

**PAHO**



Pan American  
Health  
Organization



World Health  
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REGIONAL OFFICE FOR THE AMERICAS



# The burden of disease and NCD risk factors progress

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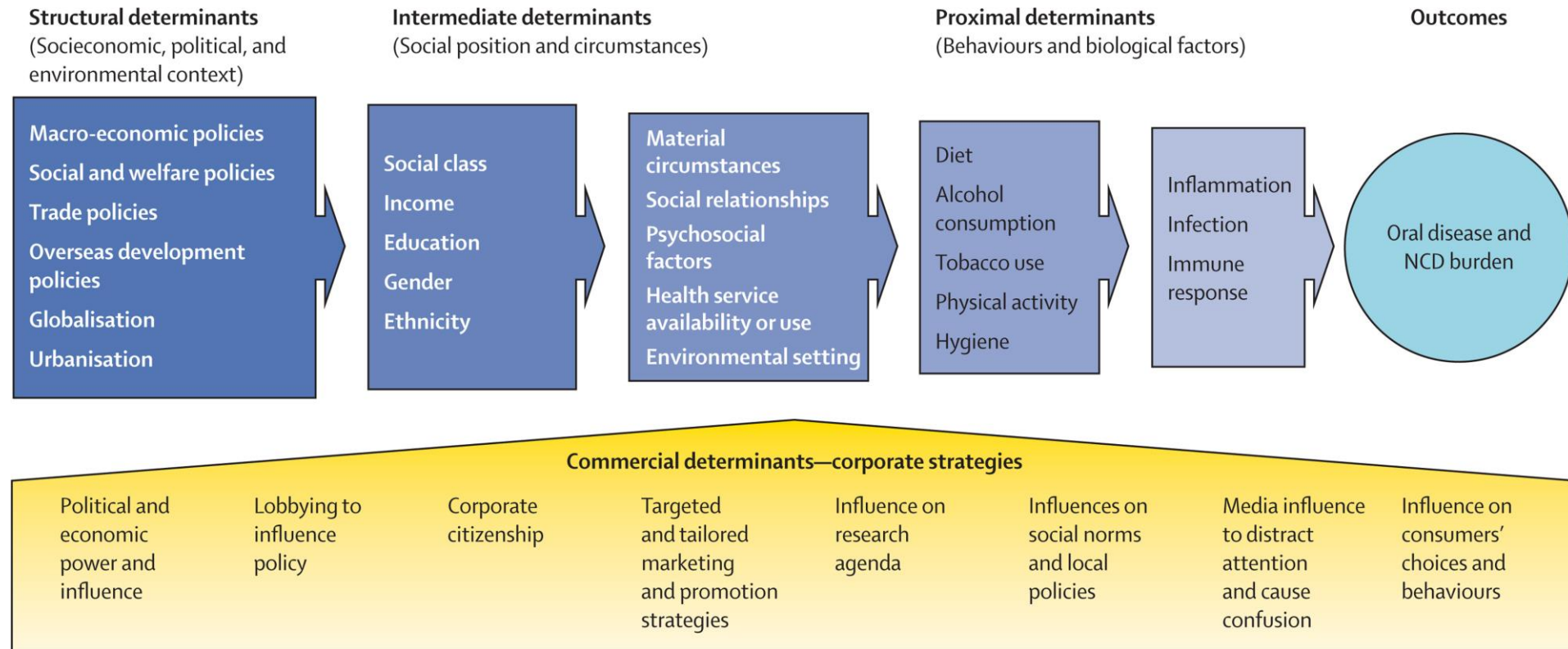
**GLORIA GIRALDO, MPH, DRPH**

