MINISTRY OF HEALTH

KENYA
CANCER POLICY
2019-2030

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KENYA CANCER POLICY 2019-2030

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FOREWORD

Globally, the cancer burden is rising, exerting significant strain on populations and health systems at all levels of income. There are concerted efforts towards enhancing access to comprehensive cancer prevention and control initiatives. The United Nations' Agenda for Sustainable Development calls for a reduction by one-third of premature mortality from Non-Communicable Diseases, including cancer.

The Ministry of Health is committed to putting in place legislative, policy mechanism to achieve the progressive realization of the highest attainable standards of health as stipulated by the Constitution of Kenya 2010, under Article 43 (1)(a)The Kenya Health Policy 2014-2030 articulates the health sector's commitment under the government's stewardship to ensure attainment of the highest possible standards of health in a manner responsive to the population health needs.

In Kenya, cancer is the 3rd leading cause of death after infectious and cardiovascular diseases. The condition exerts a heavy socio-economic burden on individuals, households and entire communities through loss of productivity, cost of care and premature deaths. Cancer prevention and control requires a health-systems approach spanning the entire continuum of care. This includes prevention, early detection, treatment, palliative care, survivorship, monitoring, evaluation and research. Cancer control in Kenya is however hampered by inadequate cancer diagnosis and management infrastructure, limited specialized human resource capacity, late presentation and diagnosis as well as low awareness on cancer prevention and control in the population. In order to address these issues, a coordinated approach is key.

The Kenya Cancer Policy 2019-2030 provides for a framework to comprehensively address cancer control in Kenya through the systematic implementation of evidence-based interventions for prevention, screening, timely diagnosis, treatment, survivorship and palliative care, financing, monitoring, and research. It is meant to guide all stakeholders in cancer control in Kenya, including government ministries, departments and agencies, county governments, faith-based organizations, private sector players, patient groups, civil society organizations and development partners, among others, towards a coordinated response.

The development of this policy was anchored on key guiding principles which include multi-sectoral approach, stakeholder ownership, client-centred approach, quality care, evidence-based

orientations, equity and universal coverage, accountability, rights-based approach and use of technology. It is further envisaged that this policy will contribute to equitable and accessible cancer prevention and control services in line with the health sector's commitment to the attainment of Universal Health Coverage in Kenya.

The development of this policy was through a participatory process by all stakeholders and it is my belief that we will synergize all our efforts towards implementation and monitoring of the policy objectives articulated herein. Let us all join hands in halting and reversing the burden of cancer in Kenya.

Sen. Mutahi Kagwe, EGH.
Cabinet Secretary
Ministry of Health

PREFACE

Non-communicable diseases (NCDs) are the leading cause of morbidity and mortality globally, causing more deaths than all other causes combined,The burden of cancer has been increasing for the past few decades with the number of new cases expected to rise by about 70% over the next two decades. It is estimated that 9.1 million deaths occur globally every year due to cancer constituting 16.7% of total global mortality. In Kenya, NCDs account for more than 50% of total hospital admissions and over 55% of hospital deaths. Cancer is the second leading NCD after cardiovascular diseases, accounting for 7% of total national mortality and making it a public health concern.

Planning for Cancer Prevention and Control in Kenya is guided by the Kenya Health Policy, 2014-2030 and implemented through a strategic framework provided by the National Cancer Control Strategy. The first comprehensive document to this end was the National Cancer Control Strategy 2011-2016. The second Strategy whose implementation is on-going runs from 2017 to 2022. However, the number of new cancer cases continues to increase rapidly with resultant pressure on an already strained health system and immense suffering of Kenyans from all walks of life. It is against this background that the Kenya Cancer Policy 2019-2022 has been developed. The policy implementation will require financial resources, both recurrent and development, which shall be factored in the annual health budget and medium term expenditure frame work (MTEF) process at the national and county levels with additional funding being sourced from development partners.

This policy elaborates the Kenya cancer landscape, policy directions, policy implementation, and monitoring and evaluation framework that will guide on improving awareness, prevention, early recognition, effective treatment and surveillance of cancer while ensuring efficient cancer services across the entire continuum of care. The policy has been developed during a landmark period in the history of healthcare in Kenya, with the introduction of the Universal Health Coverage. It is envisaged that the policy will be applied across the health sector, by all public, private and faith-based actors to contribute to the reduction of cancer incidence and mortality rates as well as improvement of the quality of life for all Kenyans.

We are committed to ensuring that this policy is implemented and adopted to the fullest in order to improve the lives of our population and provide the appropriate care to those living with cancer.

Susan N. Mochache, CBS
Principal Secretary
Ministry of Health

ACKNOWLEDGEMENTS

The development of the Kenya Cancer Policy involved in-depth consultations with various stakeholders through interviews, literature review and consultative meetings. This policy is guided by the international best practices for cancer prevention, care and management. The Ministry of Health would like to acknowledge individuals and organizations who dedicated their time and effort towards the development of this first Kenya Cancer Policy 2019-2030.

We appreciate the immense support from the office of the Cabinet Secretary, Principal Secretary, Director General, Chief Administrative Secretaries, Preventive and Promotive Services and the Department of Non-Communicable Diseases. In a special way we also wish to convey our appreciation for the support received from the County governments.

We particularly wish to convey our gratitude to the team that worked tirelessly to ensure the successful completion of this document. Specifically, the Ministry would like to thank Dr. Catherine Nyongesa and Prof. Alice Musibi of Kenyatta National Hospital, Prof. Fredrick Chite of International Cancer Institute - Eldoret, Dr. Sitna Mwanzi of Kenya Society of Haematologists and Oncologists (KESHO), Dr. Gregory Ganda (Kisumu County) and Mr. David Makumi (National Cancer Institute Board). We also recognize the stewardship and guidance role provided by the National Cancer Control Program and the National Cancer Institute of Kenya led by Dr. Mary Nyangasi and Dr. Alfred Karagu respectively. Special thanks to the members of the team, particularly Dr. Oren Ombiro, Dr. Valerian Mwenda, Dr. Joan-Paula Bor, Hannah Gitungo, Dr. Hannah Ngendo, Dr. Martin Mwangi, Ruth Muia, Ann Barsigo, Cecilia Wandera, Lydia Kirika and Agnes Nthusa.

We sincerely thank Prof. Abinya Othieno who reviewed the document and all our partners particularly the University of Nairobi, Moi Teaching and Referral Hospital, Aga Khan University Hospital, Council of Governors Secretariat, Kenya Medical Research Institute, Kenya Hospices and Palliative Care Association (KEHPCA) and Kenya Network of Cancer Organizations (KENCO). We are greatly indebted to them.

This policy marks a big milestone in the country's response to the growing cancer burden. We urge all stakeholders to partner with the Ministry of Health in implementing it in order to halt and reverse the burden of cancer in Kenya.

