Building Momentum evidence table: effects of implemented SSB taxes
Summary of what is known to date (last updated 20 February 2020)

<table>
<thead>
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<th>Jurisdiction</th>
<th>Effects of implemented SSB tax</th>
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| Barbados     | **Price:** Prior to SSB tax implementation, SSBs and non-SSBs experienced very similar year-over-year price growth of around 1%. Post-SSB tax implementation, SSB prices increased and non-SSB prices decreased. In the two quarters after the tax was implemented, average SSB prices increased by 5.9% compared to the previous year.¹  
**Sales:** One year and seven weeks post-implementation of the SSB tax, average overall sales of SSBs decreased by a relative 4.3%. At the same time, non-SSBs saw a relative increase in sales by 5.2%. Further analysis of subcategories demonstrated relative change in sales of carbonated-SSBs (-3.6%), other SSBs (-5.1%), non-SSBs (+5.2%), water (+7.5%) and other non-SSBs (+2.4%).² |
| Chile        | **Price:** One year and three months after SSB tax rate changes went into effect⁴ prices of both carbonated and noncarbonated high sugar sweetened beverages (H-SSBs) increased by 2% and 3.9% respectively. Prices of low- or no-sugar sweetened beverages (L-SSBs) concentrates decreased by 6.7% and prices of ready-to-drink L-SSBs increased by 1.5%.³  
**Purchases:**  
- One year and three months after the SSB tax changes went into effect, households decreased per-capita purchases of H-SSBs by 3.4% by volume and 4% by calories. This change was greatest among households with high socioeconomic status. The volume of household purchases of L-SSBs increased by 10.7% and untaxed beverage purchases decreased by 3.1%.⁴ |

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¹ On 1 October 2014, Chile increased the tax rate from 13% to 18% for beverages with high levels of sugar (H-SSBs) (>6.25g sugar/100mL) and decreased the tax rate from 13% to 10% on beverages with low or no sugar (L-SSBs) (<6.25g sugar/100mL).
In another evaluation, one year and 3 months post-implementation, monthly household purchased volume of all soft drinks decreased by 5.8%. Highly-taxed soft drinks saw the greatest decrease in purchases by 21.6%, with no significant change to low- and no-tax soft drink purchases. The amount of sugar (grams in soft drinks) purchases also decreased by 15.1%. The overall change in volume for both highly-taxed soft drinks and amount of sugar was largely driven by decreased purchases in middle- and high-socioeconomic status households.\(^5\)

**France**

**Price:** Following implementation, the SSB tax was gradually passed through to varying degrees by product category. Six months post-implementation, the tax had fully passed through to soda prices and almost fully passed through to prices of fruit drinks, but was incomplete for flavoured waters.\(^6\)

**Hungary**

**Consumption:**
- One-year post implementation, 26 to 35% of consumers had decreased their intake of products subject to the Public Health Product Tax.\(^7\)
- Two-years post-implementation, reduction in consumption of taxed products was sustained. Between 2012 and 2014, people changed their consumption of energy drinks by 28% and their consumption of sugar sweetened soft drinks by 20%. Price and knowledge that sugar sweetened drinks are unhealthy were the two main factors that influenced a reduction in sugar sweetened soft drink consumption.\(^8\)

**Mexico**

**Price:** The SSB tax passed through to the consumer for all SSBs but passed through at a higher rate to carbonated SSBs. The tax passed through at a higher rate in Mexico City, Central North, North Border and the Northwest, and at a lower rate in other regions. Price changes were higher among beverages with smaller package sizes.\(^9\)

**Purchases:**
- One-year post-SSB tax implementation, purchases of taxed beverages decreased by 6% on average, and decreased at an increasing rate up to 12% in December 2014. Reduced purchases of taxed beverages were seen across all socioeconomic groups, but reductions were higher among households of low socioeconomic status, with an average decline of 9% during 2014 and up to a 17% decrease in December 2014.\(^10\) Reductions in purchases were higher among people living in urban areas and households with children.\(^11\)
- Two-years post-SSB tax implementation – purchases of SSBs continued to be lower (average of 9.7% reduction). Similar to the first year, the decline in SSB purchases was greatest for lowest income households.\(^12\) Further evaluation of household purchases of shoppers who were prone to
higher purchasing of taxed beverage/low purchase of untaxed beverage (HTLU-unhealthier) and higher purchasing of taxed/untaxed beverage (HTLU), showed relative reductions by 16.1% and 20.0%, respectively. Purchases of untaxed beverage also saw a relative increase in purchases by 30.7% in HTLU-unhealthier and relative decrease by 161.9% in HTLU shoppers.\textsuperscript{13}

