National Cancer Control Policy

2015

National Department of Health

Approved by the Papua New Guinea National
Executive Council in the meeting No: 01/2015, NEC Decision No: 25/2015

Table of Contents

ACRONYMS

DP	Development Partners
EPI	Expanded Program of Immunisation Community
CHW	Health Worker
HBV	Hepatitis B Virus
HEO	Health Extension Officer
HIV/AIDS	Human Immuno Virus / Acquired Immuno Deficiency Syndrome
HPV	Human Papilloma Virus
IAEA	International Atomic Energy Association
IARC	International Agency for Research on Cancer
IMR	Institute of Medical Research
NCAC	National Cancer Advisory Council
NCC	National Cancer Centre (located at Angau Memorial Hospital, Lae)
NCCC	National Cancer Coordinating Committee
NCCP	National Cancer Control Program
NCDs	Non-Communicable Diseases
NDoH	National Department of Health
NGO	Non-Governmental Organisation
NHIS	National Health Information System
NHP	National Health Plan
PNG	Papua New Guinea
PNGCF	Papua New Guinea Cancer Foundation Union
UICC	Union of International Cancer Control
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

FOREWORD

I have the honour to introduce this new National Policy for Cancer Control in Papua New Guinea which has been approved by the Government for implementation. This is the first time a comprehensive policy has been developed for addressing the burden of cancer in Papua New Guinea.

Papua New Guinea has one of the worst indicators for cancer in the Pacific region. Cervical and breast cancer continue to kill our women population, while mouth and liver cancers continue to kill many of our population annually.

Although cancers are expensive and challenging to treat, the good news is that most of them can be prevented. Therefore, I urge all involved in cancer care to take a new direction set in this policy to focus more on prevention of cancer whilst making treatment opportunities available for the many cases needing treatment.

Cancers and other non-communicable diseases are rising and if not addressed efficiently and effectively can lead to a 'double' burden of disease in a country where communicable diseases such as malaria, tuberculosis, HIV and pneumonia are prevalent.

However, cancer comes in many forms and kills more people than TB and HIV put together. I believe our strongest opportunity to combat cancer is in addressing the risk factors such as chewing of betel nut, tobacco smoking, eating unhealthy foods, harmful use of alcohol, lack of exercise and sexual promiscuity, as many of the cancers common in Papua New Guinea can be prevented, while assisting those needing treatment by making available treatment services such as surgery, radiotherapy and chemotherapy.

The National Cancer Control Policy is a national policy document that is aligned to the National Health Plan 2011-2020. The policy objectives and strategies set out in this plan can be achieved through collaborative efforts with our relevant stakeholders and the communities.

I strongly encourage the Department and all stakeholders to embrace this plan and help in its implementation at the facility and community level to ensure the policy achieves its intended outcomes.

Hon. Michael Bill Malabag, OBE, CBE, MP
Minister for Health & HIV/AIDS

ACKNOWLEDGEMENT

The development of this Policy is the culmination of considerable work, which commenced in 2012 with the Airways Cancer Workshop.

There is no question that the incidence of cancers, particularly those which can be attributed to poor lifestyle choices is increasing at a rate faster than we are able to mobilise highly complex treatment services. It is also clear that this burden is falling in greater numbers on the women in our community. We must act now to address these alarming trends.

This policy creates a welcome framework, which will assist health services to improve the coordination of services and create a focus on early detection. This will allow for the provision of lower complexity interventions while the disease is still treatable.

It is also intended that this focus on cancer will translate to public information campaigns on a broader range of issues, directed at the reduction of new preventable cancers cases in the future. These campaigns will revolve around tobacco use, healthy eating, increasing activity, reducing alcohol and betel nut use and reducing environmental risks.

I am most grateful and acknowledge the many people who gave their time, experience, and thoughts to the development of this important policy document.

I want to particularly acknowledge the efforts of the members of the Cancer Working Committee, the Ministerial Task Force on Cervical Cancer and the World Health Organisation who all worked tirelessly to ensure this policy became a reality.

In closing I would like to commend the policy to you and ask that you use it to improve awareness and generate actions to help reduce the impact and incidence of this disease.

Pascoe Kase

Secretary for Health

EXECUTIVE SUMMARY

While Papua New Guinea (PNG) continues to battle significant public health challenges from pneumonia, malaria, tuberculosis, and maternal and child health, it is now facing an epidemiological shift similar to that of other low- and middle-income countries. As lifestyles change the prevalence of non-communicable diseases rises. Cancer is a prime example of this.

Due to challenges in surveillance and the fact that many cancers in PNG go undiagnosed, the exact rates of cancer mortality and morbidity across PNG are unknown. However several reviews have revealed that cancer is on the rise[1]. The most common cancers found in PNG are cervical, breast, oral and liver.

Many of the cancers that are common in PNG can be prevented through behaviour changes such as the cessation of tobacco and betel nut use, a reduction in the harmful use of alcohol and an increase in positive behaviour such as physical activity and healthy eating. In addition, cervical and liver cancers can both be prevented through immunisation.

Historically, PNG's approach to cancer care and control has been conducted in an uncoordinated manner, with a stronger focus on costly treatment services. This policy, the first ever cancer control policy for PNG, is aimed at creating a more comprehensive approach, using an evidence based approach and focusing on interventions that are appropriate in low resource settings. Key to this is the creation of a National Cancer Control Programme, which will facilitate a comprehensive set of measures including primary prevention, screening and early detection, diagnosis and treatment, palliative care, and the establishment of a cancer registry.

In addition to this, the policy paves the way for a higher prioritization of cancer activities. It seeks to enhance human and capital resources, improve cancer infrastructure, and establish quality research to ensure that program choices for cancer care and control are the best and most appropriate for PNG.

This landmark policy for PNG is the result of ongoing efforts by a wide variety of stakeholders who have continued to contribute towards cancer control, each in their own valuable way. Through the creation of a sustainable and comprehensive National Cancer Control Programme it is hoped that the Government will be more able to effectively address the burden of cancer.

