



**MINISTRY OF HEALTH
KINGDOM OF ESWATINI**

NATIONAL CANCER PREVENTION & CONTROL STRATEGY

2019

FOREWORD

The World Health Organization (WHO) describes cancer as the second leading cause of death globally and is estimated to account for 9.6 million deaths in 2018. These are premature deaths that can be prevented by enabling health systems to respond more effectively and equitably to health care needs of people with cancer. According to current evidence, between 30% and 50% of cancer deaths could be prevented by modifying or avoiding key risk factors, including avoiding tobacco products, reducing alcohol consumption, maintaining a healthy body weight, exercising regularly and addressing infection-related risk factors. Tackling these risk factors involves influencing public policy outside health.

Eswatini is not spared from the increasing burden of cancer. To respond to this situation, the Ministry of Health (MoH) established the National Cancer Prevention and Control Unit which coordinates the implementation of interventions aimed at reducing cancer morbidity and mortality. To facilitate the implementation these interventions the same Ministry has developed of the National Cancer Prevention and Control Strategic Plan.

Since most of cancer determinants are outside the scope of the health sector, the Strategic Plan proposes to extend cancer prevention and control interventions to all government sectors and other relevant sectors with active participation of civil society, NGOs, local associations and the community. This inter-sectoral approach that is considered as “a must”, allows a better coordination of cancer prevention and control interventions at all levels. The strategy is indeed a product of joint efforts and an intensive consultation process between governmental institutions and development partners and I have no doubt they will continue providing the technical and financial support for the success of its implementation.

Finally, I would like to request all health workers to support the implementation of all interventions defined in this document so that the MoH plays its role and assumes its responsibilities as a leader and coordinator of cancer prevention and control interventions in the country.

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Finally, the Ministry of Health highly appreciates the dedication and technical know-how of the members of the Cancer Task Force for demonstrating their determination throughout the entire process.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CHAI	Clinton Health Access Initiative
EHCP	Essential Health Care Packages
EBCCN	Eswatini Breast And Cervical Cancer Network
ENCR	Eswatini National Cancer Registry
HIV	Human Immune Deficiency
MOH	Ministry Of Health
M&E	Monitoring And Evaluation
NCD	Non Communicable Diseases
NHSSP	National Health Sector Strategic Plan
SAM	Service Availability Mapping
STEPS	Stepwise Approach To Surveillance (Steps) Survey
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TB	Tuberculosis
TWG	Technical Working Group
WHO	World Health Organization

TABLE OF CONTENTS

FOREWARD.....	2
ACKNOWLEDGEMENTS.....	3
ACRONYMS.....	4
TABLE OF CONTENTS.....	5
EXECUTIVE SUMMARY.....	6
CHAPTER 1.....	7
1.1 INTRODUCTION.....	7
1.2 THE NATIONAL CANCER PREVENTION AND CONTROL STRATEGY.....	7
1.3 THE COUNTRY PROFILE.....	8
1.3.1 Demographic Data.....	8
1.3.2 Health System.....	9
1.3.3 Health System Analysis.....	10
1.4 CANCER PREVENTION AND CONTROL SITUATION ANALYSIS.....	10
1.4.1 Epidemiology.....	10
1.4.2 The Leading Cancers.....	11
1.4.3 The NCPC Programme Performance.....	12
CHAPTER 2.....	14
2.1 VISION.....	14
2.2 MISSION.....	14
2.3 GUIDING PRINCIPLES.....	14
CHAPTER 3.....	15
3.1 SITUATIONAL ANALYSIS (SWOT).....	15
3.2 STAKEHOLDER ANALYSIS.....	16
CHAPTER 4.....	17
4.1 GOAL.....	17
4.2 STRATEGIC OBJECTIVES.....	17
4.2.1 Strategic Objective 1.....	17
4.2.2 Strategic Objective 2.....	18
4.2.3 Strategic Objective 3.....	19
4.2.4 Strategic Objective 4.....	20
4.2.5 Strategic Objective 5.....	21
4.2.6 Strategic Objective 6.....	21
CHAPTER 5.....	24
5.1 MONITORING AND EVALUATION.....	24
5.2 PROGRAMME MANAGEMENT.....	24
5.3 FUNDING ARRANGEMENT.....	24
5.4 STRATEGY IMPLEMENTATION REVIEW.....	25
APPENDIX A: THE IMPLEMENTATION PLAN.....	26
REFERENCES.....	36

EXECUTIVE SUMMARY

Cancer is a class of diseases in which a group of cells display uncontrolled growth, with intrusion on and destruction of adjacent tissues and sometimes spread to other locations in the body via lymph or blood. Most cancers form a tumor (growth) but some, like leukemia, do not. Cancer is now recognised globally as one of the leading noncommunicable diseases. Second to cardiovascular diseases, cancers contribute to over 7.9 million deaths (13% of total global mortality) each year and this figure is projected to rise to nearly 10 million unless the problem is addressed urgently.

The National Cancer Prevention and Control Strategy is a response by the Ministries of Health and stakeholders to the obvious need to prioritise cancer prevention and control in Eswatini. It recognises that the disease cannot be eradicated, but that its effects can be significantly reduced if effective measures are put in place to control risk factors, detect cases early and offer good care to those with the disease.

The aims of this strategy are to reduce the number of people who develop and die of cancer. It also aims to ensure a better quality of life for those living with the disease. The strategic plan covers the years 2019 to 2022 and explains the scientific basis for cancer control and prevention; outlines a vision and mission; suggests objectives as well as interventions to prevent and control cancer in Eswatini. The strategy draws from experiences gained in various countries that have similar programmes, and also includes technical advice provided by relevant bodies.

CHAPTER 1

1.1 Introduction

Cancer poses a major threat to public health in Eswatini and the incidence rates have increased over the past years. The number of cancer cases and related deaths nationally is expected to double over the next 20-30 years and the country is least capable to cope with the challenges cancer presents. Due to lack of a well-organised and comprehensive cancer programme, the coordination mechanisms result in service duplication or inequity in service provision. Therefore, it is very important to build the capacities for cancer prevention and control. This will lead to more standardised cancer management through the whole continuum of care including guidelines, cancer policies, and action plans thus reducing the late stage diagnosis and improving prompt appropriate action particularly at the peripheral health facility level.

Cancer is a generic term for a large group of diseases that can affect any part of the body. There are over 100 types of cancers, each classified according to the type of cells initially affected. One defining feature of cancer is the rapid creation and replication of abnormal cells that grow beyond their usual boundaries which can lead to metastasis where the cancer invades adjoining parts of the body and spreads to other organs. Metastases are the major cause of death from cancer (WHO, 2014).

