WELLNESS IN THE NATION

The National Multi-sectoral Non-Communicable Disease Strategy and Plan of Action for The Bahamas (2017-2022)

ACKNOWLEDGEMENTS

Wellness in The Nation embodies a national call to action for all sectors of society. It echoes the interaction and exchanges of many stakeholders, both public and private. Moreover, it reflects the unwavering belief that the well being of our human capital is the bedrock of our nation's forward and upward march.

Dr. M. Perry Gomez, The Minister of Health, and Dr. Glen Beneby, Chief Medical Officer are noted for their recognition of the significance of this publication at this time in our history, and the necessity to elevate the national discourse on promotive and protective health behaviours and community empowerment.

Gratitude is conveyed to the Non-communicable Disease Technical Working Group (TWG) chaired by Dr. Cherita Moxey. The TWG's mandates included giving dimension to the NCD epidemic in The Bahamas and proposing a roadmap/plan of action that has the ability to change the current NCD trajectory through practical and realistic measures. Special thanks are conveyed to the stakeholders that provided input during the five-day NCD Stakeholder Forum, ensuring that the roadmap was panoramic in its outlook and inclusive in its ap-proach.

Particular thanks are extended to the Pan American Health Organization (PAHO) for its support of this Plan and the technical assistance provided through Dr. Tomo Kanda, PAHO Regional Chronic Disease Advisor.

TABLE OF CONTENTS

List of Tables

List of Figures

List of Boxes

Foreword

Non - Communicable Diseases (NCDs) continue to be a global challenge to the health and well-being of individuals and populations. No country has been exempt, inclusive of The Bahamas. Not only do they affect the individuals' ability to enjoy a productive life, but potentially shorten the life span. NCDs such as Hypertension and Diabetes, although preventable and effectively controlled with medication and lifestyle modifications, are often left unchecked in part because of their insidious nature. The economic cost of their debilitating effects result in significant burden to individuals and governments. Risk factors such as sedentary lifestyles, tobacco and alcohol use, the ingestion of sugary beverages and foods with high salt and fat contents and low nutritional value remain the biggest contributors to the development of the NCDS.

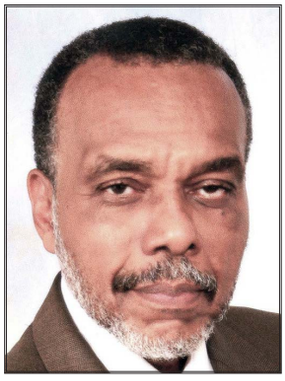
Recognizing that one of the greatest investments that any government can make is ensuring that its citizens are healthy and able to make positive contributions to society, the Ministry of Health is taking bold strides toward prevention and control of NCDs in The Bahamas. In this vain, and in collaboration with multisectoral partners, Wellness in the Nation (A Multisectoral National NCD Plan) has been developed. This Plan is indicative ofthe high level of priority and commitment placed on engaging in the fight in the prevention of NCDs and will play a pivotal role in mounting a successful response against the NCD epidemic in our country.

Through its strategic areas of action the NCD plan seeks to address (1) High level political commitment translating into actions, (2) Governance for NCD at the community level, including building alliances and networks, and fostering citizen engagement and empowerment, (3) Health in all Policies to build healthy and smart environments, (4) Research, national surveillance, monitoring and evaluation and (5) Reorienting health services further towards prevention and control of chronic diseases.

It is my pleasure to present this NCD Plan for endorsement, not only by the Government of The Bahamas, but by all individuals, agencies, and corporations that will become the life and wings of this Plan.

The Honourable Dr. M. Perry Gomez, MP
Minister of Health

Message From Chief Medical Officer



Responsing to the growing concern of health challenges faced by Bahamians and the inequities inherent therein, The Bahamas is moving toward the implementation of universal health care and coverage. It is understood that this road will not be an easy one, but a necessary and worthwhile one. On this road to a new model of healthcare, the emphasis will be on staying healthy, which translates into disease prevention; health promotion; health protection; citizen empowerment; and primary ambulatory care.

Far too many Bahamians are dying young and being affected by and afflicted with disabilities secondary to NCDs. In The Bahamas seventy-one (71%) per cent of those between the age of 30 to 69 years die from an NCD. Moreover, national statistics confirm that NCDs such as heart diseases, cancers, strokes and diabetes are among the top ten leading causes of deaths among our people.

The risk factors that lead to NCDs are evident not only in our young adult to elderly populations, but are also prominent among our school-aged children. They are consuming far too much sugary beverages, salty foods and more physically inactive than active.

Such statistics must move us to action. To curb this, urgent, meaningful and coordinated action across all sectors – civil society, corporate Bahamas, the financial sector, education, national security, social services, works, agriculture, transport, the research communities, to name a few – must be the mantra.

It is envisioned that this important milestone, the first National Multisectoral NCD Strategy and Plan of Action for The Bahamas, will catalyze needed action; provide a roadmap for the country to halt and reduce our NCD-related mortality; while advocating for the enabling and protective policy and physical environments that are fundamental to produce and sustain wellness in the nation.

I am pleased to support the tenets of Wellness in The Nation, which are national in scope and reaches to all sectors and communities in our society.

Dr. Glen Beneby
Chief Medical Officer
Ministry of Health

Message From PAHO/WHO Bahamas Country Office

Almost every country in the world is currently facing a true epidemic of chronic disease, associated with our unhealthy lifestyle and an aging population. This new scenario challenges the traditional way health care services are delivered and planned, forcing us to change our paradigms and innovate to redesign our systems.

The multifactorial causes of chronic conditions require services to focus not only on the medical aspect of patient care, but holistically on the physical, mental and socioeconomic dimensions of individuals and communities. Furthermore, the concurrence of multiple risk factors and often multiple chronic conditions in the same person, demands a multi-sectoral and interdisciplinary strategy to effectively addressing the needs of our communities. In other words, health care systems need to evolve from the provider-centred and disease-based approach to person-centred and population-based models.

The National Multi-Sectoral Non-Communicable Disease Strategy and Plan of Action is a crucial step towards achieving this transformation for the Bahamas. For its development, the technical team met with stakeholders across different areas and sectors. This report is only the beginning. Moving forward, many more will need to be engaged in implementing these ideas and empowering communities to improve their own health and wellness.

Today we have the opportunity and commitment to achieve “Wellness in the Nation”, and create a better Bahamas for tomorrow.

Dr. Gustavo Mery, MD, MBA, PhD
Pan American Health Organization/World Health Organization
Representative, a.i. Health Systems and Services Advisor
The Bahamas and Turks & Caicos Islands
Pan American Health Organization/World Health Organization
(PAHO/WHO)

Message From Bahamas Chamber of Commerce and Employers' Confederation

The Bahamas continues to suffer from poor choices when it comes to health and wellness. We have witnessed increases in non-communicable diseases, hypertension, diabetes, stress and other such conditions that lead to poor health, which impact directly upon workplace productivity. These diseases present challenges for employers, the economy, the family and society at large.

"Wellness In The Nation" requires wellness programs and initiatives in every school, every home and every business. Many people with one or more chronic diseases have a reduced working capacity and experience difficulty staying at, or returning, to work. This not only affects their employer or their own business, but reduces overall economic growth for The Bahamas.

Healthcare and wellness, and the access to affordable quality healthcare, fitness and wellness programmes are a fundamental right to which every Bahamian is entitled. As a compliment, Universal health coverage, therefore, is also a benefit that every Bahamian should have. The implementation of UHC therefore has to be done in a way that demonstrates and proves its affordability, accessibility, sustainability and comprehensive coverage to ensure that the population has every opportunity to either become or remain fit and healthy.

The Bahamas Chamber of Commerce and Employers' Confederation (BCCEC) is pleased to support the National, Multi-sectoral NCD Strategy and Plan of Action for The Bahamas in its development of strategies that will enhance healthy living and disease prevention, and improved detection and diagnosis, management and treatment of persons who suffer from chronic illnesses. The BCCEC will encourage its members to join forces with government, social partners and other stakeholders in the creation of wellness programs in the workplace and the adoption of policies and measures to improve employment prospects and working conditions of people with chronic diseases.

Edison L. Sumner,
Director and Chief Executive Officer
Bahamas Chamber of Commerce and Employers' Confederation (BCCEC)

Acronyms

CARDI	Caribbean Agricultural Research Institute
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CCH	Caribbean Cooperation for Health
CFNI	Caribbean Food and Nutrition Institute
CHRC	Caribbean Health Research Council
CKD	Chronic Kidney Disease
CMH	Commission on Macroeconomics and Health
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardio Vascular Disease
DALY	Disability Adjusted Life Year
DPH	Department of Public Health
ESRD	End Stage Renal Disease
GDP	Gross Domestic Product
GGHE	General Government Health Expenditure
HiAP	Health-in-All Policies
HIC	High Income countries
LMIC	Lower and Middle Income Countries
M&E	Monitoring and Evaluation
mhGap	Mental Health Gap Action Programme
MOH	Ministry of Health
NCD	Non Communicable Disease
NHI	National Health Insurance
NHIA	National Health Insurance Act
NIB	National Insurance Board
OECD	Organization for Economic Co-operation and Development
OOP	Out of Pocket
PAHO	Pan American Health Organization
PHA	Public Hospitals Authority
PHI	Private Health Insurance
PMH	Princess Margaret Hospital
SEC	Senior Executive Committee
SRC	Sandilands Rehabilitation Centre
THE	Total Health Expenditure
TWG	Technical Working Group
UHC	Universal Health Care
WHO	World Health Organization

Executive Summary

NCD is a global health problem with no country being exempt. According to the Pan American Health Organization (2012) the Caribbean epidemic made up primarily of cardiovascular disease, inclusive of heart disease, stroke, hypertensive, diabetes, cancer and asthma is the worst in the region of the Americas.

The Bahamas in its efforts to stem the tide of the ever increasing threat of NCDs, has over the years implemented a number of initiatives; from having a focal point, strengthening its health promotion programs; inclusive of the implementation of healthy dietary practices (in order to prevent diet related NCDs) as well as integrating primary healthcare strategies in the management of NCDs. Despite these efforts, what is alarming is that the data from The Bahamas' STEPS Survey (2012) indicated that almost ninety-nine (98.6%) percent of the population has at least one NCD risk factor; and more than half (58.6%) the population has three or more NCD risk factors.
The Bahamas National Non-Communicable Disease Plan is in part a response to the charge given by Prime Minister Denzil Douglas of Saint Kitts and Nevis in February 2007. He urged Member States to develop a "comprehensive regional strategic plan to respond to the chronic communicable diseases and the havoc they are wreaking on our Caribbean people" (Samuels, Kirton & Guebert 2014). This charge resulted in The Bahamas participating in the CARICOM SUMMIT on Chronic Non-Communicable Diseases.

This Plan also represents a commitment of the Government of The Bahamas in general and the Ministry of Health specifically in partnership with the civil society, private sector and corporate Bahamas. to mount a national multisectoral strategy and action Plan to address the NCD epidemic which threatens the socio-economic well-being of the people of The Bahamas. It will also demonstrates the courage of healthcare leaders to grapple with the external environments that resist the development of healthy public policies that "promote NCD prevention and control as well as reorienting health systems to address the needs of people with such diseases"(WHO, 2015).

Chronic diseases are devastating not only to the individual but to their families and their communities. These serve as major threats to a country's economic development. Six (6) out of every ten (10) Bahamians have three (3) or more NCD risk factors.

The overall goal of the Plan is "To achieve a 10% in preventable premature deaths due to NCDs in The Bahamas by 2022". The objectives are:

1. To strengthen coordination and management of NCD prevention and control;

2. To promote integration of NCD prevention policies, frameworks and actions through multisectoral approaches;

3. To reduce risk factors (i.e. tobacco use, harmful use of alcohol, physical inactivity, unhealthy eating, obesity) and promote healthy and active living throughout the life course;

4. To strengthen the health system (public and private sectors) at all levels, thereby improving equitable access to quality health services and financial risk protection; and

5. To improve the quality and scope of NCD and risk factor surveillance systems while strengthening operational research for planning, monitoring and evaluation of NCD-related policies and programs.

The Plan through its five (5) Strategic Lines of Action will address the five modifiable behavioral risk factors that contribute to more than 80% of the global burden.

The key strategic lines of action identified for tackling NCD prevention and control in The Bahamas are:

1. **High level political commitment translating into actions:**
   Attain heighten political commitment for NCD prevention and control through shared the values and responsibilities; foster inter and intra Ministerial communications; and strengthen monitoring and evaluation mechanisms for implementation of international commitments in a timely manner.

2. **Governance for NCD at the community level, including building alliances and net works, and fostering citizen empowerment:**
   Engage and empower citizens and civil society to champion the adoption of healthy behaviors.

3. **Health in All Policies to build healthy and smart environments:**
   Sensitize and build capacity for all Ministries to include health related issues in their national policies to create healthy and smart environments; enforce laws for health and implement effective fiscal measures to reduce risk factors

4. **National surveillance, research, monitoring and evaluation (M&E):**
   Strengthen country capacity for surveillance and research on NCDs, risk factors, and determinants. Utilize research and M&E results to support evidence-based policy, program development (inclusive of academic programs) and implementation.

5. **Reorienting health services further towards prevention and care of chronic diseases:**
   Improve coverage, equitable access and quality of care for the four main NCDs (i.e. cardiovascular diseases, cancer, diabetes, chronic respiratory diseases), mental health and other conditions of national priority. Emphasis will be placed on primary healthcare activities that include prevention and self-management.

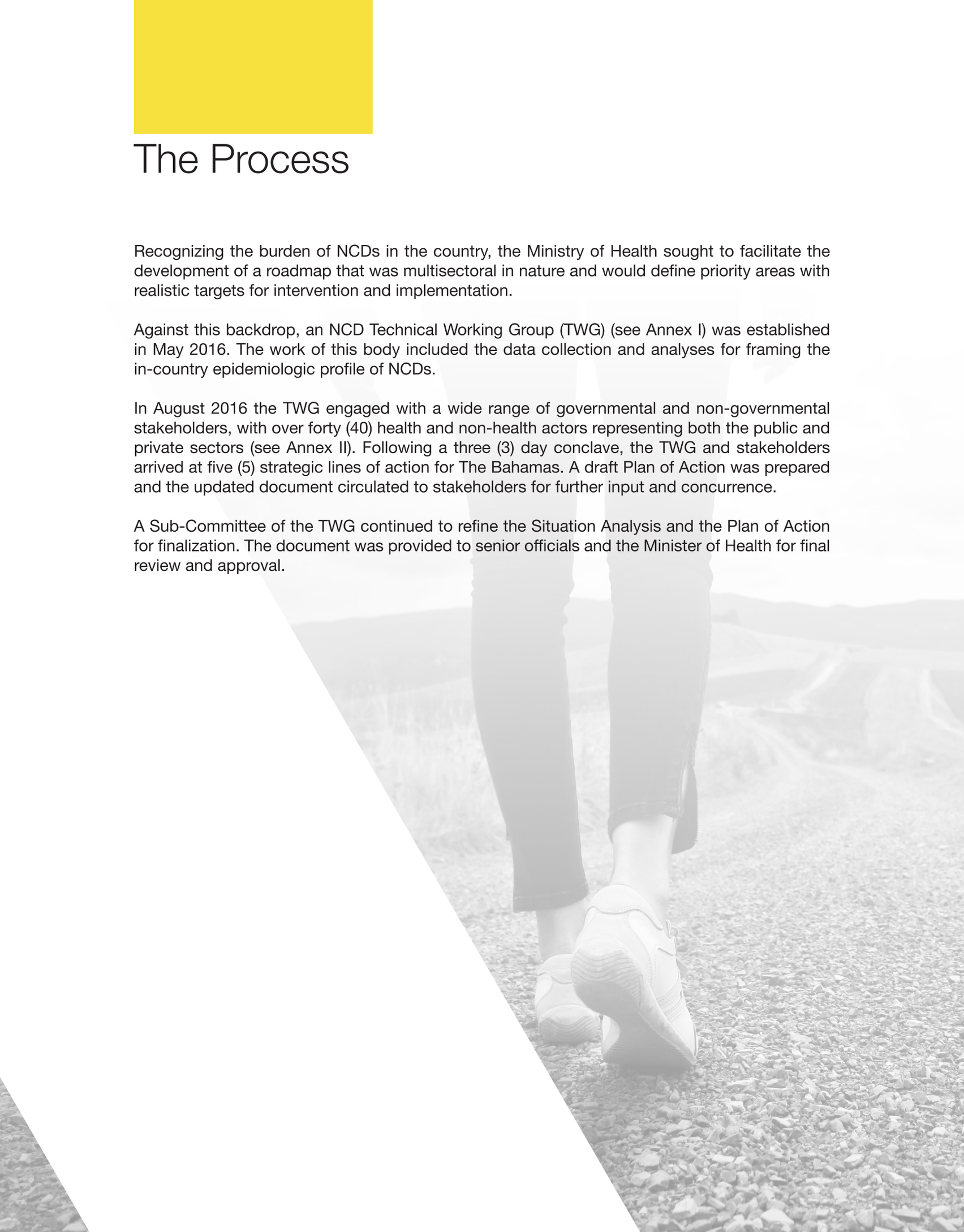
The Process

Recognizing the burden of NCDs in the country, the Ministry of Health sought to facilitate the development of a roadmap that was multisectoral in nature and would define priority areas with realistic targets for intervention and implementation.

Against this backdrop, an NCD Technical Working Group (TWG) (see Annex I) was established in May 2016. The work of this body included the data collection and analyses for framing the in-country epidemiologic profile of NCDs.

In August 2016 the TWG engaged with a wide range of governmental and non-governmental stakeholders, with over forty (40) health and non-health actors representing both the public and private sectors (see Annex II). Following a three (3) day conclave, the TWG and stakeholders arrived at five (5) strategic lines of action for The Bahamas. A draft Plan of Action was prepared and the updated document circulated to stakeholders for further input and concurrence.

A Sub-Committee of the TWG continued to refine the Situation Analysis and the Plan of Action for finalization. The document was provided to senior officials and the Minister of Health for final review and approval.



Introduction

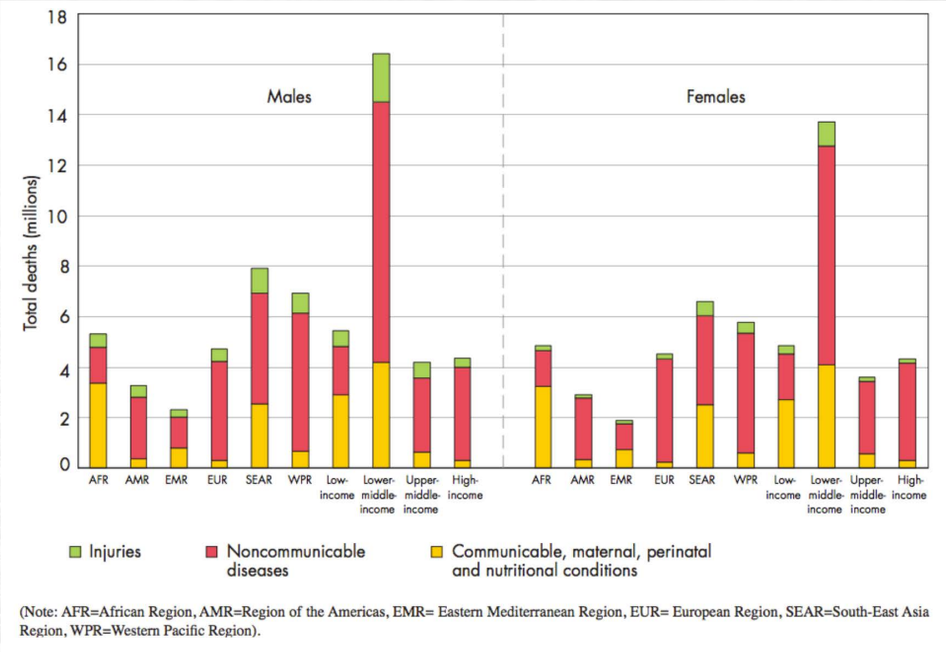
NCDs account for 36 million deaths globally each year; of these 9 million are among persons under 60 years. . Almost three quarters (28 million) of these are women. Among people under 60 years in low and middle income countries (LMIC), twenty-nine percent (29%) of deaths are due to NCDs compared to thirteen percent (13%) of deaths in high income countries. Most of these deaths occur after persons have experienced a period of illness, which more often than not posed a drain on family resources (Global Status Report, 2010).

