Why Tax Sugary Drinks?

The Burdens of Obesity and Other Non-Communicable Diseases (NCDs)

Global

- Obesity and other non-communicable diseases (NCDs) related to nutrition, such as type 2 diabetes, hypertension, heart disease, and cancer, are the leading causes of disability and death worldwide. In 2015, more than 2.2 billion people (or 1/3 of the world's population) were living with overweight or obesity, and prevalence is increasing rapidly.[1-3]
- Diabetes is also one of the fastest-growing global health emergencies, with an estimated prevalence of 463 million adults living with diabetes today and a projected 700 million by 2045.[4]
- Globally, an estimated 40% of the world's population aged 25 and older has hypertension, and the prevalence is expected to increase significantly in the next decade, driven largely by increases in economically developing nations and this represents about 12.8% of global deaths[5].
- Trends among children are especially concerning: Over 223 million children worldwide now have overweight or obesity — 24 million more than in 2000 — and prevalence is expected to increase another 20% over the next decade to 269 million.[6,7] Prevalence has also risen 60% since 1990 for preschool-aged children, with 43 million now affected and a further 92 million at risk of becoming overweight.[8]
- Even at a young age, obesity takes a serious toll on nearly every organ system and disrupts hormones that control blood sugar and normal development.[9-14]
- Excess body weight accounted for about 4 million deaths worldwide in 2015.[3]
- Obesity places huge burdens on affected individuals, as well as government institutions and societies. Obesity significantly increases health care costs, causes lost wages due to illnesses and disability, reduces work productivity, leads to earlier retirement, and adversely affects well-being in many other ways.[15-18]
- Increasing obesity prevalence is now a bigger problem in low- and middle-income countries than in high-income countries.[1,2,19-22]

Latin America

- Obesity rates in Latin America continue to increase rapidly. Over half of women ages 19-50 in the region carry excess weight, and the figure is even higher for older women. Data on men are only available in a few countries but shows similarly high rates.[20,23-27]
- Childhood overweight and obesity prevalence is high in Latin America. Prevalence among children under five years old is as high as 13.7% in Belize, and is even higher for older children, ranging from 16.7% in Colombia to 43.9% in Mexico.[28]

Colombia

› In Colombia, six of the major causes of death are NCDs (e.g. heart disease, diabetes, stroke, chronic pulmonary disease), and NCDs account for 76% of disability in the country.[19]

› Poor diets and obesity are the top two major risk factors for NCDs in Colombia, including heart disease, stroke, diabetes, osteoarthritis, and some cancers. The risk of these NCDs increases with increases in body mass index (BMI).

› In Colombia, more than half (51%) of adults and 18% of children aged 5-17 carried excess weight in 2010, a 26% increase since 2001.[20,29,30]

Mexico

› The prevalence of overweight and obesity has reached ≈35% among children and adolescents and 70% among adults.[31]

› Among adults in Mexico, 31.5% have hypertension, 9.2% have been diagnosed with diabetes; and the main causes of mortality are cardiovascular disease, cancer and diabetes.[32-34]

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- It has been estimated that in Mexico, 28% of diabetes and 62%of ischemic heart disease burden are attributable to inadequate dietary intake.[34]

Caribbean

Jamaica

- In Jamaica, 2013 data show that overweight rates are high in both adults and children. Like other countries, rates of overweight individuals are higher among women and girls than among their male counterparts— 63% versus 37% in adults, and 31% versus 13.4% in children.[19]
- Given existing NCD trends, models estimate that NCDs will reduce Jamaica's GDP by a total of US$ 18.45 billion between 2015 and 2030.[35]

Barbados

- In Barbados, 19% of adult men and 33% of women have obesity according to 2014 data[36], and 12.2% of children under five years old have overweight or obesity[28] according to 2012 data.
- $BDD 64million (1.1% of GDP) is spent every year treating NCDs, while another $BDD 145million (2.6% of GDP) is lost from the Bajan economy each year due to disability associated with NCDs.[36]