1.2 The National Cancer Prevention and Control Strategy

The National Cancer Prevention and Control Strategy aims to build on the existing health system in Eswatini in order to strengthen cancer prevention and control capacities both in public and private sectors through the control of risk factors associated with cancer, investment in cancer control workforce, use of equipment, and cancer research. This is the first cancer control strategy document to be developed in Eswatini. It consolidates aspects in cancer prevention, screening, diagnosis, treatments and care for cancer patients as well as the investment required to deliver these services.

The strategy particularly reinforces the need for action to prevent cancer, especially those related to smoking and other modifiable risk factors. Enhanced health promotion, education, and advocacy will enable the government and other partners to improve the public understanding of cancer. In particular, the strategy will empower the public to adopt healthier lifestyles and help healthcare professionals to recognise the symptoms of cancer and identify people at risk or living with cancer. The strategy seeks to improve early detection of cancer by expanding the available screening programmes and introducing mechanisms and services that are proven to save lives. It seeks to shorten the time taken to diagnose and treat cancer by streamlining the diagnosis, referral systems, and process of care as well as investing in more cancer treatment equipment, cancer specialists, and other staff. The strategy also seeks to improve access to cancer drugs and other aspects of care for cancer patients.

This strategy seeks to harmonise and coordinate cancer care, national cancer registration, sharing of resources, and information among health facilities. It will ensure patients and their families have better support and access to quality treatment

including palliative care. Lastly, the strategy will enable the country to improve services through education and research in the field of cancer prevention and control ensuring a culture of evidence based practice. The strategy is based on the WHO's global cancer control strategy.

The rapid increase in NCDs can be attributed to social and demographic factors which include economic development, globalization of markets and urbanization. These factors lead to increased exposure to modifiable lifestyle risk factors for cancer. These changes, coupled with an increase in globalization of markets for unhealthy foods and consumer products, elevate the risk factor prevalence in the population. To mitigate the health impact of these socio-economic transformations, the country must brace for the challenge in the prevalence of cancers. The prevention and control of this disease therefore is a high priority in order to safeguard the gains made in economic development and establishment of a national cancer prevention and control unit is recommended since the burden of the disease is significant.

Consequently, there is an urgent need to make the most efficient use of the limited resources available to make an impact in cancer prevention and control which is only possible if the most efficient and cost-effective strategies are applied. The National Cancer Prevention and Control Unit is a public health initiative designed to reduce the incidence and mortality of cancer and improve the quality of life for cancer patients in Eswatini which is done through systematic and equitable implementation of evidence-based interventions for prevention, early detection, treatment, and palliation, making the best use of available resources. Proper planning will ensure efficient use of resources for cancer prevention and control.

The development of the cancer prevention and control strategy is necessitated by:

- the growing burden of cancer, including an increasing number of new patients every year,
- the high impact of cancer mortality—cancer is among the leading causes of death in Eswatini,
- increased costs of cancer care,
- uneven uptake of knowledge and innovation,
- limited availability of tools and resources and lack of collaboration among cancer stakeholders

1.3 Country Profile

1.3.1 Demographic Data

The results of the 2017 population census show that the total population of the Kingdom of Eswatini is 1,093,238 comprising of 531,111 males and 562,127 females. An increase of 74,789 persons was registered during 2007-2017 (Central Statistical Office). Out of this total addition, 49,683 additions were in the category of males and 25,106 were added among females (Central Statistical Office). The country's population had consistently shown an annual exponential growth rate of about 2 per cent or more during the period 1936-1997 with maximum growth of 4.9 per cent recorded during 1956-1966 (Central Statistical Office). Women of childbearing age (15-49 years) make

up 26.1% of the population while all females account for 51.4% (Central Statistical Office). An estimated 4.6% of the population is 60 years of age and above (Central Statistical Office). It is significant to note that maximum population has been recorded in the age-group 0-4 closely followed by 5-9, 10-14 and 15-19 age-groups (Central Statistical Office). The median age is 21.7 years and it indicates that Eswatini is a country with a very young population. 56 percent of the population is below 25 years of age (Central Statistical Office).

The percentage of males is higher in the younger age groups but it is higher for females in all age groups after 45 which indicates higher life expectancy of females. As a result of HIV and AIDS, the life expectancy dropped to 32 in 2011 (Central Statistical Office). HIV prevalence is 26%, the highest in the world, and TB prevalence is 707/100,000, also one of the highest in the world (Central Statistical Office). Mortality rates are relatively high for the Eswatini population. The Eswatini Annual Health Statistics Report (2011) indicates that infant mortality rate is 100.5 deaths per 1,000 live births, and under-five mortality rate is 146.3 deaths per 1,000 live births; 70% of all child deaths were reported to have taken place during the first year of life. The crude death rate is 17.6 per 1,000.

1.3.2 Health System

The Eswatini health system is based on the concept of Primary Health Care and consists of three main levels of prevention: primary, secondary and tertiary. At the primary level, there are community based health workers, clinics, and outreach services. The secondary level comprises of health care centres which offer both outpatient and inpatient services and serve as referral points for the primary level facilities. The tertiary level comprises of regional hospitals, specialised hospitals and the National referral hospital and rehabilitation services.

The service delivery system of the Eswatini Health Sector is organised in a four-tier system:

1. National (referral) Hospitals;
2. Regional Hospitals;
3. Primary Health Care facilities including Health Centres, Public Health Units, Rural Clinics and a network of outreach sites;
4. Community Based Care where Rural Health Motivators (RHM), Faith-based Health care Providers, Volunteers and Traditional Practitioners provide care, support and treatment according to EHCP11.

The health care delivery system relies on both formal and informal sectors. In the formal health service sector, there are both public and private health services providers including NGOs, mission, industrial, and private practitioners. The informal sector consists mainly of traditional and other alternative health care providers. Whilst the Essential Health Package (EHP) has been developed to provide guidance in the treatment of all ailments at all health care levels, the Task Shifting Strategy focuses on the rational use of scarce human resources in the health sector.

1.3.3 Health System Analysis

The accessibility to health services is generally defined by availability, affordability, accessibility and utilization. Eswatini has made substantial efforts to ensure that these criteria are met. For the availability criterion, Eswatini has developed an Essential Health Care Package that defines health care provision at each level for all conditions including for NCDs. At the same time, an Essential Medicine List has been developed and drugs that must be available at each level has been determined. Health workers at various levels have been trained through a number of programmes in order to improve the quality of services offered to patients. As needs rise, the use of in-service training will continue.

Regarding affordability, all health care offered through public services are free in principle. This is the case for ART, TB, Mental Illnesses, and Sexual Reproductive Health (SRH) as well as for other key health programmes. However, symbolic fees may be required for some specific health care services which unfortunately imposes a barrier for access to essential care.

In terms of accessibility, Eswatini has made tangible progress to bring health care closer to those in need through decentralization of health services. According to the Service Availability and Readiness Assessment Report (2017), Eswatini has about 327 health facilities. With comparison to other countries in Africa and consideration of the size of the country, the quantity of health facilities is more than satisfactory. The adoption of outreach approach by some health programmes (ART, EPI, Mental Health, and others), has contributed to accessibility to health services particularly for people living and located in rural areas far from health facilities. Furthermore, the development of the Task Shifting Strategy constitutes an important step in accelerating the access to health care services at all levels including in communities.

