

Tax on sugary drinks helps health during pregnancy

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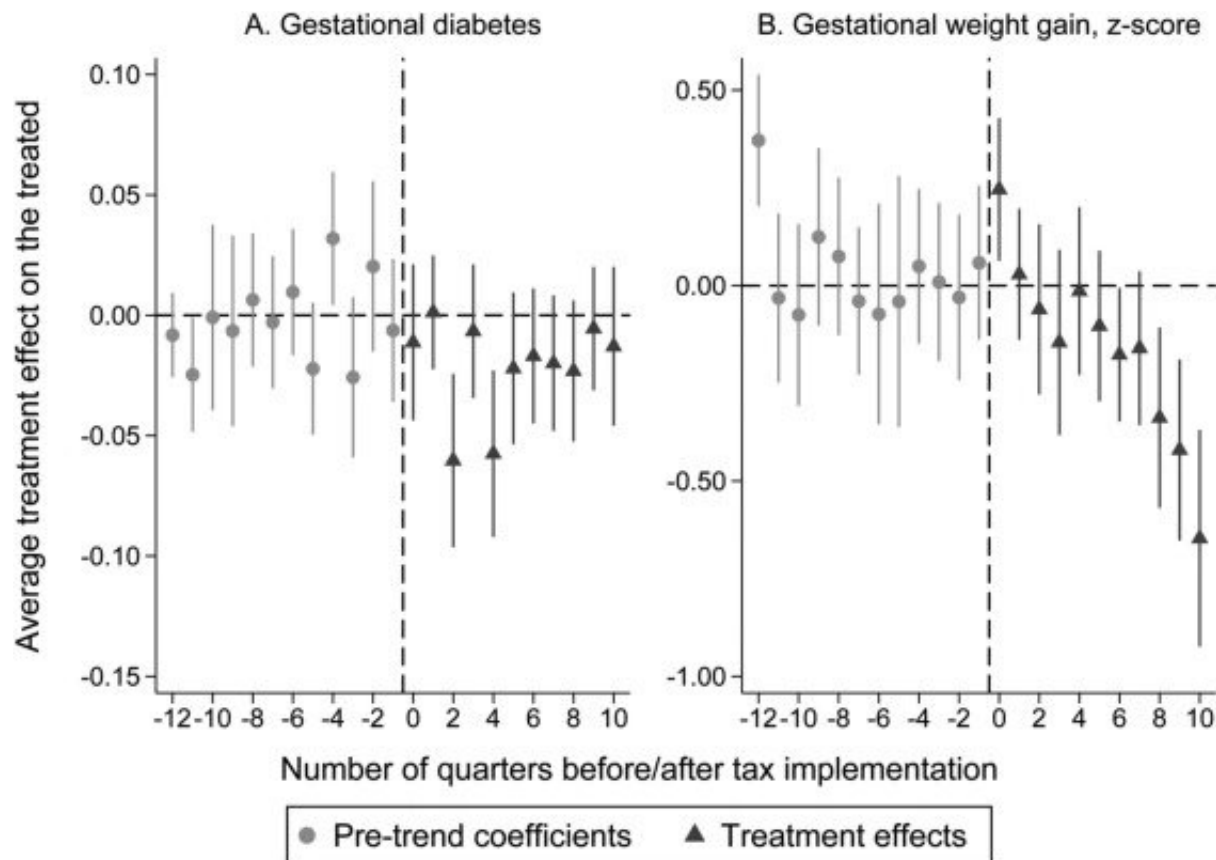
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Taxes on sugary drinks reduce the risk of gestational diabetes and unhealthy weight gain in pregnant women, reports a new UC San Francisco study of more than 5 million women.

Published by the *American Journal of Preventive Medicine*, this is the first study to examine how sugar-sweetened beverage (SSB) taxes affect the health of mothers and children immediately before and after birth. Researchers compared mothers who were living in cities that had SSB taxes in effect while they were pregnant to mothers in cities with no SSB taxes. In addition to significantly lowering the risk of diabetes and unhealthy weight gain in pregnant mothers, there was a much lower risk of having an overly small fetus.

"All three of these outcomes are important for health later in life, for both the mother and child," said senior author Justin White, Ph.D., associate professor of health economics at UCSF's Philip R. Lee Institute for Health Policy Studies. "If you can reduce risk at this key developmental stage, it can have long-lasting health benefits."

In the general population, [sugar-sweetened beverages](#) are associated with higher risk of obesity, type 2 diabetes and cardiovascular disease. SSBs are the largest source of added sugar for pregnant individuals, who consume 50% more calories from added sugar than is recommended, the authors wrote in the study published March 24, 2023.



Time-varying association between sugar-sweetened beverage taxes and primary health outcomes. Note: These plots of the time-varying differences in outcomes between those in SSB tax cities vs. comparator cities are estimated from Callaway-Sant' Anna event-study difference-in-differences regressions. Quarterly estimates are relative to the quarter just prior to SSB tax implementation (quarter -1, dotted line). 95% confidence intervals calculated from robust standard errors. Credit: *American Journal of Preventive Medicine* (2023). DOI: 10.1016/j.amepre.2023.03.016

A strong policy argument

Researchers used national birth certificate data to study 5,324,548 U.S. [pregnant women](#) and their offspring from 2013 through 2019. At the time, the five cities with SSB taxes were Philadelphia, San Francisco,

Seattle, Oakland and Berkeley, and data from those cities were compared with dozens of cities without the taxes.

SSB taxes were associated with a 41.4% lower risk of gestational diabetes; a 7.9% lower risk of unhealthy weight gain for gestational age; and 39.1% lower risk of infants being born small for gestational age. Researchers controlled for demographic and city-level factors that could have accounted for differences, such as race, socio-economic status and retail environment.

The taxes didn't appear to affect blood pressure and body mass index (BMI) during pregnancy, or low birthweight and preterm status of the infant.

About 50 countries have implemented SSB taxes in the last decade, and research indicates they have helped reduce consumption of sugary beverages. Research on the health effects is limited, however, with one large study in Mexico showing a reduction in obesity rates while another in Mauritius showed no effects. At the same time, modeling studies indicate that SSB taxes lower the risk of chronic disease in the [general population](#).

"It can be challenging to measure the effects of sugary drink taxes on [health outcomes](#) like type 2 diabetes, which can take decades to develop," said White. "But showing that we can improve [health](#) during the relatively short, and critical, window of pregnancy—and thus have lifelong [health effects](#) for the mother and child—makes a strong policy argument for these taxes."

More information: Kaitlyn E. Jackson et al, Sugar-sweetened beverage taxes and perinatal health: A quasi-experimental study, *American Journal of Preventive Medicine* (2023). [DOI: 10.1016/j.amepre.2023.03.016](https://doi.org/10.1016/j.amepre.2023.03.016)

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