	X			
			Pilot the communication strategy/ IEC materials/packages		X	X			
			Launch, rollout and dissemination of the communication strategy/IEC materials/packages			XX			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Utilise high-impact communication platforms and interventions	1. Hold meetings to map and identify platforms/actors and develop dissemination implementation framework	NCCP	X	XXX			
			2. Conduct regular disseminations targeting various audiences as per dissemination framework			X	XXXX	XXXX	XXXX
		Identify and engage multisectoral stakeholders to support cancer communication and reduction of cancer stigma	1. Develop tools for stakeholder mapping	NCCP		XXX			
			2. Conduct regular stakeholders sensitization forums targeting various groups			X	XXXX	XXXX	XXXX
			3. Conduct quarterly technical support visits to ensure alignment and achievement of targets			X	XXXX	XXXX	XXXX
		Develop and disseminate a cancer screening, diagnosis and treatment service directory	1. Hold workshop to map and identify services	NCCP	X				
			2. Publish the directory			X			
			3. Launch and disseminate the directory			X			
	Strategy 2: Mainstream Advocacy, Communication and Social Mobilization activites across the cancer care continuum	Train, equip and mentor community health workers to increase cancer awareness in the community	Review training materials every two years	NCCP, Division of Community Health	XX		XX		XX
			Conduct trainings and mentorship every two years for CHVs in all counties		XX		XX		XX
			Equip CHVs with relevant standard cancer "kit" for use within the community		XXXX	XXXX	XXXX	XXXX	XXXX
		Conduct stakeholder capacity building at national and county level on cancer ACSM	Review and develop training materials	NCCP, Division of Community Health	XXX				
			Conduct engagement meetings with potential advocacy champions/leaders/administartors for the trainings		XX				
			Conduct capacity building on cancer ACSM in all counties		XX	XX	XX	XX	XX
			Conduct the annual cancer commemoration events for the defined days		XX	XXXX	XXXX	XXXX	XXXX
			Review and develop training materials		XX		X		X
		Mobilize political commitment, involvement, accountability and resource for cancer advocacy and communication activities	Develop and disseminate policy briefs	NCCP, NCI-K, COG		XX		XX	
			Hold an annual cancer award event to reward outstanding personalities and CSOs during World Cancer Day		X	X	X	X	X
			Conduct advocacy trainings to sensitize and equip leaders		X	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Involve persons living with cancer, caregivers and community leaders in cancer advocacy and communication	Conduct sensitization forums to equip persons living with cancer for meaningful participation in ACSM activities	NCCP, NCI-K	X	X	X	X	X
		Institute the county level ACSM on cancer prevention and early detection	Develop TORs and annual work plan for county level ACSM	NCCP, County governments		XX			
			Hold county cancer ACSM meetings to implement workplan			XXX	XXXX	XX	
			Provide annual reports on implementation and achievements		X	X	X	X	X
	Promote knowledge sharing on cancer within and outside the health sector	Conduct a National Cancer Summit every two years	Conduct preparatory meetings	NCI-K		X	X		
			Launch and disseminate a cancer burden report at the summit			X			X
		Provide support for counties to domesticate the cancer control strategic plan	Conduct county level dissemination meetings and workshops and provide technical support	NCCP, County governments		X			
		Observe priority cancer commemoration days from the community level	Define the list of National Cancer Awareness Days for annual commemoration and develop standardised key messages, toolkits and IEC materials for each	NCCP, Counties, NCI-K	X				
			Print and disseminate IEC materials/toolkits			X			
			Sensitize and train key stakeholders on the Cancer Awareness Days commemoration			X			
	Strategy 4: Strengthening of supply chain management for cancer prevention and control health products and technologies (HPTs) at all levels	2. Develop a dashboard to track availability, forecast, and quantify use of HPTs (including equipment) for cancer prevention and control in health facilities	Stakeholder engagement to review and prioritise HPTs for tracking	NCCP, KEMSA	X				
			Develop dashboard for tracking of HPTs		X				
			Sensitize healthcare workers in all counties on the HPTs tracking system		X				
			Regular reporting and monitoring of consumption of the HPTs		X	X	X	X	X
		Ensure availability of commodities, equipment & infrastructure at health facilities	Develop a framework for the provision, installation & maintenance of screening commodities, equipment & infrastructure	NCCP, KEMSA	X				
			Hold meetings with counties and partners to avail and maintain the necessary commodities, equipment & infrastructure		XX				
		Review and update essential cancer prevention and control commodities and supplies in the Kenya Essential Medicines & Supplies Lists	Hold meetings with Medical Supplies Agencies/Authorities to include and distribute essential cancer prevention and control commodities and supplies as part of strategic commodities	NCCP, KEMSA	X				
		Support local manufacturing of coomodities and nurture innovation	Hold stakeholder meetings to collaborate in ensuring local manufacturing	NCCP		X			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