Dr. Patrick Amoth
Ag. Director General
Ministry of Health

ABBREVIATIONS AND ACRONYMS

ACSM	-	Advocacy, Communication and Social Mobilization
CHV	-	Community Health Volunteer
CIDP	-	County Integrated Development Plan
COG	-	Council of Governors
DHIS2	-	District Health Information System version 2
EBV	-	Epstein–Barr virus
FOBT	-	Fecal Occult Blood Test
GLOBOCAN	-	Global Cancer Incidence, Mortality and Prevalence
HFA	-	Health Facility Assessment
HIV	-	Human Immunodeiciency Virus
HPV	-	Human Papillomavirus
IAEA	-	International Atomic Energy Agency
IPRs	-	Intellectual Property Rights
KDHS	-	Kenya Demographic and Health Survey
KECOBO	-	Kenya Copyright Board
KIPI	-	Kenya Industrial Property Institute
KEML	-	Kenya Essential Medicines List
KEMSA	-	Kenya Medical Supplies Authority
LEEP	-	Loop Electrosurgical Excision Procedure
LMIC	-	Low- and-Middle-Income Countries
MCH	-	Maternal and Child Health
M&E	-	Monitoring and Evaluation
MES	-	Managed Equipment Service
NCCP	-	National Cancer Control Program
NCD	-	Non-Communicable Diseases
NCD-ICC	-	NCD-Intersectoral Coordination Committee
NCI-K	-	National Cancer Institute-Kenya
NGO	-	Non-Governmental Organization
NHIF	-	National Hospital Insurance Fund
PPP	-	Public Private Partnership
TRIPS	-	Trade Related aspects of Intellectual Property Rights
SARAM	-	Service Availability and Readiness Assessment Mapping
SDGs	-	Sustainable Development Goals
TWG	-	Technical Working Group
UHC	-	Universal Health Coverage
WHA	-	World Health Assembly
WHO	-	World Health Organization

DEFINITION OF TERMS

Cancer:	A complex group of diseases characterized by the growth of abnormal cells beyond their usual boundaries that can then invade the adjoining parts of the body and/or spread to other parts of the body or organs.
Cancer screening:	Cancer screening involves applying simple tests or procedures across a healthy population in order to identify unrecognized cancer disease in individuals before they develop any symptoms of cancer. The goal of screening is to find asymptomatic individuals who have abnormalities that indicate that they could be having a pre-cancerous condition or a specific cancer and then link them promptly with the appropriate diagnostic care and treatment.
Chemotherapy:	A mode of cancer treatment that uses one or a combination of medicines that causes cell death through interruption of cell division.
Comprehensive care center:	An institution able to provide highly specialized cancer services, including but not limited to pathology, radiology, medical laboratory, specialized surgical oncology including reconstructive surgery, medical and radiation oncology, nuclear medicine, bone transplant, oncology training and cancer research. It should also be able to ofer prevention, screening, survivorship and palliative care services.
Diagnosis:	The process of identifying an illness from its signs and symptoms and/ or by use of tests such as laboratory procedures and imaging.
Medical Product:	Vaccines, medicines, diagnostic s and related health technologies.
Palliative care:	An approach that improves the quality of life of patients and their families facing life-threatening illnesses through the prevention and relief of pain as well as physical, psychosocial and spiritual support
Radiotherapy:	The use of high-energy x-rays to damage cancer cells and stop them from growing and dividing.
Regional cancer center:	County referral hospitals with the capacity to ofer prevention, screening, diagnosis and the three main modes of cancer treatment (chemotherapy, surgery and radiotherapy). These centers serve a designated region comprising of several counties.
Survivorship:	Survivorship focuses on the health and life of a person with cancer post treatment until the end of life. It covers the physical, psychosocial and economic issues of cancer, beyond the diagnosis and treatment phases.
Trade related aspects of Intellectual Property Rights (TRIPS):	An agreement between member states of the World Trade Organization to set minimum standards in the international rules governing patents, including on medicine

CHAPTER ONE: INTRODUCTION

1.1 Overview of cancer

Cancer is a group of diseases in which abnormal cells divide uncontrollably and have the ability to infiltrate and destroy body tissues. Cancer may affect both children and adults. Some cancers grow and spread fast while others grow more slowly. They also respond to treatment in different ways. Cancer is a non-communicable disease that can affect almost any part of the body[1].

The exact cause of many cancers remains unknown, but some have known causes and several risk factors have been identified. These risk factors are complex with some being modifiable and others being non-modifiable. They may be broadly divided into four categories:

- Lifestyle risk factors such as tobacco use, harmful use of alcohol, unhealthy diets and physical inactivity;
- Biological risk factors that include overweight, obesity, age, sex of the individual;
- Environmental risk factors including exposure to environmental carcinogens such as chemicals agents, physical agents such as ionizing radiation and infectious agents such as viruses (Hepatitis B and C, HPV - Human Papiloma Virus, HIV-Human Immunodeficiency virus , EBV- Ebstein Burr Virus), bacteria and parasites[2];
- Genetic risk factors.

About one-third of cancers can be prevented by addressing modifiable risk factors in addition to other preventive strategies. There is potential cure for most cancers if diagnosed early[1].

Cancer has immense socio-economic impact on individuals, families, communities and the health system. It is often associated with a protracted course of illness and loss of productivity, resulting in significant physical, psychosocial and financial burden. The cancer global burden is increasing rapidly as a result of multifaceted reasons, including an ageing population and lifestyle changes associated with industrial and economic

1.2 Cancer in Kenya

In the spirit of Universal Health Coverage, the government of Kenya is committed to providing accessible, affordable, quality and equitable health care for all without predisposing them to financial hardship. Like other health functions, cancer care is delivered in the context of a devolved system of governance established by the Constitution of Kenya 2010 with two levels of government. The National Government is responsible for health policy, capacity building, national referral health facilities and technical assistance to counties. The county governments are largely responsible for health service delivery, promotion of primary health care, and licensure and control of undertakings that sell food to the public, among other functions[3].

Health service delivery in Kenya is organized in 4 tiers[4]:

Tier 1: Community Health Services

Tier 2: Primary Care (Dispensaries and Health Centers)

Tier 3: Secondary referral (County Hospitals)

Tier 4: Tertiary (National Referral Hospitals)

Primary care for cancer involves activities towards prevention of cancer such as risk factor reduction and screening, and health promotion activities, including public awareness, community engagement and social mobilization. These activities are carried out at all the above tiers. Screening is mostly carried out at Tiers 2 and above[5], while cancer diagnosis and treatment is largely carried out at Secondary Referral Facilities and at the National Referral Health Facilities[6].

1.3 Policy Rationale

Cancer is the third leading cause of death in Kenya. The development of the Kenya Cancer Policy is informed by the need to provide a comprehensive multi-sectoral response to the growing cancer burden. The annual incidence of cancer increased from 37,000 cases in 2012 to 47,887 in 2018. Similarly, the annual mortality rose to 32,987 in 2018, from 28,500 in 2012. The socioeconomic impact of cancer including the loss of productivity, cost of care, and premature deaths continues to threaten the achievement of the nation's development goals and aspirations. This policy will provide guidance to all stakeholders in cancer management to accelerate the efforts geared towards cancer prevention and control by averting preventable cancer deaths, increasing screening, enhancing cure rates and improving the quality of life of cancer patients

1.4. Objectives

The main objective of this Policy is to provide a framework to comprehensively address cancer control in Kenya through the systematic implementation of evidence-based interventions for prevention, screening, timely diagnosis, treatment, survivorship and palliative care, financing, monitoring and research.