There has been no formal survey on health service utilization within Eswatini although anecdotal evidence suggests it is obtainable. Further investigation and additional effort is required in order to optimise the situation.

The key areas where specific actions are needed include:

- Acceleration of health services decentralization including using outreach approach and giving priority to the population residing in remote areas that still have difficulties in accessing health facilities because of geographical barriers.
- Combating stigma and discrimination.
- Health promotion and education particularly with the overarching objective of inculcating health seeking behavior among the populace.

1.4 Cancer Prevention and Control Situation Analysis

1.4.1 Epidemiology

According to the International Agency for Research on Cancer, there were 14.1 million new cancer cases, 8.2 million cancer deaths and 32.6 million people living with cancer (within 5 years of diagnosis) in 2012 worldwide (Globocan 2012). 57% (8 million) of

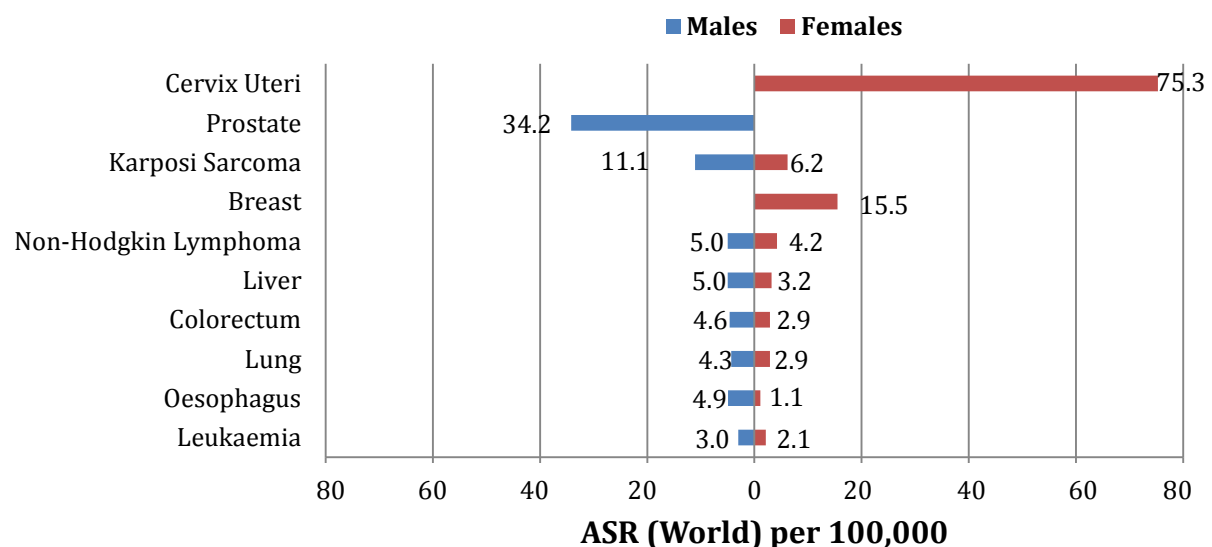
new cancer cases, 65% (5.3 million) of cancer deaths and 48% (15.6 million) of the 5-year prevalent cancer cases occurred in the less developed regions (Globocan 2012). Many of these deaths due to cancer can be avoided with greater public awareness, increased government support and funding for prevention, detection and treatment (World Health Organization, 2014). Worth noting is that cancer is not a disease affecting the affluent and elderly people and developed countries alone, but it is a global epidemic, affecting all ages, from all socio-economic levels.

Cancers were previously considered more pervasive in affluent countries; however, the highest burden now is heaviest on poor and disadvantaged populations. According to the World Health Organization (WHO), more than two thirds of new cases and cancer deaths occur in low and middle-income countries, where such numbers are increasing at alarming rates. In some low-income countries, less than 15% of breast and cervical cancer patients survive longer than five years following diagnosis, despite both being highly curable diseases elsewhere in the world.

1.4.2 The Leading Cancers

The most commonly occurring cancers in Eswatini are shown in Figure 1 below. For females, cervical cancer was the most commonly diagnosed cancer during the period 2014-2015 (age-standardized rate (ASR)): 75.3 per 100,000), followed by breast cancer (ASR: 15.5 per 100,000), Kaposi Sarcoma (ASR: 6.2 per 100,000) and Non-Hodgkin Lymphoma (4.2 per 100,000). Prostate cancer was the most commonly diagnosed cancer among men (ASR: 34.2 per 100,000) followed by Kaposi Sarcoma (ASR: 11.1 per 100,000), Non –Hodgkin lymphoma (ASR: 5.0 per 100,000) and liver cancer (5.0 per 100,000). Apart from KS, the greatest cancer burdens on both males and females were cancers of the reproductive system (prostate and cervical cancers).

Figure 1: Age-Standardized Incidence Rates per Sex of Top Ten Leading Cancers (2014-2015)



Source: Eswatini National Cancer Registry

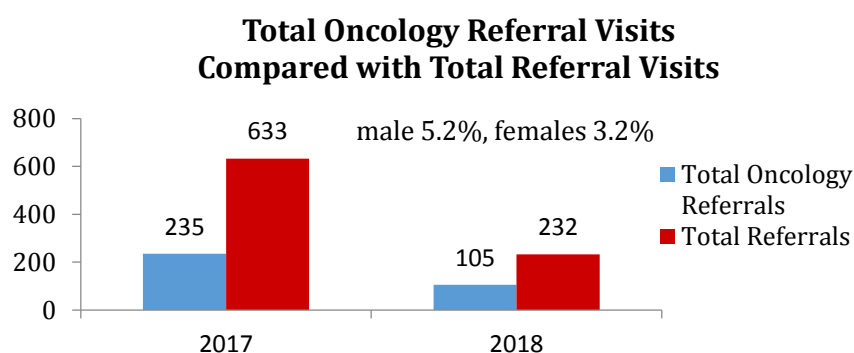
1.4.3 The NCPC Programme Performance

Of the 2,077 new cancer cases recorded among EmaSwatis in 2016-2017, the majority (52.6%) were diagnosed in the Mbabane Government Hospital which is the national referral hospital capacitated with an oncologist, the most surgeons, and the national referral laboratory which links with Lancet for further diagnosis. The apparent rising trend in cancer incidence can be attributed to many factors, including HIV prevalence, population aging, and exposure to risk factors, such as smoking, unhealthy diet, physical inactivity, and environmental pollution. It is estimated that 40% of cancers can be prevented by risk factor modification (WHO, 2009).

