



The Evaluation of the 2007
CARICOM Heads of Government
Port of Spain NCD Summit Declaration

THE INVESTIGATORS' DETAILED REPORT

Contents

List of tables	1
List of figures	1
Acronyms	3
Foreword	4
Preface	5
Executive summary	6
Research findings: The highlights	6
Recommendations for accelerating implementation	8
Chapter 1: Bringing the Declaration into context	12
The 2007 Port of Spain NCD Declaration	12
United Nations High-level Meeting (UNHLM) 2011	13
Global Action Plan and Global Monitoring Framework	13
Sustainable Development Goals	13
Chapter 2: Overview of the Port of Spain Declaration Evaluation	14
Goal and objectives	14
Contributors to the evaluation	15
Funding sources	15
Structure of the report	16
Chapter 3: National and regional trends in NCD mortality, morbidity and risk factors	17
Summary	17
Aims	17
Summary of data sources and methods	17
Background	21
Findings	22
Country trends regarding levels of implementation of the POS Declaration	47
Chapter 4: National policy responses to NCDs and lessons learned	49
Summary	49
Background	49
Section 1 – National policy responses and predictors based on the monitoring grid	50
Findings	52
Section 2 – National policy responses, their facilitators and barriers in seven case studies	64
Findings	67

Section 3 – Synthesis.....	91
Conclusions	95
Chapter 5: Regional policy responses and lessons learned:	97
Regional organisations’ response to the Port of Spain Declaration	97
Summary	97
Background	97
Aims and methods	99
Findings	101
Conclusions and recommendations.....	109
5B Caribbean Wellness Day	111
Summary	111
Aims	111
Methods and sources of data	112
Lessons learned.....	126
Chapter 6: International impact of the 2007 Port of Spain NCD Declaration.....	128
Summary	128
Background	128
Aims and methods	130
Analytic approach	130
Findings	132
Conclusions and recommendations.....	148
Chapter 7: Ongoing arrangements for surveillance.....	152
Summary	152
Aims	152
The goals of surveillance	153
Rationalising surveillance and reporting going forward	157
Revision of POS NCD Declaration Monitoring Grid.....	157
Recommendations	161
Chapter 8: Financing NCD prevention and control in CARICOM - Potential roles of tobacco and alcohol taxes	168
Summary	168
Objectives.....	168
Methodology and data collection	169

Findings: Revenue and consumption estimates at different levels of taxation	173
TaXSiM results.....	173
Revenue maximising tax rates	176
Exploring relevant issues.....	178
Recommendations	182
Chapter 9: Recommendations for accelerating action	184
Implementation workshop	184
Major conclusions from the research	185
Workshop deliberations.....	186
Next steps	193
Acknowledgements.....	205
References	207

List of tables

Table 1 (2.1): Structure of the evaluation report.....	16
Table 2 (3.1): Data availability (CARPHA consultant).....	19
Table 3 (3.2): Estimates of 25% reduction in premature NCD mortality by 2025 in CARICOM.....	28
Table 4 (3.3): Summary statistics 2012*	37
Table 5 (3.4): Prevalence of NCDs in Caribbean countries through risk factor surveys	38
Table 6 (3.5): Summary of main results from risk factor surveys in the Caribbean, 2005–2012	42
Table 7 (3.6): Risk factors among youth – Global School-based Student Health Survey, Global Youth Tobacco Survey	45
Table 8 (3.7): Summary of gaps in current data on NCD mortality, morbidity and risk factors	47
Table 9 (4.1): CARICOM members by number of indicators met by 2014	56
Table 10 (4.2): Population size, GDP per capita, and probability of death from an NCD between the ages of 30 and 69 against level of reported implementation.....	59
Table 11 (4.3): Political characteristics and cohesion against number of Implemented indicators.....	60
Table 12 (4.4): Gender-specific indicators	61
Table 13 (4.5): CARICOM countries and territories by population size and World Bank ¹ income group...	67
Table 14 (4.6): Number of key Informant interviews by country/territory and sector	68
Table 15 (4.7): Documents provided for review	68
Table 16 (5.12): CWD online content from 2007- 2014.....	122
Table 17 (5.13): Frequency of types of main subjects covered in articles.....	123
Table 18 (5.14): Frequency of content covered in articles	124
Table 19 (5.15): Reported location of CWD activities.....	124
Table 20 (7.1): Reporting challenges	154
Table 21 (7.2): NCD reporting required from countries	155
Table 22 (7.3): NCD Progress indicator status /capacity by country implementing NCD summit Declaration.....	158
Table 23 (7.4): Barbados report on the 25 Global Monitoring Framework indicators from UN/WHO....	161
Table 24 (7.5): POS NCD Declaration Monitoring Grid - Revised 2015.....	163
Table 25 (7.6): POS NCD Declaration Monitoring Grid: Definitions/explanatory notes.....	165
Table 26 (8.1): Excise revenues from a tax-induced fall in consumption of 5% and 10%	179

List of figures

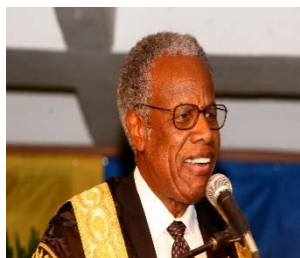
Figure 1 (1.1): ‘Upstream’ supports for behaviour change and improved clinical care	8
Figure 2 (3.1) Population pyramid	21
Figure 3 (3.2) Proportion of population over 60.....	22
Figure 4 (3.3) Life expectancy at birth in 1965-70 and 2005-10 among 21 Caribbean territories	23
Figure 5 (3.4.1 -3.4.7) Trends in total mortality.....	24
Figure 6 (3.5): Mortality by ethnicity in Belize (2008–2010)	26
Figure 7 (3.6): CVD and diabetes: premature mortality (< 64 years).....	31
Figure 8 (3.7): Change in CVD and diabetes mortality in Caribbean and USA 2000–2010.....	32

Figure 9 (3.8) Decline in CHD mortality in Barbados, 1990–2012.	33
Figure 10 (3.9): Effect of risk factors and treatment on CHD mortality.....	33
Figure 11 (3.10): Prevalence (%) of specified disease conditions by 10-year age bands, Jamaica Healthy Lifestyle II 2008	39
Figure 12 (3.11): Awareness, treatment and control for diabetes, hypertension and high cholesterol, Jamaica Healthy Lifestyle II 2008	39
Figure 13 (3.12): The hypertension cascade, Barbados Health of the Nation Study, 2012.	40
Figure 14 (3.13): Raised risk for chronic diseases, 15–44 years	43
Figure 15 (3.14): Change in physical activity categories 2000–2008, Jamaica Healthy Lifestyles II	43
Figure 16 (4.1) Port of Spain NCD Declaration Monitoring Grid for the 26 Indicators -	54
Figure 17 (4.2): Indicators of compliance with articles of the Framework Convention on Tobacco Control – based on reports covering up to end 2014. (See key below for interpretation).	62
Figure 18 (4.3): The completion of the monitoring grid based on responses returned from ministries of health, and modified according to responses from key informants. (See text for details)	70
Figure 19 (4.4): Barriers to success: Policy creation	72
Figure 20 (4.5): Mechanisms for success: Policy creation	73
Figure 21 (4.6): Barriers to success: Policy implementation.....	74
Figure 22 (4.7): Mechanism for success: Policy implementation	76
Figure 23 (4.8): Barriers to success: Multisectorality	77
Figure 24 (4.9) Mechanism for success: Multisectorality	78
Figure 25 (4.10): Barriers to success: Health promotion	79
Figure 26 (4.11): Mechanism for success: Health promotion.....	82
Figure 27 (4.12): Barriers to success: Risk factors	83
Figure 28 (4.13): Mechanism for success: Risk factors	84
Figure 29 (4.14): Barriers to success: Healthcare/control	86
Figure 30 (4.15): Mechanism for success: Healthcare/control	87
Figure 31 (4.16): Barriers to success: Surveillance.....	88
Figure 32 (4.17): Mechanism for success: Surveillance	90
Figure 33 (5.1): Government officials use of regionally produced CWD materials	115
Figure 34 (5.2): Civil society & private sector use of regional CWD material	116
Figure 35 (5.3): Collaborator involvement.....	117
Figure 36 (5.4): Use of promotional media.....	118
Figure 37 (5.5): Collaborator’s involvement in planning of CWD activities.....	119
Figure 38 (5B.6): Collaborator’s involvement in implementation of CWD activities.....	120
Figure 39 (5.7): Composition of CWD internet content.....	123
Figure 40 (5.8): M&E activities in which collaborators participated	125

Acronyms

BNR	Barbados National Registry for Chronic NCDs
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CCH	Caribbean Cooperation in Health
CDC	Centres for Disease Control and Prevention
GA-CDRC	George Alleyne Chronic Disease Research Centre
CFNI	Caribbean Food and Nutrition Institute
CMO	Chief Medical Officer
COHSOD	Council for Human and Social Development
COTED	Council for Trade and Economic Development
CROSQ	CARICOM Regional Organisation for Standards and Quality
CWD	Caribbean Wellness Day
FCTC	Framework Convention on Tobacco Control
HCC	Healthy Caribbean Coalition
IDRC	International Development Research Centre
M&E	Monitoring and evaluation
NCDs	Non-communicable diseases
PAC	Project Advisory Committee
PAHO	Pan American Health Organisation
POS	Port of Spain
PSG	Project Steering Group
SIDS	Small Island Developing States
SSBs	Sugar-sweetened beverages
TaXSiM	Tobacco Tax Simulation Model
UKOT	United Kingdom Overseas Territory
UNHLM	United Nations High-level Meeting
UWI	University of the West Indies
WHO	World Health Organisation
WTO	World Trade Organisation

Foreword



The authors of this report are to be congratulated on a genuine magnum opus. The report chronicles the evaluation of the historic 2007 Port of Spain Declaration on the prevention and control of chronic non-communicable diseases. It is perhaps the largest and most comprehensive evaluation of NCDs in CARICOM and may well be the most intensive scrutiny of any health initiative in the Caribbean to date.

This evaluation is the culmination of a three-year research project funded by the Canadian International Development Research Centre (IDRC), and led by the Chronic Disease Research Centre (now known as the George Alleyne Chronic Disease Research Centre, GA-CDRC) of the University of the West Indies (UWI). It brought together researchers from five distinct UWI entities across all three campuses – St Augustine in Trinidad, Mona in Jamaica and Cave Hill in Barbados. It was cross-disciplinary, including the Faculty of Medical Sciences, the Caribbean Institute for Health Research/GA-CDRC, the Faculty of Social Sciences, HEU, Centre for Health Economics, and the Institute of International Relations. Researchers from other regional institutions also participated, such as the University of Toronto, the Healthy Caribbean Coalition, the Pan American Health Organisation/World Health Organisation and the Caribbean Public Health Agency. Mixed methods were used, both qualitative and quantitative, with extensive primary and secondary data analysis, and qualitative interviews with 80 key informants.

The quality of the research is appropriate, given the significance of the subject. The summit of CARICOM heads of government that issued the Declaration was the first of its kind in the world and took place with the single purpose of highlighting the magnitude of the problem in the region and the steps that should be taken to address it. It was also significant in that it led to the UN High-level Meeting in 2011 on the subject. The evaluation gives not only the background to the Declaration, but examines in great detail the actions that have been taken to fulfil the commitments made. As a corollary, it points out the gaps to be filled and the capacity of Caribbean governments to fill them. It uses lessons learned to point to action, thus completing the circle of policy, plan, implement, evaluate and use the evaluation to influence policy and plans.

The recommendations fall into the very logical categories of supportive policies and governance, supportive environments, supportive health systems, changing individual behaviour and improving quality of clinical care. The CARICOM heads of government have referenced NCDs at subsequent meetings and in 2016 recognised the results of this evaluation and acceded to the recommendations, including a recommendation to ban the advertising of potentially harmful foods which specifically target children; and elevating taxes on foods high in sugar, salt and trans fats. In 2017 the heads recommitted themselves to taking steps to challenge NCD epidemic.

I do hope that the report is widely disseminated and that the Caribbean public as a whole, including the relevant actors in all parts of the state, embrace the evaluation, promote its relevance and advocate for the implementation of the sound recommendations it contains.

George Alleyne

Preface

In September 2007 leaders of the Caribbean Community (CARICOM) held the world's first Heads of Government Summit on Non-communicable Diseases (NCDs) and produced the ground-breaking Port of Spain (POS) Declaration. CARICOM and the Pan American Health Organisation/World Health Organisation were charged with evaluating the impact of the Declaration, and the work in this document has been conducted on their behalf. The evaluation is led by the University of the West Indies, in collaboration with the Caribbean Public Health Agency, the Healthy Caribbean Coalition and the University of Toronto. It is generously supported by the Canadian International Development Research Centre.

The evaluation, which began in April 2014, has three main phases: undertaking new research studies to investigate the impact of the Declaration; reviewing successes and challenges and agreeing, with CARICOM governments, a regional strategy for accelerated implementation of measures to prevent and control NCDs; and disseminating the findings.

There are nine chapters in this technical report. Chapters 1 and 2 introduce the Port of Spain Declaration on NCDs and the objectives of the evaluation, including methods and data sources. Chapters 3–8 each examine the results of different aspects of the research.

Lastly, the most important section, Chapter 9, *Recommendations for accelerating action* charts the way forward given the research findings. It represents the collective voice of those attending the major February 2016 multisectoral Port of Spain implementation workshop and highlights the priorities and concerted actions needed to really make a difference to the NCD epidemic in the Caribbean.



Professor T. Alafia Samuels



Professor Nigel Unwin

On behalf of the Port of Spain Declaration Evaluation Research Group.

Executive summary

Evaluation of the 2007 Port of Spain NCD Declaration to accelerate implementation

The 2007 Port of Spain Declaration on non-communicable diseases is approaching its tenth anniversary. With its partners, the University of the West Indies (UWI) has completed an evaluation of the successes and challenges in attaining the Declaration's commitments, involving a wide array of academics, researchers and civil society organisations who have written for, or contributed to, this report. In February 2016 a regional workshop brought together stakeholders from a broad range of sectors to review and validate the findings and make recommendations to accelerate further implementation.

Research findings: The highlights

National and regional trends in NCD mortality, morbidity and risk factors

- Mortality in the Caribbean from NCDs is the highest in the Americas. 40% of NCD deaths occur prematurely, in those under 70, and are potentially preventable.
- Heart attacks, stroke and diabetes cause most premature deaths, followed by cancers. Life expectancy varies from 61 years in Haiti to 75 years in Antigua and Barbuda, Barbados and the Bahamas.
- Hypertension is the leading risk factor for death. Our diabetes prevalence is double global rates.
- NCD risk factors, such as unhealthy food, physical inactivity, obesity, smoking and alcohol consumption, are rising. There is more obesity and diabetes in women; more smoking and binge drinking in men.
- The World Health Organisation (WHO) Framework Convention on Tobacco Control (FCTC) has been ratified, but implementation is lagging.

National policy responses to NCDs and lessons learned

- NCDs need to be given a higher political priority.
- There are widely differing levels of implementation of Declaration mandates, related to country size, resources and burden of NCDs.
- The all-of-society and all-of-government response required for NCDs needs strengthening.
- Indicators with the lowest levels of implementation concern diet, schools and communications.
- Indicators with clear guidance for action and support from regional or international organisations have the highest levels of implementation. (See next section).

International institutions' support for the Declaration

Eight of the 27 commitments in the Declaration identified specific international institutions (both within and outside the Caribbean) expected to provide assistance.

- The performance of these institutions has been very variable. The Pan American Health Organisation/World Health Organisation (PAHO/WHO) was identified as a particularly valuable resource.
- Successful implementation of Summit commitments has been associated with clear statements on what was required and assistance from these international organisations, e.g.:
 - Caribbean Wellness Day (CWD) supported by PAHO/WHO and CARICOM;
 - Prevalence and risk factor surveys supported by the Caribbean Epidemiology Centre/Caribbean Public Health Agency (CARPHA) and the US Centres for Disease Control and Prevention (CDC); and
 - The Framework Convention on Tobacco Control supported by PAHO/WHO.
- There is concern that there is less support for action by CARICOM members on nutrition now that the Caribbean Food and Nutrition Institute (CFNI) has been subsumed into CARPHA.

International impact of the 2007 POS NCD Declaration

- The POS Summit had significant influence on shaping global governance of NCDs and paved the way for the 2011 United Nations High-level Meeting (UNHLM) on NCDs.
- 16 of 27 commitments made at the Summit were later reflected in at least one UNHLM commitment.
- A reduction in premature NCD mortality is one of the targets of the Sustainable Development Goals.

Surveillance and monitoring

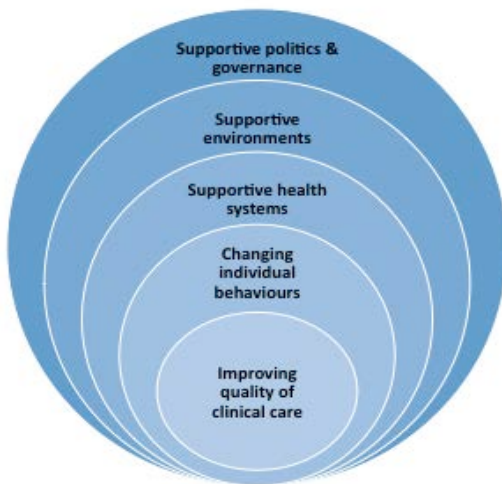
- There are 21 different and overlapping NCD reports required by regional and international bodies.
- It is clearly a challenge to respond to these demands, especially in the smallest countries.
- Some key surveillance activities need better support and capacity building to ensure that countries make full use of the data collected.
- Data are not always shared between national and regional organisations.
- Despite these limitations, the Caribbean has made significant contributions to the global NCD agenda, including in surveillance and monitoring and evaluation.

Investing in NCD prevention and control - Potential role of tobacco and alcohol taxes

- According to a study in three countries, Grenada, Jamaica and Trinidad and Tobago, revenue generated from further increasing taxes on tobacco and alcohol could exceed US\$ 37 million. This is 300% more than the estimated US\$ 12.6 million cost of WHO "best buy" NCD interventions for these populations.
- 2014 taxation on tobacco ranges from 17% in St Vincent and the Grenadines to 63% of the sale price in St Lucia. The PAHO/WHO target is 75% of the sale price.
- Increased taxes will benefit health as consumption will fall, even allowing for the possibility of smuggling and illicit production.
- Other forms of taxation, such as taxes on sugar-sweetened beverages, should also be considered.

Recommendations for accelerating implementation

Figure 1 (1.1): 'Upstream' supports for behaviour change and improved clinical care



Supportive politics and governance

Establish the response to NCDs as an enduring key priority for regional and national policy makers

- Re-energise regional leadership and support for the required multisectoral response, i.e.:
 - Schedule regular sessions on NCDs CARICOM heads of government conferences aligned with required UN/WHO reporting.
 - Revive the Regional NCD Secretariat, aligned with Caribbean Cooperation in Health (CCH) IV, with clear mandates and deliverables of regional public goods to facilitate NCD prevention and control.
 - Fully engage relevant organs and institutions of CARICOM, such as the Council for Trade and Economic Development (COTED).
 - Pursue a strategic alignment with Pacific islands and Small Island Developing States (SIDS) to include food security, and to address vulnerabilities to natural disasters and climate change.
- Further develop and support national leadership for multisectoral action on NCDs, including:
 - The presence of a dedicated NCD focal point in the ministry of health;
 - A national NCD commission (or equivalent), whose remit and multisectoral membership supports the all-of-society response; and
 - An interministerial committee on NCDs/health (or equivalent) to coordinate actions between ministries, e.g. health, education, trade, agriculture, urban planning and finance – the all-of-government response.
- Invigorate public awareness and support for interventions.
 - Draft in a 'league of champions' to lobby leaders towards sustainable political 'buy-in'.
- Introduce social health insurance to facilitate quality health services, universal access and universal coverage for at least a basic package for all residents.
- Explicitly include health and its determinants as part of the portfolio of the Caribbean Development Bank, on the overseas development agenda and in requests for development aid, where appropriate.

Supportive environments

Social/macro determinants of NCD risks requiring a multisectoral response

Diet, food and food security - relevant policy on agriculture and trade

- Explore options under the World Trade Organisation to protect the local market from subsidised, cheap, high-calorie, nutritionally poor foods as part of a strategic plan addressing the critical role of agriculture and food production.
- Incentivise production of low cost, high-quality food.
- Ban import of trans fats.
- Introduce compulsory standards for nutritional labelling.
- Advocate for fiscal measures of taxation to reduce consumption of unhealthy products.
- Recognise that the “Rights of the Child to Health” include the right to live in a non-obesogenic environment; institute a ban on the advertising and promotion of unhealthy foods in schools as recommended by the World Health Organisation.

Reducing alcohol-related harm

- Adopt a comprehensive regional policy on alcohol reduction with focus on young people.
- Implement zero tolerance towards drink driving / driving under the influence.
- Ban or regulate alcohol marketing and ban sports sponsorship.
- Examine the option of further increasing taxes to decrease consumption and raise revenue.

Tobacco control

- Concentrate on implementation of FCTC legislation for 100% smoke-free spaces, labels with sufficiently large and graphic warnings, banning tobacco sponsorship.
- Increase taxation to 75% of sale price; earmark these funds for health education and prevention.

Physical activity and the built environment

- Develop the physical and social environment to promote activity by providing areas which are easily accessible, safe and well maintained, e.g. bicycle lanes and boardwalks.
- Challenge policies/barriers preventing the easy adoption of physical activity.
- Improve public transport systems to decrease reliance on cars.

Promoting health in different settings, such as schools, workplaces and faith-based institutions

- Review the Health and Family Life Education curriculum in schools to include NCD risks.
- Make physical activity mandatory from pre-primary to tertiary level.
- Ban advertising, promotion and sponsorship related to unhealthy foods that target children.
- Integrate interventions in the workplace as part of HR policy.
- Develop workplace wellness programmes and offer regular NCD screenings for employees.
- Engage faith-based organisations’ reach within communities.
- Adapt and adopt a model based on the Seventh-day Adventist health programme.

Media and social communications, health promotion and advocacy

- Explore and address social and cultural practices which militate against healthy living.
- Find dynamic ways to 'tell and sell the story' of NCDs. Strengthen and maximise the use of social media.
- Identify sector champions.
- Continue to build the Regional Health Communications Network facilitated by CARPHA.
- Develop a communications toolkit with varied products for varied audiences.

Investing in NCD prevention and control

- Undertake work to better demonstrate the economic, social and health benefits of investing in NCD prevention and control and use it to increase public and private investment.
- Explore increased taxation to decrease, and conversely subsidies to increase, consumption; e.g. tax on sugar-sweetened beverages, subsidies on fresh fruit and vegetables.
- Earmark a proportion of increased tax revenue raised specifically for health/NCDs. Examine Jamaica's National Health Fund as an example of an investment to resource NCD programming that has survived political changes.

Working with partners

Civil society

- Advocate for alcohol-reduction policies, communicating messages on the dangers of excessive alcohol consumption.
- Strengthen advocacy in pushing to implement the FCTC – smoke-free spaces, graphic warnings, increased taxes, public education.
- Form local networks like country NCD alliances, e.g. Trinidad and Tobago NCD Alliance.
- Improve and develop role as NCD advocates, strengthening communications skills.
- Share good practices, ideas, information and experiences more effectively across the region.
- Contribute to a stock of NCD-related stories accessible to all (e.g. through the website: www.onecaribbeanhealth.org).
- Step up advocacy role in public education on NCD risk factors and the importance of diet and exercise.

Private sector

- Share good practices in product reformulation regionally, e.g. reduced salt in bread in Barbados.
- Support user-friendly nutritional labelling.
- Support marketing of healthy foods.
- Promote wellness programmes and offer NCD screening for employees annually (free or heavily subsidised); wellness programmes should be offered based on aggregated data from screening.

Supportive health systems

Regional bodies

- The NCD response of regional bodies should be monitored. This includes reporting:
 - Number and amount of dedicated staff and budget;
 - The amount set aside for NCD projects; and
 - Identification and delivery of regional public goods to facilitate NCD programming in countries.
- Regional organisations should continue to enhance capacity building for reporting indicators.

Surveillance and monitoring

- Rationalise NCD reporting to regional and international bodies (21 different reports currently required).
- Implement national multidisease registries like the Barbados National Registry.
- Revise the POS NCD Declaration Evaluation reporting grid, including definitions of indicators. (This was piloted and introduced in 2016).
- Ensure that data collection is standardised to facilitate WHO global NCD monitoring. Review WHO baseline estimates; establish nine country-specific voluntary NCD Global Monitoring Framework targets (and interim targets) to achieve outcomes for 2025.
- Commission and implement standardised morbidity reporting/collection of health facility-based data on NCDs (including diabetes and hypertension) and their complications at primary and secondary care level.

Improving quality of clinical care

- Accelerate improvements in clinical quality of care especially for hypertension and diabetes, including in the workplace.
- Implement regional purchase of high-quality generic NCD drugs recommended by WHO, utilising the PAHO Strategic Fund.
- Introduce social health insurance to facilitate quality health services, universal access and universal coverage for at least a basic package for all residents. (See above).
- Introduce or enhance electronic medical records, with a focus on generating reports for action.
- Accelerate the implementation of the Chronic Care Model and evidence-based chronic care. Audit and evaluate clinical care, report on findings and monitor progress.

Chapter 1: Bringing the Declaration into context

The Caribbean (with the exception of Haiti) has undergone epidemiological and demographic transitions, from mortality and morbidity due to communicable diseases to high prevalence of non-communicable diseases (NCDs) driven by population aging and high levels of behavioural risk factors (unhealthy diets, physical inactivity, tobacco use and alcohol abuse); biological risk factors (increased blood pressure, elevated blood glucose levels, elevated cholesterol and obesity); and social determinants (poverty, education level, urbanisation, gender, ethnicity, globalisation and trade issues).

The region has a rich history of collaboration in health, leading to several successes; most notably it was the first subregion to eliminate indigenous polio, measles and rubella transmission[1]. Following the 2001 Caribbean Community (CARICOM) Heads of Government Nassau Declaration, ('The health of the region is the wealth of the region'), and the 2005 Caribbean Commission on Health and Development Report, which identified NCDs and one of the three major health problems facing the region, it was decided that health should be propelled to the heart of the development agenda.

CARICOM itself is made up of 15 Member States: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St Lucia, St Kitts and Nevis, St Vincent and the Grenadines, Suriname, and Trinidad and Tobago. In addition, there are five Associate Members: Anguilla, Bermuda, British Virgin Islands, Cayman Islands and Turks and Caicos. All these countries and territories are members of the UN conference of Small Island Developing States (including Belize, Suriname and Guyana)[2]. However, they are characterised by a broad social, economic, cultural, and political heterogeneity[3]. This is both a strength and a challenge for CARICOM when attempting to develop and implement over-arching policies, programmes and interventions.

The 2007 Port of Spain NCD Declaration

Advocacy by Sir George Alleyne and others on the health, social and economic impacts of NCDs promoted the need for 'upstream' multisectoral interventions to address common, multifactorial risks and the need for increased global attention. In September 2007 the CARICOM heads of government held the summit, 'Uniting to Stop the Epidemic of Chronic NCDs', in acknowledgement of the threat to health and development posed by the burden of these diseases. That summit resulted in the Port of Spain Declaration containing 15 actionable mandates with 27 commitments[4].

Fourteen of the 15 mandates address the need for an all-of-society response to the multiple causes of the epidemic's risk factors and call on all-of-government, civil society and the private sector to jointly tackle the common risk factors for the major chronic diseases and improve screening and care. The remaining mandate (enhancing quality of care and patient education for 80% of those living with NCDs) requires universal healthcare coverage and strengthened primary healthcare systems to facilitate access to essential drugs and technologies as well as mechanisms for aligning healthcare with evidence. The 27 commitments include development of a legislative framework; resource mobilisation; risk factor reduction; improved screening, disease management and surveillance; health promotion; and multisectoral collaboration.

Routine monitoring since 2008

Caribbean countries' implementation of the POS Declaration has been monitored using a grid developed in 2008 and revised in 2010[5]. (A further revision of the grid was made in 2016, as described in Chapter 7 of this report). It is completed annually by the NCD focal point in ministries of health, reviewed by chief medical officers and presented to the annual caucus of ministers of health of CARICOM. Some elements of the Declaration have been implemented successfully, while several others have seen little progress.

United Nations High-level Meeting (UNHLM) 2011

The precedent set by the CARICOM NCD summit encouraged its leaders to advocate elevating this approach to the global level. It was thus a forerunner to the historic United Nations High-level Meeting on the Prevention and Control of Non-Communicable Diseases on September 19, 2011, a contribution recently acknowledged by then UN Secretary-General Ban Ki-moon[6]. This UNHLM catalysed global attention and recommended multisectoral action on these diseases. Caribbean countries played key roles in the UN meeting: Jamaica was one of two co-facilitators and the president of Suriname was the first head of state to speak. The UNHLM resulted in a political declaration on NCDs that contained 95 commitments.

Global Action Plan and Global Monitoring Framework

In May 2013, the World Health Assembly adopted a Global Monitoring Framework, which contains nine NCD targets and 25 indicators to measure progress[7].

Sustainable Development Goals

The Sustainable Development Goals (SDGs) final document, adopted in 2015, 'Transforming our world: the 2030 Agenda for Sustainable Development'[8] is the successor to the Millennium Development Goals commitments which were notable for their lack of mention of NCDs.

SDG 3[9] relates to health and now includes NCDs in target 3.4: by 2030, to reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. The targets also commit to achieving universal health coverage, implementing the Framework Convention on Tobacco Control and improving access to affordable essential medicines.

Due to the central role of the Port of Spain Declaration in shaping regional and country-level NCD policies and programmes in the Caribbean and beyond, it is important to formally assess the degree of implementation, examine lessons learned and propose suggestions that could accelerate more effective implementation. The evaluation of the Declaration also provides valuable lessons for a stronger analytical and empirical foundation to meet the future reporting requirements of the UNHLM and reinforce the results it seeks.

Chapter 2: Overview of the Port of Spain Declaration Evaluation

Goal and objectives

The broad goal of this evaluation, which has been conducted on behalf of CARICOM and PAHO/WHO is to assess the impact of the 2007 Port of Spain Declaration on NCDs in order to improve prevention and control and learn lessons that will assist in other developing regions.

A process was undertaken which included, broadly, the collection and collation of evidence, an implementation workshop to share findings and strategies for action, and a dissemination phase.

There are six research objectives that guide the evaluation and these relate to:

1. *Determining the extent to which Declaration commitments have been implemented;*
2. *Describing trends in NCD mortality and risk factors from 2000 to 2013;*
3. *In-depth case studies in seven countries to determine effective implementation, etc.;*
4. *A- Documenting tobacco control measures and studying successful implementation;
B- Estimating the potential for revenue generation for NCD prevention and control from taxes on tobacco and alcohol;
C- Undertaking an evaluation of Caribbean Wellness Day (CWD);*
5. *Determining to what extent regional and international bodies have met their Declaration commitments; and*
6. *Studying the Declaration's regional and international impact.*

Beyond its research elements, this project also carries two further objectives which relate to community engagement:

7. *Using lessons learned from this evaluation to detail an action plan and implementation strategy; and*
8. *Disseminating evaluation lessons learned nationally, regionally and globally to enhance implementation.*

The main feature of Objective 7 was the multisectoral technical workshop held in February 2016 in Trinidad and Tobago. The workshop brought together regional stakeholders, including policy makers, health professionals, civil society and the private and public sectors to review the research findings and participate in the creation of an improved regional action plan for NCDs.

Objective 8 focuses on ensuring the output from the evaluation is communicated throughout the region and beyond to improve the implementation of the Port of Spain Declaration. The Healthy Caribbean Coalition, collaborating with CARPHA through the Regional Health Communications Network, has developed the communication strategy necessary to target audiences ranging from CARICOM heads of government to the woman/man in the street. This process of engagement has utilised the project's

website, social media, policy briefs, briefings of the mass media and participation in key regional and global policy meetings.

Contributors to the evaluation

Principal investigators for this project are Professor Nigel Unwin and Dr T. Alafia Samuels of the George Alleyne Chronic Disease Research Centre, Caribbean Institute for Health Research (CAIHR), UWI. These colleagues are experienced public health professionals and epidemiologists with a strong interest and global track record in NCD research. As this project has striven for a holistic view of the Declaration's impact on society, it has drawn on expertise from a multidisciplinary team including:

- Public Health Group, (UWI), Cave Hill
- George Alleyne Chronic Disease Research Centre, (UWI), Cave Hill
- Department of Community Health and Psychiatry (UWI), Mona
- HEU, Centre for Health Economics, (UWI), St Augustine
- Institute of International Relations, (UWI), St Augustine
- G8 Research Group, University of Toronto
- Caribbean Public Health Agency
- Pan American Health Organisation/World Health Organisation

This team of researchers, along with representatives from other collaborating organisations, the Healthy Caribbean Coalition and CARICOM form the evaluation's Project Steering Group.

The project has also benefited from the guidance of a Project Advisory Committee (PAC); a small group of regional and international experts in the fields of public health, policy analysis, economics, social science and implementation science. The members of the PAC include: regional ministerial advisors Dr Tamu Davidson (Jamaica), Ms. Yvonne Lewis (Trinidad), Dr Paul Ricketts (Dominica) and international advisors, Professor Ross Brownson, (Washington University in St Louis), Professor Anselm Hennis (PAHO), Professor Venkat Narayan (Emory University), Professor Rachel Nugent (University of Washington) and Professor David Stuckler (Oxford University). According to their areas of specialisation, PAC members were asked to review research protocols and were available to the research teams for further consultation.

Funding sources

This work has been made possible through a generous grant from the International Development Research Centre of Canada (IDRC), with further economic support from the governments of CARICOM, through the work of UWI and CARPHA. The financial administration for the evaluation has been provided by UWI, Cave Hill Campus.

structure of the report

Collaboration between research teams has been highly encouraged and the evaluation has benefitted from a process of cross-validation of findings. That process has produced an interdisciplinary assessment of the regional NCD response, giving a solid evidentiary foundation on which to build recommendations. Reporting of this research has been arranged into the common themes identified during the process. There are nine chapters in the report. Chapters 1 and 2 are introducing the Port of Spain Declaration on NCDs and the objectives of the evaluation, including methods and data sources. Chapters 3–8 each explore the results of different aspects of the research. Most of these contain summary points, background, aims and methods, key findings, conclusions and recommendations.

Table 1 (2.1): Structure of the evaluation report

Chapter	Common theme	Port of Spain objectives included
3	National and regional trends in NCD mortality, morbidity and risk factors	2
9	National policy responses to NCDs and lessons learned	1, 3, 4a
5	Regional policy responses to NCDs and lessons learned	4c&5
6	The international impact of the 2007 Port of Spain Declaration	6
7	Arrangements for ongoing surveillance for NCD mortality, morbidity and the policy response	1&2
8	Financing NCD prevention and control in CARICOM - potential revenue from tobacco and alcohol taxes	4b
9	Implications of the evaluation: accelerating action	1-8
	Appendices	

Each of these chapters specifies the objectives and methodologies utilised by the teams. They identify policy gaps and summarise the lessons learned from the research. Each chapter then provides potential actions to improve and accelerate the implementation of the Port of Spain Declaration. Individual research protocols, and investigation tools are provided in the attached appendices.

Chapter 3: National and regional trends in NCD mortality, morbidity and risk factors

Summary

Mortality and risk factor data should be used to monitor determinants/disparities within and between countries to inform policies and monitor policy implementation.

Throughout the Caribbean, male NCD mortality is higher than female for all age-groups; not all countries appear to be on target for a 25% reduction in premature NCD mortality by 2025.

In 2010, diabetes mortality in the Caribbean was double that of African-Americans, and four times the rate of white Americans.

Age-adjusted diabetes mortality in Trinidad and Tobago (99.7/100,000) is seven times higher than the rate in the USA (13.7/100,000.)

Coronary heart disease mortality in men and women has declined between 1990 and 2012.

Aims

To describe, within the limitations of currently available data, what is robustly known of recent trends in NCD mortality, morbidity and risk factors from the year 2000 to 2013, in the 20 CARICOM countries and territories;

To identify gaps in current data on NCD mortality, morbidity and risk factors;

To determine whether these 20 countries can achieve the goal of reducing by 25% the mortality due to NCDs by 2025.

Summary of data sources and methods

Sources of data

Mortality data was obtained from the following sources:

Regional Mortality Database, Regional Health Observatory, PAHO 2011[10].

Global Burden of Disease Study 2013 (GBD 2013) Results by Location, Cause, and Risk Factor[11].

PAHO Basic Indicators for Age Adjusted Mortality Rates 2000–2012 data[12].

Regional mortality database of the Caribbean Public Health Agency[13].

New analyses making use of the WHO mortality database[14] and UN population figures[15]

Unpublished PhD thesis: Trends in Coronary Heart Disease mortality in Barbados: 1990–2012[16].

Morbidity data were also sought on selected conditions by age, sex and length of stay at hospital; annual attendance of selected conditions to health centres by new or returning clients; incidence and prevalence of NCDs; and chronic disease registers.

Risk factor data for adults were obtained mainly from population-based, national risk factor surveys done using the World Health Organisation STEPS methodology or equivalent. For youths aged 13–15 years, the Global School-based Student Health Surveys(GSHS)[17] and the Global Youth Tobacco Surveys (GYTS) conducted in the region were utilised[18].

Methods

Mortality and risk factor data were summarised from publicly available data, from peer-reviewed publications, and from an unpublished PhD thesis[16]; as described above.

In addition, CARPHA had performed a scoping and quality exercise of mortality and risk factor data, illustrating some of the issues in making comparisons between countries with the data currently available to them, and including some detailed examinations of death certificates, giving some insight into the accuracy of underlying cause of death certification in the region. This work informed the recommendations at the end of the chapter.

Study limitations/data gaps

There were several challenges to obtaining data. For example, although mortality data were obtained from the CARPHA database, most country-years of data contained only the underlying cause of death (all causes were required for the intended multiple-cause analysis).

For morbidity, CARPHA collects neither hospital discharge nor primary healthcare data. Although CAREC/PAHO/WHO did institute an NCD surveillance system, annual country reporting has been limited, rendering these morbidity data, where available, of little utility.

Population estimates were also difficult to access. Apart from the census years, few countries produce annual intercensus population estimates, and even fewer produce estimates with age and sex distributions. Alternative sources from WHO or other UN population estimates do not produce estimates in detail for countries with very small population sizes (<90,000 population).

Data from small countries

Our data reports on all reported deaths from all CARICOM countries. Because there was no sampling, there would be no confidence intervals generated from sampling uncertainty. However, many countries with small populations will have had significant fluctuations in rates from year to year. For example, in Montserrat (population 5,000), with one death, the mortality rate would be 20/100,000. A second death would, therefore, increase the rate to 40/100,000. In contrast, in a country with a population of 100,000 with a similar base rate of 20/100,000, a second death would have only increased the rate to 21/100,000.

Table 2 (3.1): Data availability (CARPHA consultant)

Country	Census Year	Intercensal data by sex & 5-yr age-grps	UCOD	Contributory causes of death	Hospital discharges with age, sex LOS	Attendance at health centres by disease	Chronic disease register	Electronic medical records	Private sector data
Anguilla	2011	N	2000-2013	2007-2012	2008-2010	Y	N	N	N
Antigua & Barbuda	2011	N	2000-2012	2009	N	N	N	N	N
Bahamas	2010	2004- 2011	2000-2011	2004-2006	Y	Y	Cancer	N	Some ¹
Barbados	2010	N	2000-2013	2009-2013	Y-manual extraction	Y – manual extraction	Cancer, heart attack, stroke	N	N
Belize	2010	2008-2009	2000-2013	2005-2013	N	N	Cancer	Y?	N
Bermuda	2010	N	2000-2013	2003-2013	Y	N	Cancer	N	N
British Virgin Islands	2000	2006, 2008-2010	2000-2004, 2006, 2008-2010	N	N	N	Y	Y?	N
Cayman Islands	2010	2007-2009, 2013	2000-2013	N	2009-2013	Y	N	N	N
Dominica	2011	N	2000-2010, 2012-2013	2005 - 2008	N	N	N	N	N
Grenada	2001	N	2000-2012	2010-2012	N	N	N	N	N

Country	Census Year	Intercensal data by sex & 5-yr age-grps	UCOD	Contributory causes of death	Hospital discharges with age, sex LOS	Attendance at health centres by disease	Chronic disease register	Electronic medical records	Private sector data
Guyana	2011	2002, 2005, 2010	2001-2011	2010	N	N	Cancer	N	N
Haiti									
Jamaica	2011	2010	2000-2011	2008	N	Y	Cancer	Y	N
Montserrat	2011	N	2000-2012	2000-2012	Y	Y	N	N	N
St Kitts	2001	N	2000-2012	2010	N	N	N	N	N
St Lucia	2010	N	2000-2012	2010-2012	Y? ²	Y	N	N	N
St Vincent & Grenadines	2012	N	2000-2012	2007, 2010-2012	N	2009-2012	N	N	N
Suriname	2001	N	N	N	N	N	N	N	N
Trinidad & Tobago	2000	N	2000-2009	N	2000, 2005	N	Cancer	N	N
Turks & Caicos	2001	N	2000-2009	2008-2009	2006-2009	Y	N	N	N

Y=Yes, N=No

¹ Private hospital

²Available from only one hospital

Background

Population composition and aging

CARICOM countries, with the exception of Haiti, have completed the epidemiological transition and all, including Haiti, have high rates of NCDs. However, there is great variability across countries in the demographic transition, as well as in rates of population aging, which is one of the drivers of high NCD mortality rates.

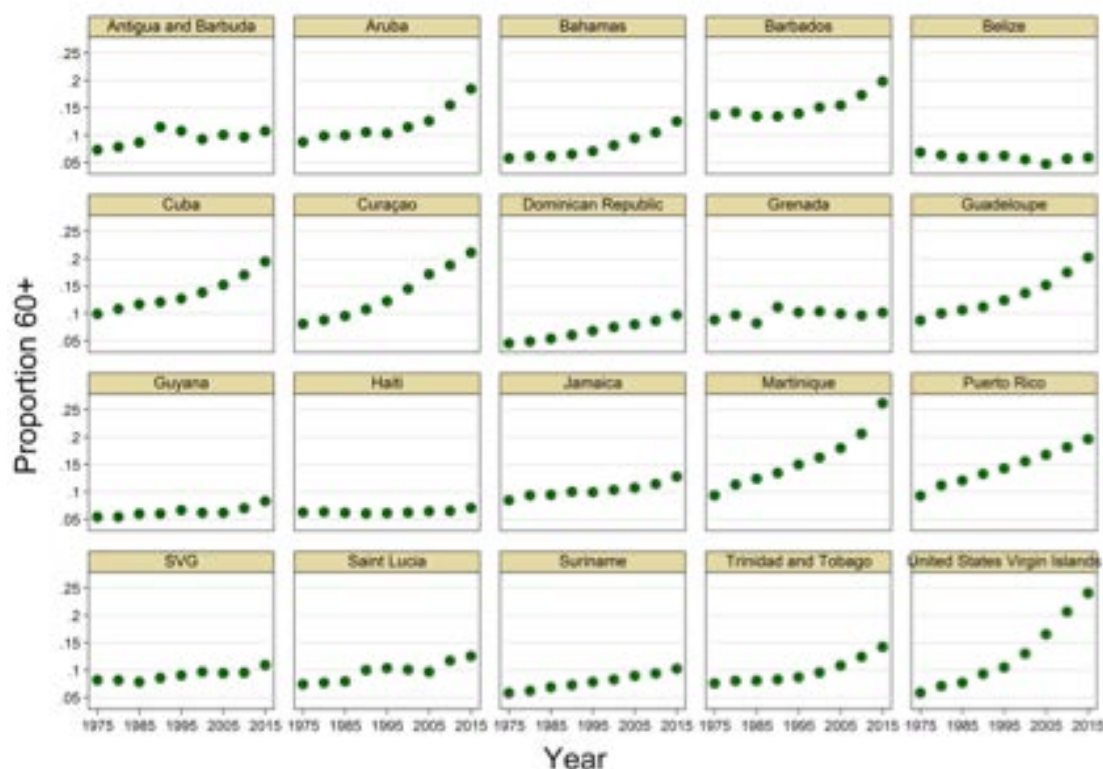
Population pyramids in the region reflect this variability, as all stages of the demographic transition are seen. Figure 3.1 shows Belize and Haiti with the classic wide-based pyramid reflecting high birth rates, St Vincent & Grenadines and St Lucia show the start of the narrowing of the base, Barbados is at replacement fertility, and the hour-glass shaped pyramids of Martinique and Guadeloupe most likely represent migration of the young to France, and healthy elderly from France, moving 'to the islands' to retire. These patterns are also reflected in the proportion of the population over 60 years in Figure 3.2.

Figure 2 (3.1) Population pyramid



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Figure 3 (3.2) Proportion of population over 60



Findings

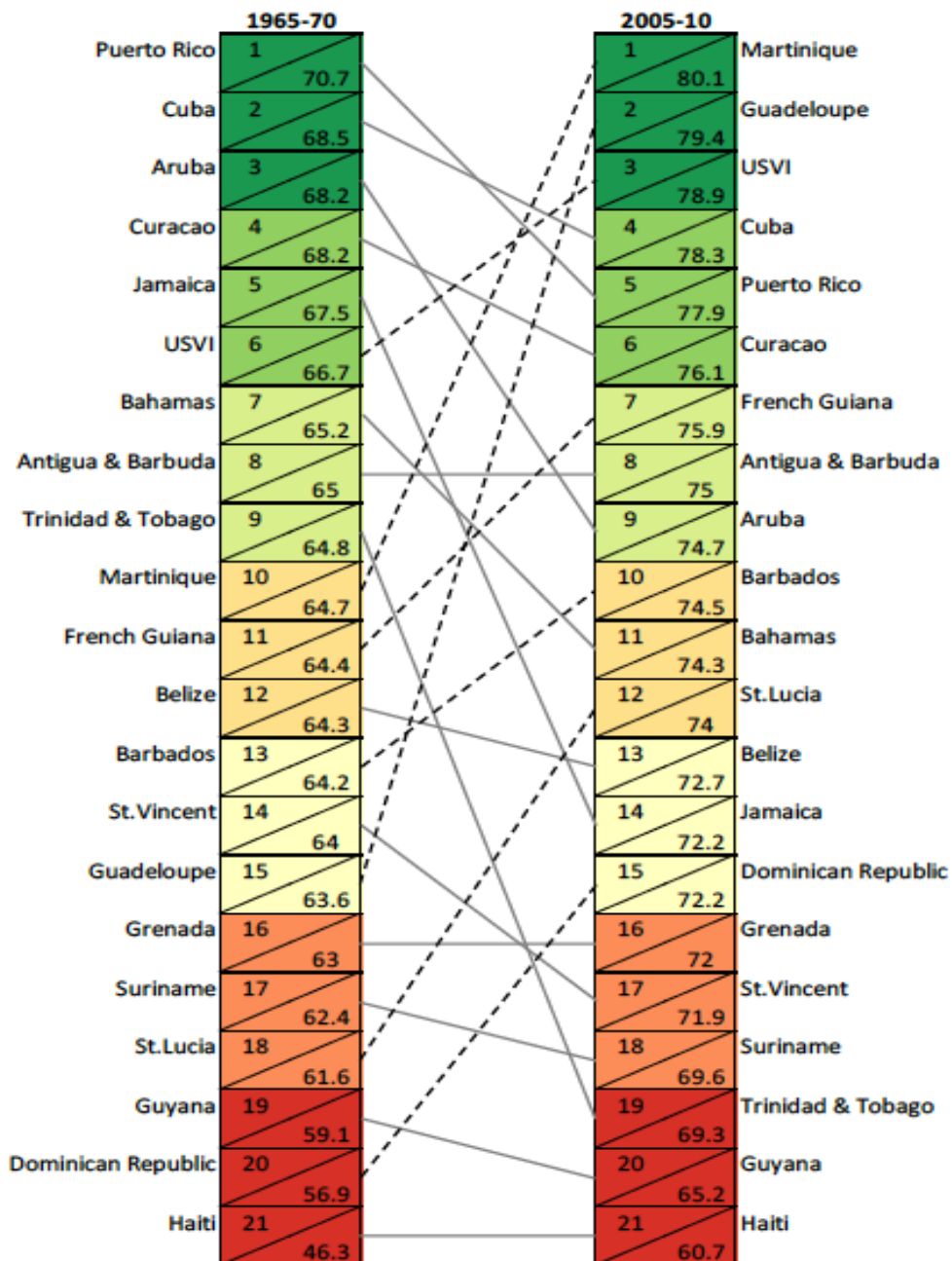
Trends in life expectancy 1965–2010[19]

In 1965–1970, the average life expectancy (LE) in the region of the Americas was 59 years, with US/Canada/Puerto Rico already over 70 years. By 2005–2010, average LE had increased to 73 years, with only five countries not achieving this 70-year target. Four of those five countries were members of CARICOM: Haiti, Guyana, Suriname and Trinidad & Tobago.

Population growth has dropped to replacement levels and LE is relatively high. However, there is great variation/disparity between Caribbean countries. In 1965–1970, Puerto Rico had the highest LE and by 2005–2010 Martinique had the highest. Haiti consistently had the lowest LE for the entire 45-year period.

Over the 45 years, Martinique, Guadeloupe and Haiti have gained 15 extra years of life and Martinique and Guadeloupe have jumped to the top of the ranking. Conversely, Jamaica and Trinidad & Tobago have each gained just four years of extra life and have dropped towards the lower end of the rankings. The Caribbean's situation has worsened relative to Latin America, having had the highest LE and the lowest between-country LE disparities in 1965–70, and 45 years later, having the lowest LE and the highest LE disparities. These LE disparities between and within countries need to be investigated to generate effective and tailored recommendations. Ongoing monitoring of disparities should guide country policies and programmes and assist with evaluation of interventions.

Figure 4 (3.3) Life expectancy at birth in 1965-70 and 2005-10 among 21 Caribbean territories



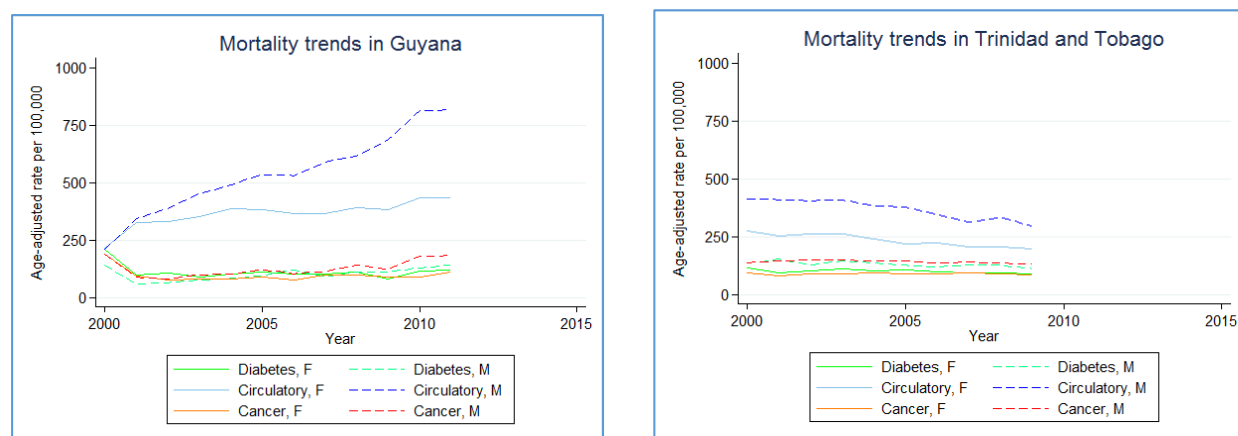
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Trends in total mortality

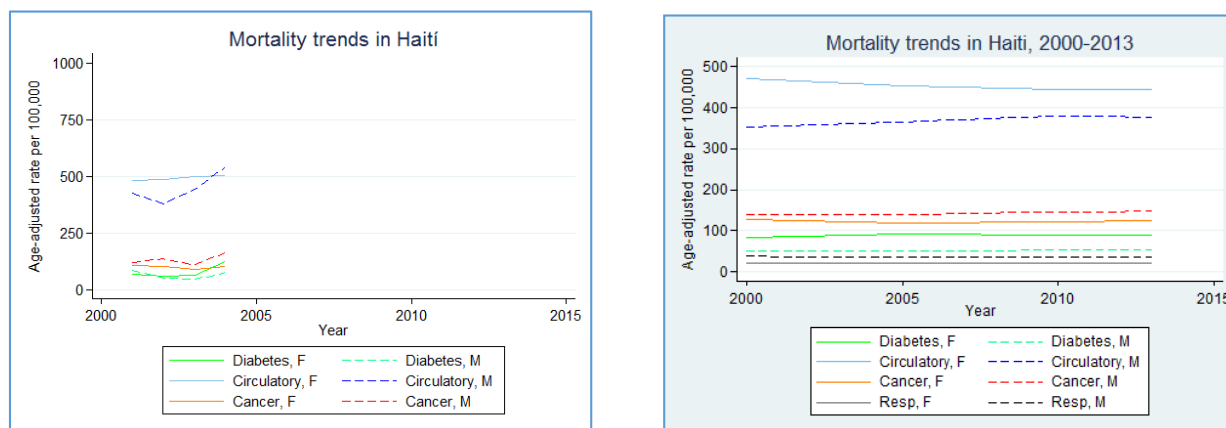
Before examining premature mortality, we reviewed total mortality utilising the PAHO mortality database[10] which is based on country submissions of data that are then cleaned and adjusted for undercount (i.e. inaccurately low estimates), then age-adjusted to allow for comparison between countries.

The figures below demonstrate the differences in mortality patterns seen for different countries over the past 12 years (2000–2012). We looked at the larger countries, whose rates are likely to be more stable.

Figure 5 (3.4.1 -3.4.7) Trends in total mortality

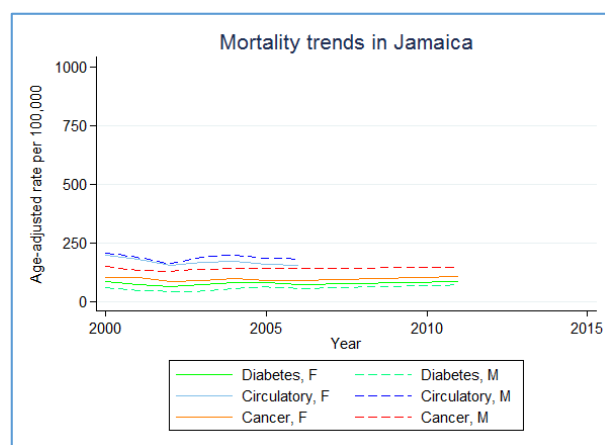
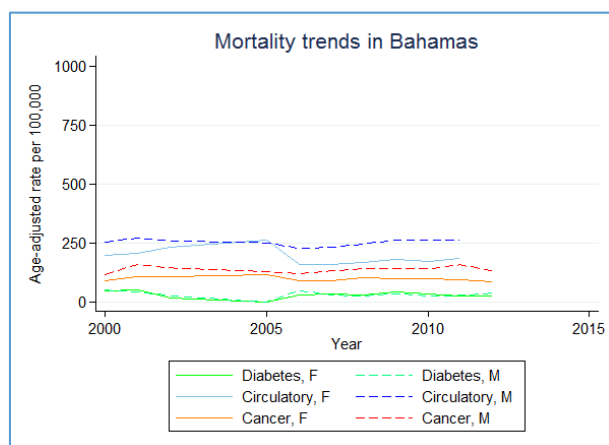


For two of the three countries with the highest NCD mortality rates in CARICOM, there are different trajectories. In Guyana, cardiovascular disease (CVD) mortality is climbing, while in Trinidad and Tobago, there is declining CVD mortality. At the turn of the century, CVD mortality was similar in both countries, at around 400/100,000, but by 2011, CVD mortality among Guyanese men had doubled, with the rate among women showing a more modest increase.

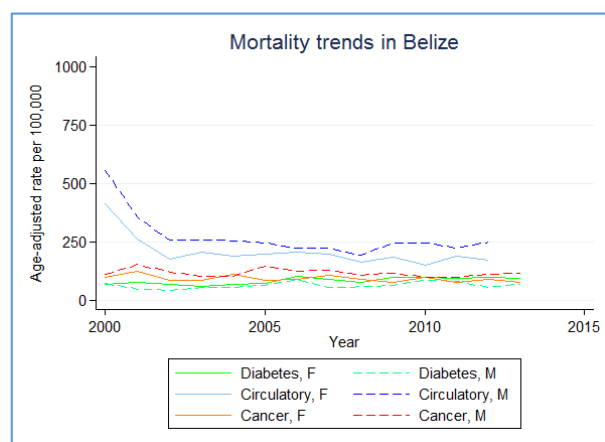
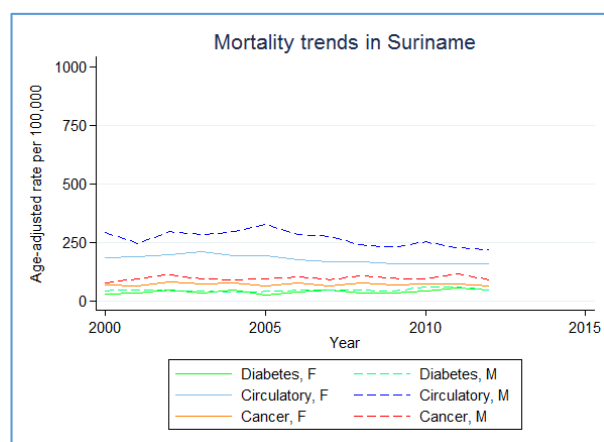


Haiti is the only low-income country in CARICOM, and the data available to PAHO (graph on the left) is truncated at 2004. The GBD estimates (graph on right-hand side) demonstrated that CVD mortality in

Haiti was similar to that in high-income Trinidad and Tobago, possibly due to under-developed treatment capacity in Haiti.



The Bahamas and Jamaica have similar rates of cancer mortality with clear male excess, but CVD mortality is higher in the Bahamas, although less than in Guyana, Haiti and Trinidad and Tobago. Diabetes mortality in Jamaica, as in Haiti, shows a significant female excess, while in Trinidad and Tobago the mortality from diabetes is greater in males.



Both Suriname and Belize show declining CVD mortality. In all countries, there is a clear excess of cancer mortality in males.

Mortality by sex and ethnicity

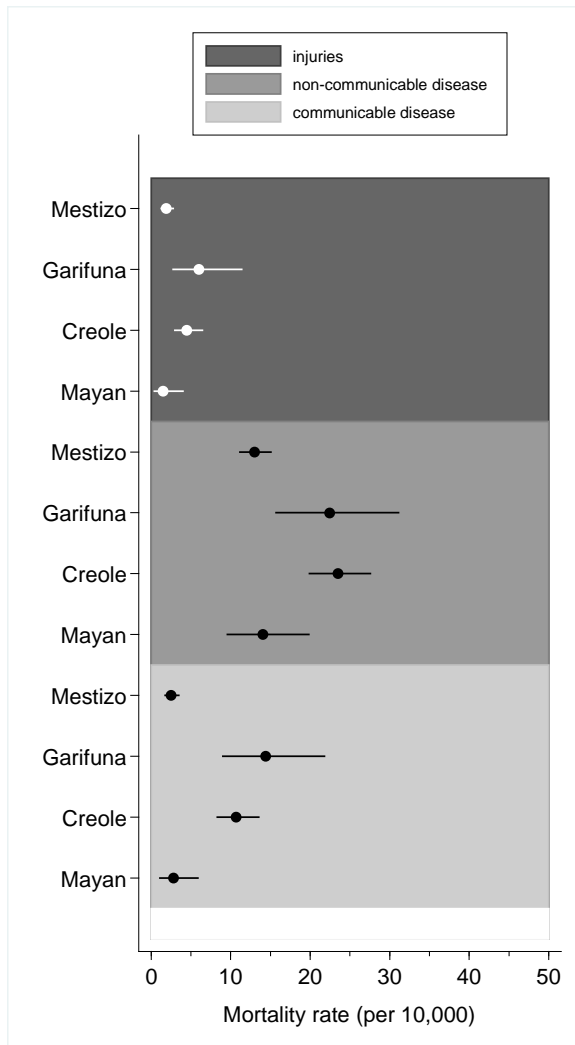
In all countries, male mortality exceeds female mortality at every age. This is likely to be due to both genetic and environmental factors.