Strategic objective 4.2: Strengthen engagement and partnerships at national and County levels	**Strategy 1: Strengthen cancer control coordination structures**	Implement the NCD-ICC coordination framework and strengthen the cancer technical working group	Develop/review TORs and annual work plan for Cancer TWG	NCCP, NCD-ICC	XX				
			Hold quarterly meetings to implement workplan		XXXX	XXXX	XXXX	XXXX	XXXX
			Submit quarterly reports to NCD-ICC		XXX	XXXX	XXXX	XXXX	XXXX
		Strengthen the office of the NCD coordinators as a member of the county NCD committee to lead the implementation of cancer control activities	Develop TORs for the NCD coordinator and define roles in cancer control	NCCP, NCD-ICC	XXX				
			Disseminate and institutionalise TORs			XXXX			
			Submit annual county cancer reports to the Cancer TWG of the NCD-ICC			X	X	X	X
		Convene regular coordination meetings with counties to disseminate cancer policies and provide technical support on their implementation	Hold coordination meetings twice annually to disseminate cancer policies	MOH-NCCP, NCI-K, County governments	X	X	X	X	X
			Conduct county visits for technical support on integration		XXX	XX	XXX	XX	
		Develop a mechanism for sharing regional cancer control resources between counties, including human resources, infrastructure and commodities	Appoint a committee to oversee process	NCCP, County governments	X				
			Conduct stakeholders workshop to develop framework		XX				
			Hold meetings to develop and validate framework		X				
			Obtain sign-off and approval of framework by Ministry of Health leadership for implementation		X				
		Ensure continuity of essential cancer services during emergencies and pandemics	Hold workshop to define/ refine essential cancer services in emergency situations for incorporation into NCD guidelines	Department of NCDs, NCCP	XX				
			Support dissemination of guidelines		X	X			
	Strategy 2: Strengthen cancer control legislative framework	Amend the Cancer Prevention and Control Act 2012 to define key roles in the spirit of devolution and address emerging needs	Constitute and appoint a focal team/committee to drive process and develop draft documents	MOH-NCI-K, NCCP, National Assembly, Professional organizations	XXXX				
			Conduct stakeholder engagement workshops to develop and submit requisite legal documents		XX	XX			
		Amend the Alcoholic Drinks Control Act to increase excise taxation on alchol	Constitute and appoint a focal team/committee to drive process and develop draft advisory documents	Pillar 1 TWG		X			
			Conduct stakeholder engagement workshops to develop and submit requisite legal documents			X			
		Review of Narcotic Drugs and Psychotropic Substances Act and development of appropriate regulations to improve access to opioids for use by cancer patients	Constitute and appoint a focal team/committee to drive process and develop draft documents	Pillar 3 TWG		X			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Conduct stakeholder engagement workshops to develop and submit requisite legal documents			X			
		Support enactment of legislation to reduce the marketing and advertising of unhealthy foods and drinks	Constitute and appoint a focal team/committee to drive process and develop draft documents	Pillar 1 TWG		X			
			Conduct stakeholder engagement workshops to develop and submit requisite legal documents			X			
		Integrate cancer interventions in counties annual work plan and integrated development planning processes	Conduct workshops to sensitize counties and develop activities	NCCP, County governments	XX	XX	XX	XX	XX
			Dissemination of AWP within counties		XX	XX	XX	XX	XX
Strategic objective 4.3: Strengthen national-level cancer control coordination agencies	**Strategy 1: Optimize the operational capacity of the National Cancer Institute of Kenya (NCI-K)**	Establish human resource instruments and recruit adequate staff	Hold meetings to define staffing needs	MOH, NCI-K	X				
			Conduct competitive staff recruitment		X				
			Provide scholarships and support for NCI-K staff to attend conferences/symposia		X	X			
		Build the capacity of the institute's staff to deliver on its mandate	Conduct a training needs assessment		X	X			
			Conduct staff trainings			X			
		Support appropriate infrastructural establishment and equipping of the National Cancer Institute as a learning resource	Conduct feasibility/ assessment and identify site			XX			
			Establish the infrastructure			XXX			
			Equip and launch the facility				XXXX	XXXX	
		Advocate for the establishment of a multisectoral cancer response advisory committee to address cancer on multiple fronts, coordinated by the NCI-K	Conduct stakeholder engagement/ workshops		X				
			Develop and disseminate policy briefs targeting relevant stakeholders		X	X			
	Strategy 2: Strengthen the National Cancer Control Program (NCCP)	Deploy adequate staff to deliver its madnate as per its internal operational structure	Define organogram/annual work plan/personnel for the five pillars/ units of the NCCP as per NCCS	MOH, NCCP	X				
			Advocate for secondment/transfers of staff as per defined framework		XX				
			Provide scholarships and support for NCCP staff to attend conferences/symposia		X	X	X	X	X
			Conduct retreats/workshops for capacity building and mentorship		X	X	X	X	X
		Build the capacity of the NCCP staff to deliver on its mandate	Conduct a training needs assessment			XX			
			Conduct staff trainings			X	X		
		Facilitate the NCCP to conduct capacity building, provision of technical support, and supportive supervision to counties for cancer control	Budgetary allocation for capacity building and technical support activities		X	X	X	X	X

