

ECLAC SUBREGIONAL
HEADQUARTERS
FOR THE CARIBBEAN

Addressing the adverse impacts of non-communicable diseases on the sustainable development of Caribbean countries

Abdullahi Abdulkadri
Shirelle Floyd
Iskuhi Mkrtchyan
Gina Marajh
Candice Gonzales
Colette Cunningham-Myrie



UNITED NATIONS

ECLAC

Thank you for your interest in this ECLAC publication



Please register if you would like to receive information on our editorial products and activities. When you register, you may specify your particular areas of interest and you will gain access to our products in other formats.



www.cepal.org/en/publications



www.cepal.org/apps

SERIES

STUDIES AND PERSPECTIVES

100

**ECLAC SUBREGIONAL
HEADQUARTERS
FOR THE CARIBBEAN**

Addressing the adverse impacts of non-communicable diseases on the sustainable development of Caribbean countries

Abdullahi Abdulkadri

Shirelle Floyd

Iskuhi Mkrtchyan

Gina Marajh

Candice Gonzales

Colette Cunningham-Myrie



UNITED NATIONS

ECLAC

This document has been prepared by Abdullahi Abdulkadri, Coordinator, Shirelle Floyd, Consultant, Iskuhi Mkrtchyan, Statistics Assistant, Gina Marajh, Research Assistant, Candice Gonzales, Research Assistant, all of the Statistics and Social Development Unit, ECLAC subregional headquarters for the Caribbean, and Colette Cunningham-Myrie, ECLAC Consultant.

The views expressed in this document, which has been reproduced without formal editing, are those of the author and do not necessarily reflect the views of the Organization.

United Nations publication
ISSN: 1728-5445 (electronic version)
ISSN: 1727-9917 (print version)
LC/TS.2021/4
LC/CAR/TS.2021/2
Distribution: L
Copyright © United Nations, 2021
All rights reserved
Printed at United Nations, Santiago
S.20-00964

This publication should be cited as: A Abdulkadri and others, "Addressing the adverse impacts of non-communicable diseases on the sustainable development of Caribbean countries", *Studies and Perspectives series-ECLAC Subregional Headquarters for the Caribbean*, No. 100 (LC/TS.2021/4-LC/CAR/TS.2021/2), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2021.

Applications for authorization to reproduce this work in whole or in part should be sent to the Economic Commission for Latin America and the Caribbean (ECLAC), Documents and Publications Division, publicaciones.cepal@un.org. Member States and their governmental institutions may reproduce this work without prior authorization, but are requested to mention the source and to inform ECLAC of such reproduction.

Contents

Abstract	7
Introduction	9
I. Background	13
A. The 2030 Agenda and the Sustainable Development Goals	14
B. The SIDS Accelerated Modalities of Action (SAMOA) Pathway	14
C. The Global Action Plan for the Prevention and Control of NCDs 2013–2020	15
II. The 2007 Declaration of Port of Spain	17
A. Evaluation of the Declaration of Port of Spain	17
1. The regional institutions impact on members’ compliance with their POS commitments.....	18
2. Regional progress in compliance with the mandate of the 2007 Declaration of Port of Spain.....	19
3. Multisectoral cooperation and the NCD Commissions	20
III. Status of progress in addressing NCD risk factors and achieving the SDG target	21
A. Childhood obesity in the Caribbean.....	21
1. Regional response	22
2. National response.....	23
B. Country analysis.....	23
1. Antigua and Barbuda.....	23
2. The Bahamas.....	25
3. Barbados	27
4. Belize.....	28
5. Cuba.....	30
6. Dominica.....	31
7. Grenada.....	32

8.	Guyana.....	34
9.	Haiti.....	35
10.	Jamaica	36
11.	Saint Kitts and Nevis.....	38
12.	Saint Lucia.....	38
13.	Saint Vincent and the Grenadines.....	40
14.	Suriname	41
15.	Trinidad and Tobago	43
IV.	Progress in preventing and controlling NCDs in the Caribbean.....	45
A.	Global Action Plan (GAP) 2013–2020.....	47
B.	Progress towards the global NCD commitments.....	50
C.	Areas of further action.....	57
V.	Conclusions.....	59
	Bibliography.....	61
	Studies and Perspectives-The Caribbean Series: issues published.....	63

Tables

Table 1	Regional institutions assigned mandates under the 2007 Declaration of POS on non-communicable diseases.....	18
Table 2	The 2007 Declaration of POS commitment indicators by level of compliance by member States	20
Table 3	Childhood levels of overweight or obesity in CARICOM countries.....	22
Table 4	Global NCD commitments progress monitor indicators.....	46
Table 5	Status of Caribbean countries in setting national targets for GAP 2013–2020, 2016	48
Table 6	Performance of Caribbean countries on Indicator 1 of the NCD Progress Monitor, 2020	51
Table 7	Status of the implementation of the NCD global commitments by Caribbean countries in 2020	52

Figures

Figure 1	Trends in NCD risk factors for Antigua and Barbuda, latest available data and 2010 baseline	24
Figure 2	Trends in the achievement of Global Targets on NCDs, Antigua and Barbuda, probability of premature death from NCDs	25
Figure 3	Trends in NCD risk factors for the Bahamas, latest available data and 2010 baseline.....	26
Figure 4	Trends in the achievement of Global Targets on NCDs, the Bahamas, probability of premature death from NCDs	26
Figure 5	Trends in NCD Risk Factors for Barbados, latest available data and 2010 baseline.....	27
Figure 6	Trends in the achievement of Global Targets on NCDs, Barbados, probability of premature death from NCDs	28
Figure 7	Trends in NCD Risk Factors for Belize, latest available data and 2010 baseline	29
Figure 8	Trends in the achievement of Global Targets on NCDs, Belize, probability of premature death from NCDs	29
Figure 9	Trends in NCD Risk Factors for Cuba, latest available data and 2010 baseline.....	30
Figure 10	Trends in the achievement of Global Targets on NCDs, Cuba, probability of premature death from NCDs	31
Figure 11	Trends in NCD Risk Factors for Dominica, latest available data and 2010 baseline	32
Figure 12	Trends in NCD Risk Factors for Grenada, latest available data and 2010 baseline	33

Figure 13	Trends in the achievement of Global Targets on NCDs, Grenada, probability of premature death from NCDs	33
Figure 14	Trends in NCD Risk Factors for Guyana, latest available data and 2010 baseline.....	34
Figure 15	Trends in the achievement of Global Targets on NCDs, Guyana, probability of premature death from NCDs	35
Figure 16	Trends in NCD Risk Factors for Haiti, latest available data and 2010 baseline	35
Figure 17	Trends in the achievement of Global Targets on NCDs, Haiti, probability of premature death from NCDs	36
Figure 18	Trends in NCD Risk Factors for Jamaica, latest available data and 2010 baseline	37
Figure 19	Trends in the achievement of Global Targets on NCDs, Jamaica, probability of premature death from NCDs	37
Figure 20	Trends in NCD Risk Factors for Saint Kitts and Nevis, latest available data and 2010 baseline	38
Figure 21	Trends in NCD Risk Factors for Saint Lucia, latest available data and 2010 baseline.....	39
Figure 22	Trends in the achievement of Global Targets on NCDs, Saint Lucia, probability of premature death from NCDs	39
Figure 23	Trends in NCD Risk Factors for Saint Vincent and the Grenadines, latest available data and 2010 baseline	40
Figure 24	Trends in the achievement of Global Targets on NCDs, Saint Vincent and the Grenadines, probability of premature death from NCDs	41
Figure 25	Trends in NCD Risk Factors for Suriname, latest available data and 2010 baseline	42
Figure 26	Trends in the achievement of Global Targets on NCDs, Suriname, probability of premature death from NCDs	42
Figure 27	Trends in NCD Risk Factors for Trinidad and Tobago, latest available data and 2010 baseline	43
Figure 28	Trends in the achievement of Global Targets on NCDs, Trinidad and Tobago, probability of premature death from NCDs	44
Figure 29	Prevalence of NCD Risk Factors in the Caribbean, 2010–2016.....	50
Boxes		
Box 1	NCD voluntary global targets	16
Diagrams		
Diagram 1	The nine voluntary global targets of the GAP 2013–2020.....	46

Abstract

The high prevalence of non-communicable diseases (NCDs) in the Caribbean calls for sustained efforts to control these diseases and their risk factors. Such efforts are envisaged in several global, regional and national frameworks that exist to address the problem of NCDs, including the disease and economic burdens that they pose to countries around the world. In the Caribbean, the Heads of Government have long articulated the relationship between health and development, a position that aligns well with the 2030 Agenda for Sustainable Development's commitments to ensure that individuals fulfil their potential in a healthy environment. With NCDs contributing the most to disability-adjusted life years globally and considering the ageing of the population and the high and rising rates of childhood obesity in the Caribbean, this study makes a case for renewed focus on addressing NCDs given their potential to constitute an even greater burden in the future. It recognizes the leadership role played by the Caribbean in championing the fight against NCDs on the global stage and notes that the early successes recorded in the subregion in addressing the NCDs seemed to have stalled. Ahead of 2030, the target year for achieving the Sustainable Development Goals (SDGs), the study observes that many Caribbean countries are currently not on track to achieve SDG 3.4 target of reducing premature mortality from non-communicable diseases by one-third.

Introduction

Non-communicable diseases (NCDs) constitute a major burden of disease with a significant economic impact, especially in low- and middle-income developing countries. Data from the World Health Organization (WHO)¹ show that ischaemic heart disease, stroke, and chronic obstructive pulmonary disease (COPD), all of which are NCDs, represented the top three leading causes of death in 2019. Six of the top 10 causes of death worldwide in 2019 were also NCDs², accounting for more than 23 million deaths. This represents only a portion of more than 36 million people who die annually from all NCDs (equivalent to 63 per cent of global deaths). Of this number, 14 million people die prematurely between the ages of 30 and 70 with low- and middle-income countries accounting for 86 per cent of the burden of these premature deaths (WHO 2013).

When measured in terms of disability-adjusted life years (DALYs³), six of the top 10 diseases with the greatest DALYs in 2019 were NCDs. These NCDs moved up in the ranking of leading causes of DALYs from 1990 to 2019 for all ages. Among the most economically active age group of 25–49 years, NCDs represented seven of top 10 leading causes of DALY in 2019. These seven diseases alone combined for a quarter of all DALYs by this age group in that year. Most strikingly, the first nine leading causes of DALYs for the 50–74 years old were NCDs, representing 45 per cent of DALYs for this age group in 2019 (Lancet 2020).

In the Caribbean, NCDs caused between 57 per cent of all deaths in Haiti to 83 per cent in Barbados (WHO 2018). The risk factors of alcohol consumption, tobacco smoking, physical inactivity, and obesity that are common to NCDs are prevalent in the subregion and rising in some countries. Particularly concerning is the high rate of childhood obesity which the Caribbean Heads of Government have recognized to be “the greatest threat to the health of future generations” with the rate of

¹ See WHO’s Global Health Observatory at top-three leading causes of deaths world-wide.

² Consisting of Ischaemic heart disease (1st); stroke (2nd); COPD (3rd); trachea, bronchus, and lung cancers (6th); Alzheimer’s disease and other dementias (7th); and diabetes mellitus (9th).

³ DALYs is a composite measure that combines the weighted years of life lost due to morbidity with the years of life lost due to premature mortality (see Arnesen and Nord, 1999).

overweight and obesity reported to be more than 30 per cent among primary and secondary school populations in the Member States of the Caribbean Community (CARICOM)⁴. The disease burden currently posed by NCDs and the potentially higher burden that would result if these diseases are not prevented or effectively controlled will have dire repercussions for healthcare cost and labour productivity, and by extension the sustainability of Caribbean economies given the ageing of the population and the poor health of the future generation that uncontrolled childhood obesity could cause in adulthood.

Although future healthcare cost is expected to rise, public expenditure on health remains below the recommended level of 6 per cent of Gross Domestic Product (GDP) in the Caribbean, ranging from 0.8 per cent of GDP in Haiti to 4.4 per cent in Barbados (ECLAC 2020). Meanwhile, Nam and Jones (2018) estimated that, primarily due to population ageing, Caribbean countries would need to increase public expenditure on healthcare services from an average of 4.0 to 5.7 per cent of GDP between 2020 and 2045. The prevalence (and growing risk factors) of NCDs will only add to the cost of healthcare. For example, in Trinidad and Tobago, NCDs accounted for 53 per cent of hospital admissions between 2010 and 2015. In Anguilla, about half of all deaths annually are due to cardiovascular disease, cancer, and diabetes and NCDs account for more than 50 per cent of the annual cost of providing healthcare in the country (PAHO 2017). During 2011–2012, the National Health Fund (NHF) in Jamaica paid individual benefits amounting to US\$ 30.65 million for subsidies to cover medication costs for individuals with NCDs (Abdulkadri and others, 2015), representing 7.63 per cent of Government Expenditure on Health for 2011.

The economic burden of NCDs goes beyond the direct cost of care. Indirect cost of disease, especially in developing countries, could form a significant portion of total cost. Abdulkadri, Cunningham-Myrie and Forrester (2009) estimated the economic burden of diabetes and hypertension in CARICOM countries to be between 1.36 per cent (in the Bahamas) and 8 per cent (in Trinidad and Tobago) of GDP. A breakdown of the cost components showed that the indirect costs of mortality and morbidity due to diabetes represented 39 per cent and 73 per cent of the total economic burden in the Bahamas and Trinidad and Tobago, respectively. Also, indirect cost accounted for 47 per cent of the total economic burden of hypertension in Trinidad and Tobago. In another study of the economic burden of hypertension among older persons in Jamaica, the indirect cost associated with the provision of care was the largest share (35 per cent) of all cost categories (Mitchell-Fearon and others, 2017). Globally, the cumulative economic losses of premature deaths from NCDs are estimated to equal US\$ 7 trillion over a 15-year period (WHO, 2013).

The disease burden resulting from the 2019 novel coronavirus disease (COVID-19) has drawn new attention to NCDs and their adverse impacts, not only on health but also on economic productivity. Persons with underlying medical conditions such as cardiovascular disease, diabetes, chronic respiratory disease and cancer have a higher risk of severe COVID-19 disease (WHO and UNDP, 2020), leading to higher probability of death or prolonged period of hospitalization. As of 20 November 2020, there were a total of 50,587 confirmed cases of COVID-19 and 1198 deaths due to the pandemic in CARICOM countries⁵, with most of these deaths linked to NCDs and other underlying medical conditions (ECLAC, 2020). Furthermore, there has been a shift in the care of patients with non-COVID-19 diseases occasioned by the pandemic, which has resulted in the postponement or interruption of care, especially for morbidities and programmatic and control activities related to non-communicable and chronic diseases, notably those associated with the management of hypertension and diabetes (ECLAC and PAHO, 2020; PAHO, 2020). At this time, the magnitude of

⁴ Communique of the regular meeting of the Conference of Heads of Government of CARICOM, 4-6 2017, Grand Anse, Grenada. Available at <https://today.caricom.org/2017/07/07/communique-thirty-eighth-caricom-heads-of-government-meeting/>. Accessed on 26 November 2020.

⁵ As reported in CARICOM Secretariat's Special Topic Statistical Bulletin- COVID-19, Issue 35, 20 November 2020.

DALYs and lost productivity in Caribbean economies due to COVID-19 and the attributable share of NCDs are still to be fully determined. Notwithstanding, it has been reported that the measures taken to control the pandemic, such as lockdowns and physical distancing, in addition to contributing to delayed or lack of healthcare for NCDs, may have resulted in an increase in unhealthy behaviours which include unhealthy diets, alcohol use, and lack of physical activity—all of which constitute risks factors for NCDs (San Lau and others, 2020). In addition, NCDs undermine social and economic development and create widening inequalities among countries therefore the control of NCDs by prevention and interventions offers good return on investment, “generating one year of healthy life for a cost that falls below the annual gross domestic product (GDP) per person.”⁶

A global effort to prevent and control NCDs was underway before COVID-19 and the pandemic, arguably, has made the need for this effort to be ramped up given the association between NCDs and severe illness and death from COVID-19. The fact that most NCDs are preventable makes the case for investment in their prevention and control in order to avoid the enormous economic burden that results from related excess morbidity and premature death, which are projected to increase with an ageing population and a youth population with high rates of overweight or obesity. These arguments are not new. They are reflected in global frameworks, regional declarations, and national policies aimed at addressing NCDs and their risk factors. The 2030 Agenda and the Sustainable Development Goals (SDGs), as the overarching platform for global sustainable development, recognize the need to tackle NCDs. However, COVID-19 poses a formidable threat to progress in the attainment of the SDGs and could potentially cause a reversal in SDG3 targets on Good Health and Well-being, among others.

This fact is not lost on the Inter-American Task Force on NCDs⁷ which has committed to work together “in the prevention and control of NCDs and their risk factors to promote policies and interventions that support health-in-all-policies across the lifespan—with equity—while reinforcing the role of health as an essential component of human capital.”⁸ This collaboration will, among other things, include measures that highlight adverse impacts of NCDs and their risk factors on the achievement of the SDGs and the added challenges that the COVID-19 pandemic poses in this regard. It will also promote stakeholder engagement at the multisectoral level to strengthen policies that address NCD risk factor and improve the health system response for NCDs during and after the pandemic; and foster policy and regulatory interventions that are equitable, accessible, and affordable to support health protection, reduce NCD risk factors, and promote health care services.

Given the foregoing, this study reviews the different frameworks established to address the problem of NCDs and how they have been operationalized in the Caribbean. It also analyzes the NCD profile of member States in conjunction with reported data on progress in achieving global NCD targets. The findings are instrumental in highlighting which countries need to scale up their efforts for these targets to be achieved. It is expected that the attainment of these targets will lead to the improvement of the health and well-being of citizens and contribute to the sustainable development of Caribbean countries.

⁶ United Nations World Health Organization Global Action Plan for the Prevention and control of Noncommunicable Diseases 2013–2020 page 10.

⁷ Members of the Task Force are the Pan American Health Organization, the Organization of the American States, the Economic Commission for Latin America and the Caribbean, the Inter-American Development Bank, the Inter-American Institute for Cooperation on Agriculture (IICA), and The World Bank Group.

⁸ Joint statement on NCDs and COVID-19 by the Inter-American Task Force on NCDs, 14 September 2020, paragraph 8.