South Africa

- In South Africa, obesity-related diseases (e.g., heart disease, diabetes, stroke, osteoarthritis, and some cancers) are among the top 10 causes of death, accounting for 43% of deaths.[2]
- In South Africa, obesity is one of the top five risk factors for early death and disability.[37]
- Obesity rates in South Africa are the highest in Sub-Saharan Africa and continue to increase rapidly. Nearly 40% of South African women and 11% of men have obesity, and 69% of women and 39% of men have overweight or obesity.[2]
- South Africa and the WHO African region have the highest global prevalence of hypertension.[5]

A Major Cause of Obesity and NCDs: Consumption of Sugary Drinks

- Excess sugar consumption is a major cause of obesity and its related diseases, increasing risk of type 2 diabetes, hypertension, liver and kidney damage, heart disease, and some cancers.[5,36,38-40]
- The World Health Organization (WHO) and the World Cancer Research Fund have published guidelines that individuals should consume no more than 10% of total calories from added sugar, and preferably less than 5%.[36,38]
- On average, a single 20 oz (600 mL) bottle of regular soft drink (one of many types of sugary drink) alone would contribute 12% of total calories from added sugars for an adult on a 2000 kcal/day diet.
- Reducing consumption of calories from free sugars (ie, sugars added by the manufacturer or consumer, including sugars naturally present in honey, syrups, and fruit juices and concentrates) to below 10% of total calorie intake has become a global goal recommended by the WHO, Pan American Health Organization, World Cancer Research Fund, US National Academy of Medicine, Colombian government, and other global leaders.[36,38,41-45]
  - For an adult consuming 2,000 daily calories, this 10% free sugar recommendation would equal roughly 50 grams (or 12.5 teaspoons) sugar per day — an amount exceeded by a single 500 mL (16 fl oz) regular cola which contains 53 grams (13 teaspoons) of sugar.
  - the WHO suggest an ideal level of free sugar intake below 5% of total calories, or roughly 25 grams (6 teaspoons) of sugar per day for adults.[46]
- Sugary drinks are a significant source of added sugar. Sugary drinks include carbonated and noncarbonated soft drinks, fruit drinks, energy and sports drinks, 100% fruit juices, and all milk and yoghurt drinks with added sugar.
- Sugary drinks often have no nutritional value and are particularly harmful to the body in liquid form. Liquid sugars used to sweeten beverages are absorbed more quickly by the liver and processed in a way that increases fat and glycogen deposits,[47-51] which can lead to fatty liver disease and increase risks for diabetes and other NCDs.[49,52]

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- Liquid sweeteners in sodas and other sugary drinks do not lead to feelings of fullness proportionate to their calorie content, making compensation by reducing food intake unlikely. This imbalance leads to total calorie intake in excess of what the body needs.[53-55]
- Sugary drink consumption leads to higher risks of disease and death.[56-58] Sugary drinks are a major cause of increases in caloric intake, weight, and risk of diabetes, hypertension, heart disease, poor oral health and numerous other health problems.[47,59-64] Children and adolescents of all ages have been shown to be negatively affected by consuming sugary drinks.[65,66]
- Sugary drinks can also contribute to undernutrition when they are consumed instead of foods or drinks with greater micronutrient density. For example, in some countries, infants may be fed sugary drinks as a weaning food, which can worsen undernutrition and stunting.[67-73] Infants with stunting face a much greater risk of high visceral fatness, hypertension and type 2 diabetes.[70,74-78]
- It is hard to offset sugary beverage consumption with physical activity. For instance an 8 oz (237 mL) can of regular soft drink would take the average adult 16 minutes of running or one mile (1.6 km) of walking to offset.[79] Drinking a 20 oz (591 mL) soft drink would take 40 minutes of running or 2.5 miles (4 km) of walking to offset.
- Sugar consumption in the form of sugary drinks is increasing globally.[80,81]
  - › Sugary drinks have been highly marketed and promoted to vulnerable populations and are often cheaper than healthier alternatives.[82-85]
  - › Latin Americans consume very high levels of added sugar (more than triple the recommended by WHO).[86,87] Sugary drinks are the largest source of sugar in diets of most children, adolescents, and young adults in the region.[86-89]
  - › Sales of sugary drinks are rising at a faster rate in Colombia than in any other Latin American country.[90]
  - › In Jamaica, Coca-Cola increased sales of their soft drinks by more than 40% annually between 2014 and 2016. [91]
  - › South Africans are among the top 10 consumers (per capita) of sugary drinks in the world,[80] and sugary drink sales are growing by over 3% annually in South Africa.[81]