WHO estimates that sixty-three (63%) of global mortality in 2008 was due to cardiovascular disease, cancer and chronic respiratory diseases. It is estimated that by 2030, NCD will be the greatest killer in all LMIC (Robinson & Hort, 2012).

Hospedales et al (2012) noted that in 2005 approximately 250 million people were said to be living with an NCD in the Americas. Another estimated 139 million (25%) of people 15 years or older were obese and 103 million of these were women. They also noted that by 2015 these numbers were expected to reach an estimated 289 million; 164 million of whom were projected to be women.

The NCD burden falls more heavily upon those that are socioeconomically disadvantaged, whether in high or lower income countries. This leaves those who are poorer to be at greater risk for developing an NCD or related risk factor. Moreover, the subsequent loss of income and the associated healthcare costs drive them further into poverty.

People in low- and middle-income countries tend to develop NCDs at younger ages, suffer longer (often with preventable complications) and die sooner than those in high-income countries. Eighty-two (82%) percent of all deaths from cardiovascular disease (CVD) and over 90% of those from chronic obstructive pulmonary disease (COPD) occur in low- and middle-income countries (Global Status Report, 2010) (Figure 1).



(Note: AFR=African Region, AMR=Region of the Americas, EMR= Eastern Mediterranean Region, EUR= European Region, SEAR=South-East Asia Region, WPR=Western Pacific Region).

Figure 1. **Global Prevalence of Non Communicable Diseases among High Income Countries, Low Income Countries, Males and Females**

Source: Global Status Report on NCDs, 2010.

As individuals age, NCDs become the leading causes of morbidity, disability and mortality. A great proportion of healthcare needs and costs are concentrated in the latter years of people's lives.

An aging population and the NCD disease burden impose substantial costs on society. Addressing chronic diseases and associated risk factors comprise a significant proportion of a country's gross domestic product (GDP). Treatment costs, reduced income, early retirement and increased reliance on social safety-nets may be faced by the sufferer or caregiver. Employers, and society as a whole, bear the burden of absenteeism, reduced productivity and increased employee turnover (WHO, 2012). The proportion of the Bahamian population 65 years and older is expected to be twelve (12) percent in 2030 - double that of its 2010 proportion.

A myth that has been perpetuated by many is that NCDs mainly affect the rich, old people, or those living in the developed world. Unfortunately, these diseases are the cause for an increasing burden of disability, premature death, poverty and ill health growing globally inclusive of the developing world.

The global burden and threat of non-communicable diseases constitutes a major public health challenge that undermines social and economic development throughout the world and, among other things, has the effect of increasing inequalities between countries and within populations (World Health Organization, 2013). Whether viewed through the CARICOM, or global lens, it is apparent that the non-communicable diseases (NCDs) continue to apply an exacting and increasing burden on individuals, families, societies, systems and economies.

According to the Caribbean Community Secretariat (2011), the NCD epidemic that is currently being experienced in the Caribbean is the worst in the region of the Americas; causing much premature loss of life, loss of productivity and spiraling healthcare costs.

Against this backdrop, the Pan American Health Organization's Directing Council in 2006 urged its Member States to put in place policies and plans that will support a four pronged approach to tackling the growing number of persons affected by NCDs. This four pronged strategy involved (a) advocacy (b) surveillance (c) health promotion and disease prevention and (d) improved, integrated management of chronic diseases and risk factors. Since this meeting, Member States have worked assiduously to reign in the devastating effects of NCDs. A major step in the fight is for countries to implement and operationalize a national Plan for the control and prevention of NCDs.

Situation Analysis

The Bahamas

Socioeconomic and Demographic Profile

The Bahamas is an archipelagic nation of 700 islands and 2,400 cays and rocks, with a land mass of 13,878 km^2 spread across 259,000 km^2 of ocean. It sits 760 miles off the coast of Florida; making it the closest country in the English-speaking Caribbean to the southern-most boundary of the United States of America. It is northeast off the coast of Cuba. Twenty-nine (29) of the islands are inhabited. The majority of the population (85%) reside on the main islands of New Providence, where Nassau the capital is located, and Grand Bahama. The remaining Islands are referred to as the Family Islands (www.bahamas.gov.bs).

The Bahamas has a population of approximately 384,000; 82.7% of whom are Bahamians and 17.3% non-Bahamians. About 25% of the population is 14 years old or younger; while 42% are under the age of 25. Approximately 95% of the population is 60 years or older; 6% is 65 years or older; while the proportion of youth is expected to decline by the year 2030, the proportion of those 60 years or older is expected to increase by 16% by 2025. The proportion of individuals 65 years and older is expected to increase to 12% by 2030 (Department of Statistics, 2008).

It remains one of the most stable and wealthiest countries in the Caribbean region. The per capita GDP stands at $22,217 and the adult literacy rate of 95% are among the highest in the Caribbean (World Bank, 2014). Education is compulsory for children between the ages of 5 and 16 years of age and free in the country's 169 public schools. There are also 77 independent schools, a college (soon to become the University of The Bahamas), and other tertiary institutions, a National Training Agency and The Bahamas Technical and Vo-cational Institute (Vision 2040: The National Development Plan of The Bahamas). The Ministry of Social Services, the National Insurance Board and the Ministry of Labour oversee the country's social protection systems.

Tourism is the country's main industry as it employs half the labour force. This industry directly and indirectly accounts for about 60% of the Gross Domestic Product (GDP). The financial services industry employs 10% of the population and generates 10-15% of GDP.

In May 2015, the employment rate saw a decrease from 15.7% to 12%, while youth employment was 30%. A high percentage of the unemployed have not completed high school which makes them particularly vulnerable. In 2015, there were just under 4,000 discouraged workers who had left the job market; about 2,800 of whom had worked before (Department of Statistics, 2010). A young, diverse workforce is a valuable asset. High unemployment among youth can contribute to a reduction in social cohesion, loss of skills and a decrease in future employability.

The aforementioned social determinants, among other factors, play a pivotal role in the level of health and wellness experienced by those in the nation.

Healthcare in The Bahamas

The country's health sector is centralized with most of secondary and tertiary services provided on the major population centres (New Providence and Grand Bahama). Healthcare is provided by both public and private sectors. Basic healthcare is available to all people living in The Bahamas with care and services available for most illnesses and conditions. The public healthcare system is comprised of the Ministry of Health (MOH), the Department of Public Health and the Public Hospitals Authority.

Ministry of Health (MOH)
The Ministry of Health is headed by the Minister of Health, a Permanent Secretary, and Chief Medical Officer. The ministry provides governmental oversight; ensuring the overall development and regulation of the healthcare sector within The Bahamas. Additional functions include policy setting, regulatory and licensing functions, monitoring and evaluation of programs as well as monitoring of health conditions and services throughout the country. The MOH assumes direct responsibilities for the delivery of specific national pro-grams such as those for the prevention of HIV/AIDS and NCDs.

Department of Public Health (DPH)
The Department of Public Health is a government department under the Ministry of Health. It is governed by an Executive Management Committee comprising the Director of Public Health, the Administrator, Principal Nursing Officer and Medical Staff Coordinator. The committee has responsibility for primary healthcare services provided via the community health clinics throughout New Providence and the Family Islands (excluding Grand Bahama). There are 106 primary care clinics (overseen by The Department of Public Health) for the provision of primary, secondary, and tertiary care.

DPH also coordinates several national health programs, such as maternal and child health, oral health, school health, adolescent health, public health nutrition, the Expanded Program for Immunization (EPI), family Planning, food handlers certification, national communicable disease surveillance and port health.

Public Hospitals Authority (PHA)
Established in 1999 as a quasi-government organization, the Public Hospitals Authority is governed by a Board of Directors headed by a chairman. The Managing Director is the chief executive who is assisted by a Senior Executive Committee (SEC). PHA is responsible for the management of the three government hospitals; the Princess Margaret Hospital, Rand Memorial Hospital and Sandilands Rehabilitation Centre. It also has mandated responsibility for the national procurement of medical, surgical and pharmaceutical supplies; and operational management of the National Emergency Medical Services.

The Princess Margaret Hospital is the primary public sector healthcare provider. It is located in the capital and is the largest health care facility in the country. It provides tertiary health care services in both inpatient and outpatient settings. There are 415 inpatient beds in addition to two private wards that have a total of 31 beds. Along with its general medical and surgical wards, the hospital also has a neonatal intensive care unit capable of holding 49 cots. The Accident and Emergency Department is classified as a level one trauma centre. In 2015, Princess Margaret

Hospital (PMH), opened the new one hundred bed Critical Care Block which includes the new state-of-the-art Adult Intensive Care Unit, Neonatal Intensive Care Unit, Administrative Block, Theaters, Post-anesthesia Care Unit, Laboratory, Central Sterile Supplies Department, Medical Surgical Supplies Department and Chapel.

The major primary provider of private inpatient services is Doctors Hospital (located in New Providence with a bed capacity of 72 beds), which is staffed and outfitted for the provision of primary, secondary, and tertiary care. In 2011, the Bahamas recorded a total of 292 private, for-profit walk-in clinics (including the Lyford Cay Hospital).

Healthcare Financing in The Bahamas

Healthcare is financed by the general government health expenditure (GGHE), private health insurance (PHI) and out-of-pocket payments (OOP) at both public and private facilities. A minor role is played by the occupational health branch and National Prescription Drug Plan of National Insurance Board (NIB) and other external sources. GGHE is mainly financed through general taxation (Pinder, 2014).

Table 1. **Summary of Health Financing Statistics, The Bahamas (2013)**

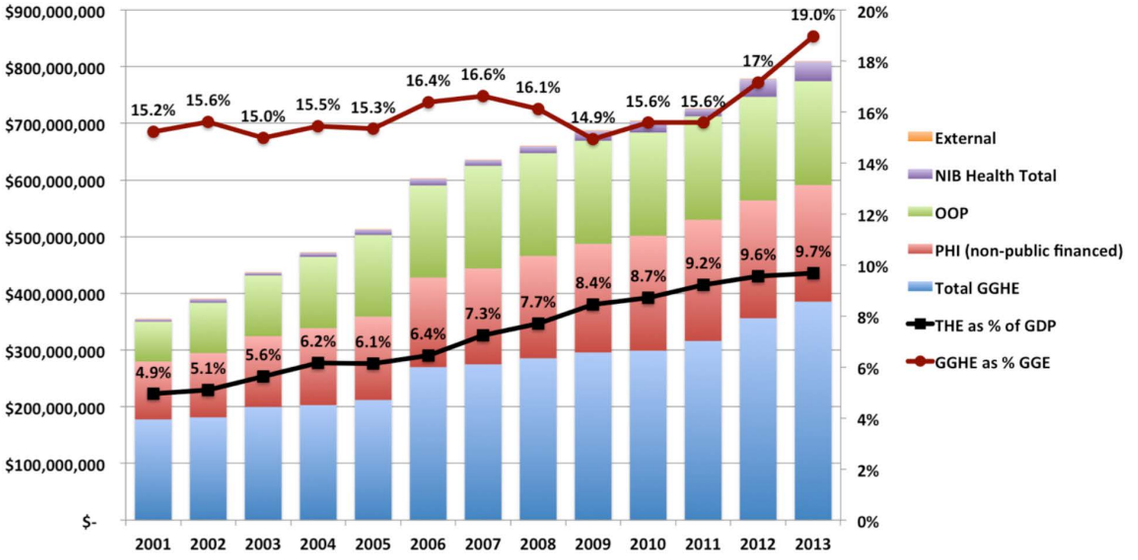
Indicator	2013	% of THE
	Millions $	
GDP ($US Current)[1]	**$8,367.0**	
General Government Expenditure[2]	**$2,033.1**	
General Government Health Expenditure[2]*	$385.4	47.6%
Private Health Insurance (non-Government financed)[3]	$205.9	25.4%
Out-of-pocket expenditures[4]	$183.2	22.6%
National Insurance Board: Occupational Health[5]**	$10.0	1.2%
National Insurance Board: National Prescription Drug Pan[5]	$9.5	1.2%
National Insurance Board: Capital Health Expenditures[5]	$15.0	1.8%
External Sources**	$1.0	0.1%
Total Health Expenditure	**$810.0**	**100%**
Total Population (2013 estimate)	**362,689**	
Total Health Expenditure as % of GDP	9.7%	
Per capita Total Health Expenditure	$2,233	
General Government Expenditure (Recurrent and Capital) as % GDP	24.3%	
General Government Health Expenditure as % General Government Expenditure	19.0%	
General Government Health Expenditure as % of GDP	4.6%	
Per capita General Government Health Expenditure	$1,063	
Per capita out-of-pocket health expenditures	$505	

Source: [1]World Bank and / or IMF, [2]Ministry of Finance, [3]Insurance Commission of The Bahamas, [4]Based on Department of Statistics 2013 Household Expenditure Survey, [5]National Insurance Board
*Including public expenditures on private health insurance. **Estimate based on previous years' expenditures.

Source: Sanigest Internacional, 2014

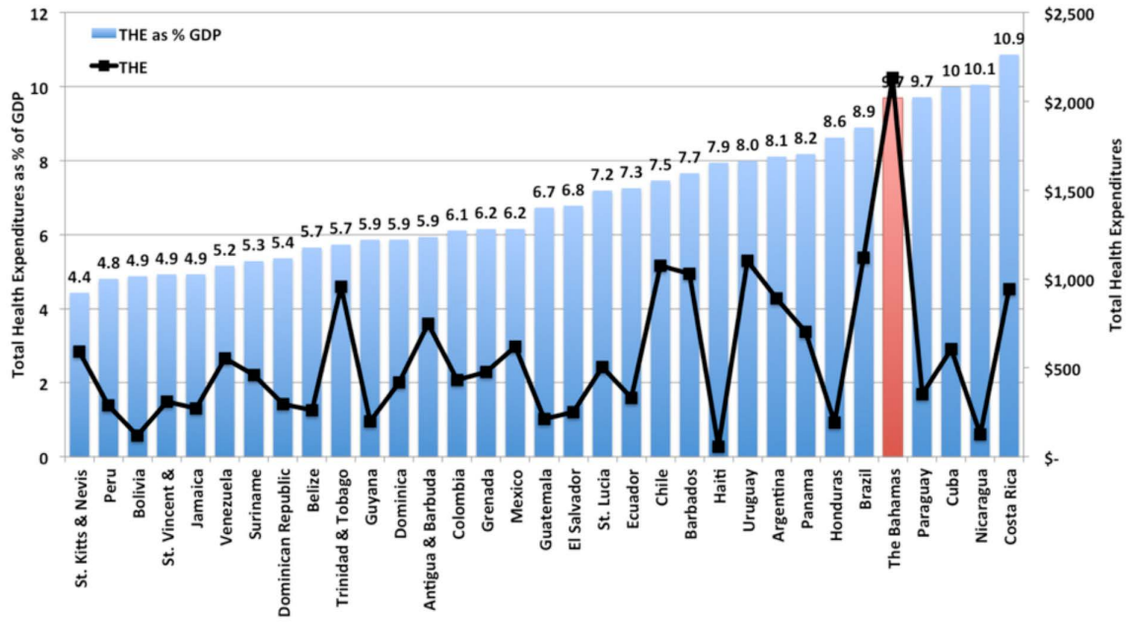
The Government of The Bahamas has over the years steadily increased its allocation to health, with 19% of all government expenditure assigned to health; and total health expenditure contributing 9.7% of the GDP; putting The Bahamas among the top five countries in the region with the highest Total Health Expenditure (THE) as percentage of their GDP (Figures 2 and 3).

Figure 2. **Total Health Expenditure for The Bahamas, 2001 – 2013**



Source: Sanigest Internacional, 2014

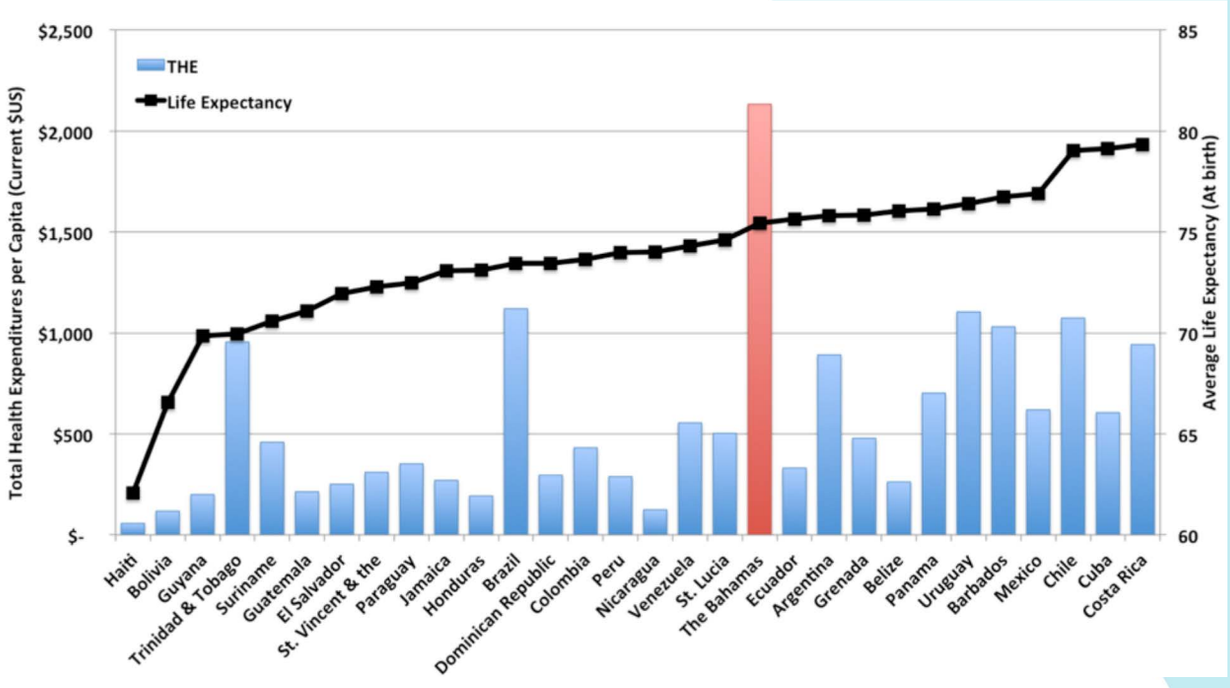
Figure 3. **Comparison of Total Health Expenditure in Latin America and the Carib-bean, 2013**



Source: Sanigest Internacional, 2014

Even with such allocations, life expectancy in The Bahamas is three years less by comparison with countries whose THE is less than half of that of The Bahamas.