I. Background

The Caribbean has historically placed great emphasis on the relationship between health and development. In 2003, CARICOM Heads of Government underscored this by asserting in the Nassau Declaration that “the health of the Region is the wealth of the Region.”⁹ This led to the establishment, in the same year, of the Caribbean Commission on Health and Development (CCHD), set up to give substance to the declaration. In its report submitted in 2006, the CCHD emphasized that “a healthy population is an essential prerequisite for the economic growth and stability of the Caribbean”¹⁰ (PAHO/CARICOM 2006, p. xiii) and identified NCDs as major contributors to overall mortality while recommending that they be tackled with a vigour that had been absent. Such an approach is what was envisaged in the *Declaration of Port of Spain: Uniting to Stop the Epidemics of Chronic NCDs*.¹¹

The impressive public health response to the Declaration of Port of Spain propelled the Caribbean to take the fight against NCDs to the global scene with the convening by the United Nations (UN) of the High-Level Meeting on Non-communicable Diseases in September 2011 and the adoption, by consensus, of the resolution titled “Political Declaration of the High-Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases”¹² in which World Leaders acknowledged the challenges posed to development by the global burden and threat of NCDs which undermine social and economic development and threaten the achievement of internationally-agreed development goals. Of particular significance, the Political Declaration took note of the Declaration of Port of Spain and reiterated the “urgent need for greater measures at global, regional and national levels to prevent and control non-communicable diseases in order to contribute to the full realization of the right of everyone to the highest attainable standard of physical and mental health.”¹³

⁹ Nassau Declaration on Health 2001: The Health of the Region is the wealth of the Region.

¹⁰ See the full report at: http://iris.paho.org/xmlui/bitstream/handle/123456789/9995/9789768082206_eng.pdf?sequence=1&isAllowed=y.

¹¹ See <https://caricom.org/declaration-of-port-of-spain-uniting-to-stop-the-epidemic-of-chronic-ncds/>.

¹² See UNGA resolution A/66/LI.

¹³ UNGA resolution A/66/LI, paragraph 6.

Since the first meeting in 2011, two high-level meetings on NCDs have been held at the UN General Assembly (UNGA). The high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of NCDs was held in July 2014¹⁴ and the third high-level meeting of the General Assembly on the prevention and control of NCDs was held in September 2018¹⁵. The third meeting resulted in another political resolution appropriately titled *Time to deliver: accelerating our response to address non-communicable diseases for the health and well-being of present and future generations*.

A. The 2030 Agenda and the Sustainable Development Goals

The 2030 Agenda for Sustainable Development is the overarching global framework for sustainable development. It represents a plan of action for people, planet and prosperity which seeks to strengthen peace and build partnerships—the so called 5Ps. Through its 17 Sustainable SDGs and 169 targets, the global Agenda is designed to stimulate action towards sustainable development in all its ramifications. For the People component of the Agenda, world leaders committed to “end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment” (United Nations, 2015, p. 3).

A healthy environment starts with the health and wellbeing of individuals and non-communicable diseases constitute a huge global burden of disease. SDG3 is dedicated to ensuring healthy lives and promoting well-being for all at all ages and has a specific target for NCDs, which is to reduce premature mortality from NCDs by one third through prevention and treatment by the year 2030 (Target 3.4). This is particularly relevant for the Caribbean where NCDs accounted for more than 80 per cent of all deaths in seven¹⁶ countries in 2016 compared to the global average of 63 per cent.

The third UNGA high-level meeting on NCDs is particularly significant because it offered the first opportunity to address these diseases since the adoption of the SDGs. Consequently, Heads of State and Government, in the meeting’s political declaration, committed to implement a set of cost-effective, affordable and evidence-based interventions and good practices, based on national priorities and circumstances, to promote health and treat people with NCDs as well as protect those at risk of developing them.

B. The SIDS Accelerated Modalities of Action (SAMOA) Pathway

The commitments made at the third UNGA high-level meeting on NCDs are in alignment with those espoused in the Small Island Developing States (SIDS) Accelerated Modalities of Action (SAMOA) Pathway¹⁷ earlier in 2014. The SAMOA Pathway recognizes health as a precondition for and an outcome and indicator of the three dimensions of sustainable development – economic, social, and environmental. In particular, it reaffirms the commitment of SIDS to support the establishment of 10-year targets (2015–2025) and strategies to reverse the spread and severity of NCDs as well as implement well-planned and value-added interventions that strengthen health promotion, promote primary health care and develop accountability mechanisms for monitoring them.

A mid-term review of the SAMOA Pathway was conducted in 2019. At the General Assembly, a political declaration of the high-level meeting to review progress made in addressing the priorities of

¹⁴ See outcome document A/RES/68/300.

¹⁵ See UNGA resolution A/RES/73/2.

¹⁶ These countries are Antigua and Barbuda, Barbados, Grenada, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.

¹⁷ See UNGA resolution A/RES/69/15.

SIDS through the implementation of the SAMOA Pathway¹⁸ was issued. This resolution called for action in strengthening national health systems to prevent, detect and respond to communicable and non-communicable diseases and underscored the need to address obesity and undernourishment by calling for action to further promote sustainable food systems in order to ensure food security and improve nutrition and promote healthy diets and lifestyles.

Specifically, the political declaration called on the “World Health Organization to urgently support the implementation of relevant resolutions, in line with the implementation of the health objectives set out in the Samoa Pathway, and call upon other relevant specialized agencies, funds and programmes to coordinate and advance initiatives to address the persistent and emerging health issues of small island developing States.”¹⁹

The outcome of the Caribbean SIDS preparatory meeting for the mid-term review of the SAMOA Pathway, contained in the San Pedro Declaration, is more explicit on the health challenges posed by NCDs and their developmental impact. It identifies the rise in NCDs in SIDS with factors such as ageing of the population and the early initiation of unhealthy behaviours. It stressed the importance of improving access to healthcare services that, among other things, would contribute to reduction in the risk factors for NCDs, laying emphasis on the promotion of healthy lifestyles among children and adolescents “through school programmes, public media, including skills to resist tobacco use and other substance abuse, healthy eating and affordable nutrition, movement and exercise, tax measures on sugary drinks and all foods with added sugar and stress management and mental health care.”²⁰ The meeting also called for enhanced implementation of the resolutions that had been adopted at the World Health Organization (WHO) to support the implementation of health-related objectives of the SAMOA Pathway.

In practice, the Global Action Plan for the Prevention and Control of NCDs 2013–2020 (WHO 2013) represents a comprehensive plan for operationalizing the previous commitments made by Heads of State and Government in the Political Declaration on the Prevention and Control of NCDs, recognizing the primary role and responsibility of Governments in responding to the challenge of NCDs and the important role of international cooperation to support national efforts.

C. The Global Action Plan for the Prevention and Control of NCDs 2013–2020

Endorsed in May 2013 by the 66th World Health Assembly (resolution WHA66.10), the Global Action Plan for the Prevention and Control of NCDs 2013–2020 (GAP 2013–2020) builds on what has already been achieved by the previous action plan of 2008–2013, which sought to tackle the growing public health burden imposed by NCDs. GAP 2013–2020 offers a focused strategy of various policy options for different stakeholders that include Member States, WHO, other United Nations organizations and intergovernmental organizations, non-governmental organizations (NGOs) and the private sector which, when implemented collectively between 2013 and 2020, are expected to contribute to achieving the plan’s vision to rid the world of avoidable burden of NCDs. The goal of the plan is to reduce the preventable and avoidable burden of morbidity, mortality and disability due to NCDs through multisectoral collaboration and cooperation at all levels (national, regional and global levels) in order to attain the highest attainable standards of health and productivity for the populations at every age such that NCDs would no longer pose a barrier to well-being or socioeconomic development. This ambitious goal is supported by six objectives and nine voluntary targets (see box 1).

¹⁸ See UNGA resolution A/74/L.3.

¹⁹ UNGA resolution A/74/L.3, paragraph 31(b).

²⁰ San Pedro Declaration, paragraph 37.

It comes with a robust global monitoring framework that includes 25 indicators for measuring progress in the attainment of the voluntary targets²¹.

The plan focuses on four major NCDs, namely cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes but acknowledges that there are other health conditions closely associated with these diseases²². It also recognizes that the conditions in which people live and work and their lifestyles influence their health and quality of life.

Box 1
NCD voluntary global targets²³

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

Source: WHO (2013).

The timeline of GAP 2013–2020 involves tracking implementation from 2015 against a baseline of 2010. Governments are expected to set NCD targets for 2025 based on national circumstances. Within the global monitoring framework, determination of the progress made in the GAP 2013–2020 would be done in conjunction with the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Noncommunicable Diseases. The World Health Organization's NCD Progress Monitoring Report 2020²⁴ and the Pan-American Health Organization (PAHO)'s NCD Progress Monitor 2020 Scorecard for the Americas²⁵ are two other resources used to assess progress in the implementation of the plan. These resources and data reported by WHO are used in this study to conduct a country analysis of the progress towards the global targets.

²¹ The first target of 25 per cent relative reduction in premature mortality from NCDs by 2025 corresponds to target 3.4. of the SDGs: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being (as measured by indicator 3.4.1: Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease).

²² Including other NCDs such as renal, endocrine, neurological, haematological, gastroenterological, hepatic, musculoskeletal, skin and oral diseases and genetic disorders as well as mental disorders, disabilities, including blindness and deafness and violence and injuries.

²³ United Nations World Health Organization Global Action Plan for the Prevention and control of Noncommunicable Diseases 2013–2020 page 5.

²⁴ World Health Organization's NCD Progress Monitoring Report 2020. <https://www.who.int/publications/i/item/ncd-progress-monitor-2020>.

²⁵ Pan-American Health Organization's NCD Progress Monitor 2020 Scorecard for the Americas. <https://iris.paho.org/handle/10665.2/51952>.

II. The 2007 Declaration of Port of Spain

The Caribbean has been progressive in taking steps to address the persistent burden of NCDs and their impacts on sustainable development. This cooperation at the highest level of government is exemplified in the 2007 Declaration of Port of Spain (POS) by the CARICOM Heads of Government to tackle the problem of NCDs. Since its proclamation, the Declaration has bolstered regional planning and action towards the elimination and reduction of NCDs and their concomitant risk factors.

An outcome of the first summit on NCDs by the CARICOM Heads of Government in Port of Spain, Trinidad and Tobago, the Declaration of Port of Spain contained 26 commitments for NCD prevention and control; including the reduction of the associated risk factors and the improvement in access to preventative care. Collaboration among all sectors of the society is an essential component of the Declaration. This, along with monitoring and evaluation of commitments toward meeting the defined mandates has been critical to ensure accountability and follow-up.

A. Evaluation of the Declaration of Port of Spain

An evaluation of the Declaration of Port of Spain was performed by The University of the West Indies (UWI) in collaboration with the Caribbean Public Health Agency (CARPHA), the Healthy Caribbean Coalition (HCC), the University of Toronto on behalf of CARICOM, and PAHO/WHO during 2014–2016. The Port of Spain Declaration Evaluation (POSDEVAL) project was aimed at assessing regional progress in the commitments to and achievement of the mandate of the Declaration. The POSDEVAL report (POSDEVAL Research Group, 2017) detailed regional progress in dealing with NCDs, including those related to policies, plans and programs as well as their impacts on the resulting trend of NCDs and their risk factors. It identified trends and successes in and implementation and compliance with the mandate of the Declaration.

1. The regional institutions impact on members' compliance with their POS commitments

Kirton and others (2018) examined the longer-term regional and global impacts of the Declaration of POS by assessing CARICOM members' compliance with the Declaration's mandate. In particular, they evaluated how regional institutions aided compliance of member States to agreed commitments.

The Declaration assigned Caribbean regional institutions the responsibility for meeting specific commitments (see table 1). The evaluation revealed that some institutions were timelier than others in addressing some or all of their commitments, resulting in non-uniformity in compliance among member States.

Table 1
Regional institutions assigned mandates under the 2007 Declaration of POS on non-communicable diseases

Category	Regional institution(s)
Pan American Health Organization (PAHO)	<ul style="list-style-type: none"> • Caribbean Food and Nutrition Institute (CFNI) • Caribbean Epidemiology Centre (CAREC)
Caribbean Community (CARICOM)	<ul style="list-style-type: none"> • CARICOM Cooperation in Health (CCH) Secretariat • Office of Trade Negotiation (OTN) (previously Caribbean Regional Negotiating Machinery) • Caribbean Regional Organization for Standards and Quality (CROSQ) • Caribbean Public Health Agency (CARPHA) (operational since 2013) • Caribbean Agricultural Research and Development Institute (CARDI)
Associate	<ul style="list-style-type: none"> • The University of the West Indies (UWI)
Regional civil society	<ul style="list-style-type: none"> • Healthy Caribbean Coalition (HCC) (established 2008)

Source: Kirton and others (2018).

Three main determinants of compliance with the commitments under the Declaration were identified as: (i) institutional legitimacy, (ii) material resources, and (iii) alignment of institutional mandates with the commitments.

(i) Institutional legitimacy

The 2007 Declaration of POS was found to reinforce the institutional legitimacy of pre-existing regional institutions. At the same time, it ascribed legitimacy to new regional institutions created after and as a result of the Declaration. The evaluation found that this legitimacy was directly correlated with stakeholder engagement and compliance. Contained in the Declaration was a mandate establishing civil society as a critical partner in the prevention and control of NCDs. This is believed to have legitimized the HCC which has led to the coalition's successful engagement with stakeholders. The evaluation also found that compliance of member States was greater when collaboration involved PAHO-related institutions, the UWI, and CCH than for CARICOM-related institutions (Caribbean Regional Organization for Standards and Quality and Office of Trade Negotiation).

(ii) Material resources

The evaluation found that resource-strapped regional institutions struggled to address the commitments outlined in the Declaration. Their successes were largely dependent on their ability to utilize existing technical and financial resources or source additional funding. It was found that some were able to utilize budgetary allocations from larger bodies like PAHO for projects while others like HCC were able to source international grants to support its advocacy efforts. Furthermore, regional institutions such as CARPHA formulated strategic partnerships to lessen their financial and technical constraints. The evaluation noted that access to technical and financial resources also aided the legitimacy of regional institutions.

(iii) Alignment of institutional mandates with the commitments

Regional institutions with already aligned mandates had a greater implementation response as they utilized existing mechanisms and resources. These institutions did not have to make extra effort to achieve the commitments unlike those that were assigned mandates outside of their existing institutional purview. The evaluation showed that the activities of CFNI, CARDI, CAREC, CCH, and OTN were already aligned with their assigned mandates under the Declaration. For instance, OTN had made the connection between health and trade and reviewed the use of trade policies to address NCDs. Similarly, the CCH Secretariat had an established regional mechanism for coordinating stakeholder consultation and developing regional health frameworks and strategic plans which was already part of its mission.

Kirton and others (2018) concluded that the implementation of the commitments set forth in the 2007 Declaration of Port of Spain was most successful when mandates were aligned with preexisting interests. This led to greater compliance by member States as they were more inclined to adopt recommendations from those regional institutions.

The POSDEVAL found that two regional institutions (CARPHA and CCH Secretariat) and two PAHO decision making bodies (CFNI and CAREC²⁶) were critical to the implementation of the commitments. These implementing authorities included health ministers and other health officials who shared similar health interests. In fact, these actors played a key role in convening the 2007 POS Summit and were intimately aware of the directives contained in the Declaration. Since its establishment, CARPHA has been instrumental in leading discourse and engagement with national and regional implementing bodies. The evaluation called for the funding of CARPHA to lead the strengthening of regional institutions as the Caribbean seeks to prevent and control the rising burden of NCDs. The evaluation further emphasized the need for CARICOM to show global leadership in tackling NCDs.

2. Regional progress in compliance with the mandate of the 2007 Declaration of Port of Spain

Although the political commitment of the Declaration created an opportunity to stem the rising NCD burden in the Caribbean, individual countries experienced a range of barriers in putting the mandate into action.

Member States have recorded varied levels of policy development and implementation which was noted to be directly related to a country's size, resources and the overall burden of NCDs. Samuels and Unwin (2018), in their evaluation, noted that no CARICOM member State had implemented all the commitments outlined in the mandate of the Declaration. They identified only four countries (the Bahamas, Barbados, Jamaica, and Trinidad and Tobago) as most compliant having met at least 65 per cent of the indicators. The majority of the member States (12 countries or 60 per cent) was rated to have medium compliance.

The 2018 evaluation identified two main barriers to the implementation of the commitments: (i) capacity- measured by population size and (ii) GDP per capita. The evaluation identified that there was a clear relationship between these variables and the number of commitments achieved. It found that countries with additional capacity or higher GDP per capita were more likely to implement more of the commitments set out in the Declaration. In confirming the findings reported by Kirton and others (2018), Samuels and Unwin (2018) observed that compliance with the Declaration's mandates was highest among those countries for which support was available from regional organizations. The analysis further showed that there was high level of compliance among CARICOM member States on 8 out of 26 (31 per cent) of the indicators, medium compliance on 14 indicators (54 per cent), and low compliance on 4 indicators (15 per cent) (see table 2). Highest compliance was observed for the ratified Framework Convention on Tobacco Control (FCTC) and the establishment of Caribbean Wellness Day

²⁶ CFNI and CAREC merged in 2013 to form CARPHA.

(CWD), which garnered support from WHO, PAHO, CARPHA and HCC. On the other hand, there has been little progress made in food and nutrition-related commitments, in particular the removal of trans fat foods, trade agreements and the mandatory labelling of food displaying nutritional content. The review noted that there was no support from regional organizations pertaining to these indicators.

Table 2
The 2007 Declaration of POS commitment indicators by level of compliance by member States

High compliance	Medium compliance	Low compliance
<ul style="list-style-type: none"> • FCTC ratified • CWD multi-sectoral, multi-focal celebrations • NCD plan • Global Youth Tobacco Survey • Global School Health Survey • Ongoing, mass physical activity (PA) or new public PA spaces • STEPS or equivalent survey • Minimum Data Set reporting 	<ul style="list-style-type: none"> • National NCD Commission convened • Smoke-free indoor public places • Multi-sector food & nutrition plan implemented • QOC CVD or diabetes demonstration project • Multi-sectoral NCD Commission appointed and functional • Mandatory physical activity in all grades in schools • NCD budget • Policy & standards promoting healthy eating in schools implemented • NCD communications plan • Chronic Care Model/NCD treatment protocols in ≥ 50 per cent PHC facilities • ≥ 30 days per year media broadcasts on NCD control (risk factors, treatment) • Tobacco taxes > 50 per cent sale price • Advertising, promotion, & sponsorship bans on tobacco 	<ul style="list-style-type: none"> • ≥ 50 per cent of public and private institutions with physical activity and healthy eating programs • Mandatory provision for PA in new housing developments • Mandatory labeling of packaged foods for nutrition content • Trade agreements utilized to meet national food security & health goals • Trans fat free food supply

Source: ECLAC based on data from Samuels and Unwin (2018).