[1] notably those done by Dr. Michael Barton & Prof Martin Tattersall (2001), Prof Alan Langlands (1999) and Dr. John Niblett& Dr. Roger Allison (1995)

CHAPTER ONE: BACKGROUND

1.1 Intent of the policy

This policy is intended to give effect to the National Health Plan 2011–2020, in which Key Result Area 7 identifies promoting Healthy Life Style by reducing the morbidity and mortality from cancers as a priority.

The intent of this policy is to give prominence to cancer care and control in the country, and to pave the way for a coordinating mechanism to coordinate all cancer programs. At the same time it is also intended to build capacity in all areas of screening and management of cancers across PNG.

1.2 Historical context

Cancer, a disease caused by the uncontrolled division of abnormal cells, is a leading cause of death worldwide. The World Health Organization (WHO) Globocan (2008) estimated a global cancer incidence of nearly 12.7 million new cases and 7.6 million deaths in 2008. It is projected that an estimated 15.5 million people will be diagnosed, and 12 million will die of cancer by the year 2030.

More than 70 per cent of all cancer deaths occur in low and middle-income countries, where resources available for prevention, diagnosis and treatment of cancer are often limited or unavailable. In developed countries, cancer is the second most common cause of death after cardiovascular diseases. Epidemiological evidence points to the emergence of a similar trend in developing countries.

In many low- middle-income countries the rapid increase in cancers and non-communicable diseases in general has resulted from increased exposure to risk factors such as unhealthy diet, physical inactivity, tobacco use, harmful use of alcohol, and exposure to environmental carcinogens. This is also the case in PNG, where risks are compounded by the common consumption of betel nut. As such, the prevalence of cancers including oral, cervical, breast and liver have increased.

Historically, cancer services in PNG have been implemented without a systematic national cancer care and control policy or plan. Prior to independence in 1972, the government established the National Cancer Centre (NCC) at the Angau Memorial Hospital in Lae, Morobe Province. The facility became the main centre for cancer prevention and treatment using external beam radiation treatment (using Cobalt 60 machine), and chemotherapy together with brachytherapy. In addition to this, chemotherapy and surgery were provided in regional hospitals where Specialist Medical Officers were located.

In 1998 radiotherapy services at the NCC ceased when the megavoltage Cobalt-60 radiation therapy machine broke down and no cancer specialist was available. Over the next ten years there was no radiotherapy service available within the country.

During the period after 1998, cancer incidence and mortality rose progressively and the burden of cancer was felt by many across the country. As cancer patients often present to health care facilities at late stage; many were unable to be treated. Those who could afford it went overseas for treatment, especially radiation therapy.

In 2009 the NCC in Lae was eventually revitalised, however cancer care has remained uncomprehensive nationally. A cancer ward has been existent at the Port Moresby General Hospital (PMGH), providing chemotherapy and outpatient services, but no radiotherapy. Histopathology services have been available at PMGH since the 1990s but the workload is higher than can be catered for and results often take months.

Cancer education and advocacy programs have mainly been implemented through Non-Government Organisations (NGOs) such as the PNG Cancer Society, the Port Moresby Cancer Society, and the recently established PNG Cancer Foundation (PNGCF).

As such, a comprehensive cancer care and control through the guidance of this document is critically needed to manage the growing cancer burden in the country.

1.3 Policy Development Process

A comprehensive process of consultation was undertaken in developing this policy. Inputs from key stakeholders in cancer control including health professionals in prevention, screening, diagnosis and treatment, education and training services, consumers and non-governmental organizations were gathered to review the current state of services in prevention and early detection, diagnosis and treatment in order to identify areas for intervention and consult on strategies of the plan.

The policy development process began with a national cancer stakeholder's workshop at Airways Hotel in Port Moresby in late 2012. Other consultation meetings were held at the March Girls and Airways again in February 2014 and Dream Inn Hotel in April 2014. Group discussions with researchers, clinicians, relevant program managers, provincial counterparts and NGO representatives were also conducted.

The draft was circulated widely to visiting consultants, WHO advisers and Development Partners for comments to ensure consistency with international best practises, policies and regulations.

CHAPTER TWO: POLICY CONTEXT AND DIRECTIONS

2.1 Goal

The goal of the National Cancer Policy is to reduce cancer morbidity and mortality and improve survival and quality of life for cancer sufferers.

2.2 Vision and Mission

The vision is for Papua New Guinea to have the capacity to manage cancer in terms of prevention and treatment, to provide quality palliative and support services for those with terminal disease and to reduce the burden of cancers in the population in the long term.

The mission is to develop and implement key strategies in prevention, diagnosis and treatment of common cancers in PNG ensuring sustainable technology and resources and safe environment and practices to fully attain high quality cancer care in PNG.

2.3 Objectives

The objectives of the Policy are:

1) To establish a National Cancer Control Program (NCCP) for Papua New Guinea. The NCCP will focus on priority cancers and will work to:

   i) Prevent cancer through specific and sustainable programs by addressing risk factors ,
   ii) Introduce HPV vaccination for prevention of cervical cancer and consider its initiation as part of the Expanded Programme on Immunization (EPI).
   iii) Establish cost-effective, evidence based, locally appropriate screening programs for the early detection and treatment of common cancers.
   iv) Strengthen cancer diagnosis, treatment and referral at the national referral hospital and 3 regional hospitals.
   v) Expand palliative care services, through provision and access to oral opiates and other psychosocial support services at health centre and community level.

2) To develop hospital based cancer registries in a phased manner in the national referral hospital and regional hospitals whilst conducting research to support appropriate interventions.

3) To develop human resources for cancer and to equip health systems with adequate personnel for cancer prevention, control and management including specialist care and management.

4) To enhance and improve cancer screening, diagnostic, and treatment equipment.

5) To develop and sustain partnerships for cancer control.

2.4 Policy Principles

The Government's Vision 2050 envisages a wealthy, healthy and wise nation. The National Health Plan 2011-2020 seeks to set the basis in a back to basics approached in achieving accessible and affordable health care for all by strengthening health systems and governance frameworks.

