Global Health Advocacy Incubator

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## Sugary drinks tax in Mexico helped reduce consumption of soft drinks after just 3 years

Mexico's tax on sugar-sweetened beverages (SSBs) reduced the number of high (at least 1 can-sized serving (355 mL) a day) and medium (at least 1 serving a week) SSB drinkers and increased the number characterized as low (less than 1 serving a week) or non-drinkers of SSBs in a study of adults led by Mexico's National Institute of Public Health and published in The *BMJ* in May of 2020. Alongside prior findings illustrating that the tax effectively reduced household SSB purchases in Mexico, these results underscore the potential of this policy to drive down individual consumption of SSBs, and subsequently, the risk of health conditions linked to overconsumption of sugar.

In 2014, the Mexican government enacted a one peso ($0.04 USD) per liter tax on non-alcoholic beverages with added sugar to address alarming national epidemics of diabetes and obesity linked to the country's high per-capita consumption of sugary beverages. Previous studies have looked at *household* beverage purchasing, and have found major reductions in household SSB purchases two years after the tax was implemented. **This study is the first to examine *individual level* changes in SSB consumption between pre-tax implementation and post-tax implementation in Mexico, and in a low- and middle-income country setting.**

Adult employees of Mexico's Institute of Social Security (known as *IMSS*) and their family members (ages 19+) in Morelos, Mexico completed questionnaires in 2004 and 2010 (both prior to the SSB tax's implementation), and 2017 (three years following implementation of the tax). The participants were asked how frequently they consumed one serving of SSBs, among other diet-related questions. The survey also gathered participants' income levels at each time point, educational background and age, which were used in the statistical model to determine whether there were differences by these characteristics.

These data were used to classify participants as non-consumers of SSBs, low consumers, medium consumers, or high consumers. Although the 1,770-person study sample tended to represent higher income and education levels than would be representative of Mexico's general population, these results highlight the SSB tax's likely impact on consumption trends.

### Key Findings

- Study participants reduced their consumption of sugar-sweetened beverages following implementation of the Mexico SSB tax policy.
- Before the SSB tax implementation (2010), 56% of participants were classified as either medium or high SSB consumers in 2010 (prior to implementation of the tax), but that proportion fell to 43% in 2017 after the implementation of the tax. In turn, the proportion of low SSB consumers and non SSB consumers increased.
- No statistically significant difference was observed in the tax's impact based on participants' level of income.
- However, participants who attended secondary school or higher were more likely to be influenced to reduce SSB consumption by the tax, compared to those with an elementary school education or less.

### Key Messages

- Mexico's tax on sugary beverages was effective in changing SSB consumption behaviors within three years of the policy implementation in a cohort study of adults. The tax inverted the proportion of participants drinking at least

one SSB serving (1 can) per week from a majority to a minority, and almost doubled the number of participants deciding completely against consuming SSBs.
- This study showed that the impact of Mexico's tax was similar across income groups.
- SSB taxes represent effective public health strategies to reduce the burden of health conditions linked to overconsumption of sugar, and should be implemented more widely.

## Full Citation

Sánchez-Romero , L.M., et al. (2020). Association between tax on sugar sweetened beverages and soft drink consumption in adults in Mexico: open cohort longitudinal analysis of Health Workers Cohort Study. *BMJ*. DOI: 10.1136/bmj.m1311.

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A link to the text online can be found at https://www.bmj.com/content/369/bmj.m1311

**Additional Resources:** The *BMJ* works towards a healthier world for all, sharing that global endeavor with millions of readers working in clinical practice, research, education, government, and with patients and the public.

## Social media

### Graphic:

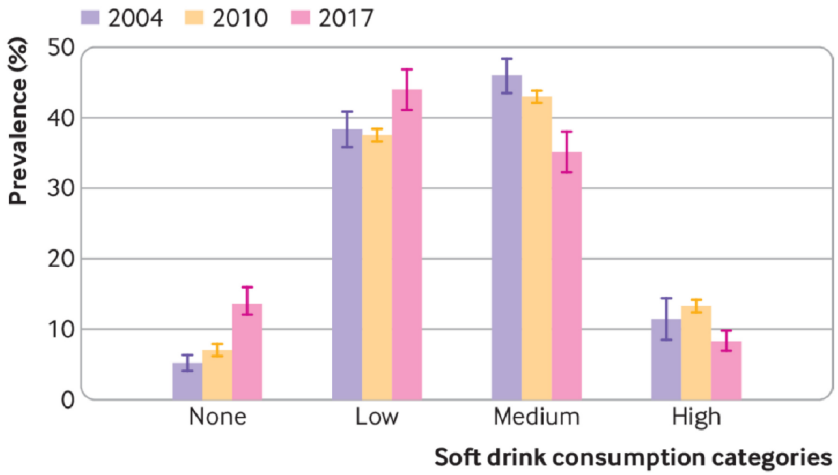


**Fig 1** Unadjusted distribution of categories of soft drinks consumption among participants in Health Workers Cohort Study between 2004 and 2017. Non-consumer=no soft drink consumption; low consumer=consumed <1 serving/week; medium consumer=consumed 1 serving/week to <1 serving/day; high consumer=consumed ≥1 serving/day

### Twitter:

- SSB taxes work. New study (@bmj_latest) finds reduction in share of medium & high SSB consumers among a cohort of Mexican adults within 3 yrs of SSB tax increase. Great work by authors from @inspmx @GFRP_UNC @gumedcenter!
- #SSB taxes are having an impact. New study in a sample of Mexican adults from @bmj_latest finds SSB consumption amounts have decreased following the #sugarydrinks tax.
- Taxes on #SugaryDrinks reduce consumption and can reduce burden of #NCDs. New study from Mexico in @bmj_latest shows how tax reduced daily and weekly consumption of #SugaryDrinks among a sample of adults.

### Facebook:

Taxes on sugary drinks are having an impact! A new study published in the British Medical Journal shows how the Mexico SSB tax was effective in reducing consumption among a sample of adults just three years after implementation. The study found that after the tax was implemented, a smaller proportion of people were high and medium-consumers of SSBs and there were increases in the number of study participants who reduced or stopped drinking SSBs altogether.

Taxes on SSBs not only reduce consumption, but can help reduce the burden of obesity and non-communicable diseases like diabetes and heart disease.