3. Multisectoral cooperation and the NCD Commissions

There is an understanding that in order to accelerate action, the barriers that impeded the implementation of the Declarations' mandate must be efficiently dealt with. The Declaration called for National Commissions²⁷ on NCDs to promote and carry out prevention and control of NCDs in the Caribbean. Along this line, in their evaluation of policy responses to NCDs, Murphy and others (2018) suggested that cooperation across sectors, within countries, and across countries might be the key to overcoming some of the implementation challenges and emphasized the importance of well-functioning NCD commissions. They found that those countries with functional commissions were better poised to implement the mandate with 15 out of 20 CARICOM countries convening NCD Commissions as a commitment to the Declaration. Of these, 10 NCD Commissions were judged to be functional (HCC, 2014). The evaluation revealed that there were limitations to translating the recommendations of the commissions to policy and found that the best circumstance for action was when an NCD Focal Point or Ministry of Health is aligned to the Commissions' agenda. However, many NCD Commissions were not provided with technical staff or had staff with dual reporting function to the Ministry of Health and the NCD Commission. Also limiting the implementation of policies and plans was the preexistence of other government agreements such as the WTO tariff rules. Additionally, change in political administration has been cited as a factor that hampered the progress of the Commissions (HCC, 2018).

²⁷ The NCD Commissions were established as quasi-advisory boards which represented multisectoral partnerships allowing for collaboration among civil society, private sector and non-public health sectors.

III. Status of progress in addressing NCD risk factors and achieving the SDG target

A. Childhood obesity in the Caribbean

Globally, the prevalence of overweight and obesity among children and adolescents (5 to 19 years) has dramatically increased from about 4 per cent in 1975 to over 18 per cent in 2016, with an estimated 38 million children under the age of 5 years being overweight or obese in 2019 (WHO, 2019). In Latin America and the Caribbean, the prevalence of overweight is marginally higher, affecting 7 per cent of children under the age of 5 years, compared to the global average of 6 per cent (FAO and PAHO, 2017). While the Caribbean has made considerable progress in the overall health status of children and adolescents relating to infant mortality rates, reduced infectious diseases and availability of vaccine for preventable diseases, the growing trend of childhood overweight and obesity presents a public health challenge. Available data show that there has been a significant rise in overweight and obesity among Caribbean children and adolescents. Current estimates show that the prevalence rate of overweight and obesity among persons aged 5–19 years ranges between 23.4 per cent in Saint Lucia to 35.8 per cent in the Bahamas (see table 3). If left unchecked, childhood and adolescent overweight and obesity will have adverse consequences for the health and productivity of the subregion's future adult population.

The problem of overweight and obesity in children is being driven by a nutritional transition, with a move away from locally grown food, including fruits, vegetables and meats to easily accessible processed fast food and beverages with high amounts of fat and sugar (Ballayram and others, 2015). The Caribbean has also seen an increase in sedentary lifestyles, with less than a third of school children aged 13–15 years attaining the recommended level of physical activity (HCC, 2017). Overweight and obesity in the younger populations in the Caribbean is one of the main predictors of the prevalence of NCDs in adulthood, which has further implications for future health systems, labour productivity and sustainable development.

Table 3
Childhood levels of overweight or obesity in CARICOM countries
(Percentage of both sexes)

Country	Age group		
	5–9 years	10–19 years	5–19 years
Antigua and Barbuda	29.6	25.3	26.7
Bahamas, The	39.5	34	35.8
Barbados	30.6	26.1	27.6
Belize	31.4	27	28.5
Dominica	35.7	31.1	32.6
Grenada	29.2	24.9	26.4
Guyana	27.5	23.7	24.9
Haiti	30.7	25.9	27.6
Jamaica	33	28.3	29.8
Saint Kitts and Nevis	30.8	26.5	27.9
Saint Lucia	26.1	22.3	23.4
Saint Vincent and the Grenadines	31.9	27.5	28.9
Suriname	34.4	29.6	31.1
Trinidad and Tobago	27.6	23.3	24.9

Source: Healthy Caribbean Coalition, Childhood Obesity Factsheets (December 2019; based on WHO 2016 estimates) [<https://www.healthycaribbean.org/obesity-fact-sheets/>].

1. Regional response

The Caribbean subregion has long recognized overweight and obesity in children as a public health issue, and the importance of its control in NCD prevention and control. Regional frameworks dating as far back as 1984 called for joint action in health. More recently, CARPHA developed a regional “Plan of Action for Promoting Healthy Weights in the Caribbean: Prevention and Control of Childhood Obesity (2014–2019)” which seeks to halt and reverse the rise in child and adolescent obesity in the Caribbean by 2025, through the implementation of technical cooperation with member States. The plan is predicated on four pillars:

- (i) Socio-ecological Approach: supporting countries to implement effective measures to transform the environments in which Caribbean children live, learn and play.
- (ii) Lifestyle Perspective: supporting the design and implementation of evidence-based interventions to bring about behaviour change of children, their families and their communities.
- (iii) Care and Support: availability of adequate youth-friendly healthcare and psychosocial services for the already overweight or obese or for those who are at higher risk.
- (iv) Capability and capacity development: providing a platform of support to bolster country capacity to undertake the activities identified in Pillars 1 – 3, with a focus on the delivery systems in key sectors of health, education and trade, as well as on developing capacity to build and maintain strong partnerships among government, civil society and private sector organizations.

The implementation of this plan is expected to meaningfully contribute to improving the health of young people in the Caribbean in contribution to an overall improvement in health and well-being.

2. National response

Several initiatives on childhood obesity prevention (COP) are being implemented at the national level²⁸. Through policies, countries have taken steps to address food and nutrition deficiency among their populations in alignment with regional and global frameworks. In addition to NCD policies and plans that focus on healthy lifestyles, countries have embarked on initiatives specifically aimed at preventing childhood obesity. Antigua and Barbuda and Dominica have implemented taxes on fast food and sugary drinks while Guyana and Saint Lucia have introduced subsidies on local fruits and vegetables. Additionally, mandatory physical education and nutritional guidelines have been streamlined in most Caribbean schools. Following the launch of “Caribbean Moves” initiative in 2018, Barbados, Jamaica, Saint Kitts and Nevis, and Trinidad and Tobago initiated their national versions of health promotion campaigns to encourage and sensitize their populations to live healthier lifestyles to reduce the incidence of NCDs. Governments have also promoted school programmes such as “Water Wednesdays” to encourage the increased consumption of water as a healthier alternative to sugar-sweetened beverages and implemented “Fruit Fridays” to encourage the inclusion of more fruits and vegetables for a balanced diet instead of sugar-laden and sodium rich snacks.

B. Country analysis

WHO periodically produces NCD profiles²⁹ for Caribbean countries. The 2018 series contained information reported by countries for 2016 and provided an update on the status of NCD behavioural and biological risk factors in each country. Furthermore, data from the global monitoring framework for the Global Action Plan are made available in WHO/PAHO databases that include the NCD Country Capacity Survey Results Tool, NCD Progress Monitor Scorecard, and Global Status Report on NCDs. Using these sources, a country analysis of the status of NCDs was performed. In all analyses, 2010³⁰ was used as the baseline but the year of latest available data³¹ varied by country. Analysis of progress in meeting the internationally-agreed target on the reduction of mortality from NCDs is based on WHO’s data on the probability of premature death due to NCDs, corresponding to Indicator 1³² of the GAP 2013–2020 and Indicator 3.4.1³³ of the SDGs. Additionally, for countries starting from a baseline of relatively low mortality from NCDs, a long-term objective of reaching 9.3 per cent³⁴ mortality rate, equivalent to the average of the five best performing countries, may offer a relevant but higher additional benchmark.

1. Antigua and Barbuda

There is a noticeable sex difference in the trends of NCD risk factors in Antigua and Barbuda since 2010. Relatively fewer men than women had obesity and raised blood glucose while the reverse holds for alcohol consumption and raised blood pressure. Although already at a lower alcohol consumption level

²⁸ For a comprehensive snapshot of national actions, see <https://www.healthycaribbean.org/wp-content/uploads/2019/12/COPS-Grid-December-2019-WEB.pdf>.

²⁹ See <https://www.who.int/nmh/countries/en/>.

³⁰ Baseline data for all Risk Factors are taken from “GLOBAL STATUS REPORT on noncommunicable diseases 2014” WHO, https://apps.who.int/iris/bitstream/handle/10665/148114/9789241564854_eng.pdf?sequence=1.

³¹ Current data (latest available) are taken from “Noncommunicable diseases country profiles 2018” WHO, <https://www.who.int/nmh/countries/en/>.

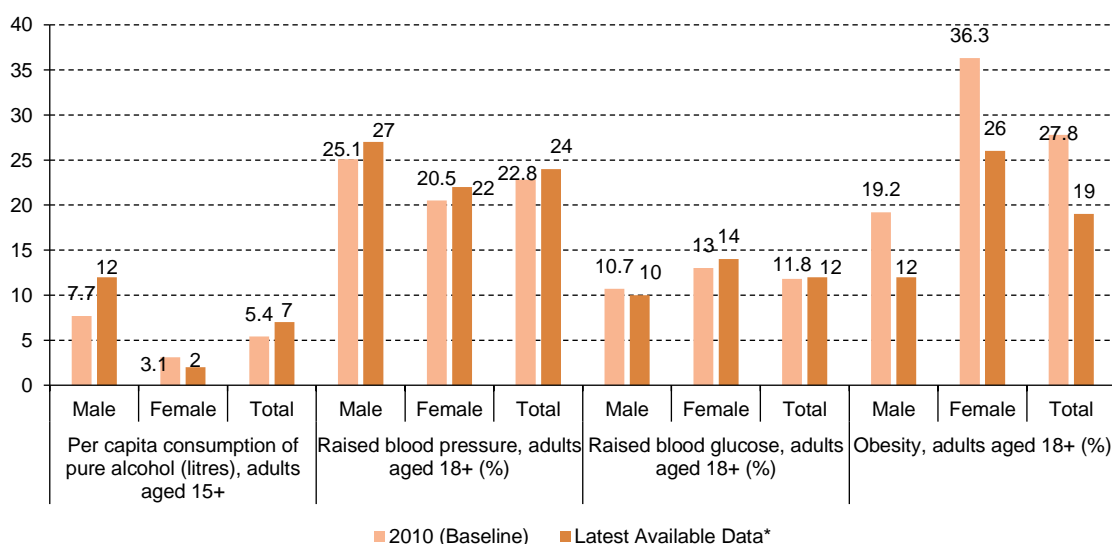
³² Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases. For metadata on how this probability is estimated, see <https://unstats.un.org/sdgs/metadata/files/Metadata-03-04-01.pdf>.

³³ Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease.

³⁴ Based on the Sustainable Development Report 2020.

than men, the average annual consumption of pure alcohol among women reduced from 3.1 litres in 2010 to 2 litres in 2016 while that of men increased significantly from 7.7 to 12 litres over the same period. On the other hand, the prevalence of raised blood glucose decreased marginally for men from 10.7 per cent in 2010 to 10 per cent in 2014 but increased marginally for women from 13 to 14 per cent over the same period. Obesity prevalence decreased significantly for both sexes during 2010–2016 while the rate of raised blood pressure among the population remained high and even increased in 2015 from the 2010 rate (see figure 1).

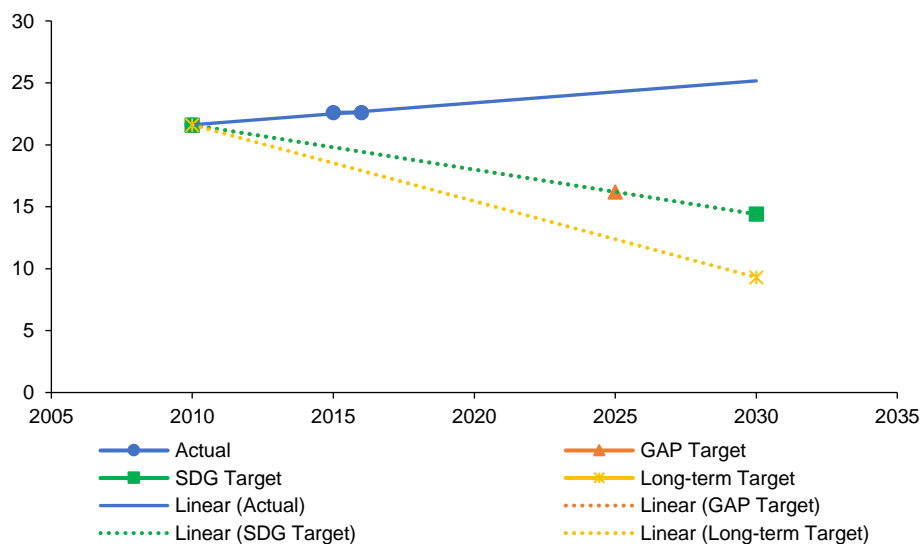
Figure 1
Trends in NCD risk factors for Antigua and Barbuda,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for consumption of alcohol and obesity; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

These are not encouraging signs for the progress of NCD prevention or control in Antigua and Barbuda. As figure 2 shows, the trend in the probability of premature death due to NCDs, which increased from 21.6 per cent in 2010 to 22.6 per cent in 2016, signals an increasing burden of disease from NCDs contrary to the reduction needed to achieve the SDGs and GAP 2013–2020 targets. A drastic and sustained reduction is required if the country is to achieve these targets. An even more drastic reduction is needed to achieve the long-term objective of reaching a 9.3 per cent premature mortality rate.

Figure 2
Trends in the achievement of Global Targets on NCDs, Antigua and Barbuda,
probability of premature death from NCDs
(Percentage)



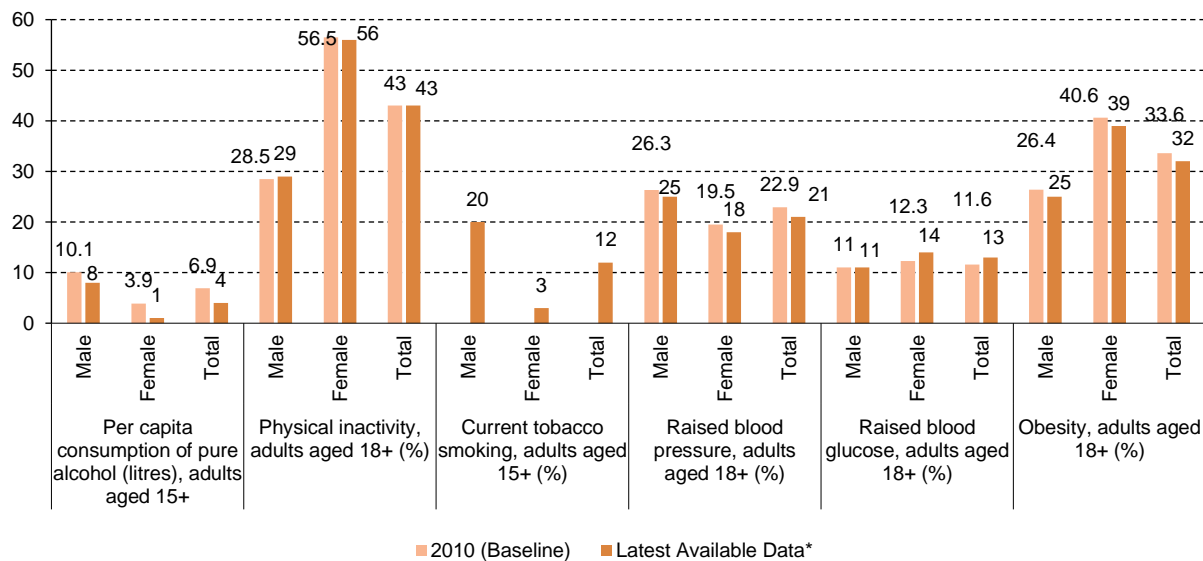
Source: ECLAC based on PAHO/WHO data.

2. The Bahamas

At an average prevalence rate of 43 per cent for physical inactivity and 32 per cent for obesity, these two risk factors remained high and stagnant in the Bahamas among men and women, although women recorded significantly higher rates than men (see figure 3). There has been progress in the reduction of average alcohol consumption and raised blood pressure for both sexes although women performed better than men during 2010–2015/2016. Prevalence of tobacco smoking was also noticeably higher among men in 2016 but there were no data available for 2010 to indicate if this risk factor was trending in the right direction.

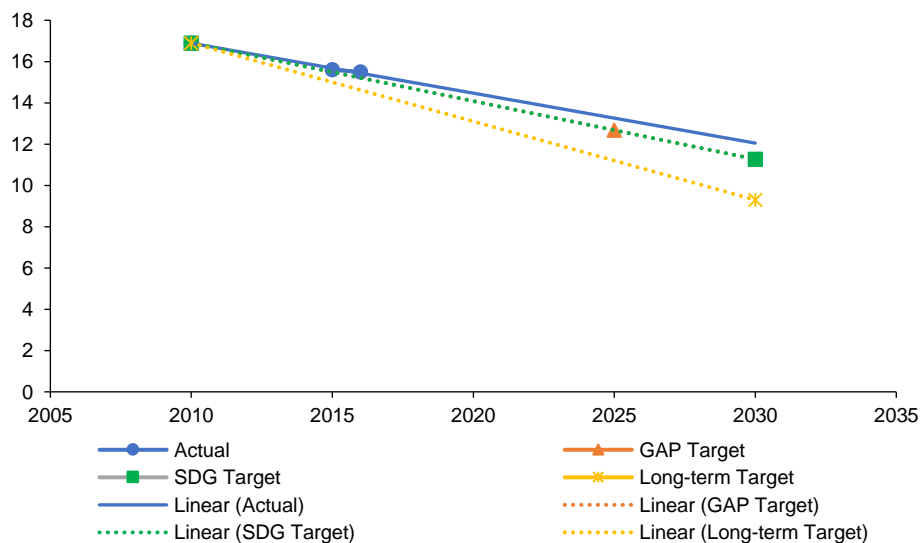
As figure 4 shows, the Bahamas is well-positioned to achieve the SDG and GAP 2013–2025 targets but must maintain steady progress in reducing some risk factors while enhancing efforts on others. However, more needs to be done if the country is to achieve the longer-term objective of reaching 9.3 per cent mortality rate for NCDs.

Figure 3
Trends in NCD risk factors for the Bahamas,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

Figure 4
Trends in the achievement of Global Targets on NCDs, the Bahamas,
probability of premature death from NCDs
(Percentage)

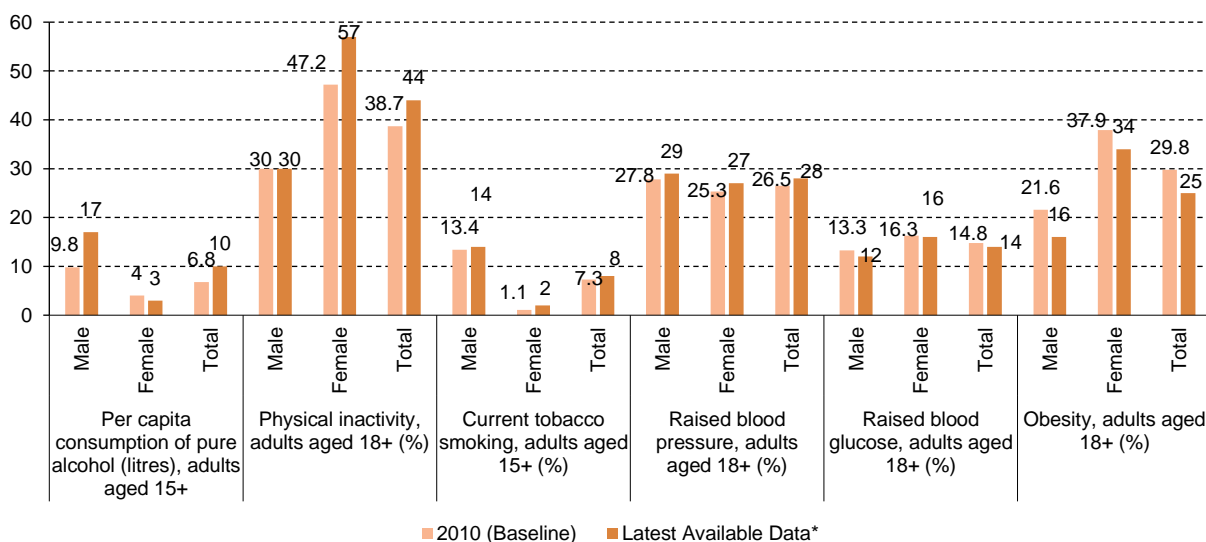


Source: ECLAC based on PAHO/WHO data.