ADVISOR, NONCOMMUNICABLE DISEASES AND  
MENTAL HEALTH

SUBREGIONAL PROGRAM FOR THE CARIBBEAN

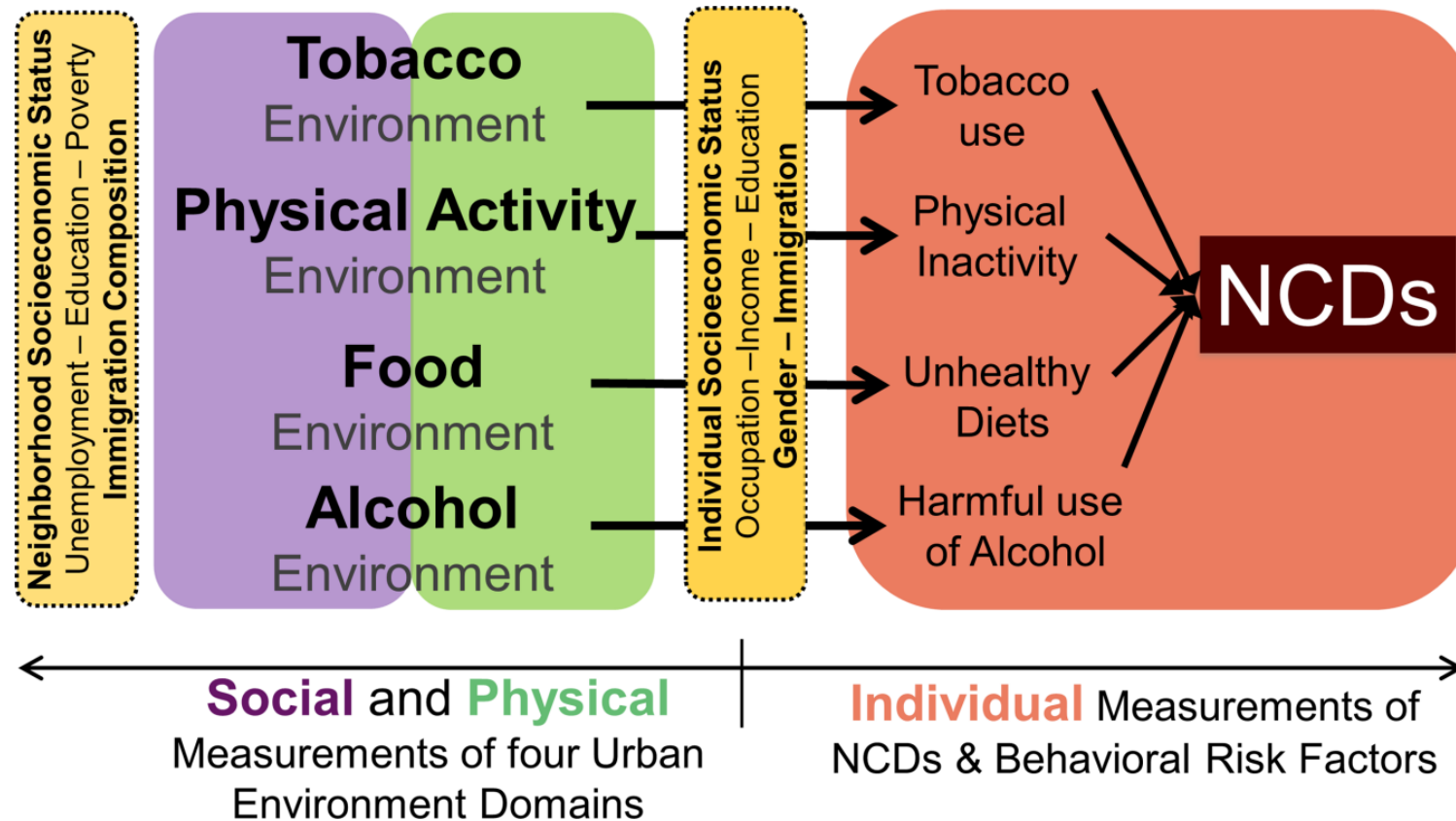


# Social and commercial determinants of NCDs [oral diseases]



Peres MA, Macpherson LMD, Weyant RJ, Daly B, Venturelli R, Mathur MR, Listl S, Celeste RK, Guarnizo-Herreño CC, Kearns C, Benzian H, Allison P, Watt RG. Oral diseases: a global public health challenge. *Lancet*. 2019 Jul 20;394(10194):249-260. doi: 10.1016/S0140-6736(19)31146-8.

# Models help us deal with complexity



**Figure 2** Characteristics of the urban environment and individual behavioural risk factors related to non-communicable diseases (NCDs).

Franco M, Bilal U, Diez-Roux AV. Preventing non-communicable diseases through structural changes in urban environments. *J Epidemiol Community Health*. 2015 Jun;69(6):509-11. doi: 10.1136/jech-2014-203865. Epub 2014 Nov 13. PMID: 25395654.