Mortality by ethnicity in Belize

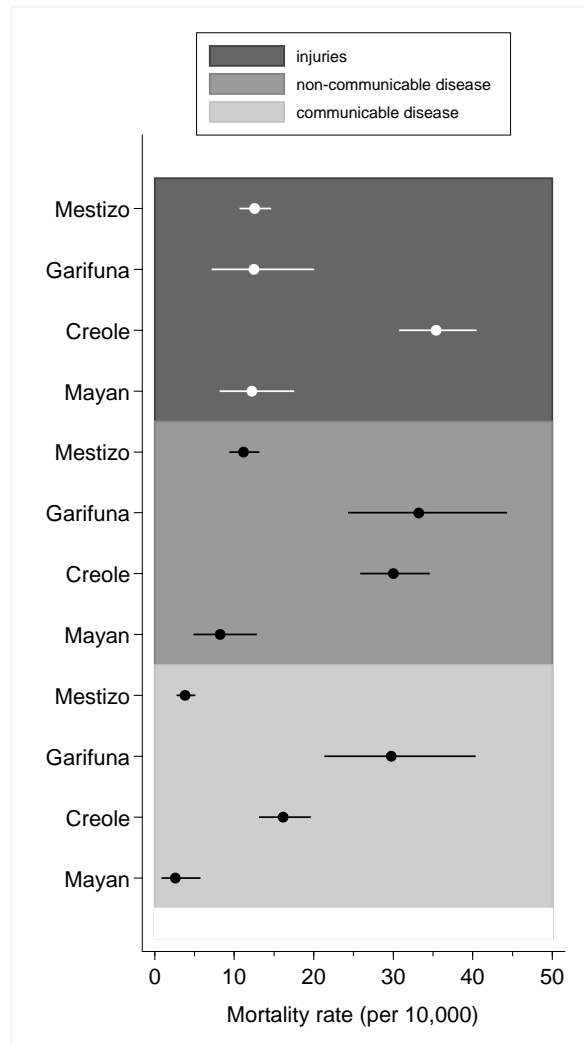
There are several countries with significant ethnic diversity (Belize, Guyana, Suriname, Trinidad and Tobago). An analysis of mortality by ethnicity in Belize (Figure 6 (3.5)) shows great variation[20], possibly due to social determinants linked to the country's colonial history. Most striking is the excess injury mortality in male Creoles, which is concentrated in young men (data not shown). We are seeking mortality data by ethnicity in order to repeat this analysis in the other countries mentioned above.

Figure 6 (3.5): Mortality by ethnicity in Belize (2008–2010)

(a) Women



(b) Men



Meeting the UN goal of 25% decline in premature NCD mortality by 2025

To assess whether countries would meet the UN goal of a 25% decline in mortality due to the major NCDs (CVD, diabetes, cancer and respiratory disease), as before, we relied on a combination of PAHO and GBD data. Where possible we used a three-year average to estimate the rate at the start and at the end of the five years of difference (or four years if there were limited data). This was to stabilise rates, which fluctuate significantly, especially in small countries. We improvised for missing years of data; by averaging the two closest years to the missing year and then referring to the middle year in the table.^a

For five countries (Anguilla, Barbados, Dominica, Haiti, St Lucia), the annual percentage reduction was negative, indicating that the countries' rates are increasing, not declining. If this trajectory continues, there will be no time in the future when these countries will achieve the goal of a 25% decline in premature mortality.

There were several limitations to this analysis. Firstly, the most recent year of data availability ranged from 2004 to 2010. Secondly, data from small countries are inherently unstable. Finally, these data have been corrected for undercount, which potentially introduces another source of error.

^aFor Anguilla, there were no 2002 data (averaged 2000 and 2001); for the British Virgin Islands, there were no 2007 data (averaged 2006 and 2008); for Barbados and the Cayman Islands, there were no 2005 data (averaged 2004 and 2006); for St Lucia, there were no 1999 data (averaged 2000 and 2001).

Table 3 (3.2): Estimates of 25% reduction in premature NCD mortality by 2025 in CARICOM

Country	Year 1	Year 2	Probability of premature mortality in 4 or 5 yrs prior to most recent year available, 3 yr average	Probability of premature mortality in most recent year, 3-yr average	2025 level needed to meet goal	Absolute reduction over last 4 or 5 yrs	Annual reduction in %	Estimated percentage change from 2010 to 2025	Projected year when 25% reduction will be reached at estimated annual rates	On track for 2025?
Anguilla	2001	2005	0.102	0.141	0.106	-0.380	-11.3%	-83.3%		
Antigua & Barbuda	2004	2008	0.206	0.203	0.153	0.012	0.3%	4.7%	2105	
Bahamas	2002	2007	0.194	0.171	0.128	0.117	2.2%	39.5%	2023	yes
Barbados	2001	2005	0.153	0.157	0.118	-0.032	-0.8%	-11.5%		
Belize	2003	2007	0.218	0.204	0.153	0.064	1.6%	26.0%	2029	
Bermuda	2003	2007	0.116	0.110	0.082	0.050	1.2%	20.2%	2033	
British Virgin Islands	2002	2007	0.101	0.096	0.072	0.057	1.1%	18.0%	2036	
Cayman Islands	2001	2005	0.108	0.065	0.049	0.393	8.6%	246.7%	2013	yes
Dominica	2004	2008	0.162	0.171	0.128	-0.053	-1.4%	-18.6%		
Grenada	2003	2008	0.307	0.267	0.200	0.132	2.5%	44.9%	2022	yes
Guyana	2001	2005	0.325	0.285	0.214	0.125	3.0%	55.5%	2020	yes
Haiti	2005	2010	0.237	0.242	0.181	-0.021	-0.4%	-6.1%		
Jamaica	2005	2010	0.177	0.171	0.128	0.032	0.6%	9.9%	2056	
Montserrat	2004	2008	0.180	0.125	0.094	0.305	6.9%	171.7%	2014	yes

(3.2) *continued*

Country	Year1	Year 2	Probability of premature mortality in 4 or 5 yrs prior to most recent yr available, 3 yr average	Probability of premature mortality in most recent yr, 3 yr average	2025 level needed to meet goal	Absolute reduction over last 4 or 5 yrs	Annual reduction in %	Estimated percentage change from 2010 to 2025	Projected year when 25% reduction will be reached at estimated annual rates	On track for 2025?
St Kitts & Nevis	2003	2007	0.199	0.185	0.139	0.070	1.7%	28.9%	2027	
St Lucia	2000	2004	0.194	0.217	0.162	-0.116	-3.0%	-36.9%		
St Vincent & Grenadines	2003	2007	0.207	0.204	0.153	0.017	0.4%	6.6%	2077	
Suriname	2002	2006	0.211	0.191	0.143	0.094	2.3%	40.0%	2023	yes
Trinidad & Tobago	2002	2006	0.259	0.233	0.174	0.103	2.5%	44.5%	2022	yes
Turks & Caicos Islands	2004	2008	0.103	0.074	0.055	0.279	6.4%	151.8%	2015	yes

Sources of data: PAHO except for Jamaica and Haiti, for which GBD data were used as there were no PAHO data for these countries.

Mortality by NCD

Respiratory disease mortality is low across the region, while WHO estimates that only about 40% of cancers can be prevented[21]. We, therefore, reviewed CVD mortality, which comprises the largest proportion of NCD mortality and which, throughout the world, has remained the main cause of mortality since the turn of this century[11].

Changes in CVD mortality

The analysis by Ordunez et al.[22] estimated premature (30–69 years) age-standardised mortality rates from cardiovascular diseases and its major contributors of cerebrovascular diseases and ischaemic diseases in 2010, by sex and country. They found a decline in premature cardiovascular disease mortality in the Caribbean, with most countries on target for meeting the CVD component of the WHO goal of a 25% decline in NCD mortality by 2025[21].

It should be noted, however, that Jamaica and Haiti had no data available for analysis.

Three CARICOM countries had the highest premature CVD mortality rates in the region of the Americas. Total premature age-standardised mortality (both sexes) from CVD in Guyana, Trinidad and Tobago and the Bahamas in 2010 were 438, 239, and 209 per 100,000 population respectively, compared with the regional average of 133.

Guyanese men and women had the highest rate of CVD mortality in the Americas, at 553 and 333/100,000 population respectively, compared with the regional average of 175 and 94. Guyana has not seen a significant reduction in premature CVD mortality among its men or women. It does not appear that Guyana will meet the UN target.

As a lower middle-income country, it is unexpected to see such high CVD mortality in Guyana, or such high rates in high-income Trinidad and Tobago. Both of these countries have more than 50% of their population of East Indian origin. Examining mortality disparities by ethnicity is urgently needed in Guyana and Trinidad and Tobago.

Changes in CVD and diabetes mortality

Because of the challenges in unravelling CVD and diabetes mortality (75% of patients with diabetes die from CVD, and the underlying cause of death, diabetes, may not be listed as such on the death certificates), we also reviewed changes in CVD and diabetes mortality.

Much CVD and diabetes mellitus (DM) mortality is premature and largely avoidable by prevention and treatment, thus reflecting the relative functioning of the health system (access, treatment and risk factor interventions). Overall trends in NCD mortality will depend in large part on changes in CVD and diabetes; the major contributors to premature mortality.

The following analysis compared certain CARICOM countries to other Caribbean countries and to white Americans and African-Americans <65 years. Although this is not identical to the WHO <70 years cut-point for premature mortality, it was used because the USA data was structured in that way. Those Caribbean countries with populations <90,000 were excluded (n=8) because the United Nations World Population Prospects does not make projections for these small populations:[15] Anguilla, Bermuda,

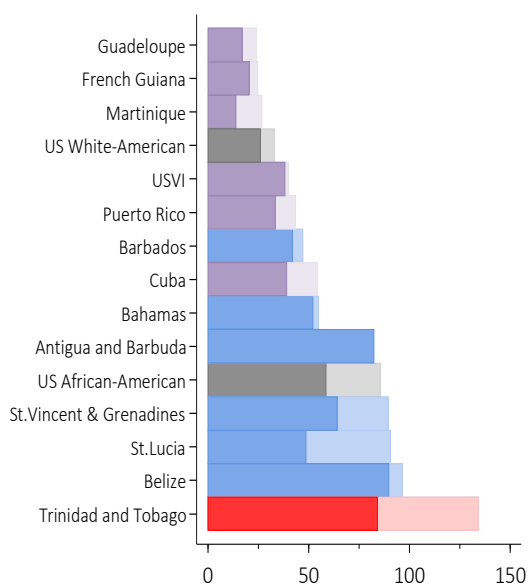
British Virgin Islands, Cayman Islands, Dominica, Montserrat, St Kitts and Nevis and Turks and Caicos Islands. No mortality data were submitted for Haiti and Jamaica, and there was mortality data undercount in Grenada, Guyana and Suriname.

Thus the following seven countries were included: Antigua and Barbuda, the Bahamas, Barbados, Belize, St Lucia, St Vincent and the Grenadines and Trinidad and Tobago.

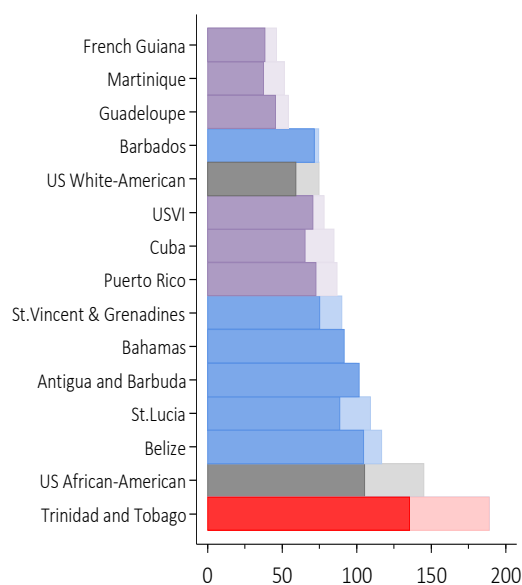
The lighter shaded bars represent the rates in 2000 and the darker bars, the rates in 2010. As can be seen (confirming what was found in the all-NCD premature mortality and CVD premature mortality analyses above) premature mortality has declined.

Figure 7 (3.6): CVD and diabetes: premature mortality (< 64 years)

Females



Males



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Note the differences in scale, with men having around 50% higher CVD and diabetes mortality than women.

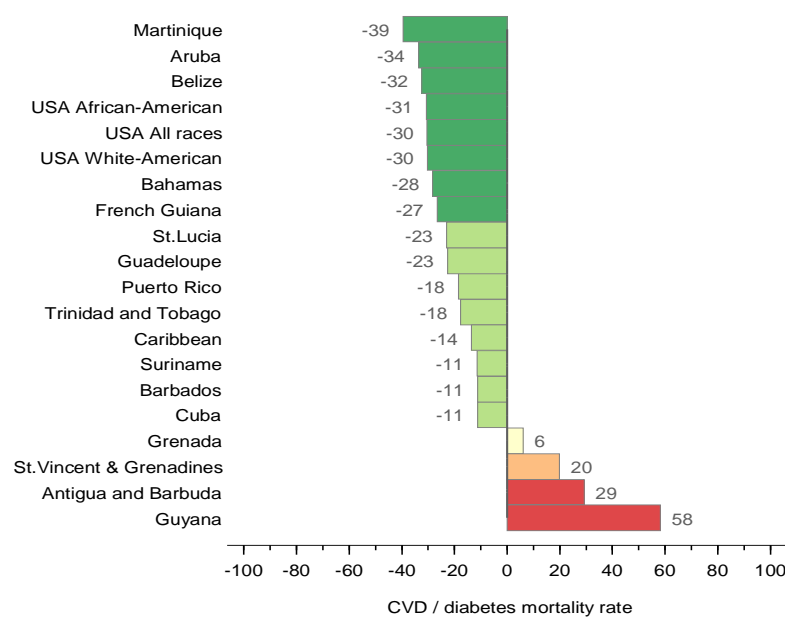
Women 0–64 years, 2000–2010

Guadeloupe had the best profile, with rates of 24 per 100,000 in 2000, declining to 17 per 100,000 in 2010. Among CARICOM countries, Barbados had the best rate. Trinidad and Tobago, in contrast, had rates of 134 per 100,000 in 2000, declining to 84 per 100,000 in 2010.

Men 0–64 years, 2000–2010

French Guiana had the best profile, with rates of 52 per 100,000 in 2000, declining to 38 per 100,000 in 2010. Among CARICOM countries, again, Barbados had the best rate. Similarly to women, Trinidad and Tobago, had the highest rates (189 per 100,000 in 2000, declining to 135 per 100,000 in 2010).

Figure 8 (3.7): Change in CVD and diabetes mortality in Caribbean and USA 2000–2010



While we recognise that some of the apparent increase in CVD mortality may be due to improved reporting, still the figure above shows great disparities in the Caribbean that need to be investigated and explained.

Explaining coronary heart disease (CHD) mortality trends

The trends in CVD mortality rates in the Caribbean should be put into the context of a global decline in coronary heart disease mortality, due to secular trends in risk factors and effective healthcare.

Explaining the trends in coronary heart disease (CHD) mortality in Barbados: 1990–2012

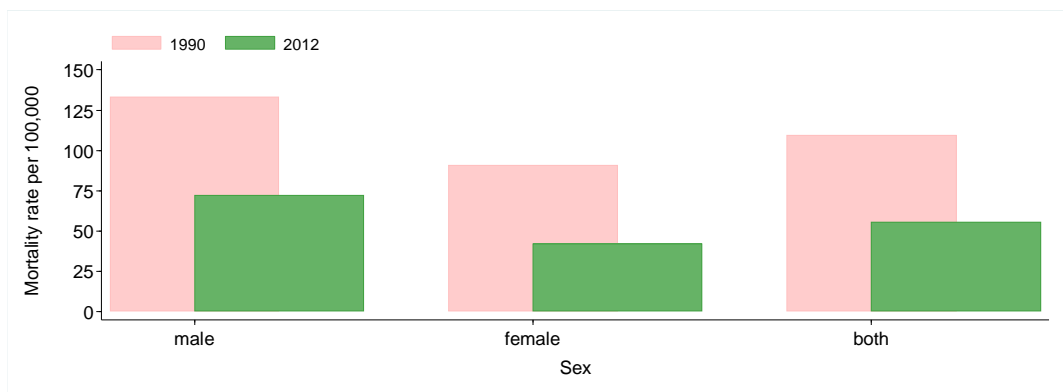
(Natasha Sobers-Grannum, MBBS, MPH, unpublished PhD thesis)[16].

The IMPACT policy model[23] has been used in several developed countries to explain the contribution of CHD treatment and known risk factors to this decline in mortality[24], and is currently being implemented in Barbados. The application of this model to other CARICOM countries in the future is

likely to reveal patterns based on the variation in countries’ risk factor profiles and effectiveness of secondary care.

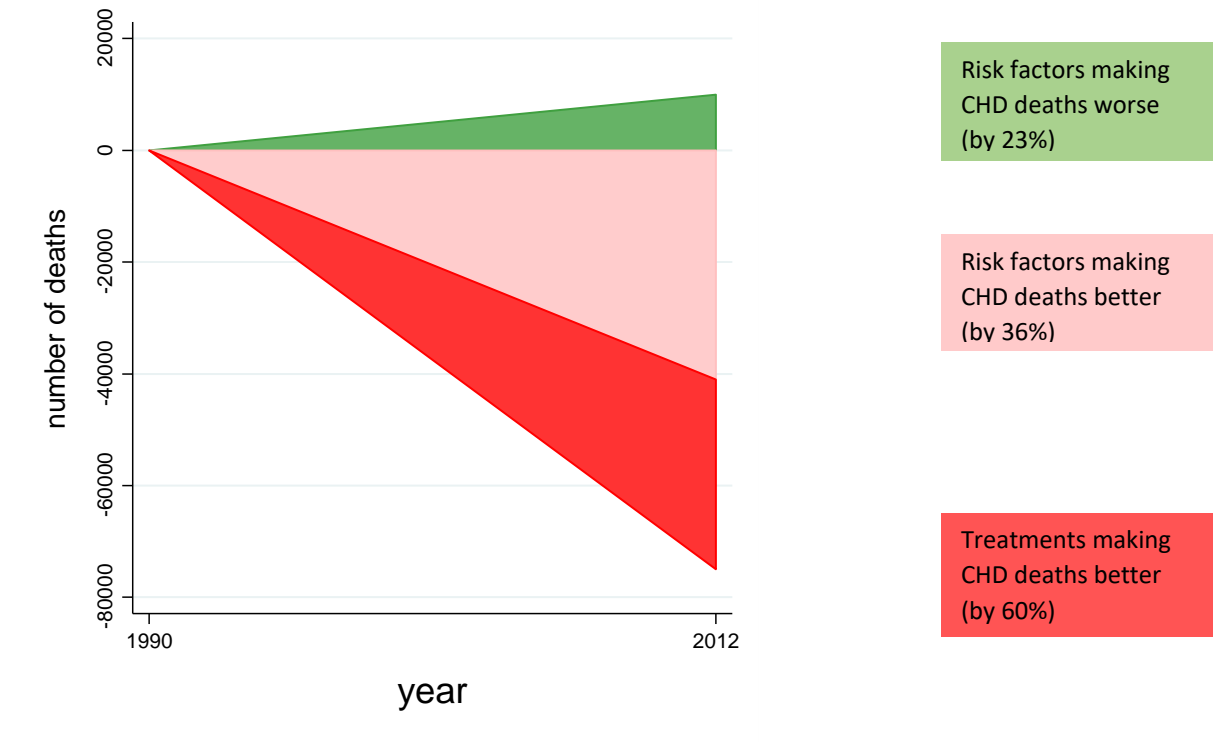
The objectives of this study were to (1) document the change in CHD mortality in Barbados 1990–2012; and (2) examine the extent to which these changes could be attributed to medical and surgical treatments (effective treatment of blood pressure, glucose, hypercholesterolaemia, acute myocardial infarction, heart failure etc.) versus cardiovascular risk factor reduction (smoking, blood pressure, cholesterol, obesity) using the IMPACT policy model.

Figure 9 (3.8) Decline in CHD mortality in Barbados, 1990–2012.



The figure above shows a 46% decline in men and 54% in women, for an overall 50% decline in CHD rates between 1990 and 2012[16].

Figure 10 (3.9): Effect of risk factors and treatment on CHD mortality



Approximately 61% of the decline was due to evidence-based therapies. There was improvement in some risk factors, especially cholesterol, which contributed to 36% of the decline. However, this was mostly wiped out by increases in obesity, diabetes and hypertension (-23%), so that the overall contribution of risk factors was only 13%. Therefore, healthy diet and obesity management remain the top policy priorities for Barbados.

This is a very important story for resource-limited nations where lifestyle factors are worsening and governments or policy makers appear bound to treat their way out of the epidemic.

Morbidity

We sought to collect data on:

- Selected conditions by age, sex and length of stay at hospital;
- Annual attendance of selected conditions to health centres by new or returning clients;
- Incidence and prevalence of NCDs; and
- Chronic disease registrants by age of onset, sex, complications and outcome.

Morbidity data were very limited. Few countries have electronic medical record systems, so hospital discharge data and health centre utilisation data are not readily available. The Bahamas, Belize, Dominica and others have electronic information systems that should facilitate the collection and processing of such information, and other countries are in the process of implementing health information systems. There have been attempts to ensure that these systems will generate comparable data across the region to facilitate regional-level analysis.

Incidence of disease

Robust, population-based cancer incidence data were available for Kingston and St Andrew in Jamaica, and for Barbados. The Barbados National Registry for Chronic NCDs (the BNR) also had incidence data on acute myocardial infarction and stroke.

National Registry for Chronic Non-communicable Disease

The Barbados National Registry for Chronic Non-Communicable Disease (BNR) is the country's first disease surveillance system aimed at monitoring chronic diseases such as strokes, myocardial infarctions, and cancer.

The Registry initiated its activities with the BNR Stroke registry in 2008, which was followed by the BNR Heart registry in 2009 and the BNR Cancer registry in 2010. This national demographic registry collects patient data from hospital and community registries and face-to-face interviews with patients. This surveillance tool is now well established, providing precise and timely data on these pathologies.

This information will make it possible for the health sector to assess the burden of non-communicable diseases for the population, develop practices and policies to ensure the efficient use of limited resources, and facilitate the monitoring and evaluation of interventions. The BNR has already played a decisive role in identifying deficiencies in clinical practice, as a data source for public health policies, and in generating statistics related to incidence, mortality, and survival.

Population-based registries

It is acknowledged that it would be a huge strain on health sector resources to maintain national registries for NCDs (ischaemic heart disease/acute myocardial infarction, stroke, diabetes, hypertension, cancer and asthma). The British Virgin Islands has attempted to do some of these and Barbados has an active, robust NCD registry, described above.

Cancer registries

Cancer surveillance is an important tool for cancer prevention and control planning. Cancer registration began in the region in 1950 and the following countries have some cancer registry activities: the Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Guyana, Jamaica, Suriname and Trinidad and Tobago. Guyana and Trinidad and Tobago have passive reporting registries, while the Bahamas, Belize, Bermuda, Cayman Islands and Suriname have hospital-based registries.

Although it has been reported that apart from Trinidad and Tobago, Jamaica is the only other Caribbean country with a national, population-based cancer registry[25], this is not accurate. Jamaica's cancer registry covers only Kingston and St Andrew, so is subnational, and is based on laboratory reports only. Barbados' national cancer registry, one arm of the BNR (mentioned above), is one of only two national, population-based, cancer registries in CARICOM (the one in Trinidad is hospital-based, while there is also a national, population-based cancer registry in Guyana).

Challenges for establishing (cancer) registries

The International Agency for Research on Cancer Registries (IARC) identified several challenges for maintaining a quality national cancer registry: adequate human resources for case follow-up,

confirmation and other registration, data-processing facilities, the need for unique identifiers to prevent double-counting (often lacking) and confidentiality issues.

As part of the Global Initiative on Cancer Research (GICR), IARC has been establishing Cancer Registry hubs in different regions of the world. One such hub for the Caribbean is being established at CARPHA. The main purpose of the Caribbean Cancer Registry Hub is to improve country capacity for strengthening cancer surveillance to facilitate the generation of high-quality cancer incidence data globally in support of the implementation of the WHO NCD Global Monitoring Framework[21].

The challenges identified for a cancer registry also apply to registries of other chronic diseases. The multidisease registry has been assessed as being a cost-effective approach in small countries with limited resources.

Cancers

Cervical

A comprehensive 2013 ‘*Situational Analysis of Cervical Cancer Prevention and Control in the Caribbean*’[26], summarising all cervical cancer incidence, mortality and HPV prevalence data for the region concluded that:

“...[A]ll have established cervical cancer screening, based on cytology as part of public health programs, and 3 countries have already introduced HPV vaccines into their national immunisation programs. Information is lacking in most countries, however, on the screening coverage and proportion of women with abnormal screening test results receiving follow up diagnosis and treatment, which are key indicators for program effectiveness. Furthermore, limitations in health human resources and infrastructure, especially for radiotherapy, present challenges to improving program effectiveness.”[26]

The authors further add that:

“Cervical cancer is a significant public health burden in the Caribbean region, where it is the second most common cancer and cause of cancer deaths among women. While incidence data is scarce from this region, cervical cancer incidence varies among the non-Latin Caribbean countries. Mortality data from the countries included in this analysis also varied. From 2006 to 2008, cervical cancer mortality ranged from 2.8/100,000 to 21.7/100,000.”

Challenges include data collection, coding, diagnostic capacity, follow up, treatment and palliative care. Perhaps the greatest hurdle is inadequate cytology services – both laboratory and human resources, resulting in prolonged turn-around time for Pap smear results and inadequate quality control. Data on Pap smear prevalence, the proportion with positive results and the proportion of those who get effective treatment are generally not available. Visual inspection with acetic acid (VIA) and immediate cryotherapy is a ‘low-tech’ effective alternative which has not been embraced in the region.

There has been a slow uptake of HPV vaccination.

Other cancers

There is little available data on other cancers in CARICOM countries, in the way that cervical cancer has been described above. In the absence of that, we sought data from Globocan, and the data in the table below cover the entire Caribbean, i.e. including Cuba, the Dominican Republic and Puerto Rico.

Among the Caribbean population of 42 million, prostate cancer in men, and breast cancer in women were the most common cancer sites.

Among Caribbean men, prostate cancer has the highest incidence and mortality. The cancer site with the second highest incidence, lung cancer, has the highest case fatality rate.

Among women in the Caribbean, breast cancer has the highest incidence and mortality. Cervical cancer incidence is in second place, while the second place for mortality is held by lung cancer.

The second and third most common cancers in men in the Caribbean (lung and colorectal) and the second, third and fourth in women (cervical, colorectal and lung) are almost totally preventable through cessation of tobacco smoking and provision of screening colonoscopy and Pap smears.

*Table 4 (3.3): Summary statistics 2012**

Caribbean	Male	Female	Both sexes
Population (1000s)	20,950	21,262	42,212
Number of new cancer cases (1000s)	48.3	42.5	90.8
Age-standardised rate (W)	207.7	168.0	185.4
Risk of getting cancer before age 75 (%)	21.9	16.8	19.2
Number of cancer deaths (1000s)	29.5	23.7	53.2
Age-standardised rate (W)	119.8	87.7	102.0
Risk of dying from cancer before age 75 (%)	12.1	9.2	10.6
5-year prevalent cases, adult population (1000s)	106.6	107.2	213.7
Proportion (per 100,000)	693.3	673.8	683.4
Five most frequent cancers (ranking defined by total number of cases)			
	Prostate	Breast	Prostate
	Lung	Cervix uteri	Breast
	Colorectum	Colorectum	Lung
	Stomach	Lung	Colorectum
	Bladder	Corpus uteri	Cervix uteri

*Data taken from the Globocan web-site: IARC, WHO. Cancer today [Internet]. [cited 2017 Mar 23]. Available from: <http://gco.iarc.fr/today/home>.

Prevalence data

Clinic-based registries

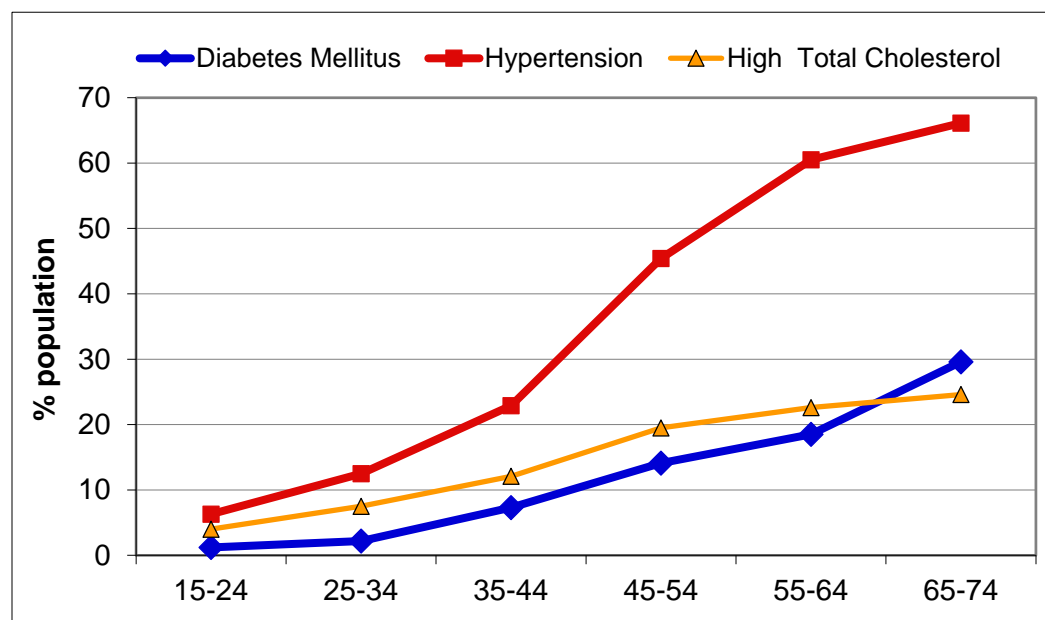
Some countries keep what they refer to as diabetic and hypertensive registers at their primary healthcare facilities. However, without use of unique identifiers, there is the risk of counting visits rather than unique patients. These efforts are rarely consistent and standardised and data generated are not routinely collated or analysed to provide meaningful information to monitor the health situation. Private sector data is not available, and in many countries, the general opinion is that approximately half of all primary care visits occur in the private sector.

The prevalence of disease was obtained from risk factor surveys (Table 3.4 below), with the caveat that 'hypertension' from these surveys reflects blood pressure readings taken on one day only, whereas for a robust clinical diagnosis of hypertension, repeat measures on different days are necessary.

Table 5 (3.4): Prevalence of NCDs in Caribbean countries through risk factor surveys

Country	Country population (2010)	Age range of survey	Year of data collection	Hypertension % (M/F)	Diabetes % (M/F)	Elevated cholesterol % (M/F)
Bahamas	351,461	15 – 74 years	2005	72.0/56.0	7%	3.4%
		25 – 64 years	2011	34.3%	23.9%	15.8%
Barbados	277,821	25 – 64 years	2007	41.5/40.6	...	...
		25+ years	2012	36.9/44.0	15.9/21.0	19.3/22.9
Belize	322,453	20+ years	2010	33.3 / 29.3	8.3 / 17.6	17.2/ 19.7
Bermuda	64,237	18+ years	2011	35.5	10.9	34.1
			2014	55%	10.3%	56.9%
British Virgin Islands	29,537	25 – 64 years	2009	10.9/16.1	6.4/6.5	70.2/61.8
Cayman Islands	55,036	25 – 64 years	2012	25.7%	...	...
Dominica	71,000	15 – 64 years	2008	32.0/32.1	26.2/30.7	28.1/28.4
Jamaica		15 – 74 years	2000	19.9 / 21.7	6.3 / 8.2	...
	2,695,543	15 – 74 years	2008	25.0 / 25.5	6.4 / 9.3	7.5 / 15.6
St Kitts	52,000	25 – 64 yrs	2008	14.8/24.3	...	...
St Lucia	165,595	25 – 64 yrs	2012	28.0/26.7	19.3/14.9	16.0/31.8
St Vincent & Grenadines	109,815	18 – 69 yrs	2014	20.1%	6.9%	20.7%
Suriname	518,000	15 – 55yrs	2001	...	...	15%
Trinidad and Tobago	1,328,000	15 - 64	2011	29.8 / 23.1	19.8 / 21.2	50.1 / 50.4

Figure 11 (3.10): Prevalence (%) of specified disease conditions by 10-year age bands, Jamaica Healthy Lifestyle II 2008



Prevalence of disease increases with age. Hypertension prevalence for those over 40 years is approximately equal to age; e.g. prevalence at age 60 is approximately 60%.

Figure 12 (3.11): Awareness, treatment and control for diabetes, hypertension and high cholesterol, Jamaica Healthy Lifestyle II 2008

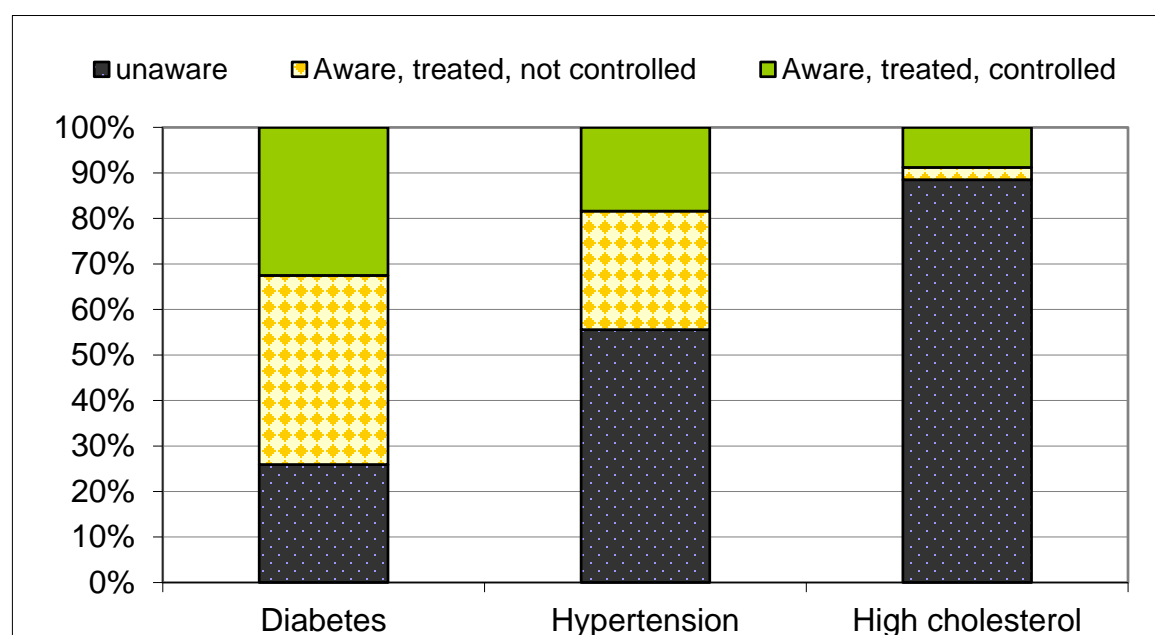
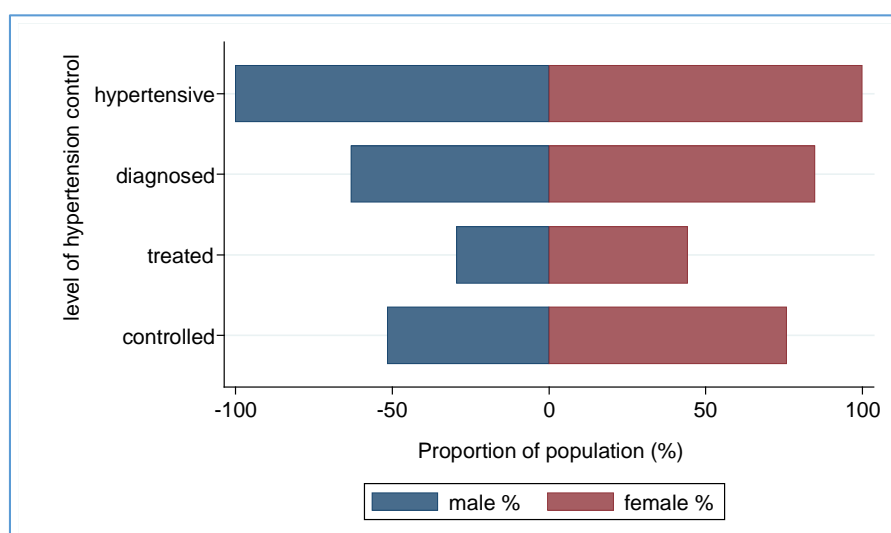


Figure 13 (3.12): The hypertension cascade, Barbados Health of the Nation Study, 2012.



In Barbados, the gender differential in hypertension diagnosis is striking. While 15% of women were undiagnosed, more than twice this proportion (37%) of men living with hypertension was undiagnosed.

Risk factors

Risk factor surveillance

Population-based risk factor surveys should be completed every 3–5 years using standardised methodology. For adults, this should preferably be through the WHO’s global initiative, the STEPwise approach to surveillance (STEPS). The Global Youth Tobacco Surveys and the Global School-based Student Health Surveys, which provide data on risk factors in youth, are supported by financial resources provided by the US Centres for Disease Control and Prevention, so are frequently done in most countries of the region.

These, together with the national Surveys of Living Conditions (SLC), which the national statistical offices of some countries periodically execute, provide rich sources of population data on health indicators.

Although these surveys can be a burden on countries with scarce human and financial resources, they are important sources of information on health and risks of the population required for planning and programming for NCD prevention and control.

NCD risk factor surveys in CARICOM

In CARICOM, 14/20 countries have completed NCD risk factor surveys; most with the support of the Caribbean Public Health Agency together with PAHO.

Twelve CARICOM countries used the WHO/PAHO STEPS methodology. Two countries used ‘equivalent’ surveys. Belize completed the Central America Diabetes Initiative (CAMDI): Survey of Diabetes, Hypertension and Chronic Disease Risk Factors in 2012[27], while Jamaica has completed two surveys, the first being in 2000, before STEPS was proposed, with a repeat in 2008[28, 29].

The Bahamas also completed two surveys, but their data are not comparable since the methodology varied from the first survey. Barbados has completed two comparable surveys using STEPS.

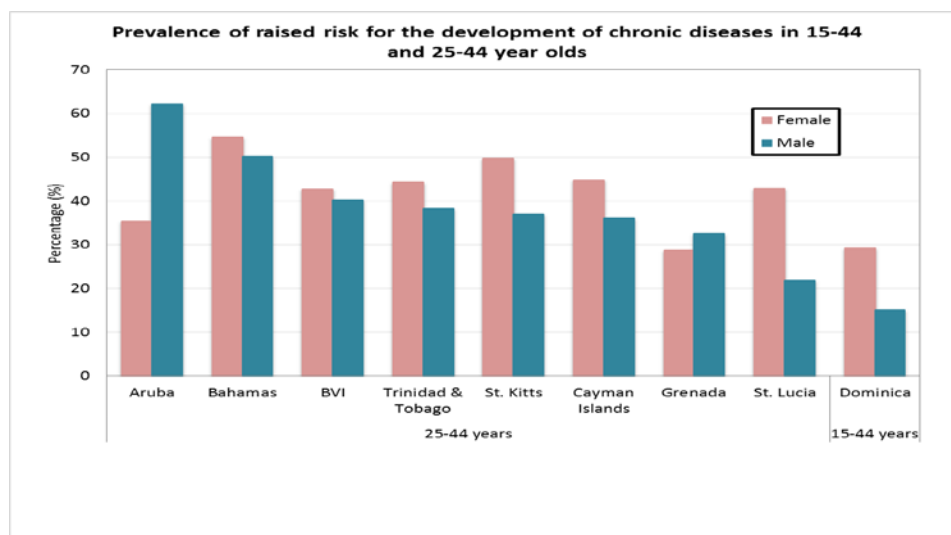
The risk factor surveys were performed in different years in the different countries, and two countries did not use STEPS. Therefore, in-country and trans-country trends should be interpreted with caution (Table 6 (3.5)).

Table 6 (3.5): Summary of main results from risk factor surveys in the Caribbean, 2005–2012

Country	Age range of survey (years)	Year of data collection	Overwt / obesity % (M/F)	Physical inactivity % (M/F)	<5 fruits/veg /day % (M/F)	Binge drinking ¹ % (M/F)	Alcohol use in past 30 days % (M/F)	Daily smokers % (M/F)
Anguilla	....	....	....	....	....	....	46.2/44.5	....
Antigua & Barbuda	....	....	....	....	....	....	42.7/45.0	....
Bahamas	15–74 25–64	2005 2011	65.9/74.2 78.9/80.4	56.9/69.7 ² 36.7/63.2	47.9/46.9 91.2/88.8	.... 21.2/12.2	68.0/47.7 52.4/29.1	... 17.0/4.0
Barbados	25+ ≥ 25 25–64	2015 2007 2012	58/75 54.6/74.3 57.5 / 74.2	30/67 45.5/59.0 30.0/67.2	92/89 96.6/94.3 91.8/88.5	25/5 21.9/9.7 25.4/5.4	.... 42.1/16.9 56.8/29.9	11/2 11.3/1.4 11.0/2.3
Belize	≥20	2010	58.5/72.6	...	...	8.3/1.9	47.5/15.8	19.1/1.7
Bermuda	≥18	2011 2014	72.2/61.5 79.1/69.6	19.0/16.8 20.2/33.7	... 85.4/78.0	38.2/33.3 21.4/4.8	51.4/48.3 75.5/51.4	11.7/6.4 14.8/5.4
British Virgin Islands	25–64	2009	73.5/76.2	23.5/42.4	92.3/92.4	27.7/7.8	49.6/16.0	3.8/2.3
Cayman Islands	25–64	2012	68.7/74.2	24.0/44.3	85.6/81.8	25.7/14.0	63.0/39.4	12.6/7.4
Dominica	15–64	2008	29.5/61.9	14.5/34.3	90.1/92.6	2.0/0.3	64.2/37.3	1.6/0.03
Grenada		2009	...	...	...	...	...	...
Jamaica		2000 2008	... 38.2 / 64.7	... 16.0 / 43.0	... 98.0 / 98.0	... ...	... ...	... 22.1/7.2
St Kitts & Nevis	25–64	2008	74.1/83.0	28.3/48.5	97.6/97.0	20.1/20.7	45.1/14.3	11.4/0.7
St Lucia	25–64	2012	53.9/77.1	18.9/14.2	86.9/89.7	49.5/19.5	74.3/44.7	16.2/2.5
St Vincent & Grenadines	18–69	2014	41.3/67.2	12.5/36.1	94.1/95.6	15.1/3.0	66.9/31.4	12.7/1.3
Suriname	15–55	2001	20%	70%				
Trinidad & Tobago	15–64	2011	52.3/59.0	33.0/57.0	92.8 / 89.3	33.9/16.8	...	29.1/7.7

Persons having three or more risk factors were considered at increased risk for chronic diseases (see Figure 14 (3.13)). High proportions of the population in each of the countries were identified as having raised risk for chronic diseases, with females being identified as having higher risk.

Figure 14 (3.13): Raised risk for chronic diseases, 15–44 years

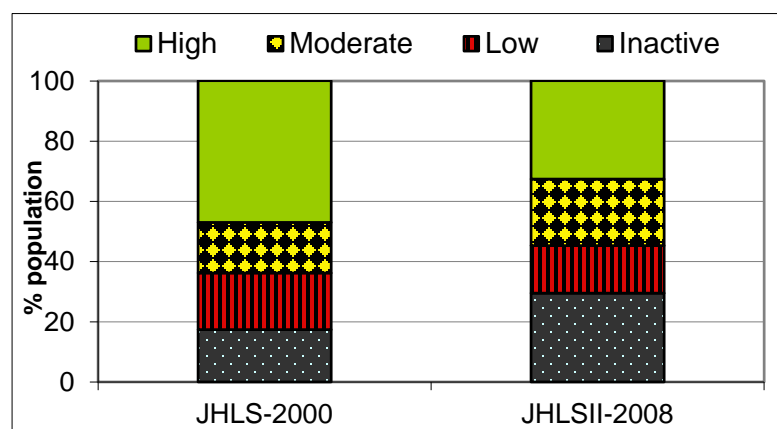


Trends in risk factors over time

Jamaica, Barbados and the Bahamas have done two adult STEPS surveys. The trends in Jamaica and Barbados are presented with the caveat that these are the point estimates and no statistical testing of trends has been performed.

The two surveys in Jamaica showed increasing NCD risk factor prevalence between 2000 and 2008 (Figure 15 (3.14)). The Barbados 2012 survey, which used an extended methodology, when compared to the 2007 survey indicates increased levels of smoking, drinking, overweight and obesity, elevated blood pressure and elevated blood sugar in the population.

Figure 15 (3.14): Change in physical activity categories 2000–2008, Jamaica Healthy Lifestyles II



Tobacco prevalence is fairly constant. Inadequate fruits and vegetable intake is declining, so the population is eating more fruits and vegetables. However, alcohol use is increasing sharply in men and women, as is obesity.

Gender and diabetes – only in the Caribbean

A systematic review of the literature showed that in the Caribbean odds ratios for prevalence in women vs. men were: 1.65 (95% CI 1.43, 1.91) for diabetes, 3.10 (2.43, 3.94) for obesity, and 0.24 (0.17, 0.34) for tobacco use. In most of the world, women have lower or the same risk of diabetes as men. We believe that the very high rates of obesity in women in the Caribbean is driving the excess female prevalence of diabetes, seen almost exclusively in this region[30].

Hypertension prevalence: worst in LAC

An analysis of 1.5 million adults from 45 countries globally revealed a global prevalence of hypertension of 32.3% (95%CI 29.4-35.3). Latin America and the Caribbean (LAC) had the highest prevalence of hypertension in the world (39.1%, 95% CI 33.1-45.2). Risk factors included overweight/obesity, urban residence and lack of education[31].

Table 7 (3.6) below indicates that risk factors among youth are heralding an even larger NCD problem in the future. Childhood obesity is a major concern. Alcohol use among 13–15-year-olds exceeds 40% in 11/20 countries, with tobacco use approaching adult rates.

Table 7 (3.6): Risk factors among youth – Global School-based Student Health Survey, Global Youth Tobacco Survey

Country	Year of data collection GSHS/ GYTS	Obese (> +2SD from median BMI) % (M/F)	Physical activity for 60 minutes/day on last 5/7 days % (M/F)	Drank carbonated soft drinks during the past 30 days % (M/F)	One or more alcoholic drinks in last 30 days % (M/F)	Current cigarette smoking % (M/F)	Exposed to second hand smoke %	Own an object with cigarette branding %
Anguilla	2009	...	...	64.2/60.1	43.3/48.0	7.5/4.3	46.7/46.0	...
Antigua & Barbuda	2009	...	36.5/27.0	59.6/57.7	43.8/45.7	8.2/6.1	55.4/49.7	...
	2004	...	...	...	...	5.2/4.2	18.0	11.8
	2000	...	...	...	...	...	17.4	14.1
Bahamas	2013	18.2/23.6	24.4/16.4	67.2/70.6	29.7/27.2	7.7/2.8	47.5	n/a
	2009	...	...	...	...	6.6/4.6	25.1	11.9
	2004	...	...	...	...	6.2/3.7	21.6	15.6
	2000	...	...	...	...	8.6/5.3	28.7	14.1
Barbados	2011	13.9/14.6	34.5/23.3	74.9/71.5	48.0/45.8	12.7/6.6	57.1	n/a
	2007	...	...	...	...	14.3/9.3	25.9	15.7
	2002	...	...	...	...	7.6/6.4	22.4	15.6
Belize	2011	12.5/12.6	32.5/25.6	67.0/66.7	29.4/26.6	...	...	...
	2008	...	...	...	...	11.7/4.4	25.7	9.6
	2002	...	...	...	...	18.9/10.4	32.6	14.4
Bermuda	2013	...	...	...	58.3/58.5	19.0/10.7	...	...
	2012	...	...	...	3.8/3.1	0.3/0.4	...	...
	2011	17.3/23.3	...	...	18.5/19.8	2.5/2.6	...	...
	2006	...	...	...	...	...	...	...
British Virgin Islands	2009	17.5.6/17.9	33.2/22.7	65.0/63.0	30.5/35.5	7.3/4.3	43.8	...
	2001	...	...	...	...	11.3/10.1	43.3	9.8
Cayman Islands	2012	...	...	...	51.8/54.5	48.4/38.4	...	...
	2007	...	...	...	41.4/36.9	13.5/7.8	53.2	...
Dominica	2009	8.8	24.8/22.6	56.3/55.3	54.5/54.9	...	...	...
	2004	...	...	...	...	11.8/9.6	26.3	16.0
	2000	...	...	...	...	13.4/9.6	27.4	18.1

Country	Year of data collection GSHS/ GYTS	Obese (> +2SD from median BMI) % (M/F)	Physical activity for 60 minutes/ day on last 5/7 days % (M/F)	Drank carbonated soft drinks in past 30 days % (M/F)	One or more alcoholic drinks in last 30 days % (M/F)	Current cigarette smoking % (M/F)	Exposed to second hand smoke %	Own an object with cigarette branding %
Grenada	2009	...	...	...	...	9.9/6.2	27.3	9.1
	2008	...	...	...	49.1/43.0	7.0/3.0	60.4	n/a
	2004	...	...	...	...	10.9/9.5	27.3	11.6
	2000	...	...	...	...	9.9/6.5	28.9	15.3
Guyana	2010	4.6/3.6	23.8/19.1	70.0/71.7	44.1/34.3	17.4/6.8	58.9	...
	2004	...	16.8/15.2	...	46.9/25.9	11.8/3.7	64.3	17.1
	2000	...	...	...	...	11.3/6.4	31.6	...
Haiti	...	...	...	...	...	...	...	...
Jamaica	2010	5.3/6.7	...	74.5/70.6	57.8/47.1	31.0/16.9	69.5	...
	2006	...	...	...	...	20.6/10.9	32.5	14.0
	2000	...	...	...	...	20.3/11.8	30.7	12.7
Montserrat	2008	...	22.1/23.6	...	35.6/31.5	...	...	...
	2000	...	...	...	...	3.5/6.3	43.4	12.6
St Kitts	2011	16.6/12.1	29.3/21.9	63.0/59.9	...	...	...	...
	2010	...	...	...	...	4.8/3.2	20.7	10.9
	2002	...	...	...	...	7.0/1.9	16.5	17.6
St Lucia	2011	...	...	...	...	13.3/8.5	30.5	9.7
	2007	...	17.4/14.0	...	59.2/52.2	9.8/6.2	63.4	...
	2000	...	...	...	...	11.5/7.9	26.9	17.5
St Vincent & Grenadines	2011	...	...	...	...	16.6/8.5	32.6	11.2
	2007	...	15.6/11.4	...	52.6/53.5	12.0/5.1	65.0	...
	2002	...	...	...	...	17.2/10.7	32.5	15.6
Suriname	2009	6.2/6.9	30.5/23.6	81.2/80.6	35.6/30.0	12.5/8.6	47.7	...
	2004	...	...	...	...	9.3/4.7	49.7	18.5
	2000	...	...	...	...	14.7/7.1	56.6	22.3
Trinidad & Tobago	2011	13.2/10.7	36.0/22.9	72.3/76.8	38.0/34.7	13.6/6.9	61.0	n/a
	2007	...	24.1/13.9	...	39.6/42.0	9.7/8.7	66.3	n/a
	2000	...	...	...	...	16.0/7.6	37.2	19.1

Country trends regarding levels of implementation of the POS Declaration

There were no discernible trends in NCD mortality over the 13-year period under review that seem to have been influenced by the 2007 POS Declaration, neither in countries reporting high levels of implementation of the POS Declaration nor in those reporting lower levels of implementation. There is a secular trend of decreased CVD mortality in many countries, which is part of a global trend, and in Barbados, where the study has been done, this trend has been mainly due to development and use of improved medical technology, e.g. statins to reduce cholesterol.

Table 8 (3.7): Summary of gaps in current data on NCD mortality, morbidity and risk factors

GAPS	RECOMMENDATIONS
Data quality	<ul style="list-style-type: none"> Regional and national cross-agency standardised data collection formats developed and adapted by countries, so that the comparability of country data could be facilitated Ongoing training in data reconciliation, and data cleaning
<ul style="list-style-type: none"> Lack of standardised data collection formats across agencies and across countries, e.g. different age-groupings were used by health sector and statistical reporting agencies Contradictions of data: deaths reported by the statistical office sometimes did not tally with the death certificates provided by the ministries of health Data cleaning: some of the datasets also contained errors such as duplicates and missing records 	
Unique Identifiers	<ul style="list-style-type: none"> Develop and implement a regional programme for unique identifiers for each citizen
Mortality data	<ul style="list-style-type: none"> Continuous training of medical practitioners in the accurate completion of death certificates and in understanding the usefulness and importance of the information for monitoring and evaluating the health situation in the countries, in the region and globally All causes of death: immediate, underlying and contributory, should be documented on the death certificate. These should be captured during data processing and preserved in the mortality database of all countries, to be used for data analysis Multiple-cause analysis should be promoted for the more accurate analysis and reporting of NCD-related mortality Ongoing training with proficiency testing in mortality coding and measures implemented for the retention of trained staff
<ul style="list-style-type: none"> Poor certification by physicians and inappropriate coding of deaths seriously compromised the quality of the mortality data available for the countries, e.g. non-specification of conditions, e.g. diabetes, but not the complications, hemiplegia but not the CVA, cancer but not the site; certifying with ill-defined conditions The information documented on the death certificates was reduced to only one cause: the underlying cause of death. As a consequence, absence of the additional data restricted the ability to truly estimate the contribution of CNCDs to mortality through multiple-cause analysis 	
Morbidity data	<ul style="list-style-type: none"> Define a standardised format for data collection on NCDs and data collection for chronic disease public and private clinics in all countries
<ul style="list-style-type: none"> Few countries have national registries for NCDs – heart attacks, stroke, diabetes, hypertension, cancer, asthma 	

<ul style="list-style-type: none"> • Diabetic and hypertensive registers at primary healthcare facilities are rarely consistent and standardised. Also data generated are rarely collated or analysed to provide meaningful information to monitor the health situation 	<ul style="list-style-type: none"> • Build in-country capacity for data collation and reporting in a standardised manner to facilitate manual or electronic data analysis • -Country capacity for cancer surveillance to be strengthened through implementation of the IARC Caribbean Cancer Registry Hub at CARPHA
<p>Risk factor data</p> <p>Surveillance: See Chapter 7</p>	<p>Strengthen country capacity for reporting on the core NCD indicators</p>
<p>Census data</p> <p>Sex and 5-year age-group of census data for calculation and standardisation of rates are often not shared by statistical departments</p> <p>Intercensal estimates are often not available</p>	<p>Build capacity at national statistical offices in the respective countries to share sex and age-group census data and to routinely generate annual population estimates distributed by sex and 5-year age groups.</p>

Please see Appendix A3.1 for more background material on National and regional trends in NCD mortality, morbidity and risk factors

Chapter 4: National policy responses to NCDs and lessons learned

Summary

- There are widely differing levels of policy development and report implementation in response to the Port of Spain Declaration: no country has met all of the indicators, and all have met at least one.
- The indicators with the lowest levels of implementation are those that concern the macro determinants of diet and physical activity.
- The indicators with the highest levels of implementation are those where it is clear what action is needed (i.e. there are protocols or ‘blueprints’) and there is support from regional organisations. Examples include: risk factor surveys and the Framework Convention on Tobacco Control.
- Achieving true multisectoral action, between government, civil society and the private sector, and within government between different ministries, requires appropriate facilitating structures to be in place and to be properly resourced.
- Leadership and support is required from the highest level of government, and in many, arguably most, settings NCDs still lack the political priority they need. Mechanisms should be established within governments and at CARICOM level to keep considerations of health and wellness at the forefront of cabinet decision making.

Background

This chapter concerns the actions taken by individual countries and territories in response to the epidemic of non-communicable diseases. The overarching aim of the work reported can be summarised as:

To identify in individual countries and territories, existing policies towards the prevention and control of NCDs, gaps in policy responses, and the factors that have promoted and hindered successful policy development and implementation

Understanding the policy responses in individual countries and territories is absolutely central to the overall goal of this project, which is to support increased implementation of the commitments made in the 2007 Port of Spain Declaration on NCDs.

Two complementary approaches were taken to meeting this overarching aim. Firstly, data from an annually completed short questionnaire-grid were used. This grid was designed around the 27 commitments made in the 2007 Declaration on NCDs, and has been the main method monitoring government responses to the Declaration. The grid (Figure 4.1) is completed within each country or territory by the NCD focal point within the ministry of health. The data from this grid provide at the time of its completion a ‘snap shot’ of that government’s response to NCDs. Data from all 20 CARICOM

governments, stretching back from 2015 to the years immediately following the Declaration, were analysed. The analyses included examining the characteristics of countries reporting more successful policy responses to those reporting less successful responses. Additional complementary data are presented on compliance with the requirements of the Framework Convention on Tobacco Control. These data are routinely collected from independent countries that have ratified or acceded to the FCTC Treaty. Additional work was undertaken to collect the same data from UK Overseas Territories.

The second approach was to undertake detailed case studies in seven countries. In these studies, the policy response to NCDs was explored through in-depth semi-structured interviews. Interviews were conducted with key informants from a range of different backgrounds, including the government, the private sector and civil society organisations. From these interviews, it was intended that a deep and contextualised understanding would be attained of the following: the degree and nature of responses to NCDs and factors that have promoted and hindered effective responses. In addition to the key informant interviews policy documents were identified and abstracted. Together the interviews and document reviews enabled an analysis of formulated policy (policy statements) and a qualitative assessment of if, or how well, the policy had been implemented.

The structure of the chapter

The chapter is divided into three main sections. First the methods and findings of the study based on the monitoring grid and additional data collection on compliance with FCTC requirements are described. The second section does the same for the seven case studies. The third section aims to synthesise lessons from the first two sections and draw conclusions.

Section 1 – National policy responses and predictors based on the monitoring grid

Aim

As stated above the main aim of work reported in this section was:

To determine the extent to which the 27 commitments in the Port of Spain Declaration are reported to have been implemented and the national and other characteristics associated with high levels of implementation within the 20 CARICOM countries and territories

A subsidiary aim was to:

Document tobacco control measures within all CARICOM countries and investigate factors associated with their successful implementation

Methods

Here the methods are summarised. Fuller details can be found in Appendix A4.1.

Monitoring compliance with the Port of Spain commitments

Earlier work by Kirton and colleagues had determined that the 15 points in the CARICOM 2007 Port of Spain Declaration on NCDs contained within them 27 commitments[5]. These commitments were incorporated within 26 indicators, around which the monitoring grid was constructed. As shown in Figure 4.1 the grid is divided into seven sections.

This grid is sent each year to NCD focal points in each of the 20 CARICOM members' ministries of health. For each it is reported as to whether there is full, partial or no implementation and these responses are given a numerical score of +1, 0 or -1 respectively. These numerical scores are averaged across the 20 members to give a summary of implementation by individual sections and for all 26 indicators, with a score of +1 representing full implementation and a score of -1 representing no implementation at all. Responses to the monitoring grid were collated from 2008 to 2014 and provided by the GA-CDRC, UWI.

Documenting tobacco control measures

In the 15 independent CARICOM countries, this subsidiary aim was met simply by using the data collected by the Pan American Health Organisation's FCTC reporting mechanism, which is a requirement of those countries that have ratified or acceded to the convention. New, additional, data collection was required for the five UK Overseas Territories in CARICOM (which are not required to report on compliance with FCTC). Governments in these territories were asked to complete, as far as they were able, the FCTC reporting tool.

Potential determinants of compliance

The investigation of determinants or 'causes' of policy compliance was based on the systemic hub model of global governance [32]. The model explains Summit performance, including that for compliance, with six central causes: 1. shock-activated vulnerability; 2. multilateral organisational failure; 3. predominant, equalising capabilities; 4. converging democratic characteristics; 5. domestic political cohesion; 6. constricted club participation at a network hub.

A study undertaken in 2011 using the systemic hub model had concluded that a CARICOM member was more likely to implement the Port of Spain Declaration commitments if they were directly vulnerable (i.e. had a high burden of NCDs), had a high per capita GDP and thus the capability to comply and if they had the characteristics of a club at the network hub (e.g. senior policy makers knowing each other through the University of the West Indies)[33].

