



National Multisetoral Strategic Plan for the Prevention and Control of Non- Communicable Diseases 2015-2020

**NON COMMUNICABLE DISEASES PROGRAM
DISEASES CONTROL & SURVEILLANCE BRANCH
PUBLIC HEALTH DIVISION
NATIONAL DEPARTMENT OF HEALTH**

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MESSAGE FROM THE HONOURABLE MINISTER OF HEALTH AND HIV/AIDS

Non-Communicable Diseases (NCDs) account for more than 70% of all deaths in the Pacific Region. This has resulted in governments of the Pacific to declare an NCD crisis and the Forum of Economic Ministers to call for the development of country specific Roadmaps for strengthening NCDs prevention and control.

The epidemiological profile for Papua New Guinea (PNG) is such that there is a very high burden of malnutrition, stunting, micronutrient and vitamin deficiencies and persistent challenges of communicable diseases on the one hand and increasing levels of obesity, high blood pressure and diabetes on the other. The latter are conditions that predispose individuals to cardiovascular, respiratory and multi-system diseases, including cancer. This growing burden of NCDs has the potential to undermine labor productivity and economic growth through disabilities such as strokes which further undermines government efforts to allocate adequate resources for the health sector.

This document is Papua New Guinea's first National Multisectoral Strategic Plan for the Prevention and Control of NCDs for the period 2015 to 2020. This overarching policy framework calls for a deliberate "multisectoral" and "whole of government approach" to NCD prevention and control interventions. It aims to address the unhealthy behaviours of people such as tobacco use, unhealthy diets, physical inactivity and the harmful use of alcohol.

This strategy is a sign of government's commitment to reducing the current NCD burdens through cooperative efforts among the various departments, such as health, the Department of Agriculture, Education and Trade and agencies such as the Police force, Customs, National Statistics Office and Provincial and Local Level Governments. Not to forget the development and implementing partners such as the churches, civil society, NGOs and Foundations.

I wish to acknowledge and thank the many and varied partners that continue to work with and support government efforts to improve the health of the people of Papua New Guinea. After all, "Health is Everybody's Business"

**HON MICHAEL MALABAG , OBE, MP
MINISTER OF HEALTH & HIV/AIDS**

FOREWORD FROM THE SECRETARY FOR HEALTH

This National Multisectoral Strategic Plan for the Prevention and Control of Non Communicable Diseases (NCDs) (2015-2020) is in synchrony with the Key Result Areas 7 and 8 of the National Health Plan (2011-2020). These Key Result Areas focus on “Promoting Healthy Lifestyles” and “Emerging Population Health Issues”. The strategy is also aligned to the Global Strategy for NCD prevention and control which was endorsed by the World Health Organization (WHO) as well as to the Western Pacific Region NCD framework. It addresses the broad policy issues that are fundamental to the prevention and control of NCDs from a public health perspective. The strategy is largely informed by the NCD STEPS survey conducted in 2008 which provides the baseline data for monitoring progress in implementation of the strategy.

The strategy adopts a deliberate multisectoral and “whole of government approach”, and focusses on effective NCD World Health Organization “best buys” for the prevention and control of NCDs. The proposed multisectoral nature of the approach is integral to the creation of a conducive environment to support healthy behaviours, to the consideration of “social determinants of health” and “Health in all Policies”. The Ministerial Task force on NCDs established in 2010 will take a leading role in coordinating the whole of government and multisectoral approach.

The strategic focus is on the major NCDs; cardiovascular diseases, cancer and diabetes which share common behavioral risk factors (tobacco, unhealthy diet, physical inactivity and the harmful use of alcohol). These NCDs also have a common pathway for prevention.

Some of the interventions are relatively easy to implement and are likely to achieve quick wins. Others are technically and politically more difficult and may take a long time to implement and yield tangible results. The range of interventions adopted has largely been determined by the epidemiology of the NCD burden in Papua New Guinea, the risk factors, e.g. betel nut chewing, and the availability of resources.

I want to thank all our developing partners and other government departments and agencies for your contribution in developing this Multisectoral Non Communicable Diseases Strategic Plan 2015-2020

Mr PASCOE KASE
SECRETARY FOR HEALTH

EXECUTIVE SUMMARY

Papua New Guinea is experiencing an epidemiological transition which is characterized by a persistent burden of communicable diseases and emerging non communicable diseases (NCDs), both of which require innovative public health approaches to prevent and control.

As is the case in other Pacific island nations, Papua New Guinea is facing an NCD crisis. According to the NCD STEPS Survey of 2008, 99.6% of the population in PNG is at moderate to high risk from NCD with 77.7% of people classified as being at high risk. Tobacco smoking is a major epidemic in PNG which has one of the highest prevalence of smoking in the world with 44% of the people being smokers. 79% of the population chews betel nut and are at increased risk of developing oral cancer. 77.6 % of people who currently drink alcohol reported that they drink 5 or more standard drinks on one or more days per week and 31% of the population were found to be overweight.