3. Barbados

Barbados has recorded significant reduction in the rate of obesity, more so for men (from 21.6 per cent in 2010 to 16 per cent in 2016) than women (from 37.9 per cent in 2010 to 34 per cent in 2016). Current tobacco use, raised blood pressure and raised blood glucose have remained stagnant or recorded marginal improvement since 2010. On the other hand, average consumption of pure alcohol increased sharply for men in 2016 (17 litres) compared to 2010 (9.8 litres) while prevalence of physical inactivity rose sharply for women in 2016 (57 per cent) compared to 2010 (47.2 per cent) (see figure 5).

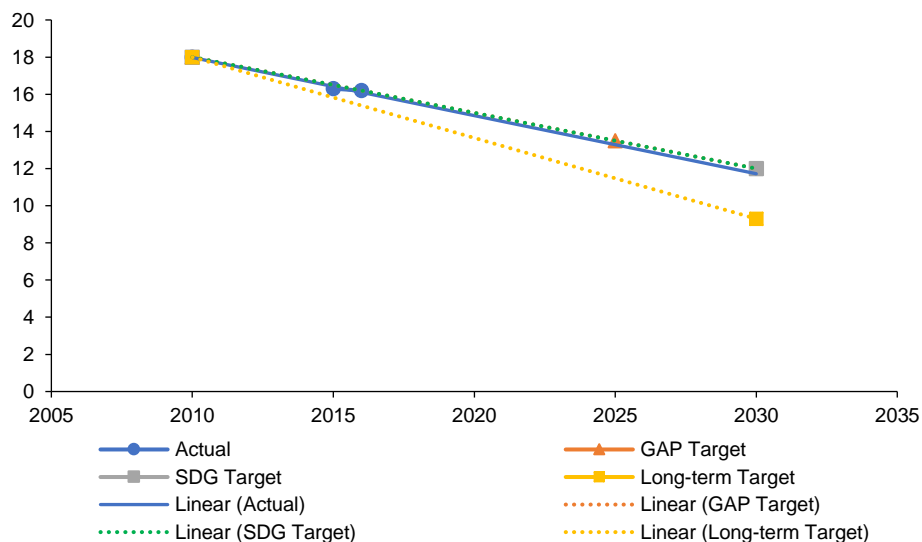
Figure 5
Trends in NCD Risk Factors for Barbados,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

Despite the challenges in reducing some risk factors, Barbados has made significant strides in reducing premature mortality from NCDs and is in a position to surpass the SDG and GAP 2013–2020 targets if it maintains the current trend. However, the country needs to do more to lower mortality from NCDs if it is to measure up with the best performing countries’ rate of 9.3 per cent (see figure 6).

Figure 6
Trends in the achievement of Global Targets on NCDs, Barbados,
probability of premature death from NCDs
(Percentage)



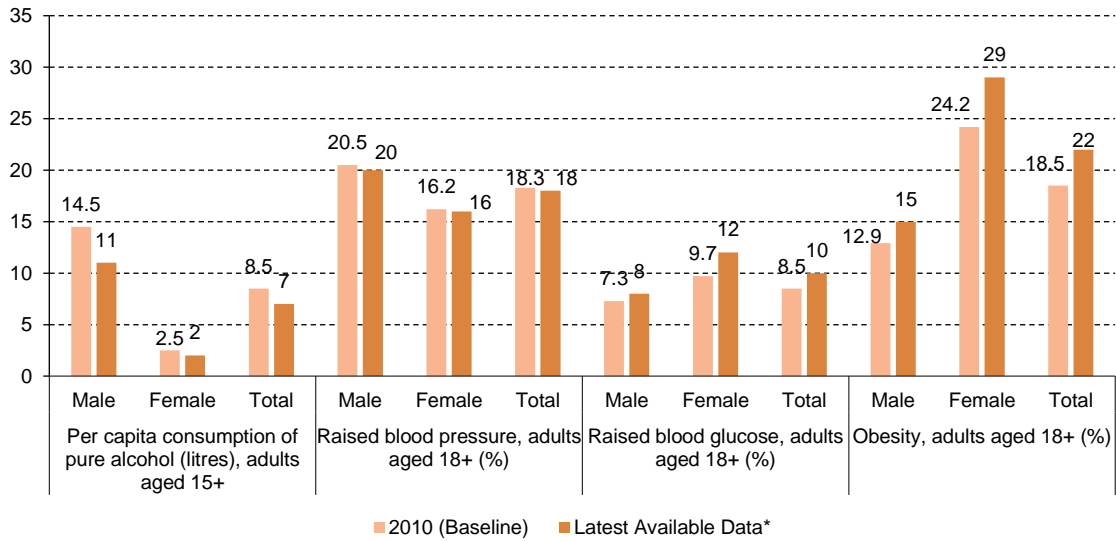
Source: ECLAC based on PAHO/WHO data.

4. Belize

There is a clear sex disparity in NCD risk factors in Belize as shown in figure 7. Men on average consumed more alcohol and have higher rate of raised blood pressure while women have higher raised blood glucose and higher prevalence of obesity. The average consumption of alcohol decreased for men (from 14.5 to 11 litres) and for women (from 2.5 to 2 litres) in 2016 compared to 2010 but prevalence of raised blood pressure did not change much for both sexes between 2010 and 2015. Increase in the prevalence of raised blood glucose was more pronounced for women (from 9.7 to 12 per cent) than for men (from 7.3 to 8 per cent) between 2010 and 2014. While the prevalence of obesity increased for both sexes, the increase for women was more marked (from 24.2 to 29 per cent) than for men (12.9 to 15 per cent) between 2010 and 2016.

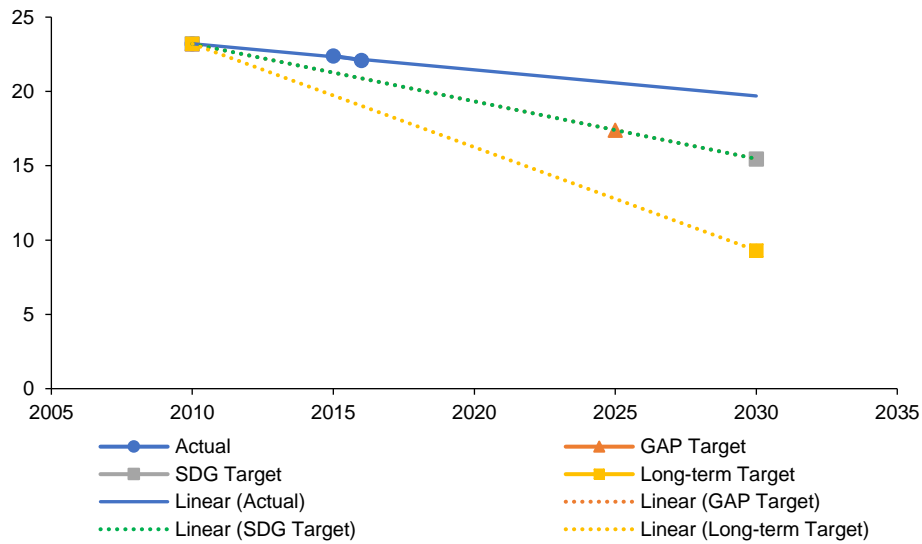
The current trajectory of the rate of premature death from NCDs shows that Belize is not on track to achieve the SDG and GAP 2013–2020 targets (see figure 8). As a marker, Belize would need to reduce mortality at an annual rate twice the current rate of change for these targets to be achieved. A more drastic reduction in mortality will be required if the country is to achieve the long-term objective for NCDs mortality.

Figure 7
Trends in NCD Risk Factors for Belize,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for consumption of alcohol and obesity; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

Figure 8
Trends in the achievement of Global Targets on NCDs, Belize,
probability of premature death from NCDs
(Percentage)



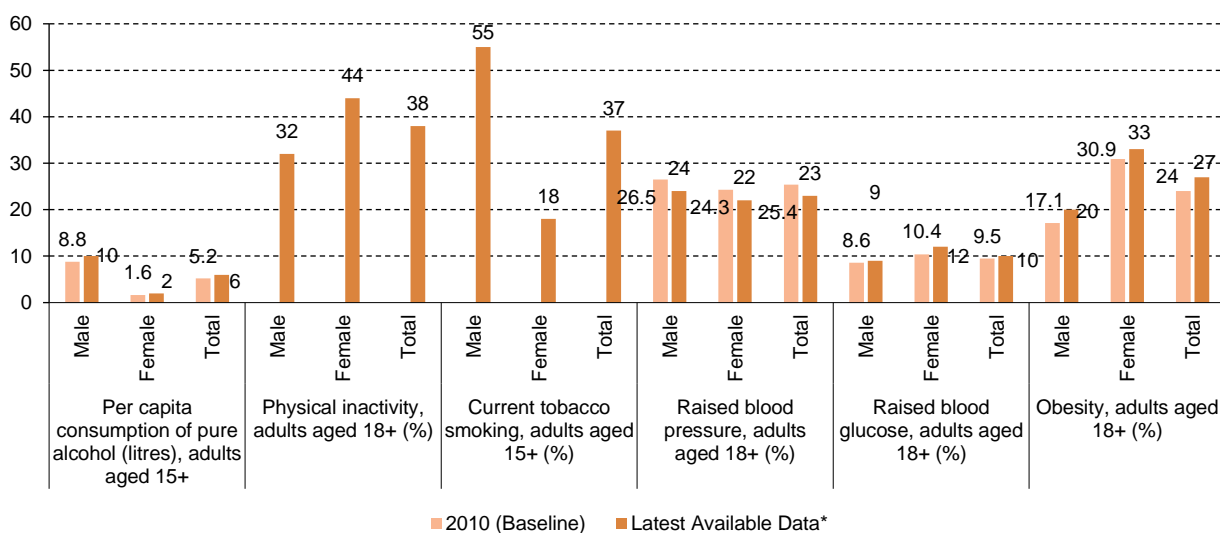
Source: ECLAC based on PAHO/WHO data.

5. Cuba

Apart from raised blood pressure and raised blood glucose in which sex differences are not pronounced, Cuba shows apparent sex disparity in NCD risk factors. On average, men consume more alcohol and tobacco whereas physical inactivity and obesity are more prevalent among women. The average consumption of alcohol increased for men (from 8.8 to 10 litres) and for women (from 1.6 to 2 litres) in 2016 compared to 2010. Similarly, the prevalence of obesity increased for both sexes, from 17.1 to 30.9 per cent for men and 30.9 to 33 per cent for women between 2010 and 2016 (see Figure 9). It is unclear if physical inactivity and tobacco smoking are trending in a downward direction due to the unavailability of 2010 data.

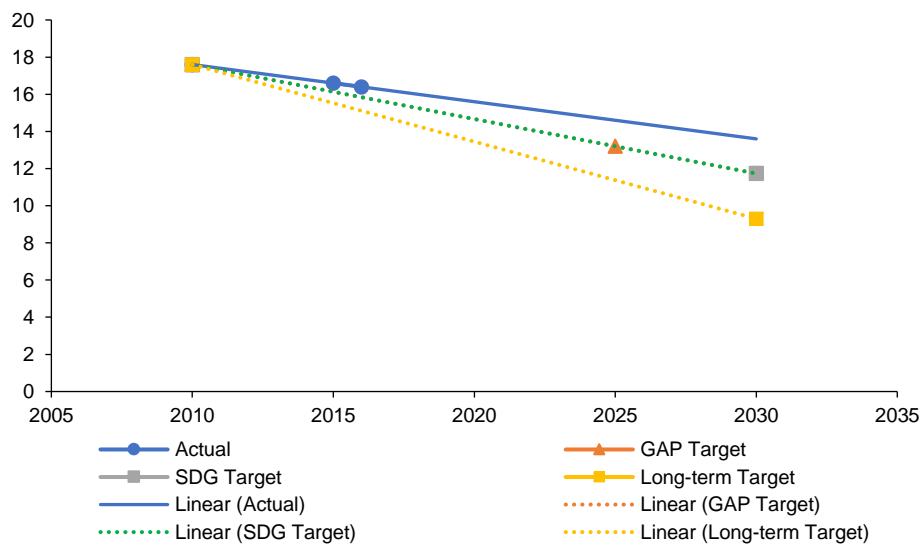
As can be seen in figure 10, the premature death rate from NCDs has decreased from 17.6 per cent in 2010 to 16.4 per cent in 2016 but this decline will not be enough to put Cuba on a path to achieve the SDG and GAP 2013–2025 targets if the trend remains. An even drastic reduction in mortality will be required if the country is to achieve the long-term objective of 9.3 per cent mortality for NCDs.

Figure 9
Trends in NCD Risk Factors for Cuba,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

Figure 10
Trends in the achievement of Global Targets on NCDs, Cuba,
probability of premature death from NCDs
(Percentage)



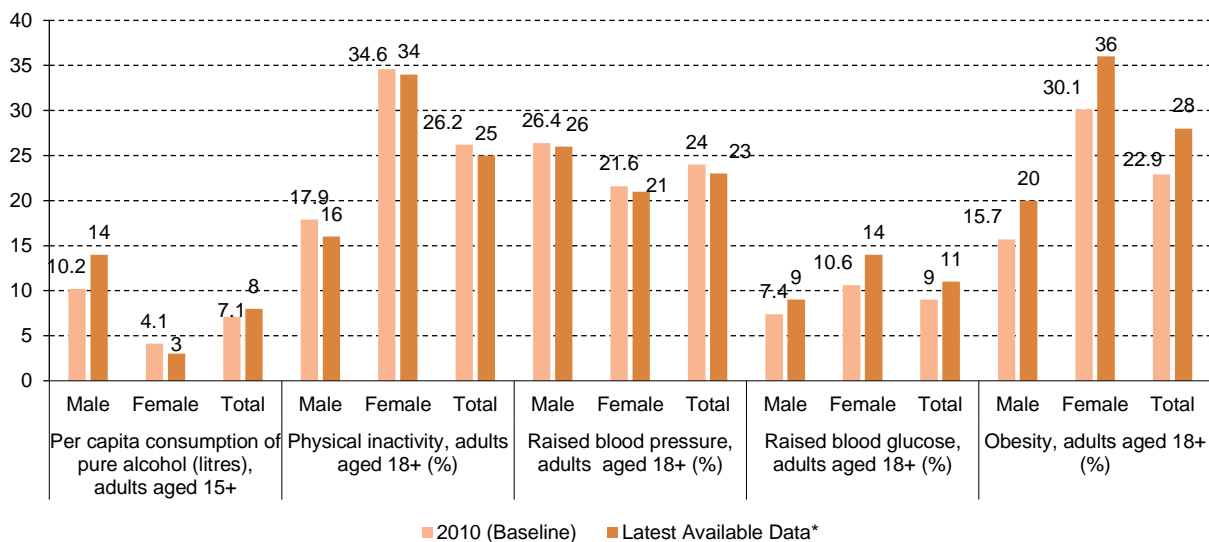
Source: ECLAC based on PAHO/WHO data.

6. Dominica

The consumption of alcohol and raised blood pressure have remained relatively stable where males continued to be more predisposed than females in Dominica. The rates of physical inactivity and obesity were significantly higher for females than males, with females having about twice the prevalence rate as males (see figure 11). There has been a slight decrease in physical inactivity from 26.2 to 25 per cent whereas there has been a significant increase in obesity from 22.9 to 28 per cent between 2010 and 2016. Also trending upwards was raised blood glucose which increased for men (from 7.4 to 9 per cent) and for women (from 10.6 to 14 per cent).

No data were available on the premature death rate from NCDs for Dominica.

Figure 11
Trends in NCD Risk Factors for Dominica,
latest available data and 2010 baseline
(Litres or percentage)



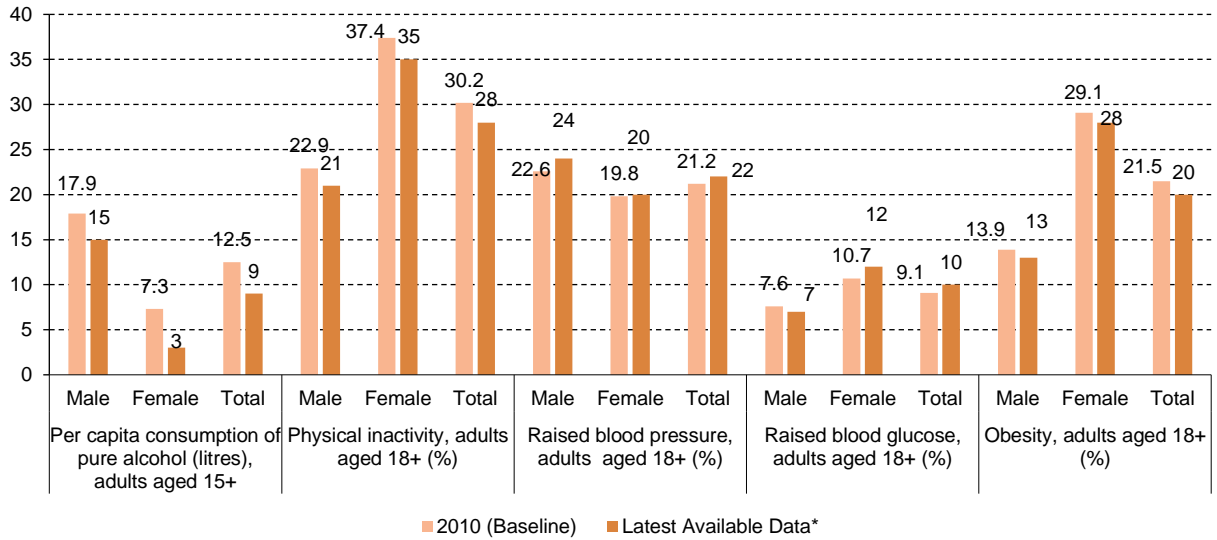
*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

7. Grenada

The data in figure 12 show that some sex disparity in NCD risk factors exists in Grenada. For instance, men consume more alcohol than women whereas physical inactivity and obesity are more prevalent among women. At the same time, the total average consumption of alcohol has decreased between 2010 and 2016 for men (17.9 to 15 litres) and for women (7.3 to 3 litres). For all other risk factors, there have not been noticeable change between 2010 and the latest year for which data were available.