Several possible additional causes were added for the study presented here. These were: diversionary shocks, such as the earthquake in Haiti in January 2010 or hurricane Tomas striking St Lucia in November of that year and the global economic crisis of 2008; the creation of the Caribbean Public Health Agency as a potential compliance enhancing international organisation; regional support for specific commitments such as Caribbean Wellness Day; international support for commitments, such as those from the Framework Convention on Tobacco Control; and accountability mechanisms, including autonomous ones, to monitor, report on and improve compliance. Finally, gender-specific potential causes of compliance were added, such as the proportion of female members of the elected national legislature. A full list of the causal variables considered is in Appendix A4.1.

Data on the potential determinants of compliance came from two main sources. The first is from the public data sets of other institutions, including WHO and PAHO. The second is from the University of Toronto's Global Health Diplomacy Programme and its companion G8 Research Group, following the data construction methods and public materials developed by them over several years.

Identification of determinants of compliance

The analysis undertaken for this report involved examining the associations between scores on the compliance grid and the variables representing the potential determinants of compliance. This was based on visual inspection of tabulations of the degree of implementation against the predictor variables. An application of quantitative statistical tests has been deferred until more detail about the content and quality of the implementation data is secured, and is outside the scope of this current project.

Findings

Overall levels of compliance against Port of Spain commitments

The level of implementation against the 26 indicators that was known in 2014 in the 20 CARICOM members is shown in Figure 4.1. A green box represents reported full compliance, a red box no compliance, and a grey box incomplete compliance. Overall, across the whole of the 20 CARICOM members, 58% of commitments are reported to have been met.

This cumulative implementation of 58% seven years after the Summit can be contrasted with an overall multiyear compliance average of 76% with 58 assessed G7/8 health commitments in the year after they were undertaken. However, this comparison must be made with caution for two reasons. First, the G7/8 made a new set of health commitments each year and the assessment of compliance with them ended one year later. Second, all G7/8 members are developed major powers with high capacity, unlike the much smaller and more diverse set of CARICOM members. Nonetheless, as both are plurilateral summit institutions with regular, annual summits (i.e. meetings of heads of government) that have regularly generated health commitments for many years, the G7/8 can serve as a general comparator for CARICOM as far as health compliance is concerned.

Levels of compliance by category

A simple visual inspection of the grid indicates considerable differences in levels of compliance between the different categories of indicators, although in every topic category the majority of CARICOM members have implemented at least one indicator. However, there is not a single indicator that has been implemented by every CARICOM member. Caribbean Wellness Day (indicator 15), which is part of the category of education/health promotion, comes closest to implementation by all members, with 17 out of 20 reporting complete implementation.

Using the scoring system of +1 for full implementation, 0 for partial compliance and -1 for no implementation at all, the different areas rank as follows:

Surveillance (4)	+0.59
Physical activity (3)	+0.43
General (4)	+0.28
Tobacco (4)	+0.24
Treatment (2)	+0.20
Education/promotion (5)	+0.06
Nutrition (5)	-0.41
Average (26)	+0.16

Note that had an area been fully implemented by all CARICOM members then it would have a score of +1. The above scores, and a simple visual inspection, indicate that even in the best implemented area (surveillance) there remain substantial gaps.

It should be noted that there are no indicators for reduction in alcohol-related harm, as this was not included in the 2007 Declaration.

Levels of compliance by CARICOM members

There are marked differences in implementation across the CARICOM members, although every member has implemented at least one indicator. Conversely, there is no individual member that has implemented all indicators. This suggests that the POS commitments were ambitious, in that they committed members to things that not all had already done, were doing or would find it easy to do. About half the indicators have been fully implemented by 50% or more members. More specifically 12 indicators have been fully complied with by at least half of the members. Seven more indicators have been fully or partially complied with by at least half the members. Thus, at least half the members have completely or partially complied with 19 indicators.

Seven indicators have particularly poor compliance, with less than 50% of members having either complied or reported that they are in the process of complying. Six out of seven of these indicators concern the 'upstream' (macro) determinants of diet and physical activity: banning trans fats, food labelling, trade agreements on food, provision of physical activity in new housing developments, and physical activity and healthy eating programmes in public and private institutions. The other indicator with poor compliance is banning tobacco advertising, promotion and sponsorship.

In examining the level of compliance by members, it was possible to define three main groups (Table 4.1). While acknowledging the somewhat arbitrary nature of where the cut points are placed between these groups, defining them is useful in considering the determinants of compliance, assessed later.

Figure 16 (4.1) Port of Spain NCD Declaration Monitoring Grid for the 26 Indicators -

Updated: September 2012; September 2013 September 2014

POS NCD #	NCD Progress Indicator	A N G	A N T	B A H	B A R	B E L	B E R	B V I	C A Y	D O M	G R E	G U Y	H A I	J A M	M O N	S K N	S T L	S V G	S U R	T R T	T C I
Commitment																					
1,14	NCD plan	±	±	√	√	±	√	√	√	√	√	√	x	√	±	√	√	±	√	√	x
4	NCD budget	x	±	√	√	x	x	x	√	±	√	√	x	x	x	x	√	x	√	√	x
2	NCD summit convened	x	√	√	√	x	√	√	x	√	√	√	x	√	√	√	√	±	√	√	x
2	Multisectoral NCD commission appointed and functional	±	x	√	√	±	√	√	x	±	√	√	x	√	x	±	√	±	±	√	x
Tobacco																					
3	FCTC ratified	*	√	√	√	√	*	*	*	√	√	√	x	√	*	√	√	√	√	√	*
3	Tobacco taxes >50% sale price	√	x	±	√	x	*	x	√	x	√	√	x	√	x	±	√	x	√	x	±
3	Smoke-free indoor public places	x	√	±	√	±	√	√	√	±	√	√	x	√	x	±	√	x	√	√	±
3	Advertising, promotion & sponsorship bans	x	x	±	x	x	√	√	√	x	x	±	x	√	x	x	x	x	√	√	±
Nutrition																					
7	Multisector food & nutrition plan implemented	√	√	√	√	±		√	x	√	√	√	x	√	√	√	±	√	x	±	±
7	Trans fat-free food supply	x	x	x	x	x	±	x	x	x	x			±	x	x	x	x	x	±	x
7	Policy & standards promoting healthy eating in schools implemented	±	√	√	√	±	√	+	√	±	x	±		√	±	±	±	±	x	±	x
8	Trade agreements utilised to meet national food security & health goals	x	x	x	x	x	x	x	x	x	x	±		x	x	±	x	x	x	√	x
9	Mandatory labeling of packaged foods for nutrition content	x	x	x	±	x	±	x	±	±	x	±		±	x	x	x	x	±	x	x
Physical activity																					
6	Mandatory PA in all grades in schools	√	√	√	√	±	±	√	√	x	±			±	x	*	±	x	x	√	√
10	Mandatory provision for PA in new housing developments	x	*	√	√	√	*	*	x	x	x	x		x	±	*	x	x	x	x	x
10	Ongoing, mass physical activity or new public PA spaces	x	√	√	√	√	√	+-	√	√	√	√		√	±	√	√	√	√	√	x

Education/promotion																									
12	NCD communications plan	X	X	±	√	X	√	±	√	±	±	√	X	±	X	±	X	±	X	±	±	√	X		
15	CWD multisectoral, multifocal celebrations	√	√	√	√	√	√	√	√	√	√	√	√	√	√	±	±	√	√	√	√	√	√	√	√
10	≥50% of public and private institutions with physical activity and healthy eating programmes	X	X	X	X	X	±	X	±	X	*	±		*	±	X	±	±	X	±	X	±	X		
12	≥30 days media broadcasts on NCD control/yr (risk factors and treatment)	X	√	X	√	X	√	X	√	±	*	√		√	X	±	±	±	√	√	√	√	√	√	X
Surveillance																									
11, 13, 14	Surveillance: - STEPS or equivalent survey	X	X	√	√	√	√	√	√	√	√	±	X	√	±	√	√	±	√	√	±	√	√	±	
	- Minimum Data Set reporting	X	√	√	√	√	√	√	√	√	√	±	X	√	±	±	√	√	√	√	√	√	√	X	
	- Global Youth Tobacco Survey	X	√	√	√	√	±	√	√	√	√	√	√	√	X	√	√	√	√	√	√	√	√	X	
	- Global School Health Survey	√	√	√	√	√	X	√	√	√	√	√	X	√	±	√	√	√	√	√	√	√	√	X	
Treatment																									
5	Chronic Care Model / NCD treatment protocols in ≥ 50% PHC facilities	X	√	√	±	±	±	±	±	X	√	±	X	√	±	±	√	±	±	√	±	√	X		
5	QOC CVD or diabetes demonstration project	±	√	√	√	±	±	±	√	X	√	√	±	√	X	X	√	±	√	√	√	√	√	X	
		A	A	B	B	B	B	B	C	D	G	G	H	J	M	M	S	S	S	S	S	T	T		
		N	N	A	A	E	E	V	A	O	R	U	A	A	N	N	K	N	L	V	G	R	I		
		G	T	H	R	L	I	I	Y	M	E	I	I	M	N	N	N	T	G	R	T	I			
Legend: √ In place ± In process/partial X Not in place * Not applicable □ No information □ Recent update																									

Timing of implementation

Examining how reported compliance changed from 2008 to 2014 suggests four main phases. These are summarised, with a more detailed description available in Appendix A4.1.

A slow start: 2007 – 2008

Over the first year following the Summit there was little evidence of implementation across the 26 indicators. The main activities, undertaken by more than five of the 20 members, concerned ratification of the Framework Convention on Tobacco Control, and implementation of the Global Youth Tobacco Survey.

Second year surge: 2009

There is clear evidence of much increased implementation activity in this year. For example, on the two tobacco indicators mentioned above implementation increased to 14 and 12 members, respectively. Caribbean Wellness Day celebrations were reported by 19 out of 20 members.

Steady strengthening: 2010-2012

During this period there was further evidence of increasing implementation, particularly in the surveillance and treatment areas, with over 50% of members complying with five out of the six indicators. The indicator where reported compliance was less than 50% (and remains so) was in the implementation of NCD treatment protocols around the Chronic Care Model.

Stalling: 2013 – 2014

In 2013 and 2014 implementation stalled. For example, 13 countries had NCD plans in both 2012 and 2014. Eight of these plans included an NCD budget, another indicator under the general NCD category. By 2014, only nine countries had complied with the indicator of having mandatory physical activity in all grades in schools.

Table 9 (4.1): CARICOM members by number of indicators met by 2014

CARICOM member	Indicators met (out of 26)
Highest compliers	
Barbados	20
Trinidad and Tobago	19
Jamaica	18
Bahamas	17
Middle compliers	
Grenada	15
Cayman Islands	15
Guyana	15
St Lucia	15
Suriname	14
Antigua	14
Bermuda	12
British Virgin Islands	11
Dominica	11
Belize	9
St Kitts and Nevis	8
St Vincent and the Grenadines	7
Lowest compliers	
Anguilla	5
Turks and Caicos	2
Montserrat	2
Haiti	1

Predictors of indicator implementation

As described above, factors in the 'systemic hub model of global summit governance' were examined against the reported compliance with the 26 indicators in order to identify possible causal relationships. Factors were examined both from the point of view of explaining the time trends in implementation, and explaining differences between members.

One earlier study, conducted in 2011, had concluded that members were more likely to meet their NCD summit commitments if the following applied[4]:

1. They are full members, rather than associate members, of CARICOM
2. They sent a leader to the Summit rather than a minister
3. They have a higher burden of NCDs
4. They are economically capable (wealthier countries show stronger implementation than poorer ones)
5. They are associated with UWI
6. They are more institutionally involved in CARICOM.

The expanded analysis undertaken for the work presented here supports and builds upon these conclusions. Here the key findings from considering four categories of predictor are summarised.

Indicator-specific predictors

Indicators which contained specific reference to implementing an activity or guidance from an international organisation were more likely to be complied with. Examples include the implementation of the Framework Convention on Tobacco Control, aspects of surveillance (such as the Global Youth Tobacco Survey), and Caribbean Wellness day. These indicators are based on statements within the Port of Spain Declaration that contain within them specific 'catalysts', promoting their attainment. For example, the Declaration referred to surveillance in the following way:

'[we declare] That we will establish, as a matter of urgency, the programmes necessary for research and surveillance of the risk factors for NCDs with the support of our Universities and the Caribbean Epidemiology Centre/Pan American Health Organisation (CAREC/PAHO)'

'Catalysts' within this statement include reference to agents who will assist in its attainment, such as international organisations whose mandates include undertaking such work.

Support from subsequent summits

CARICOM heads of government meetings

Analyses of documents from annual CARICOM heads of government meetings, subsequent to the Declaration, investigated how often NCDs were mentioned and how these mentions relate to the implementation of the individual indicators. Overall, the number of references to NCDs is low, with the highest being five references to Caribbean Wellness Day, and this is associated with Caribbean Wellness Day being the best implemented of all the indicators.

Other plurilateral surrounding summits

Proceedings of other regional summits that CARICOM heads participate in, including the 34-member Summit of the Americas (SOA) which met in 2009 and 2012, and the biennial Commonwealth Heads of Government Meeting (CHOGM), were examined for reference to NCDs. While NCDs were referred to in both these fora, there was no evidence that this was related to increased implementation of the Port of Spain Declaration indicators.

Global summits

The UNHLM on NCDs in September 2011 might have been expected to see an increase in implementation in CARICOM. There is no clear indication that this was the case, despite the fact that very many of the commitments made in the 2011 UNHLM mapped to those made in Port of Spain in 2007.

Other time-specific predictors

Other factors that were considered as potential predictors of implementation of the Port of Spain commitments included the discussion and CARICOM heads of government meetings on the global economic crisis, climate change, and the burden on economies of healthcare costs. There is no clear evidence that discussion of any of these influenced implementation.

The unfolding of the economic crisis since 2008 and changes in oil prices since 2007 were considered as factors that might have influenced implementation of the POS commitments, but there was no clear evidence that this was the case.

Finally, natural disasters, including earthquakes and hurricanes, might be expected to impact on implementation. The data available were unable to illuminate how such disasters since 2007 have influenced implementation.

Member-specific predictors

Population size, wealth and NCD burden

Several country- or territory-specific factors were hypothesised to be causally related to degree of implementation of the POS commitments. In general countries with a higher per capita Gross Domestic Product, with larger populations, and with a higher burden per capita of NCDs tend to have the better history of implementation. The top four compliers (see Table 4.2 below) all have populations over 250,000 (two are over million), three out of four are high income, and all have high burdens of NCDs, illustrated in the table by probabilities of premature death from NCDs of around 20%. The bottom three compliers are either all very small (populations less than 40,000) or extremely poor (Haiti). In the middle range it is less clear that that these factors (size, NCD burden, GDP per capita) are related to the ordering of implementation.

Table 10 (4.2): Population size, GDP per capita, and probability of death from an NCD between the ages of 30 and 69 against level of reported implementation

Country	2014 Implementation	Potential predictor		
	Level	Population	GDP per capita	Probability of death (%)
Barbados	20	289,680	25,100	19.6
Trinidad and Tobago	19	1,223,916	20,300	24.5
Jamaica	18	2,930,050	9,000	19.1
Bahamas	17	321,834	32,000	20.8
Grenada	16	110,152	13,800	32.9
Cayman Islands	16	54,914	43,800	6.5
Guyana	15	735,554	8,500	39.9
St Lucia	15	163,362	13,100	20.8
Suriname	15	573,311	12,900	19.6
Antigua	14	91,295	18,400	26.3
Bermuda	12	69,839	86,000	11.0
British Virgin Islands	11	32,680	42,300	9.6
Dominica	11	73,449	14,300	17.1
Belize	9	340,844	8,800	25.9
St Kitts and Nevis	8	51,538	16,300	18.5
St Vincent and the Grenadines	7	102,918	12,100	27.2
Anguilla	5	16,086	12,200	14.1
Montserrat	2	5,215	8,500	12.5
Turks and Caicos Islands	2	49,070	29,100	7.4
Haiti	1	9,996,731	1,300	24.2

Notes: Sources of data from the CIA's World Factbook, World Bank and Pan American Health Organisation. GDP is in purchasing power parity dollars. Probabilities of death are the most recently available (on 4 Feb 2016) from the PAHO Non-communicable Diseases and Mental Health NMH Country Profiles and from analyses conducted using the PAHO mortality database.

Political characteristics and cohesion

Also examined were the levels of implementation against certain political characteristics, including whether health is a value or right embedded in the constitution, whether the current leader was present at the 2007 Summit, the length of time in office of the current leader and whether the s/he has a medical background. These factors are summarised in Table 4.3 below. There were no clear relationships to any of these factors.

Gender-specific characteristics

Several characteristics of CARICOM members related to gender were examined, in order to investigate whether these appear to be related to the level of compliance within countries. Characteristics of members with regard to female participation in the workforce, tertiary education, and government are summarised in Table 4.4.

Two of the top four implementers (Trinidad & Tobago and Jamaica) had female leaders at the time this work was conducted, and all four have a relatively high female participation in the workforce, and a relatively high proportion of female members of parliament.

References to gender in relation to NCDs were also looked for in communiques from subsequent CARICOM heads of government meetings. There were no such references.

Table 11 (4.3): Political characteristics and cohesion against number of Implemented indicators

Country	2014 Implemen tation	Governmental determinants			
	Level	Constitution references	Leadership presence	Current leadership continuity	Current leadership competence
Barbados	20	0	N	5	N
Trinidad and Tobago	19	0	N	5	N
Jamaica	18	0	N	3	N
Bahamas	17	0	N	3	N
Grenada	16	0	N/A	2	N
Cayman Islands	16	2	N/A	2	N
Guyana	15	2	N/A	4	N
St Lucia	15	0	N	4	N
Suriname	15	3	N	5	N
Antigua	14	0	N	1	N
Bermuda	12	0	N/A	1	N
British Virgin Islands	11	1	N/A	4	Y
Dominica	11	0	Y	11	N
Belize	9	1	N/A	7	N
St Kitts and Nevis	8	0	N	>1	N
St Vincent and the Grenadines	7	0	Y	14	N
Anguilla	5	N/A	N/A	5	N
Montserrat	2	0	N	1	N
Turks and Caicos Islands	2	0	N/A	3	Y
Haiti	1	2	N/A	4	N

Notes: Compiled by Julia Kulik March 30, 2015. GDP (OER)-Gross Domestic Product (Official Exchange Rate), GDP (PPP)-Gross Domestic Product Purchasing Power Parity, Pop.-Population, GDP PC (PPP)-Gross Domestic Product Per Capita (Purchasing Power Parity). Source: CIA Factbook, The World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/fields/2227.html>. Source: World Bank. Country and Lending Groups. (2015). http://data.worldbank.org/about/country-and-lending-groups#Low_income.

Table 12 (4.4): Gender-specific indicators

Country	2014 Implementation		Gender-specific indicators				
	Level	Speed	Gender of leader		Labour Force % F/M (2012)	PS % F/M (2014)	% of F in TL edu. (2006-2012)
			2014	2006-2014 (years)			
Barbados	20	5	M	0	65.9/76.7	16.7/83.3	69.1
Trinidad and Tobago	19	4	F	5	52.9/75.5	28.6/71.4	55.4
Jamaica	18	7	F	4	56.1/71.0	12.7/87.3	68.9
Bahamas	17	6	M	0	69.3/79.3	13.2/86.8	N/A
Grenada	16	5	M	0	N/A	33.3/66.7	57.1
Cayman Islands	16	7	M	0	N/A	N/A	68.9
Guyana	15	5	M	0	42.3/80.9	31.3/68.7	66.8
St Lucia	15	6	M	0	62.6/76.0	16.7/83.3	68.4
Suriname	15	7	M	0	40.4/68.8	11.8/88.2	50.6
Antigua	14	5	M	0	N/A	10.5/89.5	68.0
Bermuda	12	5	M	2	N/A	N/A	66.4
British Virgin Islands	11	4	F	3	N/A	N/A	64.7
Dominica	11	4	M	0	N/A	12.9/87.1	N/A
Belize	9	5	M	0	49.1/82.3	3.1/96.9	62.4
St Kitts and Nevis	8	7	M	0	N/A	6.7/93.3	67.3
St Vincent and the Grenadines	7	3	M	0	55.7/78.2	13/87	N/A
Anguilla	5	7	M	0	N/A	N/A	N/A
Montserrat	2	3	M	0	N/A	N/A	N/A
Turks and Caicos	2	3	M	0	N/A	N/A	N/A
Haiti	1	3	M	0	60.6/70.8	4.2/95.8	N/A

Finally, it should be noted that while gender is referred to in the Declaration (*‘[we declare] Our commitment to take account of the gender dimension in all our programmes aimed at the prevention and control of NCDs’*) there is currently no indicator designed to monitor this commitment.

Evidence on tobacco control from FCTC reporting

The above analyses are based on compliance as assessed by responses to the reporting grid (Figure 4.1). Additional data were collected on tobacco control using the FCTC reporting tool. These data were available for all the independent countries with the exception of Haiti, which has not ratified the convention. In addition, new data collection was undertaken in the six UKOTs.

Figure 4.2 summarises the main findings. Overall, the compliance as assessed by the FCTC reporting tool is lower than that assessed by the reporting grid. This likely reflects the more detailed assessment undertaken in completing the FCTC reporting tool, including the availability of clear definitions for reporting tool items. Key points on tobacco control in CARICOM are as follows.

In the 15 full CARICOM countries:

- All, with the exception of Haiti, have ratified or acceded to the FCTC Treaty
- However, of the 13 that have ratified, not one (based on the situation up to 2014) has fully implemented the FCTC articles, with Suriname being the most compliant
- Four have comprehensive policies on smoke-free public places
- Three have requirements for health warnings on cigarette packets, with two being fully compliant in terms of the size and content of those warnings
- One has a compliant policy on advertising bans
- None has taxation at 75% or greater of the retail price, and only two have taxation at > 50% of the retail price
- Six have some form of smoking cessation service in which the cost is covered.

In the six United Kingdom Overseas Territories:

- Four have compliant policies on banning smoking in public places
- One has a policy on health warnings (not fully compliant)
- Two have policies on advertising bans, one of which is fully compliant
- Three have some form of smoking cessation service in which the cost is covered.

Figure 17 (4.2): Indicators of compliance with articles of the Framework Convention on Tobacco Control – based on reports covering up to end 2014. (See key below for interpretation).

Country	ADULT DAILY SMOKING PREVALENCE (2013)	M MONITORING	P SMOKE FREE POLICIES	O CESSATION PROGRAMMES	W WARNING		E ADVERTISING BANS	R TAXATION
			LINES REPRESENT LEVEL OF COMPLIANCE		HEALTH WARNINGS	MASS MEDIA	LINES REPRESENT LEVEL OF COMPLIANCE	
Antigua and Barbuda	...		---				-	20%
Bahamas	...		-				||	43%
Barbados	5%		---				-	42%
Belize	...		-				-	37%
Dominica	...		-				-	23%
Grenada	...		-				-	48%
Guyana	...		||||				-	25%
Jamaica	13%		|||||				|||||||	43%
St Kitts and Nevis	...		-				-	20%
St Lucia	...		-				-	63%
St Vincent and the Grenadines	...		-				-	17%
Suriname	...		|||||||				|||||||	56%
Trinidad & Tobago	...		|||||||		*		|||||||	30%
UK Overseas Territories								
Anguilla	...							
Bermuda	...							
British Virgin Islands	...							
Cayman Islands	...							
Montserrat	...							
Turks & Caicos Islands	...							

* Policy adopted but not implemented by 31 December 2014.

ADULTS DAILY SMOKING PREVALENCE: AGE-STANDARDIZED PREVALENCE, ADULT DAILY SMOKERS OF TOBACCO 2013

---	Estimates not available
	30% or more
	From 20% to 29.9%
	From 15% to 19.9%
	Less than 15%

MONITORING: PREVALENCE DATA

	No known data or no recent data or data that are not both recent and representative
	Recent and representative data for either adults or youth
	Recent and representative data for both adults and youth
	Recent, representative and periodic data for both adults and youth

SMOKE-FREE POLICIES: POLICIES ON SMOKE-FREE ENVIRONMENTS

	Data not reported/not categorized
	Up to two public places completely smoke-free
	Three to five public places completely smoke-free
	Six to seven public places completely smoke-free
	All public places completely smoke-free (or at least 90% of the population covered by complete subnational legislation)

CESSATION PROGRAMS: TREATMENT OF TOBACCO DEPENDENCE

	Data not reported
	None
	NRT and/or some cessation services (neither cost-covered)
	NRT and/or some cessation services (at least one of which is cost-covered)
	National quit line, and both NRT and some cessation services cost-covered

NRT: Nicotine Replacement Therapy

HEALTH WARNINGS: HEALTH WARNINGS ON CIGARETTE PACKAGES

	Data not reported
	No warnings or small warnings
	Medium size warnings missing some appropriate characteristics
	Medium size warnings with all appropriate characteristics
	Large warnings with all appropriate characteristics

MASS MEDIA: ANTI-TOBACCO CAMPAIGNS

	Data not reported
	No national campaign conducted between 1 July 2012 and 30 June 2014 with duration of at least three weeks
	National campaign conducted with 1 - 4 appropriate characteristics
	National campaign conducted with 5 - 6 appropriate characteristics
	National campaign conducted with at least seven appropriate characteristics including airing on television and/or radio

ADVERTISING BANS: BANS ON ADVERTISING, PROMOTION AND SPONSORSHIP

	Data not reported
	Complete absence of ban, or ban that does not cover nationally
	Ban on national television, radio and print media only
	Ban on national TV, radio and print media as well as on sponsorship
	Ban on all forms of direct and indirect advertising

TAXATION: SHARE OF TOTAL TAXES IN THE RETAIL PRICE
OF THE MOST SOLD BRAND OF CIGARETTES

	Data not reported
	<= 25% of retail price is tax
	26-50% of retail price is tax
	51-75% of retail price is tax
	>75% of retail price is tax

COMPLIANCE: COMPLIANCE WITH BANS ON ADVERTISING, PROMOTION AND SPONSORSHIP, AND ADHERENCE TO SMOKE-FREE POLICY

|||||||	Complete compliance (8/10 to 10/10)
|||||||	Moderate compliance (3/10 to 7/10)
||	Minimal compliance (0/10 to 2/10)

Section 2 – National policy responses, their facilitators and barriers in seven case studies

Aims

The work described in this section complements the assessment of policy implementation and its potential predictors described above. It does this by aiming to get beneath what is reported on the monitoring grid, and in particular to understand in individual countries and territories the situation from the perspectives of different stakeholders.

The specific aims were to investigate:

- A. The agreement between reported implementation of the 27 commitments and substantive change (effective implementation)
- B. The degree of use of multisectoral approaches including the engagement of civil society, the private sector and government ministries and agencies in addition to health
- C. Factors associated with success and those associated with difficulties in achieving (A) and (B), including the political impact nationally
- D. What evidence exists on the impact of the implementation on risk factors and health outcomes.

Methods

A detailed protocol (Appendix A4.2) was developed, describing the approaches to meeting the four aims. Here the methods are summarised.

Theoretical considerations

It is worth emphasising that perhaps the most ambitious part of this work was in meeting aim (C): attempting to understand the policy process. Ideally we wished to derive generalisable lessons from the case studies, on what has worked well and why, to inform more effective policy development and implementation across CARICOM and in other settings. The methods were informed by approaches to policy evaluation from the social sciences, and in particular those that examine the importance of contextual factors. One important source that we drew on is ‘realist’ approaches to evaluation. ‘Realist evaluation’, for example, asks the question, ‘what works for whom, in what circumstances and in what respects and how?’ [34]. It aims to understand the mechanisms through which an intervention works, the contextual factors that assist or hinder those mechanisms and the outcomes that result from particular combinations of context and mechanism.

We also examined other approaches that explicitly take into context and also aim for generalisable lessons. For this report we draw on the use of ‘causal pies’ as described by Cartwright and Hardy [35] e.g. seeking to identify components that together are hypothesised to result in a particular outcome. Our choice of approach was largely a pragmatic one, as this was easier to apply and communicate than combinations of contexts and mechanisms.

Data collection

Methods used for data collection included document review, key informant (KI) interviews, and in conjunction with the work presented in Chapter 3, a review of quantitative data on outcomes, as far as they exist, for each country and territory.

Data collection methods and tools

Data collection on policy content used two main methods: a review of policy documents and interviews with key informants. Data abstraction forms for document review were designed based on the content of the 27 commitments, the CARICOM/PAHO NCD strategic document, reporting requirements for the Framework Convention on Tobacco Control and the WHO Global Action Plan. Semi-structured interview guides for the key informant interviews were designed to capture the same range of information (see Appendix A4.2), and in addition to elicit from respondents their insights on what was working well and why, and what was working less well and why.

The time frame considered for data collection on the policy process was from the year 2000, with particular interest in any developments that can be related to the 2007 Port of Spain Declaration, the 2011 UN High-level Meeting and most recently in response to the WHO Global NCD Action Plan[21].

Data collection organisation and data collector workshops

Data collection for the seven case studies was shared between researchers at two sites: University of the West Indies, Cave Hill, Barbados (lead site), and University of the West Indies, Mona, Jamaica. Data collection took place through small teams (three individuals) visiting each case study country/territory for four to five days. Key to the success of these visits was substantial prior preparation, including arrangement of interviews and ensuring the availability of relevant documents.

The production of data collection tools and protocols for their analysis was led by Cave Hill, with input from the other centre through two face- to-face workshops, held in Barbados. The first workshop took place one month before data collection began. It was used to refine and finalise the data collection tools and protocol. It included consideration of findings from other policy analyses in the Caribbean [3, 36], and came up with hypotheses on potential facilitators and barriers to successful NCD policy development and implementation, ensuring that the approach to data collection would capture relevant data.

The second workshop took place after data collection was complete, but before detailed analysis of the qualitative data had begun. This workshop was used to plan the data analysis process and agree the coding frame.

Identification of key informants

The natural initial contact points for KI interviews included the chief medical officer, the MoH NCD focal point, and the chair of the NCD commission (where one exists). Additional key informants were identified through the stakeholder analysis and ‘cascading’ (asking for suggestions from informants already interviewed). In each country between seven and 16 interviews were conducted. All key informants were asked to identify and provide potentially relevant documents for document review. They were also asked if they knew of quantitative data on NCD outcomes (both intermediate, such as on risk factors and treatment coverage and harder endpoints, such as morbid events and mortality).

Standard operating protocols

Standard operating protocols for data collection and analysis of the seven case studies were developed before the first training workshop. These protocols gave separate and specific instructions for personnel to conduct and analyse key informant interviews, as well as document data retrieval and abstraction. In this way it was ensured that procedures for handling data were similar across case studies.

Data analysis and interpretation

All key informant interviews were recorded and transcribed verbatim. Framework analysis, which is explicitly geared towards using qualitative data collection to inform policy and practice [37], was used. Coding was undertaken using the software Dedoose [38], a qualitative analysis software tool. After familiarisation with the data, a thematic analysis was undertaken to develop a coding scheme. This scheme was guided by, but not limited to, the hypothesised causal mechanisms and contexts. It was largely developed in the second workshop (described above), in which all data collectors shared their experiences and initial findings. The data collection team all coded some of the interviews, trained and supported through regular checks for consistency by the two lead analysts, Drs Murphy and Guell.

Ethical considerations

The study received ethical approval from the Institutional Review Board of the University of the West Indies, and from each appropriate body (typically the ministry of health) in the seven countries/territories. Key informants were apprised of the purpose of the study and asked to sign a consent form. Quotes from the key informants are not attributed by name, but by the type of position they had. Key informants were advised that it was not possible to ensure their anonymity – someone with enough local knowledge might be able to reasonably identify the source of a quote. However, it is worth noting that all key informants were being interviewed in their professional or public capacities, and no sensitive personal information was requested.

The choice of case study countries/territories

The following criteria were used to guide the choice of the seven countries and territories for the case studies:

- I. The countries/territories should include a range of socio-economic conditions that exist in CARICOM;
- II. There should be at least one mainland country;
- III. The range of population sizes should be covered, from over 1 million in the largest countries to less than 100,000 in the smallest;
- IV. There should be at least one United Kingdom Overseas Territory; and
- V. The countries/territories should include the three that are chosen for this POS evaluation on the potential for raising revenue from tobacco and alcohol taxes.

Basic characteristics of the 20 CARICOM countries and territories are shown in Table 4.5, and the seven that were chosen are indicated.

Table 13 (4.5): CARICOM countries and territories by population size and World Bank¹ income group (indicating those chosen for the case studies and economic studies)

	Population ['000]	Population category	Case study
Haiti	9,993	>5mill	
Jamaica	2,741	1-5 mil	Yes
Trinidad & Tobago	1,341		Yes
Guyana	754	250-999,000	
Suriname	525		
Bahamas	343		
Belize	312		Yes
Barbados	286		
St Lucia	161	<250,000	
Grenada	108		Yes
St Vin' & Gren	104		
Antigua & Barbuda	87		Yes
Dominica	73		
Bermuda	68		
*Cayman Islands	50		
St Kitts & Nevis	50		Yes
*Turks & Caicos Islands	43		
*British Virgin Islands	25		Yes
*Anguilla	15		
*Montserrat	5		
TOTAL	17,084		

Bold = Included study; ¹World Bank income category: **red** = low income; **orange** = low middle income; **yellow** = high middle income; **green** = high income. *UK Overseas Territory.

Findings

Key informants interviewed and documents reviewed

Tables 4.6 and 4.7 show the number of interviews conducted and documents that were provided for review. In total there were 76 key informant interviews, with 80 key informants (in three interviews, two in Jamaica and one in Belize, more than one key informant was present). The largest number of interviews (27) was with ministry of health personnel, followed by non-governmental organisations (23), and other government departments (16). Academic key informants were interviewed in Grenada (from St George's University) and Jamaica (University of the West Indies) because of their professional contributions to the ministry of health responses to NCDs.

Interviews lasted from around 20 minutes to over an hour. The main analyses conducted for this report were around the processes of policy formulation and implementation, seeking to find out what had worked well and why, and what less well and why. The interview transcripts provide a very rich source of data, which will be used for further analyses by the researchers on this study and will be made available on formal request to other researchers.

Unfortunately, it proved difficult to obtain copies of policy documents. Only six documents were obtained from four countries, making it impossible to systematically compare policy documents with information obtained from the interviews.

Table 14 (4.6): Number of key Informant interviews by country/territory and sector

Country/territory	Ministry of health	Other Gov'	NGO	Private	Academia	Total
Antigua & Barbuda	3	3	5	-	-	11
Belize	4	3	4	1	-	12
British Virgin Islands	5	3	3	1	-	12
Grenada	3	1	4	-	1	9
Jamaica	5	1	4	2	1	13
St Kitts and Nevis	3	3	-	1	-	7
Trinidad & Tobago	4	2	3	3	-	12
Total	27	16	23	8	2	76

Table 15 (4.7): Documents provided for review

Country/territory	
Belize	Belize Health Sector Strategic Plan 2014-2024, Ministry of Health and PAHO, April 2014
	The National Strategic Plan for the Prevention and Control of Noncommunicable Disease 2012-2016, Ministry of Health, October 2011
Grenada	Grenada National Strategic Plan for Health (2007-2011), December 2006 (document marked 'draft')
Jamaica	Food and Nutrition Security Policy, Government of Jamaica, Ministry of Agriculture and Fisheries and Ministry of Health, March 2013
St Kitts and Nevis	Food-based dietary guidelines, Ministry of Health (? date)
	National Policy & Plan for Non-Communicable Disease Prevention and Control, Ministry of Health and Social Services (? date)

Summary of policy responses in the seven countries

Here we use the monitoring grid (Figure 4.3) to indicate differences between what was submitted on the grid and what we reasonably and conservatively believe to be the situation based on the key informant interviews.

While the number of indicators for which there are differences is relatively small, there are nonetheless some important variations. In particular, the number of members with an active NCD plan fell from six out of seven to four out of seven. In the two cases that were downgraded from the category of fully implemented to 'in process', this was because key informants clearly suggested that while a plan may exist it was awaiting cabinet approval and/or implementation.

One country was downgraded from having an active NCD commission, giving three out of the seven rather than four. Other differences are apparent from a careful examination of the Figure 4.3 – all in a 'downgrading' direction bar one, where, based on the evidence from key informants, it did seem there was substantial activity. (This was for mass physical activity in BVI).

Figure 18 (4.3): The completion of the monitoring grid based on responses returned from ministries of health, and modified according to responses from key informants. (See text for details)

		Response to grid									Modified based on KI interviews						
	NCD progress indicator	A N T	B E L	B V I	G R E	J A M	S K N	T R T			A N T	B E L	B V I	G R E	J A M	S K N	T R T
	Commitment																
1,14	NCD plan	±	√	√	√	√	√	√		2	±	√	√	±	√	√	±
4	NCD budget	±	X	X	√	√	±	√			±	X	X		√	±	√
2	NCD summit convened	√	X	√	√	√	√	√			√	X	√	√	√	√	√
2	Multisectoral NCD commission appointed and functional	±	±	√	√	√	±	√		1	±	±	√	√	√	±	±
	Tobacco																
3	FCTC ratified	√	√	*	√	√	√	√			√	√	*	√	√	√	√
3	Tobacco taxes >50% sale price	X	X	X	√	X	±	X			X	X	X		X	±	X
3	Smoke-free indoor public places	√	±	√	√	√	±	√			√	±	√	√	√	±	√
3	Advertising, promotion & sponsorship bans	X	X	√	X	±	X	√			X	X	√	X	±	X	√
	Nutrition																
7	Multisector food & nutrition plan implemented	√	±	√	√	√	±	±			√	±	√	√	√	±	±
7	Trans fat-free food supply	x	X	X	X	±	X	±			x	X	X	X	±	X	±
7	Policy & standards promoting healthy eating in schools implemented	√	±	X	±	√	±	±		1	±	±	X	±	√	±	±
8	Trade agreements utilised to meet national food security & health goals	x	X	X	X	±	±	√			x	X	X	X	±	±	√
9	Mandatory labeling of packaged foods for nutrition content	X	X	X	X	±	X	X			X	X	X	X	±	X	X
	Physical activity																
6	Mandatory PA in all grades in schools	√	√	±	√	±		√		1	X		±	√	±		√
10	Mandatory provision for PA in new housing developments		√		X	±		X		1			±	X	±		X
10	Ongoing, mass physical activity or new public PA spaces	√	√	±	√	√	√	√		+ 1	√	√	√	√	√	√	√
	EDUCATION/PROMOTION																
12	NCD communications plan	X	X	√	±	±	±	√			X	X	√	±	±	±	√
15	CWD multisectoral, multifocal celebrations	√	√	√	√	√	√	√		1	√	√	√	±	√	√	√
10	≥50% of public and private institutions with physical activity and healthy eating programmes	√	X	X		√	X	±			√	X	X		√	X	±
12	≥30 days media broadcasts on NCD control/yr (risk factors and treatment)	√	X	X		√	±	√			√	X	X		√	±	√
	SURVEILLANCE																
11, 13, 14	Surveillance: - STEPS or equivalent survey	X	√	√	√	√	√	√			X	√	√	√	√	√	√
	- Minimum Data Set reporting	√	√	√	√	√	X	√			√	√	√	√	√	X	√
	- Global Youth Tobacco Survey	√	√	√	√	√	√	√			√	√	√	√	√	√	√
	- Global School Health Survey	√	√	√	√	√	√	√			√	√	√	√	√	√	√

	TREATMENT																
5	Chronic Care Model/ NCD treatment protocols in ≥ 50% PHC facilities	✓	±	±	✓	✓	±	✓			✓	±	±	✓	✓	±	✓
5	QOC CVD or diabetes demonstration project	✓	±	±	✓	✓	✗	✓			✓	±	±	✓	✓	✗	✓
		A N T	B E L	B V I	G R E	J A M	S K N	T R T			A N T	B E L	B V I	G R E	J A M	S K N	T R T

Legend: ✓ In place ± In process/partial ✗ Not in place * Not applicable □ No information
 □ Changed since last year

One area that is not included on the grid, because it is not explicitly part of the Port of Spain Declaration, is the prevention of alcohol-related harm. In each of the seven case studies it was noted by key informants that there was little political appetite for developing policies to reduce alcohol consumption in adults. Alcohol was seen to be of too high economic and social importance to be the subject of serious efforts to reduce alcohol-related harm.

In the two national policy documents that were available for review, neither had a clear policy statement on alcohol. This was also found to be the case in Barbados when a similar study was undertaken in 2013[36].

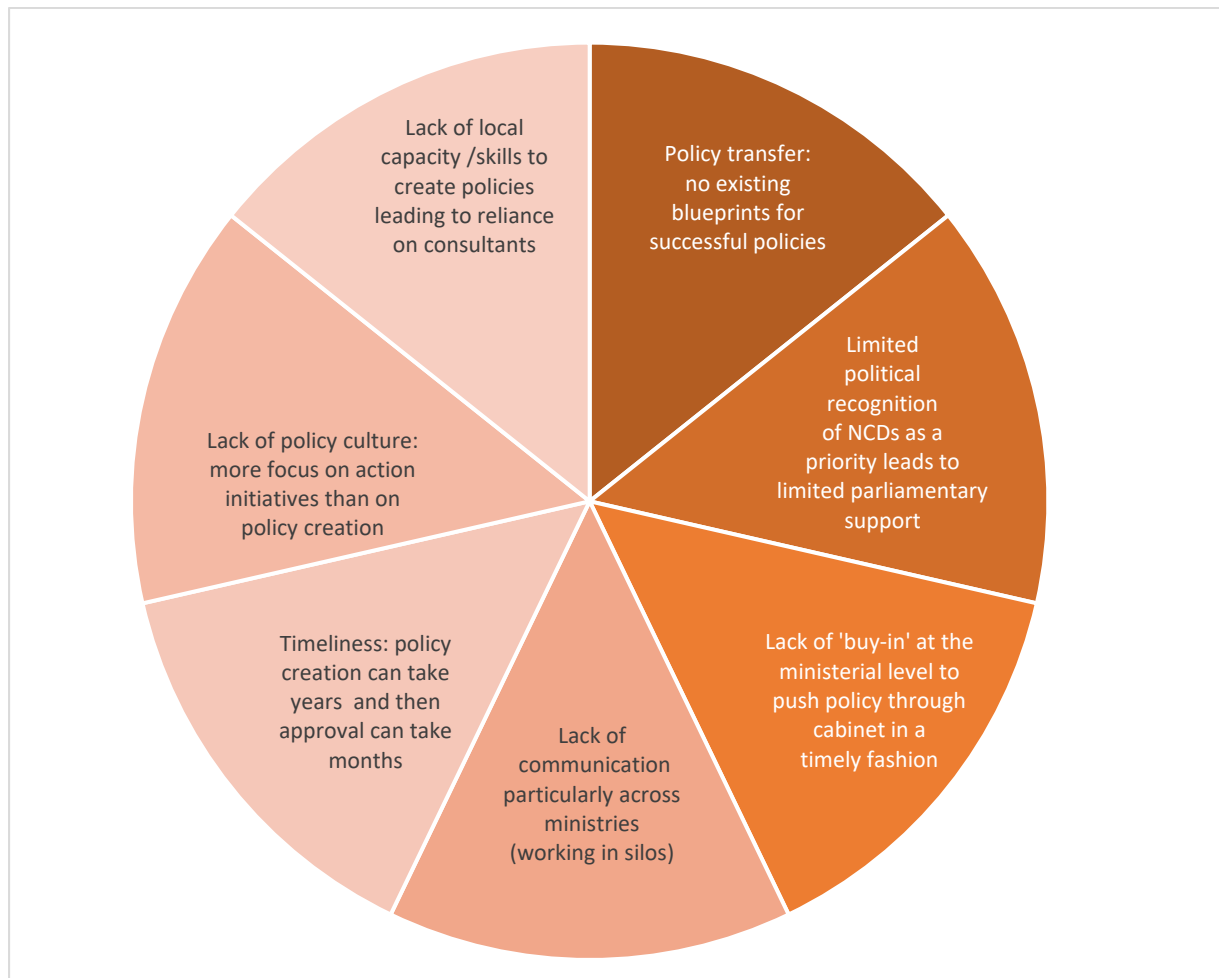
Trinidad and Tobago seemed to be taking the clearest action on reducing alcohol-related harm, with it being stated by key informants that breathalysers for drink driving were widely used. This did not appear to be the case in any of the other six countries.

Barriers and facilitators to policy success

In this section we bring together the qualitative analyses from the seven case studies to summarise lessons derived from the key informant interviews on barriers and facilitators to policy success. We have summarised these using ‘causal pies’, and illuminate their content with subsequent text and quotes. In this way of summarising the findings, each ‘slice’ of the pie may operate to some extent independently of the others, but the more slices that are present within a given country/territory the greater the impact on that particular area of policy.

The presentation of the findings below starts by considering factors that act as barriers and facilitators both to policy formulation and policy implementation for NCDs. Next considered is what factors assist or hinder achieving a multisectoral response to NCDs; and the next four sections focus on the more specific areas of health promotion, risk factors, healthcare and surveillance.

Figure 19 (4.4): Barriers to success: Policy creation



In most countries there was said to be a lack of a ‘policy culture’. This was due to a combination of factors: limited resources (particularly funding) combined with long timelines for policy creation (usually due to the lack of local capacity leading to reliance on consultancy support or training, which was limited by time) and additional waiting time for cabinet approval.

“...[W]e established an ad hoc committee within the ministry but we found it extremely challenging with . . . our regular work to actually work on the document. So it took a very, very long time. And we would have preferred if we had a, could have had a consultant from [here] who was aware of our situation, who could dedicate a month to the policy rather than stretching it out over a year.” (1-07)

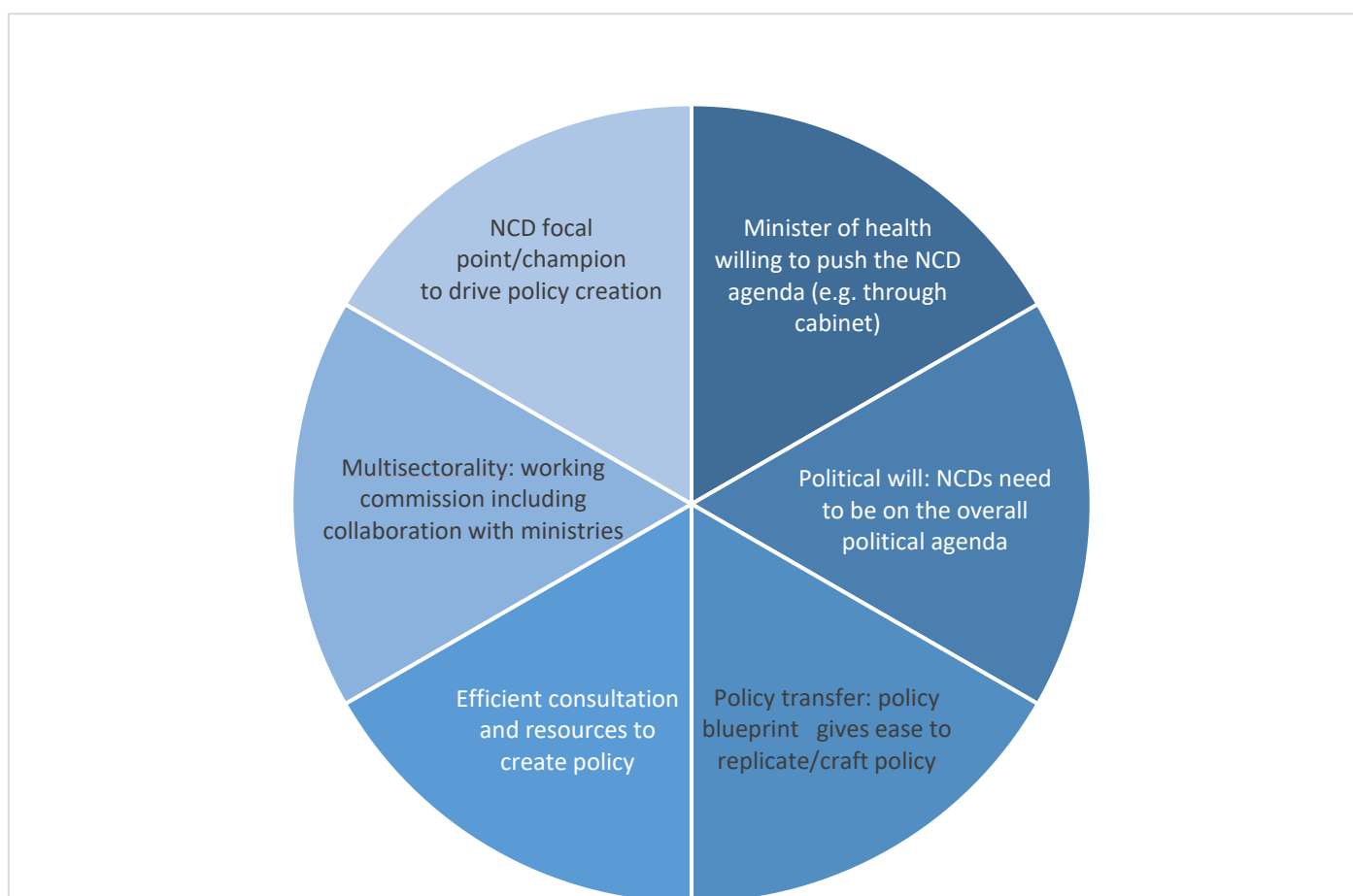
In addition, because NCD prevention was not on the political agenda for most countries, the low priority level led to less parliamentary/cabinet support to garner approval.

“...[T]he emphasis has been on tertiary care, hospital-based care and that has consumed a large part of our budget and preoccupied a lot of time and directives... , they consume all of our resources, human and finance-wise and therefore this sort of initiative [NCD prevention], while it is important doesn’t always factor . . high on the agenda... (7-05)”

In many instances, specific policies were pushed through if someone had a personal experience around the NCD in point (e.g. if a minister had diabetes, or had lost a relative to cancer), but otherwise the NCD commissions formed found that getting their recommendations moved to policy did not happen if there was not a focal point or a minister of health pushing the agenda.

“We’ve made some significant recommendations about surveillance about tobacco, alcohol, diet, auto emissions and we keep coming back to those recommendations because nothing ever is said to us after we’ve sent them up. As I said earlier, we don’t know even if they’re read.” (4-11)

Figure 20 (4.5): Mechanisms for success: Policy creation



In order to achieve successful policy creation, NCDs needed to be on the larger political agenda as a priority area. Each of the seven countries had a commission—or version of one—that addressed NCDs. These groups were all multisectoral in nature with a wide representation of stakeholders from government ministries, NGOs, and the private sector.

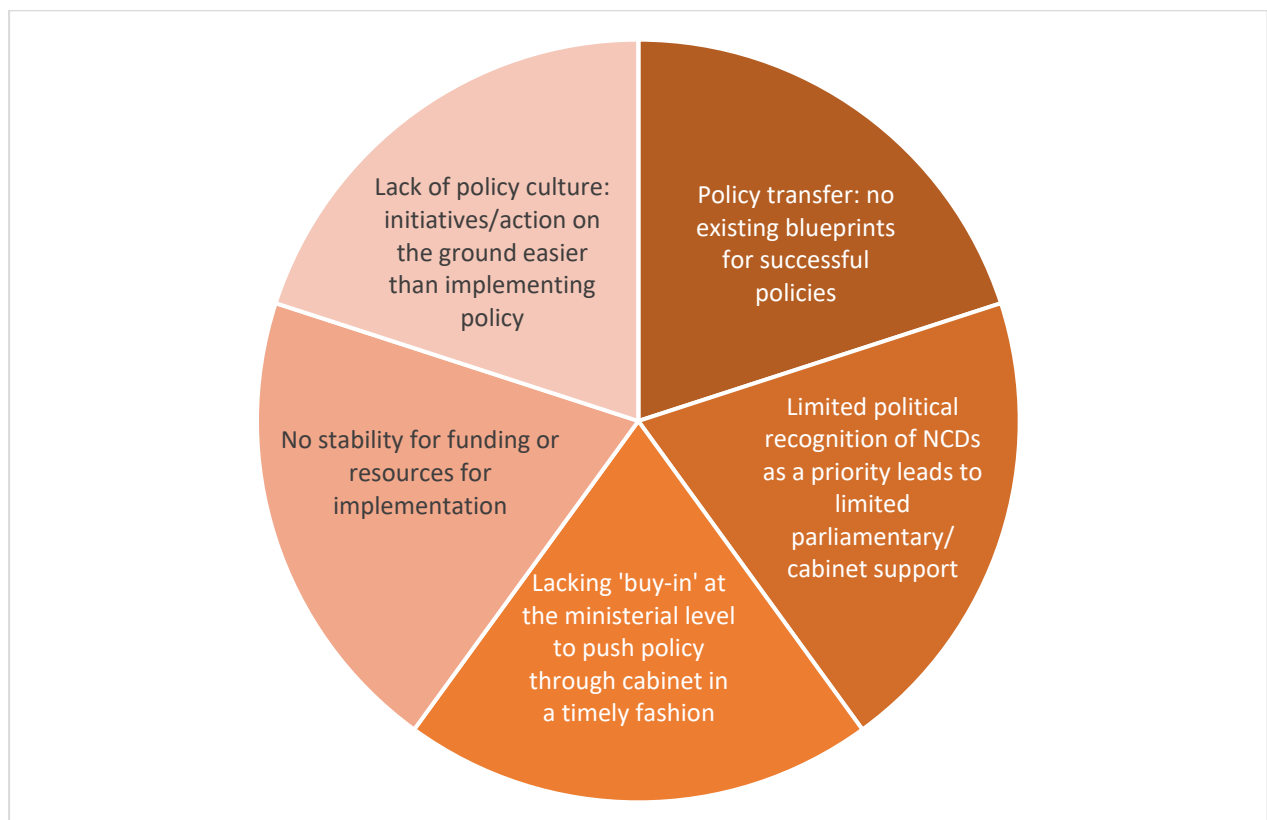
“It has been health sector-driven, but, luckily, we have . . . learned, that, you know, this is not a health sector matter at all. And so we have been slowly building up the capacity to reach out to other sectors. In fact, NCDs, just like HIV, will radically change how we do government, because the complications of a policy gap include incidence of disease.” (6-01)

The actual existence, though, of a commission did not always translate into policy creation. Commissions were advisory, therefore, it was important to have an NCD focal point to drive NCD policy formation as well as a minister of health who was willing to push NCD policies through cabinet, in order to move to policy implementation. All case study countries depended on consultancies from regional and/or international organisations to assist in policy creation, and where those consultancy opportunities were time-efficient, policy creation occurred in what was considered to be a reasonable timeframe. Where there was availability of policy guidelines/ blueprints to allow for easy policy transfer (for example the use of FCTC to create tobacco policies), those policies were created and put to cabinet in a timelier manner than policies for which consultation was necessary.

“...so that was a spring off from the CARICOM food and nutrition policy . . . but what we found was that the CARICOM one was not specific to the particularities of each territory, . . . so we tailored it for St Kitts but . . . make it mesh as much as possible with CARICOM. (6-07)

Likewise, where resources were easily available (e.g. meeting space, etc.) stakeholders were able to work efficiently.

Figure 21 (4.6): Barriers to success: Policy implementation



Some of the barriers to success for policy creation extended to policy implementation. Overall, the implementation for NCD-related policies was low, and that was attributed to the length of time it took for policies to get through cabinet, and to then be put in place, usually due to competing interests.

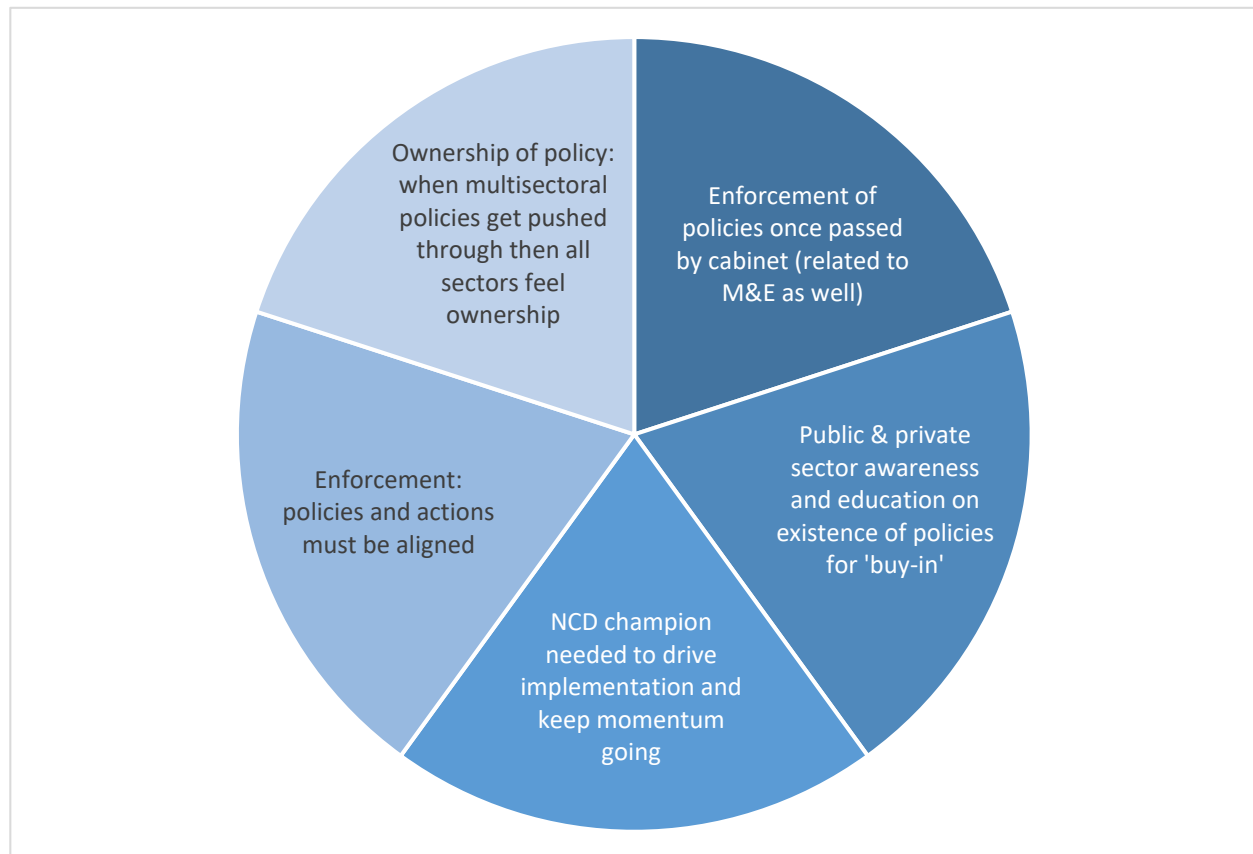
“...[T]hey may have other Acts that . . . they may give priority to [review]; and . . . [are] limited in terms of human resource, so you find that things takes . . . a long time. So, while they may give a timeline to say, ‘Well, we should have it ready by so, so, so’, by the time we check back they said ‘Well, you know we had some challenges.’ . . . And so, sometime you might find that something like that is almost put to the backburner” (1-01)

Along with time, the lack of resources (e.g. finances, manpower, equipment, technology) for policy enforcement also hampered implementation, particularly when considering how to enforce policies in the long-term. Also, particularly for small island states, implementation of certain policies seemed impossible on their own due to other existing government agreements.

“We introduced VAT three years ago...and we thought it was the perfect opportunity to put higher taxes . . . on the imported, processed stuff and subsidise our farmers so that these things are healthier for them. The minister of health was there and the CMO, and they got up we say we can’t do that. Why? World Trade Organisation rules, no barriers. . . . We have implementation deficit disorder. We know what to do but we can’t implement. (6-05)

For this reason, many ministries of health found it easier to implement community ‘action’ initiatives instead of waiting for policies to get through cabinet to be put into place. These initiatives, usually lacked M&E, but showed that the government was trying ‘to do something’ around NCDs, even if the initiatives were not clearly policy-driven or evidence-based.

