Case Study: Implementing a Sugar Tax in Cariba

International Network for Government Science Advice Caribbean Capacity Building Workshop

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REQUIRED STRATEGIC CHANGES

- Health Staff Training
- Public Education
- Behavior Change Efforts (School, Work, Community)
- Fiscal (Dis) Incentives
- Regulation & Standards
SCIENTIFIC ADVICE & DECISION MAKING

- PRACTICAL
- ECONOMIC
- SOCIAL
- POLITICAL
- PUBLIC SUPPORT
- PAST EXPERIENCE
THE CASE OF A SUGAR TAX?

INEXPENSIVE
ABUNDANT
HIGH IN CALORIES
DELIVER LITTLE OR NO NUTRITION
APPEAL TO OUR TASTE FOR SWEETNESS

>> 75% Jamaicans drink more than 1 SSB every day
THE QUESTION FOR THIS CASE

WHEN IS SCIENTIFIC ADVICE ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 1:
WHY IMPLEMENT IN JAMAICA?
WHERE HAS IT WORKED?
SHOW THAT OTHER COUNTRIES ARE IMPLEMENTING A TAX..AND SUCCESSFULLY
Sugary drink taxes: Americas

SEATTLE, WA: 1.75 cents per ounce
on sugary drinks; exempts diet sodas, milk-based products, & fruit juice. Implemented January 2018

SAN FRANCISCO, CA: 1 cent per ounce
on drinks with added sugar and >25 kcal per 12 oz; applies to syrup and powder concentrates; exempts 100% juice, artificially sweetened beverages, infant formula, milk products, medical drinks, and alcoholic beverages. Implemented January 2018

ALBANY, CA: 1 cent per ounce
on drinks with added caloric sweetener; exempts 100% juice, artificially sweetened beverages, infant formula, milk products, medical drinks, and alcoholic beverages. Implemented April 2017

BERKELEY, CA: 1 cent per ounce
on sweetened drinks; exempts meal-replacement and dairy drinks, diet sodas, fruit juice, and alcohol. Implemented March 2015

OAKLAND, CA: 1 cent per ounce
on drinks with added sugars; exempts 100% juice, artificially sweetened beverages, infant formula, milk products, medical drinks, and alcoholic beverages. Implemented July 2017

BOULDER, CO: 2 cents per ounce
on beverages with added sugars or sweeteners. Implemented Jul. 2017

PHILADELPHIA, PA: 1.5 cents per ounce
on sugar- and artificially-sweetened drinks, incl. diet soda. Implemented Jan. 2017

NAVAJO NATION: 2% junk food tax
on "minimal-to-no nutritional value food items," including sugar-sweetened beverages. Implemented Apr. 2015

DOMINICA: 10% excise tax
on food and drinks with high sugar content, including soft drinks and energy drinks. Implemented Sept. 2015

BARBADOS: 10% excise tax
on sugary drinks, including carbonated soft drinks, juice drinks, and sports drinks; exempts 100% juice, coconut water, and plain milk. Implemented Aug. 2015

MEXICO: 1 peso per liter ($0.05)
on all drinks with added sugar, excluding milks or yogurts. Implemented Jan. 2014

CHILE: 18% ad valorem tax
on sugary drinks containing >6.25 g sugar/100 mL; includes all non-alcoholic drinks with added sweeteners; exempts 100% fruit juice and dairy-based beverages; 10% ad valorem tax on drinks with <6.25 g sugar/100 mL. Implemented Oct. 2014

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**Sugary drink taxes: Europe**

**BELGIUM:** €0.068 per L ($0.08) excise on soft drinks with added sweeteners; €0.41/L (liquids) ($0.49) and €0.68/100 kg ($0.81) (powders) excise on concentrates. Implemented Jan. 2016

**UNITED KINGDOM:** £0.18 per liter ($0.24) on drinks with >5 g total sugar/100 mL; £0.24 per liter ($0.32) on drinks with >8 g total sugar/100 mL. *Implementation Apr. 2018*

**IRELAND:** Tax rate and details TBD. *Implementation Apr. 2018*

**FRANCE:** €0.11 per 1.5 L ($0.13) on drinks with added sugars or artificial sweeteners. *Implemented Jan. 2012.*

2018 UPDATE: Sliding scale tax, up to €20 per hL ($0.24/L) if >11g sugar/100mL.

**CATALONIA, SPAIN:** €0.12 per L ($0.14) levy for drinks with added sugars and >8 g sugar/100 mL, or €0.08 per L ($0.09) for 5–8 g sugar/100 mL. *Implemented May 2017*

**PORTUGAL:** €8.22 per hectolitre ($0.097/L) on drinks with a sugar content of <80 g/L or €16.46 per hectoliter ($0.195/L) on drinks with >80 g/L sugar. *Implemented Feb. 2017*