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Maintenance of office/equipment/ furniture/vehicle and provision of office supplies and fuel		X	X	X	X	X
		Adequately resource the development and regular dissemination of cancer prevention and control policies/guidelines.	Hold budget allocation meetings for policy development, printing, launch and dissemination		X	X	X	X	X
			Hold internal review/validation meetings at MOH for technical inputs to support development		X	X	X	X	X
Strategic objective 4.4: Strengthen partnerships for cancer prevention and control at all levels	**Strategy 1: Strengthen multi-sectoral partnerships in cancer control**	Establish an NCD Control Unit that incorporates cancer control, in all Ministries, Departments and State Agencies	Draft concept note and submit for approval	DNCDs, NCCP	X	X	X	X	X
			Conduct stakeholder sensitization and implementation meetings						
			Hold workshops to develop indicators and tools for reporting			X	X	X	
		Conduct stakeholder mapping and strengthen Public Private and People Partnerships to enhance cancer control across the continuum of care	Conduct a desk review and provide a report	MOH, NCCP	X				
			Hold meetings to engage, negotiate, develop and implement PPPs		X	X	X	X	X
		Promote strategic collaborations with cancer Health Products and Technologies manufacturers, emphasizing fraemwork agreements and local manufacturing to enhance access to quality and affordable cancer commodities.	Hold meetings to engage, negotiate, develop and implement PPPs	NCCP,HPTs, KEMSA, Manufacturing Agencies	XXXX	XXXX	XXXX	XXXX	XXXX
		Work with regulatory bodies to streamline processes for the review, evaluation and clearance of new cancer screening, diagnostics, and treatment health products and technologies, including those for cancer research and clinical trails	Conduct meetings the review, evaluation and clearance of new cancer preventio n and control health products and technologies	NCCP, KEMSA, Regulatory bodies	X				
Strategic objective 4.5: Increase innovative and sustainable financing for comprehensive cancer prevention and control at national and county levels	**Strategy 1: Strengthen innovative financing mechanisms for an effective cancer response**	Increase public financing for priority cancer control interventions in the UHC benefit package	Define the cancer UHC benefits package to cover for screening of priority cancers, diagnosis, treatment, palliative, and survivorship care	NCCP	XX	XX			
		Leverage the chronic diseases fund to support the provision of essential cancer medicine, health products, and technologies	Advocate for a package for essential cancer diagnostic services Write a proposal to MOH	NCCP	X				
		Adopt mixed financing model to fund cancer control interventions.	Prepare and disseminate factsheets and other appropriate information packages for relevant audiences	NCCP	XX	XXXX			
		Support County governments to create cancer control annual work plans; and to allocate and ring-fence county budget lines	Conduct stakeholder meetings/ workshops with all counties	NCCP, County governments	X				
		Advocate for the consolidation of financing from various levies and sin taxes to support cancer prevention and control	Establish vote and account lines for each service offered	NCCP	X				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		Lobby for NHIF to enhance the diagnostic package to cover for radiology, pathology and laboratory services	Hold meetings to advocate for the enhancement of the diagnostic package including histopathology services as part of surgical package for reimbursement by the National Health Insurance Fund	NCCP, NHIF	XX				
			Prepare and disseminate factsheets and other appropriate information packages to NHIF		XX	XXXX	X		
	Strategy 2: Ensure adequate financing toward achieving a 60% survival rate for children with cancer	Advocate for provision of affordable, comprehensive cancer care for children	Prepare and disseminate factsheets and other appropriate information packages for relevant audiences	NCCP	X	X	X	X	X
		Institute mechanisms for facilitating and financing national/regional procurement of essential childhood cancer medicines, rehabilitative and other health products and technologies	Develop and regularly disseminate policy briefs	NCCP, KEMSA		X	X	X	X
		Advocate for Universal Health Coverage with differentiated care packages for children	Prepare and disseminate factsheets and other appropriate information packages for relevant audiences	NCCP, Partners		X	X	X	X
			Develop and regularly disseminate policy briefs			X	X	X	X
		Create a social protection package for childhood cancer patients and their families	Conduct stakeholder meetings to develop a package	NCCP, Partners		XX			
			Establish vote and account lines for each service offered			X			
			Launch the package			X	XX		