Key Result Areas 7 and 8 of the National Health Plan (2011-2020) outline strategies to promote healthy lifestyles to reduce morbidity and mortality from NCDs and other population health issues. This strategic plan is guided by five principles and adopts a whole of government multisectoral approach to the prevention and control of NCDs in PNG. Four main objectives are outlined which focus on (i); creating an enabling environment for a comprehensive, multi-sectoral approach to NCD program management, (ii) preventing NCDs through the reduction of the population prevalence of common risk factors; tobacco consumption; betel nut consumption; harmful use of alcohol; unhealthy diets; physical inactivity and substance use (iii) reducing the incidence of cancers through immunization, screening, early detection, treatment and management, (iv) providing effective screening, early detection, treatment and management of NCDs including cancer screening and (iv) establishing monitoring, evaluation and surveillance framework for NCDs prevention and control in PNG.

The strategy outlines best buy interventions to reduce exposure to NCD risk factors and those targeting individuals who already have NCDs. The NCD monitoring and evaluation section provides indicators and targets to be achieved by 2020.

ABBREVIATIONS

BMI	Body Mass Index
CSO	Civil Society Organization
CVD	Cardiovascular Diseases
DBP	Diastolic Blood Pressure
DPAS	Global Strategy on Diet, Physical Activity and Health
FBO	Faith Based Organizations
FCTC	Framework Convention on Tobacco Control
GSHS	Global School based Health Survey
GYTS	Global Youth Tobacco Survey
HPV	Human Papilloma Virus
MET	Metabolic Equivalent
mmHg	Millimeters of mercury (unit of blood pressure measurement)
NCDs	Non Communicable Diseases
NDoH	National Department of Health
NGO	Non-Governmental Organization
PEN	Package of Essential NCD Interventions
PNG	Papua New Guinea
SBP	Systolic Blood Pressure
TFI	Tobacco Free Initiative
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

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Introduction

While traditionally public health priorities in Papua New Guinea have focused on diseases such as malaria, HIV/AIDS and tuberculosis and the challenges of maternal and child health, there is now an epidemiological shift from communicable to non-communicable diseases. As economic activity and urbanization increase, lifestyles also change, and with these changes come new disease burdens which require an innovative public health approach.

Non-communicable diseases (NCDs) comprise cancers, diabetes, heart diseases, stroke and chronic lung diseases. The World Health Organization (WHO) estimates that NCDs will cause 73% of global deaths and 60% of burden of disease by 2020. 80% of these deaths will occur in developing countries. Unfortunately estimates for many Pacific island countries indicate that deaths from NCDs have already exceeded the 2020 estimates by WHO.

NCDs can be attributed to four major behavioral risk factors; tobacco use, the harmful use of alcohol, an unhealthy diet and insufficient physical activity. In PNG the use of betel nut is also a major risk factor, leading directly to increased rates in oral cancers. Fortunately, these risk factors are modifiable; meaning that by changing behavior populations can be less at risk of NCDs

NCDs have a wide and impressive impact on the development of a country. Premature morbidity and mortality can lead to major losses in economic activity. In addition to this, the treatment for NCDs is expensive. NCDs are chronic diseases that in most cases require life time treatment and thus can affect every member of a family. . Lastly, NCDs are associated with inequity and poverty. Poor people are generally less educated on NCD risk factors and less able to access both preventive and curative measures. .

An international approach to a global epidemic

As more and more countries are affected by increased urbanization and lifestyle changes, the threat of NCDs has become a major global public health epidemic. In September 2011, the United Nations held a landmark meeting at which member states of the World Health Organization (WHO) declared NCDs to be a global emergency. In response to this, a global action plan was developed for the prevention and management of NCDs. The global plan sets

a goal of relative reduction in premature mortality (30 to 70 years) by 2025. The plan allows for countries to set voluntary targets according to their own epidemiological status. It also outlines a set of very cost effective intervention for the prevention and control of NCDs.

Voluntary Global Targets from the Global Action Plan:

- A 25%relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.
- At least 10%relative reduction in the harmful use of alcohol, as appropriate, within the national context.
- A 10%relative reduction in prevalence of insufficient physical activity.
- A 30%relative reduction in mean population intake of salt/sodium.
- A 30%relative reduction in prevalence of current tobacco use in persons aged 15+ years.
- A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.
- Halt the rise in diabetes and obesity.
- At least 50%of eligible people receive drug therapy and counseling (including glycemic control) to prevent heart attacks and strokes.
- An 80%availability of the affordable basic technologies and essential medicines, including generics, required to treat major non-communicable diseases in both public and private facilities.

In alignment with the Global Action Plan, a Western Pacific Regional Action Plan has also been developed. The impact of NCDs has hit the Pacific hard and fast. As a result meetings of the Pacific Ministers of Health held around the region have reflected on the need to address this issue in the context of working towards Healthy Islands. The 2003 Tonga Commitment of the Pacific Ministers of Health meeting recommended that countries develop a National Strategy to address NCDs and in 2007 the Pacific Framework for the Prevention and Control of Non-communicable Diseases was developed.

The Western Pacific Regional Action Plan for the Prevention and control of Non-communicable Diseases (2014-2020) was developed in full alignment of the global NCD action plan and provides a menu of policy options and cost-effective interventions for the prevention and control of major NCDs. The set of very cost-effective interventions are presented in Annex 1.