**Awareness & Signaling Effect:** In 2016, 65.2% of all Mexican National Health and Nutrition Survey (ENSANUT) respondents stated that they were aware of the existence of the SSB tax, but only 20.3% thought the tax led to a decrease in their SSB purchases.\textsuperscript{13} Percentage of respondents who did believe the tax had reduced their SSB purchases was significantly greater amongst those who were aware of the tax (12.1%) compared to those who were not (8.2%).\textsuperscript{14}

**Portugal**

**Sales:** In 2017, official data estimates sales of taxed SSBs had reduced by 7% due to price elasticity and reputational effects.\textsuperscript{15}

**Spain (Catalonia)**

**Consumption:** One year post-SSB tax implementation the prevalence of regular consumers of taxed beverages fell by 39% in Barcelona (city subject to the tax) as compared to Madrid (city not subject to the tax), but the prevalence of consumers of untaxed beverages remained stable. The main reason cited by more than two-thirds of those surveyed for reducing their consumption of sugar-sweetened beverages was the increase in price, followed by a heightened awareness of their health effects.\textsuperscript{16}

**UK**

**Reformulation and Price:** A 2019 study found changes to sugar levels in drinks post-implementation of the UK Sugary Drinks Industry Levy. The percentage of drinks with sugar over 5 g per 100 mL fell from an expected level of 49% to 15% over the time period studied. There was little change in the product size or the number of products available to consumers. The price of high sugar drinks increased after the implementation of the SDIL but only by one third of the amount of the tax. The results show that the SDIL was associated with a considerable impact on the soft drinks industry, particularly with regard to the amount of sugar in soft drinks.\textsuperscript{17}

**US (Berkeley)**

**Price:** One-year post-SSB tax implementation, pass through rate varied for SSBs. The tax was fully passed through in large chain supermarkets and small chain supermarkets and chain gas stations, partially passed through in pharmacies and negatively passed through in independent corner stores and independent gas stations.\textsuperscript{18}

**Purchases:** One-year post-SSB tax implementation, SSB sales declined in Berkeley stores by 9.6%, but rose by 6.9% for non-Berkeley stores. In Berkeley stores, untaxed beverage sales increased by 3.5% compared to 0.5% in non-Berkeley stores. Sales of water increased by 15.6% in Berkeley.\textsuperscript{19}

**Consumption:**
Four months post SSB tax implementation, consumption of SSBs decreased by 21% in Berkeley, compared to 4% in comparison cities. Water consumption increased by 63% in Berkeley compared to 19% in comparison cities. Three-year post-SSB tax implementation, consumption of SSBs in Berkley decreased by 52.3% between 2014 to 2017. Weighted model adjusted for all covariates showed Berkeley SSB consumption decreased by 52.5% more than comparison cities. Water consumption also increased in Berkeley by 25.1% more than comparison cities.

US (Philadelphia)

Consumption: Two-months post-SSB tax implementation, the likelihood of daily consumption of sugared soda and energy drinks declined by 40% and 64% respectively and the likelihood of daily bottled water consumption increased by 58%.

Consumption and Price: In 2017, the implementation of a beverage excise tax on sugar-sweetened and artificially sweetened beverages was associated with significantly higher beverage prices and a significant and substantial decline in volume of taxed beverages sold. This decrease in taxed beverage sales volume was partially offset by increases in volume of sales in bordering areas.

For more information about the different SSB taxes, see “U – Use economic tools to address food affordability and purchase incentives” in our NOURISHING policy database (www.wcrf.org/NOURISHING).

Definitions
Sugar sweetened beverages (SSBs): Beverages containing added caloric sweeteners, such as sucrose, high-fructose corn syrup or fruit juice concentrates. These include, but are not limited to, carbonates, fruit beverages, sports beverages, energy and vitamin water beverages, sweetened iced tea and lemonade. While most SSB taxes only include sugar sweetened beverages, some countries and local jurisdictions also include beverages to which non-caloric sweeteners have been added.

Pass through rate: The rate of an excise tax that is transferred from producer to consumer.

How to cite this table
1 Alvarado M et al. (2017) Trends in beverage prices following the introduction of a tax on sugar-sweetened beverages in Barbados. Preventive Medicine.
9 Colchero MA et al. (2015) Changes in prices after an excise tax to sweetened sugar beverages was implemented in Mexico: evidence from urban areas *PLoS One* 10(12): e0144408.

Roberto CA et al. (2019) Association of a Beverage Tax on Sugar-Sweetened and Artificially Sweetened Beverages With Changes in Beverage Prices and Sales at Chain Retailers in a Large Urban Setting. *JAMA* 321(18), 1799-1810