The sharp increase in the number of new cancer cases between 2014 and 2015 may also reflect an increase in cancer awareness. Unfortunately, most cancers are diagnosed at advanced stages, largely because of late health seeking behavior, unavailability of diagnostic equipment, and low uptake of cancer screening especially cervical cancer as noted in Stepwise approach to surveillance (STEPS) survey done in the country in 2014[1, 5]. The survey reported that only 13.4% of sexually active women were reported to have had cervical cancer screening, whereas the Service Availability Mapping (SAM) report also revealed that the incidence of cancers associated with HIV, such as KS, may decrease with increased availability of and access to antiretroviral drugs. Early diagnosis and treatment are essential to reduce cancer-related mortality. However, according to SAM (2014) a majority of cancer patients are diagnosed at very late stages when the prognosis is poor.

Some years ago, the Kingdom of Eswatini initiated the Phalala Referral Fund, which assists financially deserving Eswatini citizens who would otherwise not have access to specialist medical care within or, in special circumstances, outside the Kingdom of Eswatini. Through the Phalala Fund, the MOH refer cancer patient to local private hospitals like the Eswatini Cancer Care and in South Africa. In the year 2017, out of all referred cases, 37% was the oncology cases (NB. Referral visits refers to the number of times that each patient travels back to South Africa to receive treatment i.e. each unique care-seeking episode). Most such cancer patients are referred to South Africa for surgery, radiation therapy and/or chemotherapy.

Figure 2: Proportion of cancer patients referred to South Africa through Phalala Fund in 2017- mid 2018



Source: Phalala Office Database

The policy of referring cancer cases diagnosed locally to SA for further management requires expenditures for treatment, transportation, admission and lodging, as well as care and rehabilitation related to the illness. Indirect costs include the loss of economic output due to missed work (morbidity costs) and premature death (mortality costs). In addition to the human toll of cancer, the financial cost is substantial. Cancer also has hidden costs, such as health insurance premiums and nonmedical expenses (transportation, child or elder care, housekeeping assistance, meals, etc.) (Lambe & all, 1994)

CHAPTER 2

2.1 Vision

The vision is for Eswatini to have comprehensive national cancer prevention and control systems to reduce cancer morbidity and mortality.

2.2 Mission

The mission is to increase awareness on all cancer related issues and the creation of an enabling environment for adoption and practice of evidence-based cancer prevention, early detection, diagnosis, treatment, palliative care, rehabilitation, surveillance, and research.

2.3 Guiding Principles

The implementation of the National Cancer Control Strategic Framework will be guided by the following principles:

- Universal Access and Equity – All people should have full access to health care and opportunities for prevention and control of cancer based on need regardless of age, gender, religion, social status, presence of disabilities and the ability to pay
- Ethics – Confidentiality of intended beneficiaries will be maintained at all levels of service delivery
- Evidence-Based Practices – All interventions and strategies for prevention and control of cancer need to be based on scientific evidence and public health principles.
- Holistic – Cancer services assess and support the physical, emotional, social and spiritual needs of the patients and their families
- Partnership – Multidisciplinary and multi-sectoral collaboration and coordination on NCD control interventions will always be promoted and supported
- Accountability – Service providers, organizations and government are held responsible for upholding sound and ethical practice
- Human Rights – Respect for human dignity, with specific focus on ensuring that the rights of the beneficiaries are guaranteed. NCD prevention and control strategies must be formulated and implemented in accordance with international human rights conventions and agreements
- Compassion – Cancer services are provided with genuine care and empathy for the patients and their families

CHAPTER 3

3.1 Situational Analysis (SWOT)

<i>Strengths</i>	<i>Weaknesses</i>
<ul style="list-style-type: none"> • Ongoing campaigns to raise awareness, community engagement and social mobilisation activities 	<ul style="list-style-type: none"> • Screening services currently limited to breast and cervical cancers
<ul style="list-style-type: none"> • Cancer survivors' network 	<ul style="list-style-type: none"> • Stock out of chemotherapy drugs
<ul style="list-style-type: none"> • Cancer education proposed to be integrated into the school curriculum and teachers to provide cancer education during lifeskills lessons 	<ul style="list-style-type: none"> • Inadequate health care workers' knowledge and limited availability of dedicated healthcare workers to provide screening services
<ul style="list-style-type: none"> • Decentralization and integration of screening services 	<ul style="list-style-type: none"> • Limited intersectoral response to cancer control
<ul style="list-style-type: none"> • Availability of health care workers and staff trained in palliative care 	<ul style="list-style-type: none"> • Limited Monitoring and Evaluation system with poor ownership
<ul style="list-style-type: none"> • High political commitment 	<ul style="list-style-type: none"> • Non availability of paediatric screening and diagnosis
<ul style="list-style-type: none"> • Availability of diagnostic technologies 	<ul style="list-style-type: none"> • Inadequate peer support systems
<ul style="list-style-type: none"> • Availability of Pathologist, Cytologist, and other specialists 	<ul style="list-style-type: none"> • Lack of follow-up on patients on treatment
<ul style="list-style-type: none"> • Availability of funds for referrals 	<ul style="list-style-type: none"> • Lack of structural referral system and long waiting time for referral
<ul style="list-style-type: none"> • Availability of Palliative Care system (health facility and community based) 	<ul style="list-style-type: none"> • Poor implementation of PC services in health facilities
<ul style="list-style-type: none"> • Availability of guidelines 	<ul style="list-style-type: none"> • Inadequate nutritional impact/support for palliative patients
<ul style="list-style-type: none"> • Availability of PC medicines 	<ul style="list-style-type: none"> • Lack of HPV vaccine
<ul style="list-style-type: none"> • Availability of Chemotherapy Unit 	<ul style="list-style-type: none"> • Inadequate HPV genotyping screenings
<ul style="list-style-type: none"> • Chemotherapy drugs included in the Government's medicines tender system 	<ul style="list-style-type: none"> • Poor control on risk factors (tobacco, alcohol, radiation)

<i>Opportunities</i>	<i>Threats</i>
<ul style="list-style-type: none"> • Presence of a decentralised health care system 	<ul style="list-style-type: none"> • Global and local financial instability
<ul style="list-style-type: none"> • Availability of international donors to fund and support cancer initiatives 	<ul style="list-style-type: none"> • Political interference
<ul style="list-style-type: none"> • Availability of local oncologist at the national hospital to train and mentor health care workers 	<ul style="list-style-type: none"> • Inadequate infrastructure
<ul style="list-style-type: none"> • Availability of funds for specialist training 	<ul style="list-style-type: none"> • No cancer wards
<ul style="list-style-type: none"> • Existence of public private partnerships 	<ul style="list-style-type: none"> • Referral infrastructure challenges
<ul style="list-style-type: none"> • Big companies can support establishment of cancer management centres 	<ul style="list-style-type: none"> • Cancer services not decentralised
<ul style="list-style-type: none"> • Existence of a well-established decentralised HIV and TB management 	<ul style="list-style-type: none"> • Human resources deficient on skilled personnel
<ul style="list-style-type: none"> • Availability of research unit and the Royal Technology Park to encourage and support research initiatives 	<ul style="list-style-type: none"> • Deficiency of medical supplies and drugs