Approach to NCDs

The prevention and control of NCDs is a far-reaching matter that requires a multisectoral and a ‘whole-of-government’ support. NCDs are not just a health problem – they can hinder the

overall development of a country through loss to the economy and an increase in poverty for families and individuals. The provision of an enabling environment for healthy lifestyles is determined by of a multitude of government agencies, whether they be Treasury, Lands, and Roads or Education. It is only through the combined commitment of these and other partners that NCDs can be prevented through the provision of initiatives such as safe areas to walk and exercise, increased taxes on tobacco and alcohol and the provision of education on NCD risk factors in schools.

A “whole-of-society’ approach is required, ensuring that individuals, families, communities, non-governmental and faith based organizations (NGOs and FBOs), academia, media and the private sector are engaged. In order for this ideal to be reached it is imperative to have an overarching plan that brings these approaches together.

Situational analysis of NCDs in PNG

The 2010 Global Status report on NCDs estimated that in 2008 11,100 men and 9,100 women died as a result of NCDs in PNG. Of these, 72.2% were men and 69.0% were women under the age of 60 years, indicating a huge burden of premature deaths from NCDs¹.

In 2007-8 the first national NCD risk factor survey (STEPS) was conducted in PNG, revealing that 99.6% of the population is at moderate to high risk from NCDs, with 77.7% classified as high risk.

Tobacco is a major epidemic in PNG which has one of the highest prevalence of smoking in the world. 44.0% (60.3% men, 27.3% women) of the adult population are current smokers. Smoking in young people is also a major challenge, with 47.7% of youths aged 13-15 (55.4% boys, 40.3% girls) found to be current smokers in the Global Youth Tobacco Survey (GYTS) conducted in 2007.

PNG faces an additional cultural risk factor from the consumption of betel nut, or buai. Betel nut chewing is highly prevalent among both sexes with 79.0% of the nation (80.3% men, 77.8% women) chewing betelnut in the last 12 months, with an average of 5.5 nuts consumed per day. It is a known scientific fact that chewing betel nut leads to high rates of oral cancer within the country.

¹WHO Global Status Report on Non-communicable Diseases 2013

The survey found that 7.1% population were current drinkers, with binge drinking considered to be a major concern amongst those who drink. 77.6% of current male drinkers reported drinking 5 or more standard drinks on one or more days.

The consumption of fruit and vegetables among Papua New Guineans is low, with 98.9% of the population consuming less than 5 combined servings of fruit and vegetable per day. The mean number of days fruit and vegetables are consumed per week was 2.9.

Physical activity is relatively high in the population with 76.1% of men and 70.6% of women engaged in high levels of activity (>1500METminutes per week). The majority of physical activity is undertaken as a part of work, and to a lesser extent as part of transport.

32.1% of the population was found to be overweight (BMI >25kg/m²), with 6.8% being obese (BMI >30kg/m²). 8.8% of Papua New Guineans were found to have hypertension (SBP > 140mmHg and/or DBP >90 mmHg), however nearly all of these were unaware they had hypertension. Diabetes is a major problem with 14.7% of men and 14.0% of women revealed to have raised blood glucose, again without their knowledge.

PNG has the highest Road Traffic Accidents in the region according the Global Road Safety Survey Report 2008. Pedestrian, passenger, speeding and drink driving were the common factors contributing to road traffic accidents. It caused about K 4 to K20 million to management injuries in Port Moresby General Hospital according to Chief Physician Emergency Department.

Current NCD prevention and control efforts

The National Health Plan 2011-2020 outlines an approach to promoting healthy lifestyles in Key Result Area 7. Objective 7.4 about reducing morbidity and mortality from NCDs. Proposed strategies include:

- Increase the focus on population-based health awareness interventions designed to reduce the impact of substance abuse, increase the level of physical activity, and improve diet.
- Increase early detection (screening) and immediate clinical interventions for non-communicable diseases, such as heart disease, strokes, diabetes and cancer.
- Ensure all government facilities promote healthy lifestyles and schedule healthy workplace activities.
- Review and improve legislation that will support the adoption of healthy lifestyles.

- Improve and expand the standards in mental health service delivery.
- Improve the provision of disability aids/appliances, physiotherapy, and community-based rehabilitation services.

At the national level the National Department of Health has a team dedicated to NCD prevention and control, consisting of a team leader, a Technical Officer for Cancer Prevention and Control and a Technical Officer for Alcohol. In addition the team works closely with the Manager for Cancer Services within the Curative Services Department and Oral Health Services. NGOs which include the PNG Cancer Foundation and the Heart Foundation play a significant role in NCD programming, prevention and control in PNG.