Pillar 5: Strategic Information, Registration, Surveillance and Research

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
Strategic objective 5.1: Strengthen availability, quality, demand and utilization of cancer data at both national and sub-national levels	**Strategy 1: Enhance the coordination structures and optimise cancer surveillance data use.**	1. Strengthen the Strategic information, Registration, Surveillance and Research Technical Working Group	Revise Terms of Reference (TORs)	NCCP, TWG members	XX				
			Hold Quarterly TWG Meetings		XXXX	XXXX	XXXX	XXXX	XXXX
			Review membership		XX				
		2. Increase reporting rates and utilization of cancer surveillance data	Revise/update/develop new tools as necessary (MOH 412, MOH 745, MOH 646 and MOH 746)	NCCP, TWG	XXXX	X			
			Facilitate printing and distribution of surveillance tools		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct annual training and sensitization of on the data tools		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct quartely mentorship forums		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct quaterly Data Review meetings		XXXX	XXXX	XXXX	XXXX	XXXX

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Conduct annual supportive supervision visits and service audits on their use		XXXX	XXXX	XXXX	XXXX	XXXX
		3. Publish and disseminate cancer surveillance reports.	Analysis of the available surveillance data	TWG		XXXX		XXXX	
			Draft the cancer surveillance report			XXXX		XXXX	
			External review of the report			XXXX		XXXX	
			Validation of the report			XXXX		XXXX	
			Publication, launch and dissemination			XXXX		XXXX	
		4. Advocate for inclusion of key cancer indicators in national and county surveys	Identify priority indicators/ variables	NCCP, TWG, Counties	X	X	X	X	X
			Integrate the indicators into particular surveys at planning stage (KDHS, KENPHIA, KHFA, STEPS, KHHEUS, etc		X	X	X	X	X
			Disseminate survey findings to stakeholders		X	X	X	X	X
	Strategy 2: Create a framework for data quality improvement at all levels	1. Adapt the national data quality protocol for cancer control.	Hold consultative meetings with the relevant stakeholders	NCCP	XXXX				
			Hold workshop to adapt the protocol for cancer control data quality improvement		XXXX				
			Pilot the data quality audits tools to operationalize the protocol		XXXX				
		2. Conduct periodic Data Quality Audits (DQA) and incorporate recommendations into continuous quality improvement (CQI)	Conduct scheduled DQAs (at least 10 per year)	NCCP, Counties	XXXX	XXXX	XXXX	XXXX	XXXX
			Prepare the DQA reports		XXXX	XXXX	XXXX	XXXX	XXXX
			Disseminate the DQA reports		XXXX	XXXX	XXXX	XXXX	XXXX
		3. Integrate cancer CQI into the Kenya Quality Model for Health (KQMH) structure	Conduct county sensitization meetings	NCCP, Directorate of Standards and Quality Assurence and Regulations	XXXX	XXXX	XXXX	XXXX	XXXX
			Track quality indicators as per the KQMH framework		XXXX	XXXX	XXXX	XXXX	XXXX
		4. Provide technical support to sub-national levels for Continuous Quality Improvement for all cancer control interventions	Incorporate QA content in all training materials	NCCP, Counties	XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct training on QA and CQI		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct periodic QA monitoring		XXXX	XXXX	XXXX	XXXX	XXXX
	Strategy 3: Implement a monitoring and evaluation framework for the National Cancer Control Strategic plan.	1. Launch and disseminate the Monitoring, Evaluation and Learning (MEAL) framework.	Conduct dissemination forums for the MEAL framework	NCCP, Counties	XXXX				
			Create county level MEAL implementation action plans		XXXX				