3.2 Stakeholder Analysis

<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
<ul style="list-style-type: none"> • Cancer patients 	<ul style="list-style-type: none"> • Health workers 	<ul style="list-style-type: none"> • Politicians
<ul style="list-style-type: none"> • Cancer survivors 	<ul style="list-style-type: none"> • Pharmaceutical corporations 	<ul style="list-style-type: none"> • Community leaders
<ul style="list-style-type: none"> • Caregivers 	<ul style="list-style-type: none"> • Private sector in terms of provision of drugs, diagnostics 	<ul style="list-style-type: none"> • Training institutions
	<ul style="list-style-type: none"> • Collaborating NGOs 	<ul style="list-style-type: none"> • International agencies: WHO, CDC, PEPFAR, USAID, UN, CHAI, etc.
	<ul style="list-style-type: none"> • Rural Health Motivators / community care workers 	<ul style="list-style-type: none"> • International and Local Private Sector Funding Partners
	<ul style="list-style-type: none"> • Peer educators 	<ul style="list-style-type: none"> • Academicians and Research Institutions
	<ul style="list-style-type: none"> • Other public health programmes 	<ul style="list-style-type: none"> • Mass Media
	<ul style="list-style-type: none"> • Multi Sectoral Collaborating Ministries 	

CHAPTER 4

4.1 Goal

As stated in the WHO Global Framework for NCDs, the goal is to reduce cancer morbidity and mortality by 25% by 2022.

4.2 Strategic Objectives

1. To reduce the number of new cancer cases attributable to modifiable risk factors by 2022 by 10%.
2. To increase the number of facilities providing screening, early detection, and linkages to care to 60%.
3. To expand the number of level 3-5 facilities offering basic cancer diagnosis, treatment, and palliative care to 80%.
4. To strengthen cancer surveillance, research and strategic information systems.
5. To improve the institutional and technical capacity for cancer prevention and control.
6. To establish a high level mechanisms for multi-sectoral coordination and partnership for prevention, treatment, care and rehabilitation of cancer.

4.2.1 Strategic Objective 1: To reduce the number of new cancer cases attributable to modifiable risk factors by 2022 by 10%.

Prevention of cancer is a key element in cancer control. It offers the greatest public health potential and the most cost-effective long-term cancer control as more than 40% of cancers could be prevented by modifying or avoiding key risk factors (WHO, 2009). The primary prevention of cancer aims at reducing the number of people who develop the disease. It involves eliminating or minimising exposure to the risk factors incriminated in its causation. Prevention services include the use of health protection, health promotion, and disease prevention strategies. These services will alert the population of cancer risk factors, promote healthier lifestyles, and create healthier environments that aim to reduce potential risk factors. Some of these risk factors include tobacco use, unhealthy diets, physical inactivity, harmful use of alcohol, sexually transmitted HPV-infection, HIV infection, urban air pollution, and indoor smoke from household use of solid fuels.

Strategic Activities

1. Create awareness in the general population on modifiable risk factors that pre-dispose to cancer
 - Create dialogue with at-risk populations to enhance community participation in cancer prevention
 - Develop and disseminate health education messages aimed at preventing risky behaviours and adopting healthier lifestyles (Tobacco use, harmful use of alcohol, unhealthy diet, physical inactivity and sexual behaviour)
 - Advocate for the incorporation of risk factors reduction strategies into educational curriculum

2. Control tobacco use and address alcohol abuse, unhealthy diet, physical inactivity and sexual and reproductive factors
 - Promote tobacco cessation programmes
 - Advocate for physical environments that support safe active commuting, and create space for recreational activity.
 - Adapt and implement national guidelines on diet and physical activity.
 - Advocate for the implementation of legislation on production and consumption of alcohol
 - Provide cessation and support services for smokers and develop tobacco cessation guidelines
 - Incorporate tobacco and alcohol control into school health programme including in school curriculum
 - Advocate for increased taxation of cigarette and alcohol and re-allocation of collected funds to health services
 - Provide cessation and support services for smokers and develop tobacco cessation guidelines
 - Incorporate tobacco and alcohol control into school health programme including in school curriculum
3. Control of biological agents that cause cancer including prevention through vaccine introduction
 - Conduct awareness campaigns on screening for infectious diseases related to cancer (HIV, helicobacter pylori, HPV, hepatitis B and C and Epstein Barr virus)
 - Educate parents on safety and need for universal infant immunization with the aim of increasing uptake and coverage
 - Support and promote the introduction of HPV vaccine
4. Control of environmental exposure to carcinogens
 - Promote policy to minimise occupational related cancers and known environmental carcinogens
 - Conduct awareness campaigns on reducing exposure to air pollution and other carcinogens via contamination of food (aflatoxins or dioxins)
 - Engage with employers to reduce exposure to occupational carcinogens
 - Conduct awareness campaigns on the dangers of exposure to ionizing radiation

4.2.2 Strategic Objective 2: To increase to 60% the number of facilities providing screening, early detection and linkages to care.

Early detection comprises early diagnosis of cancer in symptomatic populations and screening in asymptomatic but at-risk populations. The aim is to detect the cancer when it is localised (before metastasis). Early detection of cancer is based on the observation that treatment is more effective when disease is detected early as there is a greater chance that curative treatment will be successful, particularly for cancers of the breast, cervix, mouth, larynx, colon and rectum, and skin. Early detection is therefore successful when linked to effective treatment as 30% of treatable cancers can be cured if detected early (WHO, 2009).

Strategic Activities

1. Expand screening, early detection, and linkages to care services.
 - Develop and rollout basic screening, early detection and linkage to care package for different levels of the health system.
 - Capacitate facilities to implement the minimum package.
2. Screening of asymptomatic and apparently healthy individuals
 - Develop guidelines for screening for specific cancers.
 - Conduct awareness campaigns among communities on early warning signs and symptoms of cancer, self screening methods and participation in screening programmes
 - Conduct cancer screening outreach campaigns by trained teams at all levels.
3. Enhance early detection of cancer in symptomatic individuals
 - Create awareness on the early warning signs and symptoms of cancer among at risk populations and health workers
 - Integrate early detection of cancer into existing health programs.
4. Streamlining the referral and linkages system for cancer patients
 - Strengthen and implement the use of guidelines and standard tools for referral and linkages system
 - Strengthen/ orientation on the referral and linkages pathway.