Figure 22 (4.7): Mechanism for success: Policy implementation

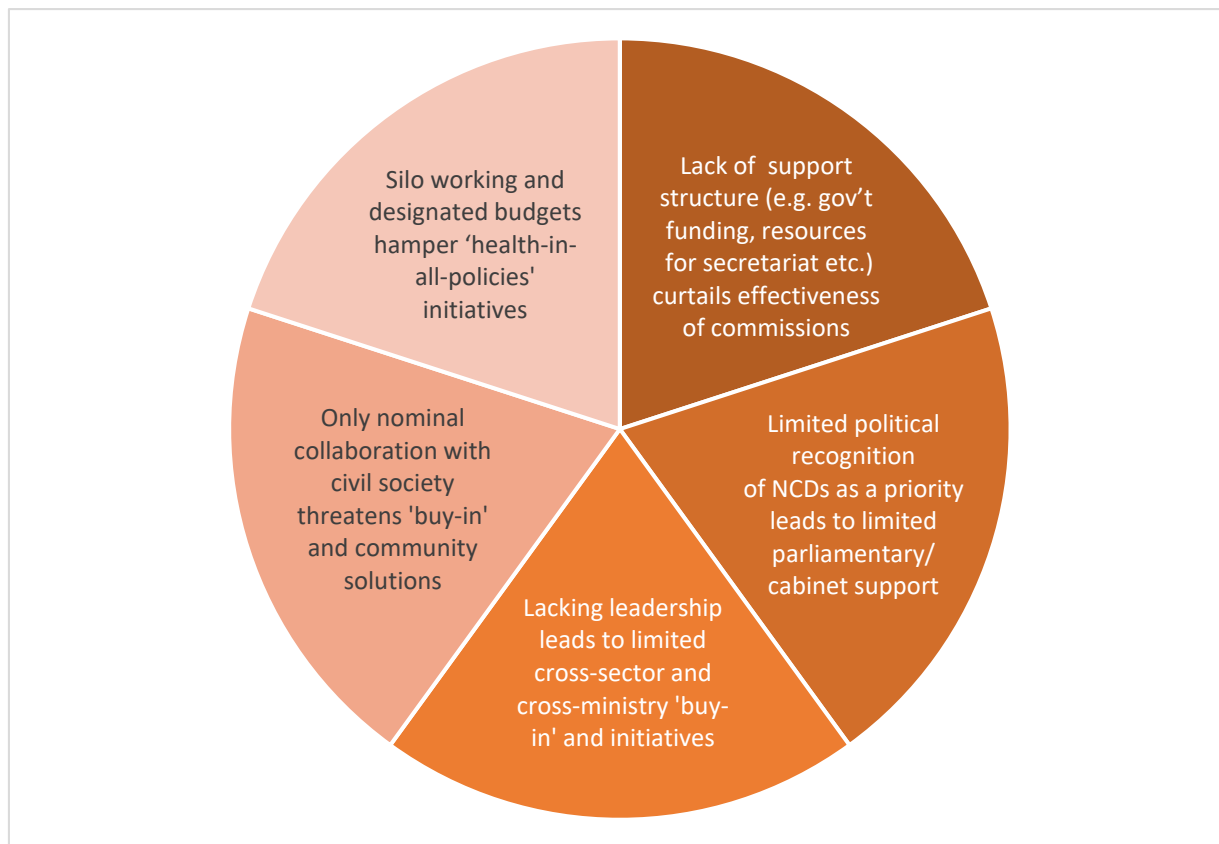


Successful policy implementation needed multiple factors to come together. For example, there needed to be a push within cabinet to have the policy implemented, along with resources to enforce implementation. Where there was collaboration among ministries regarding policy implementation (the main ones being around food and nutrition in schools, and policies around food security, e.g. backyard gardening/'Farm to Fork' initiatives) coupled with the necessary human resources for rolling out implementation, there was success, although this success was usually not measured due to lack of M&E. Similarly, good collaboration with the public and private sector allowed policies to be enforced once stakeholders were aware of, and educated on, the purpose of the policy.

Also, the objectives and outcomes of the policy document must be aligned with the actions and initiatives being put in place and the outcomes must be measurable to ascertain the effectiveness of the policy. There also needs to be a cohesive plan around NCDs so that within government, all parties are aware of how the greater NCD objectives will be achieved.

"...[T]here was effort to cost the strategic plan, . . . that Ministry of Health for the first time has an increased budget, we're told that there'll be money put in place, but basically the programme as it is, somebody over there does alcohol, somebody does tobacco . . . the approach was to just integrate it and assign different people, different areas and that was the approach to dealing with the NCD problem." (5-10)

Figure 23 (4.8): Barriers to success: Multisectorality

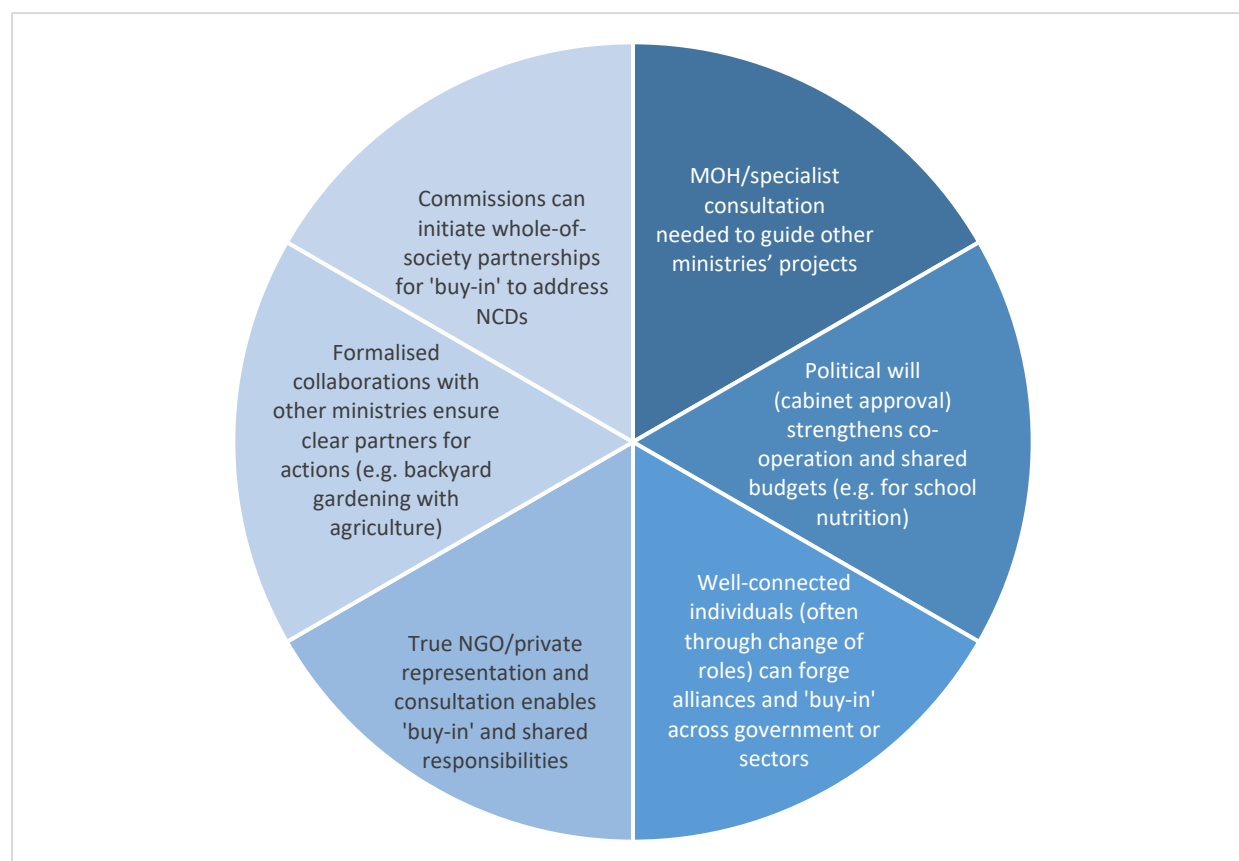


One of the biggest barriers was the lack of high-level political will to support multisectorality. This was particularly frustrating in situations where stakeholders from different sectors were working together on a national committee, only to find high-level support was lacking.

"The problem with the [committee] ... in terms of its sustainability . . . It's a cabinet-appointed committee and, therefore, the minister of health has to do a cabinet note that goes to the cabinet for the appointment of the committee. That cabinet note has to compete with a thousand other cabinet notes . . . It's not a very high priority, so to speak. . . . So the committee had a life for two years. At the end of the two years, a cabinet . . . note would have gone up for another two years. And as the time was approaching, I wrote the minister, I wrote the permanent secretary, I wrote everybody telling them, 'But listen, this is happening. Let us plan in advance so we don't run into a programme where we in a lull for two, three, four months.' . . . And then we were overtaken by the election, so nothing is gonna happen before the elections. Alright. But what I had proposed to the HCC [Healthy Caribbean Coalition], to propose to CARICOM, to propose to the national governments in the region is that even if they're doing it via a cabinet note, let them, let there be an addendum that says that the current committee will continue in office until another committee is appointed. It's so simple! But they won't do it! Well, it, so far it hasn't been done." (7-12)

Particularly in the OECS countries, resources to encourage collaborative efforts were lacking, which sometimes impacted on the ability of the commission/secretariat to carry out their duties. Where ministries and or other sectors worked in silos, opportunities to integrate health, education and nutrition were lost. Where there was no focal point to encourage cross collaboration, there was little initiative by others to do so on their own.

Figure 24 (4.9) Mechanism for success: Multisectorality



Multisectorality was extremely important to policy creation, policy implementation and initiatives related to NCDs. For policy creation, where there were whole-of-government approaches, having collaboration among ministries not only strengthened relationships, but also helped to create policies that were comprehensive, and allowed for consideration of each other's work instead of working in parallel.

"...[F]or a long time we have worked in silos, each ministry is doing its own thing but we have recognised the importance of collaborating with each other. I am happy to say that we [the Ministry of Education] have come a long way in having collaboration with the Ministry of Health. We have done things on and off over the years and now we have actually a signed MOU with the Ministry of Health to work with them in helping the young people in our schools..." (3-08)

“The Ministry of Agriculture, minister of sport, and from time to time you hear of some intervention that’s going on in any of these, am, non-health sector...and they use, they would make sure that they make the connection between what they’re doing and health.” (6-04)

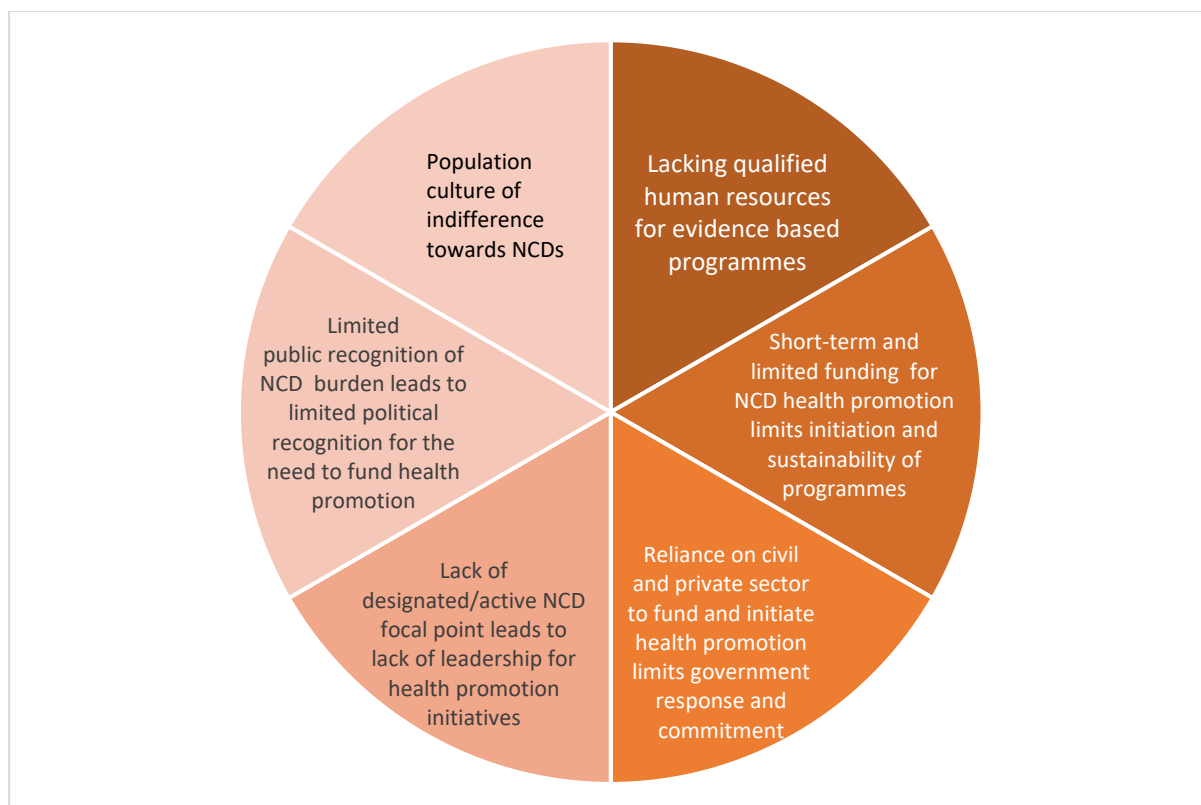
By having whole-of-society partnerships, NGOs and the private sector being given a ‘seat at the table’ allowed for public awareness of the NCD agenda. This shared decision making and shared responsibilities instead of top-down hierarchical approaches encouraged pooling of resources.

“Government can’t just can’t do it alone and health has some cross-cutting issues and quite often the determinants of health lie outside of health so if we involve as many persons as possible including the private sector because there is some funding that obviously is available out there, extra-budgetary funding it’s a win-win situation for us...” (6-03)

“It was a collaboration . . . several other different persons coming around the table in terms of health and how they relate to NCDs. When you would look at things from your box, in terms of nutrition and say “Well, this decision needs to be made”, and the food manufacturers would say . . . how it would affect profits and, you know, it was sort of eye-opening in terms of the collaboration with other sectors. It was the first time in the government’s history that we would be collaborating in such a big level with civil society, NGOs and private sector, that sort of thing.” (7-04)

Therefore, where multisectorality was successful and there was an NCD focal point and/or minister who was willing to push the agenda, policies and programming were successful.

Figure 25 (4.10): Barriers to success: Health promotion



Multiple barriers were highlighted that impeded health promotion initiatives. In some countries, limited resources, as with most other areas, have hampered the ability to do outreach or to affect policy from within the Ministry.

“I think that that health promotion department would be judged to be much more active than they are, and they would still not be doing very much. We have to be able to impact policies, you know, policies. We have to, we have to change the environment, the cultural environment, the chemical environment, the political environment, the nutritional environment” (4-11)

This lack of resources and a designated focal point has affected initiatives such as Caribbean Wellness Day, which is a Declaration mandate. Where there is no functioning health promotion unit, reliance is then on NGOs, community health workers and the private sector for programmes in schools as well as in the larger public sphere.

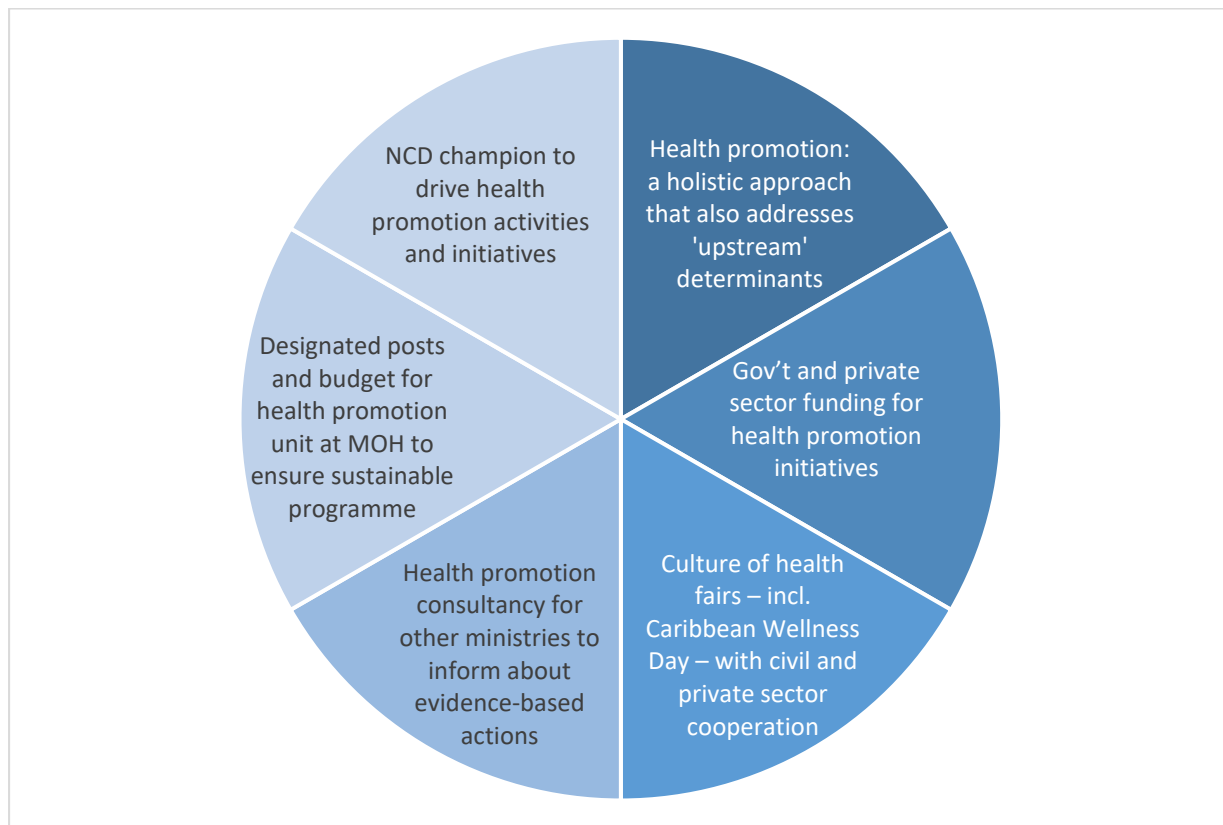
“Because so much of this programming . . . is funded by NGOs, as opposed to national budgets. And what you find is, is that global markets affect how much money NGOs have available, which means that NGOs are restructuring the way in which they deal with funding programming. Countries here in the Caribbean, we have that lovely distinction of being a middle-income country, and that has ramifications for NGOs in terms of prioritising expenditures in this region.” (6-06)

Also, where there is indifference to NCDs from the public’s perspective, health promotion becomes even more difficult.

“But speaking from the media and what is disseminated to the public, it isn’t something that we know there is a policy or a strategy in how to combat these issues. Obesity, for example, is one that we don’t speak about very often...nutrition issues is one, I work very closely with the nutritionist from the Ministry of Health but because she is one of the few sources when it comes to getting information about nutrition... and it’s not something that [the population] have in the forefront of their priorities when it comes to health issues.” (2-05)

There is the general feeling that if NCDs could be given the same level of funding and resources as communicable diseases such as HIV, much more could be achieved.

Figure 26 (4.11): Mechanism for success: Heath promotion



Most countries that had a dedicated health promotion unit, and especially if there was also an NCD champion on board as well as human and financial resources, were able to deliver health promotion programming and education to the general public. In the absence of such, NGOs, offshore universities and the churches seemed to take up the slack in this area.

“... [O]ur health promotion department has done an extremely good job in getting that information out there [through] our public health system, but access to information doesn't necessarily result in behaviour change and it's that gap between finding alternative means and measures to get to persons to ensure that there is, in fact, lifestyle changes is the key.” (6-03)

“..., you see more now, people on the street, even walking. You hear more programmes on the radio about preventing, preventing chronic illnesses. Even within the churches, . . . some of our members have their own programmes” (1-10)

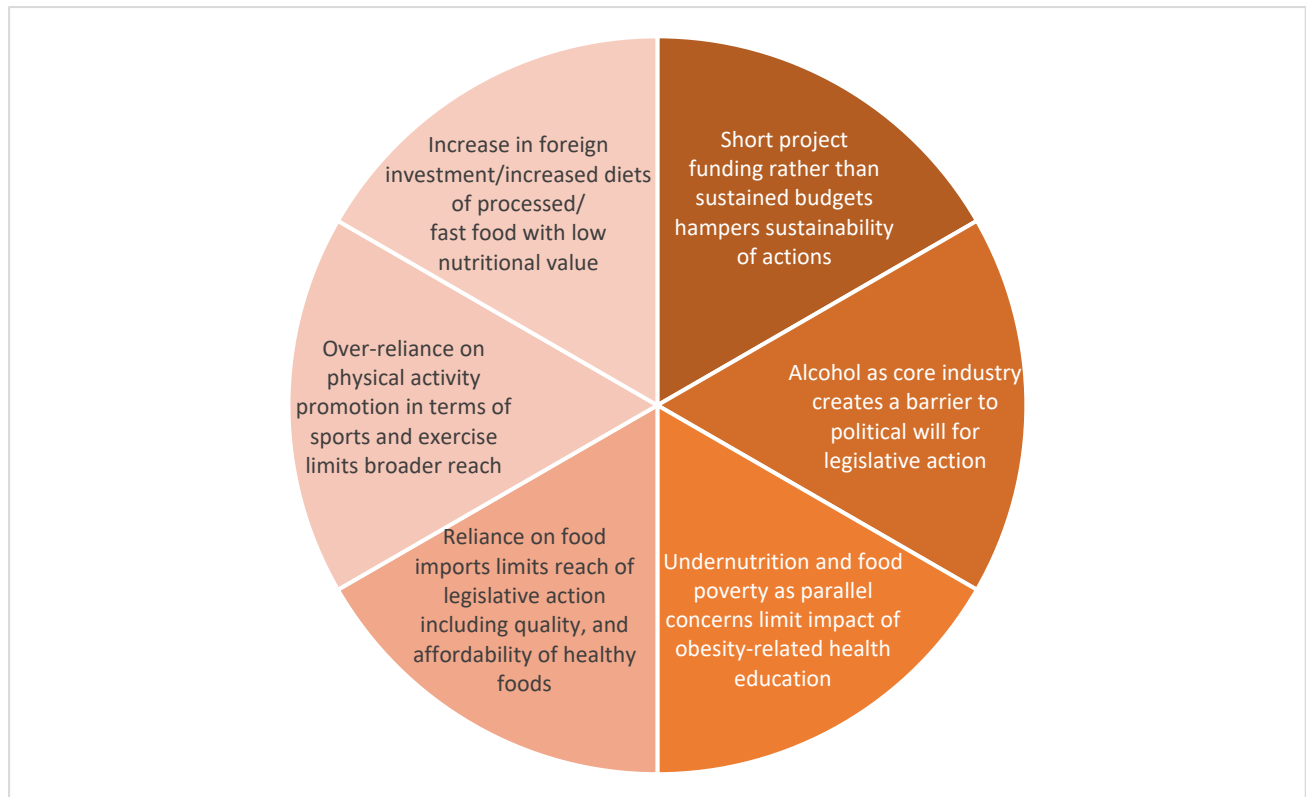
Caribbean Wellness Day has been a successful initiative in most countries, but community outreach and health fairs still lead the way as vehicles of health promotion.

“Well that has been a challenge in my region because we don't have a dedicated health promotion team. It's been something I've been trying to get to on the agenda for a while now but for various reasons hasn't come quite to fruition so we've been doing it in an ad hoc manner through our district nurses as managers....who provide, you know, outreach services to areas that are less accessible, . . . so these are structured outreach programmes that go into

underserved communities and we also receive request from time to time from the private sector and other non-governmental agencies to workplace screening.....” (7-05)

Health promotion initiatives within the workplace, especially in the private sector, have been on the rise which indicates increased awareness.

Figure 27 (4.12): Barriers to success: Risk factors



Stakeholders across seven countries reported a host of barriers to actions to address risk factors of NCDs. Awareness of healthy eating in populations was generally regarded as low, and the increasing availability of nutrition-poor fast food mentioned as a concern. However, the most often highlighted and pressing issues for policy makers were those of food insecurity, reliance on food imports and often a proportion of the population still also challenged by undernutrition or at least limited means to purchase healthy foods.

“Most of the food is imported, it doesn’t have to be that way, but, it is what it is. . . . It’s a world trade issue. . . It’s an open market. . . there are some farms in the United States and Canada that are bigger than [country], so, so they have the volume, and so, by the time this stuff gets here it’s cheaper. And, then you couple that with a cable television network that is ubiquitous, and there are no advertisements for healthy food on cable TV.” (6-05)

Diet and physical activity health promotion (either to research the issues, for example, in a salt study, or to put programmes in place) was seen to be often hampered by short-term and/or external funding.

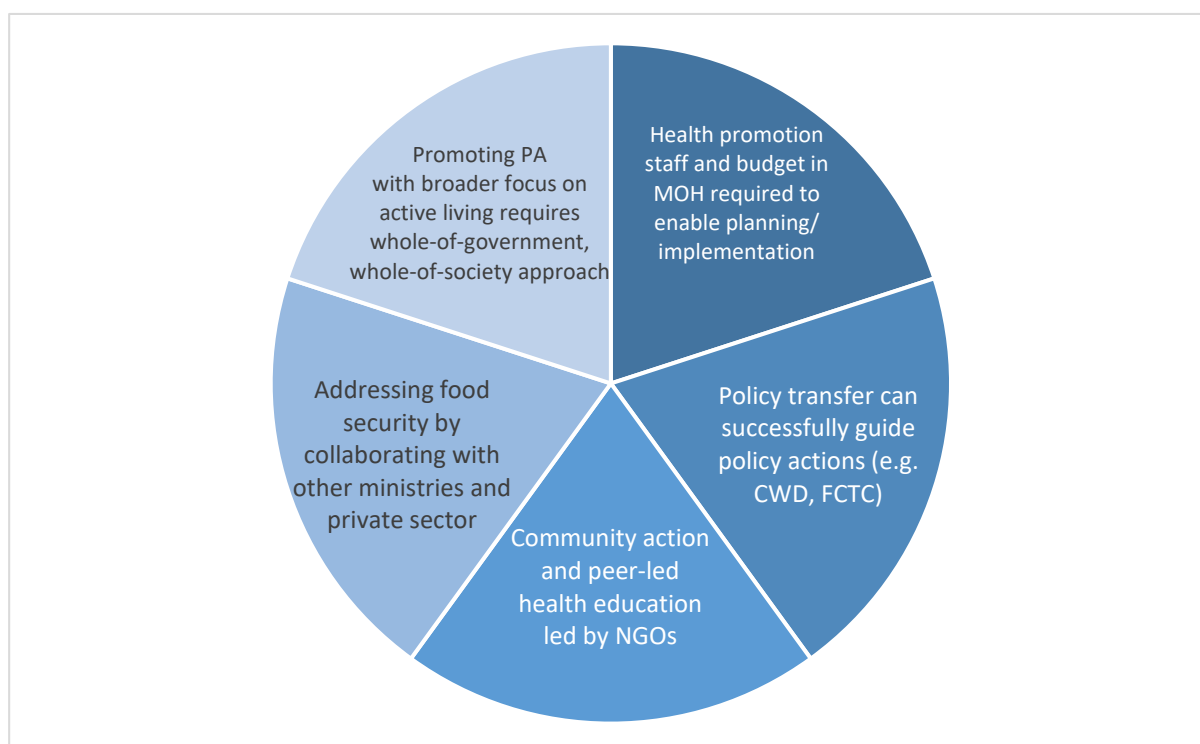
“....[W]e have had to depend largely on our capacity to write small projects for small grants so far to fund a lot of what we do. We don't yet have a lot of dedicated resources.” (3-07)

Alcohol as a risk factor has mostly not been addressed, partly because it is a major export product and for its link with the tourism industry.

“Every time we deal with the alcohol and sugars we have the potential to clash with tourism because tourism is sand, sun and alcohol.” (2-10)

“Are you, ah you want to lose the next election? Nobody touch my alcohol! That's the most we can do is say listen, you know, labeling and laws against sale to minors.” (6-01)

Figure 28 (4.13): Mechanism for success: Risk factors



The ratification of the Framework Convention on Tobacco Control has led to legislation being in place or drafts in process. Clear guidance enabled a straightforward policy transfer, for example, to legislate and implement a ban on smoking in public places and some countries legislated on taxation and marketing of tobacco products. Similarly, clear guidance was desired to inform other risk factor actions.

Most other policy actions focused on diet and somewhat on physical activity.

“We have actually developed a food-based dietary guidelines for [country]. And [country] is now the seventh Caribbean country to have developed their own dietary guidelines; so that has been done.” (5-11)

These included collaborations with other ministries and mostly with private businesses, and while M&E are not being done for most, community involvement in these initiatives has been high.

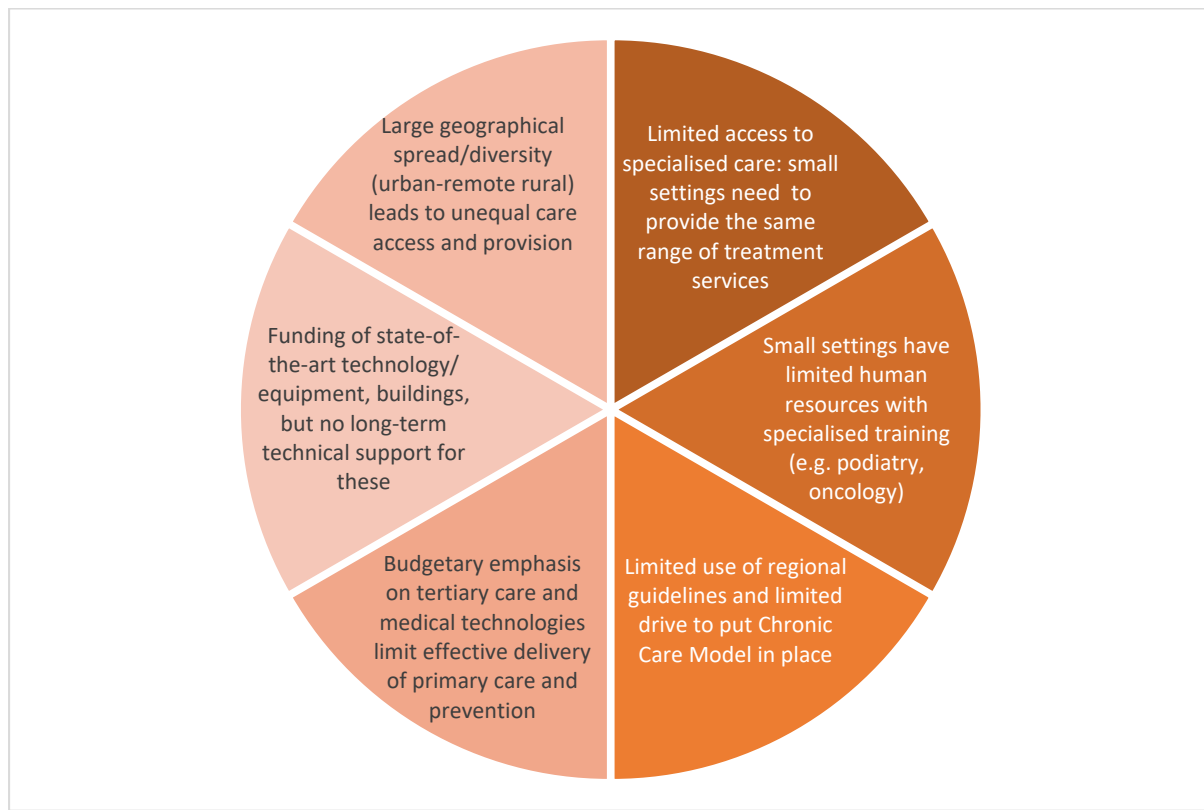
“...You know so, I had one person that one day came up to me and said: ‘I have to thank you. You saved me half a million dollars’. ‘I say but what you mean?’ So ‘Well, basically, before I started exercising here and going out on the [bicycle] rides, you know, I went to my doctor and he said: ‘Well you are facing a bill of about half a million dollars with your blood pressure and the heart and the this and the that and what not’. And it’s amazing to see people have to take . . . pills for diabetes and that sort of stuff and then not having to because now their blood sugar is in check. . . . Because they start there then they expand to doing other things elsewhere; so they may walk somewhere else, you know, they just find this as a trigger mechanism, that catalyst.” (7-02)

A whole-of-government and whole-of-society approach was described as particularly pertinent to addressing food security and availability. Actions included partnerships with the Ministry of Agriculture to promote backyard gardening. Other pronounced collaborations were with the Ministry of Education regarding healthy nutrition programmes outlined in school guidelines – and implemented through training of canteen staff – and with Ministry of Education and Ministry of Sports to promote physical activity in schools.

“...[T]he Ministry of Education now has a feeding programme, which is fantastic as well, they say they are focusing on healthy food, which they provide food for several different schools, so they cook in one location then deliver it to the different schools, their focus is supposed to be on healthy food.” (2-05)

An established health promotion unit with dedicated and qualified staff at the Ministry of Health was seen to enable sustainable programmes and provide necessary consultancy and expertise to programmes from other ministries and NGOs. For example, trained health promotion staff can advise schools on broadening physical activity promotion from a focus on physical education alone, sports and exercise, to active breaks and lessons.

Figure 29 (4.14): Barriers to success: Healthcare/control



A major barrier to the treatment and control of NCDs was seen in the emphasis – in terms of financial and human resources – on tertiary care and medical technologies without supporting sufficiently the continuity of care required for NCDs and prevention efforts in primary care. Moreover, while funding was allocated to medical technologies and equipment, this did not often extend to its maintenance costs or technical support.

“Historically, our health systems really evolve because of a need, way back when and we had a strong public health system, where nutrition was big on the agenda, environmental health was huge on the agenda, and then . . . over the years you just see it becoming so focused on cure and the medical model. Why have we relinquished the public health model?” (2-11)

“I think that the lost side of that is the modernisation of the region and everybody into high tech they want to a CT and MRI for every foolishness and forgetting the basics. The basics will always be fundamental because it shifts the model of care to a very different place which is unsustainable . . . which is financially very unsustainable and we better catch ourselves early and take pause.” (7-09)

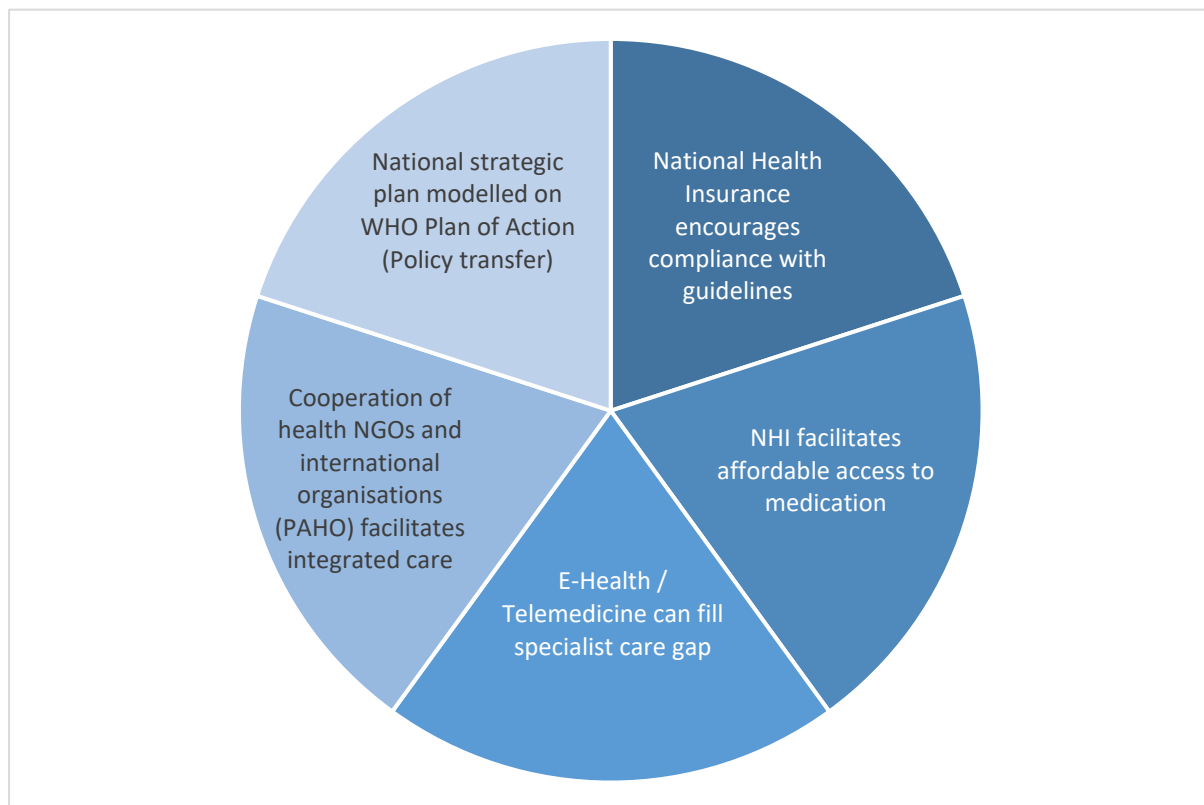
Another limitation was seen in geographical barriers. For large countries such as Belize, the delivery of care in the peripheral countryside did not match care provided in the urban centre. Small countries pointed to the challenge of providing specialised treatment with limited human resources available such as podiatry or oncology.

"...[W]e are a small territory, the requirements for the programmatic requirements are no different than in a big territory. The capacity to implement all that we dream up is extremely challenging. The numbers of physical staff..." (3-07)

While most stakeholders are aware of treatment guidelines and spoke of revised guidelines, the actual use of treatment guidelines is unknown. Equally limited seem to be plans to implement a Chronic Care Model.

"That's the problem in the first place . . . they have the protocols and they are not widely disseminated as far as I am concerned. I think they think that they are in the clinic, I don't know if they are actually in the clinic, I don't know if they are being used, they don't give them to private doctors, as a consultant I don't get one." (5-05)

Figure 30 (4.15): Mechanism for success: Healthcare/control



While an integrated care plan or Chronic Care Model has not yet been realised in most settings, a whole-of-society approach and close working with health NGOs – and their cooperation with each other – and international partners such as PAHO was described to facilitate a move towards an integrated approach in some settings.

“...[T]he Chronic Care Model initiative, it hasn't moved a lot beyond planning but we've had a number of capacity-building initiatives with support from PAHO on the Chronic Care Model and also with support from the consultant which came down from Canada.” (3-07)

In some countries the roll out of a National Health Insurance – or similar schemes to provide universal coverage of healthcare – was considered a major step towards more comprehensive, accessible and accountable chronic care including provision of medication.

“...[T]he decision to create the NHI now means that funding for the chronic diseases would be more sustainable. And the NHI is going to be reimbursing for a standardised care process. So they are supposed to be using standardised guidelines. So the, all of the physicians who participate in NHI, their reimbursements will be against their performance with regard to the Treatment Guidelines.” (3-07)

Treatment gaps due to lacking specialist human resources and expertise, in particular in oncology and cancer treatment, was by some countries filled through e-health or telemedicine, and/or sending patients for care to other countries. Also a consultation with other countries to learn from their models was seen as helpful by some stakeholders.

Figure 31 (4.16): Barriers to success: Surveillance



Without an electronic medical records system, clinical audit and monitoring was described as a burdensome exercise, and stakeholders hoped for a push to implement an electronic system, and to establish registries. NGOs collected data on their members, which were used by ministries. It was reported that it was difficult to gather data from the private sector.

“We’re talking about management of information, collecting data and analysing and reporting trends and stuff like that. We don’t have persons within the unit to do all that. So, right now, we are discussing how we can restructure and how we can recruit new people to, to work in that area because it is not only affecting the progress of NCDs but other areas as well. And that’s an area that we were hoping CARPHA would be able to support.” (6-04)

“... [T]he Ministry call us and ask us for information when they going on a conference to give a speech, they want to know about diabetics, they have to ask us...and that is it, we have the CSO, the Central Statistical Office, who should have all of these things, but their record is about 10 years old...” (7-03)

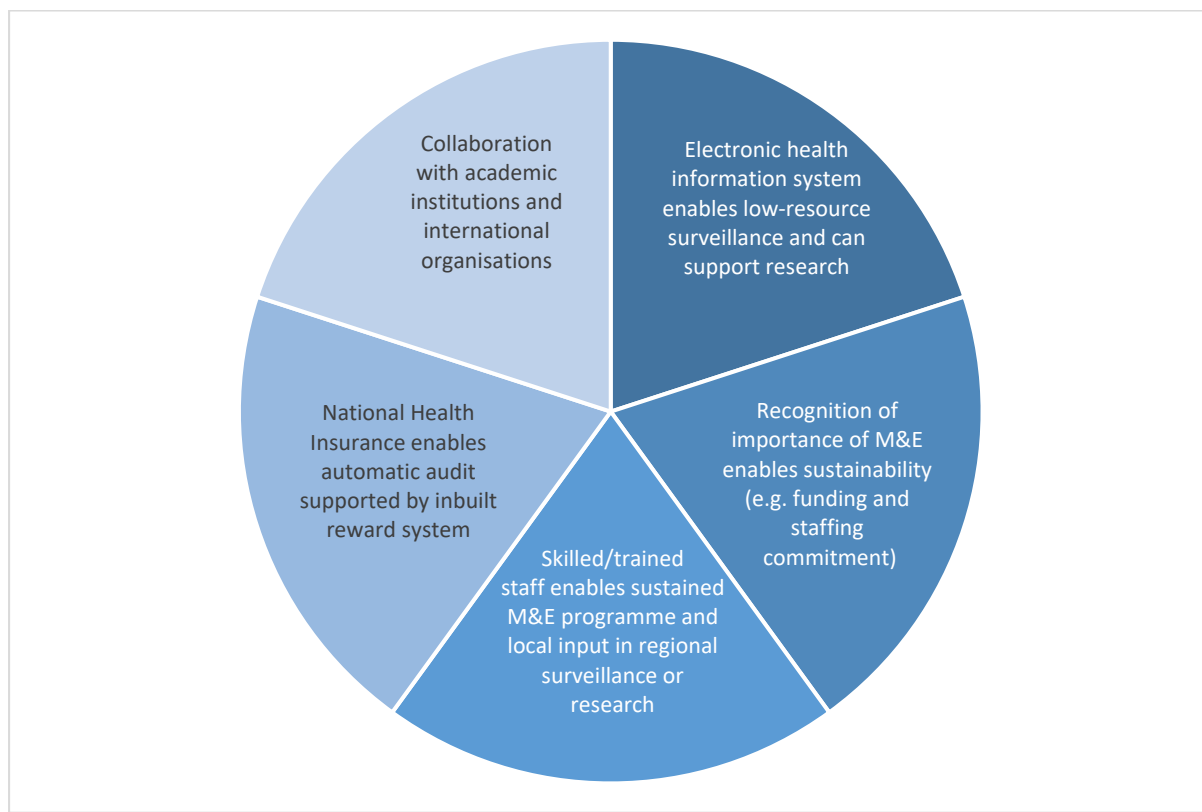
Lack of collaboration with advocacy and academic institutions curtailed any research conducted in some settings. This exacerbated the lack of human resources and skills at ministries of health – and NGO partners – to undertake epidemiological or evaluation research. Reliance on private external consultancy neither helped to build local capacity, nor always led to useful research outputs. Lack of monitoring was also described as hindering successful policy transfer across the region.

“Well, generally speaking we don’t document very well our successes we only complain. So if that can be done in a document, something that can be shared amongst each other. Sharing the way in which we people made differences not necessarily have to look beyond the shores of the Caribbean to find best practices, I’m sure there’s a whole lot of best practice out there and to celebrate successes and also to restore the values of primary healthcare back to the way in which we deliver healthcare.” (7-09)

NGOs acknowledged that many of their initiatives were planned without attached targets and evaluation, and they would like help – in terms of finance and expertise – to be able to inform their programmes with a credible evidence base that would also help fundraising initiatives.

“Those are the kinds of things we need to reflect more on and frankly one of my aims, by the end of the year, is to get a grant from somewhere to get someone to come in and evaluate us and do a proper assessment and talk to us, and, you know, come up with some recommendations as to how we can move the thing up to another level.” (3-02)

Figure 32 (4.17): Mechanism for success: Surveillance



Although stakeholders were concerned about the limited capacity and awareness for the monitoring and evaluation of programmes, some settings seemed to have experienced a recent shift towards more M&E. There it was recognised that monitoring implementation can aid quality, effectiveness and sustainability of programmes.

“...[I]t’s not until now that we are also singing the song of M&E. It was just implement, implement, implement but now we are pushing in the last maybe two, three years the issue of M&E has become a buzzword so as to ensure that whatever little thing is approved and pushed that it be monitored to ensure that it is implemented in quality. . . . Remember, as I said, we had [a] vertical programme so the experts would push and pull and when that person would go, things would not move.” (2-06)

Routine surveillance was only seen as possible with electronic patient record systems and routine audit systems integrated in, for example, National Health Insurance systems. NHI procedures motivate adherence to guidelines but also recordkeeping through incentive schemes.

“I would say . . . the only way where that [surveillance] can be seen visibly is with the NHI. There is an audit that is done monthly by an auditing team. If . . . your medical records are incomplete and you did not follow protocols for diabetes or hypertension . . . you don’t get your points. And then if you don’t make up the points you will not get all your money for that month. ... So we have that financial incentive.” (2-06)

Research, for example producing local epidemiological mortality data, was mainly successful in countries that collaborated with UWI or off-shore universities or international organisations such as PAHO. These local data were considered very valuable to inform and strengthen policy initiatives.

“It was actually the second [Health & Life Survey in 2007-2008] one that informed our National Strategic Plan.” (6-04)

Section 3 – Synthesis

Summary and interpretation of key findings from the analysis of the monitoring grids

The first section of this chapter has demonstrated a huge variation in the reported implementation of the Port of Spain Declaration commitments, with no country having achieved all, and no country having achieved none. The number of indicators implemented ranged from 20 (out of 26) in Barbados to one in Haiti, with the mid-point (median) being 14. The results from the case studies suggest that the responses to the grid may present a better picture than is the reality on the ground, particularly on the indicators concerning an active NCD plan and NCD commission or equivalent. Recommendations for firming the reporting based on the grid are presented in Chapter 7, on surveillance. They include firming up definitions, and asking, where appropriate, for documentary evidence that indicators have been met.

An essentially qualitative assessment of factors that may predict implementation of the indicators based on the monitoring grid was undertaken, using a model/framework developed for investigating the outcomes of other summits, such as the G7/8. The findings from this assessment suggest that certain national and other characteristics are associated with implementation success. National characteristics include country size, wealth, female participation in the workforce and representation in parliament and the burden of NCDs. These factors have not been analysed statistically and clearly may be confounded by others and be part of complex rather than linear cause and effect relationships. Nonetheless, they provide a starting point to considering why some countries are more successful at policy development than others.

Other types of factors associated with implementation success include: the indicator itself suggests a specific action or set of actions (such as undertaking a survey or participating in Caribbean Wellness Day); the existence of clear external guidance of what needs putting in place (such as the Framework Convention on Tobacco Control); and where there is a clear mandate for regional agencies (such as PAHO, CARPHA and UWI) to assist in implementation. As a category of indicators, surveillance is by far the best implemented, and this is likely to be because of a combination of these three factors: it is clear what needs doing; there is detailed guidance on how to do it; and regional and international agencies have mandates to help countries undertake the required activities.

It is noteworthy that the least implemented indicators from the grid all concern what are essentially ‘upstream’ determinants, predominantly of diet, but also of physical activity and smoking (lack of bans on advertising and sponsorship). Some of these, particularly trade agreements on food and agriculture and food labelling, are beyond the ability of individual members to implement, and require regional, and in some instances international, cooperation and support.

Complementary findings from the case studies

The findings from the case studies provide insight into reasons for policy failures and successes that complement those summarised above. They help in particular to contextualise the challenges being faced within countries/territories and suggest solutions that are possible within different contexts. For example, it is perhaps unsurprising that larger and richer countries tend to record better implementation of the Port of Spain commitments. However, viewed from the perspectives of the key informants within the different case studies, being smaller or poorer (often both) should and need not preclude effective action. Through combinations of high-level political support, the establishment and resourcing of locally appropriate structures to foster multisectorality (both within and outside government), technical and capacity-building support from regional organisations, and region-wide cooperation on issues such as trade rules and food labelling, a huge amount can be achieved.

Keeping NCDs high on the political and policy agenda

The role of ‘champions’, both within and outside government, was described as crucial to both the development of policy and follow through to its implementation. A common finding reported by key informants was that policy documents that have been drafted often get ‘stuck’ at the stage of high-level (e.g. cabinet) political approval. There is a perceived need for greater high-level political willingness in general to take effective measures to address NCDs, and in particular for a ‘champion’ at cabinet level to really push the NCD policy agenda.

One approach to fostering greater high-level political willingness could be to ensure that the response to NCDs is a regular and substantive agenda item on the CARICOM heads of government meetings. The findings described in Section 1 demonstrate that discussion of the response to NCDs at such meetings since the Port of Spain Declaration has been sparse. In the forum of the conference on Small Island Developing States NCDs have been specifically flagged as a threat to economic and social development and linked to food insecurity and a reliance on food imports[39]. Increased attention to NCDs and monitoring of policy responses at heads of government meetings would be more consistent with the threats they pose.

Fostering multisectorality

It was widely acknowledged that effectively responding to the NCD burden requires the involvement of all sections of society and government. The establishment of national NCD commissions was mandated in the Port of Spain Declaration as one of the main ways of fostering and coordinating a multisectoral response. In the seven case studies, only three were found to have active commissions. Lack of high-level political support, including the difficulty and slowness in gaining such support, seemed to be a major barrier. Even where there are active commissions there were complaints that they could become a ‘talking shop’ unless there was high-level political willingness to listen to and act on the commission’s recommendations.

Despite the rather negative overall picture on the functioning of commissions, there are good examples that might be emulated by CARICOM members. Small countries/territories do face the challenge of limited human capacity to serve on commissions and similar health committees. For instance, members are expected to have both a multisectoral NCD commission and an HIV commission, and in a small country there would inevitably be many individuals sitting on the two commissions. The approach taken in St Kitts and Nevis has been not to establish an NCD commission but rather to establish an Alliance for

Health Action to be responsible for multisectoral coordination across the spectrum of health. The advantages of this approach are not only that it is efficient in terms of using scarce human resources but that it fosters a more holistic approach to health promotion than might occur with disease-based commissions.

The functioning of the Barbados NCD Commission, which was evaluated as part of a similar case study undertaken in 2013[36], also provides a useful example. This Commission is supported by the Ministry of Health, providing meeting space and secretarial help. The Commission Chairman is a highly respected local physician and health advocate and is able to act as a local 'champion' both outside and within government. Importantly, the Commission, while supported by government, is able and expected to make its own independent recommendations, which may or may not be in line with current government policy.

NCD commissions or equivalent bodies are designed largely to foster multisectorality outside of government. Within government a different mechanism or mechanisms are required. We found some evidence of intragovernment multisectorality being built around specific policy initiatives, such as the development of national food and nutrition policies in Antigua & Barbuda and Jamaica. In the BVI the National NCD Commission has several subcommittees, designed to strengthen interventions aimed at NCD prevention from particular sectors – including education, agriculture, and labour, which are coordinated from the Commission. These are encouraging instances of multisector policy development and planning related to NCD prevention within government. Ideally, an intragovernment committee or equivalent at which all relevant ministries meet, that reports to cabinet and whose remit is interministerial action with the overall goal of improving population health and well-being should be formed. The Government of Barbados has recently announced the establishment of such a committee.

Policy transfer and support from regional agencies

A theme that emerged from all the case studies, including the one conducted in Barbados [36], is the challenge of developing and implementing detailed policy largely from scratch compared to the relative ease of adopting and adapting detailed guidance from elsewhere. Regional organisations, such as PAHO, were identified as having a key role in assisting with such transfer. The best example of this is the adoption, ratification and implementation of the Framework Convention on Tobacco Control (although this is not a complete success story, as the lack of bans on tobacco advertising in most countries illustrates). The development of detailed model policies in other areas, such as nutrition, physical activity and healthcare, and support for their adaptation and implementation was called for by many key informants.

It is noteworthy that the best implemented category of indicator according to the grid is on surveillance, where regional organisations, including CARPHA, PAHO and UWI have assisted in carrying out surveys. However, it was clear that many key informants felt that more could have been done to train local individuals in aspects of the methodology. In addition, it was noted that the collected data were often then made little use of – which is also an issue of lack of capacity and support to manage and analyse the data further. Both UWI and CARPHA could provide training and support to ensure that valuable surveillance data are better used.

Factors outside the control of individual CARICOM members

According to the responses to the grid, the least well implemented indicators include what might be called 'upstream' or macro determinants of diet, including utilising trade agreements for national food security and health goals, food labelling, and ensuring a trans fat-free food supply. Key informants in all the case studies noted the reliance on food imports and the negative impact this lack of food security has on promoting a healthy diet. They also noted that the abilities of individual countries to protect and promote local food production were severely constrained by international trade regulations.

Addressing these issues requires at a minimum regional cooperation, such as on food labelling and ensuring that food imports are trans fat-free. Similarly, working to provide an international trade environment that enables countries to protect and promote local food production also requires regional cooperation, including through the CARICOM Council for Trade and Economic Development (COTED). Other fora will also need to be used, including the UN conference on Small Island Developing States and the G33 group of developing countries. It was the view of several key informants that until international trade rules and regulations enable the protection of local agriculture and food production for local consumption, the reliance on energy dense, nutritionally poor, food imports will continue.

Funding

The point was made more than once that the Port of Spain Declaration was an 'unfunded mandate'. Much ought to be possible within current funding arrangements through re-orientating policy development and implementation across several ministries (e.g. agriculture, health, education, urban planning, finance) with the prevention and control of NCDs as one of the overarching goals. However, funding is clearly required to facilitate such re-orientation, including funds to support multisectoral working both within and outside government. Supporting effective multisectoral working would be expected to lead to the identification of further funding requirements, and how they might be met, including through the use of hypothecated taxes on goods such as alcohol, tobacco and sugar-sweetened beverages.

A note on findings from a Barbados policy case study

As noted, in 2013 PAHO funded an NCD policy evaluation study in Barbados[36], which was conducted using very similar methods to those used for the case studies presented here. Barbados, as the results in Section 1 show, leads the table in terms of the reported implementation of the Port of Spain commitments.

The findings from this study are entirely consistent with what has been found in the case studies presented here. Local champions, who can be described as 'policy entrepreneurs' (raising awareness and advocating for certain policy solutions), played key roles in raising awareness at the highest political levels about the importance and threat posed to economic and social welfare by the burden of NCDs. In particular, they flagged the need for an all-of-society response and in response to an NCD plan the cabinet in Barbados approved, in 2004, the creation of a health promotion unit and the post of senior medical officer with responsibility for NCDs. The National NCD Commission was established in January 2007, and, as described above, this was supported with secretarial help by the Ministry of Health.

So, Barbados was clearly ahead of the curve within CARICOM. However, in 2013 it faced, and still faces, many of the same challenges found in the other seven case studies. These include issues of food security, food labelling and a dependence on food imports; a lack of any meaningful policy on reducing

alcohol-related harm; and despite an active NCD Commission, a perceived lack of effective multisectorality, including between the different ministries within government.

Following the results from the study in Barbados, a new NCD plan has been launched, which includes objectives and targets on reducing alcohol-related harm. In addition, a new committee to foster working between ministries has been established.

Policy development and implementation and NCD risk factors, morbidity and mortality

One of the original objectives of the work described in this chapter was to examine, as far as possible, the relationship between trends in NCD risk factors, morbidity and mortality, and policy development and implementation. In an ideal world, risk factor data over the past 15 years or so would be available enabling trends in obesity, physical activity, aspects of diet, smoking etc. to be determined and related to the timing of policy interventions. The good news is that most countries/territories have at least one NCD risk factor survey, but very few have more than one, and none that we are aware of span a sufficient time period across 2007 to enable the investigation of trends in relation to the Port of Spain Declaration. Similarly, there is a lack of data on morbid events, such as the incidence of diabetes, cancers, heart attacks or stroke (with the exception of Barbados, which through the National Registry, is starting to monitor incidence of heart attacks, strokes and cancers).

Mortality data are more readily available, as illustrated in Chapter 3. There is evidence that some interventions, such as those that lead to improved control of blood pressure, cholesterol and reduced rates of smoking can have a rapid (within the period of a few years) and measurable impact on mortality. Unfortunately, for the reasons given above we cannot draw any firm conclusions on whether these risk factors have changed since before and after the Port of Spain Declaration in any of the CARICOM members. What we can say is that there are no clear relationships between the reported implementation of the Port of Spain indicators and trends since the year 2000 in premature (30 to 69 years) mortality from NCDs. For example, PAHO data suggest that premature mortality has changed little since around 2002/4 to 2011/12 in Barbados, the Bahamas and Jamaica (overall at around 17% probability of death between 30 and 69 years), but has fallen over this same time period in Trinidad and Tobago (from roughly 25% to 21%).

Conclusions

The findings from this chapter show that while much has been achieved since the 2007 Port of Spain Declaration, there is still much to be done. Underlying the high rates of obesity, diabetes and associated diseases in CARICOM members are the macro determinants that drive a reliance on food imports and the marketing of energy dense, nutritionally poor foods. Addressing these determinants will require regional and international cooperation at the level of CARICOM and beyond.

Within countries and territories, governments have the key role in promoting and protecting the health of their citizens. An essential component of this is fostering and supporting multisectoral action both within government and within broader society, making use of the resources available through civil society and the private sector. Good examples exist from within CARICOM and the membership and working arrangements for commissions or their equivalent appropriate for larger and smaller countries and territories. There are less clear examples from within CARICOM on how to foster and support interministerial working, with Barbados taking a recent lead in establishing an intragovernment

committee. A key driver of this could be to ensure that a budget is available that can only be used for interministerial activities related to health.

Leadership is crucial, and a common theme has been the need for this to come from the highest political level, i.e. at the level of cabinet. 'Policy entrepreneurs' or 'local champions', who are well connected politically can also promote government policy development, but without leadership and commitment from within the cabinet change was noted to be slow or non-existent.

Chapter 5: Regional policy responses and lessons learned:

This chapter is divided into two sections. The first concerns the response of regional organisations to the Port of Spain Summit. The second examines the successes and challenges of Caribbean Wellness Day.

Regional organisations' response to the Port of Spain Declaration

Summary

- Regional institutions improve implementation of the Declaration's commitments. The involvement of a regional institution in implementation activity in the first year after the 2007 Port of Spain Summit increased compliance with the commitments made at the Summit.
- Specifying the most relevant regional institution in the text of the commitment increased compliance with that commitment compared to commitments that did not name a regional institution.
- Shifting the Caribbean Epidemiology Centre, CAREC, and the Caribbean Food and Nutrition Institute, CFNI, from PAHO to the new Caribbean Public Health Agency, CARPHA, in 2011 may have reduced compliance with commitments that specified these two regional bodies.
- Health-focused institutions such as PAHO helped implement the commitments on NCDs more than the Office of Trade Negotiations, an economic institution.
- Commitments that can be implemented on a country-by-country basis with the support of a specified relevant institution had higher implementation than those requiring ongoing political will and action from the Caribbean region as a whole.

Background

To assess how and why international institutions helped CARICOM member countries and territories comply with and implement their Port of Spain Summit commitments, this section identifies, first, the relevant institutions; second, their implementing activity and assistance; third, their predictors; fourth, the institutions' relative contribution to CARICOM members' compliance and implementation; and fifth, the pathways this process took.

Relevant institutions were identified in three categories: required institutions specified by their proper name in the Port of Spain commitments; formally relevant institutions not named in the commitments; and informally relevant institutions involved in implementation even if not required or formally self-mandated to do so.

The seven required institutions, appearing in six of the 27 commitments, were the largely extra-regional or non-health bodies of PAHO/WHO, CARICOM, the CARICOM Secretariat, CAREC, the Caribbean Agricultural Research and Development Institute (CARDI) and CARICOM's Office of Trade Negotiations).

The four formally relevant ones were the Caribbean Regional Organisation on Standards Quality (CROSQ), the University of the West Indies, the Caribbean Broadcasting Union and CAREC (also a required institution in another commitment). The 29 informally relevant ones, involved in implementing 22 of the 27 commitments, were similarly mostly extra-regional and non-health in nature, led in turn by the Caribbean Food and Nutrition Institute, PAHO/WHO and Codex Alimentarius (the 'food code' of the UN Food and Agriculture Organisation). Table of regional institutions with POS mandates can be found in Appendix A5.A.

Implementing activity and assistance by the required and informally relevant institutions did assist CARICOM members in complying with their Port of Spain commitments. The six commitments with required institutions had higher compliance in the first year after the Summit than the 21 that contained none, even if the three of the six commitments that could be more fully measured had slightly lower implementation by 2014. However, the four commitments with formally relevant institutions had substantially lower first-year compliance than the 23 without, but had increased implementation by 2014. Informal institutional involvement substantially increased CARICOM members' first-year compliance. Commitments with positive first-year compliance had substantially more input from informally relevant institutions.