The NHP 2011-2020 aims to facilitate and support the people to:

- attain fully their potential in health
- appreciate health as a valuable asset
- take individual responsibility and positive action for their health

In all the Health sector policy ensures a high quality health system that is:

- customer centred
- equitable
- accessible
- affordable
- efficient
- culturally sensitive/acceptable
- scientifically proven
- technologically appropriate
- environmentally adaptable
- innovative
- and team work through partnerships in contribution to one health system

Considering that the issue of cancer cuts across all sectors of the health system it is important that cancer care services are in-line with the above health sector principles of quality health care. These are the principles that will guide the implementation of the National Cancer Policy.

2.5 Core Government Legislations and Policies

The National Cancer Policy is developed in line with the National Health Plan 2011-2020, the Health Sector Corporate plan and other sector plans. Other legislation and policy documents in which this policy is developed and should be read in that context are:

2.5.1 Acts and Legislations

- NCDC Act –Regulation of Betel nut 2013
- PNG Occupational Health and Safety Act 2011
- The Health Administration Act 1997
- The Organic Law on Provincial and Local Level Government 1995
- Public Hospital Act 1993
- Tobacco Control Act 1987
- PNG Constitution 1974
- Public Health Act 1973

2.5.2 Policies and Standards

- Health Asset Management Policy 2015
- National Tobacco Policy 2015
- Medium Term Development Plan 2011 -2015
- National HIV Strategy 2011 -2015
- Health Human Resource Policy 2014
- Health Sector Partnership Policy 2014
- National Medicines Policy 2014
- Sexual Reproductive Health Policy 2014
- Community Health Post Policy 2013
- Free Primary Health Care & Subsidised Specialist Care Policy 2013
- National Health Service Standards 2011
- National Health Plan 2011-2020
- PNG Strategic Development Plan 2011-2030
- PNG Vision 2050 -2009
- Child Health Policy 2009 -2020
- National Health Medical Equipment Policy 2004

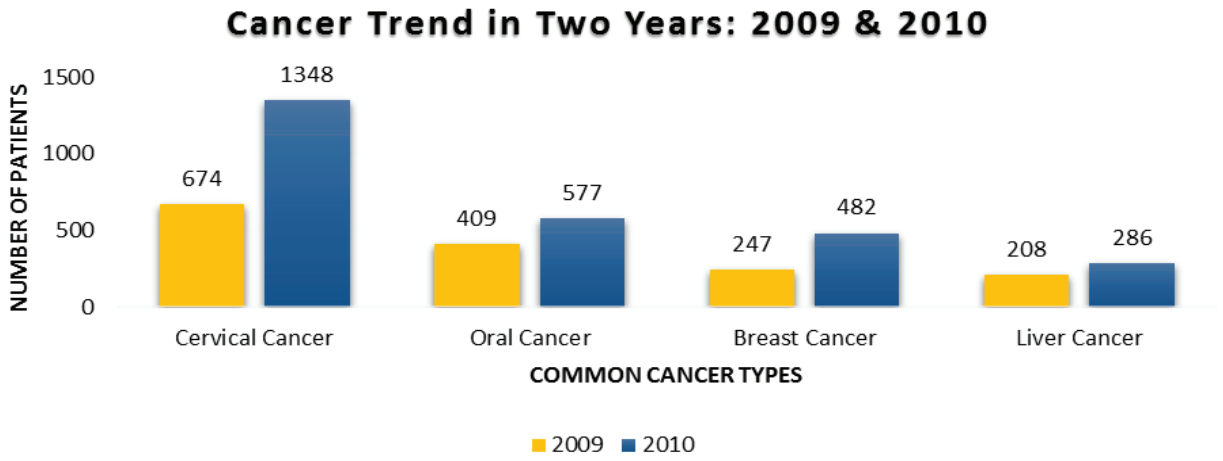
CHAPTER THREE: POLICIES AND STRATEGIES

3.1 CURRENT SITUATION

In PNG, communicable diseases such as tuberculosis, malaria and HIV/AIDS, as well as maternal and child health, have historically dominated the health agenda. However, the country is now facing a double burden with an increase in non-communicable diseases, including cancer. Despite a lack of comprehensive cancer surveillance, a number of cancer reviews conducted on the state of cancer services in PNG (notably those done by Dr. Michael Barton & Prof Martin Tattersall (2001), Prof Alan Langlands (1999) and Dr. John Niblett & Dr. Roger Allison (1995)) and recently the IAEA imPACT study (2012) revealed evidence of increasing cancer incidence in PNG.

Although population based data does not exist in the country, it is estimated that the annual incidence of cancer may be between 10,000 - 15,000[2] cases but mortality is not known due to lack of data. The most common cancers found in PNG are cervical and breast in women and oral and liver in both sexes. If site-specific cancer proportions are re-calculated, excluding benign neoplasms, then cervical cancer contributes 28% of cancer hospital admissions, breast cancer 9%, oral cancer 15%, and liver cancer 9%.

(Refer to Annex Three for complementary Cancer Statistics from the NHIS)



Source: National Health Information System (NHIS)

Many of the common cancers found in PNG can be prevented through the reduction of risk factors including tobacco use, betel nut consumption, and harmful use of alcohol,

[2] Papua New Guinea National Department of Health, "The Hidden Burden Cancer in Papua New Guinea" April 2007,

physical inactivity and unhealthy diet. In addition to this, the risk of cervical and liver cancer can be prevented through the use of vaccines. PNG has one of the highest smoking rates in the Pacific with a prevalence of 44% current smokers (60% men and 27% women). Betel nut is also a major risk factor leading to oral cancer with 79% of the population being current chewers[3].

As highlighted earlier, PNG faces many similar challenges in regards to cancer care and control as other developing countries do. The majority of cancer cases present at late stages, and often patients are taken back home to die. Cancer treatment can be resource intensive and requires specialised skillsets, which are not currently available in PNG. Globally the most effective approach to cancer is seen to be the establishment of comprehensive cancer control programs including prevention, screening and early detection, diagnosis and treatment, palliative care and cancer registry and surveillance. Such programs are tailored to address the most common cancers in order to make use of limited resources.