Several other key policies and legislation have been adopted that contribute towards the prevention and control of NCDs:-

Acts and Legislations

- PNG Constitution 1974
- The Organic Law on Provincial and Local Level Government 1995
- The Health Administration Act 1997
- Public Health Act 1973
- Public Hospital Act 1993
- Tobacco Control Act 1987
- The Provincial Health Authority Act 2007
- PNG Occupational Health and Safety Act 2011
- NCDC Act –Regulation of Betel nut 2013
- Lukauting P ikinini Act 2013
- Liquor Liscensing Board Act 1963
- HAMP Act
- Motor Traffic Act 1980

Policies and Standards

- PNG Vision 2050
- PNG Strategic Development Plan 2011-2030
- Medium Term Development Plan 2011 -2015
- National Health Plan (2011-2020)

- National Health Service Standards (2011)
- Health Human Resource Policy (2012)
- National Medicines Policy (2014)
- Health Sector Research Policy (2010)
- Health Sector Partnership Policy
- National Health Medical Equipment Policy 2004
- Sexual Reproductive Health Policy
- Child Health Policy
- Free Primary Health care & Subsidised Specialist Care Policy
- Community Health Post Policy
- Preventive Health Clinic Policy
- Tobacco Policy (2014)
- Cancer Policy (2014)
- National HIV Strategy
- Motor Traffic Regulation 1987

Vision

Papua New Guinea to be a Healthy, Smart, Wise Fair, Happy and Wealthy Nation

Our vision to effectively reduce the burden of non-communicable diseases, related deaths and disability through the application of practical and sustainable prevention and treatment measures at all levels of society in PNG

Mission

Our mission is to prevent and control NCDs through the provision of an enabling environment for the reduction of NCDs risk factors, and improving the management of Non Communicable Diseases through cost effective measures and a multisectoral approach using evidence based decisions.

Goal

To prevent disabilities and premature deaths from common and preventable non communicable diseases in PNG through the reduction of the five most common risk factors.

Principles

The development of policy solutions based on the following principles:-

1. In accordance with the universal declaration of human right; whereby every person, regardless of race, color, sex language, culture, religion, politics or other opinion, national or social origin, property, birth or other status should be recognized to enjoy the highest attained standard of health.
2. Advocate for the reduction in burden **of non-communicable diseases at the highest level of government**, focusing on priority NCDs and the most common risk factors.
3. A **whole of society and government** approach that recognizes that NCDs are a major development challenge

Consideration of the social determinants of health as major contributors to the health of individuals and communities in the context of the Health in All Policies approach

4. Strategies based on **feasibility**, with a short-, mid- and long-term time frame.
5. Ensuring that initiatives are equitable and sensitive to the national, religious and cultural context of PNG.
6. Focusing on the provision of cost effective measures which take into consideration the resource challenged environment.
7. Developing and utilizing measures that are evidence based.

Objectives

1. To create an enabling environment for a comprehensive, multi-sectoral approach to NCD program management
2. To prevent NCDs through the reduction of the population prevalence of common risk factors;
 - 2.1. Reduce tobacco consumption through tobacco control measures
 - 2.2. Reduce betel nut consumption through betel nut and other substance use control measures
 - 2.3. Reduce alcohol consumption through alcohol control measures
 - 2.4. Promote healthy diets, healthy eating and physical activity.

- 2.5. Reduce substance use and prevalence through prevention of substance abuse measures.
- 2.6. Reduce the incidence of cancers through immunization, screening, early detection, treatment and management.
- 2.7. Reduce injuries, trauma and violence through implementation of policies, legislation and guidelines.
- 3. To improve and provide effective screening, early detection, treatment and management of NCDs including cancer screening
- 4. To establish and strengthen monitoring, evaluation and surveillance of NCDs and NCDs risk factors in PNG

Strategic Objectives

OBJECTIVE 1: TO IMPROVE GOVERNANCE FOR NCD PREVENTION AND CONTROL

Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> Develop a high level multisectoral NCD working group/task force at national level – chaired by the Minister of Health and/or other ministers Develop and strengthen NCD networks/working groups at Provincial level Finalize development of Cancer Control Policy and Tobacco Control Policy and legislation and other policies and coordinate implementation. Adapt/Develop PEN training programs for health staff 	<ul style="list-style-type: none"> Develop national cancer control programme plan Develop a multisectoral action plan on tobacco control Ensure NCDs drugs availability. Ensure MCH, HSD, HIV, TB and other public health program policies incorporate NCD relevant issues Develop capacity of relevant healthcare staff in PEN 	<ul style="list-style-type: none"> Support other departments to ensure that NCDs are considered in all health programming Ensure NCD prevention, control and palliative care is included in pre/post-service training for all health professionals Develop human resource and training for NCDs specialized and trained skill personals. Develop curriculum for academia in NCDs preventions and management
Other Ministries and Government stakeholders	<p>All:</p> <ul style="list-style-type: none"> Participate in NCD working group Incorporate NCDs in departmental policies and plans Ensure that NCDs are given adequate resourcing in budgeting <p>Finance and Treasury</p> <ul style="list-style-type: none"> Develop NCD control fund through earmarking of taxes collected on cigarettes and alcohol and unhealthy food & drinks 		
Private and Church Based health service providers	<ul style="list-style-type: none"> Participate in NCD working groups Provide training programs for own health staff in PEN 		

	<ul style="list-style-type: none"> • Ensure that all facilities are equipped to run NCD prevention, control and palliative care services
Civil Society	<ul style="list-style-type: none"> • Participate in NCD working group • Provide advocacy on NCDs, their risk factors and appropriate screening methods