Environmental Costs of Sugary Drink Consumption and Obesity

Sugary drink production and consumption also has environmental costs:

- It takes an estimated 168 to 309 liters of water to produce a single half-liter (500 mL or 17 oz) regular soft drink (varies depending on the sugar source/ productivity for sugar, and also the ingredients such as caffeine and vanilla extract).[92-94]
- In 2018, an estimated 21–34 billion plastic soft drink bottles ended up in the world's oceans, the equivalent of 706,000 to 1.1 million metric tons of plastic bottle waste.[95]
- The disease burden of obesity also extends to the environment, with a recent study estimating roughly 20% greater greenhouse gas emissions associated with obesity compared to a normal-weight state, due to increased food and fuel needs.[96] These researchers thus estimate that globally, obesity may add an extra ≈700 megatons per year of carbon dioxide equivalent emissions (roughly 1.6% of worldwide greenhouse gas emissions).[96]
- There is increasing global concern over beverage companies' exploitation of water resources, for example the practice of taking water from water-scarce countries for use in production of exported beverages.[97-99]

A Solution: Tax Sugary Drinks

- Sugary drink taxes are a WIN-WIN for governments because they reduce sugary drink consumption while increasing government revenue that can be used to fund other government services and initiatives.[100-102]
- Sugary drink taxes reduce sugary drink consumption and the prevalence of diseases caused by excess sugar intake, and have been projected to save millions of years of life.[103,104] Economic models that predicted reduced sugary drink consumption following taxes have been confirmed in jurisdictions that have actually enacted such taxes.[100,105-110]

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- In addition to significantly reducing consumption of unhealthy beverages, sugary drink taxes also increase consumption of healthier beverages, such as water and milk.[105,111,112]
- Sugary drink taxes are particularly effective in reducing consumption and improving health among lower-income consumers who are more responsive to price increases.[113-115] This is important because people with lower incomes often suffer disproportionately from the ill effects of obesity and other NCDs.[116-121]
- Passage and implementation of sugary drink taxes increases public awareness of the harms of sugary drinks and incentivizes industry to reformulate their products and market healthier beverages.[122-124]
- Taxes on sugary drinks will generate significant new revenue that can be used to fund obesity prevention efforts and other important health programs, thus enhancing their health impact.[100,101,108,112,125]
- In Colombia, a proposed 20% tax on sugary drinks is estimated to reduce sugary drink purchases by 22% and increase revenues, on average, by $1,500 billion Colombian pesos ($500 million US), which is 1.1% of total fiscal revenue per year.[126]
- Scholars estimated in 2014 that a 20% sugary drink tax in South Africa could lower the country's obesity prevalence by 3.8% in men and 2.4% in women, resulting in 220,000 fewer South African adults living with obesity.[127] They also found that a 20% tax could offer significant additional healthcare cost savings for the government and for South African families by averting an estimated 72,000 premature deaths, 55,0000 stroke-related health-adjusted life years, and over R5 billion in healthcare costs over 20 years.[128]
- In 2018, South Africa implemented a roughly 10% tax on sugary drinks, which is expected to raise ZAR 6 billion in revenues per year while also saving the government ZAR 2 billion per year in subsidized healthcare and averting an estimated 8,000 premature deaths related to type 2 diabetes over 20 years.[129] Moreover, the health-related benefits are estimated to be greater among lower-income South Africans.[129]
- When sugary drink taxes are designed based on beverages' sugar content, they can also incentivize beverage manufacturers to cut the amount of sugar they put in their products.[130-134]