The current system of cancer care in PNG is one which has largely been integrated into other areas of clinical medicine and that lack of attention is given due to the capacity issues and mastery of the field of oncology in general. The NCTC at Angau Memorial Hospital is the only facility delivering external beam radiation treatment, internal brachytherapy and chemotherapy. In addition, it has many capacity issues that need to be addressed to enable it to function as a centre of excellence in cancer care. Port Moresby General Hospital provides chemotherapy services. Chemotherapy services are also provided, under direction by the NCTC, in regional and provincial hospitals. Some specialised surgical services in Lae are provided by ENT, OBG, and general surgery, but major specialised surgical services are performed at Port Moresby General Hospital.

In all, the current cancer situation can be described in the form of challenges given below:

- Absence of a National Cancer Control Program
- Non-functioning National Cancer Registries
- Lack of Cancer Prevention Programs
- Lack of early detection services
- Lack of effective diagnostic services
- Lack of effective coordination and management of the cancer care services.
- Insufficient resources including finances, personnel, appropriate facilities, equipment (such as radiation machines), and supplies.
- Inadequate information technology support services.
- Lack of understanding on the role and responsibilities of cancer services resulting in poor coordination, under resourcing and planning for cancer services.
- Lack of knowledge and understanding of the cancer problem.

- Current procurement system of cancer drugs and equipment is not reliable in maintaining stocks in a timely manner.

In the absence of a policy, an important tool that has never been in place all these years, setting strategic directions for cancers care and control program in a more coordinated and planned out approach has been difficult. The development of this policy is step forward for cancer care and control services in PNG.

3.2 Analysis of Issues, Strategies and Policies

Policies and Strategies

3.2.1 National Cancer Control Program- Governance and Stakeholder Coordination

Governance and Stakeholder Coordination

Cancer is a complex disease to manage, therefore, it essential that NDoH develop collaborations and partnerships with all relevant partners to address issues together. Past approaches to cancer control in PNG have been ad hoc and opportunistic, with significant gaps in the cancer care continuum, leading to a fragmented system and inefficient levels of care. Overall there has been a lack of coordination and ownership of the cancer program, with various stakeholders taking responsibility for programs in an unorganised manner as and when resources arise. In order to effectively address cancer, a comprehensive national plan is required that coordinates efforts, accounts for reality of limited resources and addresses priority concerns.

Currently NGOs play a significant role in support services and advocacy for cancer care and prevention. In addition training institutions including University of PNG Medical School and University of Technology provide training support for oncology workforce requirements. It is therefore important that clear partnership arrangements are made in the roles of our partners to prevent duplication of roles and ensure resources are maximised and services are sustained.

Policy: The NDoH as the steward of the Health System shall take lead to establish and coordinate a National Cancer Control Program (NCCP) that addresses the following priority areas:

1. Cost- effective, evidence based, locally appropriate screening programs for the early detection and treatment of priority cancers such as early detection of cervical and oral pre-cancer and early cancers and to provide appropriate treatment

2. Cancer diagnosis, treatment and referral at the National Cancer Centre, the national referral hospital and regional hospitals

3. Palliative care services through provision and access to oral opiates and other psychosocial support services at provincial hospitals, districts and community level.

4. Strengthening cancer registration in a phased manner to generate reliable and timely data on cancer

Strategies:

The NDoH through its respective divisional branches will:

1. Develop a comprehensive National Cancer Control Program and plan covering prevention, screening and early detection, diagnosis and treatment, registration and palliative care for implementation in the country.
2. Provide leadership and coordinate the implementation, monitoring and evaluation of the NCCP.
3. Engage in partnerships with relevant stakeholders and formalise arrangements in MOU/MOA in accordance with the guidelines of the Health Sector Partnerships Policy.
4. Provide technical advice and release confidential and sensitive information relating to the NCCP through set management guidelines.
5. Sanction and approve all form of research in accordance with the Health Sector Research Policy.

3.2.2 Primary Prevention

While not every cancer is preventable, some are through appropriate measures. Currently there are no nationally implemented population or school-based cancer prevention programs across PNG; however, opportunistic information and education initiatives are available through other health programs. Records show that no vertical or integrated cancer prevention programs have been implemented over the last ten years. Awareness and education about cancer is important; cancer awareness and education programs should be implemented within communities for people to make right choices to prevent cancers such as oral, cervical and breast cancers.

In addition to this, certain cancers are known to be caused by diseases that can be prevented through immunisation. Hepatitis B virus (HBV) vaccination, which can directly prevent cancer of the liver, is currently a part of the routine immunisation program and should be encouraged to continue with aims to increase coverage. In addition, vaccination against the human papilloma virus has shown to be effective against cancer of the cervix in other parts of the world. PNG will have to assess its feasibility in the local environment and consider whether or not to include it in the routine immunisation schedule in the future.

Lastly, certain cancers can be caused by the exposure to carcinogens in the environment such as industrial and cytotoxic waste and pesticides, and as such exposure should be controlled and monitored.

Policy: Specific and sustainable cancer prevention programs shall be implemented for all age groups, with an emphasis on risk factor reduction, including promoting healthy lifestyles, preventing exposure to carcinogens and vaccination for hepatitis B virus (HBV) and human papilloma virus (HPV).

Strategies:

1. Education and awareness programs on the causes of cancer will be developed and distributed, focusing on:
    a. The benefits of healthy diet, exercise and healthy life style.
    b. The risk of chewing betel nut and its direct relation to head and neck cancers.
    c. The dangers of tobacco use.
    d. The harmful use of alcohol.

2. Relevant policies, legislations and fiscal interventions to reduce tobacco use, betel nut chewing, and harmful use of alcohol and to reduce unhealthy diet and physical inactivity will be implemented.

3. The feasibility of HPV vaccine to prevent cervical cancer in PNG will be explored, with consideration of its inclusion in the routine immunisation program as a preventative measure for cervical cancer.