OBJECTIVE 2: TO DEVELOP MULTI SECTORAL PROGRAM FOR THE PREVENTION, MANAGEMENT AND CONTROL OF NCDs

2.1 Strengthen tobacco control			
Responsible party	Short Term (12-24 months)	Medium Term (2 to 5 years)	Long Term > 5 years
NDoH	<ol style="list-style-type: none"> 1. Update National Tobacco Control Policy 2. Amend Tobacco Control Act to comply with WHO FCTC 3. Orient stakeholders on country's obligations under WHO FCTC (e.g. countering tobacco industry interference) 4. Develop national tobacco awareness programs 5. Identify and establish enforcement team 	<ol style="list-style-type: none"> 1. Develop enforcement strategy 2. Train enforcement officers 3. Strengthen enforcement of smoke-free settings, ban on sale of single sticks, etc. 4. Implement increased taxes on all tobacco products 5. Earmark a portion of tobacco taxes for tobacco control fund and/or enforcement efforts 6. Enforce graphic warning signs on tobacco products – as legislated for in the relevant Act 7. Develop and implement tobacco cessation programs including the provision of nicotine replacement therapy where appropriate at primary care level 	<ol style="list-style-type: none"> 1. Continue to ensure that requirements under the WHO FCTC are met 2. Strengthen enforcement of Tobacco Control legislation 3. Continue to monitor the tobacco use epidemic in the country 4. Continue the monitoring of NCDs and NCDs risk factors
Other Ministries and Government stakeholders	All: <ul style="list-style-type: none"> • Assist with passage of update to tobacco legislation to comply with the WHO FCTC • Implement smoke-free policies in all buildings 		

	<ul style="list-style-type: none"> Counter tobacco industry interference as per Article 5.3 of the FCTC. <p>Treasury and Finance:</p> <ul style="list-style-type: none"> Increase excise taxes on tobacco products to at least 70% of retail value and consider development of dedicated funding for the tobacco control fund <p>Customs:</p> <ul style="list-style-type: none"> Scale up strategies to prevent illicit trade of tobacco products and prepare for accession to the WHO FCTC Protocol to Eliminate Illicit Trade of Tobacco Products. <p>Foreign Affairs:</p> <ul style="list-style-type: none"> Consider and support tobacco legislation in trade negotiations <p>Education:</p> <ul style="list-style-type: none"> Scale up tobacco awareness programs in schools Promote tobacco-free campuses Intergrate special treatment programs for school age children
Private and Church Based health service providers	<ul style="list-style-type: none"> Align services with government programs. Provide tobacco cessation services and counsel patients on the risks and dangers of tobacco. Integrate special treatment program for all genders
Civil Society	<ul style="list-style-type: none"> Develop awareness programs on tobacco control and its relationship to NCDs Identify community base group and centres and integrate alcohol rehabilitation programs

2.2 Develop substance abuse prevention and control interventions			
Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> Support the National Capital District (NCD) implement the campaign against betel nut chewing Coordinate the development of a national policy for betel nut control Revise medical catalogues to include drugs for prevention of substance 	<ul style="list-style-type: none"> Develop betel nut control plan Continuous advocacy Train health workers, social workers, academia on the management of Substance Abuse Dependence and Addiction. Develop tools to monitor data on substance abuse 	<ul style="list-style-type: none"> Enforce policies Monitoring of the implementation of the strategies on alcohol reduction.

	<p>abuse and/or treatment of substance use disorders.</p> <ul style="list-style-type: none"> • Develop clinical guidelines for alcohol and substance abuse rehabilitation , treatment , palliative care and management 	<ul style="list-style-type: none"> • Identify, establish rehabilitation centers and train staff in the prevention, control, treatment and care for narcotics and substance abuse. • Collaborate with wider stake holders and mobilize resources to implement programs for disabled persons and those with substance use disorders 	
Other Ministries and Government stakeholders	<ul style="list-style-type: none"> • All: • Review coordinate plan activities within their jurisdiction to prevent and control harmful alcohol and illicit substances • Implement Substance Abuse Policies including betel nut-free policies by government agencies private, NGOs and civil societies • Work to develop economic alternatives to betel nut trade • Participate in development of substance Abuse and betel nut control plan <p>Education:</p> <ul style="list-style-type: none"> • Develop substance abuse and betel nut awareness programs for schools into the school curriculum 		
Private and Church Based health service providers	<ul style="list-style-type: none"> • Align services with government programs. <p>Develop and provide cessation services and counsel clients and patients on the risks of illicit drugs including betel nut use.</p>		
Civil Society	<ul style="list-style-type: none"> • Develop and implement awareness programs on substance use and betel nut control and its relation to NCDs • Integrate programs with community base groups and rehabilitation centres. 		