Figure 4. **Per Capita Health Expenditure and Average Life Expectancy in Latin America and the Caribbean, 2013.**

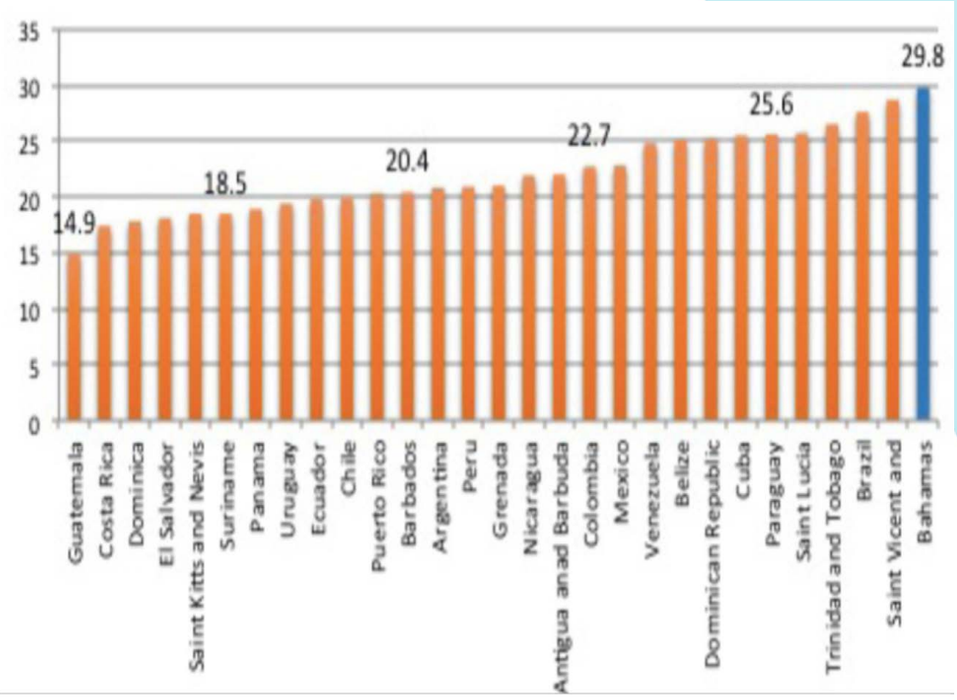


Source: Sanigest Internacional, 2014

Non-Communicable Disease Profile

The Bahamas is a young nation of 43 years, yet it is plagued with and in many cases, outstrips nations that are many years its senior when it comes to climbing trends and prevalence of NCDs and related risk factors. Over the past two decades, The Bahamas has emerged as an international and regional forerunner in NCD related morbidity and mortality. NCDs are the leading cause of death and disease in The Bahamas. According to the Pan American Health Organization's 2012 Country Profile for The Bahamas, 30% of deaths for those under the age of 70 years can be attributed to NCDS. When compared to 35 other countries in the Americas, The Bahamas ranked first and fifth for the percentage of NCD deaths for males and females, respectively, under the age of 70 years (WHO, 2013) (Figure 5).

Figure 5. **NCD Deaths under 70 years of Age as a Percentage of all Deaths**



Source: Sanigest Internacional, 2014

The Bahamas is classified as a high-income country (HIC) by the World Bank. This is largely owing to the small pockets of wealthy Bahamians and permanent residents. The Global Status Report on Non-Communicable Diseases (using a statistical modeling approach, 2014) compared with fifty-three (53) HIC on many of the modifiable risk factors associated with NCDs. The Bahamas ranked 4th, 12th and 36th in its prevalence of obesity, diabetes and hypertension. The statistically derived prevalence was lower than the population-based study derived prevalence for the selected risk factors (Table 2). It should be noted however that population derived prevalence provides a more accurate national representation than statistically derived prevalence.

Table 2. Global and Bahamas NCD Prevalence, 2014 & 2012

	Prevalence From NCD Global Status Report (2014)	Prevalence From Bahamas STEPS Survey (2012)
Obesity	36.2	49.2
Diabetes	12.8	23.9
Hypertension	22.1	34.3

Source: 1. NCD Global Status Report, 2014, 2. Planning Unit, MOH, The Bahamas STEPS Survey, 2012

The STEPS prevalence rates translates into 84,524 Bahamian diabetics and 121,305 Bahamian hypertensives, a significant number of whom still remain undiagnosed or, if diagnosed, not in care.[1]

It is apparent that NCDs and related risk factors pose a great threat to healthcare services and expenditure in The Bahamas but also undermine health gains and impose grave financial and economic costs on its government and households.

The Cost of Inaction

The Bahamas' response to its NCD epidemic has been at best, sluggish and disjointed. In the international arena, fiscal policies geared at investing in health have been touted as one of the best options for meeting and improving national economic objectives, recognizing that investing in health takes place both inside and outside the 'health sector'.

[1] These numbers were calculated using the Department of Statistics Population Census (2010) which was 353,658.

Health is a precursor for a number of economic outcomes such as wages, earnings, the amount of hours worked, labour force participation, early retirement and the labour supply of those giving care to household members who are ill. Whereas the relationship between health status and earnings has existed at least since the early 1960's, The Commission on Macroeconomics and Health (CMH) notes that only in recent times has important advances in understanding this relationship come to light.

Inarguably, the more healthy a people are, the greater their social participation; the more productive they are, the more they are able to contribute to the development of the nation's economy across generations. The degree to which The Bahamas is able to make successful in-roads in its health promotion and disease prevention strategies, will have profound implications on counteracting the direct[2] , indirect[3] and intangible[4] costs of delayed action or inaction at the individual, societal and national levels.

Literature supports that good health increases the probability of participating in the labour force; while on the other hand poor health negatively affects wages and earnings. Healthier individuals with a longer lifespan in front of them would have greater incentive to invest in education and training, as they can harvest the associated benefits for a longer period. However, studies exploring the role of health in a specific country over one or two centuries has shown that a large share of today's economic wealth is directly attributable to past achievements in health[5].

Education is also a critical component in labour force performance. Human capital theory suggests that individuals who are more educated are also more productive and obtain higher earnings. Good health in childhood enhances cognitive functions and reduces school absenteeism and early drop-out rates. Hence, children with better health can be expected to attain higher educational levels and therefore be more productive in the future. A review of the literature supports the hypothesis that high education levels and lower incidence of illness are associated with higher wages and, by implication, higher labour productivity (Fukui and Iwamoto, 2003).

Tuft (1975) highlighted that the overall impact of poor health on earnings is large with the average sick person aged 18 – 64 years suffering thirty-seven (37%) percent reduction in yearly earnings. This loss owing to the result of poor health impinges on all the components of earnings: labour force participation, weeks worked per year, hours worked per week and earnings per hour[6]. Laplagne, Glover and Shomos (2007) found that ill health has a significant negative effect on workforce participation, impacting both individual labour market performance and that of household members who may be forced to adjust their labour market behavior in response to another household member's illness.

Averting or successfully treating chronic illness was estimated to increase the probability that a person would be in the workforce by up to 30 percentage points (Australian Government Productivity Commission, 2010). Ill health Is of concern not only for the labour market performance of the individual directly concerned, but also for that of the household members, who have been found to adjust their labour market behavior in response to another household member's illness.

---

2 *Direct costs refer to costs falling on the health sector in relation to prevention, diagnosis and treatment.*

3 *Indirect costs typically measure the lost productivity potential of patients who are too ill to work or who die prematurely. There is no concise on the measurement to be applied for estimating indirect cost.*

4 *Intangible costs capture the psychological dimensions of the illness to the individual (and their family) – particularly pain, bereavement, anxiety and suffering; and is usual hard to measure.*

5 *Harold S. James. The Impact of Poor Health on Earnings. The Review of Economics & Statistics Vol.57, No.1 pp 43-57.*

6 *Hourly wages can be used as an indicator for labour productivity.*

There is a significant and robust role for ill health in supporting the decision to retire from the labour force. Poor health increased the likelihood of retirement by fourteen percent (14%) to eighteen percent (18%), with those in poor health choosing to enter retirement between one (1) to three (3) years earlier than workers in good health with similar economic and demographic characteristics (Sammartino, 1987).

Poverty is closely linked with NCDs. The increasing trend in NCDs then is predicted to impedes poverty reduction initiatives in The Bahamas particularly by forcing up household costs associated with healthcare, while simultaneously contributing to losses in productivity, increases in absenteeism, and an increase in Disability-adjusted life year (DALYs). The social burdens of NCDs in The Bahamas, in line with global and regional experiences, range in a number of areas such as premature deaths, prolonged disability, reduced productivity, loss of income, diminished resources within households, increased social tensions, greater demands on the health systems and loss of capital formation, among other socio-economic strains[7].

The aggregate cost of inaction is likely to result in economic pressures too great to sustain Universal Health Coverage (UHC), compromised psycho-social economic states and a shrinking human capital pool.

Box 1: **The Cost of Diabetes Related Hospitalization**[8]

926 diabetic related hospitalizations

Average length of stay ranged from 6.4 days (underlying condition) to 7.9 days (primary diagnosis)

Estimated hospitalization cost = $2.6 Million

Estimated drug cost = $400K

Estimated hemodialysis cost = $3.3 Million

Projected laboratory cost = $200K

7 *Symposium on NCD and Related risk factors: An Inter-sectoral Approach – The Report (2013)*
8 *Symposium on NCD and Related risk factors: An Inter-sectoral Approach – The Report (2013)*

If The Bahamas continues on this trajectory it will outstrip its fiscal space, financial capacity and social structures to bear the direct, indirect and intangible costs of NCDs. It is probable that The Bahamas' fiscal elasticity may not be able to accommodate unfettered increases in the GGHE and THE.

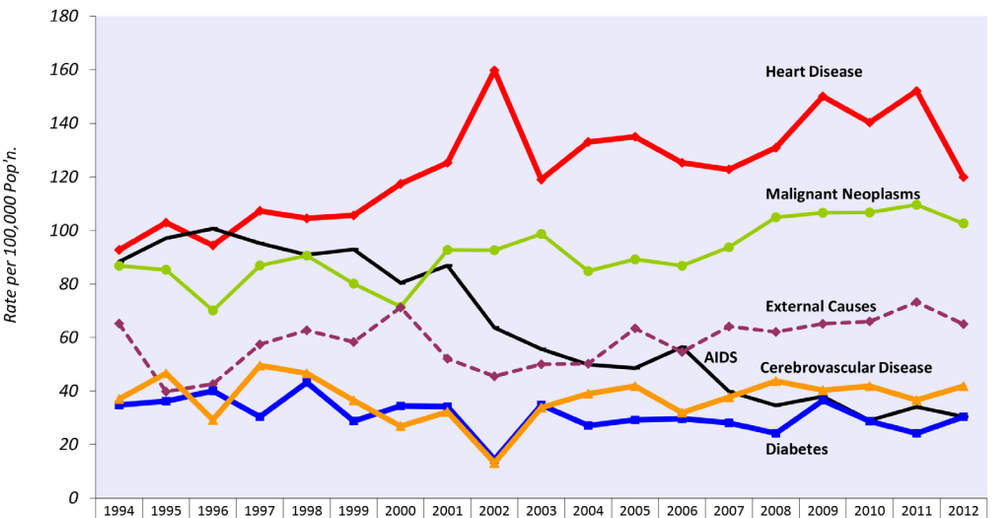
NCD Mortality Rates and Premature Deaths

The measure of health of any nation is typically evaluated in terms of life expectancy or adult mortality. In 2011, life expectancy at birth is 6.2 years longer for females (76.8 years) than males (70.6 years). The mean life expectancy is 75 years and 83 years[9], respectively for the top 10 performing OECD territories.

Globally, sixty-three (63%) percent of all deaths in 2008 were attributed to non-communicable diseases, more than all other causes combined. Disaggregated, forty-eight (48%) percent of these deaths were cardiovascular disease specific, twenty-one (21%) percent cancer specific, twelve (12%) percent for chronic respiratory disease specific and three and a half (3.5%) percent diabetes specific (World Health Organization, 2013). Simply, NCDs are the world's biggest killers.

NCDs are the biggest killers worldwide and likewise in The Bahamas. Nationally published data supports the crucial role NCDs play in cumulative mortality in the country[10]. Of the six leading causes of death in The Bahamas, NCDs account for four of them (with AIDS and external injury deaths rounding out the top six). Figure 6 paints a worrisome picture; not only are NCD diseases leading the rates, but also that these rates have increased.

Figure 6. **Trends in Selected Leading Causes of Death, All Ages, Both Sexes (Rate per 100,000 Population), Bahamas, 1994 - 2012**



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Heart Disease	92.7	102.9	94.4	107.3	104.5	105.6	117.4	125.3	159.8	119	133.1	135	125.3	122.8	130.9	150.1	140.3	152.1	119.9
AIDS	88.3	97.1	100.7	95.2	90.9	92.9	80.4	86.9	63.7	55.7	49.9	48.6	56.4	39.8	34.6	38	29	34.1	30.4
Malignant Neoplasms (Cancer)	86.8	85.3	70.1	86.9	90.6	80.1	71.5	92.7	92.6	98.7	84.8	89.2	86.8	93.7	104.9	106.6	106.7	109.6	102.6
External Causes*	65.2	39.8	42.6	57.4	62.7	58.3	71.2	52.1	45.5	50	50.2	63.4	54.6	64.1	62.1	65.1	66	73.2	65
Diabetes	34.8	36.2	40.1	30.4	43.2	28.8	34.4	34.2	14.4	34.8	27.1	29.2	29.7	28.1	24.2	36.5	28.7	24.2	30.4
Cerebrovascular Diseases (Stroke)	37	46.6	29.2	49.5	46.6	36.5	26.9	32.2	13.1	33.8	39	41.8	31.9	37.7	43.7	40.3	41.8	36.6	41.8

External Causes was previously termed "Accidents, Violence, and Poisonings".

Source: Health Information and Research Unit, MOH, 2014

---

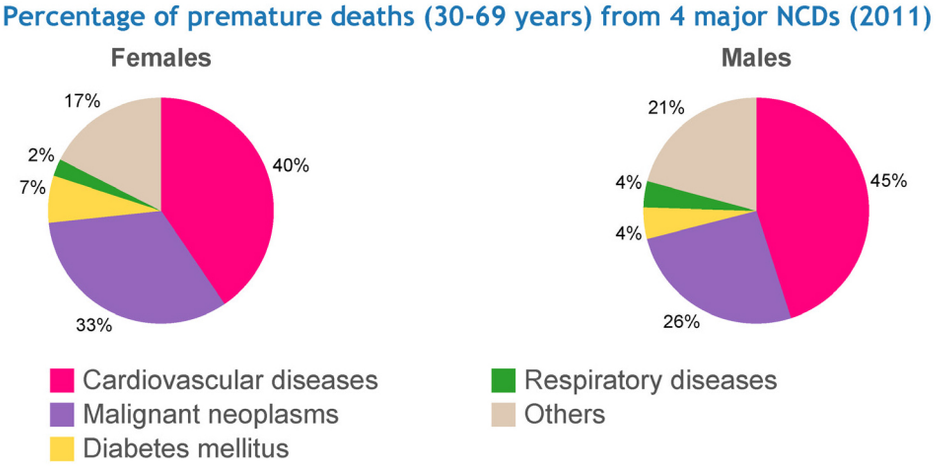
9 *What does it mean for The Bahamas to become one of the top hearties countries in the world by 2030? August 2016*

10 *Rates sourced from Department of Statistics, The Bahamas.*

The death rates show gender differences. However for both genders, deaths due to heart disease captures the number one spot. The mortality rate of ischemic heart disease was 28.7 per 100,000 inhabitants 2008. For strokes this rate was 59.3 per 100,000 inhabitants, (Ministry of Health, 2012).

Ages 30 - 69 years are considered to be the productive years. Yet in The Bahamas, seventy-one (71%) percent of deaths in this age group were caused by NCDs with fifty-seven (57%) percent premature deaths being caused by the four leading NCDs - cardiovascular diseases, neoplasms, diabetes and respiratory diseases (PAHO, 2011), in order of descending burden (Figure 7).

Figure 7. **Percentage of Premature Deaths (30 -69 years from 4 major NCDs (2011)**

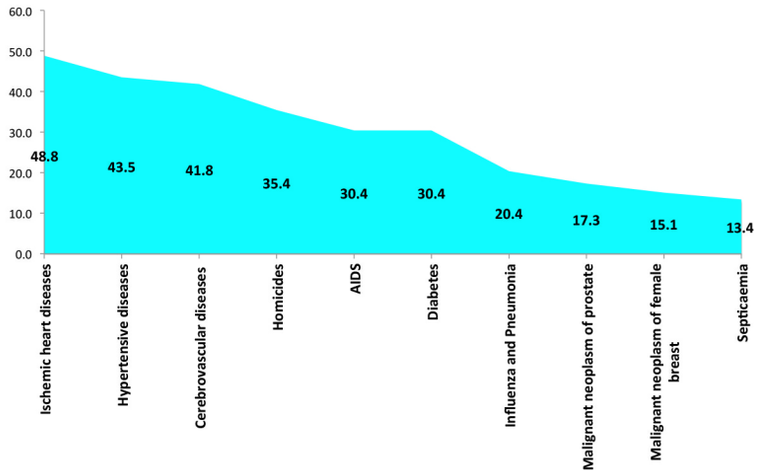


Source: PAHO 2011 Country Profile

In addition to gender differences, there are also age-specific differences in The Bahamas' NCD profile. Those aged 5 to 24 years are more likely to die from land transport accidents, assaults and HIV (Dept of Statistics).

The profile shifts for those aged 25 and older, likely reflecting lifestyle and behavioral choices. Taken together, 196.9 per 100,000 persons in the Bahamian population died of an NCD, or related complications (Figure 8).

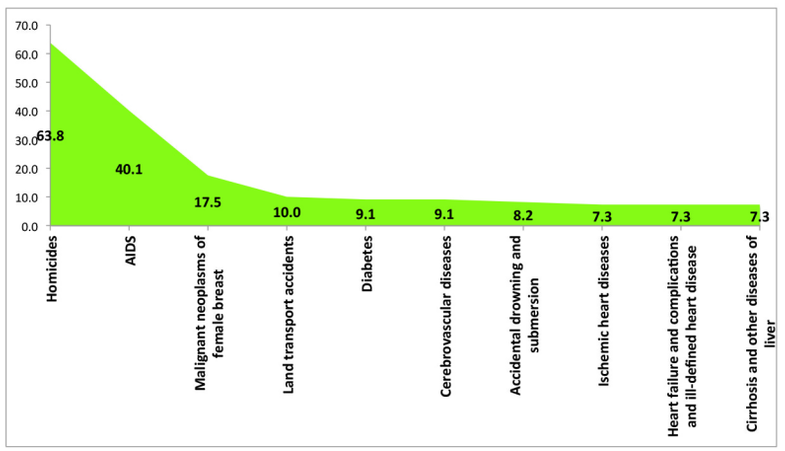
Figure 8. **Death Rates Per 100,000, Persons 25 Years and Older**



Source: Primary Health Care Report, 2014, Prepared by Planning Unit, MOH

Age-specific subtleties exist between the younger adults when compared to the middle aged and the elderly populations, bearing out that with advanced age comes the greater likelihood of demise due to a NCD and/or related complication(s). Notably, in 2012, Bahamians between ages of 25 to 44 years died at rate of 121.4 per 100,000 as a result of NCDs and/or related complications (Figure 9).

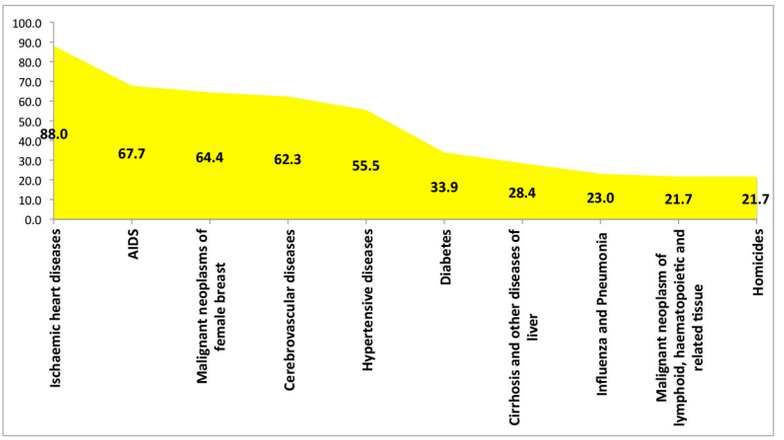
Figure 9. **Death Rate Per Population, Persons Aged 25-44 Years.**



Source: Primary Health Care Report, 2014, Prepared by Planning Unit, MOH

This is contrasted with a rate of 354.2 per 100,000 Bahamians in those 45 to 64 years who died of an NCD and / or related complications (Figure 10).