4. The risk of liver cancer derived from Hepatitis B will continue to be addressed through birth dose vaccination in the routine immunisation program.

5. The exposure to environmental carcinogens such as industrial and cytotoxic waste and pesticides will be regulated and controlled.

3.2.3 Screening and Early Detection

Some cancers common in PNG, such as cancer of the cervix, breast and mouth, can be identified early on through screening and early detection programs, providing a greater opportunity for effective treatment. When run effectively, these programs can have a significant impact on the reduction of morbidity and mortality from these cancers. However not all of these programs are appropriate in resource poor environments as they can be costly and difficult to implement. Screening and early detection programs should be tailored to suit the PNG context and provide the most economic and accurate solutions for target populations and priority cancers.

Policy: Locally appropriate, cost-effective, evidence based screening programs will be made available for at risk populations for the early detection and treatment of cancers.

Strategies:

1. Information and education programs on the early signs and symptoms of cancer in the population will be created and implemented.
2. Screening guidelines for early detection of common cancers will be developed, using only methods that are cost-effective, locally appropriate, and evidence based.
3. The feasibility of Visual Inspection with Acetic Acid (VIA) with or without Cryotherapy will be further investigated, and where found to be appropriate, will be established.
4. Strategies for the detection and treatment of pre-cancer and cancer of the oral cavity will be researched and implemented.
5. Human resource capacity for cancer screening will be developed and improved.
6. Capacity of institutions to carry out screening such as laboratory equipment will be built and strengthened.
7. Screening and early detection program will be integrated into existing public health programs to maximise limited resources.
8. Early cancer detection and screening programs will be encouraged at all levels of health care facilities and communities where feasible.

3.2.4 Diagnosis and Treatment

Cancer in PNG is most frequently clinically diagnosed. Pathology diagnostic services are lacking in most hospitals. Specimens that go the Port Moresby General Hospital (the only domestic hospital that provides histopathology service) for analysis often take months for a result to be returned. Radiology diagnostic services are also basic and CT scanning is limited to Port Moresby and does not offer much help in diagnosis and

staging of cancers. As such, an important part of the National Cancer Control Program will be the improvement of diagnosis and treatments services at appropriate levels.

Policy: Diagnostic and treatment services shall be improved and strengthened at the National Cancer Centre, the national referral hospital and priority regional hospitals, and effective referral systems shall be implemented from community health centres to the specialised diagnostic and treatment centres.

Strategies:

1. Improve cancer diagnosis by;
    a. Improving the capacity of health care workers to identify possible cancers and refer appropriately for diagnosis.
    b. Improve the capacity of diagnostic facilities to accurately diagnose cancers in a timely manner.
    c. Conduct training for health staff working on cancer diagnosis including HEOs, Nurses, CHWs and medical students in training.
    d. Developing guidelines for cancer diagnosis and standard operating procedures.
    e. Developing and ensuring regular maintenance and upgrading of cancer diagnostic equipment.

3.2.5 Palliative and Psychosocial Support Services

An important part of any cancer control program is the provision of both palliative and psychosocial support services. These programs, which can be relatively easy to administer, can make a significant difference on the quality of life of a patient.

Currently the cancer service is supported by the Physiotherapy Department. However, other essential support services such as counselling and nutrition are not provided for cancer patients, resulting in the rapid deterioration of patients' conditions. There is limited pain relief available for patients with advanced cancer. Cancer pain relief is commonly poor in hospital patients, due to limited training in modern narcotics use, and non-availability of some opiates.

Policy: Palliative care services will be provided through the provision of and access to oral opiates and other psychosocial support services at the provincial, district and community levels.

Strategies:

1. Oral Opiates will be made available and accessible at health centres and community aid posts for cancer pain control.
2. Palliative care guidelines will be developed and implemented
3. Palliative care programs will be established in hospitals and health facilities.
4. Partnerships will be established with training institutions to develop curriculum for training specialists for cancer support services, particularly in nutrition and speech therapy.
5. Community based palliative care will be promoted through civil society partnerships.

3.2.6 National Cancer Centre

The National Cancer Centre (NCC) in Lae provides external beam radiotherapy, brachytherapy and chemotherapy services. The current increase in PNG's population and the corresponding increase in incidence of cancers require that there be a major expansion of radiation oncology services. WHO guidelines recommend one high-energy machine per million population. In line with this, it is envisioned that a full set of comprehensive cancer services will be provided at the NCC in order for it to become a national centre of excellences for cancer care and research.

It is important to note that the primary treatment facility at Lae must be brought up to an acceptable standard before any satellite radiotherapy facilities are developed. The required standard will be achieved once all related strategies outlined below have been implemented.

Policy: The capacity of the National Cancer Centre at Angau Memorial General Hospital in Lae will be improved to provide more comprehensive cancer treatment services and to become a centre of excellence for cancer care and research.

Strategies:

1. Provide information and awareness of the ways to reduce the risk of cancer, and refer for immunisation as required.
2. Provide screening and early detection services where feasible, and if not then refer appropriately.
3. Work towards the eventual development of a secondary histopathology service for the country.
4. Improve treatment capability through the upgrading and maintenance of equipment.

5. Develop and procure additional human resources and provide avenues for training.
6. Expand services to include palliative care, nutrition, physical therapy, and counselling.
7. Consider the future establishment of a second cancer centre equipped with linear accelerators and appropriate accessories and CT simulator at the Port Moresby General Hospital

3.2.7 Cancer Registry and Surveillance

A functioning cancer registry and surveillance system is vital in ensuring that an appropriate picture of the burden is understood in order to inform program measures. Although a cancer registry was in place in the 1980's, it has not been functional in recent years and instead the burden of cancer is estimated from hospital-based data and other capacity reviews. While this method estimates an incidence of 10 -15,000 cases per year, it is commonly understood that most cases are not recorded because they do not present to a health facility. Although a national population based cancer registry would be the ideal method for revealing the full picture of cancer burden and trends it is not currently feasible in PNG, and as such locally appropriate methods should be implemented in order to build capacity in a phased manner.