Specifically, the policy aims to:

1. Improve awareness and education on cancer prevention and control
2. Improve primary prevention of cancers through mitigation of risk factors and their determinants.
3. Enhance access to appropriate cancer screening services for early detection of cancers
4. Strengthen referral pathways for patients with cancer or those suspected to have cancer

5. Promote access to optimal diagnostics, treatment, palliative care and survivorship care for cancer patients

6. Strengthen cancer information systems, registration and surveillance

7. Promote coordination, partnerships and financing for cancer control

8. Identify and define a monitoring, evaluation and research framework for cancer

9. Set regulatory standards for all activities along the continuum of cancer care

1.5 Guiding principles

The implementation of this policy will be guided by the following principles:

1. **Multi-sectoral approach:** Cancer and associated risk factors can only be addressed fully through involving both health and non-health sectors. This will be achieved through an elaborate coordination and partnership framework.

2. **Ownership:** Engagement and buy-in of stakeholders at national and county levels will ensure effective implementation of this policy.

3. **Client-centered approach** that focuses on interventions that are responsive to unique client needs.

4. **Quality of care** will be safeguarded in order to achieve desired outcomes in cancer care.

5. **Evidence-based:** all efforts to tackle cancer in Kenya will be guided by recognized best practices and scientific evidence and supported through monitoring and evaluation and research.

6. **Equity and universal coverage:** there is recognized need to ensure equitable access to the entire range of cancer prevention and control services with a focus on the most vulnerable populations

7. **Cost-effectiveness:** prioritizing the allocation of resources to cancer control interventions that have the potential to yield the greatest improvement in health for the least resources.

8. **Accountability:** The policy will be implemented within a clear accountability framework.

9. **Rights-based approach:** recognition of the right to the highest standards of health care as enshrined in the Bill of Rights in our constitution. It equally recognizes the rights of cancer patients from any forms of discrimination as per the provisions of the Cancer and Control Act as well as an ethical approach to interventions.

10. **Appropriate technology** will be harnessed to support the delivery of quality healthcare in the cancer prevention and control continuum.


cancer


cancer diagnosis


CHEMOTHERAPY

CHAPTER TWO: SITUATION ANALYSIS

2.1 Burden of Cancer

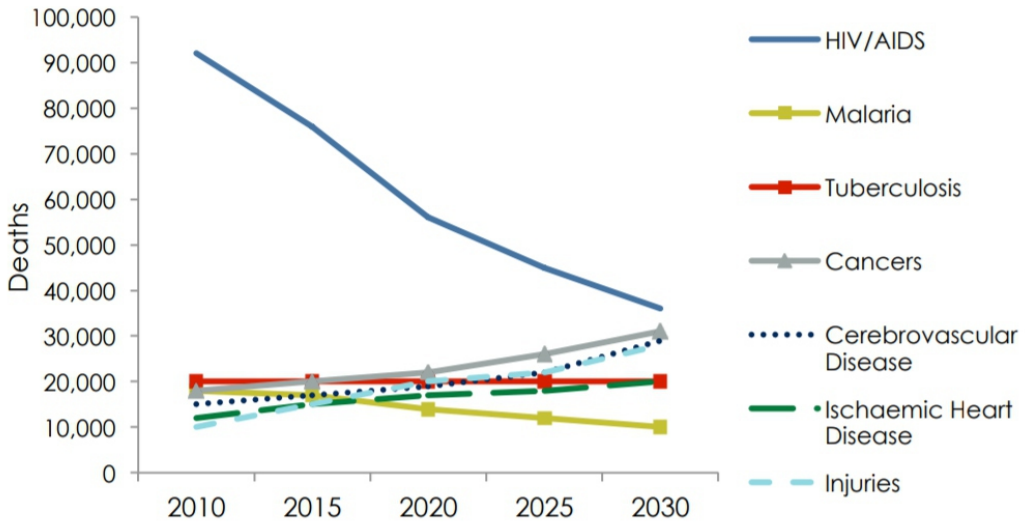
2.1.1 Global Burden

The burden of cancer continues to rise globally, with an estimated 18.1 million new cases and 9.6 million deaths in 2018[7]. About one (1) in six (6) deaths globally is due to cancer. Low and middle-income countries bear the brunt of the cancer menace with approximately 70% of cancer-related deaths occurring in these countries. The number of new cancer cases is expected to rise by about 70% over the next two decades, with significant and rising economic effects. It is important to note that there is paucity of quality cancer registry data in most low and middle-income countries (LMICs) with only about 20% of these countries having the necessary data to support cancer policy and programming[1].

2.1.2 Kenyan Situation

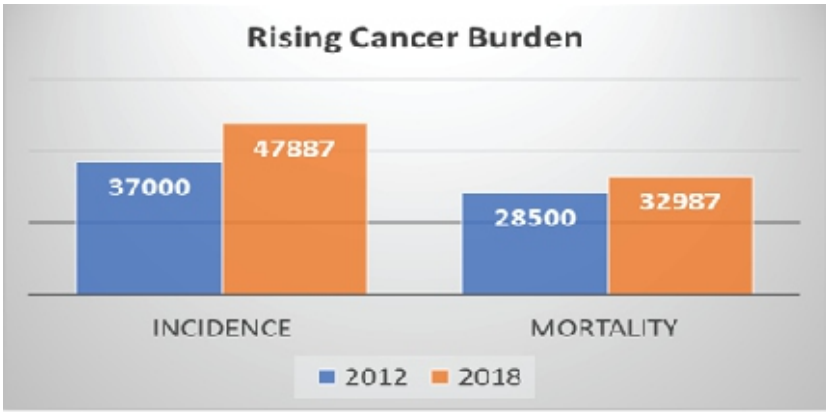
Cancer is the second leading cause of Non-Communicable Disease deaths in the country[9]. The trend of cancer deaths is projected to increase as demonstrated in figure 2.1 below.

Figure 2. 1: Projected trends of cancer and other disease entities to 2030 (Source: Kenya Health Policy 2014-2030)



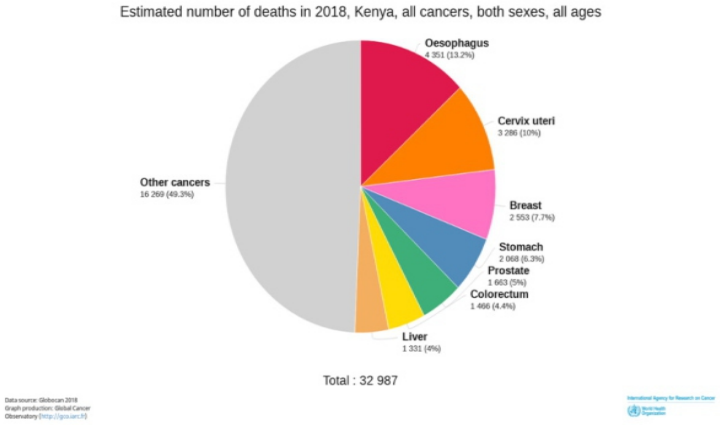
The GLOBOCAN report for 2018 estimated 47,887 new cases of cancer annually with a mortality of 32,987. This represents a significant increase in incidence compared to the 2012 report that estimated 37,000 new cancer cases annually with an annual mortality of 28,500. These estimates are conservative and could be higher given that many cases go unreported and unaccounted for.