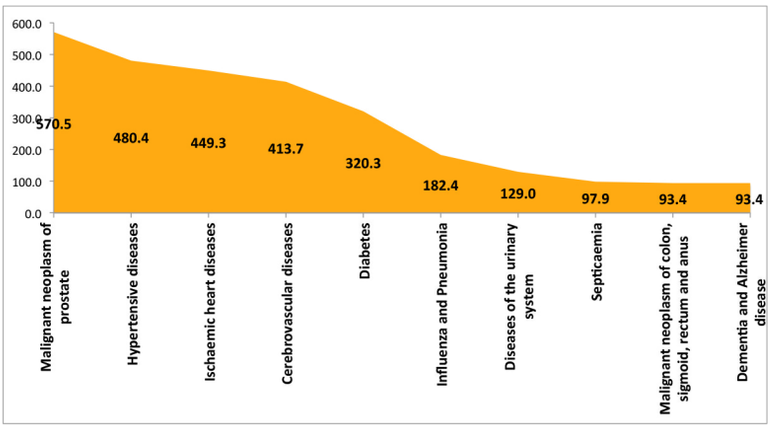
Figure 10. **Death Rate Per 100,000 among Persons Aged 45 - 64 Years**



Source: Primary Health Care Report, 2014, Prepared by Planning Unit, MOH

Even more glaring is the death rate observed in 2012 for the elderly population, those aged 65 years and older, which stood at 2,327.6 per 100,000 (Figure 11).

Figure 11. **Death Rate Per 100,000 Persons Aged 65 Years and Older.**



Source: Primary Health Care Report, 2014, Prepared by Planning Unit, MOH

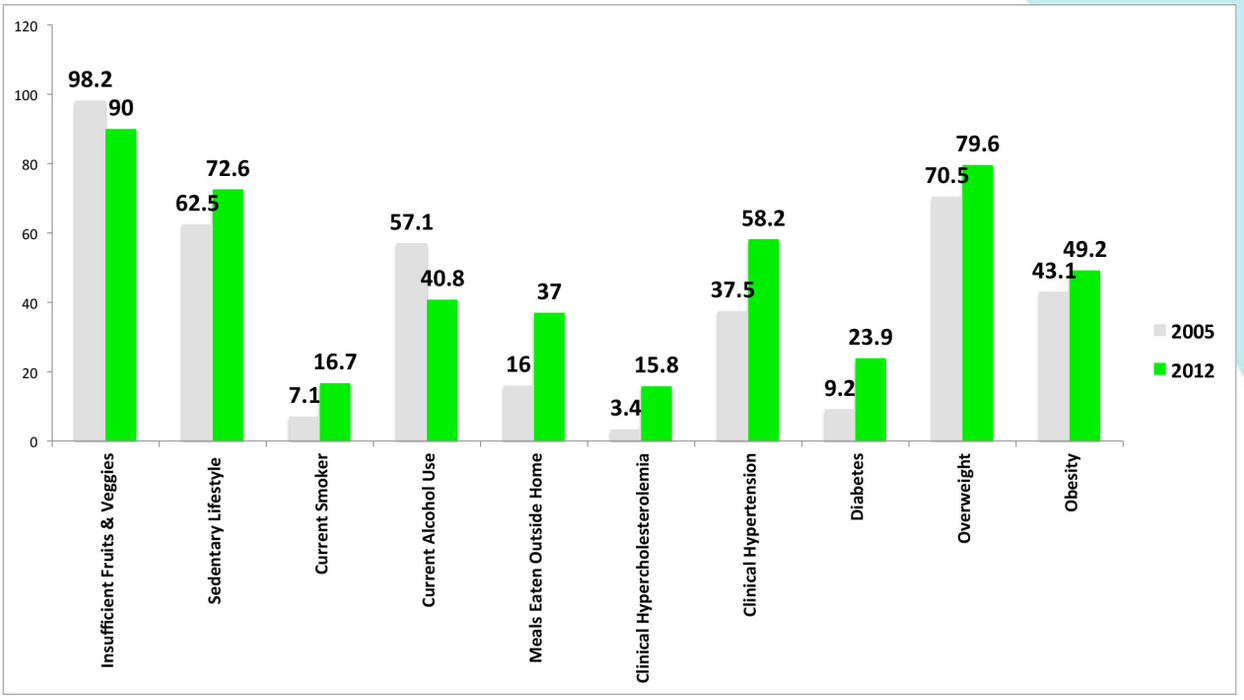
This data and narrative strongly supports the epidemiological conclusion that the quality of the health behaviors and decisions made earlier in life have downstream impact in the latter years of life.

Modifiable NCD Risk Factors

The WHO among other health organizations affirms that the vast majority of NCDs can be prevented through effective interventions that tackle the key shared risk factors, namely: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

In 2005, The Chronic Non-Communicable Disease and Risk Factor Survey Fact Sheet (The Bahamas) reported that just under three quarters (70.6%) of the population were overweight or obese, and less than half (43.1%) were obese. The 2012 Survey found that over three quarters (79.6%) of respondents were overweight or obese, with just under half (49.2%) of the overall population being obese. Prevalence increased in almost all risk factor dimensions from 2002 to 2012[11], and in many instances have doubled and tripled over the seven (7) year period (Figure 12).

Figure 12. **Comparison of Prevalence of NCD Risk Factors, 2005 & 2012**



Source: The Bahamas' NCD Risk Factor Survey (2002) and the STEPS Factsheet (2012)

[12] *Data sourced from The Bahamas' NCD Risk Factor Survey (2002) and the STEPS Factsheet (2012)*

These findings also showed an increasing trend towards overweight and obesity that is continuing to grow at a concerning rate. The implication of these findings suggests that Bahamians, by and large, are challenged to make healthier choices. The genesis of this is no doubt rooted in knowledge as well as cultural practices and the availability of healthy choices. It should be pointed out however that even in the face of adequate knowledge; the effect of other factors, specifically social determinants cannot be negated.

The levels of literacy, employment, poverty, and national security along with enabling infrastructure, protective policies and legislation within society, all have direct linkages to the pursuit of health. Undeniably overweight and obesity remains a biological risk factor for many NCDs that are modifiable through physical activity and a healthier diet.

Five main modifiable behavioral risk factors have been identified as contributing to over 80% of the burden of NCDS in The Bahamas as well as globally. These are (a) Nutrition linked to insufficient fruits and vegetables, (b) tobacco smoking, (c) harmful use of alcohol, (d) physical inactivity, and (e) cancers.

Nutrition and Insufficient Fruits and Vegetables Consumption[12]
According to the 2012 STEPS survey, fruits are incorporated into Bahamian meals on an average of 3.9 days of the seven days of the week. Vegetables fare slightly better; being incorporated on an average 4.5 of the seven days. In both cases, the number of days fruits and vegetables were consumed increased with age, indicating perhaps that older persons, aged 45 – 64 years see the value in eating healthier; either because of a change in thinking, experience with illness or due to an appreciation of the aging signs and the desire to regain youth. On average from a gender perspective, females incorporated fruits and vegetables more into their daily diets than males.

Bahamians reported having 1.1. and 1.2 servings of fruits and vegetables per day respectively; with was no significant difference between genders. However, as with the number of days consumed, the number of servings increased with age to 0.9 servings in the 25 – 34 age groups compared with 1.4 servings for those 55 years and older.

Regardless of whether days consumed or number of servings per day is used as a measure, Bahamians fall short of even the minimum servings of fruit and vegetable intake. Experts recommend that each individual consumes 5 to 9 servings of fruit and vegetables per day.

Net per capital food production in The Bahamas has essentially plateaued, with the agricultural sector contributing less than two (2%) percent to the national GDP, between the years 2000 – 2009. On the other hand, between 1995 and 2012, the food import bill escalated by almost sixty percent (60%) from US$232.37 million to US$570 million. Recent estimates suggest that the country's import bill is approaching US$ 1 billion[13] . Greater than 95% of its food comes from external markets; with most of the imported food components being calorie-dense refined carbohydrates (pastry, flour), and foods high in fats, sweeteners and sodium. Fruits and vegetables account for only 19% of total food imports. Such a high food import bill poses both a risk and a barrier to The Bahamas' journey to wellness.

---

[12] Inadequate serving of fruit and vegetables is defined as less than five (5) servings per day. And, meals eaten outside the home is qualified as five or more per week eaten out of the home.
[13] IFAO STATS, 2015

The ease of availability and relative affordability of these calorie dense, high sugar, high salt and nutrient poor diets have contributed significantly to the burgeoning of obesity, diabetes, hypertension, stroke, heart diseases and cancer and related risk factors.

As a signatory to the Port of Spain Declaration (2006), The Bahamas does not levy taxes/tariffs on imported fruits and vegetables. However, there is a growing concern that this lack of taxation largely benefits grocers and wholesalers, with little to no cost savings being handed down to or felt by the consumers[14] . At a three day NCD Symposium held in New Providence in 2013, with over one hundred multi-sector stakeholders in attendance, the lack of price control was cited as a very plausible barrier to the transfer. Additionally, the implementation of a 7.5% Value Added Tax (VAT) by The Bahamas Government, at point of purchase is also suspected of contributing to increasing prices and food availability.

Moreover, the 'Bread Basket' introduced by The Bahamas Government in 1975, includes price controls for approximately twenty (20) items which are very high in fat, salt, starch and refined sugar. These include products such as butter, mayonnaise, margarine flour, grits, rice, sugar, tomato paste, broth and soups and canned milk, and highly processed canned meat and fish. Currently there are no mechanisms for the price control of food items that have substantively greater nutritive value. This is viewed as a major gap, and preliminary collaborations with internal partners are underway to advocate for revisions of the current Bread Basket to items of greater nutritive value.

Tobacco Smoking

In 2012, seventeen (16.7%) percent of Bahamians smoked tobacco products which is more than double the 2002 prevalence.

With passing generations, the influence of globalization and the ease of connectivity with the global village, becomes more apparent within the confines of our aquatic boarders. Undisputedly Bahamians are increasing their level of exposure to western and eastern philosophies, societal norms, cultures and practices, via direct travel or through the power of the internet. These exposures are not without inherent vulnerabilities, such as greater visibility of tobacco products advertisements/images, along with the marketing of fast foods and sugary beverages.

In The Bahamas, men reported greater use of tobacco products than their female counterparts. In fact, men outnumber women 4 to 1 as non-daily smokers and 4 to 1 as daily smokers. For those men who smoke, smoking practices were greatest in the 25 – 34 age range (38.5%) and the 45 – 54 age range (33.3%); perhaps attributed in part to greater susceptible to pressure and the perception of maleness during the earlier years; and, perhaps in the latter years because of mid-life. Females smoked more around age 45 – 54 years, which coincides with the entrance into mid-life and menopause.

Further men begin smoking sooner than women; and smoke for a longer period of time. A mean smoking history of 20.6 years is significant however; and likely speaks to the addictive nature of tobacco products. Smoking practices peak for males earlier, between 25-34 years. On the other hand, females smoking practices peak among the 45-54 age grouping. Overall, smoking practices decrease with age.

[14] Report from NCD Symposium (2013).

Harmful Use of Alcohol

The harmful use of alcohol is a known risk factor for non-communicable diseases, particularly cancers, heart disease and strokes. Over sixty-five (65.6%) percent of Bahamians consume alcohol, with the remaining thirty-four (34.4%) percent having never consumed alcohol. There are varying levels of alcohol consumption; category I[15], category II[16] and category III[17]. Categories II and III are associated with harmful use of alcohol. Amongst current alcohol drinkers, 70% of Bahamians fall within these categories and thirty eight (38%) percent consumed alcohol on 4 or more days.

Alcohol consumption is an increasing trend with age in both sexes. Noteworthy is the fact that females far exceed males in the harmful use of alcohol. Almost three (2.5%) percent and five (5.2%) percent of females were category II and category III drinkers, respectively as compared to males at 1.3 and 1.8 percent. Moreover, more females reported consuming alcohol with meals than males – sixty-three (63.1%) percent and fifty-three (53.2%) percent, respectively. Taken together, one third of all current drinkers consumed alcohol with meals; this practice was seen to increase with age.

Of all the risk factors, current alcohol use is the only one that has seen a decline between 2002 and 2012 by almost thirty (28.5%) percent. While this is encouraging from a national picture, vulnerabilities peculiar to our Family Island communities may be obscured in this generalized national picture. Initial data from a national Health Inequities Study suggests that rate of drug and alcohol dependences among many of the Family Islands exceed that of New Providence.

Local reports completed by Sanigest indicate that 5.5% of the Bahamian population over the age of 15 years has received an alcohol related diagnosis (ICD F10 and F10.2). Furthermore, in the same year, 2.8% of those in the same age range were diagnosed with alcohol dependence. The average rate with a twelve month prevalence for the top 10 OECD countries was 1.4%[18].

Physical Inactivity

Sedentary lifestyle as an NCD risk factor is of growing concern. A growing body of research shows that long periods of physical inactivity raise the risk of developing heart disease, diabetes, cancer, and obesity. In January 2010, British scientists linked prolonged periods of sitting to a greater likelihood of disease. In fact, people with sedentary lifestyles have the highest rate of heart attacks; have a 14% increased risk of developing Type 2 Diabetes; and are more prone to strokes and cognitive decline along with breast and colon cancer[19].

Dunstan et al (2010) noted participants who watched at least 4 or more hours of TV per day daily had an 80% increased risk for cardiovascular disease–related death and a 46% higher risk of death from all causes when compared with those who watched less than 2 hours a day. Each hour an individual spends watching TV, there is an 18% increased risk of cardiovascular disease–related death and an 11% increase of death from all causes. Overall levels of physical inactivity in The Bahamas remain high and continue to grow. In 2012 it stood at seventy-three (72.6%) percent, an increase of fourteen (13.9%) percent over 2005.

When categorized as low, moderate and high/vigorous physical activity, the gender differences in the level of physical inactivity among Bahamians paint a worrisome picture. Over sixty (63.2%)

---

[15] Category I is defined as drinking <40g of pure alcohol on average per day for men and <20 for women.
[16] Category II is defined as drinking 40-59.9g of pure alcohol on average per day for men and 20-39.9g for women.
[17] Category III is defined as drinking ≥60g of pure alcohol on average per day for men and ≥40 g for women.

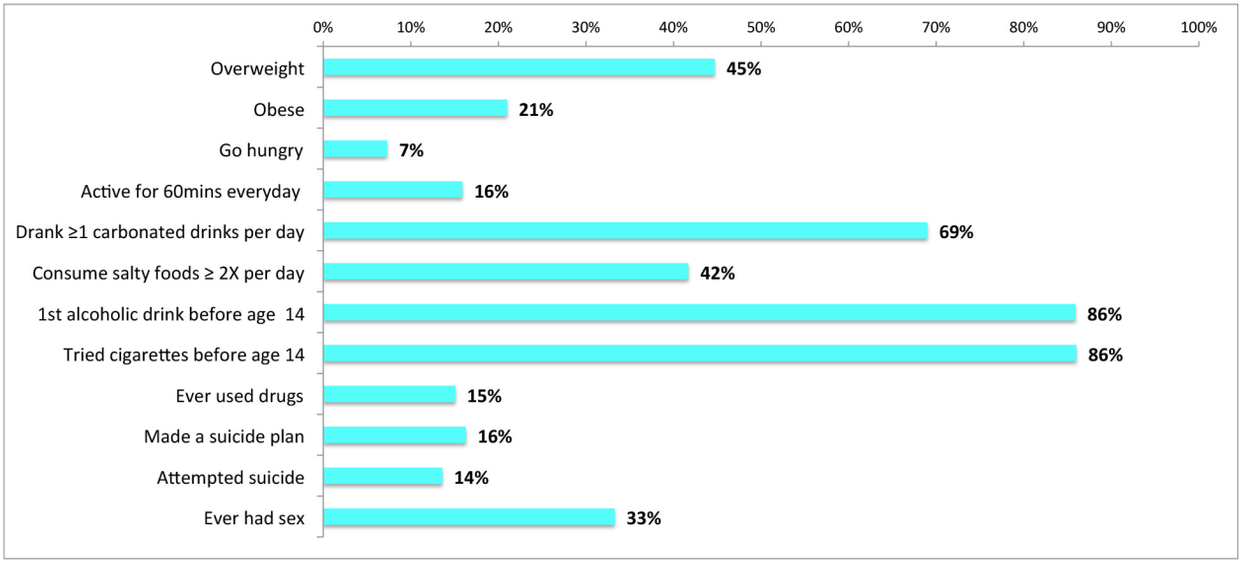
percent of females compared to thirty-seven (36.7%) percent of males are physically inactivity. Furthermore, females spend significantly less time (55.8% less) per day engaging in physical activity than males, who on average spend 164.3 minutes engaged in physical activity. As age and immobility set in, the average of daily physical activity for both sexes is almost halved from 129.2 minutes per day for those 25 – 34 years to 62.4 minutes for those 55 – 64 years.

When analyzed based on the degree to which work, transportation and recreational activity contribute to total physical activity, it was found that activity related to the work environment contributed the most – for males fifty-eight (58.3%) percent and females thirty-four (34.1%) percent.

Risk Factors Among Our Youth

In all of the risk factor domains, our school-aged population and youth tell a similarly disturbing story as demonstrated in Figure 13. The Global School Health Survey (GSHS) completed in 2013 with a study population of 1357 school-aged children (age range 13 to 15 years) in New Providence and selected Family Islands.

Figure 13. **Findings of the GSHS, 2013**



Source: Planning Unit, MOH

[18] *Sanigest Internacional, 2016. What It Means for The Bahamas To Become One of The Top Ten Healthiest Countries in The World By 2030?*
[19] *http://www.nchpad.org/403/2216/Sedentary~Lifestyle~is~Dangerous~to~Your~Health*

Most notable are the findings around the youth overweight and obesity in The Bahamas with 44.7% of respondents overweight[20] and 21% of respondents being obese[21]. Obesity and being overweight are most commonly associated with the risk factors of unhealthy diets and limited physical activity. Results of the survey indicated that a high percentage of youth eat too little fruit and vegetables, drink too many sodas and eat fast food on a regular basis. Many students do not walk or ride a bicycle to or from school and many spend at least three or more hours per day sitting, outside of school and when engaged in homework.

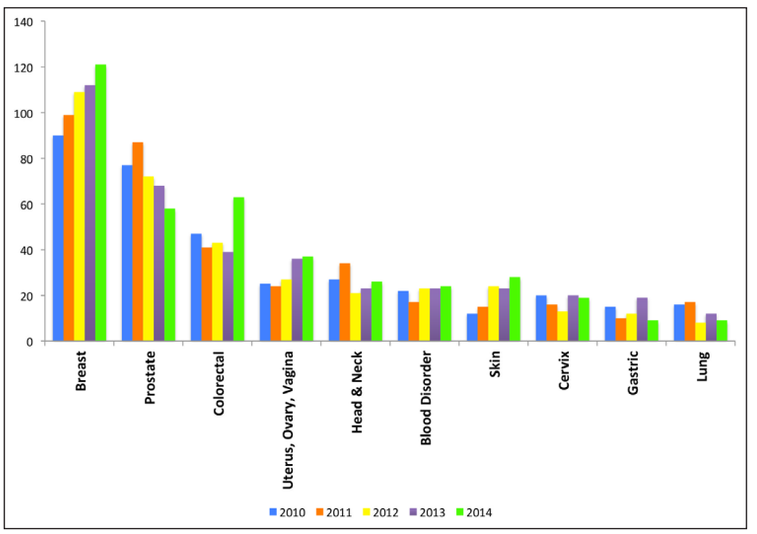
In The Bahamas 28.6% of adolescents between the ages of 13 and 15 years old had at least one drink containing alcohol on one or more of the past 30 days. Among students that have ever had a drink of alcohol, 85.9% had their first drink before the age of 14 years old. A correlation was found between alcohol consumption in the past 30 days and selected mental health questions.

There are concerning outcomes regarding mental health. Nineteen percent (19.3%) of the students reported having seriously considered attempting suicide in the past 12 months of the study, sixteen percent (16.3%) made a Plan about how they would attempt suicide during the past 12 months of the study; and fourteen percent (13.6%) actually attempted suicide one or more times during the past 12 months of the study. Underlying this, a correlation is found between those students that sat or engaged in sitting activities and have a higher instance of reporting worrying that prevented sleep, suicide contemplation, suicide planning, and even suicide attempts (GHHS, 2013).