Policy: A National Cancer Registry and surveillance system will be established in a phased manner to enable the burden and trends in diagnosis to be estimated and monitored in order to inform evidence-based interventions for cancer prevention and care.

Strategies:

1. A hospital based cancer registry will be first established in at the National Cancer Centre in Lae and at Port Moresby General Hospital, and then expanded to regional sites as and when appropriate, with a long term goal of developing a population based registry.
2. The Cancer Registry will work in conjunction with National Health Information System (NHIS) in order to inform a wider estimate of the national cancer burden.
3. Provincial and district hospitals will continue to provide cancer data to the NHIS.
4. Private Service providers, NGOs and other stakeholders will also provide cancer patient data to NHIS.
5. A Cancer Registry Committee with approved Terms of Reference will be established to coordinate the collection and analysis of cancer registry and NHIS data and provide timely reports to NDoH for program use.

3.2.8 Enhancement of Human Resources

The successful implementation of the NCCP will require trained staff to provide care at all levels. Although cancer care can require highly skilled staff, it is not essential for these specialists to be available at every level as other health care workers can be effectively trained to provide appropriate screening, detection, treatment and referral services, especially in resource poor areas. As such, focus should be on providing specialists at the national and regional centres in order to meet needs, and up-skilling other health care workers at the health facility and community levels. In the meantime, efforts should be increased to develop the future workforce of cancer carers through national and international training and development.

Policy: Human resource capacity for cancer management shall be enhanced and health systems will be equipped with adequate personnel for cancer prevention and control.

Strategies:

1. Human resource management strategies will include training and recruitment plans for cancer care specialists in regional centres and cancer care providers at the community level.
2. Ongoing refresher and up skilling training will be rolled out throughout the country to support cancer prevention, diagnostic treatment, palliative and counselling services.
3. Cancer service provisions will be incorporated in health training curriculums.
4. Maintain effective collaboration and encourage twinning arrangements with international training institutions for the purpose of ongoing training and up skilling of cancer service providers.

3.2.9 Financial Resources

A comprehensive cancer control program requires significant long term funding in order to prevent a build-up of even higher costs in the future. While initiatives to address cancer will be designed to be as cost effective and appropriate as possible in the PNG context the program will still require adequate, dependable resources.

Currently cancer services operate in PNG on a minimal annual budget. The National Cancer Centre receives an annual budget of under two million kina. This funding is insufficient and is normally used up in the routine operations of the centre. Separate additional funding is needed for improving the services. There has historically been limited funding for expansion of services or training. The situation will remain that way until new directions under this policy for priority areas for support are identified. Development partners (DP) support is also minimal which can be attributed to a lack of a cancer plan identifying priority areas needing DP support.

Policy: Appropriate long term funding will be sought for implementing the NCCP, including supporting existing cancer programs and implementing new programs

Strategies:

1. A detailed implementation plan for the NCCP will be developed and costed on a five-year basis.
2. NDoH, hospitals and provinces will advocate for appropriate funding annually to support the implementation of the national cancer control program.
3. Advocate and mobilize stakeholders, including corporate organizations, for their expertise and funding support of the national cancer control program.

3.2.10 Management

In order to effectively address cancer across PNG all program work needs to be lead and coordinated well beginning at the national level. This requires the establishment of a coordination committee that will bridge the fragmentation between the Medical Standards and Public Health Division.

Policy: A National Cancer Coordination Committee (NCCC) shall be established within the NDoH Governance Structure with a Terms of Reference. This committee will be responsible for the National Cancer Control Program (NCCC)

A working secretariat will be provided by the Medical Standards and Public Health Divisions on rotational basis annually.

The NCCC will be guided by the advice of a National Cancer Advisory Council (NCAC), made up of experts in the field, development partners, NGOs and other stakeholders. The NCAC will be responsible for providing key technical advice on appropriate cancer policies and interventions for the country.

Strategies:

1. The NDoH through the working secretariat will develop Terms of Reference (TOR) for the NCCC and NCAC and have them established
2. Regularly monitor, provide technical advice to all relevant stakeholders and evaluate the implementation of this policy.

CHAPTER FOUR: IMPLEMENTATION PLAN

This policy has taken into considerations the various legislations governing the decentralised health system in the country. The Organic Law on Provincial and Local Level Government, the National Health Administration Act, Provincial Health Authority Act and the Public Hospital Act defines the administrative and management functions, roles and responsibilities that each player in the health system will be engaged with each other in implementing this policy.

A detailed National Cancer Control Program (NCCP) Plan will be developed by the National Cancer Coordinating Committee with inputs from all relevant stakeholders (See Annex 1) to implement this policy in a phased manner preferably over a five (5) year period. This plan will outline the priority actions in the short, medium and long term. It will identify and guide the roles and responsibilities of service providers at national provincial, hospitals, districts and community levels.

NDoH will operationalise this policy and the NCCP through the NDoH Corporate and Annual Implementation Planning process while Provinces, Provincial Health Authorities and Public Hospitals will source funding for implementation through their Strategic Implementation planning through annual activity and budgetary process.

Major infrastructure and capital works funding will be sourced through the normal Development Budget process of government.

Human Resources will also be planned and budgeted for under normal government processes under the Health Sector Workforce Planning.

Churches, NGOs and others will implement this policy within their own jurisdictions but will be encouraged to complement government services by aligning their priorities to that of government outlined in this policy and the National Cancer Control Plan.

All engagements with private and NGO stakeholders including churches will be through MOU/MOA as specified by the Health Sector Partnership Policy.

CHAPTER FIVE: MONITORING AND EVALUATION

Monitoring and evaluation are very important components of this policy, especially to ensure its implementation is on track or it needs corrective actioning along the way.

Ongoing monitoring will be carried out through normal quarterly reviews. Reporting will be the either on quarterly or annual basis through normal program reports or through the National Health Information System.

Operational and other research covering various aspects of the National Cancer Care and Control Program will be encouraged as the results will provide good evidences and assist with the ongoing implementation of this policy and future review of it.