The predictors of institutional involvement in, and positive impact on, members' compliance were primarily the overall number of compliance catalysts contained in the commitment, and the particular institutional catalysts of core international organisations and international organisation surveillance. Such catalysts increased first-year compliance. Moreover, on the whole, the more compliance catalysts a commitment contained, the higher its multiyear implementation. Institutions dedicated to health and nutrition by their formal mandate and operational mission appeared to increase implementation too.

The relative contribution of the institutions to CARICOM members' compliance and implementation seems substantial. When more institutions were involved, more frequently, and with greater depth and duration, first-year compliance increased. When the institutions themselves complied more with the Port of Spain commitments, so did CARICOM members.

The pathway to implementation began long before the 2007 Port of Spain Summit, most notably through the synergistic relationship between PAHO/WHO and the Caribbean Community which continuously worked on the issues associated with non-communicable diseases in the region. Prior to 2007, CFNI and CAREC — both located in PAHO and focused on the Caribbean — worked on relevant issues. This work carried on after the Summit. These PAHO centres were relocated in 2011 to the newly established CARPHA.

In all, international institutions helped CARICOM members comply with and implement their Port of Spain commitments, especially those referring directly to the health-centred, regionally focused PAHO and those that did not require collective political consensus on non-health priorities.

Objective 5 analyses how much and why the international institutions mandated to help implement the Port of Spain Summit commitments did so, as distinct from, but along with, the member countries and territories of CARICOM itself. This analysis requires assessing in turn:

1. Which international institutions were required explicitly by the Summit to assist in implementing specific commitments (mandated by their own charters to do so or informally contributed to implementation on their own);
2. The implementing activity of these international institutions;
3. The predictors of implementing activity;
4. The impact of those predictors on CARICOM members' implementation; and
5. The pathways from predictors to implementation.

Aims and methods

Identifying the relevant international institutions

The first step was to identify the required and non-required (but still relevant) international institutions. Institutions fell into three categories, as follows:

1. **Required institutions:** institutions explicitly required by the Summit Declaration to be involved in implementing a commitment (see Appendix A5.B-1). These were ranked according to, first, the commitments with the most required institutions and, second, the institutions appearing in the most commitments.
2. **Formally relevant institutions:** institutions whose own mandate, priorities and resources made them relevant to implementing key commitments, even if these institutions were not explicitly identified by name in the commitment (see Appendix A5.B-2).
3. **Informally relevant institutions:** institutions that in practice were involved in helping implement the Summit commitments, even if they were not required by those commitments or by their own institutional mandate to do so (see Appendix A5.B-3). They were identified by scanning the first-year compliance assessments of the 27 commitments, from a data set produced for a parallel project of the University of Toronto's Global Health Diplomacy Programme (GHDP). The results were arranged both by the number of commitments with the most institutions involved and the institutions involved across the most commitments. Those institutions that became informally involved in supporting implementation in year one were considered likely to be the most important, even if new entrants and defectors were added in subsequent years.

Attention was also given, by way of context, to institutions noted as directly relevant in the Declaration beyond the 27 commitments (see Appendix A5.B-4).

Assessing the implementing investment

This second step proceeded in three stages, as follows:

1. The level of first-year compliance with the commitments was matched with the degree of involvement of the required, formal and informal international institutions, for both compliance with the 27 commitments and compliance by the 20 CARICOM members[40].
2. Compliance in subsequent years was matched with institutional involvement, largely by converting the commitments into their corresponding indicator(s) from the Caribbean Cooperation in Health Phase III (CCH III) data set for the 14 commitments where this was possible and, using the available implementation data for each indicator, matching the cumulative level, phasing and speed of implementation with the degree of institutional involvement of a required, formal and informal kind. The available GHDP multiyear compliance data were used as a check.
3. The analysis was enhanced by a broader data set on implementation and institutional involvement. This included data from a systematic scan of relevant institutions' annual reports, annual meeting declarations (focused on references therein to non-communicable diseases, the Summit and the 2011 United Nations High-level Meeting (HLM) on Non-communicable Diseases and their commitments), conducted by the University of the West Indies team; interviews conducted by the University of Toronto team visits to Washington, D.C, Port of Spain and Georgetown, Grenada; and interviews conducted by the UWI team.

Predictors

The third step was to identify the predictors of international institutions' involvement and the resulting impact on compliance and implementation. This process started with the predictors, notably the compliance catalysts in the commitment, that were salient in affecting first-year compliance as identified by the G8 Research Group and G20 Research Group in monitoring Group of Eight (G8) and Group of Twenty (G20) compliance [41]. They also came from the characteristics of the institutions themselves (such as the number of members, portion of CARICOM members, location of headquarters, size of personnel and budget, and citizenship of executive head).

Direct and indirect impact on implementation

The fourth step was to assess to what degree implementation was caused, directly and indirectly, by international institutional activity, as distinct from a member government's behaviour or the institution's interaction with that government. This analysis involved determining how each member's compliance with each commitment or indicator related to the involvement of institutions of a required, formal or informal kind. It relied primarily on the above-mentioned compliance assessments and documentary and interview research, including the six institutional compliance assessments and four critical case studies (See Appendix A5.C for three of the four case studies) conducted by the Institute of International Relations at UWI, St Augustine.

Causal pathways

The fifth step was to identify, where possible, in critical cases, the three stages from predictors, through involvement and compliance/implementation by international institutions, to the compliance/implementation of the CARICOM members themselves. Of central interest was where the institutions led or initiated compliance/implementation or followed or supported the CARICOM members' in this regard.

Findings

Identifying the institutions: assessing implementing activities

The first step in the analysis was to identify the required, formally relevant and informally relevant institutions that were potentially involved in Port of Spain implementation and compliance.

Seven required institutions were identified, specified by their full capitalised names in six different commitments, producing 11 references) overall (see Appendix A5.C-1). The Pan American Health Organisation, mentioned in three commitments, had the most number of references. The CARICOM Secretariat (including a general reference to CARICOM) and the Caribbean Food and Nutrition Institute (CFNI) were each mentioned twice.

The other four institutions, mentioned in one commitment each were: the World Health Organisation, the Caribbean Agricultural Research and Development Institute, the Caribbean Regional Negotiating Machinery (CRNM, now the Office of Trade Negotiations [OTN]) and the Caribbean Epidemiology Centre. Regional Caribbean health and non-health bodies were predominant, followed by the hemispheric PAHO and, finally, the global WHO. The resulting pyramid shows narrowing references and multisectorality, moving from the regional level through to the hemispheric and then to global levels. A whole-of-government approach resides only at the Caribbean regional base of the pyramid.

The formally relevant institutions are those related directly by their organisational mandate to the subject of a commitment (see Appendix A5.C-2). Although many commitments did not specify an implementing institutional partner, certain institutions were implicated in a commitment as their mandate aligned with the subject of that commitment. For the 27 commitments, the most frequent formally relevant institutions were CROSQ, with two matches, and CAREC with one.

The informally relevant institutions are those that were operationally involved in supporting the compliance and implementation by CARICOM members. They are listed in Appendix A5.C-3 according to their overall frequency of involvement and across the commitments. Each institution was scored only once for each member-commitment compliance in which the assessment identified it as actively involved.

This analysis showed that there were 444 involvements by 29 different international organisations of an intergovernmental and non-governmental kind, including 'hard law' legal instruments such as the WHO Framework Convention on Tobacco Control and 'soft law ones' such as the Codex Alimentarius (see Appendix A5.C-3).

The most frequently informally involved institutions were the CFNI with 119 involvements over eight commitments and PAHO with 111 involvements over 15 commitments. PAHO was thus by far the most comprehensively involved institution, supporting a majority 56% of the 27 commitments. These top two were followed by WHO with 38 involvements across eight commitments, the Codex Alimentarius with 14 involvements over one commitment, the Caribbean Association of Home Economists with 13 involvements over one commitment, the OTN and the International Organisation for Standardisation (ISO), each with 12 involvements over one commitment.

This pattern shows the pre-eminence of PAHO, the hemispheric intergovernmental health body. Yet almost equally relevant are the regional bodies of CFNI and OTN. They are followed by the global bodies of the intergovernmental health-related WHO, the semi-governmental, multisector Codex and the non-governmental, multisector ISO. Support for first-year Declaration compliance is thus a truly multilevel, multisectoral and multistatus affair.

Assessing implementing involvement

The second step was to match the degree of involvement by the required, the formally relevant and the informally involved institutions to compliance and implementation, by commitment and by member.

Required institutions and first-year compliance

In the first year after the 2007 Summit, overall compliance with the six commitments with required international institutions was higher than that with the 21 commitments without them (see Appendix A5.D). The six with a required institution had a compliance average of 44%. The 21 commitments without them had average compliance of only 40%. The 4% difference suggests that embedding a required institution in a commitment raised compliance a little during the year following the Summit.

The commitment with an international institution with the highest compliance average of 63% was to establish programmes necessary for research and surveillance of NCD risk factors. It required support from two international organisations — CAREC at the regional level and PAHO at the hemispheric level. All other commitments had an average of 50% or below.

The POS commitment with a required institution that had the lowest compliance score was on food security. However, the low score may not have been due to inaction but to the commitment outlining four different institutions to be involved. Most members only supported one or two of these institutions but did not work with all four, resulting in an overall lower score. This suggests that requiring too many institutions to be involved in a single commitment can be counterproductive.

Such a finding is consistent with the negative compliance impact of other international institutions invoked in a G8 commitment[41]. 'More is not merrier' where involving international institutions in a commitment is concerned.

The countries with the highest compliance and the only ones with positive compliance scores with the 21 commitments without required institutions were Trinidad & Tobago (69%) and Jamaica (65%). All the 18 other members had negative compliance scores, with the lowest for Haiti (12%), Montserrat (16%) and Suriname (19%).

Required institutions and multiyear implementation

Assessing multiyear compliance and implementation first required establishing the feasibility of assessing compliance performance for the years beyond 2007-8 (see Appendix A5.E-1). It then required assessing performance according to the implementation of the 34 NCD indicators that CCH III identified and converting these indicators into their corresponding Summit commitments where the latter existed, as 14 did (see Appendix A5.E-2).

Of the six commitments with required institutions, three had at least one corresponding indicator (commitments 15, 25, 26). These three had average implementation of -62% by 2011, -37% by 2013 and -21% by 2014. These levels were well below the average implementation across all 14 commitment-converted indicators.

The general picture is one of institutional failure. Requiring an international organisation to assist CARICOM members to implement their commitments appears to reduce the average level of implementation four, six and seven years later.

Formally relevant institutions and first-year compliance

Four commitments had at least one formally relevant institution: 07 on tobacco warning labels; 10 on screening; 17 on food labelling for nutrition; and 18 on mass physical education. Their first-year compliance average was 26%.

The remaining 23 commitments without formally relevant institutions had higher average first-year compliance of 42%. This suggests that such spontaneous support from institutions on the basis of their own formal mandate does contribute to first-year, fast-start compliance.

Formally relevant institutions and multiyear implementation

All four commitments with a formally relevant institution had a corresponding indicator. The average implementation level of these four was 18% in 2011, 2% in 2013 and 29% in 2014. This compares with the lower overall average implementation of the 14 commitments matching CCH III indicators of 4% in 2011, 12% in 2013 and 12% in 2014. Formally relevant institutions thus seemed to help implementation after the first year.

Informally relevant institutions and first-year compliance

Informal institutional involvement in the first-year compliance with commitments was high (see Appendix A5.F-3). The nine commitments with positive or neutral compliance had average compliance of 61% and an average of 23 supportive involvements from an average of 3.8 institutions. In contrast, the 17 commitments with negative compliance, had average compliance of only 31%, an average of only 13.6 supportive involvements and an average of only 1.7 institutions.

Five of the 27 commitments had no input from informally relevant institutions (2007-1, 2007-10, 2007-18, 2007-20 and 2007-23). Average first-year compliance for the other 22 commitments with input from informally relevant institutions was 44%.

The specific commitment with the highest first-year compliance — 2007-11 on mandatory physical education in schools — had 26 involvements from four institutions. All commitments with positive or neutral compliance were supported by at least two institutions and in one case by nine. In contrast, the two commitments with the lowest compliance — 2007-20 on gender and 2007-18 on mass physical education — had no institutional support at all. Three other commitments with negative compliance also had no institutional support.

Such institutional support does not, however, guarantee increased compliance. Indeed, 2007-17 on food labelling for nutrition had compliance of only 40%, despite having 44 supportive involvements from four institutions. Nonetheless, the probabilistic relationship seems robust. Moreover, more institutions supporting a commitment seems to raise compliance more than the overall volume of involvement does.

These conclusions are more strongly supported by the difference between the 14 commitments with the highest compliance scores and the 13 with the lowest. The top half averaged compliance of 55%, with 22.2 supporting involvements from 3.1 different institutions. The bottom half averaged compliance of 24% with only 10.2 supporting involvements, or fewer than half, from only 1.5 different institutions.

[Informally relevant institutions' cumulative implementation](#)

Of the 22 commitments with implementation support from informally relevant institutions, 12 had a corresponding indicator. The 12 indicators with matched commitments to informally relevant institutions had substantially lower implementation than the two without in 2011 and 2013 but had become much more equal by 2014. This suggests that informally relevant institutions only had an implementation-enhancing effect of considerable strength a few years after the UNHLM in 2011 was held and as the UNHLM Review meeting in 2014 occurred.

More research is required to assess the multiyear duration of the compliance-enhancing effect of informal and required international institutional involvement in the first year. This work has begun with the development of multiyear compliance data in the GHDP data set (See Appendix A5.F-1).

To date, two commitments have been assessed over multiple years. The first, 2007-02 on FCTC implementation shows average compliance by members increased quickly and then spiked by 2012, the year after the UNHLM 2011 was held. The second commitment, 2007-14 on food security, showed a similar if smaller rise in members' compliance from 2008 to 2011.

[Predictors of compliance and implementation](#)

Why do some institutions become more involved in compliance-enhancing implementing behaviour than others? This section assesses potential.

[Compliance catalysts](#)

The first type of predictor is compliance catalysts, which come from the text of the commitment itself. Research originally conducted by John Kirton[41] hypothesised that if certain compliance catalysts were included in the text of the commitment, there was a higher likelihood of success.

Studies by the G8 Research Group confirmed that there were indeed such consequential compliance-enhancing catalysts, but also compliance-reducing inhibitors[42-44]. In both categories, intergovernmental institutions stood out. Above all, a reference to a core multilateral organisation in the issue area (WHO or PAHO in the case of NCDs) increased compliance, while a reference to other international institutions reduced compliance.

Of the 22 distinct potential catalysts, a few were present in the Summit commitments.

First-year compliance

Overall, compliance catalysts appear to enhance first-year compliance (see Appendix A5.F-1). The commitments with the highest number of different catalysts had the highest compliance, while those with fewer had progressively lower compliance. For commitment 2007-25, whose four catalysts included those of a core international organisation and a surveillance international organisation request, compliance was 63%, compared to the average of 60% for all 27 commitments.

Multiyear implementation

To assess how compliance catalysts effect multiyear implementation, attention was focused on the commitment with four catalysts, i.e. 2007-25, and then on those with one catalyst each, i.e. 2007-27, 2007-24, 2007-16, 2007-15, and 2007-02. The one commitment with four catalysts had a corresponding CCH III indicator whose implementation averaged -13% by 2011, -31% by 2013 and 0% by 2014. The five commitments with only one catalyst, three of which had a corresponding indicator, had an implementation average of -42% by 2011, -17% by 2013 and -8% by 2014. This suggests that on the whole the more compliance catalysts a commitment contains the higher its multiyear implementation.

Additional predictors

Previous studies of CARICOM members' implementation of their indicators independently identified from the Port of Spain Summit offered several predictors at the commitment, member and contextual level[4, 5]. Such predictors had little direct relevance to this study, which focused on the role of international institutions.

It is thus focused on the institutional characteristics of the intergovernmental organisations involved in supporting Declaration compliance and implementation.

This analysis begins with identifying the most heavily involved institutions shown to have a compliance- or implementation-enhancing effect. The list starts with CFNI and PAHO. Both institutions had a high involvement (119 references in eight commitments for CFNI and 111 references in 15 commitments for PAHO) in implementing the commitments in partnership with CARICOM members. These institutions were followed by WHO with 38 references in eight commitments.

The most common characteristic appears to be the dedication of these institutions to health. PAHO is central to health governance in the region. It is well enough resourced and stable. For CFNI, food is a major risk factor and contributor to NCDs. Nutrition and nutrition education are less contentious than

other risk factors such as alcohol. Furthermore, CFNI was located within PAHO until 2011. WHO, like PAHO, has resources, stability and a focus on health.

Impact on implementation

Ranking the commitments from the highest to lowest first-year compliance shows the impact of international institutions (see Appendix A5.D). Commitments with positive compliance had more international involvement both in the number of institutions and in the frequency of involvement. The individual commitments with the highest compliance had a history of intense international institutional involvement.

The two commitments with the highest rate of compliance were both targeted toward mandating physical education (including physical activity and education on hygiene) into the entire school system. Both commitments had contributions from four organisations. Implementation relied on the development and incorporation of the Health and Family Life Education Programme. This health-based programme, originally developed in the 1990s, was a cooperative endeavour between CARICOM members and international institutions including PAHO, and other UN and Caribbean agencies and formed the basis for physical education in schools. The current challenge seems to be ensuring teachers know how to implement the curriculum developed by the consortium of partners.

The third most complied with commitment concerns Caribbean Wellness Day. This annual event has been implemented to a high degree in partnership with international institutions, mainly PAHO. The fourth most complied with commitment is to coordinate research and surveillance. This is an ongoing effort between PAHO, Caribbean regional organisations and the members themselves. WHO and PAHO have the resources and technical capacity available to develop and implement the research and surveillance programmes to monitor NCDs. This has been an ongoing agenda for both the Member States and the regional and international institutions.

Conversely, commitments with the lowest compliance had less international organisation involvement. The lowest compliance was on the commitment to mainstream gender into NCD policies and programmes: the low score of –0.90 (5%) went with no international institutional involvement. This was followed by the low compliance of two commitments on increasing physical activity in the general public, facilitated also by increasing the space available for physical activities. One of the commitments had no international institutional involvement and the other had input solely from PAHO.

Low compliance is thus linked with low international organisational involvement. The higher the compliance, the higher the number and frequency of involvement from international institutions.

The causal link of institutional compliance

To assess the strength of any causal claim, an exploratory analysis was conducted as to whether the relevant institutions (in a required, formal or informal way) complied with what they were expected to do.

A first-year compliance assessment was conducted for six of the 10 required institutions: CARDI, CFNI, OTN, CAREC, the Caribbean Cooperation in Health Initiative (CCHI) and UWI as “other universities” (see Appendix A5.G). See full compliance reports for regional institutions in Appendix A5.H. CARICOM (and its secretariat), CARPHA and the Caribbean Commission on Health and Development were excluded. A compliance assessment was also done for the formally relevant CROSQ, which was relevant to the most commitments. For each institution, the degree of compliance was assessed, using the same three-point scale employed for assessing the compliance of the member countries and United Kingdom Overseas Territories (UKOTs).

The results confirm the suggested causal chain, through this institutional compliance link. The six institutions that were more relevant on average complied more than the one that was less relevant. Average country compliance with the corresponding commitment was also higher. The differences are large: 84% more compliance for the highly relevant institutions and 80% more compliance by the countries.

Given the low number of cases, it would be useful to conduct such institutional compliance assessments for the complete set of required and formally relevant institutions.

Pathways from predictors to implementation

The pathways from predictors to compliance implementation highlight the dynamic question of whether the relevant institutions or the individual CARICOM members moved in a sequence or all at the same time, and whether some groups led and others followed. This requires moving beyond the static focus on the relative salience of each set of institutions to CARICOM members’ compliance and implementation.

Commitment 2007-25, to develop surveillance and research on NCD risk factors, had the highest first-year compliance score of those commitments containing a required international organisation. It needed input from PAHO. Who moved first to implement it: the large, health-focused PAHO or the comprehensively concerned national governments of individual CARICOM members?

Prior to the Port of Spain Summit, PAHO and WHO were involved in the governance of NCDs in the Caribbean. Their role was centred on the development of three major strategies. In 2003 the World Health Assembly adopted the FCTC. In 2004 PAHO/WHO developed the *Global Strategy on Diet, Physical Activity and Health*. In 2006 PAHO published the *Regional Strategy and Plan of Action for NCDs*.

PAHO and CARICOM had worked synergistically on NCDs long before. Since 1967 they had partnered on a regional approach to problems of nutrition through the CFNI, a centre located at PAHO. Collaborative work was also carried out through CAREC, also located in PAHO at the time.

Individually and collectively, CARICOM leaders supported PAHO’s work through verbal declarations of support for CAREC and CFNI and acknowledgement of the severity of NCDs and how they could undo much of the progress achieved on health in the region. This awareness was highlighted at the 2004 13th CAREC Council Meeting. Many political statements of support were made.

In the lead-up to the Summit in 2007, PAHO in collaboration with CAREC, initiated and led the NCD risk factors surveillance programme called STEPS. When PAHO first introduced STEPS, it was implemented by CAREC, with the first survey done in Trinidad & Tobago.

As PAHO introduced STEPS in the Caribbean, there were many challenges and considerations. The costs associated with a live, population-wide survey were many. Even with PAHO's budget, it was difficult to secure good quality and reliable data. Response rates varied by country. Methodology was altered due to costs, making it difficult to produce comparable findings. With PAHO's leadership and support, the Caribbean countries collected the data. PAHO provided technical support through workshops to teach ministry employees in the CARICOM Member States how to analyse the data. (If the members did not have the capacity to analyse the data, outputs would not be forthcoming).

PAHO's NCD department has three units: NCDs and disabilities; risk factors and nutrition; and mental health and substance abuse. Technical advisors within different units work horizontally across departments. The surveillance team provides technical advice for the entire region. PAHO has been the leader in data collection in the Caribbean, except in a few areas, notably trade and the assessment of alcohol as a risk factor.

CAREC and CFNI are no longer centres within PAHO. CARPHA now coordinates regional initiatives on health, and has assumed many PAHO functions in the region. PAHO, however, serves as the liaison between the CARICOM members and WHO, ensuring that those members have the surveillance information necessary for meeting the WHO global mandate to monitor indicators to contribute to the goal to reduce mortality by 2025.

CARPHA and PAHO should continue to collaborate, enhance the surveillance of NCD risk factors and facilitate information flows to the WHO global indicators. Between the two organisations, a leader must be identified to ensure both clarity and that a single set of data is produced to reduce the burden of duplication. Whatever single surveillance system a country has, it must be able both to give outputs to CARPHA and allow PAHO to feed the information up to the global level.

PAHO's leadership on NCD risk factor surveillance and its technical capacity building require continued support from Caribbean leaders. Although CARPHA can facilitate much of the regional coordination on NCDs, many of the leaders at the 2007 Summit are no longer in office. Their successors have been engaged, but there is less involvement and implementation than before. PAHO is currently working with ministers to rekindle and refocus attention on NCDs at the highest political level and to move the commitments forward in a credible way.

Furthermore, PAHO is currently emphasising health-in-all policies and health across all sectors and pushing for more tangible leadership on NCDs in the region. Many CARICOM members are aware of the burden of NCDs, but practical day-to-day leadership is lacking. The Caribbean is not on track to meet the 2025 NCD goals.

The Summit commitment with the second highest level of compliance that included a required institution was 2007-26. It directed CARICOM and PAHO to continue to function as the secretariat for the Caribbean Cooperation in Health Initiative. PAHO had been involved in NCD prevention, control and

evaluation before today's Caribbean regional organisations were functioning. As stated, CAREC and CFNI were both once a part of PAHO. Only in 2011 was CARPHA established to serve as the Caribbean organisational mechanism for health.

The other four commitments with required international institutions had negative first-year compliance. A detailed examination of the compliance assessments shows a reciprocal relationship between the CFNI and the CARICOM members. Where members did not take domestic action, CFNI contributed to information development and dissemination. Where domestic actions were taken, CFNI engaged in dialogue with the member. Furthermore, where countries did not take domestic action, PAHO provided a reporting mechanism, namely the *Health in the Americas* report, to take account of actions on NCDs.

Conclusions and recommendations

Institutions matter for implementation. Port of Spain Declaration commitments with positive first-year compliance tend to have more institutional involvement in both the number of institutions involved and the frequency of their involvement. First-year compliance is higher when a core international institution was directly named in the commitment text. Identifying the most relevant institution provides a directive to the institution that has a responsibility to support implementation. The compliance catalyst of international organisation surveillance is also a compliance-enhancing tool.

However, the CCH III indicator data measuring implementation up to 2014 suggests that the invocation of a required international institution in the text of the commitment seemed to reduce the implementation seven years later. This may be explained by changes in institutional structure, the degree of the institution's focus on health and the amount of collective political will necessary to push ahead. In 2011, CAREC and CFNI went from being PAHO-located centres to being integrated into the newly established CARPHA. What was once a function of PAHO and administered by CAREC was now meant to be implemented by CARPHA.

The degree of health focus within the institution plays a contributing role. PAHO is a regionally focused, health-centred body. However, while OTN and CARDI are also regional, if on a smaller scale, they are not health-centric and, therefore, may require increased effort to contribute to compliance with health priorities. Although PAHO was not explicitly named in the commitment on physical activity, it was central to preliminary implementation.

The physical activity commitments, which had the highest rate of compliance in the first year after the Summit, had a history of initiatives in the area leading up to the 2007 commitment. These commitments were potentially less politically contentious than the others. They could be decided and implemented on a country-by-country basis, reducing the pressure for collective political consensus for implementation — in contrast to the trade commitment, which required a collective political consensus and additional political will to push health as a priority within a regional institution that was not traditionally health-centric.

NCDs are first and foremost conceptualised as a health concern. The governance of NCDs in the Caribbean has long been undertaken by PAHO and its partners, whether they were CAREC, CFNI or now CARPHA. Commitments on Caribbean Wellness Day, surveillance and research, and school-based physical education had high implementation. Commitments on other health-related issues that required increased political consensus and push were more difficult to realise in the short and longer term.

5B Caribbean Wellness Day

Summary

- Caribbean Wellness Day (CWD) has been celebrated in 19/20 CARICOM countries, with observances in most years in more than half of them.
- There has been successful involvement of the private sector and civil society fostering an all-of-society response to NCDs.
- CWD focal points need access to an annually updated toolkit to guide their activities.
- A survey of CWD's impact on the general public is needed, to help guide the process and take the wellness message to previously unreached groups.
- The scope of CWD celebrations should be widened to make them more inclusive geographically and demographically.
- There should be greater collaboration and improved networking between Member States on CWD, facilitated at regional level to assist it to fulfill its potential as a key strategic component of an overall NCD communications plan.

Caribbean Wellness Day was the only mandate from the Port of Spain NCD Summit Declaration that was completely new, and represents the 'public call to action' of the Declaration. It was a policy decision to engage all sectors (civil society, the private sector, governments and the general public) to foster multisectorality in social mobilisation through celebrations in all CARICOM Member States. Understanding how well, or not, this initiative was developed, deployed and adopted across the Caribbean, therefore, provides valuable lessons.

Aims

1. a. To document and evaluate the development, deployment and uptake of CWD in CARICOM countries during the period 2008–2014 in regard to:
 - Resources, structures, materials and protocols at the national level
 - The contribution of regional organisations to CWD
- b. To assess the uptake/spread of CWD
 - To public, private, civil society and citizen participation
 - From national to subnational and district/local levels
2. To assess the regional and international spread effect of CWD
3. To document regional media penetration of CWD (print, social media) through a media content analysis.

Methods and sources of data

A mixed method approach was used to obtain data that are statistically rigorous and rich in contextualised meanings for the evaluation of CWD. The methods included surveys, in-depth semi-structured interviews and quantitative content analysis methodologies. Furthermore, these methods were conducted consecutively to allow information garnered from one methodology to inform lines of investigation at the next stage.

Settings and participants

This research was conducted in two phases. The first included 19/20 CARICOM Member States. The exception was Haiti, the only CARICOM member where Caribbean Wellness Day has never been celebrated.

Phase one involved key informants at national and regional level, identified through purposive sampling. At national level this included the ministry of health NCD focal point and/or CWD coordinators who played instrumental roles in the implementation and deployment of CWD initiatives. Through the snowballing sampling technique, private and civil society stakeholders who were active in CWD were approached to determine their perspectives on the multisectoral component of CWD celebrations.

Slightly different versions of an online questionnaire were administered to MOH staff and to civil society/private sector in April - September 2015 using the platform 'Survey Monkey' for data collection and initial analysis. Areas examined were: structure, funding, intersectoral partnerships, promotion, branding, spread and uptake, evaluation and reporting.

At regional level, seven key informants from institutions such as CARICOM, PAHO, CARPHA and UWI, who played key roles in CWD were interviewed using a semi-structured guide inclusive of, but not limited to, strategies, barriers, regional branding and networking, planning and implementation and sustainability of Caribbean Wellness Day. The interviews were conducted from May - July 2015 and lasted approximately 45-60 minutes.

Dedoose software was used for thematic content analysis. An inductive approach was employed to develop individual codes as the team examined patterns, ambiguities and outliers among the seven transcripts provided. Each transcript was individually scrutinised to uncover the research participants' perceptions of the topic under examination. A cross-case analysis was then conducted to examine the similarities and differences in the views of the research participants. Data from these two methodologies – survey answers from country participants and qualitative interviews from the regional participants - allowed the team to draw conclusions on the quality and scope of CWD; successes and challenges experienced in the development and deployment of the programme and the contributions of the private sector and civil society organisations (CSOs) in respect of the uptake and spread of the main tenets of CWD.

In the second phase, a search for CWD content on the internet for the period 2006-2014 was conducted with content garnered from Google searches, online newspaper articles and social media content from the respective Member States. The Google searches were undertaken to quantify the CWD internet presence while the examination of the newspaper and social media content was done so ascertain the media's coverage of Caribbean Wellness Day celebrations.

Content analysis

The CWD media texts produced by the CARICOM Member States for the period 2007-2014 were systematically examined through content analysis. This method has been found to be a useful tool for ascertaining how the media delivers health messages and the way in which people receive this health information in terms of the amount of space related to health issues in the form of articles, editorials, letters, advertisements, visual references and graphics. Consequently, the research team reviewed messages disseminated through print media to determine the penetration of CWD. However, the content analysis was limited by our available resources and cannot be considered definitive.

Units for content analysis

- Print media: electronic copies of popular daily newspapers were reviewed. In countries with multiple daily newspapers, our sample included the two dailies with the highest readership. The headlines and complete articles were examined for content.
- Social media: for this analysis Facebook was chosen. As such, the research team examined the type of content shared on this social media site regarding Caribbean Wellness Day. Using the work of Ramanadhan[45] as a guide, the following units were examined:
 - a. Facebook: posts generated ('post' - any Facebook updates using the following avenues to share content: status updates, links, photos, videos, events).

Coders/coding

The coding was done using a code sheet. Coding categories were developed using codes identified in literature on Caribbean Wellness Day, from an initial scan of a sample of CWD newspaper articles and from the key informant interviews. The coding was divided into four areas; photograph, story type, main subject (as defined by the headlines and first two lines of the story) and content of the body of the text. There were two primary coders while a neutral third coder addressed any variability in the coding. After the coding was completed all coding sheets were collected and compared to ascertain the level of variation. The data were analysed quantitatively. Quantification was undertaken at the nominal level, through a count establishing frequency of occurrence of each unit, per content category. The frequency of each unit was recorded using Microsoft Excel.

Development, deployment and uptake of CWD

Caribbean Wellness Day is an initiative born directly of CARICOM's 2007 Heads of Government NCD Summit. A major mandate from that Summit was the importance of promoting a multisectoral response, requiring action from all segments of society to combat the NCD epidemic and its 'upstream' causes. CWD was proposed as a means of engaging people across the breadth of Caribbean societies in the response to NCDs. Its goal is to raise awareness about NCDs and their associated risk factors and inspire people in the region to commit to healthier lifestyle.

Establishing Caribbean Wellness Day

NCD focal points from 15 CARICOM Member States, and representatives from nine civil societies and five private organisations completed the survey. Of these, 74% had been involved with CWD from its inception in 2008/2009. All seven regional key informants had been involved since the inception.

Regional support in establishing CWD 2008 and 2009

Both CARICOM and PAHO were given the responsibility of developing and advancing Caribbean Wellness Day. CWD was created with the intention of stimulating ongoing physical activity in communities, as well as promoting healthy lifestyle changes and improved self-management of NCDs through comprehensive public education programmes. It was envisioned that multisectoral contributions around CWD would foster continuing collaboration on NCD prevention and control.

In 2008, in preparation for the first CWD in September of that year, PAHO, supported by CARICOM, provided the technical support needed to establish Caribbean Wellness Day. The designated CWD focal point based at PAHO worked in collaboration with representatives from ministries of health to formulate what events, branding and associated messaging were needed for CWD. In 2009, the second celebration of CWD, PAHO shipped regionally-branded posters, stickers, fact sheets and videos to countries, established a web presence for CWD, and worked along with CARICOM in the production of CWD's logo. All materials were available for download at: www.paho.org/cwd09.

The data suggest that the regionally produced CWD slogan, logo, posters, stickers and fact sheets were well received in Member States and were most commonly used by government officials. However, civil

society and private sector respondents noted that they tended to mainly use the logo and were more likely than the government to modify the promotional materials. (Figures 5.1 and 5.2).

Figure 33 (5.1): Government officials use of regionally produced CWD materials

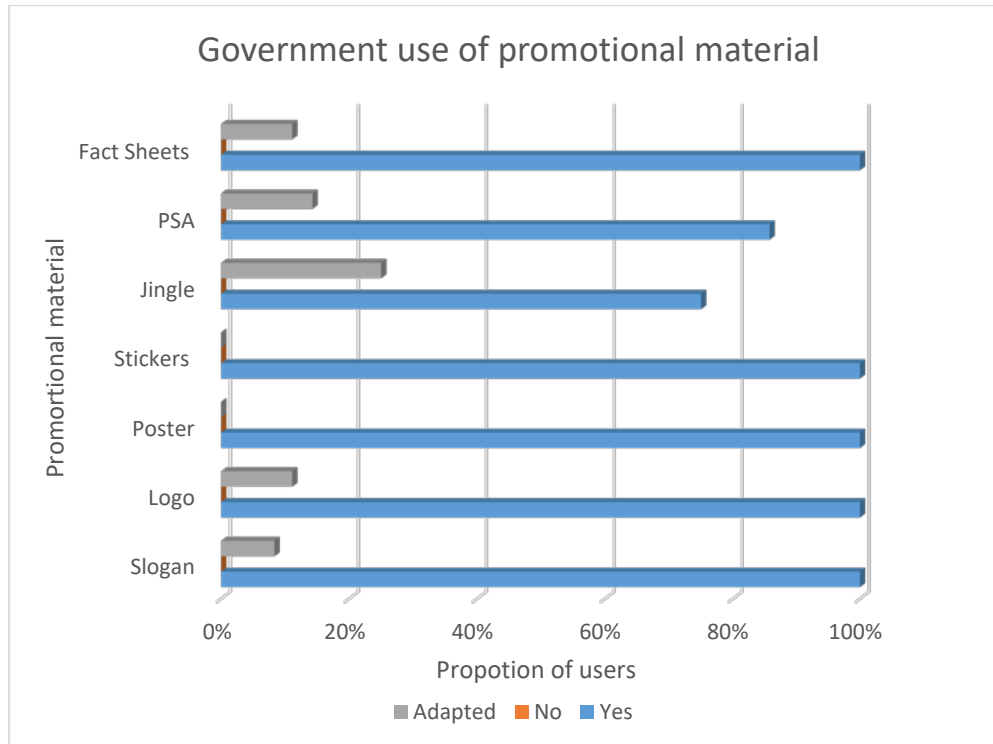
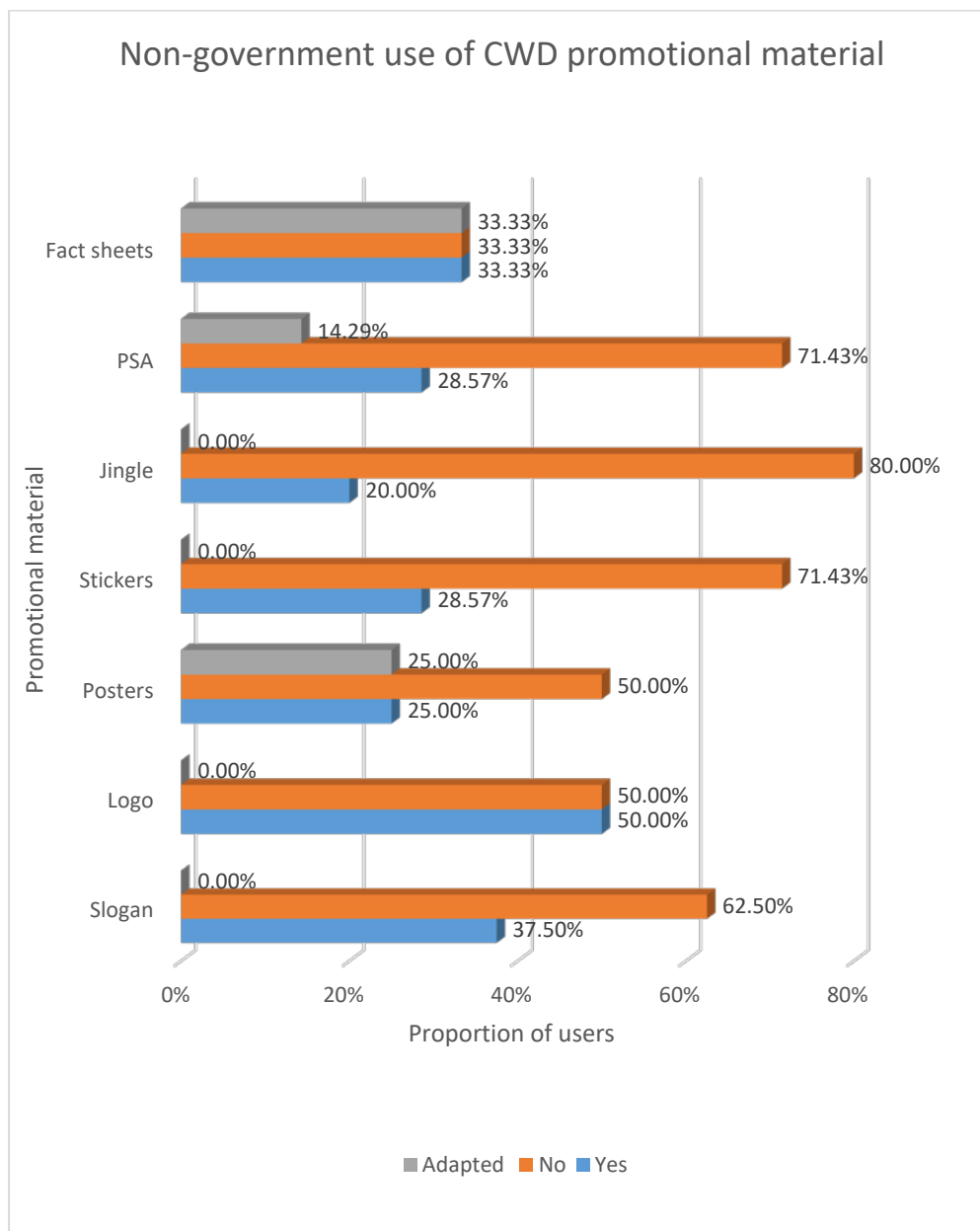
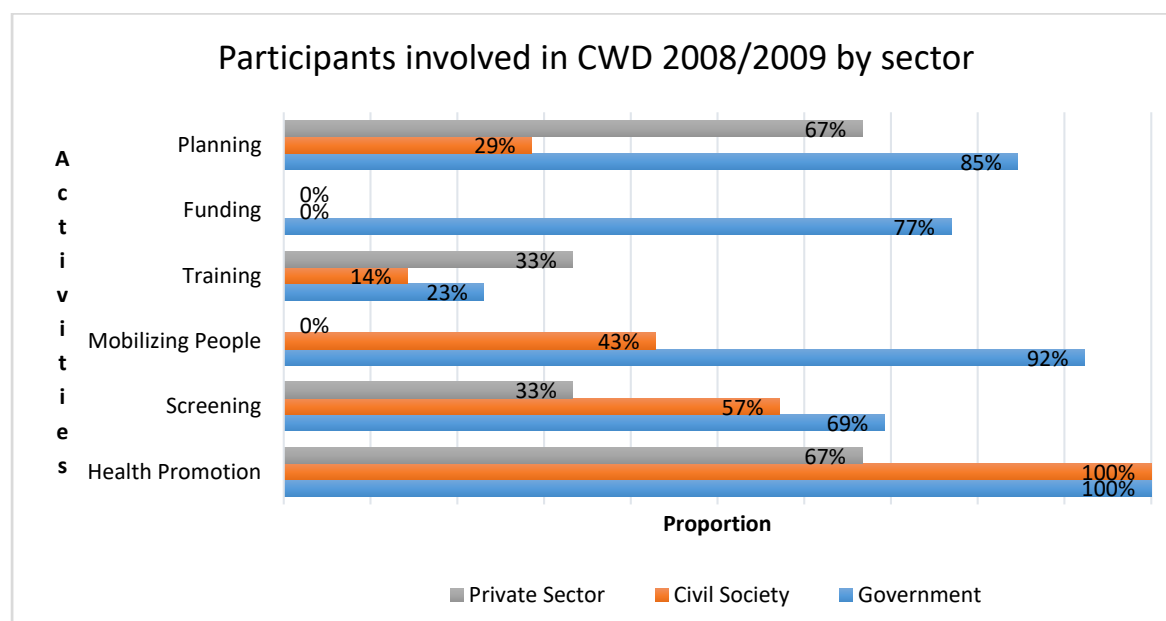


Figure 34 (5.2): Civil society & private sector use of regional CWD material



In spite of its name, the private sector and civil society respondents from the various countries seemed to hold a rather nationalistic view of CWD, with only three of the 13 participants acknowledging it as regional initiative. Our government respondents were NCD focal points, and they were all aware of the origins of CWD. This difference in view may be an indicator of the levels of engagement that existed between CWD collaborators. NCD focal points were the pivot point for implementation of CWD and collaboration with regional organisations, as well leveraging support at the local level. The private sector and civil society seemed to have only been engaged initially at the level of providing services to ensure the execution of CWD. As such, their view was that CWD was a government-funded project they were asked to assist with. Indeed, at inception the private sector and civil society contributed no funds to CWD, but their efforts were focused on providing expertise in planning and health promotion, with civil society organisations especially involved in the provision of screening services.

Figure 35 (5.3): Collaborator involvement



This nationalistic view of CWD was acknowledged by some of our regional experts. They noted that beyond the initial formalisation of CWD celebrations, there was little sharing of experiences or collaboration between Member States. One key informant explained that CWD's organisation and execution was heavily dependent on NCD focal points who were generally not situated to independently tap into regional networks, but rather to leverage support at the national level.

Such a view may have been built into the process. The campaign branding was created with the intention that it could be modified by countries, in acknowledgement of the diversity that exists within CARICOM. Moreover, countries were encouraged to customise and refine materials while adhering to the regionally chosen theme, to fit their national circumstances and thereby increase national 'buy-in'. Also, perhaps, this nationalistic view is an effect of CWD becoming more entrenched within societies

and communities taking greater ‘ownership’ of the initiative. However, it was clear from the study that, once established, countries had been working on CWD in relative isolation from each other.

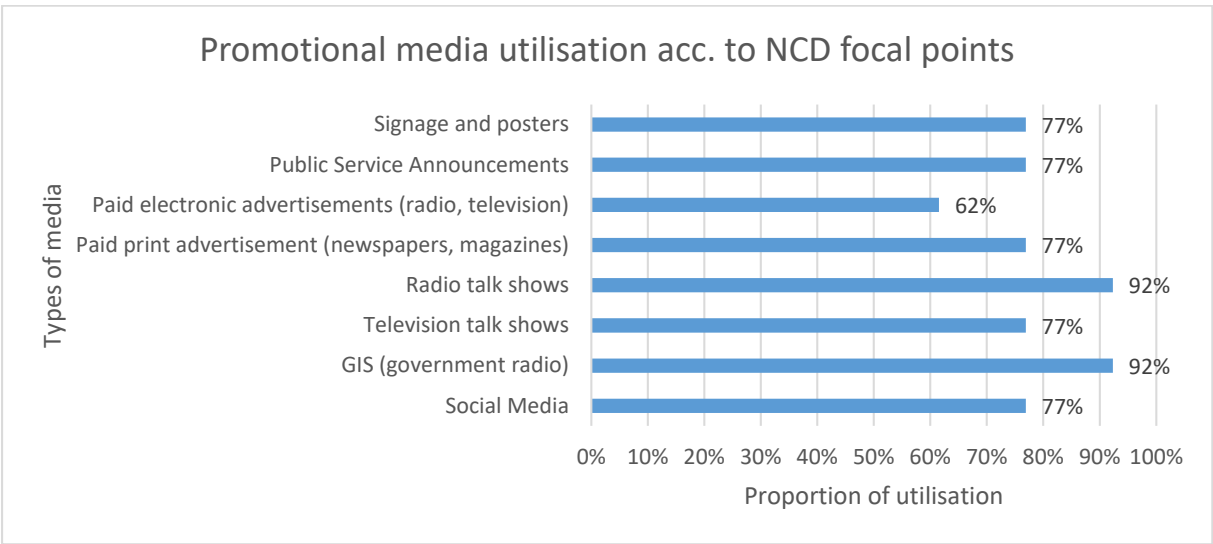
A major customisation of CWD that took place in some countries was the extending of its events beyond a single day. Several including the Bahamas, Belize and Guyana celebrate Caribbean Wellness Week, and others, like Trinidad and Tobago, host related events throughout the whole month of September.

Deployment and uptake

Since its development and initiation (2008-2009), the observance of CWD from 2010 to the present has remained relatively unchanged. The majority of respondents stated that the most notable modification to CWD was the variation of the annual theme, which was decided at the regional level. However, few other changes had been noticed. CWD activities typically include health promotion and educational opportunities like health fairs, exhibitions, healthy eating demonstrations, opportunities for physical activity like sponsored 5k walks, or mass public exercise sessions and health screening. Attendance at CWD events varied from approximately 200 participants to over 3000 in some of the larger countries.

To drive attendance at CWD celebrations organisers have used various means of sensitising the public (Figure 5.4). These promotional activities usually run from one month before the celebrations. Respondents also found that their most successful media for promoting CWD events were public service announcements (PSAs) on radio and television, followed by social media especially Facebook and Twitter.

Figure 36 (5.4): Use of promotional media



These events tended to be concentrated in and around city centres but efforts were made to expand to other settings, like workplaces, schools and faith-based centres in order to engage a wider cross section of the population.

Participation of national collaborators

The makeup of collaborators has shown some changes over time. Analysis of organisational participation showed an increase from 2008 to the highest participation levels by all sectors in 2010 & 2011, with significant contraction in all sectors in 2012. This contraction may have been associated with the global economic downturn. While there has been some recovery since 2012, participation levels for most countries have not returned to the pre-contraction levels.

Since 2009 the scope of CWD activities that the private sector and civil society have been involved in has increased. In the planning stages, they assist with proposing events, and are heavily involved in mobilising people; bringing critical human resources into the CWD mission and a greater NCD response. However, on Caribbean Wellness Day their main activities still remain health promotion and providing screening services.

Perhaps this net increase in private sector and civil society participation has occurred in response to the reduction in government funds available for CWD. Yet even with that increase in non-government funding from 0% in 2008 to 14% in 2014, governments still remained the leading source of funds for CWD events. All respondents considered the success of CWD to be due to their governments, and in particular their ministries of health which were involved in all aspects of CWD.

Figure 37 (5.5): Collaborator's involvement in planning of CWD activities

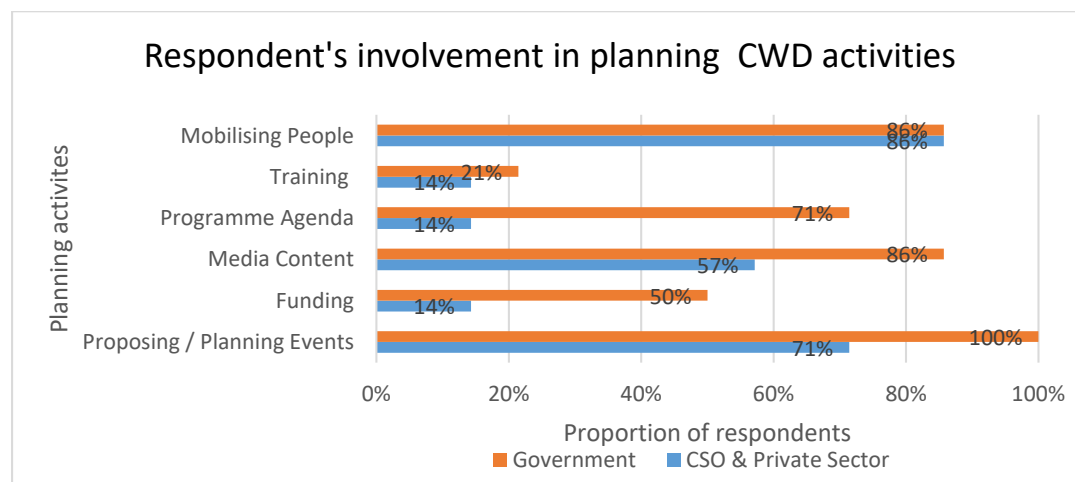
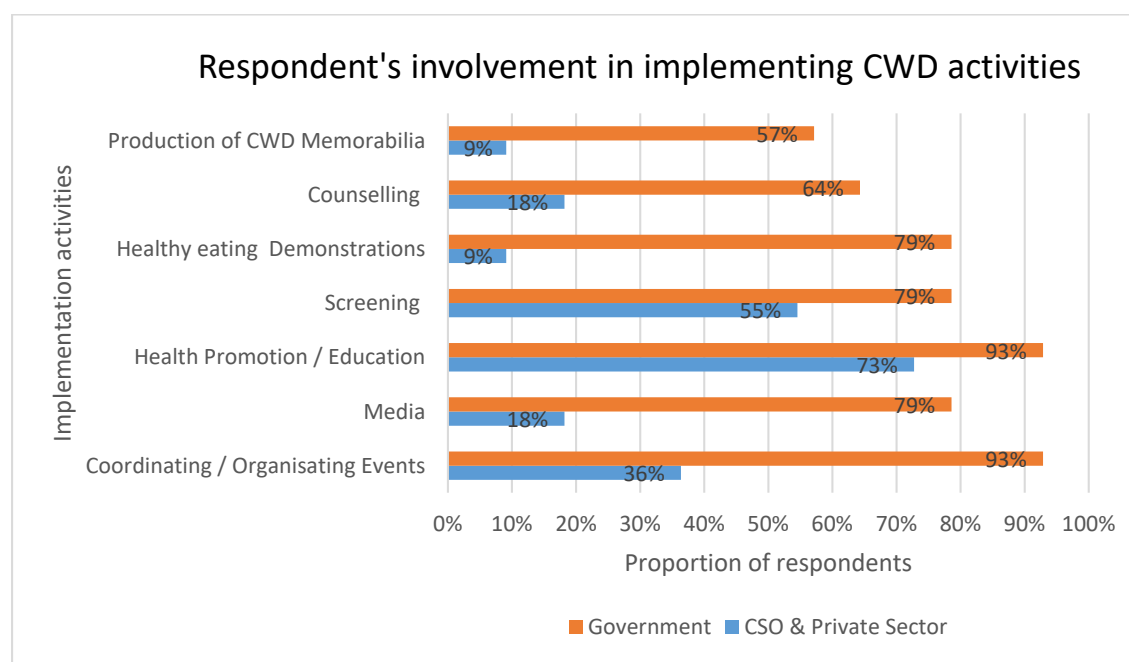


Figure 38 (5B.6): Collaborator's involvement in implementation of CWD activities



Beyond raising awareness of NCDs in the region, CWD has been a catalyst for significant multisectoral engagement in the NCD response. While 41% of the civil society organisation respondents said they had been involved in the challenge to NCDs before CWD, they admitted that CWD led to the deepening of those links. Further, the government respondents corroborated this position, stating that due to CWD, CSOs and the private sector became more integrated in the national NCD response. Participants also reported that more CWD activities were being initiated by the private sector and CSOs and they were more greatly ‘incorporated into the national NCD response.’ Moreover, another government respondent stated that the CWD committee ‘functioned as a national advisory committee [for NCDs]’. This notion was further substantiated below:

“CWD has supported the strengthening of historical relationships and achieving greater integration of these NGOs into NCD prevention and control activities at the national level. The increased recognition of the role of civil society and NGOs in NCD prevention and control [has] resulted in some NGOs receiving increases in their annual subvention from the Ministry of Health. The government has also recognised their increased contribution in the prevention and control of NCDs and have included NGOs and civil society groups who partner with the MOH in NCD prevention and CWD observances, in high-level committees including the NCD Technical Advisory Committee (analogous to an NCD commission) and the Partners Forum for action on NCDs.”

And again, as expressed by another NCD focal point:

“Many private sector organisations are notably increasing their sponsorship of such activities and using health and wellness as a platform to showcase their corporate social responsibility. [This] [h]elped to raise awareness among the populace of NCDs and interest in general on ways to combat [them].”

While it is important to note that in general both our government and non-government respondents felt that CWD led to positive multisectoral partnerships, there were some dissenting views. One expressed the concern that current engagement levels might not be sustainable.

Organisational structures

Of our 15 participating NCD focal points, seven reported that there was a specific CWD intersectoral committee, and seven of the 13 non-governmental respondents also reported the presence of these committees. Both groups stated that they were typically led by someone in the health promotion department of the ministry of health, and were all established around CWD's inception. CWD intersectoral committees tended to hold regular meetings starting around June in order to plan for September CWD events. According to NCD focal points, after CWD celebrations five of the seven committees meet to evaluate that year's celebrations and also to ensure they continue to promote the wellness message. When asked about their planning process six NCD focal points stated that their committees produced formal written CWD plans, and half of those included monitoring and evaluation elements.

Media profile of Caribbean Wellness Day

To ascertain how deeply CWD has become entrenched within the region's communities a study of its media profile was conducted. This study reviewed both printed media as well as general internet presence of the celebrations.

Internet presence

Two hundred and forty-nine (249) individual items or hits were collected for the internet search of the term 'Caribbean Wellness Day' for the years 2006 - 2014. None of these references were found prior to 2006 indicating that the Port of Spain Declaration did introduce this term and served as a catalyst for enhancing the region's wellness initiative. Results further showed that there was a 10-fold increase in CWD website content from 2007 to 2014.

The majority of CWD content, 109 of the 249 items, were generated by and extracted from PAHO, CARICOM, CARPHA, and Healthy Caribbean Coalition websites. The information originating from these websites was exchanged among them, then subsequently used by other external websites. This seems to suggest that the level of penetration of CWD content was relatively superficial in the first instance as the source of most of the web content was very far 'upstream' and not community-based.

Overall there was a seven-fold increase in the volume of CWD online content from 2007- 2010. However, there was a drop in web content in 2011, the year of the United Nations High-level Meeting (UNHLM) on NCDs, in spite of a reported elevated level of national participation. This may further support the view that regional organisations are the main source of online content for CWD, and in September 2011, they were focused on the UNHLM.

Table 16 (5.12): CWD online content from 2007- 2014

Years	2006	2007	2008	2009	2010	2011	2012	2013	2014
No. of Online Items	0	6	9	12	42	26	53	44	57

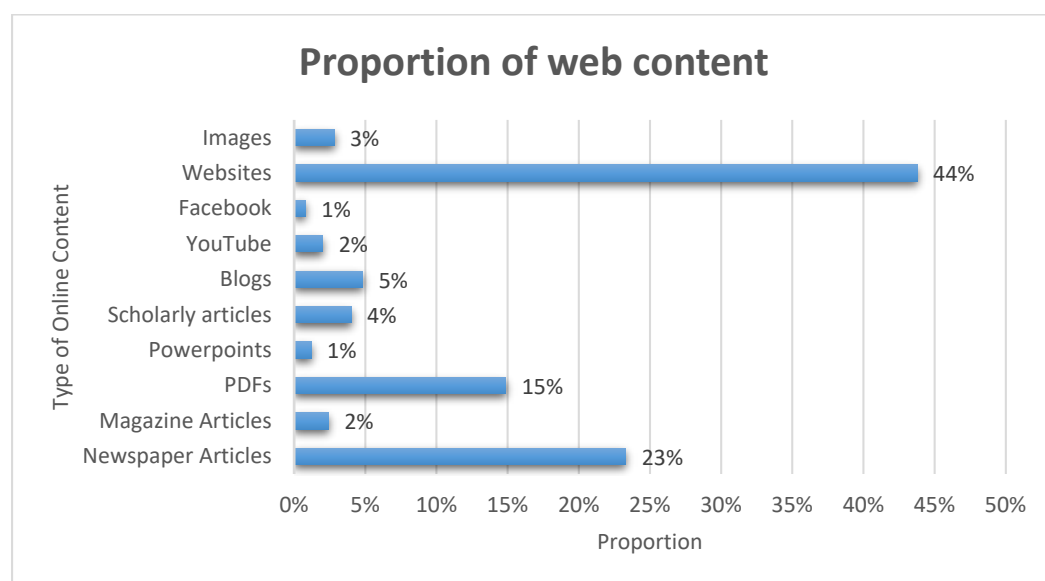
National penetration

In the absence of the ability to conduct national population-based surveys, we tried to assess penetration at the community level by searches of Facebook pages. Information found on these pages was considered to have been generated by the general public and a proxy of grass roots 'buy-in' of CWD. However, there were significant limitations to the assumption of Facebook as a proxy and both of these would underestimate both CWD's community penetration and its presence in social media. Further, social media has a bias towards the younger generation.

The researcher only had access to publicly available information from Facebook. In addition, CWD-related content may be posted to social media without any reference to the terms Caribbean Wellness Day. This is especially so considering the inherent nationalistic variation in the celebrations themselves, and the fact that many Member States have also progressed to celebrating 'Wellness Week'. Perhaps even as CWD becomes more ingrained in the society, with more community-based initiatives, its social media foot print may become more diffuse.

The study found that Facebook accounted for only 1% of all CWD internet content, and was produced by only seven countries, the majority of which was posted after 2011. Here too it was noticed that the same content was being posted and shared several times on only a few pages, thus supporting the hypothesis that CWD content was being consumed by the same audience over and over again. This echoed the concerns of regional stakeholders interviewed that CWD was not reaching a wide cross section of the community.

Figure 39 (5.7): Composition of CWD internet content



Print media

In respect to print media's coverage of CWD there were 169 newspaper articles identified for this analysis. Of the stories reviewed it was found that the main subject of the articles revolved around activities hosted in commemoration of CWD.

Table 17 (5.13): Frequency of types of main subjects covered in articles

Main subject	Frequency count
Main subject unclear in relation to CWD	29
NCD burden	7
NCD risk factors	10
Multisectoral partnership	8
CWD celebrations	43
CWD activities	72

Other occurring main subjects included references to the observance of CWD and the Port of Spain Declaration, NCD risk factors and multisectoral partnerships. Regarding the overall content of the articles 64.5% of the stories carried reference to physical activity; 53.8% to NCD risk factors; and 53.3% to intersectoral partnerships, among others.

Table 18 (5.14): Frequency of content covered in articles

Content	Number of references	Percentages
Physical activity	109	64.5%
Health fairs	65	38.5%
Health education	72	42.6%
International/regional	37	21.9%
Intersectoral	90	53.3%
Interministerial	22	13%
NCD statistics	48	28.4%
NCD burden	29	17.2%
NCD risk factors	91	53.8%
Types of NCDs	81	47.9%

The framing of the main subject and the subsequent content in most instances would lead to the conclusion that CWD is an event-centered occasion focused on physical activity, where there may be free entertainment and health checks. There was limited discussion of CWDs as a catalyst for behaviour change or for multisectoral action.

Analysis of the location of reported CWD events posted to the internet supported the reports from online surveys and key informant interviews, that CWD events have been concentrated in and around city centres throughout Member States. However, it also showed that effort was being made to take these CWD activities into other settings like schools and faith-based centres. Perhaps this indicates that greater innovation is needed to widen the scope of CWD in order to make it much more inclusive and take the CWD message into underserved areas of the community.