4.2.3 Strategic Objective 3: To expand the number of level 3-5 facilities offering basic cancer diagnosis, treatment and palliative care to 80% by 2022

Cancer diagnosis is the first step to cancer management. This calls for a combination of careful clinical assessment and diagnostic investigations including endoscopy, imaging, biochemistry, histopathology, cytopathology, and other laboratory studies. Once a diagnosis is confirmed, it is necessary to ascertain cancer staging, where the main goals are to assist in the choice of therapy. The primary objective of cancer treatment is to cure, prolong, and improve the quality of life which involves a multidisciplinary treatment including surgery, radiation therapy, chemotherapy, hormonal therapy, or some combination of these.

Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness. Palliative care works through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain as well as any other physical, psychosocial, and spiritual challenges. Pain relief and palliative care must therefore be regarded as integral and essential elements of a national cancer programme. Provision of pain and symptom relief, spiritual and psychosocial support from diagnosis to the end of life and bereavement.

Strategic Activities

1. Improvement of cancer diagnosis
 - Develop evidence based guidelines for cancer diagnosis and standard operating procedures.
 - Strengthen histopathology, cytology, radiology services
2. Enhancing accessibility of cancer treatment services

- Develop an essential cancer drug list and integrate it into the national essential drug list.
 - Develop clinical protocols and quality assurance (QA) guidelines for cancer management.
3. Manage advanced cases of cancers
- Update guidelines for palliative care services including pain management.
 - Develop quality assurance mechanism to oversee proper delivery of palliative care for cancer patients
 - Conduct awareness campaigns on palliative care targeting policy makers, public, media, health care personnel and regulators.
 - Strengthen community and home-based palliative care services including establishment of nutritional support services for cancer patients.
 - Establish social support services for cancer patients and provide palliative care services for groups with special needs, children and elderly.

4.2.4 Strategic Objective 4: To strengthen cancer surveillance, research and strategic information systems

Cancer surveillance involves the routine and continuous collection of information on the incidence, prevalence, mortality, diagnostic methods, stage distribution, and survival of those with cancer and aspects of care received. A fully functioning and dedicated cancer registry with appropriate expertise is a cornerstone of cancer-control. Research is needed across the spectrum of cancer control to provide the basis for continual improvement. A coordinated agenda for cancer research is an essential element in the effective prevention and control of cancer.

Cancer surveillance is a fundamental element of any cancer control strategy since it provides the foundation for advocacy and policy development. Cancer control research seeks to identify and evaluate the means of reducing cancer morbidity and mortality with an aim of improving the quality of life.

Strategic Activities

1. Improve availability of comprehensive data on cancer and its risk factors
 - Build capacity for cancer registration personnel and sensitise health personnel on cancer registration.
 - Review existing cancer surveillance and registration tools.
 - Strengthen cancer data collation, analysis, interpretation and dissemination.
2. Enhancing capacity for research in cancer
 - Identify research priorities for common cancers in the country.
 - Mobilise funds from sustainable sources for funding research.
 - Facilitate capacity building in cancer research at various levels of the health system.
 - Promote collaboration between various stakeholders involved in cancer research.

4.2.5 Strategic Objective 5: To improve the institutional and technical capacity for cancer prevention and control

The promotion of National Cancer Prevention and Control Unit (NCPCU) is a key strategy in fighting against cancer worldwide. The WHO is assisting Member States to build and reinforce capacity for planning and implementing effective programmes. Within this context, the development of systematic NCPCU Capacity Assessment is considered an essential necessity in order to identify gaps and strengths, and to monitor progress of cancer control plans and programmes at the country, regional and global levels. The NCPCU Capacity Assessment will be part of a broader capacity surveillance system for Non-Communicable Diseases which is under development.

Strategic Activities

1. Strengthen the National Cancer Prevention and Control Unit
 - Establish and approve an organogram for the cancer control unit.
 - Appoint relevant personnel for the unit.
2. Mobilize and allocate adequate resources
 - Prepare a map of oncology needs and resource requirements.
 - Advocate for a budget line for cancer programming and management including research.
 - Advocate for increased budgetary allocation for establishment of a comprehensive cancer control programme.
3. Improve the knowledge of cancer among individual and skills of health personnel
 - Undertake survey to assess the workforce devoted to cancer prevention and control.
 - Develop health education packages on cancer for the general public.
 - Develop and implement training curriculum for community and primary healthcare workers on cancer prevention, early detection, treatment and palliative care.
 - Expand coverage of cancer subjects with practical work in the training/learning curriculum for students in health training institutions.
 - Initiate and facilitate local and international training for candidates interested in the field of oncology.
4. Ensure adequate infrastructure for cancer prevention and control
 - Procure quality laboratory and treatment equipment and materials including drugs for cancer treatment.
 - Forecast and procure chemotherapy medicines for cancer.

4.2.6 Strategic Objective 6: To establish a high level mechanisms for multi-sectoral coordination and partnership for prevention, treatment, care and rehabilitation of cancer

A centralised coordinating body such as a National Cancer Institute is suggested to coordinate all cancer prevention and control activities thus ensuring efficient use of resources. This aids in directing efforts of all key stakeholders towards a common goal and ensures smooth running of programs and avoids overlaps and redundancies.

Strategic Activities

1. Strengthen interdisciplinary collaboration and intersectoral and multisectoral partnerships for synergy of action
 - Re-establish multi-sectoral coordination committee.
 - Establish a Technical Working Group for Cancer Control.
2. Develop collaboration with the following international organizations to support and strengthening the coordination of all cancer prevention and control activities and trainings
 - a. International Atomic Energy Agency (IAEA)
 - Provides Member States with a wide range of tools, services and support to assist them in their efforts to address the cancer burden.
 - Provides assistance in the area of cancer through imPACT (Programme of Action for Cancer Therapy)
 - Reviews and resource mobilization, and by supporting the development of strategic documents such as Comprehensive National Cancer Control Plans and bankable documents for fundraising.
 - b. International Agency for Research on Cancer (IARC)
 - IARC is part of the World Health Organization.
 - IARC coordinates and conducts both epidemiological and laboratory research into the causes of human cancer. Work under four main objectives:
 - Monitoring global cancer occurrence
 - Identifying the causes of cancer
 - Elucidation of mechanisms of carcinogenesis
 - Developing scientific strategies for cancer control
 - c. African Cancer Coalition (ACC)
 - Assist African region in development of new cancer care guidelines that take into account the context in which care is being provided.
 - Strengthen clinical guidelines, training, and technical collaboration to ensure that all people with cancer get access to effective, affordable treatment.
 - d. African Cancer Registry Network (AFCRN)
 - Improve the effectiveness of cancer surveillance in sub Saharan Africa by providing expert evaluation of current problems and technical support to remedy identified barriers, with long-term goals of strengthening health systems and creating research platforms for the identification of problems, priorities, and targets for intervention.
 - Provides technical and scientific support to countries;
 - Delivers tailored training in population-based cancer registration and use of data and advocate the cause of cancer registration in the region and facilitating setting up associations and networks of cancer registries; and coordinate international research projects and disseminating findings.