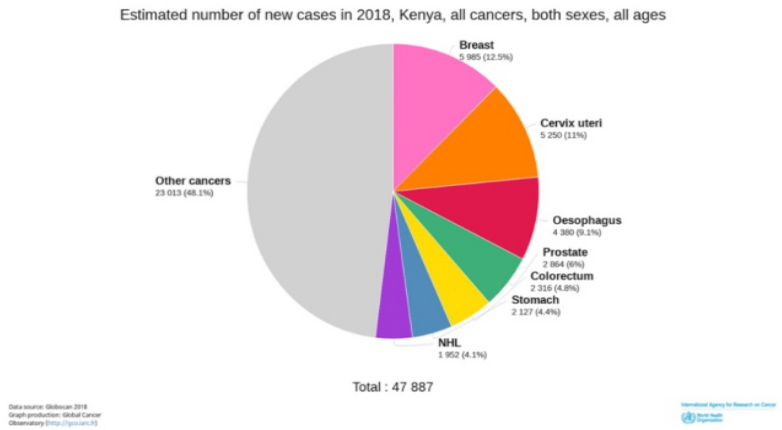
Figure 2. 2: Comparison of number of new cancer cases and cancer deaths between 2012 and 2018
(Source: GLOBOCAN 2012 and 2018)



Among men, prostate, esophageal and colorectal are the leading cancers in incidence, and in women, breast, cervical and esophageal cancers are the most common. The leading cause of cancer death in Kenya is esophageal followed by cervical and breast cancer. It is further estimated that there are 3200 new cancer cases among children below 18 years with the top five commonest cancers being Leukaemia, Non-Hodgkin's lymphoma, kidney cancer, brain cancers and cancer of the naso-pharynx[7].

Figure 2. 3: Cancer Burden in Kenya (Source: GLOBOCAN, 2018)





2.1.3 Risk Factors of Cancer in Kenya

It is estimated that up to 40% of cancers can be prevented by avoiding risk factors and implementing existing evidence-based prevention strategies[1]. Kenya continues to grapple with a high burden of risk factors for cancer as demonstrated by various in-country surveys. An estimated 27.9% of Kenyans are overweight and obese, while 94% do not consume adequate fruits and vegetables. Tobacco use among adults is estimated at 13.3% while alcohol use is at 19.3%[10]. The proportion of women estimated to harbor cervical HPV-16/18 infection at a given time and those with invasive cervical cancers attributed to HPVs 16 or 18 in Kenya are 9.1% and 63.1% respectively[11].

Further, with increasing urbanization and industrialization, there is increasing exposure to environmental pollution, including toxic industrial, agricultural and electronic wastes. While there is no local data on the burden of genetic factors for cancer, inherited genetic mutations play a major role in about 5 to 10% of all cancers globally[12,13].

2.2 Legal, Regulatory and Policy Environment

2.2.1 Global Context

The United Nations Agenda for Sustainable Development calls for a reduction by one-third of premature mortality from NCDs, including cancer by 2030, through prevention, treatment and promotion of mental health and well-being [Sustainable Development Goal (SDG) 3.4].[14]In 2017, the World Health Assembly passed the resolution Cancer Prevention and Control in the context of an Integrated Approach (WHA70.[12]) which urges governments to accelerate action to reduce premature mortality from cancer[15].

2.2.2 Kenyan Context

There exist a number of legal and regulatory frameworks that guide the provision of health services in Kenya, and particularly cancer prevention and control. These include:

The Constitution of Kenya, 2010
The Kenya Constitution 2010, Article 43 (1) (a), provides that every person has the right to the highest attainable standard of health, which includes the right to health care services. Article 21 (2) requires the state to take legislative, policy and other measures to achieve the progressive realization of the rights guaranteed in article 43. Schedule 4 of the constitution assigns the mandate of health policy and technical support to the national government and health service delivery to the counties.

The Health Act, 2017
The Act provides for a health service package at all levels of the health system, which shall include services addressing promotion, prevention, curative, palliative and rehabilitation, as well as physical and financial access to health care. It also provides for interventions to reduce the burden imposed by NCDs, including physical activity, counter the excessive use of alcoholic products and the adulteration of such products, and reduce the use of tobacco and the promotion of supply of safe foodstuffs.

The Cancer Prevention and Control Act No. 15 of 2012
This act of parliament provides for the following in cancer control in Kenya:

(a) Promotion of public awareness about the causes, consequences, and means of prevention and control of cancer;

(b) Extension to every person with cancer full protection of his human rights and civil liberties by guaranteeing the right to privacy of the individual; outlawing discrimination in all its forms and subtleties and ensuring the provision of basic health care and social services;

(c) Promotion of utmost safety and universal precautions in practices and procedures that relate to the treatment of cancer;

(d) Efforts to eradicate conditions that cause and aggravate the spread of cancer;

(e) Promotion of access to quality and affordable diagnostic and treatment services for persons with cancer;

(f) Ensuring sustainable capacity for the prevention and control of cancer.

Other relevant legislations include: Health Laws (Amendment) Act, 2019; Tobacco Control Act, 2007; The Occupational Safety and Health Act, 2007; The Food, Drugs and Chemical Substances Act Cap 254; Public Health Act Cap 242; Radiation Protection Act, 2012, Cap 243; Environmental Management and Coordination Act, 2002, Cap 387; National Environmental Management Act, 1998 and The Occupational Safety and Health - Medical Examinations Rules (Legal Notice 24 of 2005) .

Kenya Health Policy 2014-2030
Cancer is mainstreamed in the Kenya Health Policy 2014-2030 which demonstrates the sector's commitment under the government's stewardship to ensure attainment of the highest possible standards of health in a manner responsive to the population health needs. The policy gives direction towards halting and reversing the rising burden.

NCDs. Alignment with other Government strategic and planning documents

The Kenya Health Sector Strategic and Investment Plan 2014-2018 focuses on community and institutional screening for NCDs, workplace health and safety and food quality and safety. It tracks cancer-risk factor indicators. The Ministerial Strategic Plan 2014-2018 has cancer as one of the main NCDs of focus. It also addresses health promotion and health education, tobacco control, nutrition policy including promotion of healthy diets and physical activity, cancer control policy, and screening for NCDs, including cancer.

The Kenya National NCD Strategic Plan 2015-2019 is the first strategic plan that addresses NCDs in the country and is adapted from the Global NCD Action Plan. Cancer is one of the priority NCDs targeted for prevention and control in the document.

The National Cancer Control Strategy 2017-2022 adopts a holistic approach that caters for the entire cancer continuum from prevention to monitoring and evaluation.

2.3 Achievements and Challenges to Cancer Control in Kenya

2.3.1 Prevention, screening and early diagnosis

Prevention

Prevention is the most cost-effective strategy for cancer control. To improve cancer prevention, the following interventions have been put in place:

- Advocacy and cancer awareness creation through observance of cancer days , months and media engagements among others.
- Risk factor prevention has been incorporated into the school health policy, guidelines and education curriculum.
- The Community Health Volunteers' (CHV) module for Non-Communicable Diseases incorporates cancer content to equip CHVs with knowledge and skills to enable them to create awareness on prevention and control of cancers.
- Legislation and guidelines for Tobacco control (Tobacco Control Act 2007, Tobacco Cessation Guidelines, National Tobacco Control Strategic Plan 2019-2023) and the ratification of the WHO Framework Convention on Tobacco Control.
- Introduction of Human Papillomavirus and Hepatitis B vaccination in the routine immunization schedule.
- National Guidelines for healthy diet and physical activity 2018.
- The Directorate of Occupational Safety and Health is mandated to conduct mandatory medical examinations for all persons exposed to occupational cancer risk.