2.3 Strengthen alcohol control programs			
Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> • Accelerate development of the national alcohol policy • Restrict or ban alcohol advertising and promotions • Limit alcohol availability through restrictions on purchase amount, age, opening hours for alcohol outlets, etc. • Review existing legislations on Alcohol control. • Identify sub-national legislations on Alcohol Control and assist provinces to review. • Conduct advocacy on the harmful Effects of Alcohol and alcohol problems. • Train health workers on the treatment and prevention for alcohol and substance use disorders. • Enforcer of the current Liquor Licensing Act 1973 	<ul style="list-style-type: none"> • Advocate for increased taxes on alcohol • Pursue the earmarking of taxes and licensing fees received on alcohol to go towards alcohol control programs • Develop clinical guidelines in management programs for alcohol dependency in primary care • Collaborate with wider stake holders to identify a way forward to minimize the consumption of Alcohol (especially Binge Drinking) • Introduce alcohol and drug tests and management • Develop a curriculum for training specially skilled health workers to treat and prevent alcohol and substance use problems • Training of other stakeholders in counseling 	<ul style="list-style-type: none"> • Continue to regulate commercial and public availability of alcohol

		and rehabilitation of alcohol abuse.	
Other Ministries and Government stakeholders	<p>All:</p> <ul style="list-style-type: none"> • Enforce restrictions on the sale of alcohol <p>Treasury and Finance:</p> <ul style="list-style-type: none"> • Raise taxes on alcohol • Consider the earmarking of taxes and licensing fees received on alcohol to go towards alcohol control programs <p>Customs:</p> <ul style="list-style-type: none"> • Enforce regulations on import and export of alcohol <p>Foreign Affairs:</p> <ul style="list-style-type: none"> • Consider and support alcohol legislation and policy in trade negotiations <p>Education:</p> <ul style="list-style-type: none"> • Scale up alcohol awareness programs at educational institutions • Integrate special school health program for the counseling and rehabilitation of harmful alcohol use by the school children 		
Private and Church Based health service providers	<ul style="list-style-type: none"> • Align services with government programs. • Provide quit services and counsel patients on the risk of alcohol. 		
Civil Society	<ul style="list-style-type: none"> • Develop awareness programs on alcohol control and its relation to NCDs • Integrate alcohol rehabilitation with community base groups and centres 		

2.4 Promote healthy diets and physical activity			
Responsible party	Short Term	• Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> • Implement nutrition policy • Assess levels of salt consumption and implement salt reduction pilot programs • Develop guidelines for physical activity programming • Implement public awareness programmes on diet and physical activity, particularly in urban areas 	<ul style="list-style-type: none"> • Implement salt reduction programs (adjusting levels of iodine as required) • Strengthen public sector capacity to monitor salt and iodine intake • Implement global strategy on diet, physical activity and health • Implement national policies and strategy for infant and young child nutrition in the context of the WHO's set of recommendations on the marketing of foods and non-alcoholic beverages to children • Engage different relevant sectors in the development of guidelines, recommendations or policy measures 	<ul style="list-style-type: none"> • Develop/enforce regulations on the supply of unhealthy foods • Continue to enforce nutrition and related healthy eating and physical activity policies • Develop policy to replace trans fats with unsaturated fats
Other Ministries and Government stakeholders	<p>All:</p> <ul style="list-style-type: none"> • Support implementation of nutrition policy and development of physical activity guidelines • Continue to regulate sales of food through increased taxes • Implement relevant aspects of the nutrition policy <p>Treasury and Finance:</p> <ul style="list-style-type: none"> • Consult of feasibility of developing a tax regime for on unhealthy foods • Consider the earmarking of taxes and licensing fees received on foods to go towards NCD control programs 		

	Customs: <ul style="list-style-type: none"> Enforce regulations on import and export of food Education: <ul style="list-style-type: none"> Scale up physical activity programs in school Develop healthy eating programs Sports Enforce Physical activity programs to the general population
Private and Church Based health service providers	<ul style="list-style-type: none"> Align services with government programs. Provide counseling on healthy eating and physical activity at primary care sites
Civil Society	<ul style="list-style-type: none"> Develop awareness programs on diet and physical activity and their relation to NCDs

2.5. Immunize against cancer-causing infections			
Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> Improve delivery of Hepatitis B immunization within 24 hours of birth Develop a comprehensive cervical cancer control program, Rollout the introduction of HPV vaccination country wide 	<ul style="list-style-type: none"> Integrate HPV vaccination into routine EPI and increase coverage in target population 	<ul style="list-style-type: none"> Continue to support Hepatitis B and HPV vaccination and improve immunization services
Other Ministries and Government stakeholders	All:		
Private and Church Based health service providers	<ul style="list-style-type: none"> Work with NDoH to deliver immunization services as required 		
Civil Society	<ul style="list-style-type: none"> Work to raise awareness of importance of immunization services 		

2.6. Strengthening injuries, Trauma & Violence			
Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> • Develop a comprehensive injuries prevention and control program, • Develop a policy on Road Traffic Accidents • Developing guidelines on prevention and control of injuries , trauma and violence. • Developing guidelines on management of disabilities • Constant advocacy on injuries prevention measures. 	<ul style="list-style-type: none"> • Work in collaboration with other stake holders to strengthening injuries, trauma and violence prevention and control programs • Monitoring and evaluation of the trend of injuries, trauma and violence in the country. • Rehabilitation of disabilities due to injures trauma and violence 	<ul style="list-style-type: none"> • Ensuring short term and long term activities are carried out. • Collaborate with other stakeholders to implement programs on the prevention and control of injuries, trauma and violence.
Other Ministries and Government stakeholders	All: Work within their jurisdiction to develop policies, legislation and guidelines to prevent and control injuries, trauma and violence. E.g: Works & transport to establish pedestrian crossing		
Private and Church Based health service providers	<ul style="list-style-type: none"> • Advocacy on injuries prevention measures • Implement government [policies and guidelines on prevention and control of injuries, trauma and violence • Rehabilitation and counseling of trauma and disabilities 		
Civil Society	<ul style="list-style-type: none"> • Work to raise awareness of prevention of injuries, trauma and violence. 		