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Annual county level monitoring of the MEAL action plan implementation		X	X	X	X	X
		2. Conduct annual, mid-term and end-term and impact evaluation of implementation of the strategic plan and disseminate the findings to all stakeholders.	Conduct annual strategy implementation review forums	NCCP, Counties	X	X	X	X	X
			Prepare the strategy implementation reports		X	X	X	X	X
			Disseminate the implementation reports to all stakeholders		X	X	X	X	X
			Conduct an imPACT mission for end-term evaluation of the NCCS						XXXX
Strategic objective 5.2: Strengthen cancer registration in the country	**Strategy 1: Enhance population-based and hospital-based cancer registration.**	1. Strengthen the existing Population Based Cancer Registries (PBCRs) in Nairobi, Eldoret and Kisumu.	Adequately staff the PBCRs	NCCP, NCI-K, KEMRI	XXXX	XXXX	XXXX	XXXX	XXX
			Conduct training and mentorship for the registrars at the PBCR		X	X	X	X	X
			Revamp the physical and IT infrastructure at the PBCRs		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct Continuous Data Abstraction beyond health facilities (CRVS, Private facilities, Pathology laboratories, Chiefs offices, etc)		XXXX	XXXX	XXXX	XXXX	XXXX
		2. Establish two additional county PBCR in Nakuru and Mombasa to achieve at least 20% population coverage in line with the IARC recommendations.	Conduct stakeholder engagement meetings	NCCP, NCI-K, KEMRI, HMIS	XXXX	XXXX	XXXX	XXXX	XXXX
			Engage adequate staff for additional PBCRs		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct training and mentorship for the registrars at the additional PBCR		X	X	X	X	X
			Equip the registries with the minimum equipment and physical infrastructure		XXXX	XXXX	XXXX	XXXX	XXXX
			Launch the newly established cancer registries		X	X			
			Conduct Continuous Data Abstraction beyond health facilities (CRVS, Private facilities, Pathology laboratories, Chiefs offices, etc)			XXXX	XXXX	XXXX	XXXX
		3. Establish, strengthen and sustain hospital-based cancer registries at all cancer treatment centres and ensure linkages to the respective PBCR and HMIS.	Engage adequate staff for the HBCRs	NCCP, NCI-K, KEMRI, Counties	XXXX	X			
			Train and mentor registrars		X	X	X	X	X
			Equip the registries with the minimum equipment and physical infrastructure		XXXX	X			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
		4. Adopt and utilize global standard guidelines for cancer registration and reporting to ensure efficiency and harmonization.	Domesticate the AFCRN/IARC SOPs for cancer registration	NCCP, KEMRI, NCI-K		XXXX			
			Publish the Kenya Cancer Registration SOPs			XXXX			
			Disseminate the SOPs			XXXX			
		5. Establish a regular mechanism for auditing the cancer registration process and data quality.	Track compliance to the SOPs by the cancer registries annually	NCCP, Counties		XXXX	XXXX	XXXX	XXXX
			Support cancer registries to publish their data periodically			XXXX	XXXX	XXXX	XXXX
		6. Create awareness and utilization of data from cancer registries.	Prepare factsheets and other appropriate information packages for relevant audiences	Cancer registries		X	X	X	X
			Disseminate the factsheets and other information packages			X	X	X	X
		7. Create a mechanism for training and mentorship of health records and information officers on cancer registration in collaboration with the IARC regional cancer registration collaboration centre	Stakeholder engagement to develop the scheme of service and career progression	NCCP, NCI-K, KEMRI					
			Adaption of the scheme of service by the Ministry of public service		X	XXX			
			Incorporate the cadre in the IPPD		X		XXX		
		8. Publish annual national cancer burden report and disseminate it to all stakeholders	Prepare a draft report	Cancer registries	X	X	X	X	X
			External review of the report		X	X	X	X	X
			Validation of the report		X	X	X	X	X
			Publication and launch of the report		X	X	X	X	X
			Dissemination of the report		XX	XX	XX	XX	XX
	Strategy 2: Establish an integrated oncology database that is interoperable with other systems to inform policy and research.	1. Develop and disseminate standardized oncology application interfaces (API).	Conduct API development workshops	NCCP, HMIS	XX				
			Conduct dissemination forum for the APIs			XXXX			
		2. Finalize and roll-out the oncology modules within national EMR system, ensuring interoperability with KHIS and cancer registries	Finalize the EMR development	NCCP, HMIS, development team	XX				
			Conduct user advisory testing (UAT)		XX	XX			
			Pilot the EMR		XX	XX			
			Training TOTs on the EMR		XX	XX			

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Conduct facility level training on the EMR		XX	XXXX			
			Phased roll-out of the EMR				XXXX	XXXX	XXXX
		3. Promote integration of oncology databases to collect all data sources for cancer registries, including cancer screening data and death registry.	Hold planning and consultative meetings	NCCP	XXXX	XXXX			
			Create the data-sharing/database linkage mechanisms		XXXX	XXXX			
Strategic objective 5.3: Strengthen cancer research in Kenya	**Strategy 1: Support and adequately resource a comprehensive cancer research agenda to inform policy**	1. Revise the national cancer research agenda based on key priorities areas for cancer research in Kenya based on disease burden, patterns and trends.	Define cancer research agenda	NCCP, NCI-K	XX				
			Disseminate the cancer research agenda			XX			
			Ensure its inclusion in the national research agenda			XX			
		2. Implement the national cancer research agenda	Mobilize financial, human and infrastructural resources for cancer research	NCCP, NCI-K, NRF, KEMRI		XXXX	XXXX	XXXX	XXXX
			Include implementation research components in all planned cancer control programs		XXXX	XXXX	XXXX	XXXX	XXXX
			Create cancer research office at the cancer treatment centers		XXXX	XXXX			
		3. Create a national cancer research repository for use by all stakeholders	Conduct a mapping exercise of cancer research stakeholders	NCCP, NCI-K	XXXX	XXXX			
			Create/Develop a cancer research navigator tool		XXXX	XXXX			
			Disseminate the tool		XXXX	XXXX			
			Conduct regular reviews and sensitisation on the cancer research navigator tool			X	X	X	X
		4. Create a knowledge translation/management mechanism for cancer research	Include cancer research tracks in all research dissemination forums in Kenya	NCCP, NCI-K, KEMRI, other research institutions	XXXX	XXXX	XXXX	XXXX	XXXX
			Integrate cancer research into various health training curriculum in tertiary institutions		XXXX	XXXX	XXXX	XXXX	XXXX
		5. Create a data-sharing framework to promote cancer research and surveillance using data available at the established population-based cancer registries	Develop data sharing SOPs	NCCP, NCI-K, KEMRI	XXXX				
			Disseminate the SOPs			XXXX			
	Strategy 2: Enhance adoption of cancer research into clinical and policy practice	1. Establish a cancer research center of excellence in the country and optimize collaborations and synergy	Conduct a feasibility and baseline assesment to identify a possible site	NCCP, NCI-K, KEMRI		XX			
			Staffing for the research centre of excellence				X		