## NCDs and the Law

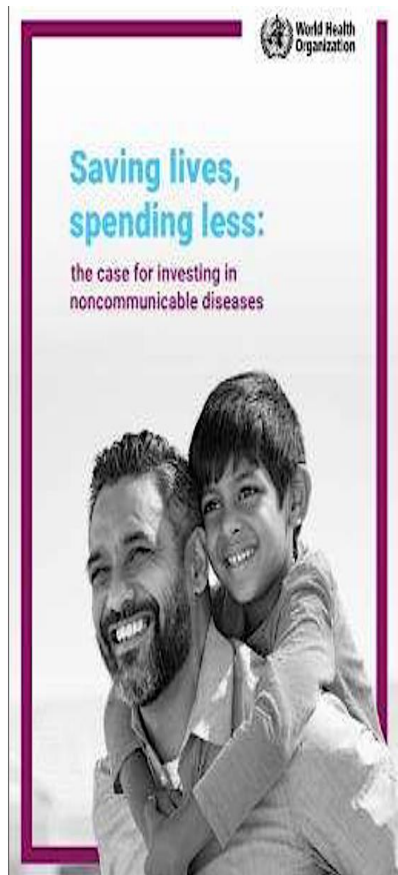
- Non-communicable diseases (NCDs) caused by unhealthy diets, tobacco use, alcohol use, lack of physical activity – all contribute significantly to the Caribbean’s burden of disease and are preventable. **Policies and laws offer an evidence-based mechanism to improve diet, control tobacco use and prevent NCDs.**
- The current human rights dimensions and approaches to NCD risk factors create opportunities to strengthen legal obligations to respond to NCDs, **with an emphasis on controlling tobacco and promoting healthy diets.**

# Global NCD Investment Case

Released in December 2021, this update presents the health and economic benefits of implementing the current 16 NCD Best Buys

For an additional **US\$ 0.84** per person per year, **7 million** lives could be saved and **US\$ 230 billion** in economic benefits could be gained

Tackling NCDs is a highly cost-effective investment: the calculated return (ROI) by 2030 is **US\$ 7** for each dollar invested



Source: Saving lives, spending less: the case for investing in noncommunicable diseases. Geneva: World Health Organization; 2021 (43)


# Roadmap 2023–2030 for the Global Action Plan for the Prevention and Control of NCDs 2013–2030





**Table 1. NCD Global Monitoring framework extended to 2030**


Domain	Outcome	Target 2025	Indicator	Extension to 2030
Mortality	Premature mortality from noncommunicable disease	A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases	Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	Target extended to a <b>one third relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases</b> . This target is adapted as per the <b>SDG target</b> on NCDs and with <b>2015 as the baseline</b> and an extrapolation of the 25% relative reduction to 2030 making it 33.3%.
Behavioural risk factors	Harmful use of alcohol	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context	Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context	Target extended to a <b>20% relative reduction in harmful use of alcohol</b> . The proposed revision of the target is under the draft action plan on alcohol that will be considered by EB 150 and WHA75.
	Physical inactivity	A 10% relative reduction in prevalence of insufficient physical activity	Age-standardized prevalence of insufficiently physically active persons aged 18+ years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent)	Target extended to a <b>15% relative reduction in prevalence of insufficient physical activity</b> as part of the Global Action Plan on Physical Activity adopted by MS at WHA May 2018.
	Salt/sodium intake	A 30% relative reduction in mean population intake of salt/sodium	Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years	Target extended to a <b>40% relative reduction in mean population intake of salt/sodium</b>
	Tobacco use	A 30% relative reduction in prevalence of current tobacco use	Age-standardized prevalence of current tobacco use among persons aged 18+ years	Target extended to a <b>40% relative reduction in prevalence of current tobacco use</b>

# Common Ground: Burden of Disease

## ENLACE DATA PORTAL

English



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### Risk of Dying Prematurely from NCDs

[ENLACE](#) [NCD PREMATURE MORTALITY](#) [TECHNICAL NOTES](#) [ABOUT](#)

Goal 3 of the [2030 UN Agenda for Sustainable Development \(SDG\)](#) is to "Ensure healthy lives and promote well-being for all at all ages". Target 3.4 is: By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. Premature mortality from NCDs, measured as the unconditional probability of dying at exact ages of 30 to 70 years from any of the four major NCDs (cardiovascular diseases, cancers, diabetes, and chronic respiratory diseases) is the indicator (3.4.1) to monitor progress on the prevention and control of noncommunicable diseases.

This visualization allows readers to explore the level, distribution, and trends of the probability of dying prematurely from all-noncommunicable diseases, the four major NCDs (cardiovascular diseases, cancers, diabetes mellitus, and chronic respiratory diseases) for two age ranges (from 30 to 70 years of age, and from birth to 80 years of age) by sex in countries of the Region of the Americas from 2000 to 2019.