OBJECTIVE 3: TO PROVIDE EFFECTIVE SCREENING, EARLY DETECTION, TREATMENT AND MANAGEMENT OF NCDS

Responsible party	Short Term	Medium Term	Long Term
NDoH	<ul style="list-style-type: none"> • Develop a plan to adapt WHO PEN, including project piloting • Train staff in NCD identification and management • Introduce cost effective, appropriate screening and early detection methods/programmes • Prepare official assessment of current VIA pilots • Revise the essential drugs list to include essential NCD medicines • Provide drug therapy (including glycemic control for diabetes mellitus and control of hypertension using a total risk approach) to individuals who have had a heart attack or stroke and to persons with high risk ($\geq 30\%$) of a fatal and nonfatal cardiovascular event in the next 10 years • Ensure availability of Acetylsalicylic acid for acute 	<ul style="list-style-type: none"> • Roll out WHO PEN in primary health care centers • Develop specialist NCD clinics • Roll out VIA program to women aged 35-49 years (if found to be feasible) • Pilot and roll out palliative care program all the way to the community level • Pilot and roll out community based rehabilitation programme 	<ul style="list-style-type: none"> • Provide and strengthen WHO PEN at all primary health care facilities • Ensure basic medicines and diagnostic facilities are available at primary health care level • Expand specialist NCD clinics • Provide VIA screening for all women aged 35-49 years • Ensure that community based palliative care is available nationwide • Ensure that rehabilitation training is provided down to the community level

	myocardial infarction <ul style="list-style-type: none"> • Develop a national palliative care program (in line with the National Cancer Control Policy) • Develop rehabilitation programme 		
Other Ministries and Government stakeholders	<ul style="list-style-type: none"> • Develop workplace NCD screening and counseling programs 		
Private and Church Based health service providers	<ul style="list-style-type: none"> • Implement WHO PEN programs • Train staff in NCD identification and management • Adapt feasible screening and early detection programmes 		
Civil Society	<ul style="list-style-type: none"> • Develop patient support groups for NCDs • Develop networks for community based palliative care providers and rehabilitation services 		

OBJECTIVE 4: TO ESTABLISH AND STRENGTHEN MONITORING, EVALUATION AND SURVEILLANCE OF NCD PROGRAMS IN PNG

SURVEILLANCE			
Area of intervention	Short Term	Medium Term	Long Term
Overall	<ul style="list-style-type: none"> • Conduct second NCD STEPS Survey with salt consumption module by 2017 • Conduct GSHS by 2017 • Establish hospital based cancer registries at Angau Memorial Hospital and Port Moresby General Hospital by 2015 • Improve surveillance of NCD mortality – including strengthening of CRVS, ICD-10 codification and death certification 	<ul style="list-style-type: none"> • Roll out cancer registry to other key provincial sites • Conduct relevant NCD research 	<ul style="list-style-type: none"> • Continue to regularly conduct NCD STEPS Survey • Develop national population based cancer registry
Tobacco Control	<ul style="list-style-type: none"> • Conduct stakeholder analysis of tobacco industry interference • Conduct GYTS by 2017 • Conduct media and campaign evaluations 		
Betel Nut Control	<ul style="list-style-type: none"> • Conduct media and campaign evaluations • Conduct applied research on betel nut use to inform the development of cessation services 		
Alcohol control	<ul style="list-style-type: none"> • Conduct media and campaign evaluations 		
Promote healthy diets and physical activity	<ul style="list-style-type: none"> • Conduct media and campaign evaluations • Conduct school cafeteria evaluation 		
Immunize against cancer causing infections	<ul style="list-style-type: none"> • Report on findings from HPV pilot project • Report on results from rolled out HPV project 		

MONITORING, EVALUATION AND SURVEILLANCE

Risk Factor	STEPS 2007/8 Status (Baseline)	Global Targets	Suggested PNG 2020 Targets	Means of Verification
Behavioral risk factors				
Tobacco control	- 44.0% current smokers (60.3% men, 27.3% women)	30% relative reduction in prevalence of current tobacco use in persons aged 15+ years Regional target: Tobacco Free Pacific 2025 (less than 5% adult tobacco use prevalence rate)	At least a 30% absolute decrease in current smokers (At least a 10% decrease in current smokers)	NCD STEPS Survey
Harmful use of alcohol	-7.1% adults current drinkers -77.6% current male drinkers drink 5 or more standard drinks on one or more days	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context	- at least a 10% relative reduction in current drinkers -15% decrease in amount of standard drinks consumed (A reduction of in the prevalence of binge drinking by 10%)	NCD STEPS Survey
Consumption of betel nut	-79.0% (80.3% men, 77.8% women) current chewers, average 5.5 nuts consumed per day.	N/A	at least a 25% reduction in current chewers (At least a 5% reduction in current chewers of betel nut)	NCD STEPS Survey
Healthy diet	- 98.9% consume < 5 combined servings of fruit and vegetable per day - 2.9 mean # days fruit & vegetables consumed per week 6.8% of adults (obese) with (BMI > 30kg/m ²)	A 30% relative reduction in mean population intake of salt/sodium	- at least a 30% (10%) increase in mean population who consume 5 combined servings of fruit and vegetables - 25% (5%) Reduction in mean population intake of salt/sodium. *this will require the collection of baseline data Reduce adult obesity by at least 5%	NCD STEPS Survey
Physical inactivity	- 73.4% (76.1% of men and 70.6% of women) engaged in high levels	A 10% relative reduction in prevalence of insufficient	- A 5% relative reduction in prevalence of insufficient	NCD STEPS Survey