Taxes Work: The Global Experience

- To date, researchers have evaluated the impact of sugary drink taxes on consumer purchases or intake in a number of jurisdictions, including Mexico,[105,113,135,136] Chile,[137,138] Portugal,[139] Saudi Arabia,[140,141] Barbados,[142] several US cities,[112,143-145] and the Catalonia region of Spain.[146,147]
- Mexico — with one of the world's highest intakes of sugary drinks — was the first large country to implement a sugary drink tax. Introducing a modest tax of one peso per liter (≈10% tax) in 2014 has effectively reduced sugary drinks consumption and is hailed globally as a successful, positive public health policy.
- After Mexico's tax was implemented, the country experienced a significant reduction in sugary drink purchases,[105,106] increases in bottled water purchases,[105] and no change in total employment.[148]
- Mexico's sugary drink tax reduced consumption most significantly among lower-income and high-volume consumers, the two groups facing the greatest health risk.[135] One year after the tax began, sugary drink purchases among the poorest third of the population were reduced by 9%, compared to 6% on average.[105] In the second year of the tax per capita sales and purchases of sugary drinks declined even further.[113]
- Following introduction of a sugary drink tax in Mexico, consumers replaced some sugary drinks with healthier beverages.[105] For example, water purchases increased by about 4% in the first year.
- A 10% reduction in sugary drink consumption among Mexican adults from 2013 to 2022 would result in an estimated 189,300 fewer cases of type 2 diabetes, 20,400 fewer strokes and heart attacks, 18,900 fewer deaths, and $983 million international dollars saved in Mexico.[149]
- Based on the first-year reduction in sugary drink consumption in Mexico, it is estimated that 10 years after implementation, Mexico's sugary drink tax will result in an average 2.5% reduction in obesity prevalence (with the largest reductions for lowest-income groups).[150]

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- Improvements in health from sugary drink taxes benefit the economy rather than harming it, as opponents claim. In Mexico, for example, there was no decrease in total employment following introduction of the sugary drink tax in 2014,[148] and reducing the population's sugary drink consumption can actually lead to a healthier, more productive workforce.[151]
- Employment in commercial stores selling foods and beverages, including in the beverage manufacturing sector, did not decrease after Mexico's sugary drink tax was implemented.[148] This was due to purchases of substitute foods and beverages like water.[148]
- Even in Berkeley, California, USA — a high-income area with relatively low sugary drink consumption — a sugary drink tax introduced in 2015 had positive impacts, reducing sugary drink purchases and consumption frequency while also increasing water sales and consumption frequency.[112,152] These were sustained for at least three years.[153]
- A sugary drink tax in Philadelphia, Pennsylvania, USA, lowered taxed beverage purchases by 38% with no negative impact on employment.[154,155]
- Chile, which increased SSB taxes by 5% from 13 to 18%, experienced a modest consumption decrease was found. Post-tax monthly prices of carbonated beverages increased by just 2% while noncarbonated beverages increased by 3.9%. Household decreased per capita purchases by 3.4% of volume and 4.0% of calories.[137]
- The WHO and other global experts recommend that sugary drink taxes should be 20% or greater in order to have the most meaningful impact.[156-160]
- Over 45 countries or large jurisdictions now have instituted meaningful SSB taxes as an essential strategy for achieving major health benefits, including the United Kingdom, Ireland, Saudi Arabia, the United Arab Emirates, India, South Africa, and many other countries and cities.[127,157,161-163]
- Excise taxes have worked for other unhealthy products. Taxes on unhealthy food products in Hungary and Denmark showed similar positive impacts in reducing purchases, as did a tax on junk foods in Mexico.[107,136,164] Tobacco taxes have played a major role in reducing tobacco use in jurisdictions around the globe.[165]
- Two large reviews of evidence from existing sugary drink taxes around the world confirm that these taxes do work to reduce sugary drink purchases and intake and encourage increased purchases and intake of non-sugary drinks,[114,166] changes which can ultimately reduce risk for obesity and other NCDs and improve overall population and personal health.

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