<https://www.paho.org/en/enlace/risk-dying-prematurely-ncds>



# Premature Mortality from Noncommunicable Diseases: trends over time

Unconditional probability of dying from noncommunicable diseases (expressed in percentage)

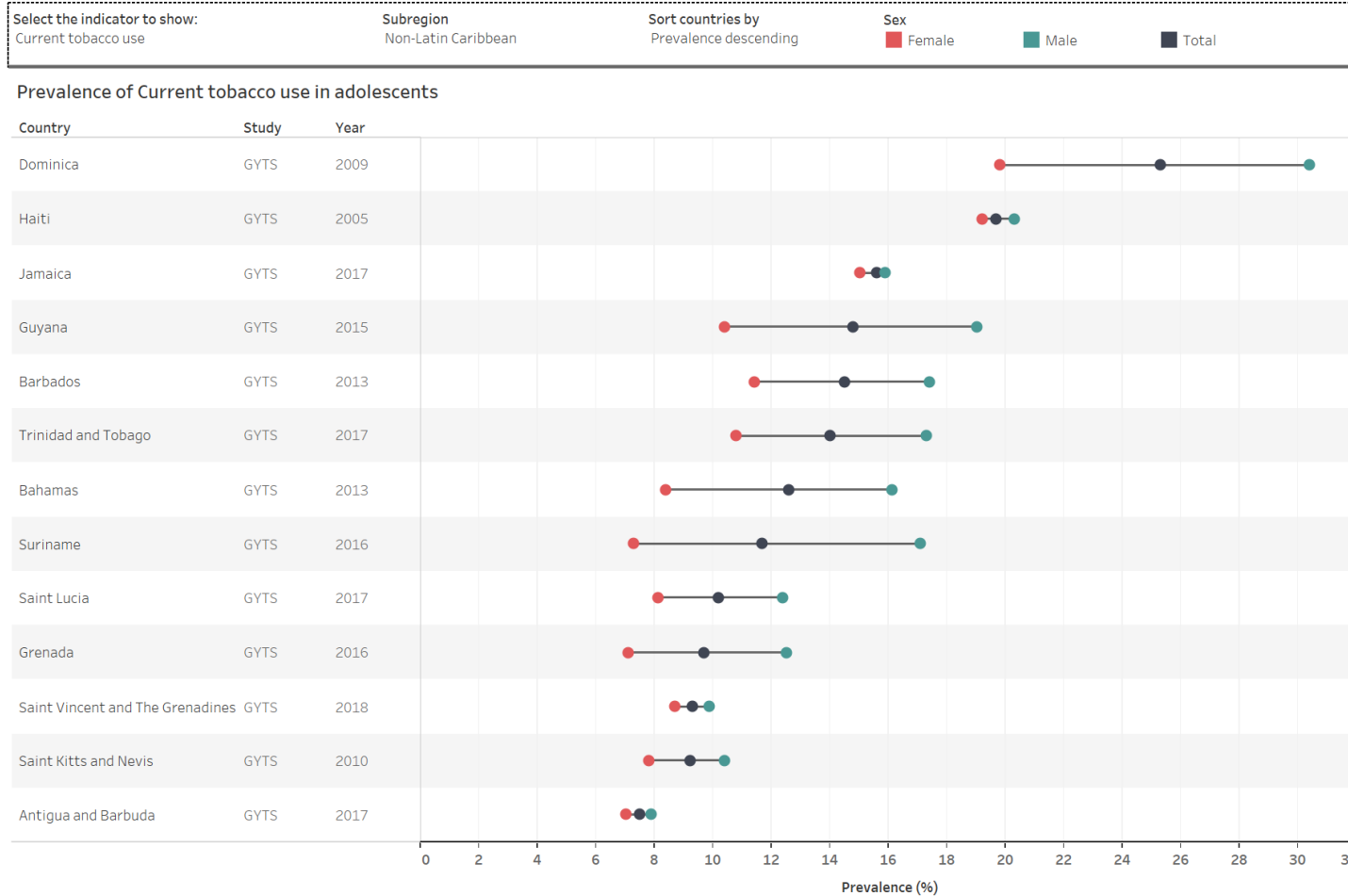
**Cause** Four major noncommunicable diseases (CVD, cancer, diabetes, and chronic respir...  
**Age group** 30-70  
**Sex** All  
**Location** Multiple values  
 WARNING: Multiple countries can be selected for comparison, however, it is recommended you select up to ten countries to avoid an overcrowded chart.