Cancers

Cancer is among the ten leading causes of death in The Bahamas. Cancer of the breast was the leading cause of death in women 45-64 years of age in 2011 and cancer of the prostate was the third leading causes of death in men 65 years of age and older in 2011 (Figure, 13). The Bahamas has been documented as having the highest prevalence of the BRCA-1/BRCA-2 gene mutation in women with breast cancer worldwide at approximately 27%. This mutation has been linked to increased incidence of breast cancer.

Figure 14. **Ten Top Cancers in The Bahamas, 2010 - 2014.**



Source:
PMH Cancer Registry.
Prepared by Planning Unit, MOH

[20] *>+1SD from median for BMI by age and sex*
[21] *>+2SD from median for BMI by age and sex*

Non-Communicable Disease Morbidity

Primary Care Visits

A review of country data suggests that when compared to the level of care being sought, the vast majority of visits to health centres were of individuals seeking primary care services. In 2012 seventy-seven percent (77%) of all visits (including visits to community and outpatient clinics) excluding hospital admissions, were made to primary care. Between 2013 and 2016, eighty (80%) to eighty-five (85%) of all visits to public health institutions were made at the primary care level[22].

This reality, is not mirrored in the budgetary allocations for primary care. Over the last decade, funding for public sector primary care through the Department of Public Health has been disproportionately low and declining when compared to the public sector healthcare allocation for tertiary care in The Bahamas. Between the fiscal years 2011 to present, the Department, which is responsible for the vast majority of primary care, has received no more than fourteen (14%) percent of the total recurrent health budget. During this same fiscal interval, PHA has received no less than 79% of the total recurrent health budget for these three institutions (Figure, 15). Despite the fact that PHA performs minimal primary healthcare, through its Agape Clinic and Grand Bahama Community Health Services, its core function is as a tertiary institution with responsibility for national emergency medical services and procurement of medical .

Figure 15. **Comparison of Government Allocations of Recurrent Expenditure 2011-2017**

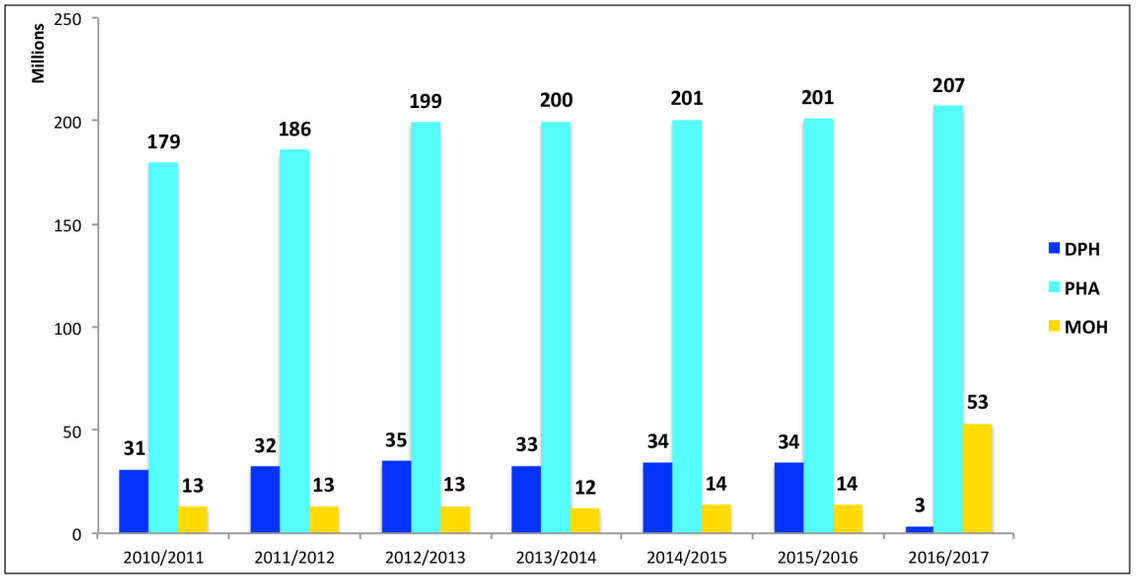


Figure Source: www.bahamas.gov.bs. Prepared by Planning Unit, MOH

[22] *Ministry of Health 2015/2016 Mid-term Budget Contribution, Dr. M. Perry Gomez (March, 2016)*

Based on the Health Information and Research Unit (HIRU) categorization of health visits, the highest average visit volumes are seen for Other clinic visits (50%), child health (18%) and school health (12%) respectively. These are followed by domicillary visits (10%), antenatal (7%) and postnatal (3%).

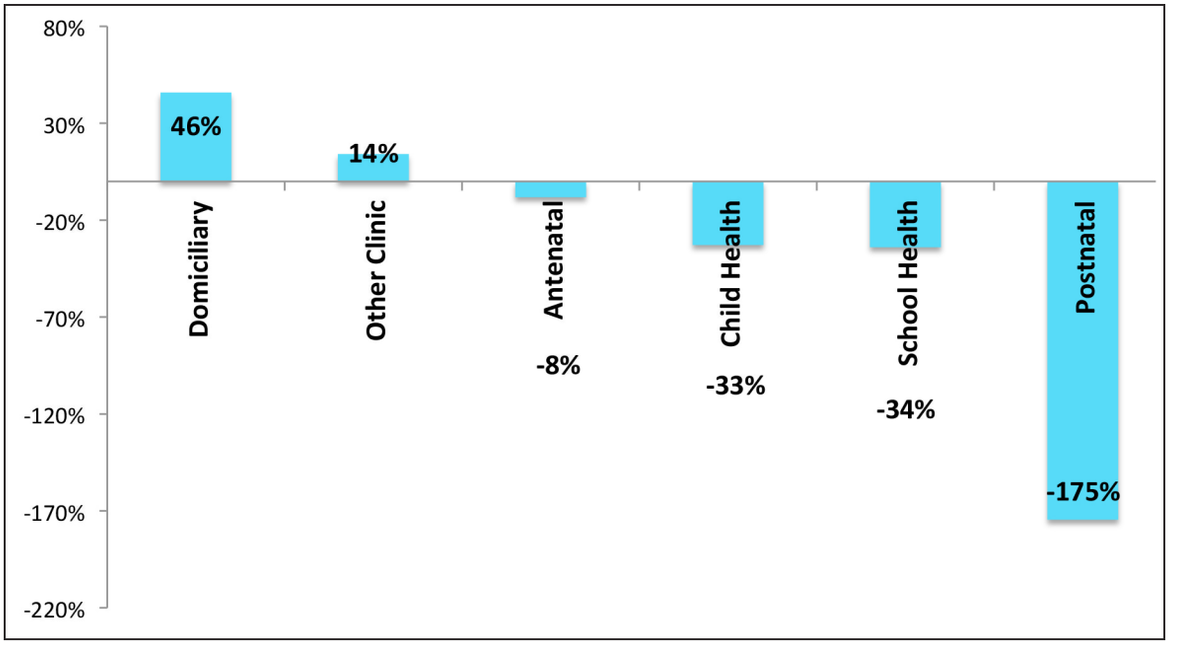
“Other” visits account for fifty (50) percent of all visits to the community health centres. These “Other” visits encompass an array of clinical conditions as well as unspecified symptoms. In total, thirty (33) conditions/symptoms are named in this category.

The number of visits to the community health clinics fluctuated between 449,693 in 2002 and 516,490 in 2012. In 2013 however the number of visits began to decline and continued to do so up until the time that the 2014 data was released.

New Providence and Grand Bahama together account for eighty-five (85%) percent of the population of The Bahamas; however the distribution of visits do not follow this population pattern, with Family Island visits accounting for forty-two percent (42%) of all outpatient/community visits.

In-depth analysis indicates that although overall clinic visit volumes remain high, some clinic visit types have seen negative growth. Domiciliary and “other” clinic visits showed forty – six percent (46%) and fourteen percent (14%) positive growth respectively (Figure 16).

Figure 16. Percentage of Clinic Visits by Type, 2002 -2014.



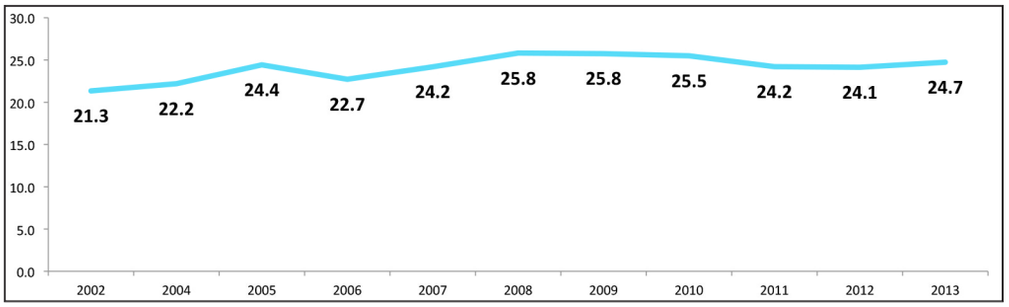
Source: HIRU Primary Healthcare Report.

Further analysis of the data reveals that forty-four (44.3%) percent of all “Other” Clinic visits in 2014 were for NCD related concerns. Additionally, for the same year, nearly 31 (30.7%) percent of all domiciliary visits; fifteen (15%) percent of all School Health visits; and nearly twenty-eight (27.7%) percent Child Health visits were specific to an NCD.

Although NCDs accounted for one-third of the community clinic load/volume in 2014 (which is an 8.5% increase over the previous year), when juxtaposed with the actual prevalence of NCDs and related risk factors and the best practice clinical guidelines for diabetes, hypertension and hypercholesterolemia, it becomes immediately clear that thirty-three (33%) percent visit volume for NCDs is under-represented.

With this understanding, and extrapolating the current burden of NCD-related visits to community health centres (Figure 17); the assumption can be made that the primary reason for at least thirty-three (33.2%) of all visits are due to NCDs, their risk factors and complications.

Figure 17. **Total clinic Visits Attributed to NCDs, 2002 - 2003**



Source: HIRU Primary Healthcare Report.

NCD In-patient Morbidity and ALOS

Statistics related to in-patient morbidity is another means by which the health and well- being of a population can be determined. Hypertensive diseases, diabetes and cancers remain the most prominent causes for inpatient morbidity.

In 2007[23], these three conditions ranked among the leading causes for in-patient morbidity and accounted for nearly eight (7.6%) percent of total admissions to the PMH and RMH. More importantly though is the increasing trend in admissions due to NCD related conditions.

CAREC CNCD Report (2010)[24], which reflected data from three of the four tertiary healthcare institutions in The Bahamas (PMH, RMH and DHHS), noted that myocardial infarction, strokes, COPD and diabetes together accounted for eight (8.1%) percent of total hospital discharges (Table 3).

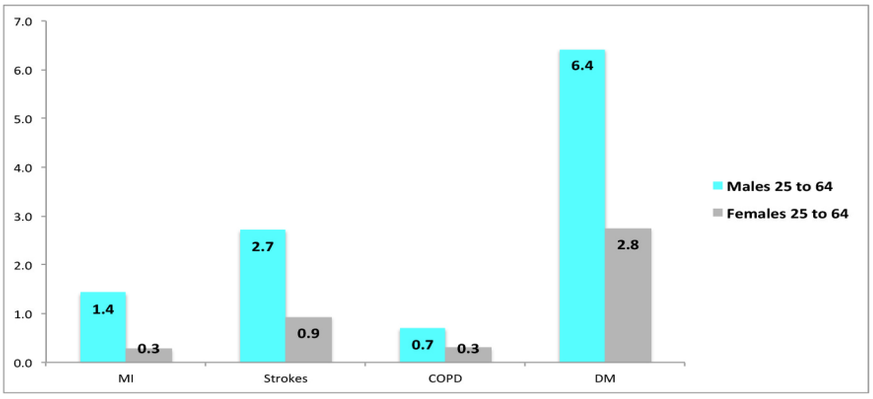
Table 3. Percentages of Total Discharge from PMH, RMH and DHHS, 2010

	Percent Total Discharges All Hospitals, 2010	ALOS (days) All Hospitals, 2010
Myocardial Infarction	0.9	4.3
Strokes	2.2	9.8
COPD	0.6	5.2
Diabetes	4.4	9.8

Source 1: HIRU. Source 2: PHA. Source 3: Doctor's Hospital

In the same Report, men over the age of 25 years disproportionately contribute to these statistics (Figure 18). Possibly suggesting that males have poor health-seeking behaviours, and only seek care at either very late stages of the disease process or when very severe symptoms manifest.

Figure 18. Percentage of Total Discharges for Selected Diseases by Gender



23 *2007 is the latest year for which complete coding has been done for the PMH*
24 *Report published in 2010, using 2007 data*

Inpatient Morbidity Through the Lens of Renal Health and Lower Extremity Complications

NCDs are not without complications, from strokes to speech, physical and visual impairment to failing kidneys and extremity amputations to sexual dysfunction, to name a few.

Renal Health

According to the Chronic Kidney Disease (CKD) classification system, CKD stage 3 is equated to moderate kidney damage and CKD stage 4 more advanced stage. Stage 4 warrants discussions between the healthcare provider and patient advising of the possibility of and educating on the initiation of either hemodialysis, peritoneal dialysis or a kidney transplant. At CKD stage 5 a patient requires kidney replacement therapy.

CKD 3, 4 or 5 is more prevalent in females compared to males in The Bahamas (67% vs 33%; 62% vs. 38%; 55% vs. 45%, respectively). This was consistent for 2014-2016. In regards to age, public sector outpatient clinic referrals for CKD 3-5 in the 50-70 age group was most prevalent. What is striking, however, was the increasing number of younger patients with the diagnosis of advanced CKD (stage 4 and 5) in the 20-49 age group. In 2014, 25% of patients who presented to the outpatient specialty clinic with stage 5 CKD, 27% in 2015, and 16% in 2016 were all under the age of 50.

The relatively low number of visits related to CKD-3 and CKD-4 likely supports the assertion that patients either present late with advanced stages of the disease process and/or the delayed/late referrals of CKD patients from primary care and other physicians to a Nephrologist. Patient visits for CKD-5 are triple those for the other two disease classifications.

The three major culprits of end-stage renal disease (ESRD) in The Bahamas are diabetes, hypertension and aging. A Bahamian consultant nephrologist attributes diabetes and hypertension related ESRD to “poor diet and poor compliance with medication”.

There are six (6) dialysis centres in the country, one (1) in Grand Bahama, one (1) in Marsh Harbour, Abaco and four (4) in New Providence, one public and the others private. The centres at Princess Margaret Hospital and Grand Bahama carrying the greatest load.

In 2013, there were 1,883 patients receiving dialysis at the PMH Dialysis Unit. In July 2016 two hundred and eighty one (281) patients were seen at the private dialysis centres.

Leading Nephrologists in The Bahamas posit that renal transplantation is the preferred treatment for chronic renal failure. Compared to dialysis, transplantation is significantly cheaper with better quality of life and longer patient survival. The first kidney transplant was performed in The Bahamas in 1996.

In 2006 a renal transplant service was established in The Bahamas at a private sector facility, the Doctors Hospital, with the intent to provide renal transplantation from living related donors. In the intervening seven (7) years since its establishment, more than seventy (70) renal dialysis dependent patients have been identified in The Bahamas. However, due primarily to affordabil-

ity gap, donor ineligibility and limited donor matches, only twenty-three (23) Bahamians have received kidney transplants in the public sector (8.7%), private sector (13%) and in the U.S.A through referrals from local dialysis centres (78.3%). Transplants were funded through patients' private insurance Plans.

Some factors/ problems encountered in CKD patient population

- Denial of their kidney disease and having risk factors for kidney disease
- Fear of dialysis is a major hurdle. Patients think going on dialysis is a death sentence
- Poor dietary habits
- Poor medication compliance
- Lack of knowledge about their disease
- Late referrals of CKD patients to a Nephrologists from Primary Care Physicians

Lower Extremity Amputations and NCD-related Lower Limb Vascular Com-plications

Lower extremity complications including debilitating peripheral neuropathy, ulcers and amputations, remain the most common reason for hospital admissions and also contribute to increased length of stay at Princess Margaret Hospital (Mitchell, 2010). It has been estimated that at any given time more than one third of all surgical beds are occupied by diabetics with lower extremity complications.

According to hospital discharge data from Princess Margaret Hospital for the period 2002 - 2006 there was an average of 100 lower extremity amputations per year (Mitchell 2010)[25].

Between 2008-2010, there was a total of 553 discharges to the Princess Margaret Hospital with a primary diagnosis of diabetes and a secondary diagnosis of at least one concomitant lower extremity complication including Peripheral Arterial Disease (Critical Limb Ischemia, Gangrene, Rest Pain, Claudication); lower extremity ulcer or wound; Diabetic Foot; Diabetic Peripheral Neuropathy; Charcot Neuroarthropathy; Abscess; Infected; or Septic wound/foot, Cellulitis, and Osteomyelitis.

The mean age was 58.6 years and the gender distribution was 54% (296) female and 46% (256) males. Average length of stay for persons admitted for diabetes and a concomitant lower extremity diagnosis was 10.37 days.

Within this two-year period, 137 lower extremity surgical procedures were performed, representing (24.8%) of the persons admitted having had a surgical procedure during their admission. Below Knee Amputations were the most commonly performed procedure (35%) followed by toe (digital) amputation (21%), wound debridement (15%) and trans-metatarsal (foot) amputations (14%). Incision and drainage and above knee amputations were less likely to be performed at 9% and 6%, respectively.

Mental Health

Mental disorders are independently associated with excessive mortality. Despite the suggestion that global mortality data are under-estimated, a report completed by WHO (2005) attributes about 1.2 million deaths per year to mental, neurological and substance abuse disorders (mostly caused by Dementia, Parkinson's disease and Epilepsy). Approximately 40,000 of these deaths associated with mental disorders (mainly unipolar and bipolar depression, schizophrenia and post-traumatic stress disorder); and 182,000 to use of drugs and alcohol (Prince et al, 2007).

---

[25] *Diabetes Related Lower Extremity Complications in The Bahamas (2008-2010), Dr. Monique K. Mitchell*

Mental disorders also exact a significant economic impact. In 2010, globally the estimated cost of mental illnesses was around $2.5T (two-thirds in indirect costs), with an anticipated increase to over $6T by 2030 (Bloom et al, 2011).

Notwithstanding the global disease burden, mental disorders continue to be the most ignored and under-funded health concern. WHO estimates that approximately 75% of persons living with mental health problems in low income countries have no access to suitable health services (WHO, 2008b). Moreover, the ratio of mental health providers in low and middle income countries is alarmingly low. Adequate numbers of psychiatrists and psychiatric nurses are critical not only for the delivery of specialist services, but even more importantly for quality assurance and supervision of primary care providers; inter-sectoral cooperation with the education, social welfare and criminal justice systems; and for training, service development and leadership.

The WHO recommends scaling up the management and treatment of mental illnesses into primary healthcare settings in countries with limited resources. The medical literature provides strong rationale for integrating mental health services into primary care. This amalgamation will above all improve health outcomes and ensure that greater numbers of persons gain faster and easier access to mental health services. Further, it will improve prevention and early detection of mental disorders; reduce mental health stigma and discrimination; improve social integration; and enhance human resource capacity to deliver mental health services (WHO, 2007).

While there is limited empirical evidence to delineate the true burden of mental health disorders in the Bahamas, the considerable increase in health services utilization provides strong justification that mental illnesses are a growing public health concern. Between 2002 (2,267 annual visits) and 2011(3,215 annual visits), there is a 42% increase in the number of visits due to mental disorders at the Primary Health Clinics. The community psychiatric centre recorded a five year average annual visits around 19,000 and 1,165 new client visits (mostly females) between 2009 and 2013. During the same period, Sandilands Rehabilitation Centre (psychiatry) consistently reported occupancy rates above 88%. Schizophrenia was the leading cause of inpatient morbidity at SRC during 2010 – 2015, followed by Mood [Affective] Disorders and Mental & Behavioral disorders due to substance abuse; these conditions accounted for 5,189 discharges over the noted period.