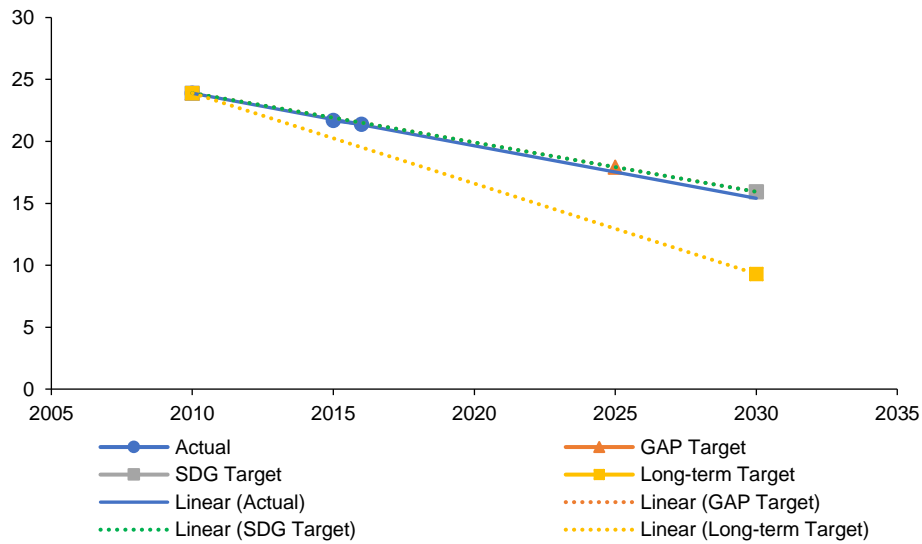
The current trend shows that Grenada is well on track to surpass the SDG and GAP 2013–2025 targets (see figure 13). However, the country needs to do more to lower NCD related mortality in order to attain the higher benchmark of 9.3 per cent NCD mortality rate.

Figure 12
Trends in NCD Risk Factors for Grenada,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

Figure 13
Trends in the achievement of Global Targets on NCDs, Grenada,
probability of premature death from NCDs
(Percentage)

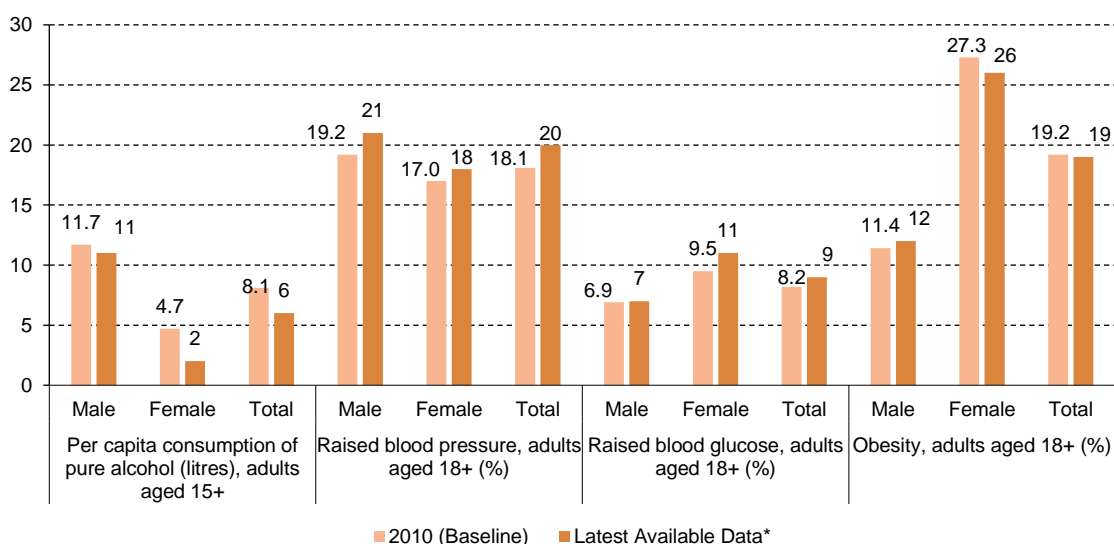


Source: ECLAC based on PAHO/WHO data.

8. Guyana

There is some sex difference in the risk factors for NCDs in Guyana where males consume more alcohol and have raised blood pressure while more females have raised blood glucose and obesity. Except for the consumption of alcohol, the prevalence of NCD risk factors did not vary much in Guyana between 2010 and 2016 (see figure 14). In the case of alcohol consumption, there has been a reduction in the prevalence for both sexes with the reduction for women (4.7 to 2 litres) relatively greater than for men (11.7 to 11 litres).

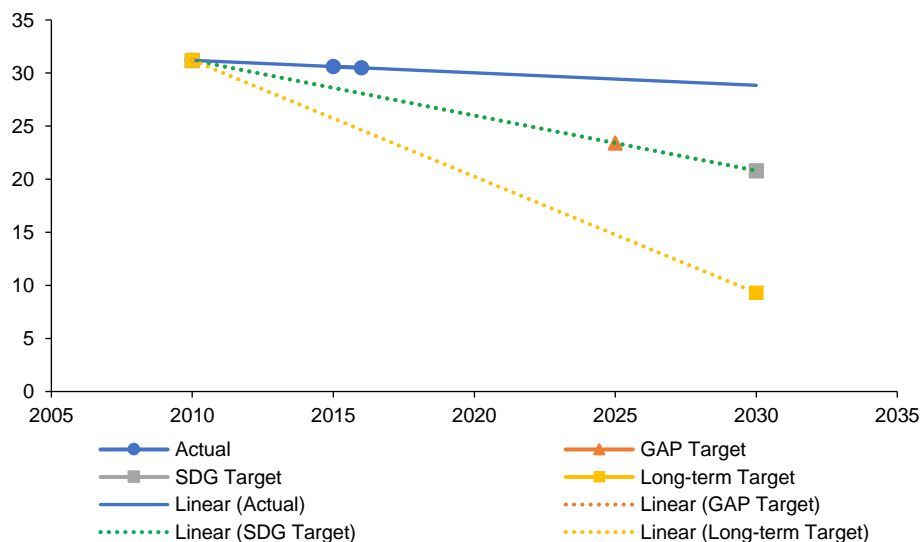
Figure 14
Trends in NCD Risk Factors for Guyana,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for consumption of alcohol and obesity; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

As can be seen in Figure 15, the premature death rate from NCDs has decreased from 31.2 per cent in 2010 to 30.5 per cent in 2016. This trajectory shows that Guyana’s progress is somewhat flat, and the country is not positioned to achieve the SDG and GAP 2013–2025 targets. A more drastic reduction in mortality will be required to attain these global targets and even more for the country to achieve the long-term objective of 9.3 per cent mortality for NCDs.

Figure 15
Trends in the achievement of Global Targets on NCDs, Guyana, probability of premature death from NCDs (Percentage)

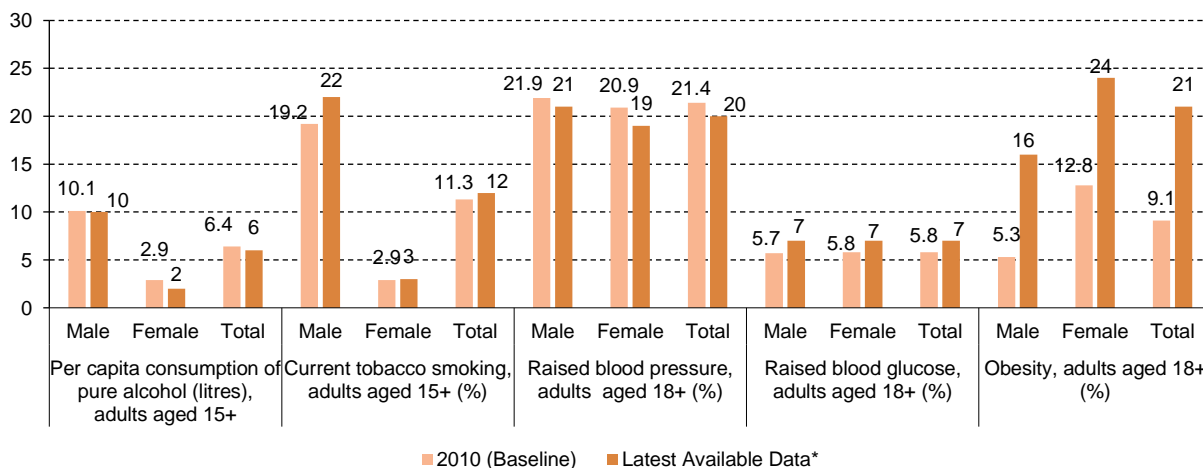


Source: ECLAC based on PAHO/WHO data.

9. Haiti

The prevalence rate for obesity in Haiti has more than doubled between 2010 and 2016 from 5.3 to 16 per cent for males and from 12.8 to 24 per cent for females. The prevalence of other risk factors remained relatively unchanged and some disparities by sex are observed for alcohol consumption, tobacco smoking and obesity (see figure 16).

Figure 16
Trends in NCD Risk Factors for Haiti, latest available data and 2010 baseline (Litres or percentage)

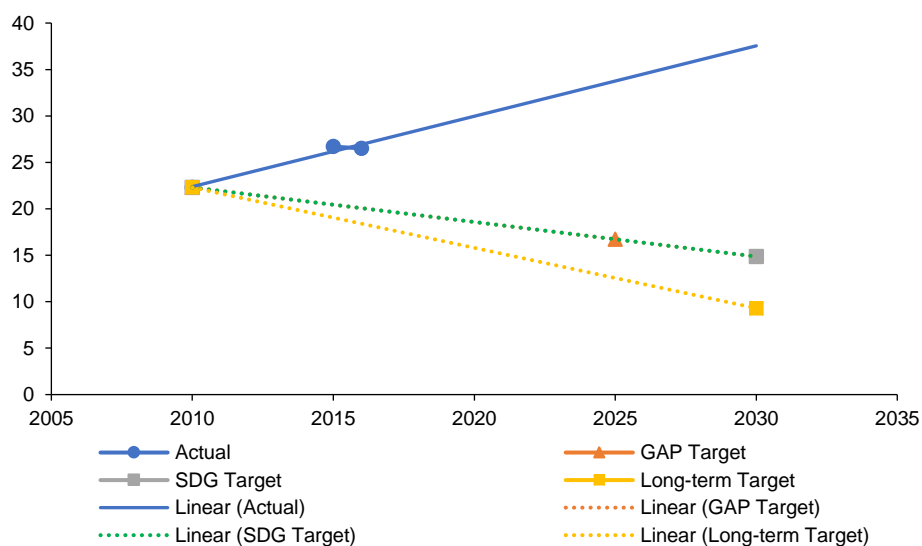


*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.

Source: ECLAC based on PAHO/WHO data.

Figure 17 shows the trend in the probability of premature deaths due to NCDs, which increased from 22.3 per cent in 2010 to 26.5 per cent in 2016, indicating that the country retrogressed on the indicator during the period. As the figure shows, an upward trend in premature deaths due to NCDs takes the country farther away from achieving any of the SDGs, GAP 2013–2025, and long-terms targets.

Figure 17
Trends in the achievement of Global Targets on NCDs, Haiti,
probability of premature death from NCDs
(Percentage)



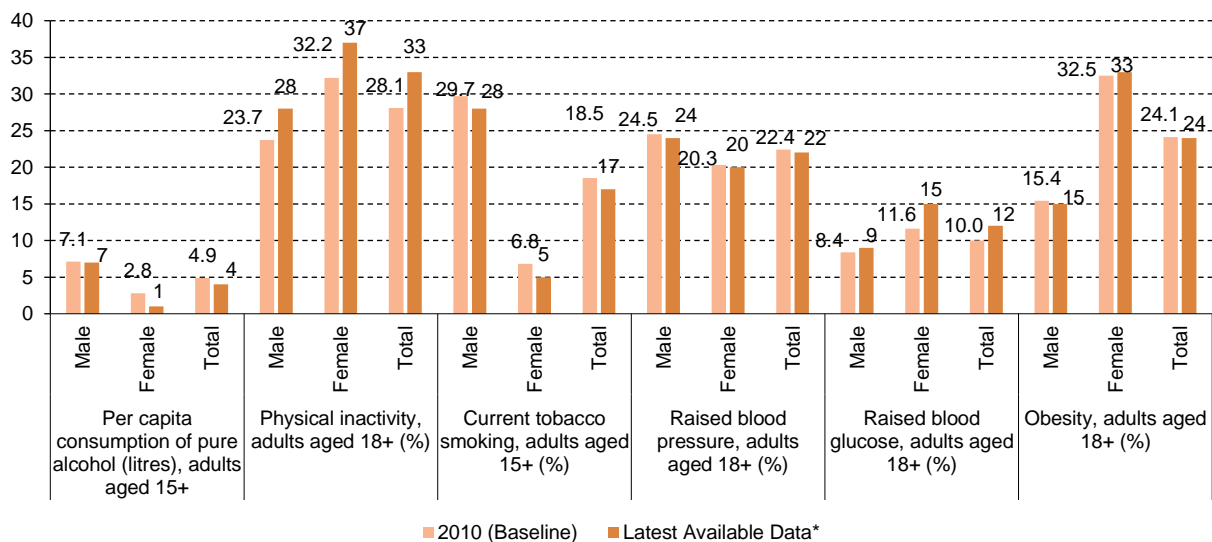
Source: ECLAC based on PAHO/WHO data.

10. Jamaica

In Jamaica, there are sex differences in the prevalence of some risk factors. Consumption of alcohol is higher among men and men are also more likely to smoke tobacco and have raised blood pressure whereas women are more likely to be physically inactive and have obesity. Apart from physical inactivity which has been on the rise for both sexes, the prevalence of other NCD risk factors has been relatively the same during the 2010 to 2016 period. Physical inactivity has increased from 23.7 to 28 per cent for males and from 32.2 per cent to 37 per cent for females (figure 18).

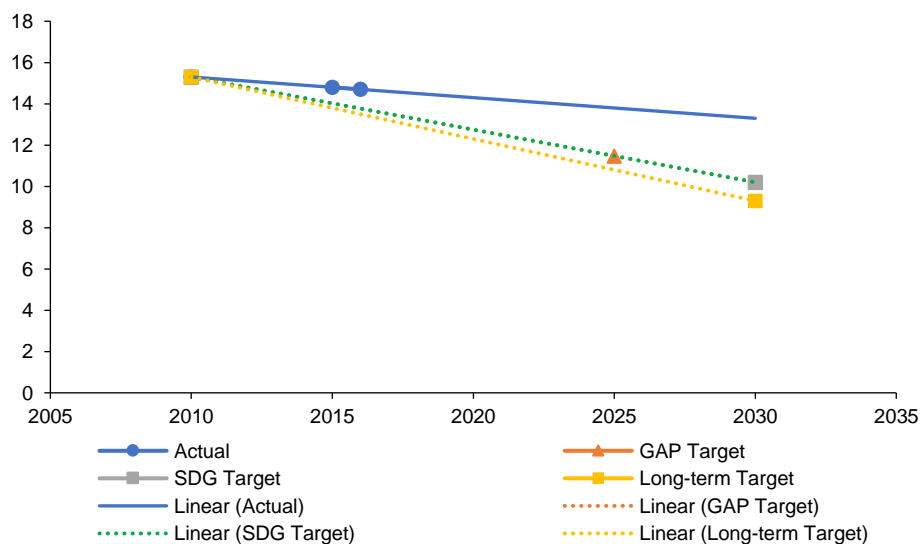
Although premature death from NCDs has decreased from a rate of 15.3 per cent in 2010 to 14.7 per cent in 2016, the decline is not steep enough to put Jamaica on track to achieve the SDG and GAP 2013–2025 targets (see Figure 19). If the country is to achieve the long-term objective of 9.3 per cent NCD mortality, the decline in mortality rate would need to be even greater.

Figure 18
Trends in NCD Risk Factors for Jamaica,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

Figure 19
Trends in the achievement of Global Targets on NCDs, Jamaica,
probability of premature death from NCDs
(Percentage)



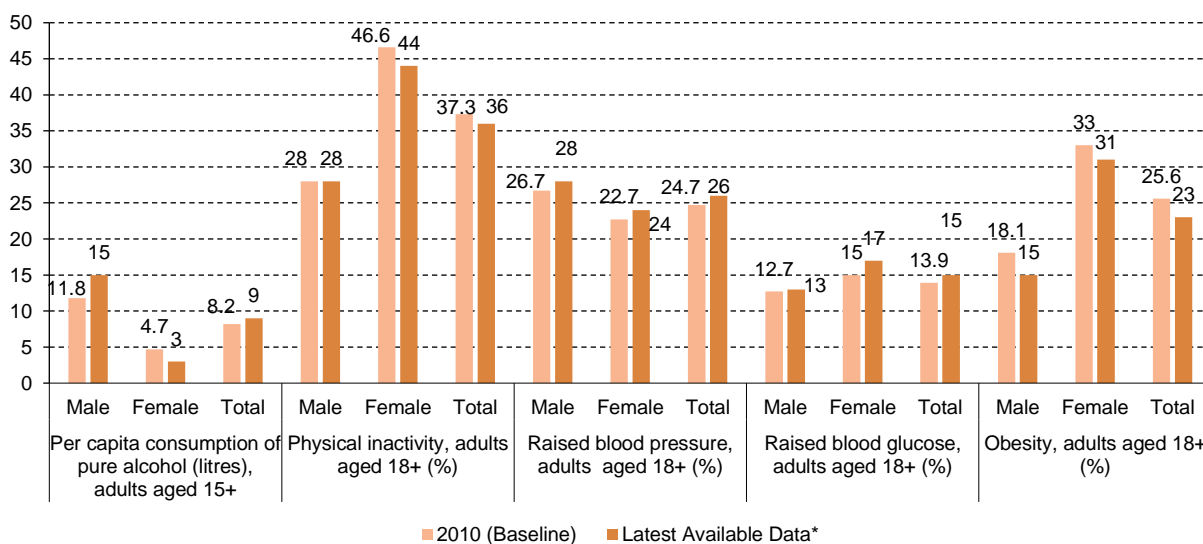
Source: ECLAC based on PAHO/WHO data.

11. Saint Kitts and Nevis

There is apparent sex disparity in NCD risk factors in Saint Kitts and Nevis. On average, men consume more alcohol and have raised blood pressure whereas physical inactivity and obesity are more prevalent among women. The average consumption of alcohol increased for men (from 11.8 to 15 litres) and decreased for women (from 4.7 to 3 litres) in 2016 compared to 2010. In contrast, the prevalence of obesity decreased for both sexes, from 18.1 to 15 per cent for men and 33 to 31 per cent for women between 2010 and 2016 (see figure 20). All other risk factors did not change significantly between 2010 and 2014/2015.