	of activity (>1500METminutes per week)	physical activity	physical activity (especially in urban areas)	
Medical Factors				
Diabetes	- 14.7% men, 14.0% women have raised blood glucose, 22.3% men 18.5% women impaired glucose following tolerance test (many unaware)	Halt the rise in diabetes and obesity	- No rise in prevalence of diabetes and obesity	NCD STEPS Survey
Hypertension	- 10.2% men, 7.2% women (many unaware)	A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances	- 7.5% of women, 6% of men with raised blood pressure A 5% relative reduction in the prevalence of raised blood pressure	NCD STEPS Survey
		A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major non-communicable diseases in both public and private facilities	80% of health facilities do not have stock-outs of essential medicines required to treat major NCDs	National Health Information System

ANNEX 1: Very Cost Effective Interventions for the Prevention and Control of NCDs

Very cost-effective interventions for prevention and control of NCDs²

Risk Factor / Disease	Policy Options / Interventions
Tobacco Use	<ul style="list-style-type: none"> • Reduce affordability of tobacco products by increasing tobacco excise taxes • Smoke free education campus • Create by law completely smoke-free environments in all indoor workplaces, public places and public transport • Warn people of the dangers of tobacco and tobacco smoke through effective health warnings and mass media campaigns-more advocacy and awareness priority • Ban all forms of tobacco advertising, promotion and sponsorship
Harmful use of alcohol	<ul style="list-style-type: none"> • Regulating commercial and public availability of alcohol • Restricting or banning alcohol advertising and promotions • Using pricing policies such as excise taxes on alcoholic beverages
Unhealthy diet	<ul style="list-style-type: none"> • Reduce salt intake (and adjust the iodine of salt, when relevant) • Replace trans fats with unsaturated fats • Implement public awareness programmes on diet
Physical inactivity	<ul style="list-style-type: none"> • Implement public awareness activities to promote the benefits of a physically active lifestyle
CVD and diabetes	<ul style="list-style-type: none"> • Drug therapy (including glycemic control for diabetes mellitus and control of hypertension using a total risk approach) to individuals who have had a heart attack or stroke and to persons with high risk ($\geq 30\%$) of a fatal and nonfatal cardiovascular event in the next 10 years • Acetylsalicylic acid for acute myocardial infarction
Cancer	<ul style="list-style-type: none"> • Prevention of liver cancer through hepatitis B immunization • Prevention of cervical cancer through screening (visual inspection with acetic acid [VIA] (or Pap smear (cervical cytology), if very cost effective) linked with timely treatment of pre-cancerous lesions

²Global Action Plan for the Prevention and Control of Non-communicable Diseases (2013-2020) Appendix 3/Com. 1

Injuries, trauma and violence	<ul style="list-style-type: none"> • Prevention of injuries, trauma and violence through implementation of existing policies, legislation and guidelines • Development of new policies, legislation and guidelines • Advocacy on prevention of injuries, trauma and violence
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BUDGET ESTIMATION FOR THE IMPLEMENTATION OF THE STRATEGIC PLAN IN PGKINA

No	Activities Goals	2015	2016	2017	2018	2019	2020	Total
1	Reduction of Tobacco Use	500 000	1 000 000	1 500 000	2 000 000	2 500 000	3 000 000	10 100 000
2	Reduction of Betel nut & substance use	100 000	150 000	200 000	250 000	300 000	350 000	1 350 000
3	Reduction of Alcohol use	100 000	200 000	300 000	400 000	500 000	600 000	2 100 000
4	Promoting of Healthy Diet & Physical Activity	100 000	500 000	1 000 000	1500 000	1500 000	1500 000	6 100 000
5	Reduction of Cancer Incidences	500 000	1 000 000	1 500 000	1 500 000	2 000 000	2 500 000	9 000 000
6	Reduction of Injuries, trauma, violence including road traffic accidents	100 000	100 000	100 000	100 000	100 000	100 000	600 000
6	Monitoring and evaluation	100 000	200 000	300 000	400 000	500 000	600 000	2 100 000

7	Administration and Management	100 000	200 000	300 000	400 000	500 000	600 000.	2 100 000
8	Total	1 500 000	3 250 000	5 100 000	7 450 000	7 300 000	9 150 000	33 450 000

BUDGET JUSTIFICATION

This is a Multisectoral Strategic Plan which will be implemented by others Government Departments and Non-Government Organizations. The budget estimate is taking into consideration implementation cost that will be incurred by other sectors as well.