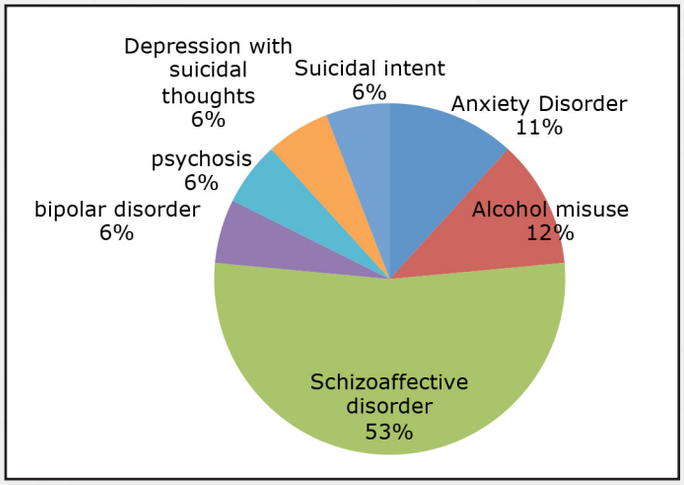
The Bahamas, like its global counterparts, is challenged by considerable deficits in its mental health workforce. Additionally, as a result of our geographic make-up, we are also stretched to provide equitable access to mental health services. Presently, the national ratio of mental health physician (serving in the public sector) stands at 5.97 per 100,000 population, which is 2.6 times less than the benchmark (15.6 per 100,000 population) established for OECD nations. Further, these mental health professionals provide services on the more populated islands (New Providence and Grand Bahama) of the country. A scarce mental health workforce poses a substantial barrier to the improvement of mental health services or agenda for scaling up mental health

services. This barrier requires a strategic approach to human resource development, retention and deployment.

Mental Health GAP Action Programme (mhGAP) Pilot

In 2013, the Mental Health Gap Action Programme (mhGAP) was piloted to improve care by providing an avenue for early detection and treatment of mental health. At the conclusion of the pilot, a total of 32 clients (with 43 encounters) met the pilot inclusion criteria. The study population was primarily female (61%). The mean age was 33 years, ranging from 17 to 78 years old. The overwhelming majority (81%) of clients were unemployed. As expected, New Providence clinics provided care to half of the study population, Grand Bahama (13%) and Family Island clinics (Abaco + Andros) (38%). Clinicians provided a pri-mary diagnosis of 53% or seventeen (17) of the total clientele (32) seen during the study period. Of those clients with a diagnosis, fifty-three percent (53%) of clients received a diagnosis of schizoaffective disorder, twelve percent (12%) alcohol misuse, and twelve percent (12%) anxiety disorder (Figure 19).

Figure 19. **MhGap Pilot Primary Diagnosis Related to a Mental Health Disorder.**



Suicide

Suicidal intent and Depression with Suicidal Thoughts represented twelve percent (12%) of primary diagnoses in the mhGAP pilot, this is cause for national concern. The Government has responded to the increase in the number of reported suicides by appointing a National Suicide Task Force to study and design a national strategy to address this social epidemic. For the period 1994 – 2009, the number of suicides and suicidal related events in The Bahamas has remained fairly constant over time. However, the rate of inpatient and outpatient mental centre discharges at the public hospitals indicates a rising trend. Between 2010 – 2012 forty-two (42) inpatient discharges with a suicide associated diagnosis (this includes attempted suicides, intentional self-harm and suicide ideation) were reported at Rand Memorial Hospital.

Princess Margaret Hospital reported twenty-four (24) suicide attempts between 2011 and 2012. At Sandilands Rehabilitation Centre, an average of 278 inpatient discharges with a suicide associated diagnosis was recorded annually for the same period. Community Counselling and Assessment Centre data indicates that new patients seen with suicide associated diagnoses have increased between 1996 and 2006 (the greatest increase was observed in 2004 with a 172% increase).

When considering gender differences, it was noted that a greater proportion of males attempted suicide than their female counterparts. Additionally, females were more likely to present at Community Counseling and Assessment Centre for suicidal associated diagnosis than males. This presents an opportunity for addressing how the healthcare system can encourage more men to access the mental health services available at this and other health facilities.

Although the mhGAP pilot is not fully representative of the entire population, if taken as a snapshot of the state of the country's mental health, the results suggest that the strengthening and expansion of mental health services is in dire need of focused attention. Addressing known risk factors inclusive of alcohol and drug abuse through sustainable programmes and initiatives at the primary care level is a positive first step towards improved mental health outcomes.

These and other socio-economic risk factors such as poverty, unemployment and other inequities in health, discussed in greater detail in relevant sections of this NCD Plan all impact the mental health and well-being of the individual. The identification of existing health system gaps that may impede access to mental healthcare should assist in the development of programs to address systemic mental health challenges.

The design and implementation of effective intervention programs based on risk and protective factors; review of institutional policies for provision of psychiatric care; greater collaborative efforts toward full integration of mental health services into primary care settings; strengthening of hospital-based information systems to identify all suicide related events; and aggressive anti-stigma campaigns are but a few system-wide initiatives for improving the level of mental health services available to this vulnerable population.

The Bahamian Response

National Health Services

The Ministry of Health (MOH) is mandated with public health services financing; health policy development and planning; regulation and monitoring; development and implementation of national public health programs; and the provision of community health services. The Minister of Health leads a myriad of government institutions and regulatory bodies associated with health in The Bahamas. The Department of Public Health (DPH) within MOH is charged with surveillance, development, implementation, and coordination of national health programs, and the delivery of primary care services (except in Grand Bahama which falls under the ambit of the PHA). The Public Hospitals Authority (PHA) is administered by a Board of Directors accountable to the Minister of Health. The PHA is charged with the responsibility of the three public hospitals, the National Emergency Medical Services, the Bahamas National Drug Agency, and the Materials Management Directorate. In 2015, Princess Margaret Hospital (PMH), opened the new one hundred bed Critical Care Block which includes the new state-of-the-art Adult Intensive Care Unit, Neonatal Intensive Care Unit, Administrative Block, Theaters, Post-anesthesia Care Unit, Laboratory, Central Sterile Supplies Department, Medical Surgical Supplies Department and Chapel.

The country's health sector is centralized with most of secondary and tertiary services provided on the major population centers (New Providence and Grand Bahama). In the public sector, the delivery of healthcare and services is carried out by a network of health facilities that includes three hospitals (Princess Margaret Hospital, Rand Memorial Hospital, and Sandilands Rehabilitation Centre); and 106 primary care clinics (overseen by The Department of Public Health) for the provision of primary, secondary, and tertiary care. In 2015, the total public and private hospital bed capacity stood at 995, representing 28 hospital beds per 10,000 population.

The major primary provider of private inpatient services is Doctors Hospital (located in New Providence with a bed capacity of 72 beds), which is staffed and outfitted for the provision of primary, secondary, and tertiary care. In 2011, the Bahamas recorded a total of 292 private, for-profit walk-in clinics (including the Lyford Cay Hospital).

Policies And Other Enabling Environments

Successive Governments of The Bahamas have committed to providing healthcare and services within the public sector regardless of ability to pay. There does exist though a fee structure that is applied to registration, diagnostics, laboratory and other point-of-care services to all patients except the elderly, civil servants, those seeking antenatal care, the indigent and children. Though the fee structure exists and is applied, collection rate of such fees is low and inconsistent.

The National Insurance (Chronic Diseases Prescription Drug Fund) Act, 2009 of The Bahamas establishes a Chronic Diseases Prescription Drug Plan the primary objectives of which shall be – (a) to increase access to cost effective drugs for the treatment of specific chronic diseases and specified medical conditions such as Diabetes Mellitus, High Cholesterol, Hypertension, Ischemic Heart Disease and cancer; and (b) to reduce the financial burden of beneficiaries in respect of the purchase of prescription drugs and specified medical supplies.

Currently, approximately 70% of Bahamians do not have health insurance, meaning they may have to pay for health services out of their own pockets. With the average Bahamian household

paying approximately $2,300 per year out of pocket on healthcare, this something many people simply cannot afford[26].

The Bahamas is currently undertaking the process of implementing National Health Insurance (NHI), as the funding mechanism for Universal Health Coverage, to completely remove such fees for care and services. The first phase of implementation will focus on the delivery of primary care. It should be noted that the implementation of NHI is accompanied by four (4) major health system reforms as outlined in the budget debate contribution by Minister of Health Dr. Perry Gomez[27]. These initiatives includes:

- Transformation of MOH into a stronger regulatory authority with improved stewardship for the entire health sector (public and private);
- Introduction of the Single Governance Structure (SGS) for all public healthcare providers (integration of PHA and DPH into a single entity);
- Implementation of national Standards of Care in both the private and public sectors; and
- Enactment of WHO's "Health-In-All Policies" to foster relations with all the other Ministries in Government:- Agriculture, Transportation, Social Services, Housing, Labour, National Security, Telecommunication, Ministry of Works, Tourism, Education and Finance to ensure that new policies take into account the impact of each new policy on the effective delivery of healthcare to the population.

Against this backdrop, The National Health Insurance Bill (2016) was passed in the House of Assembly in August, 2016. The Act makes provisions to implement a National Health Insurance Plan, to establish a National Health Insurance authority, and to establish a National Health Insurance fund. Taken together, the Bill will ensure that all legal Bahamian residents – no matter your income, age, island of residence or current health status can receive healthcare free of cost at point of service. Currently, approximately 70% of Bahamians do not have health insurance, meaning they may have to pay for health services out of their own pockets. With the average Bahamian household paying approximately $2,300 per year out of pocket on healthcare, this something many people simply cannot afford.

The National Health Insurance Authority (NHIA) will be established to oversee implementation of NHI Bahamas.

Other Enabling Policies Specific to NCDs:
• The Health Services Act, 1914
• Agriculture and Fisheries Act, 1963
• National Insurance Act, 1972 (Amendment 2010)
• Health Services (Tobacco Advertising and Sales) Rules, 1976
• National Insurance (Chronic Diseases Prescription Drug Fund) Act, 2009
• The Trade Marks Rule/Act, 2015
• Tobacco Control Bill, Drafted 2014
• The Excise Act, 2103 (Amendment 2016)
• The Healthy Bahamas Coalition, 2016

Box 2:
Legislation with NCD components

Enabling Policies

[26] *http://www.nhibahamas.gov.bs/understanding-nhi-bahamas/*
[27] *Budget Debate Contribution 2015/16 by Dr. Gomez. Accessed from http://myplp.org/2015/06/12/gomez-universal-healthcare-will-come-to-our-bahamaland/ on January 15, 2016*

Multisectoral Plan of Action
(2017-2022)

Goal/Outcome
The ultimate goal is to achieve a 10% relative reduction in preventable premature deaths due to NCDs in the Bahamas by 2022.

Objectives

1. To strengthen coordination and management of NCD prevention and control;
2. To promote integration of NCD prevention policies, frameworks and actions through multisectoral approaches;
3. To reduce risk factors (tobacco use, harmful use of alcohol, physical inactivity, unhealthy eating, obesity) and promote healthy and active living for health and well-being through life course approach;
4. To strengthen the health system at all levels in public and private sectors which improves access to quality health services and financial risk protection; and
5. To improve the quality and breadth of NCD and risk factor surveillance system and strengthen operational research for Planning, monitoring, and evaluation of NCD-related policies and programs.

Strategic Lines of Action

In consideration of challenges and gaps identified in the area of NCD prevention and control in the Bahamas, the broad strategies were discussed and agreed upon in line with the PAHO Regional Plan of Action for the Prevention and Control of NCDs. The key strategic lines of action identified for tackling NCD prevention and control in the Bahamas are:

1. High level political commitment translating into actions:
   Attain heighten political commitment for NCD prevention and control through shared values and responsibilities; foster inter and intra Ministerial communications; and strengthened monitoring and evaluation mechanisms for implementation of international commitments in a timely manner.

2. Governance for NCD at the community level, including building alliances and networks, and fostering citizen empowerment: Engage and empower citizens and civil society to tackle national health crisis

3. Health in All Policies to build healthy and smart environment:
   Sensitize and build capacity for all Ministries to include health related issues in their national policies to create healthy and smart environment; enforce laws for health and/or, implement effective fiscal measures to reduce risk factors

4. National surveillance, monitoring and evaluation, and research:
   Strengthen country capacity for surveillance and research on NCDs, related risk factors, and their determinants, and utilize the results of research to support evidence-based policy, academic programs, and program development and implementation (improving health system, educating citizens)

5. Reorienting health services further towards prevention and care of chronic diseases: Improve coverage, equitable access, and quality of care for the four main NCDs (cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases), mental health and others of national priority, with emphasis on primary health care that includes prevention and strengthened self-management support.

RESULTS FRAMEWORK

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
Outcome	Achieve a 10% relative reduction in the mortality from major NCDs (cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases) by 2022	A 10% relative reduction of premature mortality due to NCDs by 2022	• Registrar General Office • CMO Report • PAHO/CARPHA NCD Minimum data set Report	Resource mobilization is a shared value Commitments are made for the strengthening of enabling environments MOH will All sectors recognize their role in addressing NCDs Conduct national periodic health surveys
Line of Action 1 High level political commitment translating into actions	• Agreed International Commitment(s) shared and implemented within a specific time framework	• # of International signed Declarations, Treaties, and Resolutions etc. implemented (e.g. FCTC, GMF, Post 2020 Agenda for SDG, CCH IV, Political Declaration for NCDs, POS Declaration etc.) • Current baseline total health expenditure for health promotion and disease prevention determined • At least 30% increase above baseline of total health expenditure allocated for health pro-	• Universal Health Coverage Laws enforced • Tobacco Control Act enacted • Convention Secretariat FCTC Report (Global Status Report for Tobacco Control) • WHO Global Status Report for NCDs	• Cabinet will endorse legislations and Parliament will enact the bills • NCDs are elevated on the national priority agenda • Advocacy for NCD prevention and control stems from the political domain • Capacity exists to ensure estimations for NCD prevention and control expendi-

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
		motion and disease prevention and control programmes and initiatives		tures
Line of Action 2 Governance for NCD at the community level and empowerment of civil society	• Citizens engaged and civil society empowered to tackle national health crisis (NCDs and risk factors)	• Needs assessment conducted and criteria and TORs developed for community leaders • Guidelines and Standards for community-based programs developed and operationalized supported by HBC • At least 1 active champion per community trained and in place • Number of costed community-based programs • Number of activities conducted related to NCD prevention and control in each community	• HBC Annual Report • # of LOA and/or MOU exchanged with civil and cooperate society •	• Appropriate budget allocated for specific community-based civil society activities • Government agreement for subventions to such programs • NGO and corporate Bahamas financially supports such community based programs

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
Line of Action 3 Health in All Policies to build healthy and smart environment	• Healthy and smart environment available for all citizen in the Bahamas	• At least 3 sectors outside of health sector collaborate in the development and implementation of the multisectoral policies • Shared-budget for implementation of multispectral policies provided from various sectors • A mechanism for regular reporting from non-state sectors to the Ministry of Health established • At least one HiAP workshop conducted before 2022	• Enacted national legislations, policies, regulations • Annual report of HBC •	• Key Ministries and civil society work together to develop Health in All Policies • Civil society will support development and implementation of HiAP to create healthy and smart environment • HiAP workshop is supported and attended by various ministries and agencies
Line of Action 4 National surveillance, monitoring and evalu-	Sustainable and quality assured surveillance system developed and	• High-quality, national mortality data for the 4 main NCDs	• Annual report of PAHO/CARPHA NCD Minimum Data Set	MOH will establish systematic data collection mechanism (surveil-

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
ation, and research	research for timely and effective policy and programme development conducted	collected • Annual reports with analysis on NCDs and risk factors produced and disseminated • At least one nationally representative population survey by 2022 conducted • Information system to report on dietary patterns, and overweight and obesity of a nationally representative sample of pregnant women and school-aged children and adolescents, every 2-3 years established • Research agendas that include operational research studies on NCDs and risk factors for strength-	• STEPS Survey • DOS Annual Report • Compilation and dissemination of CMOs Report to relevant stakeholders • Implementation of national cancer registry	lance, survey) on mortality and morbidity due to NCDs. The existence of an agreement to Data Sharing Policy for NCDs between the MOH and the private health sector Adequate human and financial resource will be allocated for national surveillance. National Health Research Council becomes operational and specifies NCDs as an area of research interest/focus

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
		ening evidence-based policies, program development set		
Line of Action 5 Reorienting health services further towards prevention and care of chronic diseases	• Sustainable health system response to prevent and control NCDs across all age groups	• National adoption model of integrated management for NCDs scaled up (e.g. Chronic Care Model) • List of cost-effective essential medicines for NCDs updated and available • At least 52% of patients with hypertension and diabetes controlled • 75% of NCDs clients managed according to the integrated model • A 10% relative reduction in age-standardized prevalence of raised blood pressure	• Assessment of Chronic Illness (ACIC) Report • A revised edition of essential medication list • Annual report of # o screenings for cancers prepared • Protocols for periodic health check-ups, timely detection of risks and threats, and the treatment of health problems • Report of clinical data addressing older persons • Research conducted on service delivery and perception of	• National NCDs protocols reviewed, updated, aligned with NHI guidelines and ratified. • An integrated management of NCD prevention and Control in place, defined by a Plan and solidified by agreements from relevant agencies • Commitment from Cabinet for appropriate budget for NCD prevention and control secured • Stakeholders (NGOs, FBOs, private sectors) supported and "Buy-in" interventions for NCD prevention and

Level	Objectives (What to achieve)	Indicators/Target (Measuring change)	Means of Verification (Where & How to get information)	Critical Assumption (Be aware of)
		• A 5 % relative reduction in age-standardized prevalence of raised blood glucose/diabetes • A 80% of women (aged 30-49) received cervical cancer screening in the last 3 years • At least 80% of women (aged 40-69) received breast cancer screening • At least 50% of NHI providers having primary health care services incorporating family-oriented obesity prevention activities including healthy eating and physical activity • A national hospital certified (accredited) BFHI by 2022 • Strategy to optimize services for older adults in PHC developed • Prevention and control of chronic diseases and other health problems of older persons improved	care in older population	control • A mechanism for data collection at PHC and hospitals and reporting established • MOH developed National Guidelines and Protocol for cancer screening and management of risk factors for NCDs, which are accepted and ratified by private sector partners

Activity Plan
Strategic Line of Action 1:
High level political commitment translating into actions

Strategies	Activities	Performance Indicators
Advocacy	Sensitization and lobby for NCD prevention and control to remain a national priority to the Cabinet Members	• Policy and Multisectoral Action Plan approved and budget allocated • Passage of UHC and FCTC legislations
	Sensitization for civil society about important role and responsibilities of civil society to support political commitment translating into actions	• # of sensitization, national campaigns, awareness conducted
Build capacity for technical units inter-intra Ministries	Strengthen capacity of technical staff to implement the Multisectoral Action Plan for NCD Prevention and Control and International Commitments (e.g. FCTC, GMF, SDG etc.)	• Specific roles, responsibilities and tasks for implementation of Multisectoral Action Plan and International Commitments identified, defined and ratified. • # of training conducted
Routine monitoring and evaluation	Assess national capacity, progress made and challenges for prevention and control of NCDs and report to the Cabinet Members and society/citizens	• WHO Assessment Report of National Capacity for NCDs by every 2 years • Progress report (M&E) for implementation of agreed International Commitments disseminated to Cabinet and wider stakeholder group

Strategic Line of Action 2:
Governance for NCD, including building alliances and networks, and fostering citizen empowerment