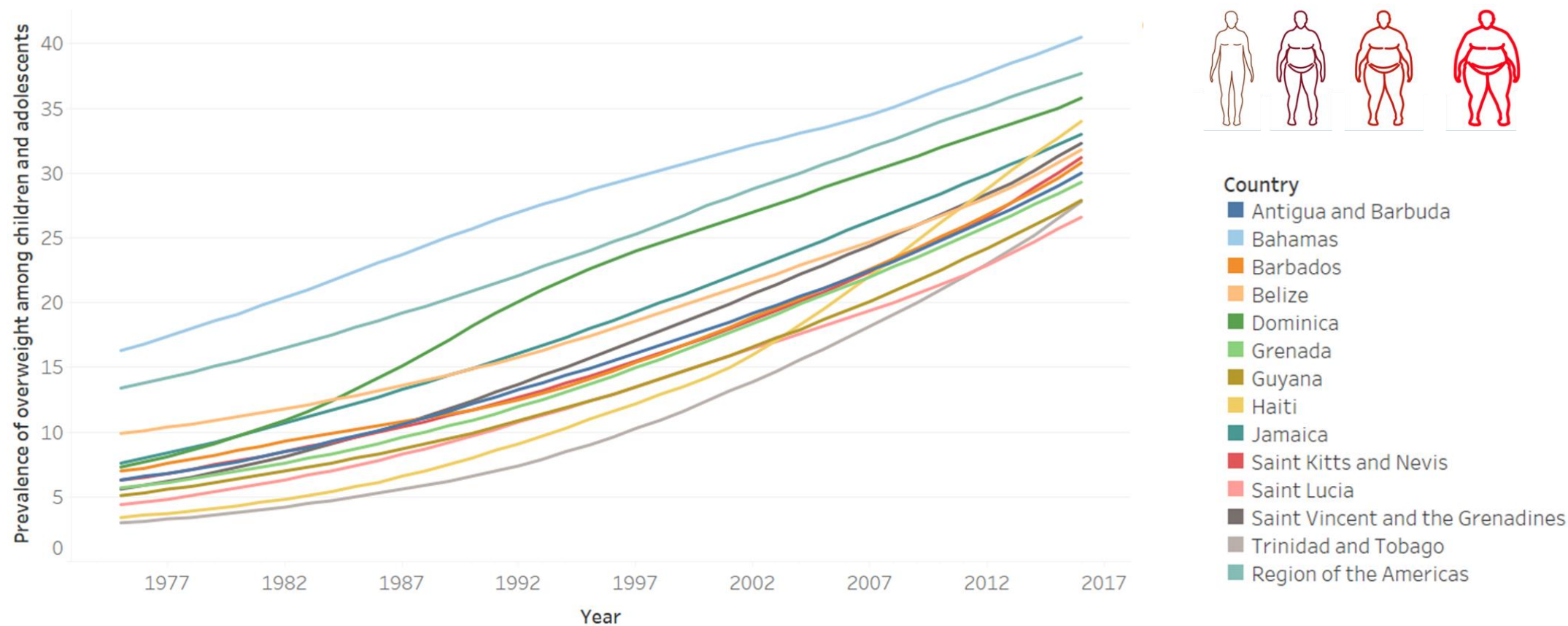
# Estimates of prevalence of current tobacco use in adolescents (13 – 15 yr olds) by sex and country, Data from latest school-student based survey available

Prevalence of current tobacco use in adolescents (13-15 years old), countries of the Americas  
Data from the latest school-student based survey available



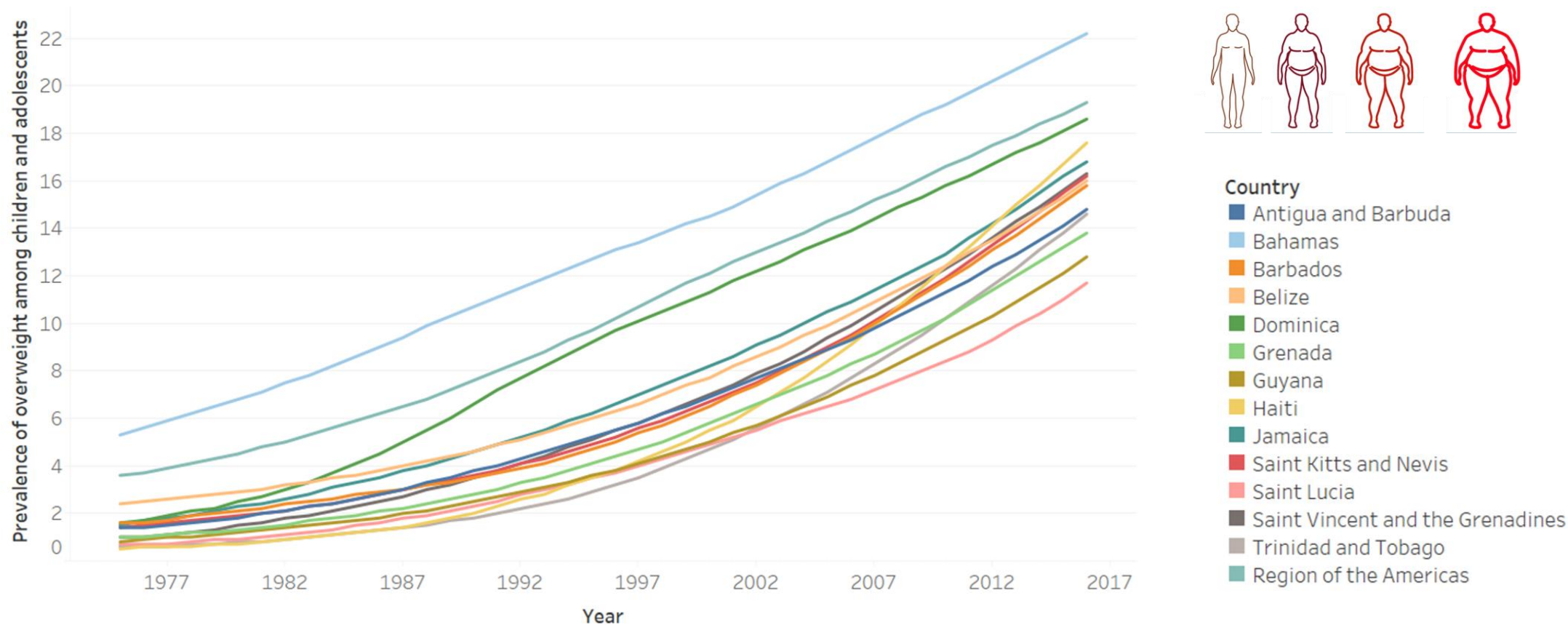
Source: School-student based studies, such as the Global Youth Tobacco Survey from countries of the Americas. Updated March, 2020