There is generally low awareness of cancer and its risk factors. A study in rural Kenya showed that although more than 80% of respondents had heard of breast cancer, fewer than 10% of women and male heads of households had knowledge of two or more of its risk factors [16]. Knowledge about cancer in the general population and among health care providers is also low[17,18]. There are also gaps in the implementation of some of the policies and guidelines for prevention of cancer.

There is currently no clear regulatory and policy framework on restriction and promotion of alcohol use, food marketing and food labelling. Industry interference and resistance continues to hamper full implementation of legislation aimed at controlling cancer risk factors such as the implementation of tobacco control regulations.

Screening

To improve screening and early detection, the following interventions have been put in place:

- National Cancer Screening Guidelines have been developed and disseminated to the counties.
- Cancer screening equipment including mammography machines, cryotherapy equipment, Loop Electrosurgical Excision Procedure (LEEP) machines and colposcopes have been distributed to some health facilities.
- Integration of routine cervical cancer screening and clinical breast examination in Maternal and Child Health (MCH) and HIV service delivery points as well as routine outreach activities
- Ongoing capacity building of health care workers on cancer screening and early detection.
- Screening outreach programs by various Non-Governmental Organizations, Civil Society Organizations, Development partners, among others.

There is generally low uptake of cancer screening services; for example, only 16.4% of eligible Kenyan women have ever been screened for cervical cancer according to the 2015 STEPs survey[10]. Data from the country's health information system shows that less than 20% of health facilities in Kenya are screening for cervical cancer. In 2018/19, only 369,380 eligible women were screened for cervical cancer, translating to coverage of 10.8% for that year. Only 1% of eligible women were screened for breast cancer using mammography in 2018/19 despite the availability of mammography equipment in most county referral hospitals. Adherence to the National Cancer Screening Guidelines is inadequate and screening services are not well structured at most service delivery points. There is also a mismatch between human resource capacity to operationalize the equipment and supplies. In addition, there lacks a clear policy guide on distribution, placement, monitoring and evaluation of medical equipment.

Cancer diagnosis

Diagnosis is the entry point to cancer care. The National Oncology Reference Laboratory has been established and is currently being equipped to improve pathology services in the country. Once fully operational it will provide quality assurance services, specialized services as well as diagnostic services to counties that do not have this capacity through a sample referral system. In addition, through government flagship projects, 98 health facilities have been equipped with imaging equipment which can support cancer diagnosis.

Currently, pathology and radiology services are weak in the country with lack of adequate infrastructure and human resources. Only a few county hospitals have the capacity to offer histopathology services contributing to diagnostic delays. Late diagnosis remains a key challenge. Data from Kenyatta National Hospital shows that approximately 64% of cancer patients are diagnosed at advanced stages (stage III or IV), when treatment for cure is difficult to achieve[5].

Cancer information systems, registration and surveillance
Currently, there are two (2) well established regional population-based cancer registries in Nairobi and Eldoret, covering an estimated 10% of the Kenya population. There are also several hospital-based registries in some of the county cancer treatment centers. The Ministry of Health has established and equipped a National Cancer Registry that is collating national data according to international standards to enable surveillance and inform policy and planning. Further, a number of cancer data indicators have been integrated in the national data management system, the District Health Information System (DHIS2).

Despite cancer being a notifiable disease, cancer registration and surveillance in Kenya has been suboptimal, with the country largely relying on GLOBOCAN estimates to inform policy and planning.

2.3.3 Cancer treatment, palliative care and survivorship

Clinical Guidelines
The Ministry of Health has developed several clinical guidelines to standardize cancer treatment, palliative care and survivorship:

- National Cancer Treatment Protocols, 2019
- National Guidelines for Establishment of Cancer Centers, 2018
- The National Guidelines for Cancer Management, 2013
- National Palliative Care Guidelines, 2011

There is a need for mechanisms to ensure compliance with the recommendations of these Guidelines.

Cancer service delivery points
Cancer care services are available in the country, including one (1) comprehensive cancer center (Kenyatta National Hospital) offering preventive services (vaccination), clinical assessment, clinical laboratory, pathology, endoscopy, medical imaging, surgery, systemic therapy/chemotherapy, radiotherapy, nuclear medicine and palliative care as recommended by the WHO. Moi Teaching and Referral Hospital (MTRH) and Kenyatta University Referral Hospital are anticipated to begin providing comprehensive cancer services. Six private hospitals also offer cancer services namely: The Nairobi Hospital, HCG-Cancer Care Kenya (MP-Shah), The Nairobi West Hospital, Aga Khan University Hospital, Texas Cancer Centre and Equra (Eldoret Hospital). Currently, there are ten public chemotherapy centers namely: Garissa, Mombasa, Kisumu, Kakamega, Nyeri, Meru, Machakos, Nakuru, Embu and Bomet (Longisa) County Referral Hospitals. Further, the process of establishing regional radiotherapy centers is ongoing in six county referral facilities i.e. Nakuru, Garissa, Mombasa, Kisii, Nyeri and Kisumu. These regional centers will also cover their neighboring counties.

Palliative care has been integrated in 78 health facilities in 42 out of the 47 counties in Kenya in collaboration with the Kenya Hospices and Palliative Care Association (KEHPCA). The palliative care policy development process is on-going and several health care workers have been trained on the provision of palliative care. Survivorship has become an important aspect of cancer care and as cancer care improves, there is a need for better care planning for cancer survivors. Cancer support groups have been established within communities for psychosocial support and peer-to-peer experience sharing for cancer survivors.

The cancer treatment infrastructure is inadequate and most of the available centers are located in urban areas. The International Atomic Energy Agency (IAEA) recommends at least one (1) radiotherapy machine per 1,000,000 population, translating to approximately 48 for the country, Currently,Kenya has only fourteen (14) radiotherapy machines mostly within the private sector. The referral systems for cancer are also inadequate. Palliative care is widely offered as a last resort of care although it should be initiated at diagnosis.

Cancer commodities and supplies

Cancer commodities have been incorporated into the Kenya Essential Medicines List (KEML) as well as the basic package for Universal Health Coverage. Further, the Kenya Medical Supplies Authority (KEMSA) is currently undertaking bulk procurement of cancer commodities, leveraging on economies of scale to allow negotiations on better pricing. The proposed amendment of the Public Procurement Act of 2015 will allow KEMSA to engage directly with manufacturers. Full utilization of TRIPS Flexibilities can also improve availability and affordability of cancer medical products.

The availability and affordability of cancer commodities continue to impede access for patients in Kenya. The prices of cancer medical devices and drugs, especially those under Intellectual Property Rights (IPRs) are high and there is inadequate regulation of importation, quality and pricing. Moreover, drug authority market approval and procurement processes are long and complex leading to frequent stock-outs. The importation of novel therapies and drugs for clinical trials is also a challenge.

Human Resources for Cancer Care

The country faces a shortage of human resource capacity with the requisite specialization to manage cancer. For instance, the IAEA guidance on setting up a radiotherapy program (IAEA, 2008) recommends one (1) radiation oncologist per two hundred and fifty (250) cancer patients. Therefore the country requires one hundred and ninety two (192) against the current seventeen (17) radiation oncologist. It further recommends one (1) medical physicist per four hundred (400) patients, therefore the country requires 120 against the current 10. There should be at least 1 oncology nurse (for radiation oncology services) per three hundred (300) patients, therefore the country requires one hundred and sixty (160) against the current sixty (60).