Strategies	Activities	Performance Indicators
Engagement & Networking	Conduct Stakeholder meetings with various sectors for "buy-in", engagement and partnership for implementation of the programme	• Assessment of stakeholders conducted • # of signed MOU/LOA exchanged between the MOH and different partners
	Develop guidelines and standards for community-based programs and operationalize	• guidelines and standards developed by the HBC
	Conduct dialogue with other Ministries, private sectors, NGOs, FBOs in understanding policies/ action Plan, and developing joint programmes for implementation	• Policy and Plan of Action widely disseminated and discussed
Empowerment	Conduct capacity building for communities (NGOs, FBOs etc.)	• # of capacity training conducted • At least 1 active champion per community trained and in place • # of community programs or workshops done
	Revitalize the Healthy Bahamas Coalition with clear understanding of Terms of Reference to coordinate response to NCDs via multisectoral approach	• # of capacity training provided for the HBC Members • Terms of Reference reviewed and revised based on needs assessment

Strategic Line of Action 3:
Health in All Policies to build healthy and smart environment

Strategies	Activities	Performance Indicators
Advocacy	Sensitize the Government and civil society for share the values of "Health-in-All Policies" and its implementation via "Whole-of-Government" and "Whole-of-Society" approaches	• # of sensitization, awareness, public education conducted • Collaborate with at least 3 sectors outside of health sector in development and implementation of the multisectoral policies
	Conduct sensitization and public awareness for **alcohol**-attributable burden and reduce the harmful use of alcohol and tobacco use particularly youth and adolescents	• Budget allocated for alcohol reduction awareness activities • # of sensitization, public awareness and education conducted
	Lobbying for increasing taxes on alcohol, tobacco, SSB, EDNPP and increase subsidy for fresh fruits and vegetables	• Taxes increased and tax revenue utilized for subsidy for locally grown organic produce
	Conduct national campaign, awareness and public education for prevention and control of **obesity** (particularly focused on childhood obesity) including healthy diets and physical activity	• # of educational campaigns conducted and assessed
	Conduct sensitization and public education for **salt reduction**	• # of sensitization, educational campaigns conducted and assessed
	Conduct community-based but nation-wide Awareness Week for Healthy Living (Caribbean Wellness Day, Health & Wellness Week etc.)	• # of partners beyond health sector engaged • # of community-based activities and impact assessed
	Develop effective Communication Strategies for specific target groups to effectively address reduction of risk factors	• Communication Strategies, packages, slogans, messages developed • Make a "Brand" of such communications via social marketing approaches
Strengthen legislative framework and support	Implement WHO FCTC (particularly protect people from tobacco smoke, health and danger warning on package, banning tobacco advertisement and fiscal measures)	• Tobacco Control Legislation enacted, implemented and enforced
	Analyze the existing legislations/policies/regulations and adapt, adopt and amend as necessary to improve protective environment from risk factors exposure	• Various legislations/policies/regulations reviewed and amended (such as alcohol legislation) • Enforcement of such legislations, regulations strengthened
	Develop and implement a National School Health Policy and Action Plan in line with WHO Health Promoting School via multisectoral approaches	• National School Health Policy adopted • # of schools joined WHO Health Promoting Schools
	Adapt CROSQ CARICOM Standard on food labelling and develop front-of-package labelling system to assure quality of foods	• The Bahamas adapted CARICOM Standard

Strategies	Activities	Performance Indicators
	Disseminate approved National Food Nutrition Security Policy (draft) and FBDG widely for improving healthy diets and healthy choices	• National Food Nutrition Security Policy enacted ad implemented • #of educational training conducted using FBDG
Reduce risk factors and strengthen protective factors via cost-effective interventions	Analyze available data on breast feeding, identify the gaps and develop action Plan for strengthening exclusive breast feeding	• Report prepared and at least 50 % of mothers exclusive breast feeding
	Incorporate recommendations for strengthening school feeding programs for prevention and control of diet-related diseases	• Monitoring and evaluation conducted on school feeding programs
	Implement Child Friendly School Initiative to prevent and reduce obesity to protect children from marketing of foods and non- alcoholic beverages high in saturated fats, trans fatty acids, free sugars	• At least 50% of schools joined and implemented the initiative
	Develop and implement cost-effective interventions on salt reduction (at population level) by using WHO Tool Kit for salt reduction	• Cost-effective interventions at school implemented, monitored and evaluated • # of public and school education and training conducted on understanding food labeling and best utilization of FBDG • National salt targets for selected food categories identified • Use of salt, saturated fat and sugar reduced • # of School Cafeteria Meals reviewed and reformed for reduction of salt intake
	Conduct baseline study for intake (consumption) of salt	• Baseline data on intake of salt collected • Household Consumption Survey on salt conducted • A 5% relative reduction of salt consumption in population by 2022 • Report on KAP Changes in targeted populations
	Implement Healthy Workplaces	• At least 50% of increase in the # of workplaces with healthy food choices, wellness programmes including risk factor assessment for NCDs
	Implement school programmes that include at least 30 minutes a day of moderate to intense physical activity.	• At least 70% of schools have implemented
	Create a mechanism for safe public transportation, pedestrian groups, and scale up open spaces (safe recreational spaces) for physical activity in the community	• # of groups established for safe road walk • # of recreational spaces scaled up
	Analyze available data on breast feeding, identify the gaps and develop action Plan for strengthening exclusive breast feeding	• Report prepared and at least 50 % of mothers exclusive breast feeding
	Incorporate recommendations for strengthening school feeding programs for prevention and control of diet-related diseases	• Monitoring and evaluation conducted on school feeding programs

Strategic Line of Action 4:
National surveillance, monitoring and evaluation, and research:

Strategies	Activities	Performance Indicators
Strengthen sustainable NCDs surveillance system	Conduct assessment for capacity of surveillance for health system and maintain an efficient surveillance system in NCD components	Assessment report produced
	Provide training for health professionals to collect and report quality data routinely.	# of training sessions conducted
	Conduct training and implement National Population-Based Survey (PAHO STEPS, Mini-STEPS etc.)	# of training sessions conducted, resources secured and survey implemented
	Secure appropriate budget allocation for establishment of sustainable surveillance system for NCDs and monitoring risk factors	Budget allocated for surveillance on NCDs and risk factors through resource mobilization
	Conduct assessment for capacity of surveillance for health system and maintain an efficient surveillance system in NCD components	Assessment report produced
	Provide training for health professionals to collect and report quality data routinely.	# of training sessions conducted
	Implement National Population-Based Survey (PAHO STEPS, Mini-STEPS etc.)	# of surveys implemented
	Secure appropriate budget allocation for establishment of sustainable surveillance system for NCDs and monitoring risk factors	Budget allocated for surveillance on NCDs and risk factors through resource mobilization
Best utilization of collected data for Planning, monitoring and evaluation of NCD-related policies and programs	Produce and disseminate regular reports with analysis on NCDs and risk factors	Annual report produced
	Policy dialogues with relevant stakeholders based on patterns in data	Support from various sectors such as academia to strengthen surveillance system secured and develop policy brief
	Develop and implement operational research for effective policy development	Research agenda published on relevant government/committee websites, with noted priority areas to include NCDs
	Monitor trends and evaluate program implementation to measure the performance	M&E Report
Advocacy	Conduct national sensitization, public education and policy brief for development of effective policies, programme and improving health systems for NCD prevention and control	• Policy briefs developed using data produced • Communication strategy developed • # of national sensitization, advocacy, public education conducted
		•
		•

Strategic Line of Action 5:
Reorienting health services further towards prevention and care of chronic diseases:

Strategies	Activities	Performance Indicators
Strengthen health system response to NCDs and risk factors at all levels	Conduct an overall assessment of PHC services to identify gaps, needs and opportunities for integrated management of NCDs	• Assessment report by using PCAT or similar tools
	Scale up health system to improve quality of care for people living with chronic diseases at all levels of health services	• Chronic Care Model adapted and implemented • Chronic Illness Care Assessment Conducted • In-country audit conducted for quality of care and patients' satisfaction
	Implement prevention programme for overweight/obesity including children and adolescents through healthy diets, physical activity and exclusive breast feeding	• At least 5 government or civil society agencies with family-oriented, whole-of-society obesity prevention activities
	Improve accessibility and availability of the optimize services which meet older people's needs (chronic diseases and other health problems of older persons	• Accessibility and availability of the services for older persons improved
	Adapt and implement available Clinical Guidelines/Protocols (Caribbean Guidelines) on NCDs	• Compliance of following Guidelines assessed • Guidelines and protocols for referral, discharge, feed- back and follow-up developed and in use • Risk Assessment for Cardiovascular Diseases conducted at all PHC
Empower Community	Provide health education and promotion for all and counselling for patients with NCDs and their family with healthy lifestyle education increasing self-efficacy and self-management skills	• # of workshops for PAHO/Stanford Chronic Disease Self-Management Programme conducted • Pre and Post (comparison study) KAPB Study conducted
	Promote timely and specific medical interventions (patients and providers) for management and care for NCDs	• At least 75% of patients with CVDs and DM received effective drug therapy and counselling
	Improve patients adherence to medications, follow-up care through health education	• CCP being utilized and patient record updated
Scale up health professionals skills and motivation	Provide continued training for health professionals to effectively deal with NCD prevention and control	• # of health professionals received training
	Prepare a Plan for Accreditation of the BFHI and provide capacity training for health professionals	• A Plan for Accreditation of the BFHI developed • # of training conducted for health professionals
	Provide incentives and motivational packages for health care providers	• Packages developed and approved in conjunction with NHIA

Limitations and Constraints

The following limitations and constraints were noted and experienced during the devel- opmen-tal stages of this Plan and throughout meetings with multi-sectoral stakeholders;

1. Lack of shared values and goals related to NCDs between the health and non- health sectors;
2. Insufficient recognition of NCDs as a whole-of-society issue and not just a health issue with impact on human, economic and social development;
3. Insufficient dedicated national financial commitment and resources (including human resources) for NCD prevention and control;
4. Lack of a robust national priority setting, collaboration and coordination for NCD prevention and control with all sectors inclusive of Government
5. Insufficient and imbalanced resource mobilization; and
6. Lack of a formalized data transfer/sharing policy allowing for there to be a national centralized repository for NCD related data reflecting inputs from all sectors, both public and private.

References

Ahmedani, B. (2011). Mental health stigma: society, individuals, and the profession. Journal of Social Work Values & Ethics, 8 (2).

Australian Governement Productivity Commission. (2010). The effects of education and health on wages and productivity. Melbourne: Media and Publications.

Bethell, K., & Allen, D. (2013). The task force report on suicides in the Bahamas (2008- 2013). Nassau, The Bahamas: The Allen Institute for Research & Training.

Bloom, D.E., Cafiero, E.T., Jané-Llopis, E., Abrahams-Gessel, S., Bloom, L.R., Fathima, S., ... Weinstein, C. (2011). The global economic burden of noncommunicable dis- eases. Geneva: World Economic Forum

Caribbean Community Secretariat. (2011). Strategic Plan for the prevention and control of non-communicable diseases for countries of the caribbean community (2011- 2015). Washington, D. C.: Pan American Health Organization.

Dunstan, D. W., Barr, E. L. M., Healy, G. N., Salmon, J., Shaw, J. E., Balkau, B., Magliano, D. J... Owen, N. (2010, January 26). Television viewing time and mortality. Circula- tion, 121 (3).

Fuki, T., & Iwamoto, Y. (2003, February). Medical Spending and the Health Outcome of the Japanese Population. Retrieved from http: // www.esri.go.jp/jp/prj/int_prj/prj-rc/macro/macro14/08hitotsubashi_t1.pd

Health Information Research Uunit. (2014). STEPS 2012 factsheet. Nassau, The Bahamas: Ministry of Health.

Hosepedales, C. J., Barcelo, A., Lucaini, S., Legetic, B., Ordunez, P., & Blano, A. (2012). NCD prevention and control in Latin America and the Caribbean. Geneva: World Heart Federation.
Laplagne, P., Glover, M. & Shomos, A. (2007, May). Effects of Health and Education on Labour Force Participation, Staff Working Paper, Melbourne. Productivity Com- mission.

Murray, CL, & Lopez, AD. (1997). Global mortality, disability and the contribution of risk factors: global burden of disease study. Lancet, 349, 1436-42.

PAHO. (2011). Advancing the NCD Agenda in the Caribbean. Washington, D.C.: PAHO. Policy and Planning Unit. (2015). mhGap pilot final evaluation report. Nassau: The Bahamas: Public Hospitals Authority (Unpublished).

Policy & Planning Unit. (2013). Suicides in The Bahamas: A situational analysis. Nassau: The Bahamas: Public Hospitals Authority (Unpublished).

Pinder, E. (2014). Specification and costing of services for inclusion in The Bahamas'NHI benefit package. Nassau: Sanigest Internacional.
Prince, M., Patel, V Saxena, S., Maj, M., Maselko, J., Phillips, M. R. & Rahman, A., (2007). No health without mental health. Lancet, 370:859-877.

Robinson, H. M. & Hort, K. (2012, April). Non communicable diseases and health sys- tems re-form in low and middle income countries. Pacific health dialog, 18 (1), 179 -90.

Sammartino F. J. (1987, February). The effect on health retirement. Social Security Bulletin, 50 (2), 31-47

Samuels, T. A., Kirton, J., & Guebert, J. (2014). Monitoring compliance with high-level commit-ment in health: The case of the CARICOM summit on chronic non- communicable diseases. Bulletin World Health Organization, 92 (270-276b). doi:http://dx.doi.org/10:2471/BLT.13.126128

State of the Nation Report (2016). Vision 2040: National development Plan of the Bahamas: a summary report. Nassau, The Bahamas: Government of The Bahamas

Statistics Unit. (2014). Community counselling & assessment centre workload statistics: 2009-2013. Nassau, The Bahamas: Public Hospital Authority (Unpublished).

Statistics Unit (2014). SRC leading grouped causes of inpatient morbidity: 2010 – 2015, Nassau, The Bahamas: Public Hospitals Authority (Unpublished)

Tuft, H. S. (1975). The impact of poor health on earnings. The Review of Economics & Statistics, 57, 43-57.

World Health Organization. (2001). Mental health: New understanding, new hope. Ge- neva: WHO

World Health Organization. (2007). Integrating Mental into Primary Health Care. Gene- va: WHO

World Health Organization. (2008a). The Global Burden of Disease: 2004 Update.

World Health Organization. (2008b). Mental health gap action programme (mh gap): scaling up care for mental, neurological and substance use disorders. Geneva: WHO

World Health Organization. (2011). Global status report on non-communicable diseases, 2010. Geneva: WHO

WHO Regional Office for Europe. (2012). Action Plan for the implementation of the european strategy for the prevention and control of noncommunicable diseases (2012 - 2016). Denmark: WHO Regional Office for Europe.

World Health Organization. (2013). WHO global action Plan for the prevention and control of non-communicable diseases (2013-2020). Geneva: WHO Press.

Annexes

Annex I: National Programmes and Selected Initiatives Related to Health Promotion

Programs	Description/Scope of Service/Programme
Primary Care (DPH Clinics and Centers)	Preventative Care, Treatment, Monitoring, Evaluation and Referral
Discharge Planning (Hospital Liaison)	Follow-up care after hospital discharge, referral for continuity of services via Poly Clinic
Adolescent Health Programme	Screen, treatment and refer for NCD's
Health Information Unit	Research and data analysis along with distribution of information relevant to NCDs
Nutrition Unit	Consultation, referrals, preventative treatment, and education
School Health	Screening, monitoring, and educating the school-aged population and referrals of identified high risk students
Maternal and Child Health	Screening, monitoring, treatment, follow-up care and referrals
CNCD Programme	Monitor, evaluate the management of NCD's in the public health care system
Healthy Lifestyle Programme	Screening, referrals and educational arm for the general population including corporate entities, government agencies, civic groupings etc
Dental Services	Screening, assessments, treatment and educating on the importance of oral health
Mental Health Gap	Management, Treatment, Referral and Follow-up
Men's Health	Screening, education, and referrals geared toward the male population
Social Services	Financial, food assistance and other assistance. Referrals and networking
Private Physicians	Render service, donate screening items
Faith-based Organizations	Health fairs, screening, monitoring and evaluation, cooking classes
Private gyms	Donate items, time and partners with public sector initiatives
Private pharmacies	Discount on items
Salt Reduction Campaign	A televised series sponsored by MOH and PAHO
CYCLOVIA	Cyclovia by definition is the closure of major roadways to allow for the creation of safe spaces for engaging in physical activity as groups, families and communities. Cyclovia was a public health sector initiative executed twice during 2014/2015 period.

Ask The Doctor	Public sector initiative that is interactive with the public. The Physician answers questions from the community that were received via an electronic platform
Doctor's Hospital Health Tip	30 second health tip that is aired every evening after the national news on NB12
PHA Minute	30 second health tip that is aired every evening after the national news on ZNS
Caribbean Wellness Week	Annual event to encourage a more active and healthy lifestyle
NCD Symposium	Three-day multi-sectoral symposium facilitated in 2014 by MoH and PAHO. The objective was to highlight the collaborative effort required to tackle NCDs; and to devise approaches for the Bahamian context. PAHO has the report from this symposium.
Dialysis Support Groups	
Six Weeks To Wellness	Seventh Day Adventist initiative geared towards achieving wellness through rethinking our foods and daily activities
Healthy Bahamas Coalition	
National Prescription Drug Plan	A financial mechanism introduced by the Government of The Bahamas to improve access to and remove point-of-care costs for prescription drugs and medical supplies for selected chronic diseases The number of diseases covered was expanded in March 2012, and currently includes: Arthritis, Asthma, Benign Prostate Hypertrophy, Breast Cancer, Diabetes, Epilepsy, Glaucoma, High Cholesterol, Hypertension, Ischaemic Disease, Prostate Cancer, Psychiatric Illness, Sickle Cell Anaemia and Thyroid Disease.
Garden-Based Learning Programme Pilot	A Ministry of Education driven pilot. The Pilot sought to integrate nutrition education in all subject areas along with starting a garden. Done in NP, GB and Andros for a total of 9 schools. Pilot was never fully implemented.
School Lunch Programme	Has two components:- 1. School Vending – lunch is made available to all students within the public school setting at a fee 2. School Feeding – focuses on providing breakfast and lunch meals to children whose families qualify for

	Government social services assistance. There is an attempt to consolidate both to reduce wastage and remove stigmatization.
Virgin Pulse Programme	Atlantic Medical sponsors this workplace wellness programme
Healthy School Initiative	Inconsistent attempts to implement this over the years.
Renal Health Initiative	The objective of the Renal Health Initiative is to provide a standardized practice through introducing a protocol and algorithm for screening of adverse kidney states among the clients seeking care in public community health facilities; and a mechanism for referring those meeting the set criteria to secondary and tertiary care.
BahamaHealth Run-Dirty	Run Dirty is an innovative private sector wellness initiative and a fun endurance event that is certain to become a mainstay in the Bahamas.
The Biggest Loser	A private sector sponsored reality TV series which challenged employees to healthy choices regarding food intake, daily exercise and weight management.

Annex II: Regional and Global Mandates

Only The Bahamas, Jamaica, Montserrat and St. Lucia have enacted legislation specifically referring to obesity, diabetes and cardiovascular diseases in the English Speaking Caribbean. For example; the National Insurance (Chronic Diseases Prescription Drug Fund) Act, 2009 of the Bahamas; the National Health Fund Act 2003 – 23 of Jamaica; the Public Health Act (Chapter 14:01) of Montserrat; and the Public Hospitals (Management) Act (Chapter 11:03) of St. Lucia. Some legislation in other countries may be considered as providing the framework within which action may be taken relating to the prevention and control of obesity, diabetes and cardiovascular diseases."

REGIONAL EFFORTS

Organizations within the English-speaking Caribbean play a crucial role in formulating NCD prevention and control policies of non-communicable diseases in the various countries and territories. They are the Caribbean Public Health Agency (CARPHA), the Caribbean Agricultural Research Institute (CARDI), The Caribbean Food and Nutrition Institute (CFNI), The Caribbean Cooperation for Health Initiative (CCH), the Caribbean Health Research Council (CHRC), the Caribbean Commission on Health and Development (CCHD), and the regional headquarters of the Pan American Health Organization for the Caribbean region (CCPC PAHO/WHO).