# Prevalence of overweight among children and adolescents, BMI > +1 standard deviation above the median (crude estimate) (%)





# Prevalence of obesity among children and adolescents, BMI > +2 standard deviation above the median (crude estimate) (%)







# Combined and individual model scenarios for decreasing diabetes and obesity prevalence in adults in Jamaica



## Intensive upstream

The same interventions as the modest upstream, but with greater intensity.

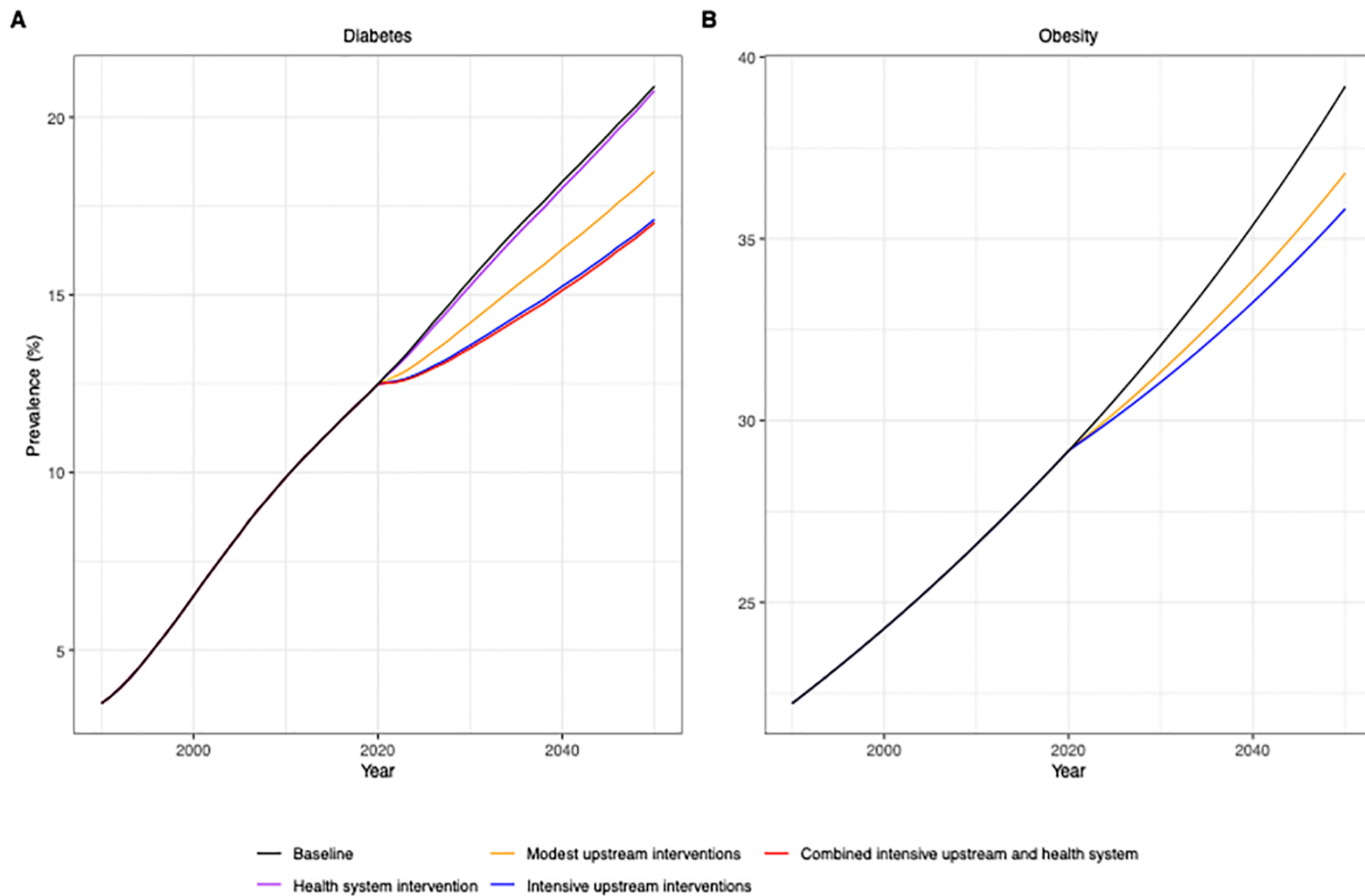
- A 25% reduction in SSBs consumption
- A 25% reduction in consumption other ultra processed foods
- A 25% increase in fruit and vegetable consumption
- Front-of-package warning labels (FOPL)
- An additional 30 minutes of MVPA per day
- Public information campaigns on physical activity and healthy diet