This policy monitoring and evaluation will be co-ordinated through National Cancer Coordination Committee with direction of the National Cancer Advisory Council reporting to the Secretary and Minister of Health through the Program Committee and Quarterly Reviews.

The Public Health Division will be responsible for monitoring and evaluation of the Prevention and Promotion components of this policy, while the Medical Standards will take charge of Hospital based programs.

The Public Health Division and Medical Standards Division through the National Cancer Coordination Committee will develop specific measurable indicators to monitor and evaluate the program's output, process and outcome indicators to have some performance measure for policy and planning purposes.

ANNEX ONE: BRIEF ROLE OF KEY PLAYERS

In implementing this policy, NDoH takes into account the legislative requirements concerning partner's engagements with the different levels of government under the decentralised system in the following manner:

National Department of Health is responsible for:

- the overall policy development, review, report, monitoring, evaluation and coordinate implementation through the National Cancer Coordinating Committee
- Develop comprehensive National Cancer Control Plan and coordinate its implementation
- Advise and plan on Human Resources needs for the National Cancer Control Services
- Maintain National Health Services Standards in relation to Cancer Services
- Work with Training Institutions in developing Curriculum and Training Program and Standards
- Procurement and distribution of essential drugs supplies and equipment
- Coordinate partnership as per the Health Sector Partnership Policy
- Advocate with Central Agencies to provide adequate funding
- Advocate for political and community support
- Coordinate and sanction research in line with the Health Research Policy
- Advise and provide technical support to provinces, PHAs and Public Hospitals and NGOs.

The Provincial Administration is responsible for:

- Coordinate Cancer Control Activities including partnerships in the provinces
- Plan and Budget for Cancer Programs and interventions in the Province
- Ensuring provincial political support to cancer control activities in the province
- Coordinate advocacy, public health education and other awareness in the province
- Supervisory and technical support through supervisory visits to Districts, Health Centres and Community Health Post
- Support and conduct training and other capacity development of lower level health facility staff
- Conduct awareness and public health education on regular basis
- Monitor and Report on provincial implementation status on Cancer activities in the province
- Ensure capacity building for its staff in areas of in-service is supported by funding and appropriate management

The District Administration is responsible for:

- Maintain liaison between Provincial Headquarters, Provincial Hospitals, for outreaches and supervisory visits to district.
- Linkages with partners and line agencies, churches, women and youth groups and community to foster holistic approach to decision making on primary cancer interventions or programs
- Ensure collation of information, data and action to be on regular basis at the facilities and community level and report to Provincial Health Information System
- Ensure community capacity is enhanced through identifying risk factors and early identification of suspicious signs and systems.

Community Based Organisation is responsible for:

- Mobilize the community through groups such as women's groups, youth groups etc to participate in cancer programs decision making
- Participate in community cancer health education planning and implementation
- Serve as conductors of information between health facility and the community; and,
- Work together towards improvement in quality of service

Development Partners are responsible for:

- Provide technical assistance towards capacity building and health systems strengthening and cancer control technical.

Local and International NGOs are responsible for:

- Assist the government in implementing this policy by filling in the gap by engaging in effective partnerships
- Advocate for cancer programs and mobilize resources using their networks both locally and internationally.
- Participate in the planning process at all levels of government to ensure all activities are aligned to government priorities and all efforts and resources are well coordinated towards this policy's goal.

Health Teaching Institutions are responsible for:

- Developing the human resource capacity for the health sector, specifically for implementing the National Cancer Control Programme

State Agencies and Regulatory Bodies

- to provide regulatory support through joint inspection and monitoring efforts towards the control and surveillance of cancer including radiation safety activities within the country

Professional Societies

- Affiliations for advocacy on professional conduct and ethics for the different professionals engaged in implementing this policy.

Research and Laboratory Institutions

- Lead and support operational researches with a bearing on the National Medicines Policy and other researches on medicines quality

Standards and Accreditation Bodies

- Audits and accreditation of medicines testing facilities

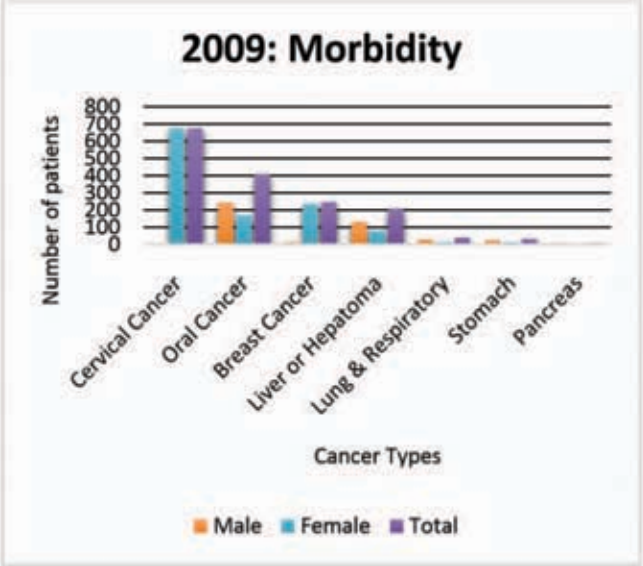
ANNEX TWO: MEMBERSHIP OF THE NATIONAL CANCER ADVISORY COUNCIL

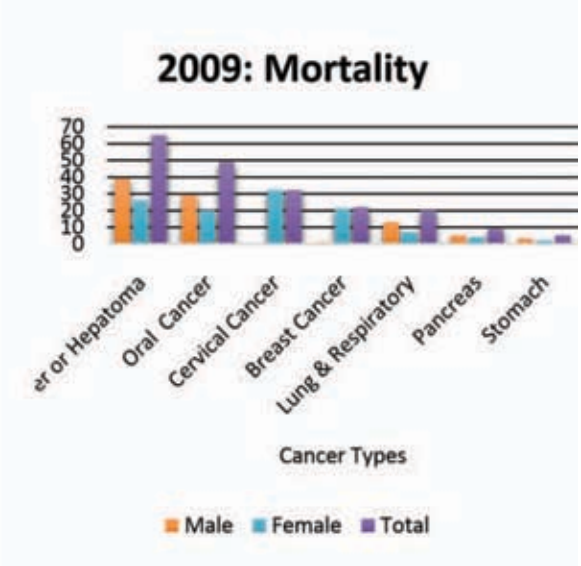
The National Cancer Advisory Council will be made up of