To bridge the existing human resource gap, the Ministry of Health has been conducting capacity building activities and mentorship to primary care providers in counties including coordination of specialist outreach programs in collaboration with tertiary facilities.

The country has initiated diploma, masters as well as oncology fellowship programs in local training institutions. There is need to strengthen these programs and provide incentives such as scholarships to encourage health workers to enroll. To build the capacity of the general workforce, there are ongoing efforts to strengthen pre-service training for clinical officers and nurses on cancer prevention and control. An in-service training curriculum for primary care workers has been finalized and is being rolled out.

2.3.4 Coordination, Partnerships and Financing for Cancer Control

National Coordination Structures
The Non-Communicable Diseases Intersectoral Coordinating Committee (NCD-ICC) was established in 2018 to bring together actors from other sectors given the multi-sectoral nature of NCDs. The NCD-ICC is composed of a number of Technical Working Groups (TWG) including a Cancer TWG. The National Cancer Institute-Kenya (NCI-K) is established under the Cancer Prevention and Control Act, 2012. It is mandated to advise the Cabinet Secretary on matters relating to cancer control, set standards for accreditation, collaboration and partnerships, ensure quality cancer data for planning, provide regulation and oversight to institutions involved in cancer prevention and care among other functions.

The National Cancer Control Program (NCCP) is anchored in the Department of Non-Communicable Diseases in the Ministry of Health. It is mandated to implement systematic, equitable and evidence based strategies for cancer control as well as provide technical and operational support to all counties and health facilities. The Program is responsible for the development of clinical protocols and guidelines and coordination of their implementation, capacity building, monitoring and evaluation, operational research and mentorship for cancer control.

County Structures
Most counties lack the requisite governance structures to support cancer control. Counties are expected to establish multi-sectoral Non-Communicable Diseases Technical Working Groups that mimic the NCD-ICC. In the County Departments of Health Services, cancer prevention and control is domiciled under the County and Sub-County NCD Coordinators.

Partnerships
Partnerships with international organizations and development partners have helped to enrich cancer management in the country. There are ongoing public-private partnerships (PPPs) at both national and county levels in provision of technical support, financial support for cancer infrastructure and access programs for commodities. There is also active engagement with Civil Society in cancer advocacy, awareness, programming and resource mobilization.

Financing for cancer care

The Ministry has allocated a development vote for improving cancer infrastructure in Kenya, as well as financing for the operationalization of the National Cancer Institute of Kenya. Other sources of financing for cancer care in Kenya include: National Hospital Insurance Fund (NHIF) oncology package and private insurance, exchequer funding for UHC; out of pocket expenditure and donor funding. Cancer services have received support from the Sports, Arts and Social Development Fund for the procurement of radiotherapy equipment for the upcoming radiotherapy sites.

Financing for cancer at national and county levels is however disproportionate to the disease burden ,The oerall costing of the National Cancer . Strategy, it is estimated Kshs. 53 billion will be required over the next five (5) years for comprehensive cancer prevention and control in Kenya. An estimated 0.4 percent of the health budget was allocated for cancer, in contrast to the resource needs estimated at Kshs. 10.4 billion annually as per the costing. Additionally, NHIF coverage does not support evidence-based standard of care for all cancers from prevention to survivorship care.

2.3.5 Monitoring, Evaluation and Research

Cancer data management tools have been developed and disseminated for facility level data collection. Efforts to improve monitoring, evaluation and research include:

- End-term evaluation of the first Kenya National Cancer Control Strategy 2011-2016 which informed the current strategy. The main findings of the evaluation were: Insufficient funding or prioritization of the strategy's interventions, poor monitoring of implementation of planned interventions, limited coordination, limited access and by patients to cancer services, essential medicines were not consistently available were reimbursed by NHIF within a limited scope; lack of a benefit package defined for pathology, medical imaging and surgery at facilities categorized as private non-profit or private for-profit; lack of financial protection scheme for vulnerable populations, as "out-of-pocket" costs remained a significant barrier to access health care; poor cancer screening uptake and programming; weak cancer registration and surveillance; Limited cancer diagnostic, treatment and palliative care capacity; inadequate human resources cancer care and weak enforcement of legislation related to cancer risk factors, particularly the Tobacco Control Act, 2007.
- Annual reviews of the Kenya National Cancer Control Strategy 2017-2022
- There are ongoing population based and clinical research studies in the country
- A cancer research agenda for the country has been developed and disseminated.

Currently, data collected is rarely collated or aggregated to facilitate monitoring, evaluation and research and planning,. The Program has constituted a Monitoring, Evaluation and Research Technical working group to facilitate this.

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CHAPTER THREE: POLICY DIRECTION

3.1 Vision, Mission and Goal of the Policy

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 country with a low burden of cancer
- **Mission:** To guide the implementation of evidence-based cancer control measures that result in the reduction of morbidity and mortality from cancer through access to population based primary prevention, screening, early diagnosis, treatment, palliative and survivorship care
- **Goal:** To provide a multi-sectoral framework to comprehensively address the cancer burden in Kenya

3.2 Policy Priority Thematic Areas and Actions

3.2.1 Prevention and Mitigation of Risk Factors

Objective : To promote a multi-sectoral approach to strengthen cancer prevention and mitigate common risk factors. Prevention offers the most cost-effective long-term strategy for the control of most cancers.

Objective 1: To promote public awareness about the causes, consequences, means of prevention and control of cancer through factual and evidence-based information on cancer.

Priority Actions:

1) Develop a harmonized communication framework for creation of cancer awareness.
2) Advocacy to increase public and leadership awareness about cancer and as a call for action for prevention of risk factors..
3) Enhance awareness and education among healthcare providers and the community on cancer risk factors.

Objective 3: To institute multi-sectoral and culturally appropriate approaches to mitigate cancer risk factors.

Priority Actions:

1) Strengthen public health engagement for promotion of healthy diet, physical activity, tobacco cessation, reduction of alcohol consumption and other emerging risk factors.
2) Create environments that enhance healthy diet, physical activity, tobacco cessation and other risk reduction interventions and mainstream cancer prevention across all sectors.
3) Collaborate with other sectors with regard to primary prevention of other environmental and occupational risk factors.
4) Promote enactment and enforcement of relevant legislation to limit exposure to harmful environmental, industrial, and occupational risk factors.

Objective 3: To promote universal access to vaccinations for primary prevention

Priority Actions:
1) Integration of cancer-related vaccines into routine immunisation;
2) Creating educational awareness to facilitate scale-up of preventive cancer vaccines and structures to mitigate negative publicity.

3.2.2 Access to cancer screening and early detection

Objective: To promote access to cancer screening and early detection for timely diagnosis and improved outcomes

Priority Actions:
1) Establish and implement organised facility-based screening in addition to opportunistic screening services for amenable cancers and timely referral for suspicious cases.
2) Ensuring the availability of necessary human resource and commodities for cancer screening.
3) Educate the public on the signs and symptoms of possible cancer to promote early diagnosis.
4) Strengthen the capacity of the primary health care providers on early detection of cancer.
5) Improve infrastructure and provision of resources for cancer diagnosis in secondary and tertiary levels of care and equitable access to cancer diagnosis.
6] Build public- private partnerships to enhance screening and early diagnosis

3.2.3 Access to quality, affordable and sustainable cancer care

Objective: To promote equitable access to quality and sustainable cancer management services

Priority Actions:
1) Strengthen access and availability of cancer medicines and health technologies across the continuum of care.
2) Promote the establishment of sustainable infrastructure for regional centres of excellence for cancer care.
3) Strengthen the capacity and skills of health care providers across the continuum of care.
4) Establish a national framework for expansion of cancer treatment services according to the counties need.
5) Ensure a multi-displinary team approach to patient management in all cancer treatment facilities.