## Combined downstream and intensive upstream

A combination of the downstream interventions and the intensive upstream interventions described above




Guariguata L, Garcia L, Sobers N, Ferguson TS, Woodcock J, Samuels TA, Guell C, Unwin N. Exploring ways to respond to rising obesity and diabetes in the Caribbean using a system dynamics model. PLOS Glob Public Health. 2022 May 19;2(5):e0000436. doi: 10.1371/journal.pgph.0000436. PMID: 36962372; PMCID: PMC10021196.

# System Dynamics Modeling



Guariguata L, Garcia L, Sobers N, Ferguson TS, Woodcock J, Samuels TA, Guell C, Unwin N. Exploring ways to respond to rising obesity and diabetes in the Caribbean using a system dynamics model. PLOS Glob Public Health. 2022 May 19;2(5):e0000436. doi: 10.1371/journal.pgph.0000436. PMID: 36962372; PMCID: PMC10021196.

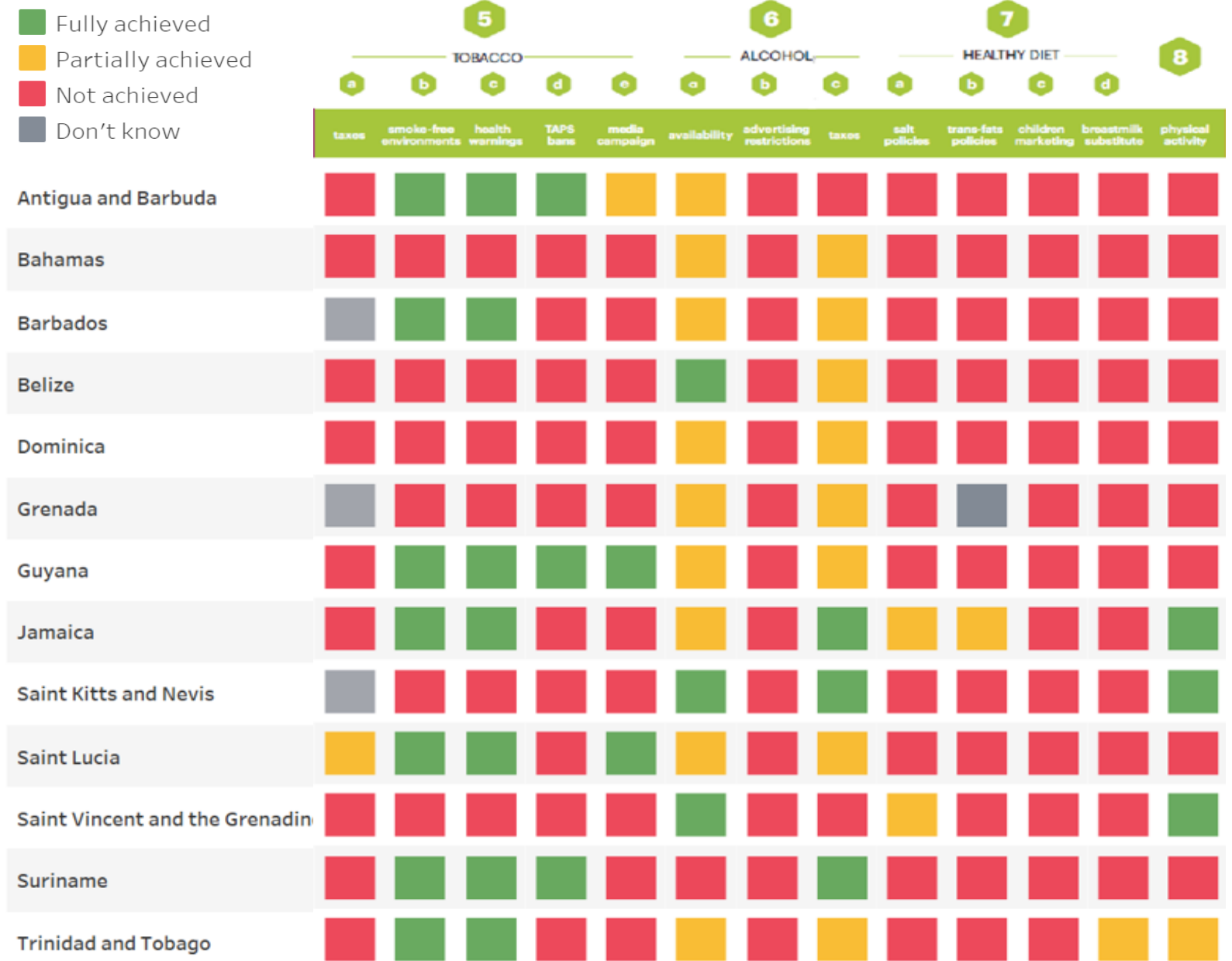
# WHO 'Best Buys' NCD Risk Factor Interventions: Many based on legislation