No data were available on the premature death rate from NCDs for Saint Kitts and Nevis.

Figure 20
Trends in NCD Risk Factors for Saint Kitts and Nevis,
latest available data and 2010 baseline
(Litres or percentage)



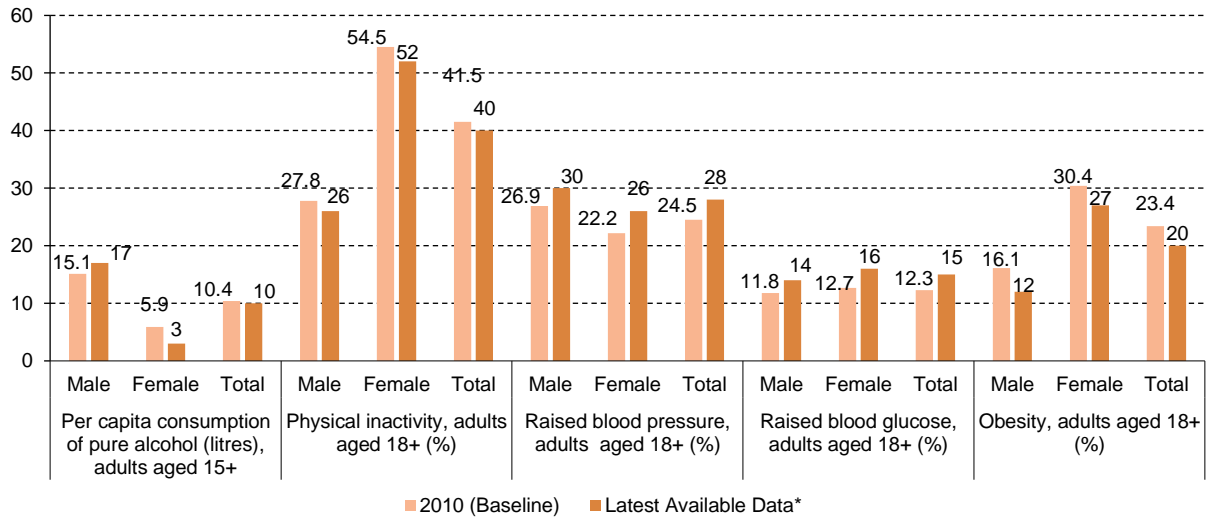
*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

12. Saint Lucia

There is a noticeable sex disparity in the NCD risk factors for Saint Lucia excluding raised blood glucose and raised blood pressure. On average, men consume more alcohol and women are more physically inactive and have higher prevalence of obesity. The average consumption of alcohol increased for men (from 15.1 to 17 litres) and decreased for women (from 5.9 to 3 litres) in 2016 compared to 2010 (see figure 21). The prevalence of physical inactivity and obesity has reduced marginally but the prevalence of raised blood pressure and raised blood glucose has increased over the period.

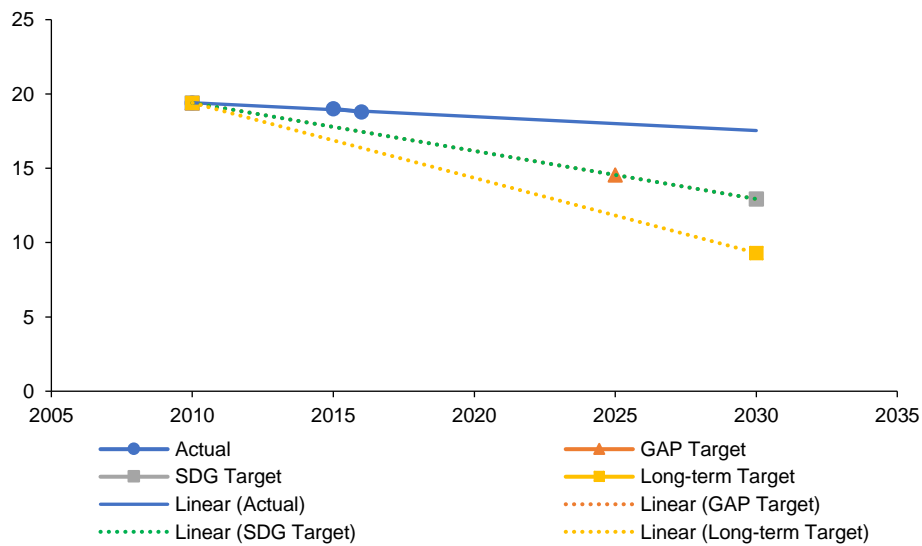
As can be seen in figure 22, the premature death rate from NCDs has decreased from 19.4 per cent in 2010 to 18.8 per cent in 2016 but this decrease is not large enough to ensure that Saint Lucia achieves the SDG and GAP 2013–2025 targets. An even more drastic reduction in mortality will be required if the country is to stay on track to achieve the long-term objective of 9.3 per cent for NCDs.

Figure 21
Trends in NCD Risk Factors for Saint Lucia,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
 Source: ECLAC based on PAHO/WHO data.

Figure 22
Trends in the achievement of Global Targets on NCDs, Saint Lucia,
probability of premature death from NCDs
(Percentage)

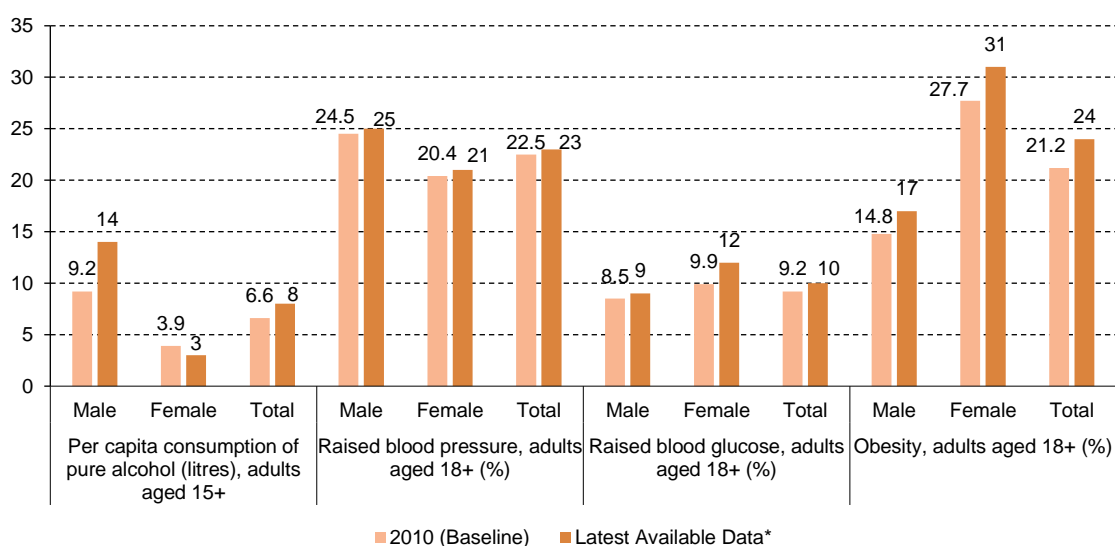


Source: ECLAC based on PAHO/WHO data.

13. Saint Vincent and the Grenadines

There is a marginal increase in the prevalence of NCD risk factors in Saint Vincent and the Grenadines since 2010. Some sex differences have also been observed where relatively fewer women than men consumed alcohol and had raised blood pressure while the reverse holds true for raised blood glucose and obesity. The average consumption of pure alcohol among men increased from 9.2 to 14 litres and decreased among women from 3.9 litres during 2010 to 2016 (this was the only reduction) (see figure 23).

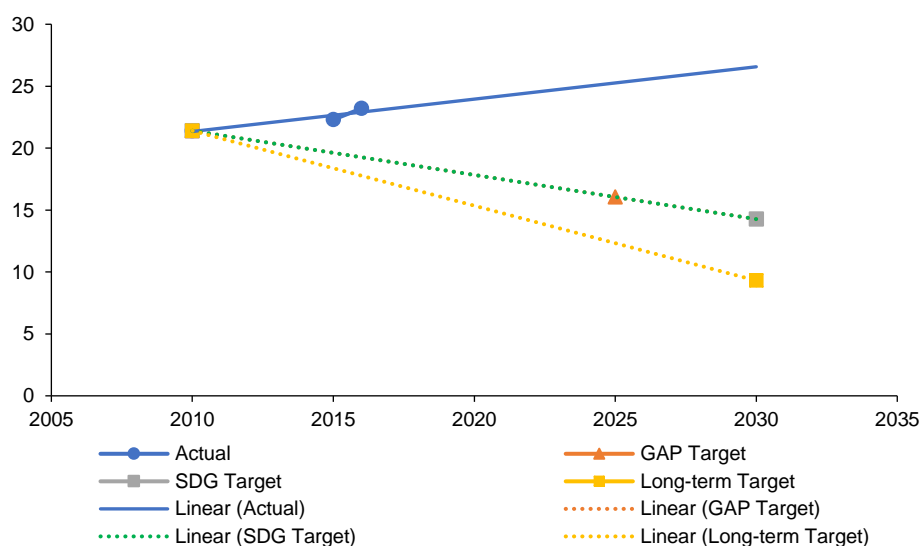
Figure 23
Trends in NCD Risk Factors for Saint Vincent and the Grenadines,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for consumption of alcohol and obesity; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

As can be seen from figure 24, there is a steep upward trend in the probability of premature mortality from 21.4 per cent in 2010 to 23.2 per cent in 2016. This trend, if it continues, will make the attainment of the SDGs and GAP 2013–2025 targets out of reach for the country. A drastic and sustained reduction of NCD mortality by at least 50 per cent annually is required for Saint Vincent and the Grenadines to achieve these targets by the agreed timelines.

Figure 24
Trends in the achievement of Global Targets on NCDs, Saint Vincent and the Grenadines,
probability of premature death from NCDs
(Percentage)



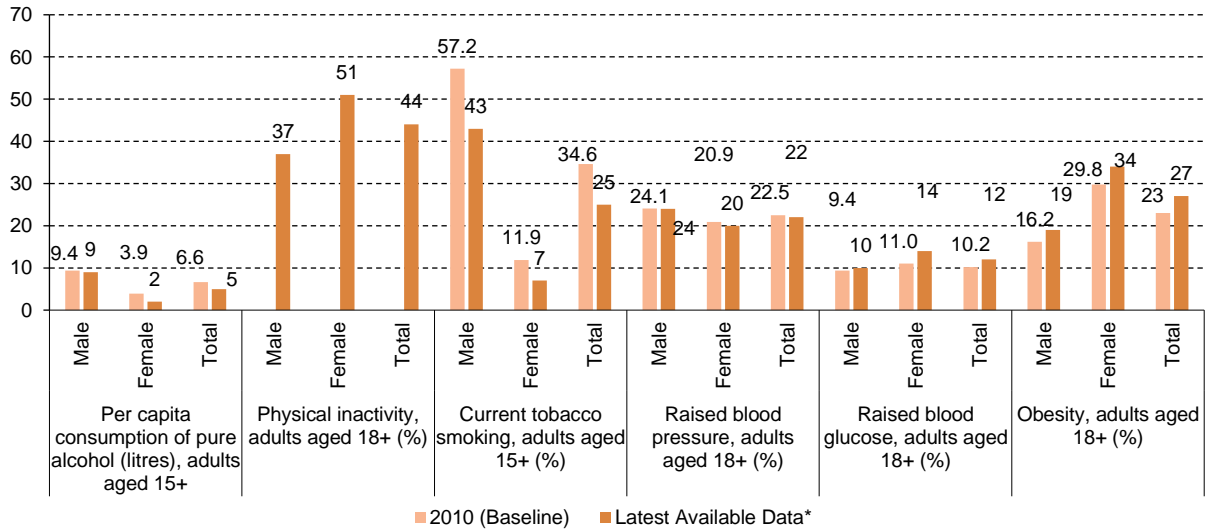
Source: ECLAC based on PAHO/WHO data.

14. Suriname

There is progress in the reduction of average pure alcohol consumption, physical inactivity and tobacco smoking in Suriname. There is also a clear sex disparity in certain NCD risk factors in the country. More men on average smoked tobacco and men consumed more alcohol while women are more physically inactive and are more likely to be obese. There is huge difference in the prevalence of tobacco smoking across sexes where men have a prevalence rate that is six times that of women. However, there were marked reductions in tobacco smoking between 2010 and 2016 where tobacco smoking decreased for men (from 57.2 to 43 per cent) and for women (from 11.9 to 7 per cent) (see figure 25). On the other hand, there has been a marginal increase in the prevalence of raised blood glucose and obesity during the period 2010 to 2014/2016.

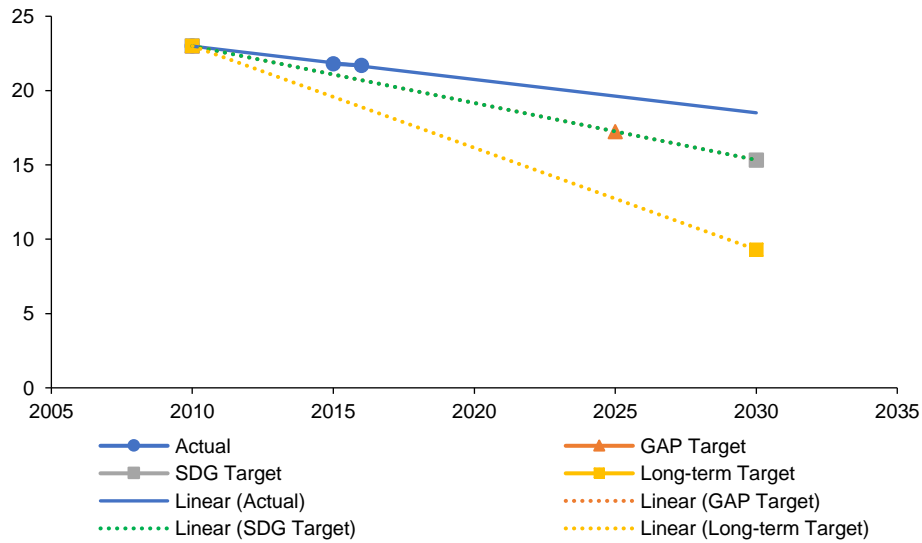
The probability rate for premature mortality reduced from 23 per cent to 21.7 per cent during 2010 to 2016 (see figure 26). The data suggest that Suriname is on track to achieve the SDG and GAP 2013–2025 targets but must focus more effort on the prevention of some risk factors. If the country is to achieve the longer-term objective of reaching 9.3 per cent mortality rate for NCDs, much more work still needs to be done.

Figure 25
Trends in NCD Risk Factors for Suriname,
latest available data and 2010 baseline
(Litres or percentage)



*Latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

Figure 26
Trends in the achievement of Global Targets on NCDs, Suriname,
probability of premature death from NCDs
(Percentage)

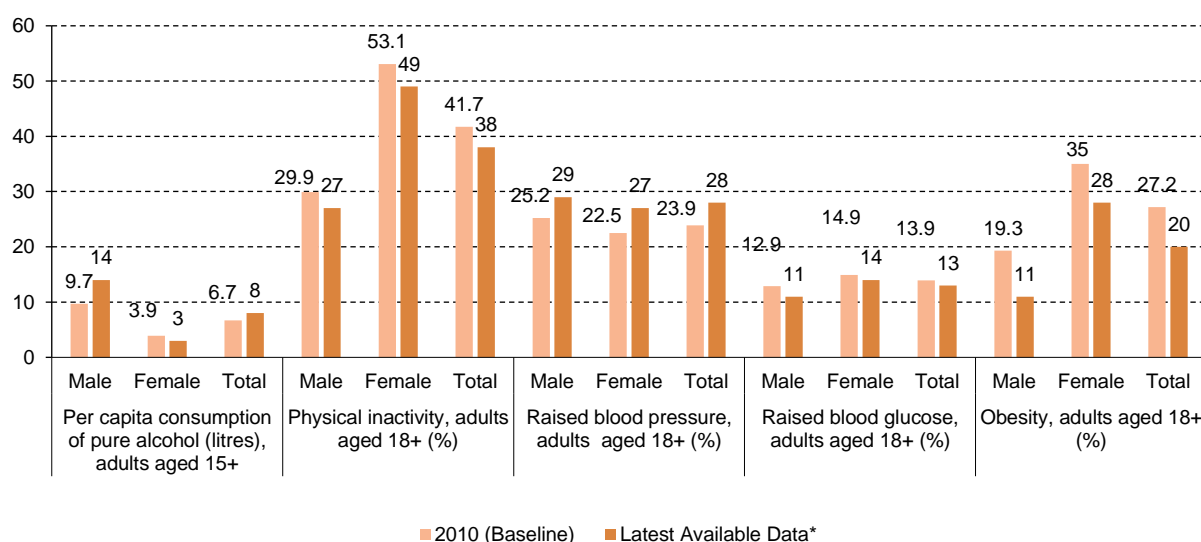


Source: ECLAC based on PAHO/WHO data.

15. Trinidad and Tobago

Trinidad and Tobago recorded a significant decrease in the prevalence of obesity during the 2010 to 2016 period, from 27.2 to 20 per cent overall. The prevalence of raised blood glucose, however, has not changed by much while the prevalence of physical inactivity in both sexes decreased appreciably. In contrast, the average consumption of pure alcohol increased for men in 2016 (14 litres) compared to 2010 (9.7 litres) while the prevalence of raised blood pressure increased for both men and women from 2010 to 2015 (see figure 27).

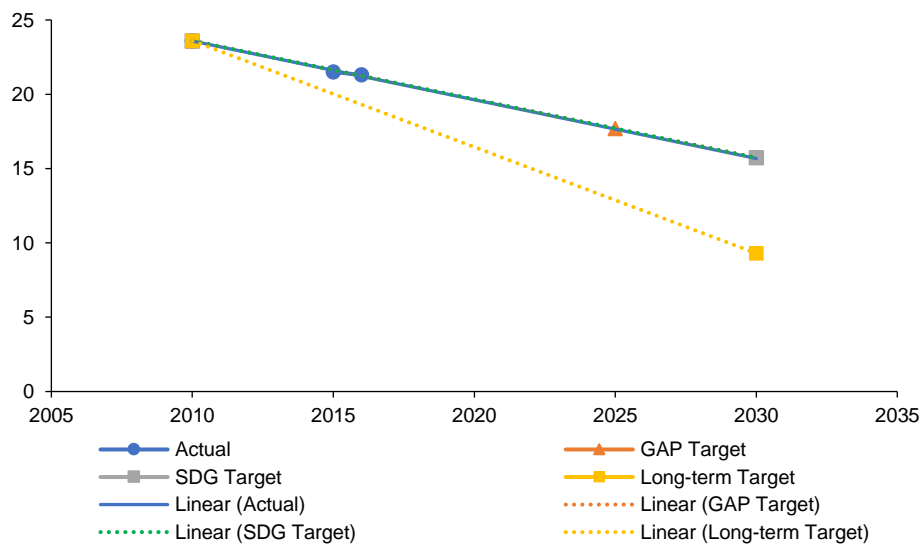
Figure 27
Trends in NCD Risk Factors for Trinidad and Tobago,
latest available data and 2010 baseline
(Litres or percentage)



*latest available data: 2016 for all risk factors except; 2015 for raised blood pressure; and 2014 for blood glucose.
Source: ECLAC based on PAHO/WHO data.