Table 19 (5.15): Reported location of CWD activities

Zoning of activity	Number of times reported	Percentage
National	44	26%
City centre	84	49.7%
Rural districts	8	4.7%
Schools	37	21.9%
Workplace	26	15.4%
Faith-based centre	11	6.5%

Regional and international spread effect of CWD

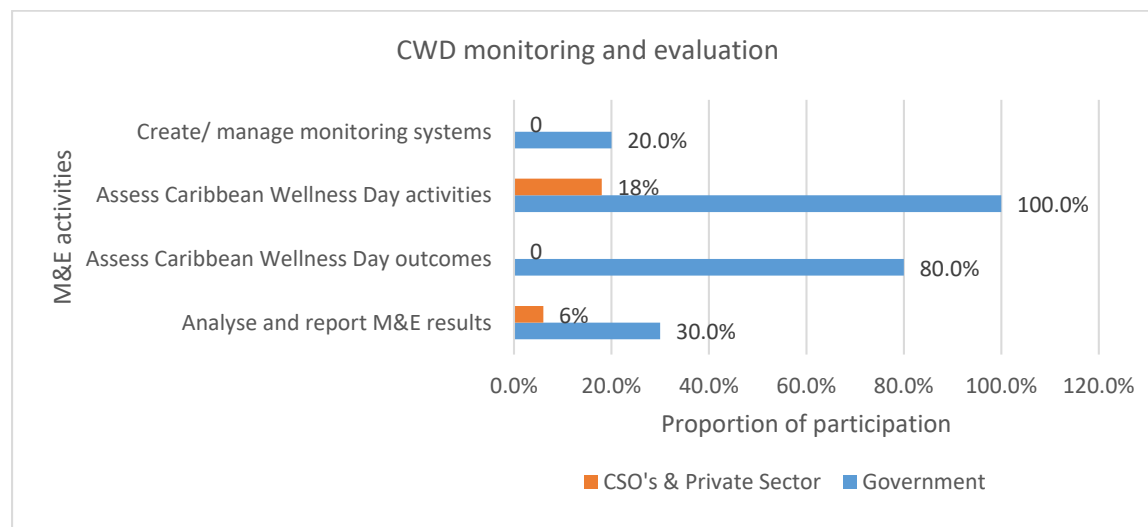
In support of this desire to extend the potential benefits of CWD, PAHO initiated Wellness Week in the Americas in 2011, coinciding with the United Nations High-level Meeting on NCDs, to promote the tenets of CWD across the hemisphere. Caribbean Wellness Day was featured in the 2011 Commonwealth Secretariat publication *Taking up the Challenge of NCDs in the Commonwealth: 17 Good-practice Case Studies*[25].

Monitoring and evaluation

Among government respondents and CSO and private sector respondents 85% and 78% respectively said they were part of the monitoring and evaluation process for CWD. Typically these reports, produced by ministries of health and forwarded to regional organisations, consisted of narratives of the day's activities and included photographs. The reports were presented annually to the ministers of health of CARICOM at their annual caucus in Washington, D.C. in September. This monitoring described in our regional interviews as 'observatory' and 'mainly descriptive' has remained on that level, describing what events had occurred, what groups contributed to its production and which groups attended. The only substantive evaluation was reported in 2010 by Samuels and Fraser[46].

More substantive and ongoing national evaluations are needed to help inform CWD activities to facilitate a greater NCD response.

Figure 40 (5.8): M&E activities in which collaborators participated



Barriers & facilitators

The main challenge reported by organisers of CWD activities was a lack of funding for the celebrations. Even with the greater inclusion of the private sector and CSOs, CWD remains heavily dependent on the provision of funds by the government. Yet only one CARICOM member has a specific budgetary line item for the celebrations. The initiative must find ways of targeting previously disengaged sectors of the community and it was felt that lack of funds for marketing the events seriously hampers this.

These funds are needed not just to pay for materials or air time but for operational research to generate practice-based evidence to really propel the celebrations forward, and bring the wellness message to all segments of the population.

The monitoring and evaluation of CWD thus far has not included investigation of the general public's level of engagement, or their knowledge, attitude or behaviour in relation to the wellness message.

Respondents, however, noted that when operating in a low-resourced situation success hinged upon good leadership; best demonstrated as 'champions' for the initiative. Human resources were highlighted as a critical issue for CWD. As most of the planning and organisation of CWD resided within the ministry of health it could be have been anticipated that a number of the examples of CWD 'champions' highlighted were ministry personnel, with extensive experience in health promotion.

Many countries and territories may not be lucky enough to have access to that special expertise, or it may not be continuously available. As one respondent explained, changes in key staffing have led to full cancellations of celebrations. Some suggestions were made that perhaps specialised toolkits could assist in such situations.

Lessons learned

Caribbean Wellness Day has been successfully observed annually in 19/20 CARICOM territories since its inception, with more than half of the countries celebrating it every year. For those who participate nationally in organising CWD, the observance of the day in itself represents the success of the initiative.

CWD was also successful in encouraging greater multisectoral links in the NCD response, and in one case the CWD committee became the nucleus of the national NCD commission. It was also successful in raising awareness of NCDs in the general community on the day, but it is unclear how deeply that engagement has gone.

Wellness culture

In some countries it is clear that a 'wellness culture' has started to emerge in parallel with the celebrations of CWD. In Jamaica, for example, the fundraiser of choice is no longer the barbecue, but rather the 5K, and the private sector has often become the promoter of health, often without explicit involvement of the government, e.g. Jamaica's Annual Reggae Marathon which began in 2001 now has 20 corporate sponsors. <http://www.reggaemarathon.com>

Monitoring and evaluation of CWD has not been extensive, for the most part only providing a narrative of the day's events, seeming to mainly show that the day was observed. In the past seven years the scope of CWD celebrations has remained the same, and evidence points to the fact that the 'wellness message' has been recycled through the same audience in that period.

It is clear that regional organisations played a seminal role in creating an environment which fostered collaboration and networking between countries. At the inception of CWD this was achieved through conference calls where Member States were allowed to share and comment on each other's plans.

Potential actions

- Political will: CWD has the advantage of political support, being the only mandate added by the heads themselves to the draft of the POS Declaration. The major barrier is the need for greater financial support for these celebrations in countries.
- CWD focal points need access to an annually updated toolkit to guide their activities. A survey of CWD's impact on the general public is needed, to help guide the process to take the wellness message to previously unreached groups.
- The scope of CWD celebrations should be widened in order to make them more inclusive geographically and demographically.
- Evaluation: an explicit formal framework establishing the goals of CWD and how it should be monitored is needed.
- Collaboration: improved networking between Member States on CWD, facilitated at regional level to assist CWD to fulfill its potential to be a key strategic component of an overall NCD communications plan.

Chapter 6: International impact of the 2007 Port of Spain NCD Declaration

Summary

- The 2007 Port of Spain Summit inspired global action on non-communicable diseases through the UN High-level Meeting in September 2011 and, ultimately, the UN's Sustainable Development Summit in September 2015.
- If a Port of Spain Summit commitment matched a specific 2011 UNHLM one, implementation of the UNHLM commitment increased in the following year.
- The use of plurilateral summits broader than the Port of Spain Summit, in which CARICOM members are numerically large and influential, helped move the Summit's influence upward to the UN.
- NCDs, now contained in one of the UN's 17 Sustainable Development Goals, should be addressed throughout this broad global governance approach at the UN.
- To complete the implementation of Summit commitments, to secure more institutional support, and to further inspire regional and global action, the regular CARICOM summit should contain a session dedicated to NCDs and issue regular progress reports on implementation.

Background

The 2007 CARICOM Port of Spain Summit had an essential, significant - if progressively diminishing - influence on catalysing and shaping the global summit governance of non-communicable diseases. This has been centred on the United Nations High-level Meeting on Non-communicable Diseases in 2011, the UNHLM Review in 2014 and the Sustainable Development Summit in September 2015, which included NCDs in its health goal for the first time. This regional Summit's influence on the global NCD summits and regime required the initial global ambition, vision and strategy of the Port of Spain Summit pioneers and continuous efforts by CARICOM countries and their expanding array of international allies to produce the global result.

This study reveals that global influence by using four analytical steps and two methods. The first step was to assess the Summit's influence on regional organisations by way of a case study of the Caribbean Regional Organisation on Standards Quality (CROSQ). It shows that the Summit led to required action being taken by this fellow CARICOM institution not otherwise involved in health. In turn, CROSQ's contribution increased the Port of Spain Declaration's implementation. Critical support for implementation also came from advocacy by government and civil society health actors, financial support from an extra-regional philanthropic foundation, and the World Health Organisation's

Framework Convention on Tobacco Control. Inhibiting implementation was the initial absence of the necessary non-health regional institutions — above all CROSOQ and CARICOM's Council for Trade and Economic Development — in the Summit, the lengthy regional process for standardisation, industry resistance and the dominance of trade over health concerns.

The second step was to assess the Summit's influence on global institutions, focusing on the creation, conclusions, commitments and compliance of the UNHLM in September 2011 and the UNHLM Review in 2014. The 2011 UNHLM outcome document directly referred to the Port of Spain Summit only once. Yet a majority, 59% of the 27 commitments in the Summit Declaration, were matched by at least one of the 205 UNHLM commitments. A majority, 56% of the UNHLM commitments, had a Port of Spain Summit predecessor. Eight Summit commitments matched five or more UN ones. Seven Summit commitments matched at least one UN commitment to a high degree.

Initial evidence from eight UNHLM 2011 first-year compliance assessments suggests that this 'Port of Spain Summit push' extended to compliance with the UNHLM commitments by 2012. Such compliance was higher on average for western hemisphere countries if the UN commitment had a Summit precursor, higher for CARICOM members than for the other western hemisphere states, and higher if the Summit precursor was highly complied with by CARICOM members in 2008. However, by 2014, the Port of Spain influence had largely run out. Only 31% of the 2011 UN commitments matched those made at the UNHLM Review in 2014.

The third step was to isolate the particular predictors of Summit influence on the UNHLM 2011 commitments and compliance. This analysis showed mixed but often suggestively positive effects all along the path. No particularly strong and consistent push came from the 27 Summit Declaration commitments, from the relevant direct, formal or informal international institutions, from compliance in the first year after the Summit, or from the implementation of, and multiyear compliance with, those commitments by 2011.

Nor was there much effect from the frequency and strength of the match between Port of Spain 2007 and UNHLM 2011 commitments. However, there was from the match between the POS 2007 and HLM 2011 commitments, as the matched commitments saw CARICOM members comply in the first year with their HLM 2011 commitments substantially more than their other western hemisphere colleagues did, across the 13 HLM 2011 commitments assessed.

The fourth step was to trace the detailed diplomatic process by which the Port of Spain Summit led to the UNHLMs. This analysis showed that continuous, expanding efforts from the start almost to the end produced the important if diminishing influence that the Summit had on the global regime. At the first stage, the critical elements were: committed Caribbean government leaders; financial support from extra-regional partners; co-leadership from Caribbean leaders; links with visible deadly vulnerabilities, sidestepping key industry opponents; and last minute leaders' initiative at the Summit itself, which produced a commitment with strong popular appeal. At the second 'going-global' stage, the critical elements were the use of broad plurilateral summits; skilled Caribbean individuals at the UN and WHO; persistent regional chief medical officers and global non-governmental organisations; and, at WHO, supportive missions and a political, technical and strategic approach. At the third 'HLM production'

stage, the critical elements were securing Russian support; using Port of Spain Summit language for the HLM; and focusing the agenda on the big four NCDs, which followed the best public health evidence, insofar as politics would allow. At the fourth ‘post-UNHLM’ stage, Caribbean involvement and influence waned, even if the 2014 UNHLM Review and the landing spot of the 2015 Sustainable Development Goals (SDGs) were kept in mind.

This process points to the value of embedding NCDs in the biggest, broadest, whole-of-global-governance approach at the UN, the need for compliance as well as implementation monitoring each year, and regular summit attention to review, reinforce and improve implementation, now aimed at the 2025 NCD and 2030 SDG target dates. Yet with NCDs constituting only one of the 169 targets in the SDGs, and no specific links to any other targets, new actions from and for the Caribbean are needed now.

Such actions could include regular CARICOM summit sessions on NCDs, interministerial meetings to review and improve Port of Spain Declaration/UNHLM/NCD implementation, a streamlined monitoring mechanism that efficiently meets the needs of all key actors, and additional processes for the continuous comprehensive assessments of compliance with NCD-related commitments from the Port of Spain Summit, CARICOM summits, UNHLMs and the SDGs, with a focus on the fiscal and economic benefits that compliance brings (Appendix A6.F).

Aims and methods

Objective 6 analyses how much, and why, the Port of Spain Summit and its Declaration influenced both regional and international institutions, especially the UNHLM in September 2011. This requires identifying in turn the analytic approach; the impact on, and of, regional Caribbean institutions; the impact on global institutions through to the 2011 UNHLM and the UNHLM Review in 2014 and, ultimately, the UN Sustainable Development Summit in September 2015 and its Sustainable Development Goals; the predictors of the Summit’s impact on these UN outcomes; the pathway from the Summit to the global UN process; and the conclusions and policy recommendations that arise as a result.

Analytic approach

The concept of impact

For this analysis, the concept of impact on a given institution (or coalition of institutions) is pragmatically defined as the influence of the Summit and its Declaration on the institutional agenda, priority setting, policies and practices — in short, on the action they have stimulated. Policies are defined broadly as any goal-orientated course of action taken by the institution. A policy can be both positive and negative, with negative referring to a decision not to act in a given situation or to act in a particular way, including through taking action different from, or antithetical to, the realisation of Summit commitments in that particular situation or elsewhere.

The dimensions of performance for assessing impact

In general terms, this analysis has been guided by the framework developed and applied by the G8 Research Group[47]for assessing the performance of summit-level international institutions. It contains six dimensions:

- Domestic political management;
- Private and public deliberation (including agenda setting);
- Principled and normative direction setting (including priority setting and broad policy making);
- Specific, future-oriented, politically obligatory and binding decisional commitments (including the number of commitments, ambition, significance and money mobilised);
- The delivery of these decisions (through their compliance and implementation); and
- The institutionalised development of global governance inside and outside the home international institution.

Emphasis in this study is given to three of these dimensions:

- Deliberation in its public component;
- The decisional commitments made at subsequent UN summits that are similar to or supportive of those in the Port of Spain Declaration; and
- Compliance with these similar and supporting UN commitments on the part of the institution and its members.

Insofar as possible, compliant behaviour has been assessed for its impact on outcomes, both those related to the individual commitment and those identified elsewhere in the Declaration.

Impact is explored across three broad categories of institutions:

- Regional intergovernmental institutions in the Caribbean;
- Global intergovernmental institutions, notably the UN at its HLMs in 2011 and 2014; and
- Regional and international civil society and private sector organisations and actors, which are assessed through their involvement in, and influence on, the first two categories.

Inferring impact

A retrospective, uncontrolled study, as this one must be, can at best infer the impact of the Port of Spain Summit. Inferences are stronger when they are based on more than one data source, bringing different perspectives on the same issue. To this end, evidence has been sought from documents and key informants with different positions. They are also stronger through the use of two methods — an aggregate data matching of the full set of Port of Spain Summit and UN summit commitments and a detailed process tracing of the pathway from Port of Spain to the UN summits. They will be stronger still when the step-by-step process of influence from Port of Spain to the regional and international impact is tightly traced and confirmed. This tracing has been guided by the extent to which CARICOM states are members of these broader bodies and the actions initiated by CARICOM members within them.

Findings

Impact on regional Caribbean institutions: The CROSQ case study

The impact of the Port of Spain Summit on intergovernmental regional institutions is assessed through a case study of the Caribbean Regional Organisation for Standards and Quality. This is a case in which, legally at the regional level, international institutions had to, and did, support implementation before national governments could, and did, comply with or implement the relevant Summit commitment (see Objective 5). The challenges encountered by CROSQ highlight those that regional decision-making structures pose for policy implementation, the importance of collaboration between and among the CARICOM councils in pursuing multisectoral action on health, and the important role that civil society can play in advocating NCD policies in the region.

CROSQ was established in 2002. It promotes efficiency and competitive production in goods and services through standardisation and the verification of quality in CARICOM states by raising awareness of standards and standards-related matters in governments, commerce, industry and among consumers and advancing and protecting its members' interests in regional and international standardisation fora, including external negotiations. CROSQ reports to, and is directed by, Member States through decisions and mandates issued by the Council on Trade and Economic Development, which comprises CARICOM ministers responsible for external trade, in particular, regarding the establishment or adoption of regional standards and technical regulations. Action by CROSQ is triggered by instructions from the CARICOM Secretariat or a Member State.

The Port of Spain Declaration mandates issued to CROSQ include establishing warning labels for tobacco and standards for nutritional labelling. The mandate for warning labels originated in the obligations under the 2003 WHO Framework Convention on Tobacco Control.

Although the Declaration mandated CROSQ to develop warning labels, it did not have an immediate effect because CROSQ required a notice from COTED or from a Member State, as was the case for many other regional institutions. This misunderstanding of mechanisms through which action by the regional institution could be initiated was a critical factor in delaying CROSQ's intervention on its mandate.

Work on the standards commenced with a formal meeting between representatives from the CARICOM Secretariat and CROSQ that discussed the mandates as well as the mechanism for triggering action. Ultimately, a member submitted a formal request to CROSQ to develop a standard on tobacco packaging and labelling under the obligations of the FCTC.

The CROSQ procedures for developing standards were lengthy and time-consuming. They included a submission to COTED to develop the standard, the selection of the Bureau of Standards of Jamaica to house the Labelling Technical Committee (designated by CARICOM to develop recommendations for tobacco) and several health-based consultations to arrive at consensus among the CARICOM members and stakeholders including economic operators (tobacco industry, private sector organisations) and health-based civil groups.

This consensus-based approach to developing and adopting standards allowed various interests to influence and, in some instances, delay CROSQ's work. For example, a Trinidad & Tobago tobacco manufacturer opposed initial schedules for rotating health warnings on the grounds that they would increase manufacturing costs. At the regional level, on at least two occasions COTED failed to approve the draft standard submitted by CROSQ, first, due to reservations voiced by Trinidad & Tobago, and second, based on concerns about the impact on trade.

In December 2012, over five years after the Port of Spain Summit, COTED adopted the Regional Standard for the Labelling of Retail Packages of Tobacco Products. This move had several causes. National health-based government agencies and civil society groups such as the Healthy Heart Foundation (Jamaica) challenged the special interests in the CROSQ decision-making process.

They lobbied trade ministers of COTED and other health-based civil society groups to support the development of an effective standard. This advocacy work was one of the critical factors leading to the adoption of the standard. It was bolstered by a grant from the Bloomberg Initiative to Reduce Tobacco Use in early 2008 under a regional project to implement rotating picture-based package warnings on tobacco products sold in four Caribbean countries.

The Declaration mandate was issued in the context of FCTC obligations. The development of the standard was discussed more often in the context of the FCTC than the Declaration. However, the Port of Spain mandate on effective tobacco labelling, which emphasised the FCTC, was viewed as contributing to the increased visibility of the treaty's commitments and members' accountability to those commitments.

Although CROSQ has met its Summit mandate, the regional impact has been minimal. The standard is voluntary. CROSQ has no powers to ensure its adoption or enforcement. To date, only Jamaica and Trinidad & Tobago have used it. The draft standard was used to develop Trinidad & Tobago's regulations prior to the adoption of the standard by COTED. Jamaica used that standard as a template to develop its Public Health (Tobacco Control) Regulations 2013, which required rotating pictorial health warnings covering 60% of all tobacco packages.

This case highlights the critical support for implementation from, in rough chronological order, advocacy by government and civil society health actors, financial support from an extra-regional philanthropic foundation and the existence of a directly related global intergovernmental institution and legal instrument — the WHO FCTC. Compliance, implementation and impact were inhibited by the absence of the legally necessary non-health regional intergovernmental institutions (COTED and CROSQ) in the Summit process, the lengthy regional process for standardisation, industry resistance, and the initial and protracted dominance of regional trade over health concerns.

Impact on global institutions: The UN's 2011 HLM and 2014 HLM Review

The extended impact of the 2007 Port of Spain Summit at the global level is best assessed by exploring its influence on the creation, conclusions, commitments and compliance of the UNHLM on NCDs held in 2011 and its review in 2014. With a membership of 193 countries from all geographic regions of the world and with their full multidimensional diversity, the UN is the most global, multisubject, intergovernmental organisation. A mere four years after the Port of Spain Summit, the UN held its first single-subject HLM or summit on NCDs. This was only the second time the UN had held a summit dedicated to a health subject, the first having been in 2001 on HIV/AIDS[48].

The impact of the regional 2007 Summit on the global UNHLM was assessed through a substantive matching of the public outputs of the Summit, defined by its 27 commitments, with the public outputs of the high-level meeting, defined by the outcome documents' deliberative public conclusions, their decisional commitments and compliance by CARICOM members and other selected UN members with these commitments in first year following the UNHLM.

Public deliberative conclusions of the UNHLM 2011

The impact of the Port of Spain Summit on the agenda setting and policies of the UNHLM was assessed on the performance dimensions of deliberation in public conclusions. This was measured by the number of references to the Summit and its cognate terms in the 2011 final outcome document.

The match and thus the impact were very low in volume, but very high in the priority placement of the UNHLM's one direct reference to Port of Spain in the communiqué. Its political declaration contained one paragraph in the preamble that noted the UN's appreciation of various regional initiatives undertaken to prevent and control NCDs. The first initiative listed was a reference to the Declaration agreed on at the Port of Spain Summit: 'Uniting to Stop the Epidemic of Chronic Non-communicable Diseases.'

Decisional commitments of the UNHLM 2011

The global impact of Port of Spain Summit on the high-level meeting was next assessed on the performance dimension of decision making. This assessment was done by exploring how frequently and strongly the substance of the 27 Summit commitments matched the similarly precise, future-oriented, politically obligatory and binding 205 commitments made at the HLM 2011 (see Appendix A6.A).

Most of the 205 HLM commitments had a Summit precursor as 116 (56%) matched in their substance at least one of the 27 Port of Spain commitments. Yet an ample 44% of UNHLM commitments did not. The high-level meeting uniquely contained commitments dealing with alcohol use, accountability and even climate change. This expansive novelty of the UNHLM can be attributed to several factors, including the pioneering status and specific focus of Port of Spain on risk factors; the global representation, development focus and context of the UN; the relative insulation of the UNHLM 2011 from industry influence; and the arrival of new knowledge and agenda items on NCDs in the four years from 2007 to 2011.

Reciprocally, a majority 16 (59%) of the 27 Summit commitments were reflected in the UNHLM at least once. The 11 Summit potential parent commitments with no high-level meeting offspring were those on enacting legislation to ban the sale, advertisement and promotion of cigarettes to children; employing public revenue derived from tobacco and alcohol products for preventing NCDs; reintroducing physical education in schools; endorsing regional efforts to enhance food security; mandating food labelling; providing incentives for public education programmes in support of self-management of NCDs; and declaring the second Saturday in September as Caribbean Wellness Day.

For each of the Port of Spain Summit commitments, the precise frequency and strength of their UNHLM 2011 match is detailed below (see Appendix A6.A). Four commitments had a high-frequency match: -1 on strengthening the regional response to NCDs, -10 on screening and managing NCD risk factors, -18 on increasing physical activity, and -25 on research and surveillance for risk factors.

Four commitments had a medium-frequency match, seven a low-frequency match, and 11 no match at all. Six commitments had a high-strength match. Four commitments had a low-strength match. The frequency and strength of the match of each POS Summit commitment is as follows:

Commitment-1, categorised as 'general, was to support initiatives aimed at strengthening regional health institutions to provide leadership for reducing NCDs. Many of the general UN commitments aimed at reducing the burden of NCDs were matched to this commitment, despite more specific instructions such as improving primary care, engaging with civil society and not referring to Caribbean institutions. There was thus a frequent, if weak, match.

Commitment-2 aimed to pursue the passage of provisions related to the FCTC. The matching high-level meeting commitments included one that referred specifically to the implementation of the FCTC. Others committed to reducing tobacco use through "relevant international agreements and strategies." The match was frequent and of medium strength.

Commitment-3 on banning smoking in public places, -4 on banning the sale of tobacco to children and -5 on banning advertising of tobacco products to children had no matched UNHLM 2011 commitments: there were no commitments about enacting specific legislation about tobacco. Commitment -6 on banning tobacco promotion for children also had no matched UNHLM commitments.

Commitment-7 on warning labels was matched by three high-level meeting commitments on reducing tobacco use through education. It was a weak rather than a direct match. It can be inferred that warning labels are a form of education on the negative impacts of smoking.

Commitment-8 on introducing fiscal measures to reduce the accessibility of tobacco matched five UNHLM commitments on reducing tobacco use through fiscal measures and taxation policies. All five commitments had a match of medium strength.

Commitment-9 on using public revenue from tobacco and alcohol to prevent NCDs had no match in the UNHLM 2011.

Commitment-10 was to establish plans for screening and managing NCDs and their risk factors so that by 2012 80% of people with NCDs had access to care and preventive education. It was matched with

UNHLM commitments to increase access to cancer screening programmes and screening and diagnosis in general. Also included, although not as strongly matched, were commitments to improve access to preventive services and interventions for those at risk. The match was thus frequent and of medium strength.

Commitment-11 to mandate physical education in schools and -12 on incentives and resources for physical education in schools had no matched high-level meeting commitments.

Commitment-13 on programmes to provide healthy school meals and healthy eating was matched with UNHLM commitments to implement interventions to reduce the NCD risk factor of an unhealthy diet. Six commitments aimed to facilitate access to healthy food and support its production and manufacturing, although they did not specifically mention schools. The match was thus frequent but of medium strength.

Commitment-14 on food security: specifically to endorse the efforts of the Caribbean Food and Nutrition Institute, Caribbean Agricultural Research and Development Institute and the regional intergovernmental agencies to enhance food security. No high-level meeting commitments matched.

Commitment-15 to eliminate trans fats had two similar UNHLM commitments, both of which matched very closely. The UN commitments, however, did not refer to using the CFNI as a focal point.

Commitment-16 on pursuing fair trade policies in all international trade negotiations and promoting the use of indigenous agricultural products was matched by two high-level meeting commitments. The first encouraged policies that support greater opportunities for using healthy local agricultural products. The second promoted the prevention of NCDs through the full use of flexibilities in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The match was thus of medium strength.

Commitment-17 to mandate food labelling to indicate nutritional content had no matching UNHLM commitments.

Commitment-18 to increase physical activity for the entire population was matched with 31 high-level meeting commitments. They include those that match strongly as well as commitments that create equitable health-promoting environments, empower individuals to make healthy choices, and promote health education and health literacy.

Commitment-19 to increase adequate public facilities such as parks and other recreational spaces was matched with one UNHLM commitment to advance the WHO *Global Strategy on Diet, Physical Activity and Health* aimed at increasing physical activity through, among other things, urban planning.

Commitment-20 to take account of the gender dimension in programmes to prevent and control NCDs was matched with two high-level meeting commitments to pursue gender-based approaches for preventing NCDs founded on data disaggregated by sex and age.

Commitment-21 to provide incentives for comprehensive public education programmes in support of wellness was matched with six UNHLM 2011 commitments that mandated the use of health promotion and primary prevention approaches as well as those that promoted the dissemination of information.

Commitment-22 to provide incentives for comprehensive public education programmes in support of healthy lifestyle change was matched with two high-level meeting commitments, including one to promote the use of information and communications technology to improve health outcomes. The match was thus less frequent but strong.

Commitment-23 to provide incentives for comprehensive public education in support of the self-management of NCDs was not matched with any UNHLM commitments.

Commitment-24 to embrace the role of the media as a responsible partner in all efforts to prevent and control NCDs was matched indirectly to the UNHLM commitment to engage non-health actors in partnerships to promote healthy lifestyles.

Commitment-25 to establish programmes for the surveillance of risk factors was matched with 15 high-level meeting commitments, including those strengthening surveillance and monitoring systems as well as supporting NCD-related research.

Commitment-26 to support CARICOM and PAHO as the institutions responsible for revising a regional plan for preventing NCDs was matched with the UNHLM commitment to promote capacity building at the regional level and explore providing sustained resources through regional channels, although it did not specify which ones.

Commitment-27 to declare the second Saturday in September Caribbean Wellness Day was not matched with any high-level meeting commitments.

The UNHLM commitments that did not match the Port of Spain commitments, even indirectly, included those on reducing the harmful use of alcohol, salt and sugar; promoting and supporting breastfeeding; providing access to vaccines; improving access to safe and affordable medicines and technologies; and promoting NCD prevention within sexual, reproductive and maternal and child health programmes. The HLM also included commitments on the quality of aid and the retention of health workers.

[Delivery through compliance with commitments, UNHLM 2011](#)

The extended global impact of the Port of Spain Summit on the UNHLM was next assessed by identifying the compliance of UN members with their Summit-matched UNHLM commitments in the following year. The assessed UN commitments varied in terms of match frequency and strength. To render such an analysis manageable for the 193-member UN and to isolate the impact of the Port of Spain Declaration with appropriate controls, this analysis began by assessing the compliance of the 40 UN members from the western hemisphere and PAHO with four UNHLM commitments: 2011-68 on accelerated FCTC implementation, 2011-43 on multisectoral interventions, 2011-118 on promoting multisectoral engagement to prevent youth obesity and 2011-40 on implementing population-wide interventions to reduce alcohol use.

The 19 CARICOM members that produced and were bound by the Summit Declaration constitute almost half of the 40 UN members assessed. The other 21 UN members are similar in geographic proximity and several other regional characteristics (including level of development). The four UNHLM commitments were selected by compliance assessment and contain one with a very frequent, strong match (2011-43),

one with a less frequent, medium-strength match (2011-68), and two with no match (2011-118 and 2011-40) (see Appendix A6.B).

UNHLM 2011-68: Accelerated FCTC implementation

The first UNHLM 2011 commitment measured for compliance was 2011-68 on accelerating implementation of the FCTC, including measures to reduce consumption and availability and encouraging countries that have not yet acceded to the treaty to do so (see Appendix A6.B-1). The commitment recognised that reducing tobacco consumption contributes to reducing NCDs and benefits both individuals and countries, and that price and tax measures are effective ways to decrease tobacco consumption. It matched Port of Spain Commitment-2, which itself matched five UNHLM 2011 commitments (including 2011-68) and had a medium-strength match. Port of Spain Commitment-2 had a first-year compliance score of -0.07 (47%).

This UNHLM commitment received an average score of +0.95 for CARICOM members. All fully complied except Trinidad & Tobago, where compliance was only partially. The analysis indicates that this was due to the fact that the country had not further implemented measures to reduce tobacco consumption as part of the FCTC. Average compliance for CARICOM members and the other members of the Americas decreased to 82%, indicating that the former complied more fully with the commitment. The Summit thus seemed to give CARICOM members a kick-start for compliance with a UNHLM commitment that matched well with the earlier Port of Spain one.

More precisely, UNHLM 2011-68 was matched with Port of Spain-2 to pursue immediately a legislative agenda for passage of the legal provisions related to the FCTC.

Appendix A6.C shows that Port of Spain Commitment-2, legislating the FCTC, was also matched with the relevant Port of Spain indicator, to ratify the FCTC. Although implementation data come from different methodologies and sources, the match suggests that commitments with a similar nature (in this case implementing the FCTC) have an upward trend of implementation from 2008 to 2012.

UNHLM 2011-43: Multisectoral interventions

The second UN commitment measured for compliance was 2011-43 on implementing multisectoral interventions to reduce the impact of common NCD risk factors through education while respecting the right of countries to establish policies, involving relevant sectors, civil society and communities (see Appendix A6.B-2). It matched Port of Spain Commitment-18, which itself matched 31 HLM 2011 commitments, including 2011-43, and did so to high degree. Port of Spain-18 had a first-year compliance score of 15%.

Compliance for CARICOM members only with UNHLM 2011-43 received a first-year score of 61%. If the other members of the Americas are included, the compliance score was 34%. This indicates, as with UNHLM 2011-68, that CARICOM members tend to have higher compliance rates as a group, despite their slow start in complying with the similar Port of Spain Commitment -18. The members that achieved full compliance were Anguilla, Antigua & Barbuda, the Bahamas, Bermuda, Brazil, Canada, Cayman Islands, Dominica, Guyana, Jamaica, Suriname and Trinidad & Tobago, all but two being members of CARICOM.

Appendix A6.C shows that Port of Spain Commitment-18 on mass physical education matched with the Summit indicator to promote ongoing, mass physical activity and new public physical activity space. This indicator received an implementation score of 55% in 2009, 60% in 2010 and 75% in 2011.

UNHLM 2011-118: Youth obesity

The third UN commitment assessed for compliance was 2011-118 on promoting multisectoral engagement to reverse, stop and decrease rising obesity in youth. It was not matched with any of the Port of Spain Summit commitments, as leaders there did not refer to youth and obesity.

First-year compliance with UNHLM 2011-118 averaged 56%. CARICOM members' compliance averaged 68%. The other UN members averaged only 46%. CARICOM members thus complied more, even though they had not made a similar commitment in 2007. Within CARICOM, full compliance with UNHLM 2011-118 came from Anguilla, Antigua & Barbuda, the Bahamas, Belize, Bermuda, British Virgin Islands, Cayman Islands, Jamaica, Suriname and Trinidad & Tobago.

UNHLM 2011-40: Reduced use of alcohol

The fourth UN commitment assessed for compliance was 2011-40 on reducing the harmful use of alcohol. It had no match with a Port of Spain commitment, which almost entirely avoided addressing alcohol. The only reference to alcohol was in regards to the public revenue derived from it.

First-year compliance for CARICOM members with UNHLM 2011-40 received a score of 32%. With non-CARICOM UN members included, the score was 33%. These scores fit with the hypothesis that a 2007 Port of Spain Summit predecessor encourages higher compliance from CARICOM members.

Analysis

First-year compliance with the four assessed UNHLM 2011 commitments suggests the possibility of a Port of Spain Summit compliance-enhancing effect at the global level four years later.

The two UNHLM commitments with a Port of Spain precursor had an average compliance score of 58%, and the two without such a precursor had a much lower average compliance score of 44% (see Appendix A6.D). Among the two high-level meeting commitments with a Port of Spain precursor, the average compliance score among the CARICOM members only was 79%, whereas that of the 19 non-CARICOM UN members in the western hemisphere was 41%.

For the two UNHLM commitments without a Port of Spain precursor, the compliance of 19 CARICOM members averaged 0, while that of the non-CARICOM members of the western hemisphere averaged -0.21 (40%).

For three of the four assessed commitments, Port of Spain participants complied more with the UNHLM commitment than the other countries in the Americas did.

Decision making through commitments, UNHLM Review 2014

The extended impact of the Port of Spain Summit can be examined by adding a time period to the first UNHLM-Port of Spain match and by assessing compliance in the Americas from 2011 to 2012 with eight of the UNHLM 2011 commitments assessed. This extension moves the time horizon to 2014, by assessing how well the 205 UNHLM 2011 commitments matched the 104 from the UNHLM Review in 2014.

An analysis of this match between the UNHLM 2011 and 2014 commitment shows that only 63 (31%) of the 205 commitments from 2011 matched commitments made in 2014 (see Appendix A6.E). There is thus some overall continuity, and considerable continuity in several component areas of NCDs, notably the implementation of multisectoral interventions through international agreements and strategies, as well as domestic actions such as fiscal policies, health education, and legislative and regulatory measures. Cost-effective multisectoral interventions and population-wide interventions were also distinctly reflected in both UNHLM 2011 and UNHLM 2014. Other areas of continuity were health education, NCD monitoring and prevention measures, and the development of healthcare infrastructure. None of the HLM 2011 nor the HLM 2014 commitments referred to the Port of Spain Summit.

Only three (4.8%) of the 63 matched commitments showed a complete match, 11 (17.5%) had a high match and 49 (77.7%) had a low match. Commitments with the highest matching strength referred to the promotion of a healthy diet, establishment of healthcare infrastructure, NCD diagnostics, NCD prevention and control, training of health personnel and technology transfer for producing medicines. Matching commitments with the lowest strength referred to multisectoral interventions.

In comparison to UNHLM 2011, the 2014 high-level meeting shows a shift toward commitments on promoting international cooperation across the full spectrum of measures for preventing and controlling NCDs through the development of national, regional and global plans. Commitments that were unique to UNHLM 2014 promoted international South–South and North–South cooperation on controlling and preventing NCDs on the regional and global levels. Further research should assess compliance with these 2014 commitments to see if it was higher for those with a 2011 match and for the CARICOM members.

Predictors of Port of Spain influence on the United Nations

Predictors of Summit's influence on UNHLM 2011 compliance in 2012 could arise anywhere along the potential causal path from:

- 1) The Summit commitment;
- 2) Its compliance in 2008;
- 3) Implementation of its corresponding indicator(s) from 2009 to 2011;
- 4) Its match in frequency and strength with a UNHLM 2011 commitment;
- 5) Compliance in 2012 with selected UNHLM 2011 commitments by countries in the Americas, the CARICOM component therein and the other countries; and
- 6) The UNHLM 2011 commitment match in frequency and strength with those of the UNHLM Review 2014.

The 27 Summit commitments had a very uneven push, starting with compliance in the year following the Summit (2008) and continuing with diminishing force through the causal chain to the 2011 high-level meeting compliance by 2012 (See Appendix A6.C). In the case of Summit Commitment-2 on the FCTC, compliance and commitment continually increased to reach 97% for CARICOM members of the UN by 2012. Here the UNHLM, with five matched commitments with a medium strength, provided a notable boost. This was only partially seen for Summit Commitment-18 on multisectoral interventions, where the highly matched UNHLM 2011-43 had higher compliance than its Port of Spain Summit precursor in 2008, and more CARICOM members' compliance in 2012 than the other hemispheric countries.

To make a stronger link, the number of cases examined was doubled from the four discussed before to eight UNHLM commitments whose first-year compliance was assessed (See Appendix A6.D). Of these there was no Port of Spain potential parent for two: 2011-40 on tackling the harmful use of alcohol through education and 2011-118 on obesity in youth. Six had a Port of Spain potential parent: 2011-01 on tobacco-international agreements; 2011-15 on tackling physical inactivity through fiscal measures; 2011-17 on cost-effective interventions for tobacco use; 2011-29 on tobacco use through fiscal measures; 2011-43 on dealing with physical inactivity through education; and 2011-68 on FCTC implementation.

This analysis suggests that having a Port of Spain potential parent increased the matched UNHLM commitment's compliance during the first year from 2011 to 2012. The two HLM commitments without such a potential parent averaged only -0.11 compliance (for all 40 western hemisphere members), while the six with one averaged +0.27, for a 'Port of Spain Summit push' effect of +0.38. Moreover, the 19 CARICOM members who were uniquely previously bound by the Summit had higher compliance with the high-level meeting commitments than the other western hemisphere members who were not. This was the case with the UNHLM commitments with a Summit match and even for those without one.

The CARICOM members complied with the Summit-matched commitments at a +0.17 average while the other members complied with the non-matched ones at a -0.21 average, for a double 'Summit push' difference of +0.38.

This push was enhanced if there was a fast start to Declaration compliance with higher compliance during the first year. The three Summit commitments with the highest first-year compliance, averaging +0.14, were followed by their three matched UNHLM 2011 ones having first-year compliance of +0.47. In contrast, the three Summit commitments with the lowest compliance, averaging -0.49 were followed by their three matched UNHLM 2011 ones having first-year compliance of only +0.09.

To strengthen and test these inferred causal connections, several steps should be taken in subsequent research. The first is to test the relationships over more than just these eight cases, in order to progressively develop a more representative data set. To start, over 13 cases, the nine UNHLM 2011 commitments that matched five Port of Spain Summit ones saw CARICOM members comply on average +0.27 more than the other western hemisphere ones. In sharp contrast, the four UNHLM commitments with no Port of Spain precursor saw CARICOM members comply the first year on average -0.07 less than the other western hemisphere ones (See Appendix A6.B-1).

The second is to trace the intervening path between the 2007 Declaration and 2011 UNHLM first-year compliance by detailing the compliance with the 27 Summit commitments and their 14 corresponding CCH III indicator implementation by years 2009, 2010, 2011 and 2012 (See Appendix A6.B-2, A6.C).

The third is to trace a similar path through to UNHLM compliance in 2013, 2014 and 2015, in the approach to and after the 2014 HLM Review was held.

The path from the 2007 Port of Spain Summit to the UNHLM 2011 and beyond

The causal impact of the 2007 Summit on the global community can best be assessed by tracing the summit-centred process to and from Port of Spain to the UN's HLM on NCDs in September 2011 and beyond to the UN's SDG summit in September 2015. The HLM 2011 was the inaugural, summit-level, authoritative foundation for the whole-of-global-governance approach to preventing and controlling NCDs. It shaped in turn the UNHLM Review in 2014 and then the UN summit in September 2015 that approved the new, much broader SDGs, with the third goal on health including a component on NCDs for the first time.

This section summarises the key points on the path to producing the Summit and connecting it with the UNHLMs and ultimately the SDGs. It goes beyond the published literature, the research for which was largely conducted before the 2011 high-level meeting took place[33, 49-51]. It is based on new interviews and documentary research conducted for this project and specifically directed at the particular leader-level, summit-focused purposes of Objective 6. The summary below highlights this new information.

The process unfolded through three distinct phases: securing a Port of Spain Summit, from 1986 to 2007; creating consensus at the Summit, September 2007; and going global from Port of Spain to the UNHLMs in 2011 and 2014 and ultimately to the SDG summit in September 2015. Each phase had a distinct set of pivotal points, causes and people shaping the path.

Phase 1: Securing the Port of Spain Summit

The process of producing the Summit began in 1986 when CARICOM ministers of health approved a Caribbean Cooperation in Health Initiative making NCDs a priority. It acquired the critical leader-level boost in 2001 when CARICOM heads in their Nassau declaration adopted a regional approach to NCDs. They reinforced this agreement in 2006.

At their 27th summit in St Kitts and Nevis on July 3-6, 2006, they declared: "The Government of Trinidad and Tobago offered to host a special regional consultation to consider mechanisms for implementing specific recommendations... [on NCD prevention and control]." By their next summit the "special regional consultation" had become a "summit." At their 18th Intersessional Meeting in St Vincent and the Grenadines on February 12-14, 2007, they declared: "In this context, the Conference agreed to the convening of a Regional Summit on the NCDs which would be preceded by national consultations." An accompanying Draft Summary of Recommendations noted that heads had, "Also commended the Prime Minister of Trinidad and Tobago for initiating the process of National Summits in September 2006 and

agreeing to host the Regional Summit." At their following summit, full participation, a place and a date were publicly agreed. At their 28th summit, in Barbados on July 1-4, 2007, the communiqué noted: "The Conference agreed to its full participation in the Summit on Non-Communicable Diseases, to be held in Port of Spain, Trinidad and Tobago, on 14 September 2007." The Summit was held on September 15, 2007, a day later.

Below the leaders' level, advocacy and support came from three members of the Caribbean Commission on Health and Development: Sir George Alleyne, Dr James Hospedales and Dr Stanley Lalta. They produced position papers based on data from the Caribbean Epidemiology Centre, CFNI and the University of the West Indies. A small steering committee with representatives from PAHO, CAREC, CARICOM and Member States was established to guide the process. Veta Brown, the Caribbean programme coordinator at PAHO, facilitated meetings with the relevant regional prime ministers and cabinet members, who were thus informed of the importance of NCDs, relevant public health principles and the impact of NCDs on the economic and social development of their countries. Only later did some of these key individuals decide to seek a CARICOM summit on NCDs as a way to ultimately holding a global UN one.

Money was needed to mount such a summit. Of critical importance was financial support from partner governments and leaders outside the region with a direct stake in the issue and the institutionalised plurilateral summitry that connected them to their CARICOM colleagues. The initiators worked with the WHO Collaborating Centre on NCDs at the Public Health Agency of Canada (PHAC) to produce a grant proposal for \$1 million that led to a grant to PAHO to support the Port of Spain Summit and its initial implementation phases. PHAC also gave \$100,000 to CARICOM. Canadian Prime Minister Stephen Harper subsequently contributed another \$100,000. He had attended the intersessional CARICOM summit in February 2007.

After an internal negotiation within CARICOM, Denzil Douglas, Prime Minister of St Kitts & Nevis, wrote to Harper that CARICOM did not have sufficient funds to hold a summit. Harper then instructed the Canadian International Development Agency to give a further \$300,000 for the summit. The following year PHAC gave another \$500,000 to implement and replicate the initiative in South and Central America.

A CARICOM leader was also needed to serve as Summit host. Prime Minister Patrick Manning of Trinidad & Tobago was a top candidate. His country had completed a study of the NCD problem about a year prior to the Summit and the study convinced its politicians that they could help lead on NCDs. An appeal to host was made on at least two key occasions.

The first was at a CARICOM summit, very likely the one in July 2006. On the way to dinner, near an arch in a garden, Alleyne, now convinced a summit was important, asked Manning to host such a summit. There is no evidence that Manning agreed.

The second occasion took place when Alleyne and Hospedales visited Manning in his office in White Hall to make the case. Manning resisted, indicating that Trinidad & Tobago was regularly criticised for trying to push its values and ideals onto the other Caribbean countries and that the personal consequences of hosting would be too high. The solution found was for Barbadian Prime Minister Owen Arthur to chair the meeting, as the PM with responsibility for CARICOM's Single Market and Economy, and for Denzil

Douglas to be the main speaker and presenter at the meeting. The summit itself could be hosted by Trinidad & Tobago, which had the highest rate of heart disease in the region, so the initiative could be framed in a way that suggested the country needed assistance. Manning agreed.

This compromise indicates the need to consider the leaders' personal and political context, create co-leadership among heads of different types and be sensitive to intraregional rivalries and resentments. It also illustrates the effectiveness of working with the natural roles of the institutional leaders, with Douglas as the lead for health and human development and Owen as the lead for the economy in the quasi-cabinet of CARICOM leaders.

Defining the policy approach

It was decided that the summit would focus on prevention. Therefore, commitments were proposed and ultimately made to improve physical activity, nutrition and healthy diets and to curtail smoking, as well as to scale up preventive treatment and education for people affected by NCDs to reduce complications such as strokes and heart attacks. Politics may have come into play over alcohol, which also caused road injuries and death. Because the Caribbean is a major producer of rum, there were no specific Port of Spain Summit commitments to reduce alcohol consumption. Instead, the one commitment related to alcohol referred to using tax revenues from alcohol sales to fund NCD prevention and control programmes and the work of national commissions. Other 'sin taxes' were largely shunned, due to an absence of compelling evidence, persuasive to heads, about their effectiveness. This approach highlights the importance of avoiding direct confrontations with powerful industry and economic interests, while making a winning link with another health-related vulnerability.

Above all, this process of producing the Summit shows the decisive role of leaders. Lower-level advocates, with a background as officials in international health organisations, had not initially understood the need for a summit and the unique whole-of-government, intersectoral coverage and the political authority it could bring.

Moreover, growing health and economic threats from NCDs and an emerging epistemic consensus about how to address them had been underway for well over a decade before the Summit, since 1986, with no obvious cumulative threshold or catalytic tipping point being reached by 2006-7. What changed was the new personal commitment of Manning, Arthur, the Prime Minister of St Vincent and the Grenadines, Ralph Gonsalves, and Denzil Douglas, a medical doctor, with these individuals perhaps spurred by their awareness of the NCDs they and their aging colleagues were starting to suffer from. Only when they found a way to share the personal and political responsibility and credit, and the necessary money was produced from elsewhere, did the Port of Spain Summit take place.

Phase 2: Creating consensus at the Summit

The Summit attracted considerable enthusiasm from all CARICOM politicians except those from Guyana, whose president did not attend. Hospedales had assembled research and prepared a presentation on the status of NCDs in the region for Douglas as the lead head. The data had been gathered primarily from CAREC, CFNI and UWI. From the beginning, presentations were designed to 'speak to the heads, hearts and pockets' of the leaders. The slides were carefully crafted by Douglas and the CARICOM

Secretariat. A health economist was invited to discuss the economic dimension of NCDs. Manning and Arthur spoke. Arthur believed strongly that the leaders needed a collective approach.

After the presentations, Ralph Gonsalves, considered a maverick thinker, stated that this NCD issue was, in fact, a wellness revolution. Thus, the leaders agreed to make the second Saturday in September Caribbean Wellness Day, in commemoration of their meeting.

The discussions at the Summit highlight the importance of allowing spontaneous combustion and allowing a head to lead on a new initiative of strong popular appeal. It also demonstrates the importance of having data relevant to the situation and packaged to cover social and economic aspects.

Phase 3: Going global, 2007-2015

Practising plurilateral summitry

After the Port of Spain Summit, Sir George Alleyne told the CARICOM heads that their discussion meant nothing unless they took it further. The Caribbean countries are members of the Commonwealth so, with PAHO's encouragement, they used that forum to put the NCD issue onto the agenda of the Commonwealth Heads of Government Meeting which Trinidad and Tobago would host in 2009, and then onto the UN agenda. There was considerable lobbying to capture the attention of the UN Secretary-General to have him support holding a meeting on NCDs at the heads' level.

A team of CARICOM chief medical officers, a skilled Guyanese officer at the UN and, importantly, the fledgling Caribbean non-governmental organisations and global NGOs drafted the resolution to hold a high-level meeting, working to keep the language consistent with the Port of Spain Summit and to ensure the meeting would benefit all regions. The Healthy Caribbean Coalition's 'Get the Message' cell phone advocacy campaign produced nearly one million text messages of support for paying attention to NCDs and for the Caribbean leaders to participate in the UNHLM.

PAHO also influenced the Summit of the Americas by way of the Organisation of American States to recognise the significance of NCDs. Articles 28 and 29 of the outcome document produced by the 2009 SOA, also hosted in Port of Spain, referred directly to the burden of NCDs and reiterated the leaders' support for multisectoral action.

This development shows the importance of using larger plurilateral summit institutions where CARICOM members are a numerically large and influential part of the membership to secure broader leader-level support on a global scale. It also shows the importance of skilled individuals from the region at the UN and the persistence of regional CMOs and regional and global NGOs.

Working through WHO

In 2007 WHO began crafting a global plan on chronic diseases, which culminated in the Moscow Declaration on NCDs at the first Global Ministerial Conference on Healthy Lifestyles and Non-communicable Diseases Control in May 2011. By then, WHO members had recognised that NCDs required a political solution involving all regions. Collaborative work was done by the missions of the Caribbean, Norway and Russia to bring about resolutions at the World Health Assembly (WHA) and the UN to galvanise global interest in having a UNHLM on NCDs in 2011.

The WHA resolution had more than 60 cosponsors in the end. The member of the WHO Executive Board from Barbados successfully ensured that the resolution from the Executive Board to the Assembly preserved the Port of Spain Summit wording, through a reference to the summit and in other linking language.

Each of the six WHO regions also held meetings in the lead-up to the UNHLM. The declarations from the Regional Office for the Americas emanated from a special consultation on NCDs and obesity held in Mexico City in February 2011.

At WHO, support came from the former CMO of Barbados, who had joined the Executive Board in January 2011 (and would later, with the support of PAHO's head, become its chair). Caribbean and other leaders skilfully pushed to have NCDs dealt with at the UN rather than just at WHO. They were supported by the three Caribbean countries with diplomatic missions in Geneva (Barbados, Jamaica and Trinidad & Tobago) and by representatives of other Caribbean countries attending the WHA and CARICOM.

There were thus three parallel streams: the political process initiated by the heads of government at CARICOM getting to WHO, the technical process where the understanding of NCDs and their importance was impressed upon the Geneva-based missions, and the strategic plan that was being shaped.

This shows the importance of a three-pronged political, technical and strategic approach; support from the professionals and relevant senior officials at the dedicated health institution, namely the WHO; and of resident diplomatic missions.

[The Global Ministerial Conference on Healthy Lifestyles and Non-communicable Diseases Control](#)

In addition to preparatory meetings in each WHO region, a special, transregional ministerial meeting in Moscow came at a critical juncture. This was a strategic move by Russia, which at the time was trying to assert its international presence and held the presidency of the Group of Eight (G8), and put health as one of its 2006 St Petersburg summit priorities. Its president, Vladimir Putin, saw addressing NCDs at a global ministerial meeting attended by WHO Director-General Margaret Chan as an opportunity to position Russia attractively on the global stage.

This event shows the importance of taking advantage of G8 leaders seeking an issue on which to establish their global visibility, status and leadership while also addressing their domestic needs. It also shows the value of forming inter-regional coalitions on this basis.

[Producing the UNHLM 2011](#)

In drafting the UN resolution authorising the HLM, the authors sought to preserve the language that had been used by the Caribbean heads of government, specifically the reference to the Port of Spain Summit. The ministerial conference in Moscow had also produced language that would be used in both the resolution and the UNHLM declaration. WHO's European region had largely drafted the final declaration at Moscow. Yet the UN official from Guyana felt it equally important to preserve the phrases produced by developing countries in order to ensure they could reap the benefits from the meeting as

well. There were also contributions from other UN representatives in New York and through the Group of 77 (G77) developing countries.

This process shows the importance of using the language from the Port of Spain Declaration, as adjusted and supported by WHO's influential European regional office, the global Moscow ministerial conference and a well-placed individual from the Caribbean sensitive to the concerns of the developing country majority in the UN.

In negotiating the content of the HLM outcome document, major disagreements among member countries arose over targets and indicators, financing, WHO or UN leadership, WHO's 'best buys' and the inclusion of mental health along with the four major NCDs of cancer, diabetes, respiratory disease and cardiovascular disease. The Barbadian member of the WHO Executive Board, supported by CARICOM, successfully fought to limit the HLM to the big four NCDs, as Port of Spain had, supported by the current medical evidence in 2011. The involvement of Barbados, Jamaica, Suriname and Trinidad & Tobago, as well as NGOs and the influential PAHO Secretariat and membership, were all relevant to the outcome.

The resolution of these disagreements suggests the importance of following the scientific and public health evidence to shape the substance of all summits along the regional-to-global path and having members from the Caribbean in key roles in the global WHO and UN.

Creating the UNHLM Review 2014

For the subsequent 2014 UNHLM Review, the WHO official from Barbados, then working in New York, was responsible for producing the 'zero draft' document that the co-facilitators could use for the negotiation. Member States disagreed on the term 'best buys' but referenced the WHO chapter that listed the measures. Although the 2014 UNHLM was pitched at the political level, not many leaders attended. The Caribbean contribution was not as strong as it had been earlier, even though Trinidad & Tobago was leading the G77 developing countries at the UN. The next HLM review was set for 2017. CARICOM issued its feedback on the outcome of the 2014 meeting, as outlined in a statement delivered by Suriname, which stressed the vulnerability of small island states to external influences and the importance of trade policy in determining national nutritional security.

This review process suggests that the initial regional enthusiasm for propelling global summit progress on NCDs has a limited shelf life, and that a 'Port of Spain plus 10 summit', adapted to the current global context, could be useful in restoring and expanding the initial impetus.

Securing the SDG summit and SDGs with NCDs

The relevant WHO officials had long shaped their 2011 and 2014 HLM preparations with a view to including health and NCDs on the UN Sustainable Development Agenda that would succeed the Millennium Development Goals in 2015. Their endgame was not just producing and fulfilling the 2011 HLM commitments but getting NCDs into the SDGs as part of the 2030 Agenda for Sustainable Development. They thus argued that health should not be considered in isolation, given that it could help other sectors and their goals, and that achieving other SDGs could support health. The result was the identification of measures to bolster health in the SDGs beyond the third goal devoted to the issue.

The concept of health throughout the lifecycle and moving away from illness to wellness was also successfully advanced.

By having one of the relevant WHO officials support the facilitators of the 2011 UN General Assembly, those facilitators ensured that NCDs got into the SDG preparatory process. That high-level meeting preparatory process was a parallel movement largely driven by Member States through their missions in New York. National capitals and NGOs were involved too.

After the 2011 UNHLM, the relevant WHO officials started to prepare roadmaps up to 2013. In drafting the strategic plan and the global framework, including the WHO's 2025 NCD targets, they kept their focus on the SDGs.

This process shows the importance of embedding NCDs in the biggest, broadest, whole-of-global-governance approach at the UN, with its strong focus on implementation in the year following the summit and summits at regular intervals likely to assess and boost progress toward the 2030 target date. However, the status of NCDs as only one of 169 targets in the SDGs and the weak links between it and other targets suggest that relying only on the UN for implementation is unlikely to secure the intended results of Port of Spain and the UNHLMs of 2011 and 2014. The advantages of such an approach are compelling arguments for certain co-beneficial actions, such as the alternative modes of transportation of cycling, walking and rapid mass transport, as good for the planet because they reduce greenhouse gas emissions, good for health as they increase physical activity and good for energy security and foreign exchange reserves.

Conclusions and recommendations

The analyses in this report and in the reports on Objectives 1 and 5 lead to several conclusions and recommendations. These are designed to help achieve three goals: greater implementation of the Port of Spain Summit commitments (Objectives 1 and 5), the ability of international institutions to support such implementation (Objective 1), and the ability of Port of Spain Declaration and its key institutional custodians in the Caribbean Public Health Agency and the CARICOM Secretariat to support and shape the regional, hemispheric and global processes and summits on NCDs, especially the whole-of-global-governance ones at the UN.

As suggested, this analysis points above all to the value of embedding NCDs in the biggest, broadest, whole-of-global-governance approach at the UN, the need for compliance as well as annual implementation and monitoring, and regular summits to review, reinforce and improve implementation, now aimed at the 2025 NCD and 2030 SDG target dates. Yet with NCDs constituting only one of the 169 targets in the SDGs, with no specific links to any others, again, new actions from and for the Caribbean are needed now. Such actions could include regular CARICOM summit sessions on NCDs, interministerial council meetings to review and improve Port of Spain/HLM implementation on NCDs, a streamlined monitoring mechanism that efficiently meets the needs of all key actors, and additional processes for the continuous comprehensive assessments of compliance with NCD-related commitments from the Port of Spain Declaration, CARICOM summits, UNHLMs and the SDGs, with a focus on the fiscal and

economic benefits that compliance brings. Each of these recommended components is briefly described below.

1. Regular CARICOM summit sessions on NCDs

Such summit sessions on NCDs should be held at the ongoing CARICOM summits for an hour or so every one or two years. Iteration and regularity are important in enhancing the impact of implementation and monitoring these sessions would encourage improvements in implementation and the addition of other commitments to address new needs as they arise. Most ambitiously, they could adjust and expand the Summit commitments to account for new demands and knowledge and to support and synthesise the HLM NCD process three years after its 2014 review and to support implementation of the new SDG 3 target approved by the UN summit in 2015. Such sessions could even approve the most regionally appropriate 'best buys' from the larger WHO list. Such a Port of Spain review and reinforcement session could be accompanied by the leaders' public participation in physical activities such as those associated with Caribbean Wellness Day and dining on locally produced, healthy meals.

2. Interministerial council meetings

Interministerial council meetings should review and improve Port of Spain/HLM NCD implementation. These should start with meetings between CARICOM's Council for Human and Social Development, which is responsible for health, and its counterpart councils for food, trade and finance. These meetings would incrementally identify the whole-of-government linkages and the mutually supportive ways that health ministers could assist their economic colleagues and the reverse. Starting with finance would allow for a fast focus on how NCD control and prevention can produce quick fiscal and economic gains (see #5 below).

3. Streamlined monitoring questionnaires

The CMOs and NCD focal points in each CARICOM member should receive fewer annual NCD-related questionnaires and those questions should meet the needs of all key actors more efficiently. Each questionnaire would ask respondents to report, insofar as is possible, on the implementation of instruments and indicators related to their country or territory's commitments to the Port of Spain Declaration, PAHO, WHO, the UNHLMs and the SDG summit. Fewer questionnaires would allow for more extensive, better defined, detailed and accurate data, while saving time for those asked to complete them. The questionnaires could be supplemented by personal follow-up contact with individuals responsible for the coordination and quality of the questionnaire. CARPHA could serve as, or support, the coordinator.

4. Continuous comprehensive compliance assessment

There should be continuous, comprehensive assessments of NCD-related commitments made at the Port of Spain Summit, CARICOM summits, UNHLMs and the SDGs. Those assessments should extend beyond instruments to outcomes and impacts, including fiscal, economic and whole-of-society co-benefits. They should be done independently of the governments being assessed and should start by covering all CARICOM summit commitments in a whole-of-regional-governance approach, embracing commitments in the categories of health, NCD-related and non-health commitments. This could be coordinated from a centrally positioned university in the region, with accessible expertise in health, economics and international affairs. Bodies such as the Healthy Caribbean Coalition could play an important role.