CARPHA and PAHO/WHO provide a joint Secretariat with responsibility for the revision of the Regional Plan for the Prevention and Control of Non-Communicable Diseases and for the monitoring and evaluation of the Port-of-Spain Declaration. PAHO acting through CAREC and CARICOM is coordinating a project in the area of public health and policy coordination, concerned with a Caribbean Regional Non-Communicable Diseases (NCD) Surveillance System. Beneficiaries are Jamaica, Barbados, The Bahamas, Trinidad & Tobago, Guyana and Belize. The Project aims to achieve improvements in the counties' capacity to deliver cost-effective health services associated with the major causes of morbidity and mortality.

GLOBAL EFFORTS

- UN HIGH LEVEL SUMMIT ON NCD'S (September 2011): NCD ALLIANCE PLAN https://ncdalliance.org/sites/default/files/rfiles/NCD%20Alliance%20Plan_web.pdf

- THE GLOBAL STRATEGY TO REDUCE THE HARMFUL USE OF ALCOHOL http://www.who.int/substance_abuse/msbalcstrategy.pdf

- FIRST MINISTERIAL CONFERENCE ON HEALTHY LIFESTYLE AND NCDs COMMIT-MENT TO ACTION http://www.un.org/en/ga/president/65/issues/moscow_declaration_en.pdf

- WHO 2008-2013 ACTION PLAN FOR THE GLOBAL STRATEGY FOR THE PREVEN-TION AND CONTROL OF NON-COMMUNICABLE DISEASES A61/8, April 2008

- PAHO STRATEGIC LINES OF ACTION FOR 2013-2019 ON PREVENTION AND CONTROL NON-COMMUNICABLE DISEASES http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=21348&lang=en

- REGIONAL FRAMEWORK FOR NCD PREVRNTION AND CONTROL
  http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=21349&lang=en

- PLAN OF ACTION FOR THE PREVENTION AND CONTROL OF NON-COMMUNICABLE DISEASES IN THE AMERICAS 2013-2019
  http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=27517&lang=en

ANNEX III: Membership of the NCD Technical Working Work (TWG)

NAME	INSTITUTION	TYPE
Dr. Cherita Moxey	MoH, TWG Chair	Governmental Agency
Mrs. Camille Nairn	MoH	Governmental Agency
Dr. Sabriquet Pinder-Butler	MOH	Governmental Agency
Dr. Monique Mitchell	MoH	Governmental Agency
Dr. Delon Brennen, DCMO	NHI Secretariat	Governmental Agency
Dr. Victoria Kelly	NHI Secretariat	Governmental Agency
Dr. Keva Thompson	PHA	Governmental Agency
Mrs. Astacia Brice	PHA	Governmental Agency
Dr. Carnille Farquharson	Bahamas Association of Primary Healthcare Physicians	Governmental Agency
Mrs. Andrea Linden, Nurse	DPH	Governmental Agency
Dr. Olive Rolle, Nurse	DPH	Governmental Agency
Ms. Camelta Barnes	Nutrition Unit	Governmental Agency
Mrs. Marcia Munnings	HBC Secretariat	Governmental Agency
Dr. Yasmin Williams Robinson	Walk-in Clinic	Private Sector
Miss. Ashley Cadman,Consultant	PAHO CO	NGO

ANNEX IV: Agenda for Stakeholders' Forum

Days 1 thru 3 were intense technical sessions with Dr. Tomo Kanda.

DAY FOUR AGENDA		
8:30am	Registration	
9:00am	Prayer	Mrs. Andrea Linden
9:05am	Welcome and Introductions	Ms. Camelta Barnes
9:15am	Meeting Objectives Expected Outcomes Methodologies	Dr. Cherita Moxey
9:20am	NCD Situation Analysis in The Bahamas	Dr. Cherita Moxey
9:25am	Childhood Obesity	Dr. Delon Brennen
9:35am	Discussion	Dr. Victoria Bethel-Kelly
9:45am	NCD Video	
10:00am	**BREAK & GROUP PHOTO**	
10:30am	WHO/PAHO Perspective on NCD Prevention & Control	Dr. Tomo Kanda
10:45am	Introduction of The Bahamas' Draft Multi-Sectoral Action Plan (2017 – 2022)	Dr. Tomo Kanda
11:15am	Discussion	Dr. Victoria Bethel-Kelly
12:00am	**LUNCH**	
1:00pm	Working Group S/H Analysis & Capacity (Annex 1 – 2)	Facilitators
3:00pm	Plenary (Group Presentations)	Dr. Tomo Kanda
4:00pm	Wrap-up and Close	

ANNEX V: Stakeholders Represented at the NCD Plan Five-Day Forum

Name	Organization
Amelia Schurton	Ministry of Works
Andrea Linden	CNCD Programme
Angela Albury	AG & Marine Resources
Ashley Cadman	PAHO
Astacia Brice	PHA Corporate Office
Beatrice Hield	Sandilands Rehabilitation Center
Bibi Clare	Ministry of Health
Brian Beneby	Water & Sewerage corporation
Brickell Pinder	Ministry of Agriculture & MR
Calae Philippe	Ministry of Health
Camille Nairn	Health Information & Research Unit
Carnille Farquharson	The Bahamas Primary Care Physicians Association
Carol Johnson	Min. of Works
Carol Johnson	Ministry of Social Services
Chena Scott	The Bahamas Pharmacy Council
Cherita Moxey	Ministry of Health
Danny Davis	College of The Bahamas
Dermie C. Smith	Sandilands Rehabilitation Center
Dion Hepburn	College of The Bahamas
Dorcena Nixon Rolle	Doctors Hospital
Elechicmae Roberts	Water & Sewerage Corporation
Garnell Ritchie	Doctors Hospital
Gustavo Mery	PAHO
Helen Mukiri Smith	Economic Development Planning Unit, Office of Prime Minister
Keith Philippe	BEST Commission

Name	Organization
Amelia Schurton	Ministry of Works
Andrea Linden	CNCD Programme
Angela Albury	AG & Marine Resources
Ashley Cadman	PAHO
Astacia Brice	PHA Corporate Office
Beatrice Hield	Sandilands Rehabilitation Center
Bibi Clare	Ministry of Health
Brian Beneby	Water & Sewerage corporation
Brickell Pinder	Ministry of Agriculture & MR
Calae Philippe	Ministry of Health
Camille Nairn	Health Information & Research Unit
Carnille Farquharson	The Bahamas Primary Care Physicians Association
Carol Johnson	Min. of Works
Carol Johnson	Ministry of Social Services
Chena Scott	The Bahamas Pharmacy Council
Cherita Moxey	Ministry of Health
Danny Davis	College of The Bahamas
Dermie C. Smith	Sandilands Rehabilitation Center
Dion Hepburn	College of The Bahamas
Dorcena Nixon Rolle	Doctors Hospital
Elechicmae Roberts	Water & Sewerage Corporation
Garnell Ritchie	Doctors Hospital
Gustavo Mery	PAHO
Helen Mukiri Smith	Economic Development Planning Unit, Office of Prime Minister
Keith Philippe	BEST Commission

ANNEX VI: Stakeholder Analysis: Summary of Organizations Responsible for the Prevention and Control of NCDs and Risk Factors

Stakeholders	Tobacco	Unhealthy Diet	Harmful Use of Alcohol	Physical Inactivity
Civil Society & NGOs	o	o	o	o
Faith-based Organizations	o	o	o	o
Corporate Bahamas	o	o	o	o
Unions	o	o	o	o
Academic Institute	o	o	o	o
Ministry of Health	o	o	o	o
Public health Sector	o	o	o	o
Private health sector	o	o	o	o
Health Councils and Associations	o	o	o	o
Ministry of Agriculture, Marine Resources and Local Government	o	o	o	o
Ministry of Education, Science and Technology	o	o	o	o
Ministry of Environment and Housing	o	o	o	o
Ministry of Finance	o	o	o	o
Ministry of Financial Services & Investments	o	o	o	o
Ministry of Foreign Affairs and Immigration	o	o	o	o
Office of the Governor-General	o	o	o	o
Ministry of Grand Bahama	o	o	o	o
Ministry of Housing	o	o	o	o
Ministry of Labour and National Insurance	o	o	o	o
Department of Local Government	o	o	o	o
Ministry of National Security	o	o	o	o
Ministry of National Health Insurance	o	o	o	o

Stakeholders	Tobacco	Unhealthy Diet	Harmful Use of Alcohol	Physical Inactivity
Office of the Attorney General & Ministry of Legal Affairs	○	○	○	○
Office of the Prime Minister	○	○	○	○
Ministry of Public Service	○	○	○	○
Ministry of Social Services and Community Development	○	○	○	○
Ministry of Tourism	○	○	○	○
Ministry of Transport and Aviation	○	○	○	○
Ministry of Works and Urban Development	○	○	○	○
Ministry of Youth, Sports and Culture	○	○	○	○
International Organizations PAHO/WHO, UNCEF, FAO, UN Women, WTO, UNFPA, UNDP,CARICOM, CARPHA, JICA, IDB etc.	○	○	○	○

ANNEX VII: Summary of Risk Factor Policy Links with All-of-Society

Diet

	Key Actions	Key Messages
Trade and Industry	• Include nutrition considerations when establishing trade agreements; • Support regulation and food reformulation, replacing saturated fats or trans fats by unsaturated fats; • Set target levels for the amount sodium in the foods that contribute the most salt in the diet; • Implement an interpretive, front-of pack nutrient labelling system	• Strengthening capacity for cross-sectoral coordination and improving governance of policy–making processes are essential to enable and motivate enhanced coherence between trade policy and nutrition action. • The core of any strategy for policy coherence is to agree on common policy objectives aiming to address both trade and nutrition-related challenges in a coordinated and consistent manner. • Setting targets for sodium levels in food was key in 10 out of 12 countries that have so far reported a reduction in population salt intake.
Tax and Revenue	• Implement fiscal measures to increase consumption of healthy foods and beverages and decrease demand of unhealthy foods and beverages, e.g. taxes on sugar sweetened beverages and subsidies on fruits and vegetables. • Introduce taxes to support health promotion, e.g., healthy food and safe drinking water in schools, access to physical activity opportunities	• Appropriately designed fiscal policies, when implemented with other policy actions, have considerable potential for promoting healthier diets. They will also improve weight outcomes and other diet-related risk factors, and will ultimately contribute to the prevention and reduction of the health and economic burden of NCDs. • Vulnerable populations, including low-income consumers, young people, and those at most risk of obesity, are most responsive to changes in the relative prices of foods and beverages. • Sugary drinks contribute to the global rise of overweight and obesity in youth, including 41 million children aged under 5. • 20% tax on sugary drinks can reduce consumption by 20%.

	Key Actions	Key Messages
Education	• Establish a school food policy at all levels to promote healthy eating and physical activity as part of the health promoting schools initiative • Educate children, parents and communities on diet and physical activity through the curriculum and outreach activities • Establish nutrition standards for foods availa-	• Promoting health and nutrition in schools improves attendance, cognition and educational achievement of students

	ble in schools • Ban marketing and advertising of foods high in sugar, fats and salt	
Food Safety Agency **(Food and agriculture)**	• Promote nutrition-sensitive agriculture and the production of nutritious foods, including indigenous foods and conservation of biodiversity • Promote production and access to fruits and vegetables and other fresh food products • Promote community horticulture projects • Set target levels for the amount sodium in the foods that contribute the most salt in the diet • Set nutrition standards for foods delivered in food services	• Healthy nutrition and sustainable production should be taken into account in designing agricultural policies
Urban Planning	• Plan for farmers markets, allotment gardens, urban gardening and easy access to supermarkets and groceries selling fresh foods for home-cooking.	• Appropriately designed communities that allow for green spaces, walking and cycling paths.
Communications	• Implement a mass media campaign promot-	• Public awareness through mass media on

	ing healthy eating • Implement the WHO Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children.	diet and physical activity is a 'best buy' intervention for reducing NCD burden • Reducing exposure and power of marketing of unhealthy foods and beverages to children requires effective government legislation and enforcement mechanisms
Employment	• Implement healthy workplace programmes • Increase availability of healthy foods and beverages in cafeterias or vending machines in line with nutrition standards	• Healthy workplaces have the potential to improve the health status of workers, contribute to a positive and caring image, improve staff morale, reduce staff turnover and absenteeism, enhance productivity and reduce sick leave, health Plan costs and workers 'compensation and disability payments.
Finance	• Increase investments in policies and interventions promoting healthy diets	• Investments in diet and physical activities are cost-effective and small compared to the costs of inaction.
Civil society	• Advocate for the implementation of regulatory policies on making healthy foods available and accessible to protect and promote the health of the population • Monitor and disseminate industry action on food reformulation, nutrition labelling and	• Civil society organizations can act as a powerful voice for change, by influencing political decisions through advocacy, holding government and private sector accountable, and galvanising public support

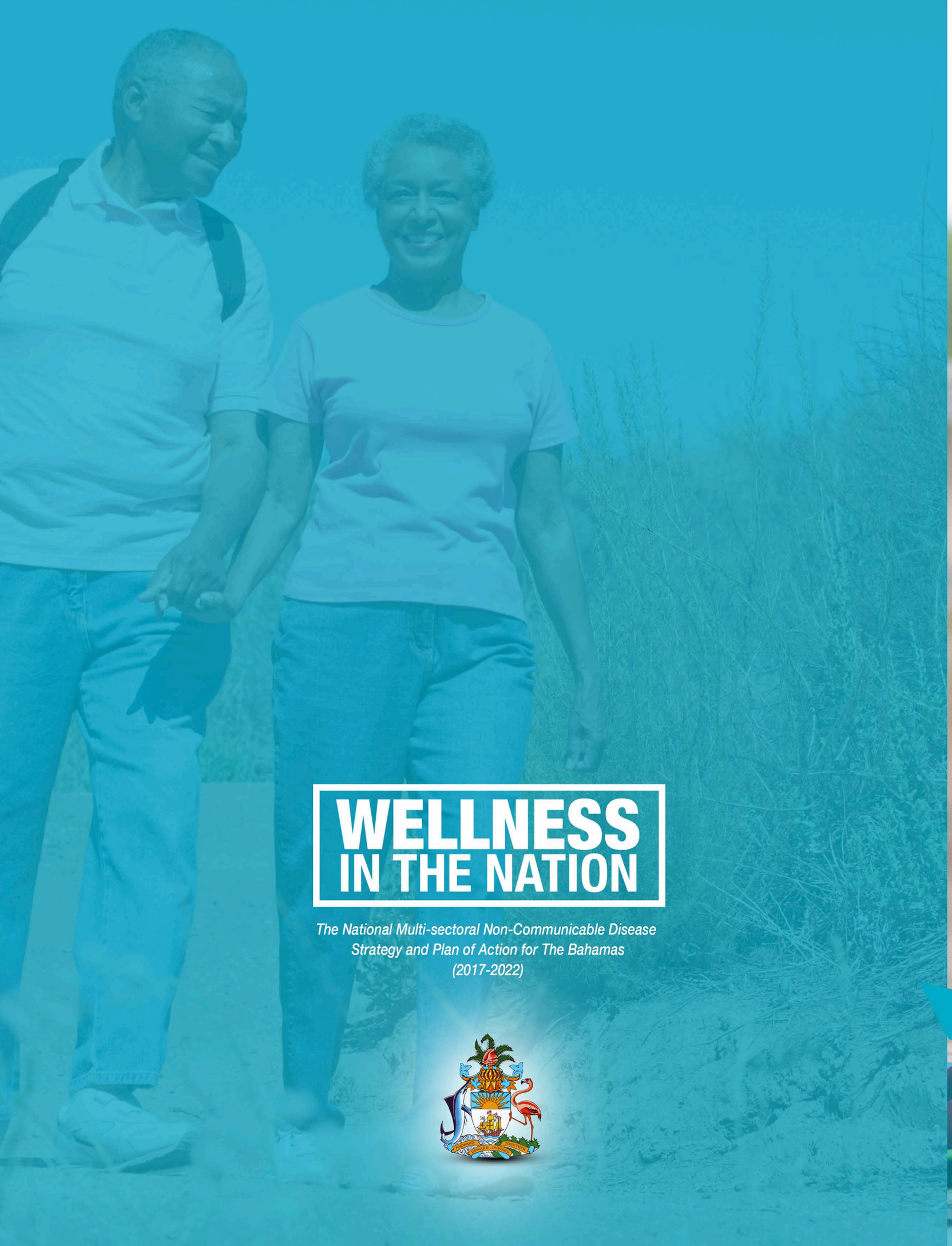
	marketing of foods and non-alcoholic beverages to children	
Executives (Heads of States)	• Mobilize government sectors to enable an adequate whole-of-government and whole-of-society response to address the root-causes of the NCD epidemic.	• A population increasingly suffering from NCDs means decreasing productivity and tax base and increasing demand for health and other social expenditures, and therefore economic losses. NCDs pose a significant threat to development. • Allocating more resources to healthcare will not be sufficient. Strong whole-of-government and whole-of-society action by multiple sectors is needed to effectively address the root causes of NCDs and their inequitable distribution within the population.
Legislators	• Draft regulatory policies and legislation to reduce the accessibility, affordability and marketing and promotion of foods high in sugar, salt and fat.	• Legislators play pivotal role to push for intersectoral action and to hold sectors accountable for results. • Legislators have responsibility and authority to provide the legal and budgetary frameworks for measures to take place.

Physical Activity

	Key Actions	Key Messages
Trade and Industry	• Develop criteria/standards for the importation of food and food products	• Health is everyone's business
Tax and Revenue	• Reduce customs tariffs on sports equipment • Introduce road-user charging schemes • Levy taxes to pay for public transport and fund infrastructure to facilitate active transport	
Education	• Increase the number of physical education classes • Introduce walk or cycle to school programs • Invest in extracurricular opportunities for physical activity	• Physical activity enhances cognitive performance, has a positive influence on children's psychological and social wellbeing and can counteract risk behaviour • Increasing the number of physical education classes is one of the most direct policies to increase student's physical activity.
Food Safety Agency (Food and agriculture)	• Increase production of locally grown produce, poultry and meats • Introduce best practice standards for the	• Food safety and security is another vital component to national development. BAMSI can play a very significant role in this.

	farm-to-table safety approach • Enforce and monitor compliance	
Urban Planning	• National, regional and local urban Planning should require mixed-use zoning that places shops, services and jobs near homes • Require zoning policies to include active living components to support cycling, walking and public transit • Increase public space for recreation • Improve the accessibility, acceptability and safety of, and supportive infrastructure for walking and cycling	• Large distances between destinations can limit opportunities for non-motorized, active transport • Access to green spaces can influence physical activity levels of residents
Communications	• Implement a mass media campaign promoting participation in physical activity	• Public awareness through mass media on diet and physical activity is a 'best buy' intervention for reducing NCD burden
Employment	• Implement healthy workplace programmes • Include physical activity promotion as part of the national occupational health and safety policy	• Developing a national preventive health culture is already part of ILO's Promotional Framework for Occupational Health and Safety Convention, 2006. • There is a need to build the capacity of those

	• Include training in physical activity counselling as part of curriculum for health workers	in a position to promote physical activity
Finance	• Increase investment in parks, sidepaths, walkways and trails to enable active transport and other physical activity • Increase investment in public transport	• Well-connected, quality public transport systems provide opportunities for physical activity to access transit stops.
Civil society	• Advocate for increasing time for physical activity in schools and at work places, increasing taxes on individual motorized traffic, and regulating urban Planning to encourage walking, cycling and recreational exercising.	• Health is everyone's business
Executives Branch of Government	• Mobilize government sectors to enable an adequate whole-of-government and whole-of-society response to address the root-causes of the NCD epidemic.	• Health is everyone's business
Legislators	• Draft legislation to promote physical activity through increasing taxes on motorized traffic, and urban Planning regulations that entail walking, cycling and recreational exercising	• Health is everyone's business



WELLNESS IN THE NATION

The National Multi-sectoral Non-Communicable Disease Strategy and Plan of Action for The Bahamas (2017-2022)