Strategic Objectives	Strategies	Activities	Sub Activities	Responsible	Year 1	Year 2	Year 3	Year 4	Year 5
					Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4	Q1,2,3,4
			Establish infrastructure and equipment				X		
			Launch the cancer research centre of excellence				X		
		2. Make cancer research information available at the Kenya Health Research Observatory (KHRO)	Hold consultative meetings with the MOH division of Policy, M/E and Research	NCCP, Division of M/E, Research and Policy		XXXX			
			Create a cancer research tab on the KHRO			XXXX			
			Develop an automated mechanism of pulling relevant cancer research publications to the KHRO			XXXX			
		3. Conduct cancer economic investment cases on priority cancer control topics in Kenya	Identify priority topics	NCCP	XXXX	XXXX	XXXX	XXXX	XXXX
			Engage stakeholders		XXXX	XXXX	XXXX	XXXX	XXXX
			Forge collaborations		XXXX	XXXX	XXXX	XXXX	XXXX
			Conduct data collection		XXXX	XXXX	XXXX	XXXX	XXXX
			Undertake data processing/ modelling		XXXX	XXXX	XXXX	XXXX	XXXX
			Publish and disseminate the investment cases		XXXX	XXXX	XXXX	XXXX	XXXX
		4. Develop and disseminate policy and evidence briefs from priority cancer research topics	Identify topics for policy and evidence briefs	NCCP	XXXX	XXXX	XXXX	XXXX	XXXX
			Hold brainstorming meetings/ workshops		XXXX	XXXX	XXXX	XXXX	XXXX
			Develop initial drafts		XXXX	XXXX	XXXX	XXXX	XXXX
			External review of the draft briefs		XXXX	XXXX	XXXX	XXXX	XXXX
			Finalization, publication and dissemination of the briefs		XXXX	XXXX	XXXX	XXXX	XXXX
		5. Formulate mechanisms for incorporating research findings into cancer protocols and policies	Stakeholder engagement	NCCP, TWG		XXXX	XXXX	XXXX	XXXX
			Develop evidence synthesis			XXXX	XXXX	XXXX	XXXX
			Workshops to incorporate research evidence into policy and guidelines			XXXX	XXXX	XXXX	XXXX
		6. Build research capacity for health care workers and other stakeholders at both national and sub-national levels	Develop cancer research training materials	NCCP, KEMRI, NCI-K, Training institutions, Research organizations			XXXX	XXXX	XXXX
			Conduct research trainings and mentorship				XXXX	XXXX	XXXX

Appendix 2: Minimum Human Resource requirements for Cancer Diagnosis by level of Care

Table 14: Human resource requirements

LEVEL OF CARE	IMAGING	PATHOLOGY
Level 4	• 5 radiologists • 10 technologists • 4 sonographers • 1 biomedical engineer • 2 radiology nurses • 2 patient porters	• 5 pathologists (3 anatomic, 2 clinical) • 20 histocytotechnologists • 1 biomedical engineer • 1 ICT engineer • 2 medical records personnel • 2 administrative assistants
Level 5	• 10 radiologists (1 pediatric radiologist, 1 oncologic imaging) • 2 Interventional radiologists • 30 technologists • 10 sonographers • 1 medical physicist • 2 biomedical engineer • 4 radiology nurses • 4 patient porters • 1 ICT engineer	• 10 pathologists (6 anatomic, 4 clinical) • 40 histocyto technologists • 2 biomedical engineers • 1 ICT engineer • 4 medical records personnel • 3 administrative assistants
Level 6	• 40 Radiologists (general & all subspecialisation) • 6 Interventional radiologists • 60 technologists • 15 sonographers • 2 medical physicists • 2 biomedical engineers • 10 radiology nurses • 10 patient porters • 2 ICT engineers • 2 administrative assistants • 20 medical records personnel	• 14 pathologists (10 anatomic, 4 clinical) • 56 histocyto technologists • 3 biomedical engineers • 1 ICT engineer • 4 medical records personnel • 4 administrative assistants