- e. African Organisation for Research and Training in Cancer (AORTIC)
 - An African based non-governmental organisation that is dedicated to the promotion of cancer control and palliation in Africa
 - Its key objectives are:
 - To further research relating to cancers prevalent in Africa,
 - To facilitate and support training initiatives in oncology for health care workers
 - To create cancer prevention and control programmes, and to raise public awareness of cancer on the continent.
 - To organize biennial international cancer conferences and multi-disciplinary workshops in conjunction with ministries and policy makers.

Chapter 5

5.1 Monitoring and Evaluation

To measure progress in the implementation of the National Cancer Prevention and Control Strategic Plan, Monitoring and Evaluation will be considered as a priority. In this regard, a Monitoring and Evaluation Framework with defined impact, outcomes, and output indicators will be developed.

Monitoring the implementation of the NCPC Strategic Plan as well as assessing progress made through achievements is essential. Monitoring will address the implementation of planned activities through a set of indicators related to inputs, process and outputs, while assessment will focus on effectiveness of interventions through outcomes and impact on incidence as well as on mortality with particular attention paid to case fatality rate.

The evaluation of the implementation of NCPC Strategic Plan will be carried out at mid-term as well as at the end of the 4 year period. Mid-term evaluation will offer opportunity to learn from experience of the first two years on the implementation, taking corrective measures where actions have not been effective, and reorienting parts of the plan in response to unforeseen challenges.

5.2 Programme Management

In order to effectively manage the NCPC Programme and implementation of the NCPC Strategy, there is need for strengthening of the current NCPC Programme and continued commitment from Government.

There is a need of strengthening staff at the NCPC Programme. This has been reflected in the proposed organogram (Appendix A). In addition, it should be highlighted that strengthening of NCPC staff is required at all levels; national and community.

However, the efficient and effective implementation of the NCPC Strategic Plan will require a multi-sectoral approach with effective partnership through involvement of Governmental Institutions, Private Sectors, Faith Based Organizations (FBOs), NGOs as well as communities through local associations. It is important to note that this multi-sectoral approach will necessitate a strong harmonization and coordination among all partners and this role remains the responsibility of the Ministry of Health.

5.3 Funding Arrangement

The National Cancer Prevention and Control Department will develop annual costed action plans which will serve as a financing mechanism for implementation of this plan. Funding will be sought from government as a primary source of financing and from development partners. In order to operationalize this intention, the department will prepare budget requests annually through consultations with stakeholders and submit them for financing by government as part of planning and budgeting processes of the ministry. Support from development partners will be sought through systematic

engagement with them including proposal writing. Through adequate advocacy, Development Partners and the Private Sector will be expected to supplement Government efforts by providing both technical and financial support. The costing of the operational plan will be activity-based and done on a yearly basis.

5.4 Strategy Implementation and Review

The implementation of the NCPC Strategic Plan will be facilitated by the National Cancer Prevention and Control Unit. It will require technical assistance from International Partners (WHO), hospitals, community clinics, NGOs and the private sector.

The implementation of the Strategy will cover a period of 4 years from 2019 – 2022. At 4 years, there will be an end of term review to evaluate the changes, reassess the cancer situation in Eswatini, and produce recommendations in light of this and new developments in the cancer prevention and control field.

APPENDIX A. THE IMPLEMENTATION PLAN

Objective 1: To reduce by 10% the number of new cancer cases attributable to modifiable risk and environmental factors by 2022.							
Key Performance Indicator: Percentage of new cancers diagnosed at stage I and II one year following awareness campaign							
Intervention	Activity	Output	Responsible Entities	Timelines			
				Y1	Y2	Y3	Y4
Create awareness in the general population on modifiable risk factors that pre-dispose to cancer	Develop and disseminate health education messages aimed at preventing risky behaviours and adopting healthier lifestyles (Tobacco use, harmful use of alcohol, unhealthy diet, physical inactivity and sexual behaviour)	Communities adopt healthy behaviours	NCPCP HPU Civil Society	X	X	X	X
	Create dialogue with at risk populations to enhance community participation in cancer prevention	Communities promote cancer prevention	NCPCP HPU Civil Society	X	X	X	X
	Advocate for the incorporation of risk factors reduction strategies into educational curriculum	-Teachers teach students on cancer risk factors -Learners adopt healthy lifestyles	NCPCP MOET	X	X		
Control tobacco use and address alcohol	Promote tobacco cessation programmes	Tobacco users quit	NCPCP HPU Civil Society	X	X	X	X

abuse, unhealthy diet, physical inactivity and sexual and reproductive factors	Advocate for physical environments that support safe active commuting, and create space for recreational activity.	Youths avoid initiating smoking	NCPCP HPU Civil Society	X	X	X	X
	Adapt and implement national guidelines on diet and physical activity.	Communities adopt healthy lifestyles	NCPCP NCDs	X			
	Advocate for the implementation of legislation on production and consumption of alcohol	Police enforce legislation	NCPCP NCDs Royal Eswatini police	X	X	X	X
Control of biological agents that cause cancer	Conduct awareness campaigns on screening for infectious diseases related to cancer (HIV, helicobacter pylori, HPV, hepatitis B and C and Epstein Barr virus)	-At risk populations screen for infections -Health workers conduct tests	NCPCP EPI HIV HPU	X	X	X	X
	Educate parents on safety and need for universal infant immunization with the aim of increasing uptake and coverage	Parents and Caregivers vaccinate their child	NCPCP EPI HPU	X	X	X	X
	Support and promote the introduction of HPV vaccine	MOH introduce HPV	NCPCP EPI HPU	X			
Control of environmental exposure to carcinogens	Promote policy to minimise occupational related cancers and known environmental carcinogens	Workplaces introduce safety measures	NCPCP MOL HPU EHP	X	X	X	X
	Conduct awareness campaigns on	Communities	Ministry of Housing &	X	X	X	X

	reducing exposure to air pollution and other carcinogens via contamination of food (aflatoxins or dioxins)	prevent air pollution and observe food safety procedures	Urban Development NCPCP HPU EHP				
	Engage with employers to reduce exposure to occupational carcinogens	Workplace introduce safety procedures	Ministry of Labour NCPCP EHP Municipalities	X	X	X	X
	Conduct awareness campaigns on the dangers of exposure to ionizing radiation	Communities observe safety measures	HPU NCPCP Civil Society	X	X	X	X
Objective 2: To increase to 60% the number of facilities providing screening, early detection and linkages to care.							
<u>Key Performance Indicator: Percentage of facilities providing cancer screening, early detection and linkages to care</u>							
Expand screening, early detection and linkages to care services.	Develop and rollout basic screening, early detection and linkage to care package for different levels of the health system	Health workers detect cancer and refer early	NCPCP	X			
	Capacitate facilities to implement the minimum package.	At risk individuals access screening service	NCPCP	X	X	X	X
Screening of asymptomatic and apparently healthy	Develop guidelines for screening for specific cancers.	Health workers detect cancer	NCPCP		X		