5. A focus on economic links

Such assessments, and the analysis that underlies them, should focus on the economic opportunities and costs of NCDs to show which measures are the most cost-effective 'best buy', with an emphasis on the benefit/costs, given current fiscal and economic conditions, in the short and medium term. This information would help make a more politically convincing case for making and saving money by investing in NCD prevention and control. The assessment should start by focusing on fiscal measures (including subsidies) and the near-term fiscal and economic benefits that compliance with well-designed NCD commitments brings.

6. Additional analysis

This work should be supported by additional analysis in several key ways: embracing the related NCD of mental health and looking at road injuries; and examining the links between NCDs and infectious disease; the risk factor of climate change; predictors such as gender and those under control of CARICOM leaders themselves; and compliance assessments of more UNHLM commitments.

7. Reinforced resources

Reinforced resources of a modest sort would be required to put the above recommendations into effect. Such resources could be raised from the countries that supported the initial Port of Spain Summit process and new donors within and beyond the Caribbean.

Chapter 7: Ongoing arrangements for surveillance

Summary

Heads of Government should:

- Authorise national data audits and sharing of data across sectors for UN NCD global monitoring requirements and Sustainable Development, e.g. census, food and alcohol imports, accidents and violence.
- Authorise and fund joint programmes with ministries of education to address and monitor childhood obesity.
- Authorise regulations and building codes that are health-promoting, e.g. water coolers, well-located stairs, walking trails.

Regional organs should:

- Identify and collaborate with regional and international organisations for monitoring, e.g. UN Environment (climate change); UN Children's Fund (nutrition surveillance); the Economic Commission for Latin America and the Caribbean (economic models).
- Strategically align with Pacific islands and Small Island Developing States re: nutritional vulnerabilities.
- Use the PAHO Strategic Fund and/or sources of funding to procure essential medicines and other health technologies
- Track intraregional and extra-regional trade in, and labelling of, foods.

Countries should:

- Adjust age range to start at 18 years for STEPS and other NCD surveys.
- Add asthma surveillance

Aims

1. To critically review and document all NCD reporting required from Member States including data sources, receiving organs and frequency of reporting.
2. To identify gaps in current data on NCD mortality, morbidity and risk factors, and thus indicate areas for further data collection, collation and analysis.
3. To rationalise NCD reporting to meet the needs of all stakeholders
4. To define the data requirements to more fully evaluate the POS Declaration going forward – update of the POS grid, including definitions for all indicators.

The goals of surveillance

Risk factors, morbidity and mortality

Surveillance data are required to document, analyse and assess trends over time in the following areas:

- | | |
|-----------------|--|
| 1.Context | 1.1. Socioeconomic context |
| | 1.2. Capacity |
| | 1.3. Regional organs' NCD response |
| 2.Input/process | 2.1. National response – policies and partnerships |
| | 2.2. National response – health system response |
| | 2.3. Finances |
| | 2.4. Workforce |
| | 2.5. Infrastructure |
| | 2.6. Health information systems |
| | 2.7. Surveillance |
| | 2.8. Wellness promotion |
| 3.Outputs | 3.1. Quality of care |
| | 3.2. Utilisation |
| 4.Outcomes | 4.1. Coverage |
| | 4.2. Risk factors |
| 5.Impact | 5.1. Morbidity |
| | 5.2. Mortality |
| | 5.3. Cost |

Policy response

WHO, PAHO, CARPHA, the POS NCD Declaration and others require countries to report on a regular basis, but there has been no analysis of these reports from the countries' perspective. While all parties agree on the importance of surveillance for monitoring and evaluation of policy initiatives, there is a challenge of capacity to respond, especially in the smallest countries.

Despite this, the Caribbean has made significant contributions to the global NCD agenda, including in surveillance, monitoring and evaluation.

Caribbean contribution to global NCD monitoring/programming

1. NCD Minimum Data Set
Developed in the Caribbean in 2003 and piloted in 2006. PAHO became involved in 2007, then WHO in 2010
2. Wellness Day/Week
Caribbean Wellness Day, as mandated by the 2007 POS NCD Declaration, was first celebrated in 2008; PAHO Wellness Week was launched in 2011

3. NCD commissions or analogous bodies

The Caribbean was the first region to establish such bodies, with Bermuda in 2005 and Barbados in 2007. The POS Declaration then mandated their creation and now 12/20 CARICOM countries have an NCD commission or similar body. In 2014 their establishment was recommended by WHO to the global community.

Meeting regional and international requirements

Countries are committed to providing the necessary data as far as their capacity allows. There are some structural issues that need to be addressed. For example, in some countries the relevant statistical department does not share census data, so that the denominator for calculating accurate rates is compromised. The Global Monitoring Framework (GMF) for the UNHLM on NCDs requires reports for which the data are not available or would have to be sourced from non-health agencies, which is a challenge.

Global Monitoring Framework

The WHO Global Action Plan has 25 indicators of the GMF to reflect the most important evidence-based activities that countries should undertake. There are then 10 process indicators to monitor how countries are complying with the 2011 commitments.

Current capacity to report

Barbados has one of the most complete NCD data surveillance systems and a review indicates that the country can currently report on 12/25 indicators (Table 7.1). It is likely that reporting could be possible for seven other indicators through special studies or policy reviews, such as research into mean grams of salt/day, policies on marketing to children, cancer incidence and morphine use. However, for the remaining six indicators, it is unlikely that these data will be available.

Table 20 (7.1): Reporting challenges

Most difficult to report	Comments
3. Alcohol per capita consumption/yr in males and in females	Production, export and import statistics possible, but tourist consumption will be included. Gender estimates possible from STEPS
5. Alcohol-related morbidity and mortality in youth and in adults	There is no routine testing for alcohol use
15. Mean % from saturated fats in males and in females	There is no capacity to estimate saturated fats
24. Hepatitis B vaccination rates in target populations	There is no defined target population or mechanism to monitor Hep B vaccination
18. Proportion with high CVD risk with drugs and counselling	There is no systematic categorisation into CVD high risk. There are few electronic records in the private sector
19. Availability of NCD meds & basic tech in public /private sector	There are limited data from the private sector

Countries should review WHO baseline estimates

WHO has generated estimates for the 25 GMF indicators for 2010 as a baseline. These estimates are in the 2014 NCD Global Report annexes. It is possible that countries with a population <90,000 may not have estimates. In 2014, CARPHA in collaboration with PAHO, conducted capacity-building training for generating these indicators with six countries with NCD risk factor surveys between 2012 and 2014.

Countries need to generate interim targets for getting to 2025 targets

There is a substantive reference manual from PAHO/WHO: *Compendium of Indicators for Monitoring Regional and Global Noncommunicable Disease Response in the Americas – Guidance and Specifications on Construction of Core and Expanded List of Recommended Indicators for Chronic Noncommunicable Diseases and Injuries*. The specific objectives of the Compendium are to:

- Support the process of revising national indicators to meet regional and global reporting requirements aligned with PAHO/WHO regional and global NCD plans;
- Provide standardised terminology across indicators and NCD control programmes;
- Encourage consistent use of indicators to monitor and evaluate programmes; and
- Provide guidance for the development of comprehensive NCD and risk factor surveillance and evaluation plans, including the selection of indicators to measure progress in specific areas.

Arrangements at the time of the evaluation

An audit of NCD reporting requests to countries identified three reports to be made annually, 13 reports every two or three years, and two reports and four population-based surveys every five years (see below).

Table 21 (7.2): NCD reporting required from countries

Frequency of Reporting	ports	rveys with npling frame
Annually	1. POS grid (UWI) – August 2. Mortality data (CARPHA to PAHO) 3. CCH IV (Caribbean Cooperation in Health)	
Every 2 years	4. WHO Global Report on the Tobacco Epidemic/monitor implementation of six tobacco control policies/interventions – Dec 2016 5. WHO FCTC Parties Progress Report – April 2016 6. WHO Global Information System on Alcohol and Health (GISAH) – Dec 2017 7. WHO Mental Health Atlas	

	8. PAHO Report on Plan of Action for the Prevention of Obesity in Children and Adolescents	
Every 3 years	9. WHO Country Capacity Survey – July 2018	
	10. PAHO risk factor regulatory capacity monitoring tool – Dec 2018	
	11. Nutrition Survey	
	12. PAHO – add chronic kidney disease treatment, treated end-stage renal disease, social protection, strategic fund for drugs, seatbelts	
	13. PAHO Health Analysis Unit – Services and Coverage	
	14. WHO Global Status Report on Road Safety – multisectoral – January 2018	
	15. PAHO/WHO Global Monitoring Framework – May	
Every 5 years	16. WHO Global Information System on Resources for the Prevention and Treatment of Substance Use Disorders (every 4 years – 2018)	18. STEPS NCD risk survey or equivalent
	17. PAHO coverage of micronutrient supplementation programmes – 2020	19. GYTS (Global Youth Tobacco Survey), GSHS (Global School-based Student Health Survey)
		20. GATS (Global Adult Tobacco Survey) or include core GATS key policy questions added to STEPS
		21. Nutritional indicators (anthropometric, anaemia, vitamin A, Iodine, breastfeeding) – no fixed date

Under development:

1. Disability
2. Regulatory capacity of risk factors
3. MAP tool to assess country's capacity to conduct mortality and risk factor surveillance (pilot testing)

Rationalising surveillance and reporting going forward

1. Situate and rationalise reporting by categories:
 - a. Context
 - b. Input/process
 - c. Outputs
 - d. Outcomes
 - e. Impact
2. The POS grid will collect data (mostly around process), and will now use standardised questions from, e.g. WHO Country Capacity Survey and FCTC and PAHO/WHO process indicators to reduce duplication.
3. PAHO/WHO *Compendium of Indicators for Monitoring Regional and Global Noncommunicable Disease Response in the Americas* mainly focuses on outcomes and impact and includes 41 PAHO core indicators, to which we will add nutrition indicators.
4. Use of POS grid and PAHO indicators set as monitoring mechanisms for the NCD component of CCH IV.
5. Request that PAHO and WHO rationalise tobacco reporting and devise a single instrument for three-yearly reporting from countries

Revision of POS NCD Declaration Monitoring Grid

Since 2008, NCD focal points have completed the NCD monitoring grid each year. In 2008 there was a narrative report. Since 2009 it has been a checkbox report.

The 2015 report (the last using the old format) is below.

However, it is now necessary to improve this NCD monitoring mechanism, by more clearly defining the indicators being monitored in the NCD evaluation grid. The thought that the 25 GMF indicators could be accommodated within the grid has not been possible, since most of those require surveys and quantitative answers, and this grid is meant to be an annual snap-shot of the processes involved. The revised grid (Table 7.2) now includes definitions. It also uses questions from other surveys, reducing duplication.

Table 22 (7.3): NCD Progress indicator status /capacity by country implementing NCD summit Declaration

Updated in September 2013; September 2014; September 2015.

NCD Progress indicator		A	A	B	B	B	B	C	D	G	G	H	J	M	S	S	S	S	T	T
		N	N	A	A	E	E	A	O	R	U	A	A	O	K	T	V	U	R	C
		G	T	H	R	L	R	I	M	E	Y	I	M	N	N	L	G	R	T	I
Commitment																				
1, 14	NCD plan	±	±	√	√	√	√	√	√	√	√	×	√	±	√	√	±	√	√	±
4	NCD budget	×	±	√	√	×	×	×	√	±	√	×	√	×	±	√	×	√	√	√
2	NCD summit convened	×	√	√	√	×	√	√	×	√	√	×	√	√	√	√	±	√	√	×
2	Multisectoral NCD commission appointed and functional	±	±	√	√	±	√	√	×	±	√	×	√	×	±	√	±	±	√	×
Tobacco																				
3	FCTC ratified	*	√	√	√	√	*	*	√	√	√	×	√	*	*	√	√	√	√	*
3	Tobacco taxes >50% sale price	√	×	±	√	×	*	×	√	×	√	×	×	×	±	±	×	√	×	±
3	Smoke-free indoor public places	×	√	±	√	±	√	√	√	±	√	×	√	×	±	±	×	√	√	±
3	Advertising, promotion and sponsorship bans	×	×	±	×	×	√	√	×	×	±	×	±	×	×	±	×	√	√	±
Nutrition																				
7	Multisector food and nutrition plan implemented	±	√	√	√	±	±	√	×	√	√	×	√	√	±	±	√	×	±	±
7	Trans fat-free food supply	×	×	×	×	×	±	×	×	×	×	±	×	×	×	×	×	×	±	×
7	Policy and standards promoting healthy eating in schools implemented	±	√	√	√	±	√	±	√	±	±	√	±	*	±	±	×	±	±	±
8	Trade agreements utilised to meet national food security and health goals	×	×	×	×	×	×	×	×	×	±	±	×	*	×	×	×	√	×	×
9	Mandatory labelling of packaged foods for nutrition content	×	×	×	±	×	±	×	±	±	×	±	±	×	×	×	×	±	×	×
Physical activity																				
6	Mandatory PA in all grades in schools	√	√	√	√	±	±	√	√	√	±	±	×	*	±	×	×	√	√	√
10	Mandatory provision for PA in new housing developments	×	*	√	√	√	*	*	×	×	×	±	±	±	*	×	×	×	×	×
10	Ongoing, mass physical activity or new public PA spaces	×	√	√	√	√	±	√	√	√	√	±	√	±	*	√	√	√	√	×

Education/promotion																					
12	NCD communications plan	X	X	±	√	X	√	√	√	±	±	√	X	±	X	±	X	±	±	√	√
15	CWD multisectoral, multifocal celebrations	√	√	√	√	√	√	√	√		√	√	X	√	±	√	√	√	√	√	
10	≥50% of public and private institutions with physical activity and healthy eating programmes	±	√	X	X	X	±	X	±	X	*	±		*	±	*	±	±	X	±	
12	≥30 days media broadcasts on NCD control/yr (risk factors and treatment)	X	√	X	√	X	√	X	√	±	*	√		√	X	*	√	±	√	±	
Surveillance																					
11, 13, 14	Surveillance:	X	X	√	√	√	√	√	√	√	±	X	√	±	√	√	±	√	√	±	
	- STEPS or equivalent survey	X	√	√	√	√	√	√	√	√	±	X	√	±	X	√	√	√	√	X	
	- Minimum Data Set reporting	X	√	√	√	√	±	√	√	√	√	√	√	X	*	√	√	√	√	X	
	- Global Youth Tobacco Survey	√	√	√	√	√	X	√	√	√	√	√	X	√	±	*	√	√	√	X	
	- Global School Health Survey																				
Treatment																					
5	Chronic Care Model/NCD treatment protocols in ≥ 50% of PHC facilities	X	√	√	±	±	±	±	±	X	√	±	X	√	±	*	√	±	±	√	X
5	QOC CVD or diabetes demonstration project	±	√	√	√	±	±	±	√	X	√	√	±	√	X	X	√	±	√	√	X

Legend: √ In place ± In process/partial X Not in place * Not applicable □ No information □ Recent update

A new, revised and improved Port of Spain grid was completed in 2016.

Data from non-health sources

Much of the data for NCD reporting depends on data from other sectors.

Census data for denominator – Some countries have difficulty in accessing detailed census data (age, sex, ethnicity, district), making it impossible to accurately report population rates and calculate age-sex-ethnic group-specific rates needed to monitor inequalities.

Other UN and international agencies may be collecting data relevant to surveillance of the many determinants of NCDs, e.g. the Economic Commission for Latin America and the Caribbean, the United Nations Children's Fund and others. There is need for a scoping review of these organisations and an effort to align, rationalise and share data.

Countries should:

1. Collect future STEPS or equivalent data starting at age 18 years to facilitate WHO global NCD monitoring;
2. Conduct Global Youth Tobacco Surveys and Global School-based Student Health Surveys at the same time in the same venues;
3. Review WHO baseline estimates of their country's GMF 25 indicators; and
4. Establish nine country-specific voluntary GMF targets and interim targets (e.g. for 2018, 2021) to achieve outcomes for 2025.

Regional supports/actions required

CARPHA/PAHO: Continued training and capacity building in reporting on NCD indicators.

UWI/GA-CDRC: Agreements with countries to procure, guard and utilise STEPS data for disparities analysis within and between countries, in concert with capacity building for country epidemiologists.

POS NCD Declaration mandates a regional (Caribbean) NCD plan. The current plan, 2011–2015, needs updating for 2016–2025 aligned with the current PAHO plan but with some specific and unique targets, which will differ from other PAHO states. The plan will also speak to strengthening regional institutions, (CARPHA, UWI), with NCDs a central priority of CCH IV.

Monitor regional bodies' NCD response

- i. Support for regional bodies – monitor number of full time equivalent staff and budget
- ii. Funding for NCD projects
- iii. Regional CARICOM institution indicators
 - a. References to health/NCD/Port of Spain at regular and intersessional heads of government summits in their outcome documents.
 - b. Analysis of outcome documents from all the CARICOM ministerial bodies for mention of health and attention to NCDs, alcohol exports and tobacco, environment, nutrition and international trade.

Recommendations

Small Island Developing States

Align with Pacific islands to make the case that those in the Caribbean should not be considered as high-income (around half of CARICOM countries are now classified as such by the World Bank) but rather as Small Island Developing States vulnerable to shocks and to climate change. Pacific nations also has very high rates of NCDs. Aligning with Pacific SIDS could be a strategy. This can be explored through the Commonwealth.

With a source of funding coming on stream through the UN-supported Green Climate Fund, for example, it may be possible to include environmental indicators in NCD indicators and examine the potential for joint strategic approaches with the Pacific.

Mental health, injuries, HIV

In auditing the NCD burden on countries, mental health including dementia, and injuries/disabilities must be included. This would be consistent with multilateral processes.

HIV has transitioned to a chronic disease so should be included in chronic disease management. The NCD response can learn lessons from HIV, such as information systems providing a framework for strengthening systems for all chronic disease.

Evaluation of impact

Table 23 (7.4): Barbados report on the 25 Global Monitoring Framework indicators from UN/WHO

Source	25 indicators	BAR	Source of data
Tobacco			
GYTS	9. Tobacco prevalence in youth	11.6	2007
	Males	14.3	Http://ghdx.healthdata.org/record/barbados-global-youth-tobacco-survey-2007
	Females	9.3	
STEPS	10. Tobacco use prevalence in Adults	9.2	HotN 2012
	Males	15.5	
	Females	3.7	
Alcohol			
Sales data	3. Alcohol per capita consumption/yr		
	Males		
	Females		
STEPS	4. Prevalence of binge drinking in population	14.5	HotN 2012
		25.3	
	Males	5.4	
	Females		
	5. Alcohol-related morbidity and mortality in youth and in adults		

(Table 7.4) continued

Source	25 indicators	BAR	Source of data
Nutrition			
Special survey	8. Mean gm salt/day	2016	HotN 2012 sub-study
	Males		
	Females		
	15. Mean % from saturated fats		
	Males		
	Females		
Policy review	21. Policies re: fats in foods		
Policy review	23. Policies re: marketing to children		
STEPS	16. Prevalence <5 fruits & veg	81.9	HotN 2012
	Males	82.0	
	Females	81.8	
Physical activity, obesity			
STEPS	7. Inadequate PA in adults	49.9	HotN 2012
	Males	30.0	
	Females	67.2	
GSHS	6. Inadequate PA in youth	70.9	2011
	Males	65.5	
	Females	76.7	
			http://www.who.int/chp/gshs/2011_Barbados_GSHS_FS.pdf?ua=1
GSHS	13. Prevalence obesity in youth	14.2	2011
	Males	13.9	
	Females	14.6	
			http://www.who.int/chp/gshs/2011_Barbados_GSHS_FS.pdf?ua=1
STEPS	14. Overwt / obesity in adults	66.2	HotN 2012
	Males	57.5	
	Females	74.2	
Treatment			
STEPS	11. Prevalence high BP 140/90	40.6	HotN 2012
	Males	36.9	
	females	43.8	
STEPS	12. Prevalence diabetes: Rx or >7 mmol	17.9	HotN 2012
	males	14.4	
	females	21.0	
STEPS	16. Prevalence high chol >5 mmol	21.2	HotN 2012
	Males	19.3	
	Females	22.9	
	18. Prop high CVD risk with drugs & counselling		

(Table 7.4) continued

Source	25 indicators	BAR	Source of data
Promotion			
	24. Hepatitis B vaccination rates in target populations		
Surveillance			
MDS	1. Prob death 30–70 years from 4 NCDs	2016	Mortality data
Registry	2. Cancer incidence by type/100,000	2016	Barbados National Registry
Special survey	25. Prop women with Pap in last 5 years	65.6	HotN 2012
Policy review	22. HPV availability	✓	
Special survey	19. Availability of NCD meds & basic tech in public/private sector	✓	
Cancer deaths and drug data	20. Palliative care: morphine/CA death	2016	Barbados National Registry Barbados Drug Service

Data – insert most current result only if <5 years old

Grey box – insert year result anticipated or if data > 5 years old

Red box – information not available in the foreseeable future

Table 24 (7.5): POS NCD Declaration Monitoring Grid - Revised 2015

Source	NCD Progress indicator	COUNTRY ✓, ± or X	COMMENTS
Commitment			
A	POS 1,14 CCS		National NCD policy, strategy or action plan which integrates several NCDs and their risk factors
B	POS 11		NCD plan and all major NCD programmes take explicit account of the gender dimension
C	POS 4 CCS		Funding for NCD and risk factor activities/functions
D	POS 4		Taxes/public revenue from tobacco, alcohol for prevention and control of NCDs
E	POS1 CCS		NCD unit or equivalent in the ministry of health with responsibility for NCDs and their risk factors
F	POS 1		Dedicated NCD focal point who spends > 50% of their time on NCDs
G	POS 2 CCS		National multisectoral NCD commission or equivalent to oversee NCD engagement, policy coherence and accountability of sectors beyond health (all-of-society response)
H	POS 2		NCD commission made cabinet submission in past 12 months
J	POS 2		Interministerial task force on NCDs for all-of-government NCD Response

Table 7.5) continued.

	Source	NCD Progress indicator	COUNTRY ✓, ± or X	COMMENTS
Tobacco				
K	POS 12 FCTC	In the past 12 months, national level anti-tobacco campaign conducted including airing on television and /or radio		
L	POS 3 FCTC	Total taxes in the retail price of the most widely sold brand of cigarettes >50% sale price		
M	POS 3 FCTC	All public spaces completely smoke-free by law		
N	POS 3 FCTC	Health warnings on tobacco packages that involve images		
P	POS 3 FCTC	Advertising, promotion & sponsorship bans		
Nutrition				
Q	POS 8 CCS	Implementing national policies to reduce population salt/sodium consumption		
R	POS 7 CCS	Implementing national policies that limit saturated fatty acids and virtually eliminate industrially produced trans fatty acids in the food supply		
S	POS 9 PAHO	Norms in place for front-of-package labeling that allow for quick and easy identification of energy dense, nutrient poor products and sugar-sweetened beverages, which take into consideration Codex norms.		
T	POS 8	Ministry of health having a seat in trade agreement negotiations in relation to national food security & health goals		
U	POS 12 CCS	WHO recommendations on marketing of foods and non-alcoholic beverages to children implemented		
V	POS 6 PAHO	School feeding programmes that comply with the nutritional needs of children and adolescents, and are in line with the national food-based dietary guidelines		
W	POS 12 CCS	Legislation /regulations fully implementing the International Code of Marketing of Breastmilk Substitutes		
Physical activity				
X	POS 6	In the past year, government provided additional incentives and resources to support physical activity in schools		
Y	POS 10	Mandatory provision for physical activity spaces in new housing developments		
Z	POS 10	Government promotes or provides incentives for workplace wellness programmes		
AA	POS10 PAHO	Population has access to 'open streets' programmes. (Streets closed to vehicular traffic periodically for recreational purposes)		

(Table 7.5) *continued.*

Source	NCD Progress indicator	COUNTRY √, ± or X	COMMENTS
Education/promotion			
BB POS 12	National-level campaign involving private media companies promoting wellness in the past 12 months		
CC POS 5	CWD multisectoral, multifocal celebrations		
Surveillance			
DD POS	STEPS or equivalent survey in past 7 years		
11,	Minimum Data Set reporting including regional & global		
13,	indicators in past 2 years		
14	Global Youth Tobacco Survey in last 5 years		
	Global School-based Student Health Survey in last 5 years		
	WHO Country Capacity Survey in last 5 years		
Treatment			
EE POS 5	Availability of evidenced-based national guidelines		
CCS	/protocols/standards for the management of major NCDs through a primary care approach, (such as Chronic Care Model)		
FF POS 5	Essential NCD drugs in the National Drug Formulary revised		
PAHO	within the last 3 years to include high-quality generics		

Legend: √ In place ± In process/partial X Not in place * Not applicable □ No information □
 Changed since last year

Sources: POS – Port of Spain NCD Summit Declaration; CCS – WHO Country Capacity Survey; FCTC— Framework Convention on Tobacco Control; PAHO Regional Plan.

Table 25 (7.6): POS NCD Declaration Monitoring Grid: Definitions/explanatory notes

Letter	Commitment	Definition/explanation
A	National NCD policy, strategy or action plan which integrates several NCDs and their risk factors	Written plan for current time period including SMART objectives, indicators and activities for the 4 major NCDs and their 4 major risk factors
B	NCD plan and all major NCD programmes take explicit account of the gender dimension	Explicit and relatively equal account of gender-specific NCDs e.g. prostate, breast/cervical cancers; importance of acquiring and assessing relevant data by gender; importance of designing and delivering programmes that are gender-sensitive
C	Funding for NCD and risk factor activities/functions	Funding for (i) primary prevention; (ii) health promotion; (iii) early detection/screening; (iv) healthcare and treatment; (v) surveillance, monitoring and evaluation; (vi) capacity building; (vii) palliative care

(Table 7.6) *continued*

Letter	Commitment	Definition/explanation
D	Taxes/public revenue from tobacco, alcohol for prevention and control of NCDs	Earmarked taxes to ministry of health, health fund or NCD commission
E	NCD unit or equivalent in the ministry of health with responsibility for NCDs and their risk factors	Formal NCD group including, e.g. health promotion, epidemiology, NCD focal point with a written work plan for NCD prevention and control
F	Dedicated NCD focal point who spends > 50% of their time on NCDs	MOH professional staff with job description which specifies focus on NCD work for >50% of their time
G	National multisectoral NCD commission or equivalent to oversee NCD engagement, policy coherence and accountability of sectors beyond health (all-of-society response)	<p>Multisectoral – includes at least 3 of the following:</p> <p>Other government ministries and agencies; Nongovernmental organisations/ community-based organisations/civil society; private sector; media; academia (including research centres)</p> <p>Regional/ international institutions</p>
J	Interministerial task force on NCDs for all-of-government NCD response	ITF for NCDs appointed or formal sub-committee of cabinet with NCD agenda and activities
K	In the past 12 months, national level anti-tobacco campaign conducted including airing on television and /or radio	See Technical Note 1 on required characteristics of anti-tobacco mass media campaigns. WHO report on the Global Tobacco Epidemic, 2015
Q	Implementing national policies to reduce population salt/sodium consumption	Written salt reduction policy and plan of action
R	Implementing national policies that limit saturated fatty acids and virtually eliminate industrially produced trans fatty acids in the food supply	Written saturated fat and trans fat reduction policy and plan of action
S	Norms in place for front-of-package labeling that allow for quick and easy identification of energy dense, nutrient poor products and sugar-sweetened beverages, which take into consideration Codex norms.	Legislation requiring nutritional labeling of all packaged foods
T	Ministry of health having a seat in trade agreement negotiations in relation to national food security & health goals	Tariffs and taxes on unhealthy foods, e.g. sugar- sweetened beverage taxes

(Table 7.6) *continued*

Letter	Commitment	Definition/explanation
V	School feeding programmes that comply with the nutritional needs of children and adolescents, and are in line with the national food-based dietary guidelines	School nutrition guidelines published
Y	Mandatory provision for physical activity spaces in new housing developments	Legislation requiring physical activity spaces in housing developments
Z	Government promotes or provides incentives for workplace wellness programmes	Example: tax concessions for annual physical exam, gym membership, bicycle sales
AA	Population has access to 'open streets' programmes. (Streets closed to vehicular traffic periodically for recreational purposes).	Policies that promote increase physical activity in the entire population, e.g. bike lanes, bike racks, sidewalks, Streets for Wellness/Cyclovia, showers at work, walking trails etc.
BB	National-level campaign involving private media companies promoting wellness in the past 12 months	Promoting one or more: healthy eating, physical activity, responsible alcohol use
CC	CWD multisectoral, multifocal celebrations	Three or more non-health organisations involved. Celebrations occur in 3 or more locations
EE	Availability of evidenced-based national guidelines /protocols/standards for the management of major NCDs through a primary care approach, (such as Chronic Care Model)	Country-/Caribbean-specific guidelines available in hard or soft copy to all professional staff in primary healthcare settings, public and private sector

Chapter 8: Financing NCD prevention and control in CARICOM - Potential roles of tobacco and alcohol taxes

Summary

Our study of three countries has found that in Grenada, Jamaica and Trinidad and Tobago:

- There is significant potential for revenue generation from raising taxes on tobacco and alcohol. Depending on the tax rate assumed, this revenue would be in excess of \$US 37 million in the three countries.
- With increased taxes, consumption will fall since the price elasticity assumptions used are all negative.
- Both excise revenues and total revenues will increase with increased taxation of tobacco and alcohol. In some cases, a 10% applied tax led to excise revenues in excess of 30%.
- The expected increase in revenues will significantly contribute to the cost^b for interventions to respond to NCDs.
- Smuggling is assumed to be triggered once the tax-induced fall in consumption is more than 10%.

Objectives

Among the 27 commitments contained in the 2007 CARICOM Port of Spain Declaration on NCDs, one involved taking actions that result in the reduction in prevalence of smoking and the consumption of alcohol.

This study undertakes an in-depth analysis of the potential for raising additional tobacco^c and alcohol^d tax revenues through the implementation of a special tax to fund NCD prevention and control efforts, while having a limiting effect on consumption of these products. In support of this objective, the study utilised a tax simulation model, as well as drawing from the experiences of the Member States of CARICOM with respect to the collection and use of revenues derived from pre-existing tobacco and alcohol taxes.

The study sought to answer the following research questions:

- i. What is the potential for revenue generation from the imposition of specific taxes on tobacco and alcohol products in a sample of CARICOM Member States?

^b The 'cost' was estimated using the WHO per capita figures.

^c In this study, tobacco refers to cigarettes and the words are used interchangeably.

^d For alcohol, the study focused on beer and rum.

- ii. (a) Will specific tobacco and alcohol taxes impact on the consumption of these products?
(b) Will these taxes be successful in raising revenue, as well as in controlling the use of tobacco and alcohol?
- iii. How will aggregate revenue levels change with the introduction of specific tobacco and alcohol taxes?
- iv. What will be the tax level required to raise revenue while avoiding smuggling of tobacco and alcohol products?

Methodology and data collection

Methodology

The study examined selected countries—Grenada, Jamaica and Trinidad and Tobago—to gather information on the prevalence and intensity of tobacco and alcohol consumption, the demographic characteristics of the ‘using’ population and the nature of the industries, where appropriate. This was done by way of desk research and in-country visits. Other information was gathered through telephone and face-to-face interviews and formal data requests on the current situation with respect to tobacco and alcohol tax structures, rates and the degree to which tobacco and alcohol tax revenues are collected, among other variables (Appendix A8.F).

The World Health Organisation Tobacco Tax Simulation Model (TaXSiM)[52], together with other relevant approaches, was used to estimate the quantities of interest, the potential to raise revenues from tobacco and alcohol taxes and the degree to which consumption of these substances will be affected by an applied tax. This method was chosen primarily because of its relatively low data requirements and its ability to effectively provide feasible responses to the questions for which answers were being sought.

The study utilised TaXSiM although other approaches were explored. Details of another approach considered are found in Appendices A8.D and E.

TaXSiM methodology

This section highlights a few of the considerations of the TaXSiM[52]. Full details of the model’s methodology are provided in Appendix A8.A.

After close consultation with many countries on the structure and dynamics of their tax structure, WHO developed a model to assist policy makers in analysing and assessing taxation policy relating specifically to tobacco products. The TaXSiM was originally designed to examine the impact of changes in the cigarette tax rates and structure on prices, revenues and consumption, among other variables of interest. While the model was not originally designed to simulate the impact of tax changes on alcoholic beverages, it is believed that with a clear understanding of the workings of the model and the dynamics of the tax system of the countries of interest, this model is able to produce results that are sufficiently meaningful to inform taxation policy for alcohol.

According to WHO, the model requires a clear understanding of the types of taxes and the base of the taxes present in the country of interest. The model assumes the final retail price (P_R) is made up of three main components: (i) the producer price, P_p ; (ii) the supply chain margin, R_M ; and (iii) the tax, T . The equation is written as:

$$P_R = P_p + R_M + T$$

where, T represents a unit value of total taxes and R_M is the supply margin.

After the product leaves the manufacturing facilities, each transaction in the supply chain takes a certain percentage of total transaction value as a profit before handing over the supply to the next part of the chain. Consequently, wholesalers, distributors and retailers receive a certain amount of money (margin) from cigarettes and alcoholic beverages.

Consumers' income and price elasticity

Price elasticity of demand^e plays a critical role in the evaluation of the tax revenue and consumption impact of a tax increase on cigarettes and alcoholic beverages. The larger the absolute value of the price elasticity of demand, the greater will be the impact of tax-induced price increases on consumption and government revenues, *ceteris paribus*.

It is assumed that each price segment exhibits a different price elasticity of demand, μ_k , reflecting the income strata of smokers and drinkers within that segment.^f For cigarettes, the WHO TaXSiM assumes that smokers of premium brands demonstrate a price elasticity similar to that of smokers in high income countries at $\mu_{k_1} = -0.2$ to -0.4 , while smokers of economy behave as having a price elasticity similar to that of low income countries with $\mu_{k_3} = -0.8$ to -1.0 . For alcoholic beverages, the empirical work of Sornpaisarn et al provides pooled estimates, which show that for low- and middle-income countries the price elasticity for beer is -0.50 (95% CI: -0.78 to -0.21) and -0.79 (95% CI: -1.09 to -0.49) for other alcoholic beverages[53].

Trading-down by smokers and drinkers

As prices increase, some smokers and drinkers will reduce their average daily level of consumption of their preferred brand, some will quit outright, while others will more likely choose to 'trade-down' to lower-priced cigarettes or alcoholic beverages, reflecting the cross-price elasticity of demand for products' brands. Evidence of this inverse relationship between price and cigarette and alcohol consumption is widely reported.

^e Price Elasticity of Demand = Percentage Change in Quantity Demanded / Percentage Change in Price.

^f The model places each brand of the products into one of three market segments on the basis of price. In this case, three main segments are assumed to exist; (i) premium brand segment; (ii) medium-range brand segment; and (iii) economy- or low-brand segment.

Determining the smuggling trigger tax rate

Since the model used does not itself include a mechanism for determining the tax rate at which smuggling will begin, basic principles were used to arrive at this rate. We begin with the recognition that there is both a demand and a supply side to smuggling. The demand is the smuggling *hoped for* by consumers of the product while the supply is smuggling which is *planned* by providers. Since suppliers will want to dispose of all of the product put on the market, they will be guided by what they believe consumers are hoping for.

Our assumption is that the amount of smuggling consumers will hope for will be the level that will *keep pre-tax consumption from falling significantly*. While some consumers will want to keep consumption constant, we assume that given the low elasticities involved, most consumers will begin hoping for smuggling, and hence searching for smuggled products, when there is a significant fall in their *consumer surplus*. Here consumer surplus is taken as a good indicator of the level of enjoyment of the product at a given price.

Since with linear demand curves there will be a proportional relationship between changes in consumer surplus and changes in the level of consumption, the latter changes will be used as a proxy for the former changes. For purposes of the present analysis, it was assumed that *consumption changes below 10% will not affect consumer surplus significantly*.[§] Therefore, the tax rate identified as the smuggling trigger from the demand side is the rate at which consumption is expected to fall by 10% or more. If, for example, the elasticity is -0.6, a 10% fall in consumption will be brought about by a price increase of 16.67%. This would be the trigger rate for smuggling. Similarly, with an elasticity of -0.4, the trigger rate will emerge with a price increase of 25%. In other words, the more inelastic the demand the higher the rate needed to trigger smuggling.

Data collection

The data used in this study were extracted from many different sources in the public and private sectors.

For **Grenada**, data were collected from the Ministry of Finance, Central Statistical Office, Customs and Excise Department, some local producers and supermarkets. Data on total cigarettes sales were not available. As a result, customs data, together with data collected from supermarkets were used. Since all cigarettes sold on the island are imported, customs data on imports of the product represented a very good proxy for domestic sales. The import volumes were reported in kg and since the net weight of a packet of 20 cigarettes imported from Trinidad and Tobago (the main source of cigarettes) is roughly 22g, total imports of cigarettes by pack was estimated by dividing total imports by 0.022.

Data on spirits were collected from some of the local producers. This was used together with the data on alcohol sales, by thousands of nine-litre cases (a bottle size of 750 ml), provided by the International

[§] Since no empirical analysis of smuggling in the Caribbean was found, it seemed reasonable to assume that if the purpose of smuggling is to maintain consumption levels, there will be a particular level of consumption which will act as a trigger.

Wine and Spirits Report (IWSR). The top five selling brands of spirits were identified and a rough estimate of their sales as a percentage of the total sales was calculated with the use of the supermarket data.

In the case of **Jamaica**, visits were made to the Statistical Institute of Jamaica, the Planning Institute of Jamaica, the Ministry of Finance, the Ministry of Health and the Spirits Pool Association. Prices and, in some cases, sales figures were supplied by supermarkets, distributors and producers. Cigarette sales data were easily derived from customs data since all cigarettes sold in Jamaica are imported and are subject to a Special Consumption Tax (SCT) of a specific amount per cigarette. The estimate for total cigarette sales was derived by dividing the total SCT payable by the SCT rate in 2014. The total was then broken down by brand of packs of 20 cigarettes by dividing the total statistical quantity by 20. The analysis was restricted to the top two brands.

Sales for beer were not available, but published information^h indicated that the top selling beer in Jamaica, the locally-produced Red Stripe, controls about 98% of the beer market. It was, therefore, inferred that about 2% of the beer sold in Jamaica is imported. Based on this information, total local sales were estimated by dividing total imports of beer by 0.02, of which 98% was allocated to Red Stripe.

In **Trinidad and Tobago** data were supplied by Customs and Excise, the Central Statistical Office, some local manufacturers, supermarkets and distributors. Much of the same procedures and analyses followed those taken for Grenada. Sales of cigarettes were not provided and data supplied by the Central Statistical Office were utilised to estimate total local sales of the product. It is known that the local manufacturer of cigarettes exports 70% of its products[54]. On the basis of this knowledge, total local sales were estimated by dividing total exports of cigarettes (from the customs data) by 0.70 then multiplying this figure by 0.3.

In the case of beers and stout, sales figures by brand for 2014 and producer price for 2015 were collected. Average retail prices for 2015 were estimated on the basis of producer information and supermarket data. All 2015 prices were appropriately adjusted to align with those that prevailed in 2014.

For the three countries, data on sales of some alcohol products were retrieved from the IWSR. In instances where 2014 prices were not available, 2015 prices were collected and adjusted on the basis of changes in the consumer price index for that category of product within the consumer consumption basket.

Simulations

In order to conduct the simulations, data on the characteristics of the initial tax system were entered into the model. Such data included tax rates and base by types (excise, VAT, etc.), estimates of price elasticity of demand for each brand segment, sales volumes and final consumer prices for each of the products by brand. Based on the data entered at this stage, the TaXiM estimates initial (baseline)

^h The Partnership of Two Leaders, n.d.

values for a number of variables of interest, including average excise tax per unit, average price per unit, sale volumes (used as a proxy for consumption), total tax share, total tax revenues and excise tax revenues by brand segments. The researcher then applies changes in the tax rates, base or type, and the model predicts how these changes will affect the variables of interest listed above.ⁱ By way of an example, if a 10% increase in the excise tax is assumed, the model calculates, with the use of the price elasticity of demand and estimated tax-induced percentage increase in price,^j how sales/consumption will be affected. Also, with this information, the expected changes in excise revenues and total government revenues are estimated. In practice, the simulations were conducted such that the excise tax rate was increased to effect a 5%, 10% and 15% fall in consumption. The predicted impact on total government revenue and excise revenues, among other variables, was then analysed. This approach generated estimates to address research questions (ii) to (iii).

To estimate the tax-maximising excise tax rate for each product, the rate was increased until total government revenues peaked and began to fall. The values of the different excise tax rates were plotted against their corresponding total government revenues to create a graph with similar interpretation to the Laffer curve.^k This information addressed research question (i); the results of which are discussed below under, 'Revenue maximising tax rates'.

Findings: Revenue and consumption estimates at different levels of taxation

TaXSiM results^l

The analysis was conducted on 6.6 litre cases of beers and nine litre cases of rum. Cigarette sales were analysed by packs of 20. The simulations targeted three reduction scenarios for sales (used as a proxy for consumption) of 5%, 10% and 15%. The baseline year is 2014.

Grenada

Grenada's tax system is relatively simple and comprises of four main taxes as follows:

- Customs Service Charge (CSC)—A 6% CSC is payable on all imported goods. Customs duties are also applied to all goods imported from non-CARICOM Member States and are levied at a rate of 35% of CIF value.
- Excise taxes—In 2014, the excise tax rate on spirits and beers was EC\$ 4.00 per litre of alcohol by volume (ABV), which translates to an average of approximately EC\$ 1.39 per case of 24x275 ml bottles of beer and EC\$ 341.00 per case of 12x750 ml bottles of spirits of an average proof of 70.05% ABV. Cigarettes are also subject to excise taxes, compounded on the customs duties and CSC. In 2014, the rate was 95%.

ⁱ See the Appendix A8.A for details of how each variable is calculated within the model.

^j For example, with an elasticity of -0.95, a 10% increase in the excise tax rate that induces a 15% increase in the final consumer price, consumption is expected to fall by 14.25% (-0.95 x 15).

^k The Laffer curve shows the relationship between tax rates and tax revenues collected by governments. The curve suggests that, as taxes increase from low levels, tax revenues collected by governments also increase. However, after a certain point (where revenue is maximised), further increases in the tax rate will lead to a fall in overall revenues.

^l See Appendix A8.B for complete results output.

- Environmental levy—Beers, stouts and some spirits are charged an environmental levy of EC\$ 0.25 per litre.
- Value Added Tax (VAT)—VAT of 15% is payable on most goods.

Cigarettes

The tax simulations were carried out on the basis of the preceding information. Different scenarios were examined where the aim was to achieve a specified percentage decrease in consumption of the products, while monitoring changes in overall government revenues and excise revenues, among other variables.

With elasticities ranging from -0.2 to -0.9 (for all cigarette analyses), the results show that to achieve a 5% fall in consumption, excise taxes should be increased to 117% of the CIF value. The analysis also shows that total government revenues will grow by 8.7% and excise tax revenues will be expected to increase by 11.12%.

In the 10% and 15% consumption reduction scenarios, excise taxes need to be increased to 133% and 150% of the CIF value, respectively. The changes in the rate of excise tax are predicted to have a positive impact on total government revenues and excise tax receipts. These revenues are expected to increase by 16% and 21% respectively, in the case of the 10% consumption reduction scenario. In the case of the 15% consumption reduction scenario, total government revenues and excise tax revenues are forecast to rise by 23% and 29%, respectively.

Beers

The analysis indicates that to induce a 5% reduction in beer sales via an excise tax increase, the excise rate needs to be increased by 286%. As a result, the excise tax share will grow by 7.1%, while the total revenues and excise revenues are expected to surge by 34% and 267%, respectively. If the increase in the excise tax achieves a reduction in sales by 10% and 15% respectively, the model calls for an enlarged average per case excise tax rate of EC\$ 9.50 and EC\$ 13.26, respectively. Total revenues and excise revenues are expected to swell by 64% and 515%, respectively, in the case of the 10% sales reduction scenario. In the case of the 15% scenario, total revenues and excise revenues will increase by 88% and 713%, respectively.

Rum

The rum simulation results indicate that to attain 5%, 10% and 15% fall in consumption, the average excise tax per case has to be raised by 56%, 115% and 174%, respectively. In all cases, excise tax share is also predicted to increase by between 11.9% and 18.6%, while total revenues for all three scenarios are expected to increase by 21%, 46% and 64%, respectively. Positive growth in the excise tax revenues is also expected, ranging between 48% and 132%.

As explained above, the average excise tax rate that induces a 10% fall in consumption is the rate that is likely to lead to elevated levels of smuggling. For Grenada, that rate is estimated to be 133.5% of CIF for

cigarettes while for beer the average excise rate is EC\$ 9.50 per case (6.6 litres) and for rum, EC\$ 54.65 per case (nine litres).

Jamaica

The tax system of Jamaica is characterised by a number of taxes and fees. Among these are the Additional Stamp Duty, Special Consumption Tax (excise tax), Customs Administrative Fee, Environmental Protection Levy, import duty and the General Consumption Tax, among others. These taxes and fees are applied at different rates and on different bases depending on the product, the production method, the shipping method, etc.

Cigarettes

The results of the simulations for Jamaica indicate that to induce a 5%, 10% or 15% reduction in cigarette sales, the excise tax rates must be raised by 21%, 43% and 64%, respectively. These proposed changes are predicted to lead to an increase in total tax revenues of 11%, 22% and 31%, respectively, while excise revenues are predicted to increase by 15%, 28% and 39%. Average prices and excise tax share will also increase.

Beers

The beer results show that a 5%, 10% or 15% reduction in sales will require a 54%, 107% or 157% increase, respectively, in the average excise tax per case of beer. The average price per case of beer will increase by 10%, 20% or 30%, while total revenues will grow by 16%, 30% or 41%. The model predicts a 46%, 86% and 118% increase in excise revenues.

Rum

According to the simulation results, to reduce rum sales by 5%, 10% or 15%, the average excise tax per case of rum will have to be increased by 17%, 33% or 50%, respectively. Total revenues will be expected to improve by 5%, 8% or 11%. Similar results are predicted for excise tax revenues, with likely growth of 11%, 20% or 27%. Excise tax share is also forecast to increase.

For Jamaica, the average excise tax rate that is predicted to lead to elevated levels of smuggling for beers is J\$ 845.00 per 6.6 litre case, while the rates for rum and cigarettes are J\$ 6,660.00 per nine litre case and J\$ 15.00 per cigarette, respectively.

Trinidad and Tobago

The customs tax system in Trinidad and Tobago consists of three main taxes, namely (i) import duties; (ii) excise taxes; and (iii) VAT. An import duty of 50.07% of the CIF value is applied to cigarettes, along with a specific excise of TT\$ 3.81 per pack of 20. This rate is also applicable to locally-manufactured cigarettes. Domestic alcohol attracts a specific excise tax of TT\$ 66.04 per litre of alcohol by volume, while the local manufacturers of beer and stout are required to pay TT\$ 4.28 per litre of the beverages. A compounded 15% VAT is also levied.

Cigarettes

As with Grenada and Jamaica, three consumption-reduction target scenarios were examined; a 5%, 10% and 15% reduction through increases in the excise tax rate. The results show that to achieve these percentage reductions in sales, an increase in the excise tax rate of 33%, 64% and 96% per pack of cigarettes, respectively, is required. Total revenues for the respective scenarios are projected to increase as well, by 15%, 27% and 37%. The predicted increase in the excise tax revenues ranges from 26% to 66%.

Beers

In the case of beers consumed in Trinidad and Tobago, the results indicate that the achievement of the three specific consumption reduction targets of 5%, 10% and 15% will call for an average per case excise tax increase of 35%, 68% and 101%, respectively. Growth in total revenues as a result of the proposed changes is also expected for each of the scenarios, ranging from 15% to 38%.

Rum

The same three scenarios were examined with locally-produced rum. To induce a 5%, 10% or 15% reduction in rum sales via an increase in the excise tax, the excise tax must be raised by 12%, 24%, or 36%, respectively. Total tax revenues, as well as, excise tax revenues, will increase. The rise in total tax revenues will range from 5% to 12% and the rise in excise tax revenues will be between 6% and 15%.

In Trinidad and Tobago the excise tax at which smuggling is elevated would be TT\$ 47.10 for beers (per case of 6.6 litres) and TT\$ 422.75 for rum (per nine-litre case). For cigarettes, the trigger excise rate is TT\$ 6.25 per pack of 20.

The overall results indicate that, based on the current tax rate and the assumed elasticities, the governments of the three countries examined have some capacity to target consumption of cigarettes and alcoholic beverages without immediate concern for loss in overall tax revenues. Specifically, the results showed that consumption can be reduced/controlled and government revenues can continue to rise in all three countries.^m Given the economic, social and cultural similarities of CARICOM Member States, it is reasonable to assume comparable outcomes for most of the countries.

Revenue maximising tax ratesⁿ

The revenue maximising tax rate is herein defined as the excise tax rate that maximises total revenues. These tax rates for Grenada, Jamaica and Trinidad and Tobago are discussed below.

^m It must be noted that Jamaica has reported some fall in revenues collected from tobacco following increases in the excise tax. There could be a number of reasons for this outcome, including the effectiveness of Jamaica's non-tax efforts to reduce consumption of the products, prevailing economic conditions in the country and a possible shift in taste of the Jamaican consumer.

ⁿ See Appendix A8.C for plotted curves

Grenada

The cigarette revenues are maximised at an excise tax rate of 228% of the CIF value, up from the approximately 100% of CIF (baseline rate). With this level of excise tax, the average price of a pack of 20 cigarettes will be EC\$ 14.91 per pack. This result indicates that cigarette tax revenues are not yet maximised, leaving room for higher excise tax on the product.

In the case of beers, the model shows that the revenue maximising average excise tax rate is approximately EC\$ 36.00 per 6.6 litre case. This excise rate will increase the average price per case to EC\$ 115.36. Again, this suggests significant capacity exists for further increases in excise tax on beers. The model predicts a revenue maximising average excise tax rate of EC\$ 150.50 per nine litre case of rum. This rate will increase the average price per case of rum to EC\$ 488.60 or by 56% over its baseline average price. With a baseline average excise tax rate of EC\$ 25.38, the government has significant capacity for further increases in the excise tax on rum.

Jamaica

From the analysis, the revenue maximising SCT rate was found to be J\$ 26.95 per cigarette. At the current level of SCT of J\$ 12.00, Jamaica is well below the revenue-maximising rate. This thus indicates that Jamaica possesses the capacity to further increase the SCT tax rate as a means of achieving its public health objectives, with little immediate concern for its overall revenue intake.

The revenue-maximising average per case excise tax rates for beer and rum were found to be J\$ 2,065.00 and J\$ 9,000.00 per nine litre case, respectively. Baseline rates for beer and rum are J\$ 409.00 and J\$ 5,006.00 per case, respectively, indicating substantial room for increased taxation on the products.

Trinidad and Tobago

Excise tax on cigarettes is maximised at TT\$ 14.00 per pack of 20 or an increase of 267% over its baseline figure of TT\$ 3.81 per pack. The average price per pack of 20 at the maximised tax rate is projected to be TT\$ 36.40 per pack, up 63% from its baseline level of TT\$ 22.30.

The current average excise tax per 6.6 litre case of beer is TT\$ 28.05. To maximise total tax revenues via excise tax, the rate must be increased to an average of TT\$ 100.00 per case, an increase of 257%. Total tax share will then be 49.39%. Total taxes are maximised when average excise tax per nine litre case of rum is TT\$ 560.00, 64% above its baseline level of TT\$ 341.00.

These results suggest that there is still some capacity for further increases in the excise tax on all three products, although less so for rum.

Exploring relevant issues

Raising revenue for whom?

For CARICOM countries, the question that arises is: for whom are the taxes being raised? The response takes its cue from the epidemiology patterns of countries, which show that NCDs are impacting populations throughout the region. The further question, therefore, is whether the expected cost of required interventions to respond to NCDs will be covered by the revenues expected from the tax increases examined. The World Health Organisation has suggested that the per capita cost of the NCD response in middle income countries is US\$ 3.00[21, 55]. For Grenada, Jamaica and Trinidad and Tobago, with a combined population of 4.2 million, the target would be **US\$ 12.6 million**.

As noted above, an increase in the excise tax rate on the three products that induced a predicted fall in consumption of 5%, 10% and 15% was simulated. In each case, the model produced estimates of changes in excise tax revenues associated with each of the predicted fall in consumption, among other variables. Since the estimates of the revenue increases from the tax increases that resulted in 5% and 10% fall in consumption certainly exceed this figure, there is good reason to direct the tax revenue increases toward the NCD response. This would remain roughly true even if the WHO estimate is increased by 50%, making the cost target **US\$ 18.9 million**. Table 8.1 shows that an increase in the excise that reduces consumption by 5%, will result in a combined revenue increase for all three countries of **US\$ 20.20 million**, while a tax-induced 10% fall in consumption, will increase revenues by **US\$ 37.34 million**.

These values represent total potential revenue changes for the three products examined; beer, spirits and cigarettes.^o If it is assumed that the increase in revenues will be that which is associated with a 5% fall in consumption (i.e. US\$ 20.20 million) and the average is calculated for the three countries, it amounts to US\$ 6.73 million per country. With the fifteen full members of CARICOM, the estimated total revenues will amount to US\$ 101 million while the total cost of treating NCDs in the subregion is roughly US\$ 52.58 million.^p Furthermore, the doubling of the per capita cost of treatment brings the total cost for CARICOM to US\$ 105 million, just shy of the total expected revenues. This does suggest that revenues may indeed be sufficient to meet the cost of the NCD response.

^o In some cases, only locally-manufactured products were analysed and may likely represent samples of total sales and, as such, estimates may be downwardly biased.

^p Calculation: total population of CARICOM of 17,526,001(2013) *US\$ 3.00.

Table 26 (8.1): Excise revenues from a tax-induced fall in consumption of 5% and 10%

Country, consumption change	Cigarettes \$Mn	Beer \$Mn	Rum \$Mn	TOTAL in local currency \$Mn	TOTAL in US dollars ^a \$Mn
Grenada, 5 %	0.40	2.18	0.69	EC\$ 3.27	1.21
Grenada, 10%	0.73	4.20	1.36	EC\$ 6.29	2.33
Jamaica, 5%	693.00	382.00	218.30	J\$ 1,293.30	10.75
Jamaica, 10%	1,278.00	709.45	395.19	J\$ 2,382.64	19.81
Trinidad and Tobago, 5%	40.00	2.99	9.74	TT\$ 52.73	8.24
Trinidad and Tobago, 10%	73.90	5.51	17.60	TT\$ 97.01	15.20
TOTAL, 5%					20.20
TOTAL, 10%					37.34

Source: TaXSiM estimates

Potential for other forms of taxation

Taxes on tobacco and alcohol have been the main strategy used internationally by countries in an attempt to raise funds to reduce NCDs and the consumption of products that cause them. However, health workers and policy makers are knowledgeable that there are other goods that contribute to such diseases that are not being taxed.

Studies show that taxes on sugar-sweetened beverages may decrease the consumption of such goods and reduce diabetes and obesity[56-58]. Mexico became the first Latin American country to introduce a soda tax of one peso (six cents) per litre in January of 2014. The country also applied this 10% price increase to high-calorie snacks, such as cookies. The tax reduced soda consumption by 6%[59].

In the Caribbean, the Government of Barbados, in an attempt to generate revenue and reduce the incidence of NCDs took the decision in 2015 to apply a 10% excise tax levy to *“sweetened beverages such as carbonated soft drinks, juice drinks, sports drinks, and fruit juices and others, particularly those which fall under tariff headings 20.09 and 22.02 on the import side, and similar products of like standing produced within Barbados that contain added high calorie sweeteners”*[60, 61]. The government hoped that the policy would generate over BD\$ 10 million in revenue and is evaluating its effectiveness over a two-year period to assess the feasibility of the strategy in achieving the necessary outcome, which is a

^a The applied exchange rate for the Eastern Caribbean Dollar (EC\$) is 2.70 for US \$1. For the Trinidad and Tobago dollar (TT\$), the applied rate is \$6.40 while for the Jamaican dollar (J\$) it is \$120.31. (December 29, 2015).

reduction in the consumption of such products and a fall in NCDs. The country was the first Caribbean country to implement such a policy[61].

The Dominican government is also following this path and announced in November 2015 that there would be a 10% tax increase on sweets, chocolates and sweetened beverages and that it would monitor the impact of this increase on the consumption of such products and NCDs.

Taxes on other products causing NCDs can be implemented in the Caribbean region, but proper evaluation and monitoring mechanisms must be put in place. Additionally, the funds collected must be earmarked, just as those proposed from raised taxes on tobacco and alcohol.

Potential actions

Given that increases in taxes on tobacco and alcohol products can not only generate additional revenues for governments, but can over time lead to a decrease in consumption of these products, it may seem to be a straightforward decision to simply implement such taxation strategies. However, the decision to do so cannot be made within a vacuum and often the pros and cons of action need to be considered and supported. Nonetheless, some of the potential actions for implementation, given these other considerations, are discussed below.

Political feasibility

The results of the model, as shown in this study, can provide useful information on the expected changes in revenues and consumption with changes in taxation levels. However, the decision to implement new taxes or increase existing taxes is sometimes strongly influenced by the political feasibility of doing so. In the Caribbean, it is no secret that politics play a prominent role in governance and administration. While the justification for a specific tax strategy should be evidence-based, the political will and commitment to implement may be skewed by political feasibility and timing issues.

Further, the decision to implement any tax strategy may be guided by economic, social and cultural factors, all of which may have political dimensions and impacts. For instance, such a strategy may respond to the economic needs of a country, but within the context of an imminent national election, decisions like this may be delayed or not taken.

In terms of cultural influences, the use of alcohol, for instance, may not be seen to be as harmful or dangerous to health as the use of tobacco products. Rather, the prominence of alcohol at many social and cultural events in the Caribbean is widely accepted. Further, there is the existence of the locally-stilled 'bush rum' or 'babash', the production of which, although illegal and unregulated, is often not penalised. It is referred to as an 'open secret' by the local population. Whether this is due to politics and gaining votes or because of cultural acceptability, there is evidence that consuming these products contributes to NCDs.

Political will and commitment, combined with political feasibility and the right timing, can make for a good outcome. However, the former must override the propensity to use politics when it comes to the

economic welfare and health of the nation, hence avoiding politics in favour of the gains from a particular tax strategy is necessary.

In addition to the above points, it is important that action taken be done in a coordinated manner as this will maximise the effectiveness of the action and minimise the potential drawbacks. For instance, while smuggling may be related to taxation, the literature suggests that tax differentials between territories have much greater influence on smuggling than the absolute value of the tax rate. Therefore, to limit this effect, CARICOM must act in unison in terms of the timing and levels of taxation on the products. Moreover, while specific consumption-reduction targets have been identified, these need not be achieved through single tax increases. Rather, incremental increases may be a more prudent approach to realising specific tax revenues and consumption-reduction objectives.

Barriers to uptake of evidence

While the evidence shows the likely outcomes in consumption and revenue intake, certain conditions may present challenges to the uptake of such information.

In addition to the issues surrounding political feasibility, a major barrier to moving forward with a taxation strategy lies with the strength and influence of opposing forces, in particular the key stakeholders and lobby groups in the tobacco and alcohol industries. The voices of these groups, as well as those of the 'using' population may overshadow the intention and benefits of the tax strategy. In such cases, information and education on the proposed actions and outcomes may counteract powerful stakeholders and lobby groups that use 'loud voices' and 'deep pockets' to attempt to put a stop to or minimise taxes on the products in question.

Another consideration includes finding alternative funding options. When examined in the context of the economic situation of a country and having the fiscal space from which resources can be drawn from other sources to address NCDs and related ailments, it would seem likely to opt for this measure as opposed to imposing taxes on tobacco and alcohol. Should this approach be adopted, the intention and thrust of the taxation initiative become lost. This is itself a barrier to the uptake of evidence since it deflects taxation so as not to appear to 'take from' the distributing and consuming public.

The taxation history plays a key role in the discussion of the uptake of evidence. Governments will state their intention to roll out taxes in a particular period, however before doing so they will also look at when taxes on the products were previously imposed or adjusted. For instance, both Grenada and Jamaica increased excise taxes on tobacco and alcohol in the 2014/2015 fiscal period, hence any strategy for further increases in taxes may be a medium-term measure, carded for a future time period.

The quality of the evidence has its soundness in the information and methods employed. Where it is believed that the evidence lacks credibility, this can be a barrier to decisive action on a tax strategy. Decisions may be deemed premature until a sound understanding of the extent of the problem is gained. For instance, knowledge of the real sales volumes of products, including smuggled products,

would say something about total consumption. Therefore, the need to implement proper data collection mechanisms is vital to proper decision making.