Trinidad and Tobago has made moderate progress in the reduction of some NCD risk factors and is positioned to achieve the SDG and GAP 2013–2025 targets if it maintains the current trend. Figure 28 shows that the probability of premature mortality has reduced from 23.6 per cent in 2010 to 21.3 per cent in 2016. However, the country requires much more progress to lower mortality from NCDs if it is to measure up to the best performing countries’ rate of 9.3 per cent.

Figure 28
Trends in the achievement of Global Targets on NCDs, Trinidad and Tobago,
probability of premature death from NCDs
(Percentage)



Source: ECLAC based on PAHO/WHO data.

IV. Progress in preventing and controlling NCDs in the Caribbean

As alluded to in Chapter I, the Global Action Plan for the Control and Prevention of NCDs 2013–2020 is a comprehensive operational guide for addressing NCDs, representing a roadmap and presenting a menu of policy options for Member States of the United Nations and other stakeholders that include the private sector, civil society, academia, health professionals, and international financial institutions and development banks, to take coordinated and coherent action, at local, national, and regional levels, culminating at the global level, to achieve nine voluntary global targets for NCDs³⁵ (see diagram 1).

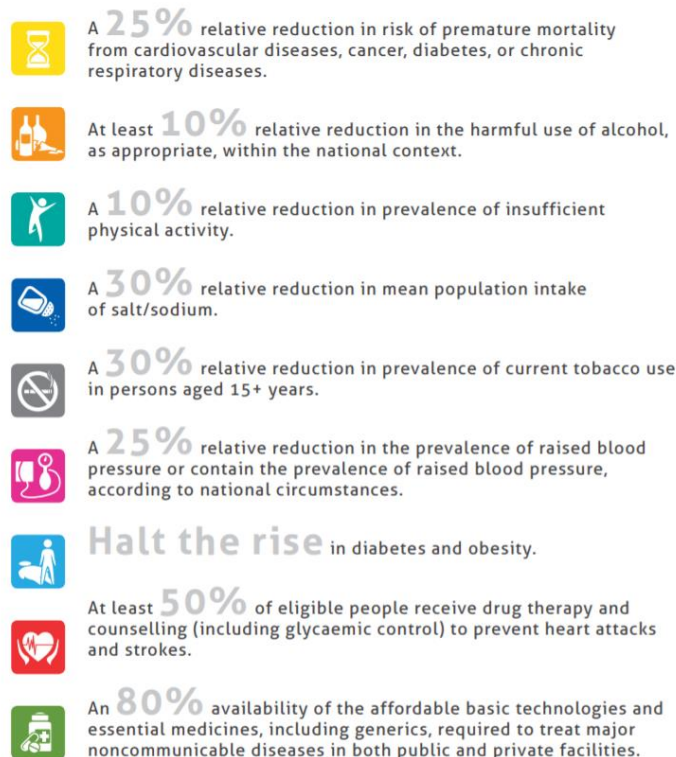
Trends in national progress to achieve Target 1 have been presented in the preceding chapter. In this chapter, we provide an overview of subregional progress towards meeting these global targets as well as those of the global NCD commitments. This was done by examining the performance of Caribbean countries on the 25 indicators of GAP 2013–2020 and the 10 indicators of the Progress Monitor for NCD commitments (see table 4), against a baseline of 2010, using data from the global monitoring framework as reported by WHO³⁶. Due to data limitations, the review only covers 16³⁷ of the 29 Caribbean Development and Cooperation Committee (CDCC) member States and associate members.

³⁵ World Health Organization (2013). Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.

³⁶ This consists of data from PAHO's NCD Country Capacity Survey (2015–2020), WHO's Country NCD profiles (2018), and WHO's Global Status Report on noncommunicable diseases (2014).

³⁷ Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

Diagram 1
The nine voluntary global targets of the GAP 2013–2020



Source: WHO (2013, pg. 5).

Table 4
Global NCD commitments progress monitor indicators

1	Member State has set time-bound national targets based on WHO guidance
2	Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis
3	Member State has a STEPS survey or a comprehensive health examination survey every 5 years
4	Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors
5	<ul style="list-style-type: none"> a. Member State has implemented measures to reduce affordability by increasing excise taxes and prices on tobacco products b. Member State has implemented measures to eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport c. Member State has implemented plain/ standardized packaging and/or large graphic health warnings on all tobacco packages d. Member State has enacted and enforced comprehensive bans on tobacco advertising, promotion and sponsorship (TAPS) e. Member State has implemented effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke
6	<ul style="list-style-type: none"> a. Member State has enacted and enforced restrictions on the physical availability of retailed alcohol (via reduced hours of sale) b. Member State has enacted and enforced bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media) c. Member State has increased excise taxes on alcoholic beverages
7	<ul style="list-style-type: none"> a. Member State has adopted national policies to reduce population salt/sodium consumption b. Member State adopted national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply c. Member State has implemented the WHO set of recommendations on marketing of foods and nonalcoholic beverages to children d. Member State has legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes

8	Member State has implemented at least one recent national public awareness programme and motivational communication for physical activity, including mass media campaigns for physical activity behavioural change
9	Member State has evidence-based national guidelines/ protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities
10	Member State has provision of drug therapy, including glycemc control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level

Source: PAHO (2020).

A. Global Action Plan (GAP) 2013–2020

As of 2016, not all countries had set corresponding national targets for GAP 2013–2020. At least three quarters of countries (12 out of 16) had set national targets for targets 1, 3 and 6. At least half of the countries had set national targets on all but two of the global targets (table 5).

Although a few countries have made notable strides, at the subregional level, the Caribbean has not made noticeable progress in reducing premature mortality from NCDs and the prevalence of physical inactivity, tobacco use, raised blood pressure, obesity and diabetes between 2010 and 2016. As figure 29 shows, the rates remained the same or marginally increased in 2016 in comparison to 2010 rates.

Table 5
Status of Caribbean countries in setting national targets for GAP 2013–2020, 2016

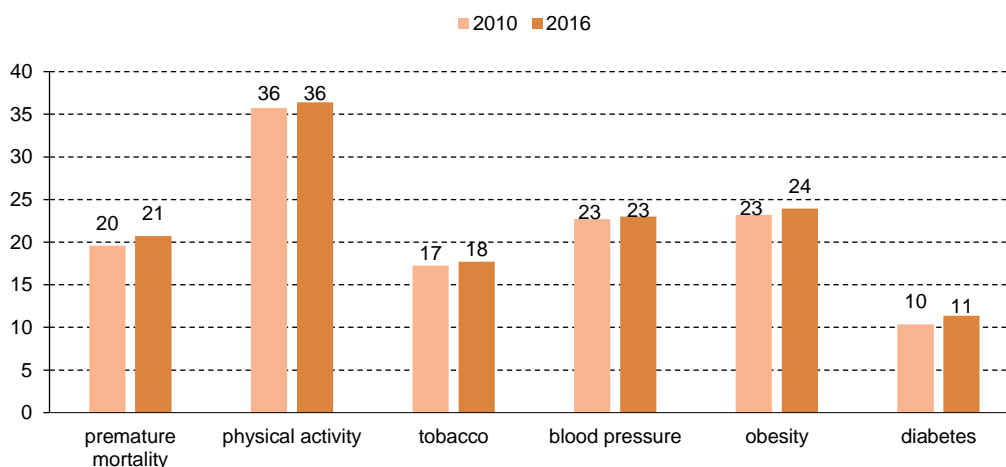
Country	Targets									
	Target 1	Target 2	Target 3	Target 4	Target 5	Target 6	Target 7	Target 8	Target 9	
	A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.	A 10% relative reduction in prevalence of insufficient physical activity.	A 30% relative reduction in mean population intake of salt/sodium.	A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.	A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.	Halt the rise in obesity (adults 18+)	Halt the rise in diabetes (adults 18+)	At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.	An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.
Antigua and Barbuda	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Bahamas	Y	N	N	N	N	Y	N	Y	Y	N
Barbados	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Belize	Y	Y	Y	N	Y	Y	Y	Y	N	Y
Cuba	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dominica	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dominican Republic	Y	N	Y	N	Y	Y	Y	Y	N	N
Grenada	Y	Y	Y	N	Y	Y	Y	Y	N	Y
Guyana	Y	Y	Y	Y	Y	N	N	N	Y	N
Haiti	N	N	N	N	N	N	N	N	N	N
Jamaica	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Saint Kitts and Nevis	N	N	N	N	N	N	N	N	N	N
Saint Lucia	N	N	N	N	N	N	N	N	N	N
Saint Vincent and the Grenadines	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Country	Targets									
	Target 1	Target 2	Target 3	Target 4	Target 5	Target 6	Target 7	Target 8	Target 9	
	A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.	A 10% relative reduction in prevalence of insufficient physical activity.	A 30% relative reduction in mean population intake of salt/sodium.	A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.	A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.	Halt the rise in obesity (adults 18+)	Halt the rise in diabetes (adults 18+)	At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.	An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.
Suriname	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Trinidad and Tobago	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Source: ECLAC based on data from WHO/PAHO.

Note: Y-indicates country has set target; N-indicates country has not set target.

Figure 29
Prevalence of NCD Risk Factors in the Caribbean, 2010–2016
 (Percentage)



Source: ECLAC based on PAHO/WHO data.

B. Progress towards the global NCD commitments

Data on the 10 Progress Monitor indicators show that the Caribbean has recorded a slow progress in implementing the NCD global commitments between 2015 and 2020. More countries have set time bound national targets (Indicator 1) but there has not been major achievement with regards to action related to the other indicators³⁸. In 2020, regional achievements were greatest for indicators 2, 6a, 8 and 9 where only two or fewer countries had not achieved any progress whereas progress has been weakest for indicator 7. No country has attained a rating of “fully achieved” on 10 or more indicators (see table 6). A snapshot of the 2020 status of the implementation of these indicators in each country is presented in table 7.

Indicator 1: Member State has set time-bound national targets based on WHO guidance

There has been notable improvement in the number of countries that have established time-bound targets during the 2015-2020 period, increasing from six (38 per cent) in 2015 to 11 (69 per cent) in 2020.

Indicator 2: Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis

In 2020, 11 countries (69 per cent) have functioning system for generating reliable cause-specific mortality data on a routine basis, up from 10 (63 per cent) in 2015. Four countries (25 per cent) have partially implemented a functioning system.

³⁸ It should be noted, however, that the criteria for achievement of the indicators were modified during the period, limiting comparability of data for the two years.

Table 6
Performance of Caribbean countries on Indicator 1 of the NCD Progress Monitor, 2020
(16 countries)

INDICATORS	Fully achieved	Partially achieved	Not achieved
1. Time-bound targets	11	0	5
2. Mortality data	11	4	1
3. STEPS survey	0	12	4
4. National NCD Plans	8	2	6
5a. Increase tobacco taxes	0	3	11
5b. Smoke-free environments	6	2	8
5c. Health warnings on tobacco packaging	6	2	8
5d. TAPS bans	3	0	13
5e. Media campaigns	1	1	12
6a. Restrictions alcohol availability	1	13	1
6b. Restrictions on alcohol advertising	0	0	15
6c. Increase alcohol taxes	3	9	3
7a. Salt consumption policy	0	2	14
7b. Saturated/trans fats policy	0	1	13
7c. Policy on marketing to children	0	0	16
7d. Legislation for breast milk substitutes	1	2	13
8. Physical Activity	12	2	2
9. NCD Guidelines	4	9	2
10. CVD Drug therapy	3	2	8

Source: PAHO (2020).

Indicator 3: Member State has a STEPS survey or a comprehensive health examination survey every 5 years

In 2020, no country has consistently conducted STEPS surveys every five years, although two countries (13 per cent) had fully achieving this in 2015. Twelve out of 16 countries (75 per cent) are working towards this goal while four countries had not achieved this target.

Indicator 4: Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors

The number of countries having a national multisectoral NCD plan improved slightly from seven (44 per cent) to eight (50 per cent) between 2015 and 2020. An additional two countries (13 per cent) partially achieved this target. Six countries have not made any progress on this indicator.

Table 7
Status of the implementation of the NCD global commitments by Caribbean countries in 2020

Indicator	Country							
	Antigua and Barbuda	Bahamas	Barbados	Belize	Cuba	Dominica	Dominican Republic	Grenada
1. Time-bound targets	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Not achieved	Fully achieved	Fully achieved
2. Mortality data	Fully achieved	Fully achieved	Partially achieved	Fully achieved	Fully achieved	Fully achieved	Partially achieved	Fully achieved
3. STEPS survey	Not achieved	Partially achieved	Partially achieved	Not achieved	Partially achieved	Not achieved	Partially achieved	Partially achieved
4. National NCD Plans	Fully achieved	Partially achieved	Fully achieved	Fully achieved	Not achieved	Not achieved	Fully achieved	Not achieved
5a. Increase tobacco taxes	Not achieved	No response	Not achieved	Not achieved	Partially achieved	Not achieved	Partially achieved	Not achieved
5b. Smoke-free environments	Fully achieved	Not achieved	Fully achieved	Not achieved	Partially achieved	Not achieved	Partially achieved	Not achieved
5c. Health warnings on tobacco packaging	Partially achieved	Not achieved	Fully achieved	Not achieved	Partially achieved	Not achieved	Not achieved	Not achieved
5d. TAPS bans	Fully achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
5e. Media campaigns	Not achieved	Not achieved	Not achieved	Not achieved	No response	Partially achieved	Not achieved	Not achieved
6a. Restrictions alcohol availability	Partially achieved	Partially achieved	Partially achieved	Partially achieved	Partially achieved	Partially achieved	Partially achieved	Partially achieved
6b. Restrictions on alcohol advertising	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
6c. Increase alcohol taxes	Not achieved	Partially achieved	Partially achieved	Partially achieved	Not achieved	Partially achieved	Partially achieved	Partially achieved
7a. Salt consumption policy	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
7b. Saturated/trans fats policy	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved

Indicator	Country							
	Antigua and Barbuda	Bahamas	Barbados	Belize	Cuba	Dominica	Dominican Republic	Grenada
7c. Policy on marketing to children	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
7d. Legislation for breast milk substitutes	Not achieved	Not achieved	Not achieved	Not achieved	Partially achieved	Not achieved	Fully achieved	Not achieved
8. Physical Activity	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Partially achieved	Fully achieved
9. NCD Guidelines	Not achieved	Partially achieved	Partially achieved	Partially achieved	Fully achieved	Partially achieved	Fully achieved	Not achieved
10. CVD Drug therapy	Not achieved	Don't know	Not achieved	Don't know	Fully achieved	Fully achieved	Partially achieved	Not achieved

Indicator	Country							
	Guyana	Haiti	Jamaica	Saint Kitts and Nevis	Saint Lucia	Saint Vincent and the Grenadines	Suriname	Trinidad and Tobago
1. Time-bound targets	Fully achieved	Not achieved	Not achieved	Not achieved	Not achieved	Fully achieved	Fully achieved	Fully achieved
2. Mortality data	Fully achieved	Not achieved	Fully achieved	Fully achieved	Fully achieved	Fully achieved	Partially achieved	Partially achieved
3. STEPS survey	Partially achieved	Partially achieved	Partially achieved	Not achieved	Partially achieved	Partially achieved	Partially achieved	Partially achieved
4. National NCD Plans	Fully achieved	Not achieved	Not achieved	Not achieved	Fully achieved	Fully achieved	Fully achieved	Partially achieved
5a. Increase tobacco taxes	Not achieved	No response	Not achieved	Not achieved	Partially achieved	Not achieved	Not achieved	Not achieved
5b. Smoke-free environments	Fully achieved	Not achieved	Fully achieved	Not achieved	Not achieved	Not achieved	Fully achieved	Fully achieved
5c. Health warnings on tobacco packaging	Fully achieved	Not achieved	Fully achieved	Not achieved	Fully achieved	Not achieved	Fully achieved	Fully achieved
5d. TAPS bans	Fully achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Fully achieved	Not achieved

Indicator	Country							
	Guyana	Haiti	Jamaica	Saint Kitts and Nevis	Saint Lucia	Saint Vincent and the Grenadines	Suriname	Trinidad and Tobago
5e. Media campaigns	Not achieved	Not achieved	No response	Not achieved	Fully achieved	Not achieved	Not achieved	Not achieved
6a. Restrictions alcohol availability	Partially achieved	No response	Partially achieved	Fully achieved	Partially achieved	Partially achieved	Not achieved	Partially achieved
6b. Restrictions on alcohol advertising	Not achieved	No response	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
6c. Increase alcohol taxes	Partially achieved	No response	Fully achieved	Fully achieved	Partially achieved	Not achieved	Fully achieved	Partially achieved
7a. Salt consumption policy	Not achieved	Not achieved	Partially achieved	Not achieved	Not achieved	Partially achieved	Not achieved	Not achieved
7b. Saturated/trans fats policy	Not achieved	Not achieved	Partially achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
7c. Policy on marketing to children	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved
7d. Legislation for breast milk substitutes	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Not achieved	Partially achieved
8. Physical Activity	Fully achieved	Not achieved	Fully achieved	Fully achieved	Fully achieved	Partially achieved	Not achieved	Fully achieved
9. NCD Guidelines	Partially achieved	Fully achieved	Partially achieved	Fully achieved	Partially achieved	Partially achieved	Partially achieved	Don't know
10. CVD Drug therapy	Not achieved	Not achieved	Not achieved	Not achieved	Partially achieved	Not achieved	Don't know	Fully achieved

Source: Prepared by the authors based on information from PAHO's NCD Country Capacity Survey (2015-2020).

Indicator 5: Member State Implemented the following Tobacco demand-reduction measures

Progress was mixed in the implementation of tobacco demand-reduction measures with more than half of the countries not having achieved any measure in 2020. However, between 2015 and 2020 there has been an increase in the number of countries creating smoke-free environments, having health warnings on tobacco packaging and tobacco advertising, promotion and sponsorship bans. Progress on the specific measures are as follows:

- a. *Member State has implemented measures to reduce affordability by increasing excise taxes and prices on tobacco products*

No country had implemented measures to reduce the affordability of tobacco products between 2015 and 2020. Currently, three countries (19 per cent) have partially achieved this while 11 (69 per cent) have not made any progress.