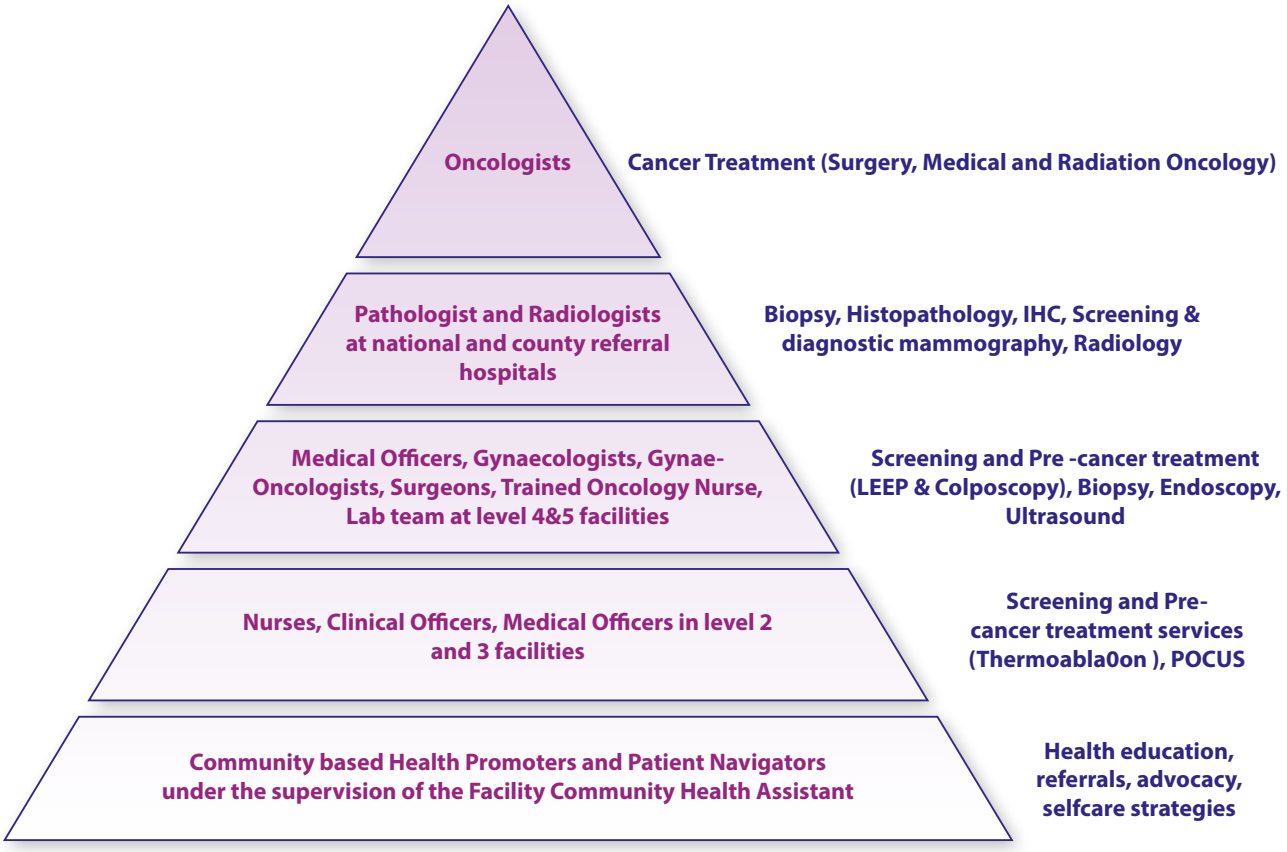
Appendix 3: Incidence and mortality of different cancers, Kenya, 2020

Cancer	Incidence	Deaths
All cancers	42,116	26,872
Breast cancer	6,799	3,107
Cervical cancer	5,236	3,211
Prostate cancers	3,412	1,780
Oesophageal cancer	2,974	2,743
Colorectal cancer	2,724	1,862
Non-Hodgkin lymphoma	1,798	1,098
Stomach cancer	1,781	1,501
Leukaemia	1,579	1,159
Ovarian cancer	1,126	798
Nasopharyngeal	931	621
Liver cancer	924	856
Pancreatic cancer	809	800
Lung cancer	794	729
Kaposi sarcoma	785	460
Lip and oral cavity cancer	759	435
Uterine cancer	735	223