3.2.4 Improve survivorship care coordination

Objective: To improve the quality of life for cancer survivors

Priority Actions

1) Encourage and secure rehabilitation and reintegration of persons with cancer through a rights-based approach.
2) Establish a framework for survivorship care planning including follow-up, support, care and referral of cancer survivors to adjunct services.
3) To promote the continued access to care for cancer survivors.

3.2.5 Strengthen regulation for quality cancer care

Objective: To establish a framework to regulate the practice of cancer care in collaboration with relevant regulatory bodies.

Priority Actions:

1) Establish mechanisms to regulate the quality of cancer care, accreditation of cancer centres and infrastructure.
2) Ensure certification of oncology care providers within the prescribed framework.

3.2.6 Promote cancer surveillance and research

Objective: To establish and strengthen information systems and an integrated surveillance system to monitor trends in screening, treatment, outcomes and mortality of cancer to inform policy and planning.

Priority Actions:

1) Establish a national population-based cancer registry.
2) Strengthen existing population-based cancer registries and establish cancer registries at cancer centres.
3) Integrate cancer risk factors, screening, awareness and care indicators in national health surveys.
4) Ensure that accurate data and characteristics of cancer patients are obtained in a timely manner and utilized for surveillance and planning.
5) Improve and strengthen medical records services in cancer treatment facilities to facilitate improved capture of information and routine coding of cancers as per international standards.

Objective 2: To allocate funds to promote population based and clinical cancer research to inform policy and practice.

Priority Actions:

1) Establish a budget line for cancer research.
2) Generate priority areas for cancer research.
3) Build capacity for cancer research.
4) Establish a well-coordinated information sharing mechanism between all stakeholders.

3.2.7 Support sustainable financing for cancer prevention and control

Objective 1: Ensure equitable, innovative, predictable and sustainable financing for cancer in County and National government

Priority Actions:

1) A minimum budgetary allocation of health budgets for cancer prevention and control at both national and county governments as per WHO recommendation.
2) An inclusion of a mandatory budget line in national and all county fiscal papers, County Integrated Development Plans (CIDPs), County Health Sector Strategic Plans, Annual Work Plans and Budgets for universal access to cancer care.
3) Establish a cancer fund to finance cancer control activities.
4) A sustainable financial package that covers the entire continuum of cancer care from screening to survivorship for all.

Objective 2: Lower the cost of cancer care across the continuum of cancer control to enhance access

Priority Actions:

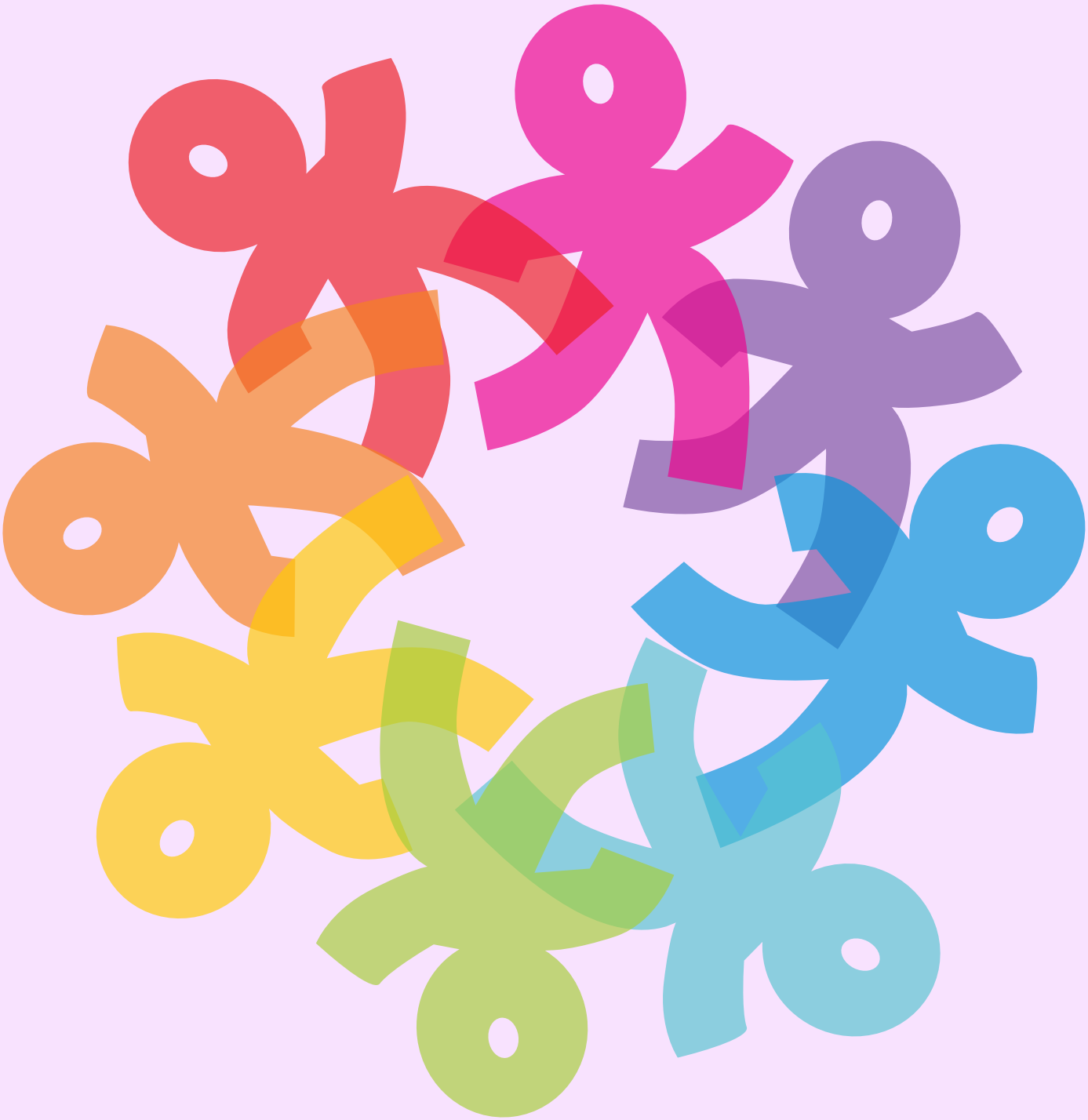
1) Advocate for tax exemptions and waivers for essential commodities and equipment.
2) Adoption of appropriate technology to support provision of care.
3) Promote public private partnership across the entire spectrum of cancer care.
4) Encourage and support local production of cancer medicines.
5) Promote a pooled procurement mechanism for cancer medicines and commodities within a regulated framework.
6) Advocate for full domestication and use of TRIPS Flexibilities.

3.2.8 Support effective governance, oversight and coordination of cancer control

Objective: To develop an oversight framework that ensures accountability by implementing bodies, organizations and county governments.