Risk factor/disease	Interventions
 <p>Tobacco use</p>	<ul style="list-style-type: none"> <li>• Tax increases</li> <li>• Smoke-free indoor workplaces and public places</li> <li>• Health information and warnings</li> <li>• Bans on tobacco advertising, promotion and sponsorship</li> </ul>
 <p>Harmful alcohol use</p>	<ul style="list-style-type: none"> <li>• Tax increases</li> <li>• Restricted access to related alcohol</li> <li>• Bans on alcohol advertising</li> </ul>
 <p>Physical inactivity and unhealthy diet</p>	<ul style="list-style-type: none"> <li>• Reduced salt intake on food</li> <li>• Replacement of trans fat with polyunsaturated fat</li> <li>• Public awareness through mass media on diet and physical activity</li> </ul>



# Progress to Implement the NCD Risk Factor 'Best Buys' is very limited

- Fully achieved
- Partially achieved
- Not achieved
- Don't know



# Accelerating Legislation for NCD Risk Factors



1. **Smoke-free Caribbean** → present legislation to Parliament
2. **Front-of-package labeling** → support adoption of octagonal warning label
3. **Trans-fat elimination** → enact policies to eliminate trans-fat
4. **Sugar-sweetened beverage taxation** → increase tax and ban the sale of sugar-sweetened beverages and the sale of non-nutritious foods in schools



THANK YOU





# Nutrition Policy: Front-of-package warning labels

PAHO and partners continue to generate and disseminate scientific evidence regarding the octagonal warning labels

Front-of-package warning labeling (FOPWL) as a **key policy tool** of a comprehensive strategy to address obesogenic environments and an “enabler” of other interventions (i.e., restriction of marketing to children, school-based policies, taxation).



**Front-of-package warning labels save lives and resources: results from a modeling study in Barbados**

Warning labels have the potential to avert 16% of the deaths caused by noncommunicable diseases and save USD 732.8 million in Barbados

September 2023

Open access Original research

**BMJ Open** Effects of front-of-package nutrition labelling systems on understanding and purchase intention in Jamaica: results from a multiarm randomised controlled trial

Vanessa White-Barrow,<sup>1</sup> Fabio S Gomes,<sup>2</sup> Sheerin Eyre,<sup>1</sup> Gaston Ares,<sup>3,4</sup> Audrey Morris,<sup>5</sup> Deonne Caines,<sup>6</sup> David Finlay<sup>1</sup>

THE LANCET *Regional Health Americas* Subm

HEALTH POLICY | ONLINE FIRST, 100400 PDF [1 MB]

A policy study on front-of-pack nutrition labeling in the Americas: Emerging developments and outcomes

Eric Crosbie • Fabio S. Gomes • Jasmine Olvera • Sofia Rincón-Gallardo Patiño • Samantha Hoepfer • Angela Carriedo



# Achieving a Smoke-free Caribbean (SFE) by 2022 – A pending goal

## Countries that already have relevant bills or draft legislation

- Ministries of Health must present and defend the SFE legislation in Parliament to achieve its enactment.

- Bahamas
- Belize
- Grenada
- St. Vincent and the Grenadines

## Emerging threat: Vaping

PAHO supported Healthy Caribbean Coalition for the development of Report on Vaping Among Adolescents and Youth in the Caribbean, aimed at providing policymakers with insights and recommendations to reduce and prevent vaping among youth.