Cancer	Incidence	Deaths
Multiple myeloma	706	583
Brain (CNS) cancer	686	560
Bladder cancer	493	249
Kidney cancer	476	305
Hodgkin lymphoma	444	184
Thyroid cancer	432	128
Laryngeal cancer	408	267
Gallbladder cancer	377	327
Melanoma of the skin	273	101
Vulva cancer	157	88
Hypopharyngeal cancer	148	120
Cancer of the salivary glands	145	86
Oropharyngeal cancer	66	43
Vaginal cancer	65	36
Penile cancer	47	21
Testicular cancer	35	12
Mesothelioma	10	10

(Source: Global Cancer Observatory)

Appendix 4: The role of the health workforce in cancer prevention and control across the care continuum from community to tertiary level



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List of Contributors

Name	Institution
Abdirizack Ali Mandera	Mandera county
Ann Korir	KEMRI
Beatrice Okumu	City cancer challenge
Benda Kithaka	KILELE Health
Benjamin Kipkoech	Nakuru County
Boniface Mbuki	Cancer Awareness Centre of Kenya
Catherine Munaji	NCD Alliance of Kenya
Chrispine Ngwawe	Maseno University
Christine Miano	MOH- National Vaccines and Immunization Program
Christine Mugo-Sitati	Kenya Network of Cancer Organizations
Dorcas Kiptui	DNCD
Dr Alfred Karagu	NCI-K
Dr Andre Ilbawi	WHO
Dr Angela McLigeyo	Kenyatta University
Dr Beatrice Mugi	KNH
Dr David Murage	NCCP
Dr David Soti	MOH Office of the Director General
Dr Diana Menya	Moi University
Dr Emannuel Wamalwa	Council of Governors
Dr Ephantus Maree	Head, DNCD
Dr Eunice Gathitu	MOH_ Health Products and Technologies
Dr Freddie Bray	IARC
Dr Gladwell Gathecha	DNCD
Dr Helena Musau	KUTRRH
Dr Irene Nzamu	KNH
Dr Joan-Paula Bor	NCCP
Dr Joy Mugambi	Nakuru County
Dr Joyfrida Chepchumba	NCCP
Dr Lilian Karoki	Meru County
Dr Loise Nyanjau	NCI-K
Dr Martin Mwangi	NCI-K
Dr Mary Nyangasi	Head, NCCP
Dr Michael Mwachiro	Tenwek Mission Hospital/SSK
Dr Miriam Mutebi	Aga Khan University
Dr Musila Mutala	UoN/KAR
Dr Richard Njoroge	NCCP/NCRL
Dr Robai Gakunga	Independent Consultant
Dr Sammy Masibo	Trans-Nzoia County
Dr Sarah Muma	Kenyatta National Hospital
Dr Serah Kaggia	JKUAT
Dr Shaheen Sayed	Aga Khan University hospital
Dr Sharon Kapambwe	WHO

Name	Institution
Dr Valerian Mwenda	NCCP
Dr Zipporah Ali	NCDAK
Dr. Bramwel Wekesa	Nakuru County
Dr. Charles Kabiru Kiambu	Kiambu county health department
Dr. Dagane Dabar	KEMSA
Dr. Nathan G. Buziba	Moi Teaching and Referral Hospital
Dr. Vera Manduku	Kenya Medical Research Institute
Elizabeth Chomba	Kwale County
Esther Sigilai	NCRL
Felipe Roitberg	WHO
Gladys Chesumbai	MTRH
Hannah Gitungo	NCCP
Hillary Macdonald Chang'	NCCP
Igor Veljkovik	IAEA
Isaac Mundia	Kenya Nuclear Regulatory Authority
Jemimah Kuta	Council of Governers'
Jeremiah Mumo	MOH-Health Information System
Judith Otele	National Health Insurance Fund
Kennedy Mugambi	Clinton Health Access Initiative
Kennedy Okinda	KNH Othaya
Khadija Hassan	County government of kwale
Lance Osiro	Clinton Health Access Initiative
Lilian Genga	NCCP
Lydiah Kirika	NCCP
Martin Ndungu	Nyandarua department of Health
Nancy Okinda	Aga Khan University Hospital
Patricia Njiri	Clinton Health Access Initiative
Paul Olick	Migori County
Prof. Nicholas Abinya	Kenya Society of Haematology and Oncology (KESHO)
Prof. Max Parkins	AFCRN
Professor Nicholas Abinya	KESHO
Rachel Kitonyo	McCabe Center for Law
Richard Kihara	NCI-K
Roselyne Okumu	Kenyatta National Hospital
Ruth Muia	NCI-K
Samuel Cheburet	MoH-Health Information System
Sundley Omwenga	NCI-K
Vivienne Mulema	CHAI

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