

Conversely, SDIL proponents demonstrated three sources of inconsistency: 1) change in ideological stance; 2) pursuit of academic rigour; and 3) inconsistent arguments.

Discussion Public health policy advocates engaged in media debates are faced with the direct lobbying and denialism tactics of producers and marketers of unhealthy commodities. These advocates may benefit from increasing awareness of typical UCI tactics, presenting clear and consistent objectives, and supporting arguments with quality evidence. Our CDA contributes to a growing body of literature concerning media debates about upstream legislative public health measures focussing on unhealthy commodities.

OP3

COST-EFFECTIVENESS OF THE U.S. FDA ADDED SUGAR LABELING POLICY FOR IMPROVING CARDIOMETABOLIC HEALTH: MICROSIMULATION MODELLING STUDY

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Background Excess added sugars, particularly from sugar-sweetened beverages (SSBs), are associated with cardiometabolic risk including type 2 diabetes (T2D) and cardiovascular disease (CVD). Despite recent declines in SSB intake in the US, added sugar intake from SSBs and foods remains high and substantially exceeds dietary recommendations. The US Food and Drug Administration (FDA) announced major changes to the Nutrition Facts panel in 2016, including mandatory labeling of added sugar content, as a strategy to target added sugars in packaged foods and beverages. However, the potential health and economic benefits of the FDA proposal remain unclear.

Objective To estimate the cardiometabolic and economic effects of implementing FDA's added sugar labeling policy from 2018–2037.

Methods We used the validated, US IMPACT Food Policy microsimulation model to estimate the T2D and CVD cases averted and quality-adjusted life-years (QALYs) gained from the FDA policy for US adults age 30–84 years.

We modelled two policy scenarios:

1. implementation of the FDA added sugar labeling policy (sugar label)
2. anticipated reactive industry reformulation (sugar label + reformulation).

Model inputs included national health statistics from CDC; added sugar intakes from NHANES; policy effects on consumer intake from labeling intervention studies; obesity-mediated and direct effects of added sugars from SSBs and other foods on T2D and CVD from meta-analyses; policy costs including government administrative costs; industry compliance costs from federal government reports; healthcare costs including medical, productivity, and indirect costs from the AHA and American Diabetes Association. All costs were inflated to constant 2017 US dollars, then discounted annually at 3%. We took a societal perspective and assumed a willingness to pay of \$1 00 000 per QALY. Probabilistic sensitivity analysis accounted for model parameter uncertainty and population heterogeneity.

Results Between 2018 and 2037, the *sugar label* could prevent approximately 354,400 CVD cases (95% UIs: 167,000–673,500) and 5 99 300 diabetes cases (302,400–957,400), gain some 727,000 QALYs (401,300–1,138,000), and save approximately \$31 bn (15.7–54.5) in net costs from a healthcare perspective or \$62 bn (33.1–103.3) from a societal perspective.

For the *sugar label+reformulation* scenario, corresponding gains could be substantially larger: approximately 708,800 CVD cases (369,200–1,252,000), 1.2 m diabetes cases (0.7–1.7), and 1.3 m (0.8–1.9) QALYs, with some \$58 bn (31.9–92.4) and \$113 bn (67.3–175.2) net savings from the healthcare and societal perspectives respectively. Scenarios were estimated with >80% probability to be cost-saving by 2023.

Conclusion Implementing the FDA added sugar labeling policy could generate substantial health gains and cost savings for the US population.

OP4

ASSESSING THE IMPACT OF THE BARBADOS SUGAR SWEETENED BEVERAGE TAX ON GROCERY STORE BEVERAGE SALES AND NATIONAL IMPORTS: AN INTERRUPTED TIME SERIES ANALYSIS

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Background A 10% tax on sugar sweetened beverages (SSBs) was implemented in Barbados in September 2015. This study aims to assess whether sales of SSBs and non-SSBs changed following implementation of the tax.

Methods We used electronic sales data from a major grocery chain from January 2012 – January 2017, and national import data from the Barbados Statistical Service from January 2013–July 2017. Grocery store data were used to calculate litres sold per week of SSBs, non-SSBs, and beverage sub-categories (sodas, waters) over 264 weeks. We used an interrupted time series (ITS) design to assess whether the introduction of the tax was associated with a change in level and trend in sales. All analyses controlled for inflation, seasonality and tourism.

Using national import data, we calculated cumulative litres imported (to account for stockpiling) by beverage category. We assessed whether the introduction of the tax was associated with a change in the trend of the cumulative litres imported. To enable comparison, we re-estimated the grocery store models separately for locally manufactured and imported beverages. STATA/SE 14.2 was used for all analyses.

Results In 2016 (the first full year of tax implementation), the average decrease in SSB grocery store sales was –2,822 litres/week [95% CI –6,397 to 752] compared to the estimated counterfactual without the tax. The change per week increased over time, with an average decrease from July 2016–December 2016 of –4,349 litres/week [95% CI –8,307 to –391]. Locally manufactured SSBs decreased by an average of –5,814 litres/week [95% CI –8,692 to –2,936] and imported SSBs increased by an average 4277 litres/week [95% CI 2,872 to 5682]. Non-SSB sales increased by 1954 litres/week [95% CI 507 to 3401], with water accounting for an average increase of 1435 litres/week [95% CI 393 to 2477].