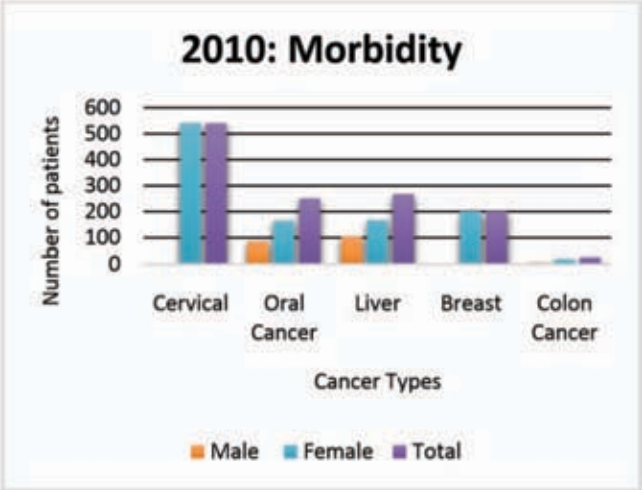
- A member from the National Department of Health
- A member from Port Moresby General Hospital
- A member from the University of Papua New Guinea
- A member from the Department of Provincial and Local Affairs
- A member from the Department of Environment and Conservation
- A member from the Department of Mining and Petroleum
- A member from Australian Department of Foreign Affairs
- A member from US Health
- A member from the World Health Organization
- A member from the Institute of Medical Research
- A member from the PNG Cancer Foundation
- A member from the Cancer Council of Australia

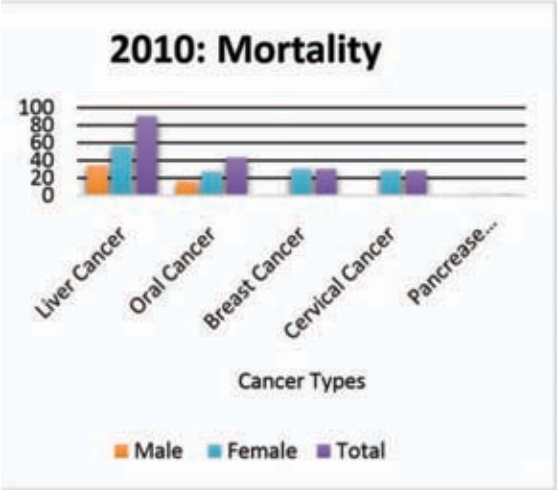
It will also consult with other government Departments and stakeholders as required, including but not limited to: Department of Finance, Department of National Planning, the International Atomic Energy Agency (IAEA), and the International Agency for Research on Cancer (IARC) and International Union for Cancer Control (UICC).

ANNEX THREE: CANCER STATISTICS









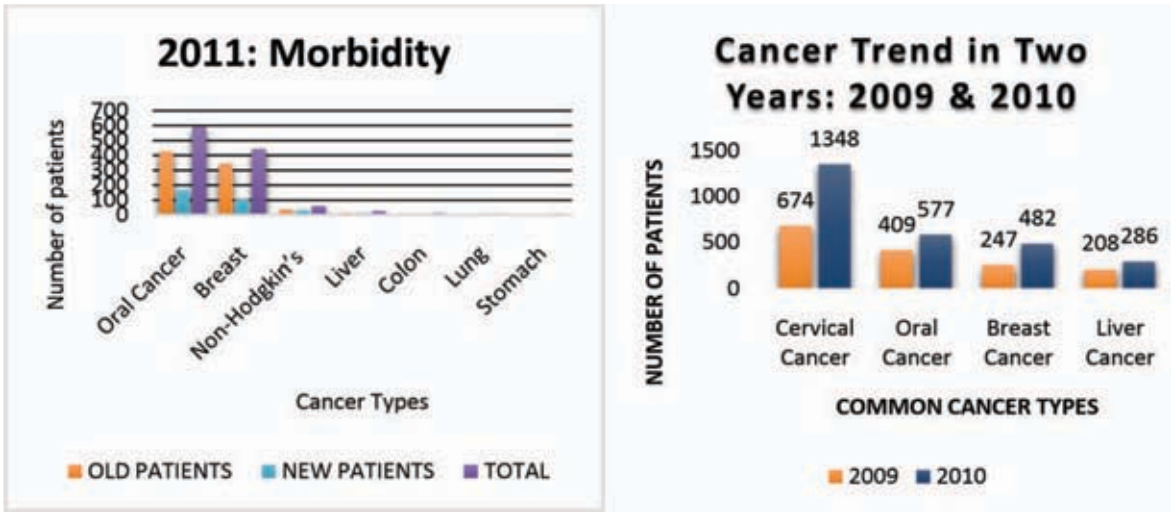


Fig 1: Common causes of admissions and deaths at the Port Moresby General Hospital

(Reported by Chalau, Tau, Seta, Mokella, Amoa and Dagam, 2008)

ADMISSIONS			DEATHS		
1	Obstetrics	26%	1	Pneumonia	21%
2	Pneumonia	14%	2	Perinatal	12%
3	Malaria	12%	3	Malaria	9%
4	Accident and Emergency	8%	4	Meningitis	6%
5	Skin Diseases	4%	5	Tuberculosis	5%
6	Diarrhoea	4%	6	Heart	5%
7	Other Respiratory Diseases	3%	7	Cancer	4%
8	Perinatal	3%	8	Diarrhoea	3%
9	Typhoid	2%	9	Anaemia	3%
10	Anaemia	2%	10	Accident & Violence	3%
11	Tuberculosis	2%	11	Other Respiratory Diseases	3%
12	Cancer	1%	12	Typhoid	3%