- b. *Member State has implemented measures to eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport*

In 2020, eight countries (50 per cent) had not implemented measures to create smoke-free environments. Six countries (38 per cent) had fully achieved this target, up from four countries (25 per cent) in 2015. Two more countries (13 per cent) have partially achieved the target.

- c. *Member State has implemented plain/ standardized packaging and/or large graphic health warnings on all tobacco packages*

Improvements in this area have been the most encouraging among the five measures for this indicator. The number of countries having health warnings on tobacco packaging increased from two (13 per cent) in 2015 to six (38 per cent) in 2020. In 2020, two countries (13 per cent) had partially achieved this indicator and eight (50 per cent) had not.

- d. *Member State has enacted and enforced comprehensive bans on tobacco advertising, promotion and sponsorship (TAPS)*

In 2020, 13 countries (81 per cent) had not enforced TAPS bans. Three countries (19 per cent) had fully enforced it, up from only one country in 2015.

- e. *Member State has implemented effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke*

Currently, 12 countries (75 per cent) have not implemented effective mass media education campaigns. Only one country has fully achieved this indicator.

Indicator 6: Member State Implemented the following measures to reduce the harmful use of alcohol

Progress was also mixed in the implementation of measures to reduce the harmful use of alcohol. The region has not enforced restrictions on alcohol advertising but has made strides restricting alcohol availability and, to a lesser extent, made progress towards an increase in alcohol taxes. Between 2015 and 2020, there had been a decrease in the number of countries imposing alcohol restrictions but an increase in the number of countries increasing alcohol taxes.

- a. *Member State has enacted and enforced restrictions on the physical availability of retailed alcohol (via reduced hours of sale)*

There has been a decline, over the period 2015-2020, in the number of countries imposing restrictions on the availability of alcohol from four (25 per cent) in 2015 to only one (6 per cent) in 2020. In 2020 though, 13 countries (81 per cent) have partially achieved this target through their ongoing work.

- b. *Member State has enacted and enforced bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)*

Currently, no country has imposed restrictions on alcohol advertising.

- c. *Member State has increased excise taxes on alcoholic beverages*

There has been a slight increase in the number of countries that have increased taxes on alcoholic beverages from one (6 per cent) to three (19 per cent) between 2015 and 2020. An additional nine countries (56 per cent) have partially achieved this target.

Indicator 7: Member State Implemented the following measures to reduce unhealthy diets

Progress was weakest in the implementation of measures to reduce unhealthy diets as over 80 per cent of countries in the region had not achieved nor partially achieved it in 2020.

- a. *Member State has adopted national policies to reduce population salt/sodium consumption*

In 2020, no country had adopted salt consumption policies. This is down from three countries (19 per cent) in 2015. Presently, two countries have partially achieved this.

- b. *Member State adopted national policies that limit saturated fatty acids and virtually eliminate industrially produced trans-fatty acids in the food supply*

As with salt consumption, no country in 2020 had adopted trans-fat consumption policies. In 2015, one country (6 per cent) had fully achieved this, which presently remains unchanged.

- c. *Member State has implemented the WHO set of recommendations on marketing of foods and nonalcoholic beverages to children*

Presently, no country has fully or partially implemented policies on the marketing of food and nonalcoholic beverages to children.

- d. *Member State has legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes*

There has been a decline over the period 2015-2020 in the number of countries implementing legislation for the marketing of breast-milk substitutes from three (19 per cent) in 2015 to only one (6 per cent) in 2020. Presently two countries have been working towards this indicator.

Indicator 8: Member State has implemented at least one recent national public awareness programme and motivational communication for physical activity, including mass media campaigns for physical activity behavioural change

In 2020, 12 countries (75 per cent) had integrated physical activity related actions. This is one country less than in 2015 (81 per cent). However, this indicator has been fully achieved by more countries than the other indicators, two countries having partially achieved it, whereas only two countries have not actioned it.

Indicator 9: Member State has evidence-based national guidelines/ protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government or competent authorities

In 2020, four countries (25 per cent) have implemented evidence based NCD guidelines. This is up from none in 2015. Nine additional countries (56 per cent) in 2020 have partially achieved this indicator suggesting increased commitment to implementing evidence-based practices. Two countries (13 per cent) have not achieved this indicator.

Indicator 10: Member State has provision of drug therapy, including glycemic control, and counselling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level

Between 2015 and 2020, there has been an increase in the number of countries providing cardiovascular therapy from only one (6 per cent) in 2015 to three countries (19 per cent) in 2020. In 2020, two more countries (13 per cent) have partially achieved this and a half did not.

C. Areas of further action

Despite the encouraging response in the Caribbean to the call to address NCDs and their risk factors more than a decade ago, current signs point to a plateauing of the progress made in reducing NCD risk factors. While countries have enhanced their capacities to monitor and report on NCD indicators through the drafting and implementation of national NCD strategy or action plan and the setting of time-bound national targets, use of policies in other sectors to drive positive health outcomes has been less than adequate.

Tobacco use prevention policies such as increased taxes on tobacco products, smoke-free environments, and health warning on tobacco packaging have not been widely and fully implemented in the Caribbean. The imposition of restriction on tobacco advertisements and implementation of effective public education media campaigns on the harmful effect of tobacco use and second-hand smoke are even less common. Notably, with respect to alcohol consumption, no Caribbean country has implemented recommended restrictions on alcohol advertisement.

Concerning healthy diet, Caribbean countries have largely not devised policies on salt consumption, limits on saturated fatty acids in foods, and the implementation of WHO set of recommendations on marketing of food and nonalcoholic beverages to children.

While significant national and local efforts have gone into the promotion of physical activity among the general population, physical inactivity among children and adolescents have remained high and constitutes a major concern which had not been vigorously addressed until recently. Current initiatives such as the one championed by CARPHA to promote school environments for healthy eating and physical activity are therefore needed to effectively address the growing prevalence of childhood obesity.

V. Conclusions

From the Nassau Declaration to the Declaration of Port of Spain, Caribbean leaders have underscored the importance of health to development and have played pivotal roles in raising awareness about and advocating for concerted action to address NCDs and their risk factors. Although these regional initiatives and the political support that they received triggered early multi-sectoral actions to tackle NCDs in the Caribbean, progress seems to have been stalled with some NCD risk factors showing marginal increase in prevalence.

The evaluation of progress in the implementation of the 2007 Declaration of Port of Spain revealed that regional institutional support is critical to successful national implementation of the mandate contained in it (Kirton and others, 2018; Samuels and Unwin, 2018). No such comprehensive subregional assessment has been done yet for the Global Action Plan for the Prevention and Control of NCDs 2013–2020 or the Sustainable Development Goals as it relates to health and well-being. However, there has been continuous monitoring of progress of achievement on the global NCD targets and commitments by PAHO. The analysis of data, as reported by PAHO, in this study showed that the Caribbean has stagnated in reducing the common risk factors of NCDs and is, therefore, not currently on track to sufficiently achieve the GAP 2013–2028 targets nor the SDG 3.4 target of one-third reduction in premature death from NCDs by 2030³⁹. At the same time, the population is ageing more rapidly, and childhood obesity remains high with one in three children in the Caribbean considered to overweight or obese. These factors combined suggest a future of even higher prevalence of NCDs in the Caribbean, resulting in greater health care costs and a pronounced loss in productivity.

The current labour productivity of the Caribbean is less than ideal (ECLAC 2020). The combination of a future work force burdened by the morbidity associated with NCDs and their risk factors and healthcare and social security systems saddled with the burden of diseases from the preponderance of senior citizens with chronic NCDs may be catastrophic for most Caribbean small economies.

³⁹ There are notable exemptions when countries are considered on an individual basis.

The COVID-19 pandemic adds another dimension. As emphasized by PAHO and WHO, people with pre-existing medical conditions that include most NCDs are at higher risk of severe illness and death from COVID-19 infection. Diabetes, cardiac disease, and lung disease were the most common comorbidity reported by persons with COVID-19 infection in Latin America and the Caribbean,⁴⁰ resulting in death of 61 per cent of individuals with at least one comorbidity. This association between heightened COVID-19 risk and NCDs calls for a renewed focus on these diseases NCDs in the Caribbean given the subregion's demographic and epidemiological transition. In the current context and for the near future, these factors will have direct impacts on healthcare delivery and cost and have implications for the economic productivity of current and future populations.

As member States focus on the Decade of Action for the SDGs from now until 2030, the Caribbean must refocus attention on addressing NCDs. As highlighted in the 2030 Agenda, a healthy environment is a critical pre-condition for human beings to fully realized their potential, and that starts with individual health and well-being. With NCDs accounting for 80 per cent or more of deaths from all causes in many Caribbean countries, more needs to be done to significantly reduce the risk factors that cause these preventable diseases. From an economic viewpoint, the economic burden of diabetes and hypertension alone have been estimated to be as high as 8 per cent of GDP in the Caribbean (Abdulkadri, Cunningham-Myrie and Forrester, 2009). The economic burden of NCDs will most likely rise significantly in the coming years, with more profound effect on labour productivity and human wellbeing, unless NCDs and their risk factors are effectively addressed through prevention and control, including the use of tax policies as a disincentive for unhealthy consumption habits and additionally as a revenue source for financing healthcare (ECLAC 2020).

⁴⁰ See PAHO's COVID-19 Epidemiological Update of 26 August 2020.

Bibliography

- Abdulkadri, A. and others (2015), "WHO/ISH total risk approach for primary prevention of cardiovascular disease shows greater decrease in costs for women but not the elderly in Jamaica", *Journal of Clinical Epidemiology*, vol. 68, No. 9, September.
- Abdulkadri, A. O., C. Cunningham-Myrie and T. Forrester (2009), "Economic burden of diabetes and hypertension in CARICOM States", *Social and Economic Studies*, vol. 58, No. 3-4.
- Arnesen, T. and Nord, E. (1999). "The value of DALY life: problems with ethics and validity of disability adjusted life years." *British Medical Journal* 1999; 319:1423.
- Ballayram, Lawrence B., and Henry F. (2015). "Food security and health in the Caribbean: imperatives for policy implementation." *Journal of Food Security*; 3(6): 137-144. <http://pubs.sciepub.com/jfs/3/6/1/>.
- CARPHA (2014). "Plan of action for promoting healthy weights in the Caribbean: Prevention and control of childhood obesity 2014- 2019." Port of Spain, Trinidad and Tobago. Available at: <https://carpha.org/Portals/0/xBlog/documents/HealthyWeights.pdf>.
- ECLAC (2020). *The Caribbean Outlook: forging a people-centred approach to sustainable development post-COVID-19* (LC/SES.38/12), Santiago.
- ECLAC and PAHO (2020). "Health and the economy: a convergence needed to address COVID-19 and retake the path of sustainable development in Latin America and the Caribbean," COVID-19 Report, 30 July.
- FAO and PAHO. 2017. Panorama of Food and Nutrition Security in Latin America and the Caribbean. Santiago de Chile. Available at: <http://www.fao.org/3/a-i7914e.pdf>.
- GDB 2019 Disease and Injuries Collaborators (2020). "Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019." *Lancet* 2020; 396: 1204–22.
- HCC (2019). Accelerating nutrition policies in the Caribbean: Creating Supportive Environments for Healthy Children, Meeting Report. Available at: <https://www.healthycaribbean.org/wp-content/uploads/2019/12/Accelerating-Nutrition-Policies-in-the-Caribbean-Meeting-Report-October-2019.pdf>.

- HCC (2018). Beyond the call to action event: Towards School Policies in support of Childhood Obesity Prevention. Meeting Report. Available at: <https://www.healthycaribbean.org/wp-content/uploads/2019/02/CTA-Event-Report-WEB.pdf>.
- HCC(2018). "Caribbean NCD Forum, Technical Report. Available at: <https://www.healthycaribbean.org/wp-content/uploads/2018/08/NCD-Forum-Report-2018.pdf>.
- HCC (2017). Preventing childhood obesity in the Caribbean: Civil Society Action Plan 2017-2021. Available at: <https://www.healthycaribbean.org/wp-content/uploads/2017/10/Preventing-Childhood-Obesity-in-the-Caribbean-CSAP-2017-2021.pdf>.
- HCC (2014). "A civil society regional status report: responses to NCDs in the Caribbean community." St. Michael, Barbados. Available at: <https://www.healthycaribbean.org/wp-content/uploads/2016/04/HCC-NCDA-RSR-FINAL-MARCH-2014.pdf>.
- Kirton, J. and others (2018). "Regional and global impacts of the 2007 Port-of-Spain Declaration on noncommunicable diseases." *Rev Panam Salud Publica*; 42:e194. Available at: <https://doi.org/10.26633/RPSP.2018.194>.
- Murphy, M.M. and others (2018). "Evaluating policy responses to noncommunicable diseases in seven Caribbean countries: challenges to addressing unhealthy diets and physical inactivity." *Rev Panam Salud Publica*; 42:e174. Available at: <https://doi.org/10.26633/RPSP.2018.174>
- Mitchell-Fearon, K. and others (2017), "The economic burden of hypertension among older persons: lessons from a developing nation", *Journal of Public Health in Developing Countries*, vol. 3, No. 1.
- Nam, Valerie E. and Francis Jones (2018), "Inclusive social protection and demographic change: the implications of population ageing for social expenditure in the Caribbean," *Studies and Perspectives Series – ECLAC Subregional Headquarters for the Caribbean*, No. 66 (LC/CAR/TS.2017/14; LC/TS.2017/153), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), January.
- PAHO (2020), "Rapid assessment of COVID-19: Impact on NCD programs in the Region of the Americas," Washington, D.C., 4 June.
- PAHO (2020). *NCD Global Monitor*.
- PAHO (Pan-American Health Organization) (2017). *Health in the Americas 2017*, Washington, D.C. [online] <https://www.paho.org/salud-en-las-americas-2017>.
- POSDEVAL Research Group (2017). The Evaluation of the 2007 CARICOM Heads of Government Port of Spain NCD Summit Declaration. Bridgetown, Barbados: Caribbean Unity in Health, October.
- WHO and UNDP (2020). "Responding to NCDs during and beyond the COVID-19 pandemic State of the evidence on COVID-19 and NCDs: a rapid review," Geneva: World Health Organization and the United Nations Development Programme (WHO/2019-nCoV/Noncommunicable_diseases/Evidence/2020.1). Licence: CC BY-NC-SA 3.0 IGO.
- Samuels, T.A. and Unwin, N. (2018). "The 2007 Caribbean Community Port-of-Spain Declaration on noncommunicable diseases: an overview of a multidisciplinary evaluation." *Rev Panam Salud Publica*; 42:e193. Available at: <https://doi.org/10.26633/RPSP.2018.193>.
- San Lau, L., Samari, G., Moresky, R. T., Casey, S. E., Kachur, S. P., Roberts, L. F., & Zard, M. (2020). COVID-19 in humanitarian settings and lessons learned from past epidemics. *Nature Medicine*, 26(5), 647-648.
- WHO (2018). *Noncommunicable Diseases Country Profiles*, 2018.
- WHO (2013). *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020*.
- WHO (2009). Global school-based student health survey: fact sheets. Available at: <http://www.who.int/chp/gshs/factsheets/en/>.
- WHO [online]. Obesity and Overweight Factsheets. Available at: <https://www.who.int/news-room/factsheets/detail/obesity-and-overweight>.



UNITED NATIONS

Series

ECLAC

Studies and Perspectives-The Caribbean

Issues published

A complete list as well as pdf files are available at
www.eclac.org/publicaciones

100. Addressing the adverse impacts of non-communicable diseases on the sustainable development of Caribbean countries, Abdullahi Abdulkadri, Shirelle Floyd, Iskuhi Mkrtchyan, Gina Marajh, Candice Gonzales and Colette Cunningham-Myrie, (LC/TS.2021/4, LC/CAR/TS.2021/2), 2021.
99. Economic Survey of the Caribbean 2020: facing the challenge of COVID-19, Dillon Alleyne, Sheldon McLean, Michael Hendrickson, Hidenobu Tokuda, Machel Pantin, Nyasha Skerrette and Keron Victor, (LC/TS.2021/1, LC/CAR/TS.2021/1), 2021.
98. Advancing gender equality in environmental migration and disaster displacement in the Caribbean, Amelia Bleeker, Pablo Escribano, Candice Gonzales, Cristina Liberati and Briana Mawby, (LC/TS.2020/188, LC/CAR/TS.2020/8), 2020.
97. The case for financing: Caribbean resilience building in the face of the COVID-19 pandemic, Dillon Alleyne, Sheldon McLean, Abdullahi Abdulkadri, Catarina Camarinhas, Michael Hendrickson, Willard Phillips, Francis Jones, Hidenobu Tokuda, Machel Pantin and Nyasha Skerrette (LC/TS.2020/161, LC/CAR/TS.2020/7), 2020.
96. Statistical disclosure control for Caribbean census tables: a proposal to expand the availability of disaggregated census data, Francis Jones, (LC/TS.2020/159, LC/CAR/TS.2020/6), 2020.
95. Economic implications of the ban on single-use plastics in the Caribbean: a case study of Trinidad and Tobago, Willard Phillips, Elizabeth Thorne and Camille Roopnarine (LC/TS.2020/127, LC/CAR/TS.2020/5), 2020.
94. Creating an enabling environment for e-government and the protection of privacy rights in the Caribbean: a review of data protection legislation for alignment with the General Data Protection Regulation, Amelia Bleeker (LC/TS.2020/126, LC/CAR/TS.2020/4), 2020.
93. The use of technology and innovative approaches in disaster and risk management: a characterization of Caribbean countries' experience, Luciana Fontes de Meira, Omar Bello (LC/TS.2020/106, LC/CAR/TS.2020/3), 2020.
92. Preliminary overview of the economies of the Caribbean 2019–2020, Dillon Alleyne, Michael Hendrickson, Sheldon McLean, Maharouf Oyolola, Machel Pantin, Nyasha Skerrette and Hidenobu Tokuda (LC/TS.2020/56, LC/CAR/TS.2020/2), 2020.
91. Caribbean synthesis report on the implementation of the Lisbon Declaration on Youth Policies and Programmes, Catarina Camarinhas, Dwynette D. Eversley (LC/TS.2020/7, LC/CAR/TS.2020/1), 2020.

STUDIES AND PERSPECTIVES

Issues published:

100. Addressing the adverse impacts of non-communicable diseases on the sustainable development of Caribbean countries

*Abdullahi Abdulkadri
Shirelle Floyd
Iskuhi Mkrtchyan
Gina Marajh
Candice Gonzales
Colette Cunningham-Myrie*

99. Economic Survey of the Caribbean 2020
Facing the challenge of COVID-19

*Dillon Alleyne, Sheldon McLean
Michael Hendrickson
Hidenobu Tokuda
Machel Pantin
Nyasha Skerrette
Keron Victor*

98. Advancing gender equality in environmental migration and disaster displacement in the Caribbean

*Amelia Bleeker,
Pablo Escribano,
Candice Gonzales,
Cristina Liberati
Briana Mawby*