Recommendations

Hypothecated taxes to fund a multisectoral response

The implementation of taxation strategies is usually the responsibility of the ministry of finance, which pools the funds and reallocates them to different ministries to fund programmes. In the case of addressing NCDs, an approach with heavy focus on prevention activities while continuing to treat persons currently affected with the ailments, calls for multisectoral collaborations. For example, the promotion of healthy diets and exercise as part of an overall wellness initiative, requires such a response (in ministries of health, education, agriculture and sport). It means that additional funds generated from tax receipts should be sufficient to administer programmes (alongside existing sector initiatives) in the health sector, as well as in other sectors identified herein.

A comprehensive costing for treating NCDs and related prevention and education programmes is necessary, such that it provides governments with information and a better understanding of the context within which decisions on taxation and funding can be made. Further, the use of earmarked funds for multisector responses becomes relevant. Jamaica has had experience with these taxes and certainly the rest of the region could benefit from this.

How to package

Presenting the evidence in a format that is easily understood, palatable and promotes the specific objectives of the initiative can influence 'buy-in' and acceptance of the proposed measures. In this situation, the packaging of a taxation strategy may be best done within the context of a response to a health concern.

The use of the appropriate dissemination methods is an integral part of the packaging for reach and acceptance. Media outlets are usually interested in reporting on health-related issues and provide a means by which to reach as many persons as possible. Consultation sessions to discuss initial findings and to share tax proposals aid acceptance of the intended actions.

Evaluation of impact

Once a taxation strategy has been implemented, the follow through would be to monitor and evaluate the impact of the tax. In the case where the intention of the tax is to reduce consumption of tobacco and alcohol products and a consequent easing of the situation with respect to NCDs, it would mean an evaluation would look to changes in these variables.

However, in order to measure impact, it would mean that some baseline assessment is needed. The literature tells us to expect a long-run decrease in consumption with the imposition of taxes, however this does not deter from evaluating short-run outcomes or glimpses of the imposed taxes. Hence, any evaluation would require proper and timely recording and reporting of indicators.

Whenever decisive action is to be taken on the seemingly controversial topic of taxation, it becomes critical to have mechanisms in place that can be used to conduct timely evaluations of implemented strategies and make necessary adjustments. Moreover, if tax receipts are earmarked for specific programmes, for example one that addresses health issues and NCDs, transparency and accountability must be integral to the process. Hence, systematic monitoring and evaluation are vital. In this way, the payers of the tax may better embrace the taxes imposed on the products.

Chapter 9: Recommendations for accelerating action

The evidence from Chapters 3-8 above provide a snapshot of the NCD response in the Caribbean, where there have been notable successes and where there is need to do better.

This chapter sets out the next stage of tackling the epidemic of NCDs in a more focused and effective way, in which gaps and challenges identified in the research are not just noted, but actively addressed. This process includes the implementation workshop, stakeholder engagement and a communications strategy.

Implementation workshop

The core findings from the research phase were considered by a multisectoral gathering of experts at a major regional workshop, in Port of Spain, Trinidad, on 24-25 February, 2016. Over the two days, some 57 people from 15 countries, including ministers, the media, the private sector, civil society, representatives of the CARICOM Secretariat and individual Member States, along with experts in health, economics, agriculture, social security, the built environment, finance, academia, international development and regional and international partners, discussed and validated the research findings. They also identified key elements of a plan for action to build momentum and serve as a rallying point to re-energise the NCD response and charted a way forward to accelerated action. The outcomes of the workshop set the agenda for activities to support further implementation and dissemination.

As a truly multisectoral gathering, the workshop drew on a wide range of experience and expertise to develop a multifaceted draft plan that embraced the need for all-of-society and all-of-government to turn their attention to NCDs.

The format involved an opening ceremony in which invited speakers, including the Hon. Terrence Deyalsingh, Minister of Health for Trinidad and Tobago, set out the breadth and depth of the NCD epidemic and the importance of re-energising the response. Participants then heard formal presentations exploring the findings of the evaluation and held (often lively) plenary discussions. There were two formal discussants to these presentations – Dr Patrick Martin, CMO of St Kitts and Nevis, and the Hon. Donville Inniss, Minister of Industry, International Business, Commerce and Small Business Development and former Minister of Health of Barbados.

This meeting was live-streamed and was viewed as follows:

Hits	Country
264	Anguilla (likely acted as a data hub)
218	Trinidad and Tobago
33	Barbados
12	Guyana
10	Jamaica
7	Antigua and Barbuda
6	Dominica
6	United States

2	Peru
2	Cayman Islands
2	Canada
1	United Kingdom
1	St Lucia
1	Montserrat

A major facet of the meeting involved breaking into seven work groups to come up with the basis of a strategy for action to address several critical areas of the macro determinants of NCD risk factors that need to be tackled in a multisectoral response. The evidence briefs were used as a solid stepping-stone to examine areas of critical concern and the participants in their work groups addressed specific issues, helping to validate and interpret the research findings and build on them.

The groups were:

- | | |
|----------------------------------|---|
| 1. Diet, food and food security | 5. Investing in NCD prevention and control |
| 2. Reducing alcohol-related harm | 6. Media and social communications |
| 3. Tobacco control | 7. Physical activity and the built environment. |
| 4. Healthy settings | |

The suite of recommendations emerging from the workshop can form the basis, along with other aspects such as surveillance and biomedical interventions, of a comprehensive strategy for action.

Major conclusions from the research

It is worth recapping some of the major conclusions and observations contained in previous chapters of this report. In discussing key interventions that would accelerate action, the gathering focused on several overarching themes that define the nature and challenges of an effective NCD response. These included recognising that:

- NCDs are still given relatively low political priority, both within countries and regionally and this has acted as a barrier to policy development and implementation:
 - It is critically important to get the NCD message on the radar of the heads of government, ministers (including of foreign affairs), permanent secretaries and relevant technical officers with a clear communications plan;
 - Within countries a ‘champion’ is required at the highest (cabinet) level of government to further the NCD agenda;
 - The response to NCDs needs to be a substantive, regular agenda item at heads of government conferences.
- Within countries, two distinct mechanisms are required to promote an all-of-society response:
 - NCD commissions or their equivalent to coordinate all-of-society, government, civil society and private sector actions;
 - An all-of-government mechanism (e.g. interministerial task force –ITF— or committee) for coordinating the activities of the different ministries of government.

- Similar mechanisms are required at a regional level:
 - The joint NCD Secretariat, led by CARICOM/PAHO to provide leadership in driving regional actions in support of NCD prevention and control; and
 - The role of the prime minister responsible for health in the CARICOM 'quasi cabinet' to be strengthened.
- Specific funding is required to support the national and regional NCD response.
- 2007 POS Declaration commitments are most likely to be met when clear guidance on action exists and where regional organisations assist with implementation (e.g. the FCTC).
- Smaller countries, in particular, lack capacity to develop and implement policy. Further development of detailed 'model' policies and assistance in adaptation and implementation is required.
- Although the majority of Member States (13) have conducted at least one NCD risk factor survey, much greater investment is needed in surveillance if trends in risk factors are to be monitored, vulnerable groups identified and the potential impact of interventions assessed.

Workshop deliberations

Group 1: Diet, food and food security - relevant policy on agriculture and trade

Issues

- More than 85% of adults in CARICOM Member States do not meet recommended levels of fruit and vegetable intake.
- This is heavily influenced by a reliance on food imports, terms of trade that limit Member States' ability to promote local agriculture, and marketing by transnational food corporations.
- There are limited examples of collaboration between ministries of agriculture and health to improve local food supply. One example of positive collaboration is in Antigua and Barbuda.
- There is virtually no evidence of progress on the POS commitments related to the macro ('upstream') determinants of nutrition (e.g. trade arrangements, banning trans fats, food labelling), while childhood and adult obesity rates continue to rise.
- Food taxes and subsidies have a potential role to play, with Barbados and Dominica both having recently implemented a tax on SSBs.

The way forward

A key set of recommendations emerged from the group, predicated on the agricultural sector exploring opportunities where trade mechanisms can make a real difference. The overarching objective was seen as promoting the sustainable production, processing, distribution, preparation, commercialisation and consumption of safe, affordable, nutritious, high-quality Caribbean food commodities and products. To achieve this objective would require:

- A Caribbean strategic plan/policy which addresses the role of agriculture and food production in the NCD response: with agriculture a key sector of a multidisciplinary team involved in NCD discussions/commissions; and a reshaping of agricultural policies to increase focus on NCDs.

- Improved analysis and documentation of the impact of various programmes related to food and nutrition, e.g. school feeding programmes.
- Greater understanding of food consumption patterns and drivers.
- Improved systems for food surveillance: a necessary requirement for evidence-informed planning.
- Incentivising the production of low cost, high-quality domestic products.
- Introducing compulsory standards for nutritional labelling.
- Increasing the quality and availability of food and promoting healthy eating.

The actions needed to achieve this are shared in full in the workshop report, along with process indicators, monitoring and evaluation mechanisms etc. However, several concrete interventions are noted here:

- Adapt, develop and apply innovation and appropriate technologies to deliver high-quality products to the market.
- Assist in capacity building of farmers to support better production planning.
- Explore innovative partnerships for supporting local farmers and fishermen.
- Promote urban and peri-urban sustainable agriculture (such as home gardens).
- Promote policies that prevent over-fishing.
- Develop an overarching regional school nutrition policy, introducing school feeding programmes and encouraging more water consumption.
- Introduce nutritional labelling of packaged foods: encourage all retailers to display nutritional content.
- Mobilise consumer focus groups.

Group 2: Reducing alcohol-related harm

Issues

- Reducing alcohol-related harm was not explicitly addressed in the 2007 POS Declaration.
- Developing and implementing policy on alcohol-related harm is universally seen as politically ‘challenging’ and perceived as contrary to economic interests (local production and tourism) and interfering with individual pleasure.
- There are limited examples of where positive policies are being pursued: one exception is the implementation of breathalysers for drink driving in Trinidad and Tobago.
- Increased taxation on alcohol could be an effective approach to both reducing consumption and raising revenue for NCD prevention and control, provided it is done in a way that does not create problems with smuggling or local illicit production.

The way forward

The key facets considered here involve banning sponsorship by alcohol producers, increasing the use of breathalysers to prevent drink driving, and controlling alcohol sales. It was also acknowledged that lessons could be learned from the regional tobacco experience where the vast majority of countries

have signed up to the FCTC and have seen a degree of (admittedly variable) progress in terms of policy implementation.

There was a series of objectives aimed at achieving the overall recommended outcome: a 10% reduction of harmful use of alcohol. These included:

- Strengthening health systems to respond to this issue;
- Adopting a comprehensive regional policy on alcohol reduction with focus on young people; and
- Strengthening information systems and surveillance.

The concrete interventions proposed involved:

- Designating a national focal point to coordinate all actions related to alcohol across multiple ministries.
- Standardising the regional minimum alcohol purchasing and drinking age.
- Ensuring zero tolerance towards drink driving: employing sanctions and education in the school curriculum.
- Harmonising and enforcing drink driving laws.
- Reviewing alcohol licensing systems.
- Banning or regulating alcohol marketing in the Caribbean and banning sports sponsorship.
- Building capacity for civil society organisations to better advocate for alcohol-reduction strategies.
- Communicating messages on the dangers of excessive alcohol consumption to the general public.
- Harmonising alcohol indicators for more effective regional reporting and establishing baselines for monitoring.
- Integrating screening and interventions for alcohol problems in primary healthcare.
- Facilitating Alcoholics Anonymous groups and links with health services: establishing referral systems.
- Developing clinical guidelines on management of alcohol problems.

Group 3: Tobacco control

Issues

- While all except one of the full CARICOM members have ratified the FCTC (it does not apply to the UKOTs), implementation is lagging: e.g. tax as a percentage of sale price, smoke-free indoor places, and in particular advertising, promotion and sponsorship bans. Only six out of 15 full members are able to report implementation in at least one of these areas.
- A regional standard on cigarette packet labelling was agreed, but is voluntary and has only been implemented in two countries.
- Increased taxation on tobacco products is an effective approach to reducing consumption and raising revenue, so long as smuggling is controlled.

The way forward

The need to concentrate on implementation of legislation for 100% smoke-free spaces, labels with sufficiently large and graphic warnings, introducing increased taxation and banning tobacco sponsorship was highlighted. In addition, the importance of taking advantage of the technical assistance available through the FCTC Secretariat was stressed. It was deemed necessary to use a regional approach to policy formulation and advocacy, which could be adapted to reflect national circumstances.

Recommendations included:

- Having a tobacco control focal point and/or unit in each country.
- Encouraging the greater involvement of civil society for tobacco control advocacy.
- Modernising the approach to education using social and commercial marketing to support tobacco control.
- Greater support offered from CARICOM re: tobacco control.
- Pursuing taxation and earmarking funds from taxation for health education and prevention activities.

Specific objectives and actions to achieve them were highlighted, such as:

- Encouraging full FCTC implementation within a five-year time frame, including, for example, bans on smoking in public places and graphic health warnings (using the CARICOM agreed standards) on tobacco products.
- Each country to increase tax on tobacco by at least 50%.
 - The legal and administrative instruments for raising taxes should be identified within 1 year.
- Regional campaign on dangers of smoking and the impact of second-hand smoke to be launched and evaluated.

Group 4: Promoting health in different settings - workplaces, schools, faith-based institutions

Issues

- No CARICOM member has met the indicator of having more than 50% of public and private institutions adopting healthy eating and physical activity programmes.
- A minority of Member States reports policies in place to promote healthy eating in schools (six) or mandatory physical activity in schools (nine), however, there is a lack of monitoring and evaluation to determine whether these policies are actually implemented, or whether they are having any impact.
- In smaller countries in particular, where there is limited government capacity for health promotion activities, private and civil society organisations have key roles to play.

The way forward

There was a range of recommendations centred on investing in new programmes and strengthening existing interventions.

- Schools
 - Review, update and standardise the Health and Family Life Education curriculum to include NCD risks.
 - Place more focus on promoting health within tertiary education settings.
 - Promote physical activity rather than only organised sports in school physical education programmes.
- Workplace
 - Explore the involvement of the public sector.
 - Integrate interventions in the workplace as part of human resources policy.
 - Strengthen current weakness where many workplace interventions target the obese rather than addressing wellness and population health.
 - Develop toolkits to help establish sustainable workplace programmes.
- Faith-based organisations
 - Engage this sector in a more structured way, using its reach within communities.

Concrete actions to achieve these objectives would include:

- Banning advertising, promotion and sponsorship related to unhealthy foods targeting children.
- Conducting an evaluation of the nutritional value of school meals.
- Training school canteen staff in child nutrition.
- Educating food vendors, parents and students on healthy food options.
- Making physical activity mandatory from pre-primary to tertiary level.
- Diversifying physical activity options within schools.
- All workplaces offering NCD screenings for employees annually (free or heavily subsidised) and wellness programmes offered based on aggregated data from screenings.
- A model based on the Seventh-day Adventist health programme can be used by faith-based and civil society organisations.

Group 5: Investing in NCD prevention and control

Issues

- Taxation on tobacco, alcohol, and certain food and drink items (e.g. SSBs) can both decrease consumption and raise considerable revenue for NCD programmes.
- It is estimated that the revenue that could be raised from tobacco and alcohol taxation would be up to three times greater than what is required to implement NCD 'best buys' recommended by WHO. Raising tax on alcohol is seen as politically difficult, however.

- A key consideration is the political feasibility of ensuring that additional tax revenues from unhealthy products are protected for NCD activities.
- Consideration of how the additional funds are used should include:
 - Universal health coverage and access;
 - WHO 'best buys' for prevention and control;
 - Increased surveillance, monitoring and evaluation.

The way forward

It was seen as imperative to focus on the centrality of 'investing' in the NCD response, rather than 'financing' it, given that this encompassed both the need to increase resources and the fact that such resourcing would be of great benefit to the region and an investment in its health and socio-economic development. Participants were keen to make the business case to increase investment in health and NCDs.

The following recommendations were made:

- Obtain more data to demonstrate the benefits of investing in health and NCDs.
- Increase public and private investment in NCD prevention and control.
- Examine Jamaica's National Health Fund as an example of an investment to resource NCD programming that has survived political changes.
- Build meaningful partnership with (and among) government and civil society to address NCD needs and issues.
- Explore the approach of increased taxation to decrease consumption.
- Apply tax on added sugar – explore how this can be done without having a disproportionate impact on the economically disadvantaged. One way would be to bring down the cost of healthy food.

A range of actions to help achieve these aims was suggested, including:

- Establishing a regional NCD fund at CARPHA.
- Examining the range of subsidies currently applied, increasing those that promote better health.
- Draft in a 'league of champions' to lobby leaders and try to secure sustainable political 'buy-in'.
- Create public awareness of the need for taxation for health investment and garner support.

Group 6: Media and social communications, health promotion and advocacy

Issues

- Only five out of 20 CARICOM members report having an NCD communications plan.
- There is the opportunity for more coordinated region-wide campaigns, including on Caribbean Wellness Day.
- Media and social communications have a key role in raising awareness about addressing NCD risk factors and helping to shape public opinion to make change politically possible.

- There is social communications expertise in the region, but it is expensive, and funding is not often available.

The way forward

Key considerations for this group involved exploring innovative ways to extend the breadth and depth of communications on NCDs, which can be used in a more dynamic way to 'tell and sell the story'.

The following recommendations were made:

- CWD should be better marketed and related activity encouraged throughout the year.
- Explore and address social and cultural practices which militate against healthy living.
- Strengthen and maximise use of social media.
- Observe the communication trends of young people to guide interventions.
- Explore innovative and effective ways to communicate and demonstrate relevance to the public for greater buy-in.
- Identify sector champions.
- Continue to build the Regional Health Communications Network facilitated by CARPHA.
- Expand partnerships, including with the private sector, to optimise available resources for advocacy.
- Promote the business case for supporting the NCD response (emphasising the relationship between health and economic productivity).

A series of practical actions was highlighted:

- Provide briefs/talking points on priority public health issues for key audiences.
- Provide a template of an NCD communications action plan for partners.
- Develop a communications toolkit with a number of products for a number of audiences.
- Identify prospective stakeholder groups with a common agenda.
- Conduct stakeholder meetings.
- Promote individual empowerment – and provide information – so people have the tools to make healthy choices.
- Develop innovative social media tools, such as an app for calorie-counting local foods.

Group 7: Physical activity and the built environment

Issues

- There are marked gender differences in levels of physical inactivity: women are significantly less active than men.
- Only three CARICOM members have made provision of spaces for physical activity in new housing developments mandatory.
- The determinants of physical activity in Caribbean countries are incompletely understood, and important questions include:

- What other types of changes to the built environment, in addition to provision within new housing developments, will facilitate increased physical activity?
- What is the potential role of 'active transport' (e.g. walking or cycling)?
- How do we ensure that the opportunities provided by changes to the built environment result in higher levels of physical activity?
- How do we evaluate whether changes to the physical environment do, in fact, result in changes in physical activity?
- What can be learned from major physical activity promotion campaigns, such as the *10,000 Step Challenge* in the British Virgin Islands?

The way forward

The overarching goal was seen to be developing the physical and social environment to promote physical activity in adults and children by providing areas which are easily accessible, safe and well maintained. Several recommendations were made, including:

- Championing a fully multisectoral response to address this critical issue.
- Encouraging a political environment that promotes physical activity.
- Challenging policies/barriers preventing the easy adoption of physical activity.
- Improving public transportation systems to decrease reliance on cars.
- Encouraging civil society and communities to take more responsibility for owning and maintaining green spaces.
- Creating spaces in the environment to promote physical activity like bicycle lanes, run/walk/cycle events, boardwalks.

A number of practical actions were made, such as:

- Discouraging use of cars by increasing parking fees and providing central parking facilities.
- Compiling and sharing a list of best practices, using fora like regional meetings and journals.
- Encouraging the use of already available opportunities for increased exercise, e.g. beaches, parks, steps at work.
- Providing hiking and biking trails.
- Ensuring that educational and care facilities for children provide space for physical activity.
- Encourage young people to participate in youth clubs that promote physical activity.
- Subsidise public transport for children.

Next steps

Taken in their entirety, the work groups' conclusions are the starting point for a fairly comprehensive plan for action in which priorities, goals and objectives across seven critical areas are explored and recommendations as to how they may be realised laid out in some detail.

Given the nature of the workshop and the concentration on multisectorality, recommendations emerging from the meeting necessarily focus on an all-of-society and all-of-government NCD response.

While this is one absolutely fundamental aspect of the response, it is also important to remember other areas, including surveillance to guide action, coverage and access to effective healthcare and technical support.

Relevant areas highlighted in these evidence briefs include recommendations to improve surveillance on mortality and morbidity and detection of diseases such as hypertension (Chapters 3 and 4); improving primary healthcare (Chapter 4); regional and international support for Declaration commitments (Chapters 5 and 6); and broader surveillance and monitoring (Chapter 7).

All the information, ideas and strategies presented in this report and discussed at the implementation workshop contribute towards a cogent strategy for action with ambitious but realistic goals.

Main 'asks' for heads of government, health ministers, and other key actors were distilled from the workshop recommendations (including promoting a tobacco-free Caribbean, banning advertisement of potentially harmful foods which specifically target children and raising taxes on unhealthy foods). These priority actions formed the basis of subsequent advocacy interventions which will be set out later in this report.

Objectives added: The evaluation of the SSB tax (9-13)

IDRC approval for the inclusion of Objectives 9–13 was granted in February 2016. Work related to these objectives was undertaken between April 2016 and September 2017. They aimed to provide a description of the consumption of SSBs before and after the implementation of the tax and to estimate the additional revenues it has generated. This research has also examined attitudes around the level of SSB taxation. The work is contributing to a methodology for conducting similar evaluations in the region.

Website

The information from this project has been documented and packaged and is available on the POS NCD Declaration Evaluation website: www.onecaribbeanhealth.org. As of August 31, 2017, there were 64.5 thousand unique visits to the project's website (Appendix A9.A).

Results of the evaluation can be found at:

<http://www.onecaribbeanhealth.org/more-facts-figures-and-implementation-ideas/>

The site has been updated regularly, with stories added and a section of fact sheets on varying aspects of the epidemic and the response such as 'surveillance', 'clinical care', 'tobacco', 'alcohol-related harm reduction' and others.

We have also added action guides aimed at different segments of society, e.g. for schools, workplaces, places of worship, and PowerPoint presentations which country-based organisations can use for education, planning and programming at country level.

Engagement with stakeholders

Our process for stakeholder engagement is couched in Objective 8 above. It was the focus of Year 3 of the study and proceeded on two levels: the general public, and policy makers inclusive of health and non-health government officers, civil society organisations and the private sector. This process is outlined in our communications strategy.

Engagement with policy makers

Ministers of health: WHA, May 2016

Dr Samuels presented the evaluation results to several health ministers at the WHA in Geneva in May 2016. The ministers cemented their commitment to the greater prevention and control of NCDs in the region.

See <http://onecaribbeanhealth.org/time-to-step-up-ncd-action-health-ministers-told-at-wha/>

We distributed ‘ministers’ packs’ to those who did not attend the WHA and their permanent secretaries. There was also a presentation to the ministers of health at their September caucus, in collaboration with Caribbean Cooperation in Health IV, which focuses on the regional public goods for CCH, including those for NCDs.

CMOs’ meeting in Turks and Caicos, 21 June, 2016

Dr Samuels presented the results of the project to 15 of the 20 CARICOM CMOs on the eve of the CARPHA annual research conference held in Turks and Caicos. She made a range of suggestions as to how they can use their reach and influence in practical ways to really make a difference in the NCD response.

The CMOs agreed to the following: *Evaluation of the POS Declaration on NCDs*

Having considered the presentation by Dr Alafia Samuels, Principal Investigator, UWI;

The MEETING:

- (i) **Proposed** that the Member States support a data-sharing MOU between CARPHA and GA-CDRC/UWI to permit the analysis of the available STEPS risk data and mortality data;
- (ii) **Requested** support for the introduction of the new/revised NCD grid in Member States;
- (iii) **Requested** that CMOs advocate for the prioritisation of hypertension management through rational drug policies and the establishment of sound risk factor policies in relation to alcohol, tobacco, trans fats and unhealthy foods;
- (iv) **Urged** CMOs to support national policies taxing SSBs.

Please see resulting story: <http://www.onecaribbeanhealth.org/chief-medical-officers-to-make-ncds-a-priority/>

Re-engaging with heads of government

CARICOM Heads of Government Conference, 4-6 July 2016

Caribbean heads of government, at their meeting on 4-6 July, 2016, in Guyana, following vigorous and multipronged lobbying efforts, issued the following statement on NCDs that made up part of the final communiqué. The statement places non-communicable diseases firmly on the leaders' agenda on the eve of the Tenth Anniversary of the Port of Spain Declaration:

“As the Tenth Anniversary of the historic Port of Spain Declaration 'Uniting to fight Non-Communicable Diseases (NCDs)' draws near, the Heads of Government recognised the progress made in addressing the issue. They acknowledged, however, that progress was variable and agreed to adopt a more holistic approach. In this regard, they pledged to address issues such as the ***banning of smoking in public places; trade related measures; banning advertisement of potentially harmful foods which specifically target children; and elevating taxes on foods high in sugar, salt and trans-fats.***”

Extract from the communiqué

Engagement with the general public

The focus of this campaign has been to sensitise the public about the POS Declaration: its evaluation and the role the evaluation is playing in accelerating the implementation of the NCD response regionally. There has also been a considerable emphasis on practical ways for the people of the region to lead healthier lives. The main instruments for engagement have been traditional media, the project website, and social media. UWI has lent the support of its marketing assets to the project, which has provided the opportunity for engagement through newspapers, radio and television.

The CARPHA Regional Health Communications Network – a group of health journalists, educators and media people – also committed to support the project.

Dissemination and engagement with all-of-society, including political leaders, to date

Jamaica Civil society, academia and business sectors coming together, 28 June 2016

We hosted a multisectoral meeting in Jamaica, with nearly 40 participants including consumer action groups, fishermen's representatives, the Chamber of Commerce, running event organisers, journalists, the business community, policemen, dieticians, faith-based organisations, civil society groups and academics. The debate was lively and engaged. We committed to helping the participants create an informal NCD alliance.

<http://onecaribbeanhealth.org/jamaica-has-a-man-problem/>

<http://www.jamaicaobserver.com/news/Tax-on-sugary-drinks-66622>

There was significant debate in *The Gleaner*, the Jamaican newspaper with the widest circulation, about a comment Dr Samuels made in her presentation concerning the need for mandatory physical education in all schools. It appeared to have struck a chord with the minister of education, who responded by saying that this would not be feasible. The public, however, subsequently pushed back against his view in a heated debate in the media.

<http://jamaica-gleaner.com/article/news/20160703/no-time-pe-students-focused-exams-after-ninth-grade-says-reid>

<http://jamaica-gleaner.com/article/letters/20160706/letter-day-make-pe-mandatory-high-schools>

<http://us10.campaign-archive1.com/?u=ed61694edb82f72792f2c093d&id=106b0cfd14>

<http://jamaica-gleaner.com/article/sports/20160706/jennifer-ellison-brown-impact-physical-education-and-sport>

<http://jamaica-gleaner.com/article/commentary/20160705/patria-kaye-aarons-make-pe-after-school-sports-mandatory>

During this trip we also took the opportunity to record interviews and vox pops in Kingston. These included:

An interview with the CEO of the Island Grill restaurant chain which specialises in healthy but tasty food.
<http://onecaribbeanhealth.org/island-grill-changing-the-way-we-eat/>

Vox pops with people on the streets talking about the amount of salt they eat and asking men whether they are getting their blood pressure checked regularly.
<http://onecaribbeanhealth.org/getting-salty-in-jamaica/>

Barbados

Public lecture on accelerating action on NCDs stirs debate, June 2016

Dr Samuels raised the issue of the growing problem of childhood obesity in the Caribbean in a public lecture held at UWI under the auspices of GA-CDRC: *Accelerating the NCD Agenda*. This also sparked debate after she criticised a named fast food outlet that brands supplies in primary schools (blackboards, pencils, calendars, book covers), which is in direct opposition to World Health Organisation recommendations and is thus helping to create an obesogenic environment and encouraging obesity in Barbadian children.

<http://www.onecaribbeanhealth.org/we-need-to-do-much-more-on-childhood-obesity/>

<http://www.caribbean360.com/news/health-expert-wants-higher-taxes-unhealthy-foods>

<http://www.babadosatoday.bb/2016/06/18/food-import-dependence-and-trans-fat/>

<http://www.nationnews.com/nationnews/news/82332/chefette-warned>

<http://www.stabroeknews.com/2016/news/regional/06/18/barbados-fast-food-chain-warned-about-targeting-children/>

Public lecture on physical activity, 7 July, 2016

Physical activity: why we all plan to start 'tomorrow', was led by Ms Christina Howitt and Ms Miriam Alvarado, GA-CDRC/UWI. The lecture also included a panel with representatives from the Ministry of Health, Ministry of Education, Town and Country Development Planning Office, civil society and the private sector.

The panelists shared findings from their research on physical activity patterns and trends in Barbados, and the discussion focused on what is currently being done to promote activity in various sectors and the ways in which we can promote physical activity in the future.

Directly after the event, the POS Declaration evaluation project pledged to support an ongoing committee, with the panelists, to review and implement suggestions on enhancing physical activity in Barbados.

<http://www.onecaribbeanhealth.org/getting-fitter-why-we-all-plan-to-start-tomorrow/>

Trinidad and Tobago, July 23 – 28 2016

Professor Sir Michael Marmot shares his thoughts

The Trinidad and Tobago Medical Association 22nd Annual Conference on 24 July hosted Professor Sir Michael Marmot, Chairman of the WHO Commission on the Social Determinants of Health and President of the World Medical Association. The conference was opened by the Minister of Health Hon. Terrence Deyalsingh.

Sir Michael gave the feature address, *Social Determinants of Health: the hows and whys of Health-in- All-Policies in a declining economy*. His presentation was preceded by Dr Samuels's POS Declaration evaluation update, *Social and structural determinants of NCDs; lessons from the evaluation of the 2007 CARICOM Heads of Government NCD Summit Declaration*.

The POS Declaration evaluation project supported the live streaming of the opening session.

Dr Samuels also recorded a one hour television panel discussion with Sir Michael on 23 July on the Islamic Broadcasting Network of Trinidad and Tobago.

<http://www.onecaribbeanhealth.org/social-determinants-of-health-inequality-is-a-mass-killer-says-top-academic/>

Trinidad civil society meeting, July 2016

The evaluation project partnered with the Ministry of Health on 28 July to host a meeting of civil society organisations in Port of Spain, giving a welcome boost to the multisectoral NCD response. The meeting brought together dietitians, faith-based organisations, campaigning charities, disability action groups, the national Olympic Committee, youth groups, communications agencies, drug awareness groups, the Mothers' Union and the Breastfeeding Association, among others. They were joined by traditional health NGOs, representatives of the Ministry of Health and the newly formed Trinidad and Tobago NCD Alliance.

Participants said it was imperative that the country loses its unenviable title as the Caribbean's leader in the burden of NCDs. They shared experiences and ideas and offered support for the Trinidad and Tobago NCD Alliance. There was a number of practical suggestions, such as an e-newsletter to keep everyone informed and making available PowerPoint slides from the presentations that can be used to spread the NCD message and strengthen the response to a growing epidemic.

<http://onecaribbeanhealth.org/trinidad-and-tobago-civil-society-rises-to-the-ncd-challenge/>

30th meeting of the Council for Human and Social Development (COHSOD), PAHO Headquarters, Washington, 24-25 September 2016

A report on the Port of Spain NCD Declaration Evaluation was presented to ministers of health on September 25 by Dr Samuels who also revealed a set of 'asks' specific to the ministers to strengthen the challenge to chronic diseases on a national and regional level.

These 'asks' mirrored the commitments made at the July 2016 CARICOM Heads of Government Conference which pledged to address key issues such as the banning of smoking in public places; trade-related measures; banning advertising of potentially harmful foods which specifically target children; and elevating taxes on foods high in sugar, salt and trans fats.

In addition, Dr Samuels briefed CARICOM health officials on the evaluation and the regional NCD response.

The COHSOD meeting explored new initiatives for preventing NCDs and a rational approach to NCD treatment across CARICOM.

Dr Samuels's address: <https://www.youtube.com/watch?v=UQGtyQGtMiw&feature=youtu.be>

Dr Samuels presenting the evaluation report to Chair of COHSOD

<https://www.youtube.com/watch?v=luAUulx4Yg0>

Feature story: <http://onecaribbeanhealth.org/cohsod-making-progress-in-the-ncd-response/>

Caribbean Wellness Day, September 2016

Healthy Children in Healthy Environments was the theme this year and our website carried an article, videos and links to our own advocacy materials, such as action guides and those of our partners, including CARPHA.

<http://onecaribbeanhealth.org/caribbean-wellness-day/>

Video: *A child's view of exercise:*

<https://www.youtube.com/watch?v=ipnrZGxAKmA&list=PLmMujgoRNckBCsT24lpWxPuR7HzOWN-Bg&index=2>

Video: *A mother speaks:*

<https://www.youtube.com/watch?list=PLmMujgoRNckBCsT24lpWxPuR7HzOWN-Bg&v=zq8sbglHvQw>

Formal presentation of the evaluation report to PAHO Director, Dr Carissa Etienne, at an event hosted by UWI, 14 October.

Dr Etienne received the report from UWI Vice-Chancellor Professor Sir Hilary Beckles at the Annual Dinner for Honorary Graduands.

<http://onecaribbeanhealth.org/paho-director-receives-owi-led-landmark-report-on-ncds/>

World Obesity Day, October 11, 2016

Message from Dr Samuels on the theme of childhood obesity

<http://onecaribbeanhealth.org/message-from-dr-alafia-samuels-on-world-obesity-day/>

World Food Day, October 16, 2016

Interview with a farmer who attended the implementation workshop, Jethro Greene, Chief Coordinator of the Caribbean Farmers Network CaFAN

<http://onecaribbeanhealth.org/world-food-day-a-caribbean-farmer-speaks/>

Breast Cancer Awareness Month, October 2016

Interview with activist and survivor in Trinidad, Michelle

<http://onecaribbeanhealth.org/breast-cancer-awareness-month-michelle-gets-busy/>

Lancet profile on Dr Samuels, November, 2016

'Champion of public health in the Caribbean'

<http://onecaribbeanhealth.org/champion-of-public-health-in-the-caribbean/>

World Diabetes Day, November 2016

Interview and testimonial: *Eyes on diabetes*

<http://onecaribbeanhealth.org/eyes-on-diabetes/>

Public lecture on progress in sugar-sweetened beverage taxation, January 20, 2017

A packed public lecture at UWI, with a heavy media presence, explored the critical issue of whether taxing sweetened drinks is an effective strategy for helping to tackle the epidemic of obesity in the Caribbean. A panel of regional and international experts included:

- Dr Jean Adams, Senior Research Fellow, University of Cambridge;
- Dr Godfrey Xuereb, PAHO/WHO Representative, Barbados; and
- Ms Miriam Alvarado, Chronic Disease Research Centre/University of Cambridge.

The motif of the event, chaired by Dr Samuels, was the need to support the SSB tax.

<http://onecaribbeanhealth.org/lets-protect-the-sugary-drinks-tax-in-barbados/>

The event was covered in all the major newspapers in Barbados and at least one regional outlet.

<https://www.babadostoday.bb/2017/01/21/dont-scrap-sweet-tax/>

<http://www.nationnews.com/nationnews/news/92679/stick-sweet-tax>

<https://www.babadostoday.bb/2017/01/21/health-warnings-coming-for-killer-smokes/>

<https://www.babadostoday.bb/2017/01/28/fighting-obesity/>

<https://ncdalliance.org/news-events/news/support-to-the-barbados-tax-on-sugary-drinks>

<http://www.babadosadvocate.com/columns/sugar-tax-not-silver-bullet-start>

Research and Some Sense video collaboration, February 2017

We commissioned the above research outfit to produce a short, entertaining video on childhood obesity which received more than 26,000 hits.

<http://onecaribbeanhealth.org/childhood-and-adolescent-obesity/>

Other media outreach has included interviews with radio and televisions, such as outlets in Dominica, Grenada, Antigua and Barbuda, British Virgin Islands and Barbados. For example, there was an hour long interview on UWI-TV which was very well-received and an interview with the Government Information Service in BVI:

<http://onecaribbeanhealth.org/dr-alafia-samuels-discussing-accelerating-action-on-ncds/>

<http://onecaribbeanhealth.org/how-to-live-a-longer-and-healthier-life-and-avoid-chronic-illness/>

Collaboration with partners: writing Caribbean press release for new trial to target preventable deaths in the Caribbean, February 2017

The communications officer prepared and disseminated a press release on a new trial which investigates ways to reduce NCDs through training members of religious congregations who are embedded in local communities. Researchers from King's College London, the University of Guyana (UG), Ross University Dominica and the University of the West Indies hope the new approach will increase the reach of health services and reduce deaths.

<http://onecaribbeanhealth.org/new-trial-to-target-preventable-deaths-in-the-caribbean/>

Influence on major policy decision in Barbados?

The advocacy undertaken by the project may have influenced the Barbadian health minister's address to the House of Assembly in March 2017 to cut back on fast food outlets advertising in schools.

The fact that a major fast food retailer in Barbados (Chefette) provides schools with branded merchandise has been a major preoccupation for Dr Samuels. She has been one of the leading voices in the challenge to Chefette's school activities and the need to prioritise childhood obesity. Here are links to some of her interventions.

http://onecaribbeanhealth.org/wp-content/uploads/2016/11/Alafia_LancetDE.pdf

"The usual suspects such as KFC and Burger King are firmly established, but Samuels has taken particular issue with Chefette, the largest fast food chain in the Barbados. "Chefette brainwashes primary school children. They brand calendars, book covers, pencils, blackboards in primary schools. Children look at their logo and their fried chicken all day long. They arrange tours for the children to their locations. They sponsor sports events—as do others like Burger King, Coke, etc—but Chefette is relentless. They have been invited to meet with NCD programme stakeholders, and have not come to meet with them."

<http://onecaribbeanhealth.org/message-from-dr-alafia-samuels-on-world-obesity-day/>

"Let's get Chefette-branded products out of our schools."

Dr Samuels is also mentioned in an article on the Caribbean 360 website

<http://www.caribbean360.com/news/barbados-government-slammed-fat-children>

“Speaking on World Obesity Day a week ago, Director of the UWI Chronic Disease Research Centre Dr Alafia Samuels had revealed that nearly 2,500 children in Barbados suffered from hypertension because of obesity.

Stating that “too many of our children are eating too much and moving too little”, she said that in the government schools, “one fast food company . . . even tried to entice customers at an early age with branded supplies (pens, pencils, calendars, etc) that students look at every day in their classrooms.”

This article also appeared in the St Lucia Times

<https://stluciatimes.com/2016/10/18/barbados-government-slammed-fat-children>

<http://www.caribbean360.com/news/health-expert-wants-higher-taxes-unhealthy-foods>

“Dr Samuels accused one of the largest fast food restaurants on the island of unfairly marketing itself to children, saying that contrary to international standards, it was having its name printed on material at learning institutions.”

“You should not market to children in schools but we are doing it here and we are allowing it to happen. So in schools, in general, we’re not doing well and in Barbados, in particular, I have to call out [the company].”

<http://www.stabroeknews.com/2016/news/regional/06/18/barbados-fast-food-chain-warned-about-targeting-children/>

<http://www.nationnews.com/nationnews/news/82332/chefette-warned>

“In a stinging rebuke of the company, director of the Chronic Disease Research at the University of the West Indies Dr Alafia Samuels said Chefette’s deliberate marketing of targeting children was actually defying the global recommendations to fight childhood obesity.

She was unapologetic as she spoke this week on the topic, Accelerating the NCD Agenda – Towards a Better Caribbean Stronger Together, at the UWI Cave Hill Campus. Samuels said she had no qualms about putting her “neck on the block” because fast-food was resulting in too many obese and unhealthy children.”

The widely viewed Research and Some Sense video commissioned (see above) also mentioned fast food-branded products in school explicitly.

<http://oncaribbeanhealth.org/childhood-and-adolescent-obesity/>

And there is reference to this in a February 2017 UWI-TV interview with Dr Samuels.

<https://1drv.ms/v/s!AlpQRclXB-wcnU113Dmxoh0zBzwn>

CARICOM 38th Heads of Government Conference, Grenada, July 4-6, 2017

The culmination of the dissemination process was the heads of government meeting. The push for a healthier Caribbean received a considerable boost as the leaders made new commitments to tackle the epidemic of chronic diseases.

In a session devoted to action against NCDs, the leaders discussed a raft of measures to look at declaring the Caribbean a tobacco-free zone by 2022 in accordance with the Framework Convention on Tobacco Control.

In addition, CARICOM heads have decided to look closely at measures, in particular taxation and education, to try to change dietary practices in which eating salty, high sugar, fatty foods and drinking sweet sodas has become the norm for many, especially younger people. They also expressed a commitment to fight childhood obesity.

During the session discussing NCDs, the heads were presented with blood pressure monitors (provided by the project) and were addressed by Mike Bloomberg, World Health Organisation Global Ambassador for Non-communicable Diseases, who announced that Bloomberg Philanthropies will be expanding its obesity prevention programmes into Barbados and Jamaica.

Bloomberg video here: <https://vimeo.com/user1196153/review/222412731/0b8b52e646>

The project also showed a range of materials outside the venue room, including a display of the huge amounts of sugar in popular products which drew a great deal of attention. A number of people who saw the display expressed real surprise and concern about the amount of sugar we're consuming. They included the Prime Minister of Grenada, Dr the Rt. Hon. Keith Mitchell, CARICOM Chair and Dr the Hon. Timothy Harris, Prime Minister of St Kitts and Nevis and CARICOM's lead spokesperson on human resource, health and HIV.

<http://onecaribbeanhealth.org/sugar-shocker/>

We covered the meeting in a variety of ways on the project website.

<http://onecaribbeanhealth.org/caricom-leaders-breakthrough-in-the-fight-against-ncds-in-the-region/>

<http://onecaribbeanhealth.org/a-caricom-head-of-government-reflects/>

<http://onecaribbeanhealth.org/10-years-after-the-port-of-spain-declaration-whats-the-score/>

There was also extensive coverage of NCDs and the evaluation project, mostly prompted by press releases written by the communications officer and a press conference with Dr Samuels; CARPHA Executive Director, Dr. James Hospedales; Grenada Minister of Health, Hon. Nicholas Steele; and CARICOM Programme Manager, Health Sector Development, Dr. Rudolph Cummings.

<https://ncdalliance.org/news-events/news/caricom-leaders-breakthrough-in-the-fight-against-ncds>

<https://www.stlucianewsonline.com/press-release-10-years-on-from-the-port-of-spain-declaration-on-chronic-disease-whats-the-score/>

<https://www.thedailyherald.sx/regional/67578-caricom-leaders-make-new-commitment-to-tackle-ncds>

<http://jamaica-gleaner.com/article/news/20170710/caricom-takes-obesity>

<http://www.telesurtv.net/english/news/Caribbean-Takes-the-Cake-with-Highest-NCD-Deaths-in-the-Americas-20170709-0013.html>

<http://www.trinidadexpress.com/20170706/news/report-tt-guyana-lead-americas-in-heart-related-deaths>

<https://www.stlucianewsonline.com/press-release-caricom-leaders-breakthrough-in-the-fight-against-ncds-in-the-caribbean/>

<https://www.bahadostoday.bb/2017/07/08/a-case-for-taxing-soda/>

http://www.jamaicaobserver.com/news/caribbean-has-highest-rate-of-mortality-from-ncds-in-the-americas_104110?profile=1373

<http://jamaica-gleaner.com/article/news/20170707/caricom-38-too-much-caribbean-soda-drinking-outstrips-world-raises-risks-early>

<http://jamaica-gleaner.com/article/news/20170705/caricom-38-leaders-face-call-more-action-ncds>

<http://jamaica-gleaner.com/article/lead-stories/20170706/more-taxes-bad-habits-caricom-health-experts-call-high-levy-deadly>

<http://jamaica-gleaner.com/article/commentary/20170709/editorial-slow-waddle-longer-life-expectancy>

<https://stluciatimes.com/2017/07/03/10-years-port-spain-declaration-chronic-disease-whats-score>

<http://newsday.co.tt/news/0,246112.html> (Paragraph six onwards)

<http://www.caribbean360.com/news/caricom-agrees-venezuela-mission> (Last four paragraphs, with pic of PM Mitchell with BP monitor)

<http://caricom.org/media-center/communications/press-releases/whats-the-picture-a-decade-after-signing-declaration-on-ncds>

Dr Samuels also appeared on the Good Morning Barbados TV show to talk about the conference and NCDs in general to round off an impressive attempt to raise awareness of chronic diseases among the CARICOM heads of government.

Acknowledgements

The following individuals contributed to research that is summarised in Chapters 3-8, with names given in alphabetical order. Team leaders for the work are in **bold**.

Chapter 3

Ms Alvarado, **Dr Andall-Brereton**, Professor Hambleton, Ms Holder, **Dr Samuels**, Professor Unwin.

Chapter 4

Dr Bailey, Ms Bishop, Dr Bracht, Dr Guell, Dr Harewood, Dr Harris, **Professor Kirton**, Ms Koch, Dr Kulik, Dr Leveridge, **Dr Murphy**, Dr Rollock, Dr Samuels, **Professor Unwin**.

Chapters 5 and 6

Ms Bartholemew, Ms Bishop, Dr Bracht, Ms Hippolyte, **Professor Kirton**, **Professor Knight**, Ms Koch, Dr Kulik, Dr Murphy, **Dr Samuels**.

Chapter 7

Dr Andall-Brereton, Professor Kirton, Ms Koch, Ms Kontio, Ms Lloyd, Dr Rickets, **Dr Samuels**.

Chapter 8

Mr Gabriel, Dr La Foucade, Ms Metivier, **Professor Theodore**.

Chapter 9

This was led by Ms Tull, with input from Ms Bishop, Dr Samuels and Professor Unwin. Please visit <http://www.onecaribbeanhealth.org/about-the-team/> for more details on project team heads below:

Dr Madhuvanti Murphy

National policy responses: Qualitative data collection and analysis

Professor Emeritus Karl Theodore

Tobacco and alcohol taxation

Professor W. Andy Knight

Regional policy responses to NCDs; international impact of the Declaration

Professor John Kirton

National and regional policy responses to NCDs; international impact of the Declaration

Dr C. James Hospedales

Regional mortality and morbidity; dissemination

Sir Trevor Hassell

Dissemination

Dr Godfrey C. Xuereb

Documenting tobacco control measures, studying successful implementation

Team leaders



Professor T. Alafia Samuels, Principal Investigator

Professor Samuels is currently Director of the George Alleyne Chronic Disease Research Centre and Deputy Dean for Graduate Studies and Research in the Faculty of Medical Sciences at the University of the West Indies.

Through work in public health in Jamaica and then with PAHO and CARICOM, Professor Samuels has international project management experience within the Caribbean and excellent links to a range of institutions, including most national ministries of health.

Currently, she is a member of the Barbados National Non-communicable Diseases Commission, and the leader of the Healthy Campus Initiative, a workplace wellness programme at UWI, Cave Hill.

She is the principal author of the Barbados Ministry of Health Strategic Plan of Action for the Prevention and Control of NCDs 2015–2019 as well as the CARICOM Regional NCD Plan 2011–2015. She developed and implemented the Port of Spain evaluation grid, and has reported yearly to the annual Caucus of Caribbean Community Ministers of Health on the status of NCD programmes in the region 2008–2016.

Professor Samuels holds her medical degree from UWI, with an MPH (Masters in Public Health), and a PhD in Chronic Disease Epidemiology; both graduate degrees awarded with honours from Johns Hopkins University.



Professor Nigel Unwin, Co-Principal Investigator

Professor Unwin is an experienced public health professional and epidemiologist with a strong interest and track record in research on NCDs. He is highly experienced in working on, and leading, international public health research projects. Much of his research has been, and continues to be, into the burden, prevention and control of diabetes and cardiovascular disease, including in low- and middle- income country settings.

He has worked with the International Diabetes Federation and the World Health Organisation, including two years with the Diabetes Group at WHO in Geneva. During his time at WHO he was part of the core writing team for *Preventing chronic diseases: A vital investment*. In 2006 he returned from WHO to Newcastle University as Professor in Epidemiology.

In August 2010 the exciting opportunity arose to contribute to establishing graduate programmes in public health at UWI, Cave Hill, and in August 2014 he moved to the George Alleyne Chronic Disease Research Centre, UWI. After more than five and half years at UWI, he left the full time employment of the University to be based, for personal reasons, in the UK again. On the first of April 2016 he became visiting Professor of Population Health Sciences at the George Alleyne Chronic Disease Research Centre, and in the UK is Strategic Lead for Global Health Research at the Centre for Diet and Activity Research, University of Cambridge.

References

1. Irons B, Morris-Glasgow V, Andrus JK, Castillo-Solorzano C, Dobbins JG: **Lessons Learned From Integrated Surveillance of Measles and Rubella in the Caribbean.** *Journal of Infectious Diseases* 2011, **204**:S622-S626.
2. **Small Island Developing States** [<https://sustainabledevelopment.un.org/topics/sids/list>]
3. Samuels TA, Guell C, Legetic B, Unwin N: **Policy initiatives, culture and the prevention and control of chronic non-communicable diseases (NCDs) in the Caribbean.** *Ethn Health* 2012, **17**(6):631-649.
4. Kirton J, Guebert J, Samuels TA, Bracht C, Lennox R, Shaw Z, Koch M: **Controlling NCDs through Summitry: The CARICOM Case Executive Summary.** Available at: <http://www.ghdp.utoronto.ca/pubs/caricom-case-study.pdf>. In.: Global Health Diplomacy Program at the Munk School of Global Affairs, University of Toronto; 2011.
5. Samuels TA, Kirton J, Guebert J: **Monitoring compliance with high-level commitments in health: the case of the CARICOM Summit on Chronic Non-Communicable Diseases.** *Bulletin of the World Health Organization* 2014, **92**(4):270-276b.
6. Ki-Moon B: **Secretary-General's remarks at the Seventh UN-CARICOM General Meeting.** In: *United Nations Secretary General: 2013*; 2013.
7. World Health Organization: **WHA66.10: Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases.** In. Geneva; 2013.
8. United Nations: **Transforming our World: The 2030 Agenda for Sustainable Development United Nations, 2015.** In. New York: United Nations; 2015.
9. **Sustainable Development Goals** [<https://sustainabledevelopment.un.org/sdgs>]
10. Pan American Health Organization: **PAHO Mortality database.** In.; 2011.
11. **Global Burden of Disease Study** [<http://www.healthdata.org/gbd>]
12. **Basic Indicators by Countries and Year** [<http://ais.paho.org/phis/viz/basicindicatorbrowser.asp>]
13. **CARPHA member states health data repository** [<http://carpha.org/Data-and-Publications/-Data-and-Statistics>]
14. **WHO mortality database** [http://www.who.int/healthinfo/mortality_data/en/]
15. **World Population Prospects** [<https://esa.un.org/unpd/wpp/>]
16. Sobers-Grannum N: **Trends in Coronary Heart Disease mortality in Barbados: 1990-2012 (Draft PhD Thesis).** 2016.
17. CDC, WHO: **Global School-based Student Health Survey (GSHS)** In.: Centers for Disease Control and Prevention and World Health Organization; 2016.
18. **Global Youth Tobacco Survey (GYTS)** [<http://www.who.int/tobacco/surveillance/gyts/en/>]
19. Hambleton IR, Howitt C, Jeyaseelan S, Murphy MM, Hennis AJ, Wilks R, Harris EN, MacLeish M, Sullivan L, (USCAHDR) USCAfHDRG: **Trends in Longevity in the Americas: Disparities in Life Expectancy in Women and Men, 1965-2010.** *PLOS ONE* 2015, **10**:e0129778.
20. Morey F, Hambleton IR, Unwin N, Samuels TA: **Ethnic and Gender Disparities in Premature Adult Mortality in Belize 2008-2010.** *PLOS ONE* 2016, **11**:e0163172.
21. World Health Organization: **Global action plan for the prevention and control of noncommunicable diseases 2013 - 2020.** In. Geneva: World Health Organization; 2013.
22. Ordunez P, Prieto-Lara E, Pinheiro Gawryszewski V, Hennis AJM, Cooper RS, Martorell R: **Premature Mortality from Cardiovascular Disease in the Americas – Will the Goal of a Decline of “25% by 2025” be Met?** *PLOS ONE* 2015, **10**:e0141685.

23. Capewell S, Morrison CE, McMurray JJ: **Contribution of modern cardiovascular treatment and risk factor changes to the decline in coronary heart disease mortality in Scotland between 1975 and 1994.** *Heart (British Cardiac Society)* 1999, **81**:380-386.
24. Ford ES, Ajani UA, Croft JB, Critchley JA, Labarthe DR, Kottke TE, Giles WH, Capewell S: **Explaining the Decrease in U.S. Deaths from Coronary Disease, 1980–2000.** *New England Journal of Medicine* 2007, **356**:2388-2398.
25. Commonwealth Secretariat: **Taking up the challenge of NCDs in the Commonwealth: 17 good-practice case studies.** United Kingdom: Commonwealth Secretariat; 2011.
26. Martin D, Luciani S, Prieto E, Hutton M, Kanda T: **SITUATIONAL ANALYSIS OF CERVICAL CANCER PREVENTION AND CONTROL IN THE CARIBBEAN.** In.: PAHO, WHO, HCC; 2013.
27. The Central America Diabetes Initiative (CAMDI): **Survey of Diabetes, Hypertension and Chronic Disease Risk Factors: Belize, San Jose, San Salvador (Santa Tecla), Guatemala City (Villa Nueva), Managua and Tegucigalpa** In. Washington, DC, USA: PAHO/WHO, INCAP and CDC; 2011.
28. Figueroa JP, Ward E, Walters C, Ashley DE, Wilks RJ: **High risk health behaviours among adult Jamaicans.** *The West Indian medical journal* 2005, **54**:70-76.
29. Wilks R, Younger N, Tulloch-Reid M, McFarlane S, Francis D: **Jamaica Health and Lifestyle Survey 2007-8 TECHNICAL REPORT.** 2008.
30. Sobers-Grannum N, Murphy MM, Nielsen A, Guell C, Samuels TA, Bishop L, Unwin N: **Female Gender Is a Social Determinant of Diabetes in the Caribbean: A Systematic Review and Meta-Analysis.** *PLOS ONE* 2015, **10**:e0126799.
31. Sarki AM, Nduka CU, Stranges S, Kandala N-B, Uthman OA: **Prevalence of Hypertension in Low- and Middle-Income Countries.** *Medicine* 2015, **94**:e1959.
32. Kirton JJ: **G20 Governance for a Globalized World.** Farnham: Ashgate; 2013.
33. Kirton J, Guebert J, Samuels TA: **Controlling Non-communicable Disease through Summitry: The New Grand Challenge for Global Health Diplomacy.** In. London; 2011.
34. Pawson R, Tilley N: **Realistic Evaluation.** London: Sage; 1997.
35. Cartwright N, Hardie J: **Evidence-based policy. A practical guide to doing it better.** . Oxford, New York: Oxford University Press; 2012.
36. Unwin N, Samuels TA, Hassell T, Brownson RC, Guell C: **The Development of Public Policies to Address Non-communicable Diseases in the Caribbean Country of Barbados: The Importance of Problem Framing and Policy Entrepreneurs.** *International Journal of Health Policy and Management* 2017, **6**(2):71-82.
37. Green J, Thorogood N: **Qualitative Methods for Health Research,** 2nd Edition edn. London: SAGE; 2009.
38. SocioCultural Research Consultants L: **Qualitative and mixed methods research using Dedoose.**
39. **Milan Declaration on Enhancing Food Security and Climate Adaptation in Small Island Developing States, in the framework of the SAMOA Pathway**
[<https://sustainabledevelopment.un.org/content/documents/8537MilanDeclaration.pdf>]
40. Kirton J, Bracht C, Kulik J, Koch M: **Charting Compliance with the 2007 Port of Spain Summit Commitments on Non-communicable Diseases.** In. Toronto: Global Health Diplomacy Program; 2015.
41. Kirton JJ: **Explaining Compliance with G8 Finance Commitments: Agency, Institutionalization, and Structure.** *Open Economies Review* 2006, **17**(4):459–475.
42. Kirton JJ, Roudev N, Sunderland L: **Making G8 Leaders Deliver: An Analysis of Compliance and Health Commitments, 1996–2006.** *Bulletin of the World Health Organization* 2007, **85**(3):192–199.

43. Kirton JJ, Roudev N, Sunderland L: **Finance and Development Compliance in the G8: The IMF and World Bank Role**. In: *Making Global Economic Governance Effective*. edn. Edited by Kirton JJ, Larionova MV, Savona P. Farnham: Ashgate; 2010.
44. Kirton JJ, Roudev N, Sunderland L, Kunz C: **Explaining Compliance with G8 Leaders' Health Commitments, 1996–2006**. In: *Innovation in Global Health Governance: Critical Cases*. edn. Edited by Cooper AF, Kirton JJ. Farnham: Ashgate; 2009: 257–284.
45. Ramanadhan S, Mendez SR, Rao M, Viswanath K: **Social media use by community-based organizations conducting health promotion: a content analysis**. *BMC Public Health* 2013, **13**(1):1129.
46. Samuels TA, Fraser H: **Caribbean wellness day: mobilizing a region for chronic noncommunicable disease prevention and control**. *Revista Panamericana de Salud Pública* 2010, **28**:472-479.
47. G8 Research Group: **Summit Performance Assessment Coding Manual**. In. Toronto; 2016.
48. Kirton JJ, Kulik J, Bracht C, Guebert J: **Connecting Climate Change and Health Through Global Summitry**. *World Medical and Health Policy* 2014, **6**(1):73-100.
49. Hospedales CJ, Samuels TA, Cummings R, Gollop G, Greene E: **Raising the priority of chronic noncommunicable diseases in the Caribbean**. *Revista Panamericana de Salud Pública* 2011, **30**:393-400.
50. Kirton J: **Health at the Summit of the Americas and the G8 and G20: Lessons Learned**. In. Port of Spain; 2010.
51. Kirton JJ, Guebert J: **Shaping a United Nations High-Level Meeting on Non-communicable Diseases That Delivers**. In. Toronto: Global Health Diplomacy Program; 2011.
52. World Health Organization: **The World Health Organization's Tobacco Tax Simulation Model (WHO TaXSIM)**. In: *World Health Organization: 2013*; 2013: 1-14.
53. Sornpaisarn B, Shield K, Cohen J, Schwartz R, Rehm J: **Elasticity of alcohol consumption, alcohol-related harms, and drinking initiation in low- and middle-income countries: A systematic review and meta-analysis**. *The International Journal of Alcohol and Drug Research* 2013, **2**:45-58.
54. John-Lall R: **Witco Profits Smoking**. *The Trinidad Guardian Newspaper* 2012.
55. WHO: **Package of essential noncommunicable disease interventions for primary health care in low-resource settings**. *Geneva: World Health Organization* 2010:66.
56. Basu S, Vellakkal S, Agrawal S, Stuckler D, Popkin B, Ebrahim S: **Averting Obesity and Type 2 Diabetes in India through Sugar-Sweetened Beverage Taxation: An Economic-Epidemiologic Modeling Study**. *PLoS Medicine* 2014, **11**:e1001582.
57. Brownell KD, Farley T, Willett WC, Popkin BM, Chaloupka FJ, Thompson JW, Ludwig DS: **The Public Health and Economic Benefits of Taxing Sugar-Sweetened Beverages**. *New England Journal of Medicine* 2009, **361**:1599-1605.
58. Cabrera Escobar MA, Veerman JL, Tollman SM, Bertram MY, Hofman KJ, Escobar MaC: **Evidence that a tax on sugar sweetened beverages reduces the obesity rate: a meta-analysis**. *BMC Public Health* 2013, **13**:1072.
59. Colchero MA, Popkin BM, Rivera JA, Ng SW: **Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study**. *BMJ* 2016, **352**.
60. Edward G: **Sinckler Tax Mix**. In: *Daily Nation*. Barbados; 2015.
61. Healthy Caribbean Coalition: **The Implementation of Taxation on Sugar-Sweetened Beverages by the Government of Barbados: A civil society perspective** In: *Series of HCC NCD Policy Briefs Informing Civil Society Advocacy for Action | JULY 2016*. 2016.