**ST HELENA:** £0.75 per L ($1.00) excise duty on carbonated drinks with ≥15 g sugar/L. *Implemented May 2014*

**NORWAY:** 3.34 NOK per L ($0.40) on drinks containing added sugar or sweeteners; 20.32 NOK/L ($2.44) on syrup concentrates. *Implemented 1981*

**FINLAND:** €0.22 per L ($0.26) on sugar-containing soft drinks; €0.11/L ($0.13) on sugar-free soft drinks, mineral waters. *Implemented 1940, updated 2011*

**ESTONIA:** €0.10 per liter ($0.12) on drinks with 5–8 g sugar/100 mL or only artificial sweeteners; €0.20/L ($0.24) for artificial sweeteners and 5–8 g sugar/100 mL; €0.30/L ($0.36) if >8 g sugar/100 mL. *Implemented Jan. 2018*

**HUNGARY:** 7 HUF per L ($0.03) on soft drinks; 200 HUF/L ($0.76) on syrup concentrates. *Implemented 2011*

**IRELAND:** Tax rate and details TBD. *Implementation Apr. 2018*

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Sugary drink taxes: Africa, Middle East, Asia, and Pacific

SAMOA: 0.40 WST per L ($0.16) on carbonated beverages. Implemented 1984
FR. POLYNESIA: 40 CFP/L local ($0.40); 60 CFP/L import tax ($0.60) on sweetened drinks. Implemented 2002
FIJI: 0.30 FJD per L local ($0.15); 15% import duty on sweetened drinks. Updated 2016. 10% import duty on concentrates. Implemented 2007
NAURU: 30% import duty on all products with added sugars (+ removal of bottled water levy). Implemented 2007
COOK ISLANDS: 15% import duty (with 2% rise per year) on sweetened drinks. Implemented 2013
TONGA: 1 Pa'anga per L ($0.45) on carbonated beverages. Implemented February 2015
KIRIBATI: 40% excise tax on drinks containing added sugar and fruit concentrates, 100% juices exempt. Implemented 2014
VANUATU: 50 vatu/L excise ($0.46) on carbonated beverages containing added sugar or other sweeteners. Implemented February 2015

INDIA: 40% (28% tax + 12% cess) on flavored and sweetened aerated waters. Implemented Jul. 2017
UNITED ARAB EMIRATES: 100% excise tax on energy drinks; 50% tax on all carbonated drinks except sparkling water. Implemented Oct. 2017
SAUDI ARABIA: 100% excise tax on energy drinks, 50% tax on carbonated drinks. Implemented Jun. 2017
MAURITIUS: MUR 0.03 per g sugar ($0.0009) on sodas, syrups, and fruity drinks with added sugar. Implemented Jan. 2013, updated Oct. 2016
SOUTH AFRICA: ZAR 0.021 per g sugar ($0.002) on sugary drinks and concentrates (4g per 100mL exempt). If sugar not labeled, default tax based on 20 g sugar/100mL; exempts dairy drinks and fruit, vegetable juices. Implementation Apr. 2018
PHILIPPINES: P6 per L ($0.12) on drinks using sugar and artificial sweeteners; P12 per L ($0.24) on drinks using HFCS; exempts dairy drinks, sweetened instant coffee, drinks sweetened using coco sugar or stevia, and 100% juices. Implemented January 2018
THAILAND: 3-tiered ad valorem and excise on all drinks with >6 g sugar per 100mL. Ad valorem rate will decrease over time as excise increases: Drinks with >6g sugar per 100mL will face higher tax rates, up to 44 baht/L for drinks with >10g sugar per 100mL from 2023 onwards. Implemented Sept. 2017
SRI LANKA: LKR 0.50 per g sugar ($0.003) on sweetened drinks, or Rs 12 per L ($0.08) — whichever is higher. Implemented Nov. 2017
BRUNEI: BND 4.00 per 10 L ($0.298/L) excise on all drinks with >6 g sugar per 100mL. Implemented Apr. 2017

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HAS IT WORKED?

MEXICO
6% > IN YEAR 1
9% > IN YEAR 2

BARBADOS
10%? > IN YEAR 2
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 2: WHY BOTHER?

SHOW THE HEALTH CONSEQUENCES OF EXCESS SUGAR CONSUMPTION
Sugar Sweetened Beverage Consumption: Effects on Health

- Energy in liquid form
  - Passive calorie overconsumption when drinking to satisfy thirst
  - Increased energy intake
  - Fat deposition
  - Metabolic Syndrome (low HDLC, high triglyceride, hypertension, coagulopathy, chronic inflammation)
  - Obesity

- Displacement of more satiating foods
  - Increased hunger
  - Increased energy intake

- High glycemic load
  - Increased intake of sugary foods; decreased intake of vegetables, fruits, etc.
  - Lower intake of fiber, micronutrients, antioxidants, and other phytochemicals
  - Insulin resistance
  - Oxidative stress
  - B-cell dysfunction
  - Metabolic Syndrome (low HDLC, high triglyceride, hypertension, coagulopathy, chronic inflammation)
  - Diabetes