individuals		and refer early					
	Conduct awareness campaigns among communities on early warning signs and symptoms of cancer, self-screening methods and participation in screening programmes	Communities take up cancer screening services	NCPCP HPU	X	X	X	X
	Conduct cancer screening outreach campaigns by trained teams at all levels	Health workers detect cancer and refer early	NCPCP Civil society	X	X	X	X
Enhance early detection of cancer in symptomatic individuals	Create awareness on the early warning signs and symptoms of cancer among at risk populations and health workers	Communities take up cancer screening services	NCPCP Civil society HPU	X	X	X	X
	Integrate early detection of cancer into existing health programs.	Health workers detect cancer and refer early	NCPCP Public Health Programme s	X	X	X	X
Streamlining the referral system for cancer patients	Strengthen and implement the use of guidelines and standard tools for referral system	Health workers detect cancer and refer early	NCPCP	X	X	X	X
	Strengthen/ orientation on the referral pathway.	Health workers	NCPCP	X	X	X	X

		detect cancer and refer early					
Objective 3: To expand to 80% the number of level 3-5 facilities offering basic cancer diagnosis, treatment and palliative care by 2022							
Key Performance Indicator: Percentage of level 3-5 facilities offering basic cancer diagnosis, treatment and palliative care							
Improvement of cancer diagnosis	Develop evidence based guidelines for cancer diagnosis and standard operating procedures.	Health workers confirm all cancer diagnosis	NCPCP	X	X	X	X
	Apply innovative technology for histopathology, cytology, radiology services	Health workers confirm all cancer diagnosis	NCPCP	X	X	X	X
Enhancing accessibility of cancer treatment services	Develop clinical protocols and quality assurance (QA) guidelines for cancer management	Health workers manage cancer patients according to national guidelines	NCPCP	X	X	X	X
	Develop an essential cancer drug list and integrate it into the national essential drug list.	Ministry avails all essential drugs for cancer	NCPCP CMS	X	X	X	X

Manage advanced cases of cancers	Update guidelines for palliative care services including pain management	Health workers provide adequate pain relief	NCPCP	X	X	X	X
	Develop quality assurance mechanism to oversee proper delivery of palliative care for cancer patients	Health workers provide palliative care	NCPCP	X	X	X	X
	Conduct awareness campaigns on palliative care targeting policy makers, public, media, health care personnel and regulators	Communities utilise palliative care services	NCPCP PCP Civil Society	X	X	X	X
	Establish community and home-based palliative care services including establishment of nutritional support services for cancer patients.	Communities utilise palliative care services	NCPCP RHM CBOs	X	X	X	X
	Establish social support services for cancer patients and provide palliative care services for groups with special needs, children and elderly	Cancer patients well supported	NCPCP RHM CBOs	X	X	X	X
Objective 4: To strengthen cancer surveillance, research and strategic information systems							
<u>Key Performance Indicator:</u> Number of facilities with systems in place to meet the requirements for cancer surveillance, research, and strategic information systems							
Improve availability of comprehensive data on cancer and its risk factors	Build capacity for cancer registration personnel and sensitise health personnel on cancer registration.	-Health workers report all cancer	NCPCP ENCR	X	X	X	X

		diagnosis					
	Review existing cancer surveillance and registration tools.	-Cancer Registry Staff capture all cancers	NCPCP ENCR EDCU	X	X	X	X
	Orient health workers on cancer data collation, analysis, interpretation and dissemination.	-Health workers use cancer information for decision making	NCPCP ENCR EDCU	X	X	X	X
Enhancing capacity for research in cancer	Identify research priorities for common cancers in the country	Researchers conduct priority studies on cancer	NCPCP RU	X	X	X	X
	Facilitate capacity building in cancer research at various levels of the health system	Health workers conduct cancer research	NCPCP RU	X	X	X	X
	Promote collaboration between various stakeholders involved in cancer research	Stakeholders share cancer information	NCPCP RU	X	X	X	X
	Mobilise funds from sustainable sources for funding research	Funders allocate resources for cancer research	NCPCP	X	X	X	X

Objective 5: To improve the institutional and technical capacity for cancer prevention and control							
Key Performance Indicator: Number of facilities that are well-equipped with the proper infrastructure, specialists, and technologies for cancer prevention and control							
Strengthen the National Cancer Prevention and Control Unit	Establish and approve an organogram for the cancer control unit	Cancer unit implement interventions	NCPCP Directorate	X	X		
	Appoint relevant personnel for the unit	Cancer unit implement interventions	NCPCP Directorate	X	X		
Mobilise and allocate adequate resources	Prepare a map of oncology needs and resource requirements	Government allocates resources	NCPCP	X	X	X	X
	Advocate for a budget line for cancer programming and management including research	Government allocates resources	NCPCP	X	X	X	X
	Advocate for increased budgetary allocation for establishment of a comprehensive cancer control programme.	Government allocates resources	NCPCP	X	X	X	X
Ensure adequate infrastructure for cancer prevention and control	Procure quality laboratory and treatment equipment and materials including drugs for cancer treatment	Health workers provide cancer services	NCPCP CMS	X	X	X	X
	Forecast and procure chemotherapy medicines for cancer	Health workers provide cancer services	NCPCP CMS	X	X	X	X

Improve the knowledge of cancer among individual and skills of health personnel	Undertake survey to assess the workforce devoted to cancer prevention and control	NCPCP compiles register of cancer experts	NCPCP HRH	X	X	X	X
	Develop health education packages on cancer for the general public	Communities prioritise cancer prevention and control	NCPCP HPU	X		X	
	Develop and implement training curriculum for community and primary healthcare workers on cancer prevention, early detection, treatment and palliative care	Primary care health workers identify cancer and refer	NCPCP RHM	X	X	X	X
	Expand coverage of cancer subjects with practical work in the training/learning curriculum for students in health training institutions	Health workers diagnose and manage cancer	NCPCP Academic Institutions HRH	X	X	X	X
	Initiate and facilitate local and international training for candidates interested in the field of oncology	Health workers gains expertise in oncology	NCPCP HRH	X	X	X	X
Objective 6: To establish a high level mechanisms for multi-sectoral coordination and partnership for prevention, treatment, care and rehabilitation of cancer							

<u>Key Performance Indicator:</u> Improved policies or partnerships established for prevention, treatment, care and rehabilitation of cancer							
Strengthen interdisciplinary collaboration and inter-sectoral and multi-sectoral partnerships for synergy of action	Re-establish multi-sectoral coordination committee	Stakeholders implement coordinated cancer interventions	NCPCP	X			
	Establish a Technical Working Group for Cancer Control	Stakeholders implement coordinated cancer interventions	NCPCP	X			
	Partner across the national health system for improved cancer control.	Stakeholders implement coordinated cancer interventions	NCPCP	X	X	X	X

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