Children's Hospital of Philadelphia PolicyLab

Pilot Grants

Evaluating the Impact of the Philadelphia Beverage Tax in Two ways: Did it Work and is it Fair?

Population Health Sciences

Statement of Problem

Complications of childhood obesity continue to be a significant public health issue, specifically among children in low-income families. Policy initiatives that target childhood obesity have the potential to improve health outcomes, yet they are only effective if they are viewed as relevant and acceptable to community members impacted by the policy. Sugary drink taxes are a promising public health approach for combatting childhood obesity and its complications, but taxes such as the Philadelphia Beverage Tax have been criticized for being regressive, or having a disproportionate effect, on families from low-income backgrounds.

Though sugary drink taxes are frequently critiqued, we don't actually have much evidence describing how low-income individuals view this issue to understand if this critique is justified. Furthermore, the disproportionate impact that childhood obesity has on low-income communities begs the question of whether this type of intervention may even be perceived as beneficial. It is especially important to understand parents' views regarding sugary drink taxes as their own health behaviors and engagement in local politics shape factors that impact the accessibility and availability of food for their children.

Furthermore, while there is a large body of evidence that sugary drink taxes are associated with decreased sales of sugary drinks, there are few studies that show the taxes led to decreased *consumption* of sugary drinks. This distinction is important because consuming sugary drinks is a modifiable health behavior that, if lessened, could be associated with improved health outcomes.

Description

To further explore this issue, our team sought to evaluate the impact of the Philadelphia Beverage Tax on soda consumption among youth, and to understand the perceived fairness and effectiveness of the tax among low-income parents. In exploring perceptions of the tax, we were especially interested in understanding how low-income parents viewed the innovative approach of designating tax revenue to fund expansion of free pre-kindergarten and improve the city's parks and recreation, which are two realms that could significantly benefit low-income families.

Through this project, we used Youth Risk Behavior Surveillance System (YRBSS) data to compare self-reported soda intake of high school students in Philadelphia to students in seven other U.S. cities from 2013 to 2019, before and after implementation of Philadelphia's Beverage Tax. Additionally, we looked at reported intake of juice and milk to see if students substituted either of these beverages for soda after the tax went into effect. Because we know that soda intake differs by demographic factors, we then looked at the change in reported soda intake by race/ethnicity and by weight status (overweight or obese, obese, or healthy weight) to see if different groups of students responded differently to the tax.

We also conducted one-on-one semi-structured interviews with 30 parents of children ages 2–11 years—who received Medicaid and who have lived in Philadelphia since before the tax went into effect in 2017—to characterize their perceptions of the Philadelphia Beverage Tax.

Overall, we found that the Philadelphia Beverage Tax was associated with a reduction of nearly one serving of soda per week per adolescent, and parents with lower incomes perceived the tax as fair as long as the tax's revenue was used as promised: to fund free pre-K and improve city schools, parks and libraries.

You can view detailed findings in this Research at a Glance.

Our findings emphasize more research is needed to further appraise the acceptability of sugary drink taxes to enable more cities and countries to implement them, and we still need to better understand the impact sugary drink taxes have on health behaviors and, ultimately, health outcomes.

Next Steps

We plan to share our findings with organizations and policy-focused professionals to inform sweetened beverage tax policies in other cities that are effective and equitable. As this is the first qualitative study of a sugary drink tax in a city with a large low-income population, we hope our findings will help advise cities with similar demographics seeking to implement related food policies. Future projects will explore the impact of sweetened beverage taxes on health outcomes.

This pilot grant project was completed in October 2022.

Suggested Citation

Children's Hospital of Philadelphia, PolicyLab. *Evaluating the Impact of the Philadelphia Beverage Tax in Two ways: Did it Work and is it Fair?* [Online]. Available at: http://www.policylab.chop.edu [Accessed: plug in date accessed here].

Project Leads

Emma Edmondson
Emma Edmondson
MD, MSHP
Faculty Member

Team

Senbagam Virudachalam
Senbagam Virudachalam
MD, MSHP
Faculty Member
Emily Gregory
Emily Gregory
MD, MHS

Faculty Member
Judy Shea, PhD
Christina Roberto, PhD

Funders of Project

PolicyLab
Clinical Futures

Project Contact

Emma Edmondson

EDMONDSONE@EMAIL.CHOP.EDU