Landscape of NCDs and their risk factors in the Caribbean

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Every second, 28 lives between the ages of 30 and 70 are cut short because countries have not taken policy, legislative and regulatory measures to respond to the needs of people living with or at risk of cardiovascular diseases, cancers, diabetes, chronic respiratory diseases, or mental health conditions, including preventive, curative, palliative, and specialized care.

25 out of 28 lives lost each second occur in low- and middle-income countries where the social, economic, and physical environments afford populations much lower levels of protection from the risks and consequences of NCDs than in high-income countries, including protection from tobacco use, the harmful use of alcohol, unhealthy diets, physical activity, and air pollution.
## Social and commercial determinants of NCDs [oral diseases]

### Structural determinants
(Socioeconomic, political, and environmental context)
- Macro-economic policies
- Social and welfare policies
- Trade policies
- Overseas development policies
- Globalisation
- Urbanisation

### Intermediate determinants
(Social position and circumstances)
- Social class
- Income
- Education
- Gender
- Ethnicity

### Proximal determinants
(Behaviours and biological factors)
- Material circumstances
- Social relationships
- Psychosocial factors
- Health service availability or use
- Environmental setting
- Diet
- Alcohol consumption
- Tobacco use
- Physical activity
- Hygiene

### Outcomes
Oral disease and NCD burden

### Commercial determinants—corporate strategies
- Political and economic power and influence
- Lobbying to influence policy
- Corporate citizenship
- Targeted and tailored marketing and promotion strategies
- Influence on research agenda
- Influences on social norms and local policies
- Media influence to distract attention and cause confusion
- Influence on consumers’ choices and behaviours

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Multiple behavioural risk factors of non-communicable diseases among adolescents in four Caribbean countries: prevalence and correlates

Supa Pengpid and Karl Peltzer

From the journal International Journal of Adolescent Medicine and Health

Abstract

Objectives

The study assessed the prevalence and associated factors of behavioural risk factors of non-communicable diseases (NCDs) among adolescents in four Caribbean countries.

Content

In all 0,143 adolescents (15 years = median age) participated in the cross-sectional “2016 Dominican Republic, 2016 Suriname, 2017 Jamaica, and 2017 Trinidad and Tobago Global School-Based Student Health Survey (GSHS)”. Eight behavioural risk factors of NCDs were assessed by a self-administered questionnaire.

Summary

Prevalence of each behavioural NCD risk factor was physical inactivity (84.2%), inadequate fruit and vegetable intake (82.2%), leisure-time sedentary behaviour (49.6%), daily ≥2 soft drinks intake (46.8%), ever drunk (28.6%), twice or more days a week fast food consumption (27.6%), having overweight/obesity (27.4%), and current tobacco use (13.8%). Students had on average 3.6 (SD=1.4), and 79.0% had 3–8 behavioural NCD risk factors. In multivariable linear regression, psychological distress and older age increased the odds, and attending school and parental support decreased the odds of multiple behavioural NCD risk factors.

Outlook

A high prevalence and co-occurrence of behavioural risk factors of NCDs was discovered and several factors independently contributing to multiple behavioural NCD risk factors were identified.
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
Common Ground: Burden of Disease

ENLACE DATA PORTAL

Risk of Dying Prematurely from NCDs

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.

Premature Mortality from Noncommunicable Diseases: trends over time

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

Prevalence of Current tobacco use in adolescents

<table>
<thead>
<tr>
<th>Country</th>
<th>Study</th>
<th>Year</th>
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<tbody>
<tr>
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Source: School-student based studies, such as the Global Youth Tobacco Survey from countries of the Americas. Updated March, 2020
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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) (%)
Five most frequent cancers in the world and in LAC by subregions, both sexes combined, incidence and mortality, 2020.


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

<table>
<thead>
<tr>
<th>Domain</th>
<th>Outcome</th>
<th>Target 2025</th>
<th>Indicator</th>
<th>Extension to 2030</th>
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<tbody>
<tr>
<td>Mortality</td>
<td>Premature mortality from noncommunicable disease</td>
<td>A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases</td>
<td>Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases</td>
<td>Target extended to a one third relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases. This target is adapted as per the SDG target on NCDs and with 2015 as the baseline and an extrapolation of the 25% relative reduction to 2030 making it 33.3%.</td>
</tr>
<tr>
<td>Behavioural risk factors</td>
<td>Harmful use of alcohol</td>
<td>At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context</td>
<td>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</td>
<td>Target extended to a 20% relative reduction in harmful use of alcohol. The proposed revision of the target is under the draft action plan on alcohol that will be considered by EB 150 and WHA 75.</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>A 10% relative reduction in prevalence of insufficient physical activity</td>
<td>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)</td>
<td>Age-standardized prevalence of insufficient physical activity as part of the Global Action Plan on Physical Activity adopted by MS at WHA May 2018.</td>
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<td>Salt/sodium intake</td>
<td>A 30% relative reduction in mean population intake of salt/sodium</td>
<td>Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years</td>
<td></td>
<td>Target extended to a 40% relative reduction in mean population intake of salt/sodium</td>
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<td>Tobacco use</td>
<td>A 30% relative reduction in prevalence of current tobacco use</td>
<td>Age-standardized prevalence of current tobacco use among persons aged 18+ years</td>
<td></td>
<td>Target extended to a 40% relative reduction in prevalence of current tobacco use</td>
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WHO ‘Best Buys’ NCD Risk Factor Interventions: Many based on legislation

<table>
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<tr>
<th>Risk factor/disease</th>
<th>Interventions</th>
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| Tobacco use                            | • Tax increases  
• Smoke-free indoor workplaces and public places  
• Health information and warnings  
• Bans on tobacco advertising, promotion and sponsorship |
| Harmful alcohol use                    | • Tax increases  
• Restricted access to related alcohol  
• Bans on alcohol advertising |
| Physical inactivity and unhealthy diet | • Reduced salt intake on food  
• Replacement of trans fat with polyunsaturated fat  
• Public awareness through mass media on diet and physical activity |
Progress to Implement the NCD Risk Factor ‘Best Buys’ is very limited
THANK YOU