Priority Actions:

1) Develop guidelines and technical support for implementation of cancer activities across the continuum of care through the Ministry of Health
2) Establish a coordination and implementation framework for cancer activities at the county level
3) Promote institutionalization of cancer prevention and control across all sectors and at all levels



CHAPTER FOUR: POLICY IMPLEMENTATION

4.1 Overview of the Policy Implementation Framework

The Cancer Prevention and Control Policy shall be implemented in line with existing national policies and legislation through a multi-sectoral approach that includes collaboration and partnerships with state and non-state actors. It is thus aligned to key critical legal and policy documents including the Constitution 2010, Vision 2030, Health Policy Framework 2014-2030 and Health Act, 2018. The policy also recognizes the functional assignments between the two levels of government with respective accountability, reporting, and management responsibilities.

The Institutional framework will be under the leadership of the Ministry of Health in collaboration with the National Cancer Institute of Kenya and will be managed in accordance with the overall health sector Management and Coordination Structures, the Cancer Prevention and Control Act, 2012 and other related Laws of the Republic of Kenya.

The policy will be implemented through five-year National Cancer Control Strategies, County Sectoral Plans, and Annual Work Plans.

4.2 Role of Stakeholders in Cancer Prevention and Control

No.	Institution	Roles and Functions
1.	**Ministry of Health**	I. Development, dissemination and implementation of the Policy at National and County levels . ii. Provide technical and logistical support to ensure that there is adequate capacity for implementation of this policy. iii. Conduct capacity building on cancer prevention and control within the health system. iv. Coordination of partnerships and collaborations for cancer control. v. Oversee implementation, monitoring and evaluation of cancer control interventions and assist counties in the development of work plans in accordance with the policy. vi. Coordinate Cancer advocacy, communication and social mobilization (ACSM). vii Promote research on cancer prevention and control

2.	**National Cancer Institute**	i. Provide overall leadership, coordination and regulation of cancer control activities. ii. Advisory to the Cabinet Secretary on cancer matters. iii. Define an inter and intra-sectoral collaboration and coordination framework for cancer control. iv. Regulate players in the cancer arena to ensure ethical, equitable and efficient utilization of resources in cancer control and management. v. Set ethical standards in cancer control and management vi. Coordinate and collaborate with international and local bodies/institutions in cancer research. vii. Manage cancer data and cancer indicators. viii. Promote institutionalization of cancer prevention and control across all sectors.
3.	**County Governments**	i. Provide access to cancer services (screening,diagnosis treatment, palliative care and survivorship) as per policy guidance. ii. Mobilize and allocate resources for cancer prevention and control at the county. iii. Strengthen capacity for cancer prevention and control activities at the County level. iv. Integrate cancer prevention and control into the broader county health agenda. v. Forge appropriate multi-sectoral partnerships at the county level. vi. Implement national government policies and guidelines for cancer prevention and control. vii. Collect and report cancer data and establish county cancer registries.
4.	**Other Ministries and State Corporations**	Mainstream cancer prevention and control into their strategies and routine activities, including creation a cancer focal/information, desk.
5.	**Parliament**	i. Support resource allocation for implementation of the policy. ii. Support policy implementation in their areas of jurisdiction.
6.	**KEMSA**	i. Facilitate procurement, storage and distribution of essential cancer commodities and technologies identiied by the Ministry for effective implementation of this policy. ii. Recommend other stakeholders to support procurement and supply of cancer commodities whenever the need arises.

7.	**NHIF**	Provide timely comprehensive medical insurance package for cancer screening, diagnosis, treatment, palliative care and survivorship (entire continuum of care) in line with defined standards of care by the Ministry.
8.	**Professional associations, regulatory and statutory bodies**	i. Regulate and enforce aspects of the policy related to their respective body. ii. Advocacy and provision of guidance on cancer matters.
9.	**Academic, Research and Health Training Institutions**	i. Enhance cancer education and training. ii. Conduct cancer research to inform and guide policy. iii. Support community mobilisation and awareness creation on cancer.
10.	**Development Partners**	i. Mobilise resources for policy implementation. ii. Provide financial, technical, logistical and capacity building support.
11.	**Non-State Actors- Civil Society**	i. Support cancer advocacy, communication and social mobilization activities at the community level. ii. Advocacy for resource allocation towards implementation of this policy at all levels. iii. Participate in policy formulation, research, financing, implementation, monitoring and evaluation of cancer control programmes.
12.	**Media**	i. Advocate for quality reporting on cancer. ii. Dissemination of accurate cancer information to create public awareness.
13.	**Individuals and communities**	i. Adopt appropriate healthy lifestyles and healthcare-seeking behaviours and participate actively in cancer prevention activities. ii. Maintain an insurance policy for inancial and social protection. iii. Participate in implementation of the policy.

CHAPTER FIVE: MONITORING AND EVALUATION

5.1 Overview of the Policy Monitoring and Evaluation Framework

For the success of the policy, it will be important to assess its implementation in terms of changes in the health situation and performance of the health system. In this regard, information about the health situation in the country, the performance of the health system and the social determinants of health is of paramount importance to keep the Ministry, the Government and the public at large informed about status, causes and progress. Information systems in a wider sense will contribute to producing the data and information required. Inclusion of cancer indicators in routine data, surveys, research and other assessment review activities will contribute to monitoring the cancer situation. Regular assessment of the health system will provide the necessary information for taking corrective action.

Studies targeting social determinants of health will make a substantial contribution to understanding risk factors leading to cancer hence provide the information required for targeted interventions to be tailored. The Ministry of Health shall ensure continuous monitoring of the policy implementation through routine data collection using Health Management Information System (HMIS) and technical support. The policy shall promote collection analysis and utilization of age and sex disaggregated data for all populations. The Ministry of Health shall support capacity building of program managers, planners and service providers on data utilisation for decision making.

Monitoring and Evaluation of this policy shall be guided by the following indicators and targets.

Table 5. 1: Policy Monitoring Framework

Indicator	Baseline (2019)	Mid Term (2024)	Targets(2030)	Source of data
Prevalence of tobacco use	13%	9%	7%	STEPwise Survey
Proportion of women 40-75 years screened for breast cancer using Mammography	1%	10%	20%	DHIS2, KDHIS
HPV immunization coverage for 10 year old girls	1%	80%	90%	NVIP
HBV immunization coverage for infants	75%	80%	85%	NVIP
Proportion of women 25-49 years screened for cervical cancer	16%	50%	70%	KDHS, DHIS, HFA, SARAM
Proportion of cancer patients accessing palliative care services	42%	60%	80%	DHIS2, HFA, Surveys

Indicator	Baseline (2019)	Mid Term (2024)	Targets(2030)	Source of data
Cancer budget as a proportion of total health budget	0.5%	5%	10%	Ministry and CoG
Proportion of the population over 45 years screened for colorectal cancer using Fecal Occult Blood Test (FOBT)	1%	10%	20%	DHIS2, SARAM,HFA

Actions to strengthen monitoring and evaluation for cancer control

1. Establish Cancer registries in M&E units of all counties.

2. Strengthen quality routine reporting of all cancer cases.

3. Strengthen surveillance of cancer.

4. Promote research on cancer control including cancer indicator surveys.

5. Coordinate periodic assessment and evaluation of cancer programs.

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REPUBLIC OF KENYA

MINISTRY OF HEALTH

KENYA
CANCER POLICY
2019-2030

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