- Alteration of taste preferences
  - Increased intake of sugary foods; decreased intake of vegetables, fruits, etc.
  - Postprandial hyperglycemia
  - Oxidative stress
  - B-cell dysfunction
  - Metabolic Syndrome (low HDLC, high triglyceride, hypertension, coagulopathy, chronic inflammation)
  - CHD

- Sugar
  - Increased energy intake
  - Increased intake of sugary foods; decreased intake of vegetables, fruits, etc.
  - Lower intake of fiber, micronutrients, antioxidants, and other phytochemicals
  - Dental caries

Source: copyright, D. Ludwig & W Willett, Harvard SPH, 2009
Too Much Sugar Is Harmful

Gestational Diabetes

High blood glucose levels in mother

Brings extra glucose to baby

Causes baby to put on extra weight
SUGARY DRINKS & YOUR BODY

- Regular consumption can lead to weight gain and obesity.
- This increases the risk of type 2 diabetes, heart disease, kidney disease, stroke, and some cancers.
- Sugary drinks can also lead to tooth decay.

SUGAR & ACID LEVELS IN SUGARY DRINKS AND ‘DIET’ VARIETIES CAN CAUSE TOOTH DECAY.

HIGHER SUGAR INTAKE INCREASES YOUR RISK OF NON-ALCOHOLIC FATTY LIVER DISEASE.

340ML OF SUGARY DRINK A DAY, LESS THAN ONE CAN, INCREASES YOUR RISK OF TYPE 2 DIABETES BY 22%.

SUGARY DRINKS CAN REDUCE BONE DENSITY WHICH MAY LEAD TO OSTEOPOROSIS.

BEING OVERWEIGHT OR OBSESE PUTS YOU AT GREATER RISK OF HEART DISEASE, KIDNEY DISEASE, TYPE 2 DIABETES, STROKE AND SOME CANCERS.

ONE CAN OF SUGARY DRINK A DAY CAN LEAD TO 6.5KGS WEIGHT GAIN IN A YEAR.

RAPID BLOOD SUGAR SPIKES AFTER DRINKING SUGARY DRINKS CAN INCREASE HUNGER AND OVER EATING.
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE #3

Government should stay out of private behavior. Why not let the people choose?

People should read nutrition labels and make their own choices
HIDDEN SUGARS IN LABELS & PRODUCTS

LABELS WITH SUGAR:
Lactose; brown rice syrup; molasses; dextrose; cane sugar; corn sweetener; fructose; glucose; maltose; organic raw sugar; maltodextrin; etc..

PROCESSED FOODS WITH SUGAR:
Barbecue sauce; bacon; bread; canned meats; cereals; crackers; gravy; flavored coffee; creamers; fruit juice; ketchup; mustard; pancake mix; pretzels; salad dressing; soups; soy sauce; wine; etc. etc.
BUT WE’RE SURROUNDED BY SUGAR! IT’S EVERYWHERE! AND IT’S SO TASTY!
OBESITY IS A NATIONAL CRISIS

Government should protect the public’s health in a national crisis
– Shortens lives
– Costs billions to treat
– Loses productivity
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 4

NO SUGAR TAX – USE OTHER METHODS TO IMPROVE HEALTH?

Why not encourage more physical activity to burn off the excess calories from sugar?
The cost of a daily sugary drink

Drinking one 12 oz. (355 mL) soft drink every day for a year:

\[ \approx 150 \text{ calories} \times 365 \text{ days} = 54,750 \text{ calories} \] per year, the energy equivalent of over 15 pounds of fat per year.

To avoid weight gain:

To burn off the calories from an 12 oz. sugary drink, the average person would have to walk 1.5 miles, or run nearly 15 minutes each day of the year!

One 12-oz can soda contains over 9 tsp sugar.
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 5

SSBs ARE REGRESSIVE

Tax will hurt the poor, who can least afford it
OBESITY IS REGRESSIVE — hurts the poor

In Mexico:
Poor more sensitive to higher taxes
Poor showed the largest reduction in sugar consumption
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 6

EVERYONE SHOULD NOT BE BURDENED FOR BAD DECISIONS BY SOME

Leave it to education
DATA FROM JAMAICA

63% of sample completed high school and 24% completed tertiary education

Yet 65% of high sugar consumers were not willing, ready or able to reduce consumption

Even 55% with a chronic disease were not prepared to change their habit
IS THIS CONVINCING ENOUGH FOR DECISION-MAKING?
SCIENCE ADVICE # 7
Is bad for business

The tax will destroy the local sugar industry, employment etc..
SCIENCE ADVICE # 8

Are we moving to a better place?

Are the replacement / substitute items healthier?
When is enough, enough?
Can we change the shape of things in the future?
WITH GOOD SCIENTIFIC ADVICE...

YES WE CAN!