



## Will Taxes on Sugary Soft Drinks Improve Health?

**Jason Fletcher**, University of Wisconsin-Madison

Americans are getting fatter – making obesity one of the most hotly debated health issues. The trends are stark and few saw them coming. The United States has gone from having one out of seven adults obese fifty years ago to having one out of every three overweight today. Rates of obesity have more than tripled among children and adolescents over the past four decades. In a worrisome sign for the future, one out of every six children is now obese – and the situation is especially dire in many low income communities.

Obesity hurts people's health and wellbeing, and costs the country a lot of money. In the past few years, at least \$150 billion was spent treating the consequences of obesity. Experts estimate that nearly one out of every ten health dollars is used to cope with obesity and related problems.

What has happened to spur the obesity epidemic? At a basic level, people gain too much weight when, day after day and week after week, they consume more calories than they burn up on regular activities, creating a persistent "energy imbalance." Things have gone out of whack on both sides of the equation. More of us are doing sedentary jobs and we often do not have time to exercise. At the same time, we eat big portions of food full of calories, for which we pay low prices. Experts worry especially about sugar-sweetened beverages – including such ubiquitous refreshers as carbonated sodas, sports and fruit drinks, flavored waters, and sweetened teas.

### Sugary Soft Drinks as a Special Culprit

Although the problem is broader, a single category of consumption has become a focal point in discussion of weight increases because sugar sweetened beverages make up a large and rapidly growing category of consumption. In particular, soda consumption has grown by over 500% in the last fifty years and now contributes a larger portion of daily calories than milk.

Key factors suggest that cutbacks in soda drinking could counter obesity. For one thing, soda drinks are especially problematic, because they may not make people feel as full as they might after eating a candy bar with the same number of calories. Secondly, we know that it would only take a small reduction in consumption – about one soda drink a day – to let most people stop gaining weight, or even lose a bit. Given these facts, many public health experts believe that policies to reduce soda consumption might be a cost-effective approach to fighting obesity.

### Lessons from Efforts to Curb Other Unhealthy Products

Once policymakers decide to focus on reducing a specific kind of consumption, the next question is how to do it. For many public health officials and researchers, past efforts offer valuable lessons, particularly the campaign to curb tobacco use. Adult smoking rates have fallen precipitously in the past half century. In the 1960s, one in two adults smoked; now the rates are closer to one in five. Tobacco taxation has proven to be successful in reducing smoking, and was ranked in the list of the top 10 public health measures in U.S. history. The logic involved comes right out of standard economic theory, not to mention common sense: Taxes on tobacco increase prices, leading people to buy less tobacco. Taxes have also been used to boost prices and trim the consumption of alcohol. For public health researchers and advocates, these prior examples of using taxes to reduce consumption of hazardous products are inspiring – and point the way toward using taxes to reduce soda consumption in the service of fighting obesity.

### The Evidence about Taxes and Soda Consumption is Mixed

Recent legislative attempts to tax soda for health reasons have all been voted down. Nevertheless, states have used soda taxes to raise revenue for almost a century. Consequently, researchers have some data they can use to assess the impact of taxes on consumption. My own work with co-authors has shown that, even at low rates of taxation (3-5%), children and adolescents reduce their soda consumption by about eight calories per day for each one percent increase in the tax. Thus, increasing soda taxes to about 15-20%, as many public health advocates would like to do, could produce the 150 or more reduced calories per day needed to let a person maintain a healthy weight or lose weight. In theory, it looks as if soda taxation could be a potent weapon in the war against U.S. obesity.

But the plot quickly thickens. Researchers have discovered that when taxes increase the price of soda drinks, consumers switch to other high-calorie drinks. Juice and milk may be healthier than soda, but they have approximately the same calories per regular serving. This “substitution effect,” as researchers label it, means that higher taxes might cut down on soda consumption without reducing obesity. Unfortunately, many studies to date have been flawed, because they have not taken into account possible substitution effects.

## Future Directions

While soda taxation at its current moderate rate may be ineffective in curbing obesity, proponents of increasing taxes argue that much higher and more obvious tax boosts would have a greater impact on people. They presume that people would be discouraged from drinking highly taxed soda and not prompted to turn to equally high-calorie alternatives. But this is a tricky claim to evaluate, because there are no relevant data at our disposal. We are left to consider the plausibility of assumptions about consumer behavior, without really knowing what would happen with actual people in the real world.

Given the mixed evidence about soda taxes, it makes sense to step back and ask whether reducing soda consumption might not lead to better health overall, regardless of the impact on obesity. Maybe what we should do is discourage daily consumption of so many “empty calories.” Especially for children and adolescents, that means cutting back across the board on sugar, caffeine, and other ingredients of little nutritional value. Future research should probably grapple with ways to pursue this broader goal, not just ask the standard questions about the impact of soda tax increases. There may not be one silver bullet in America’s battle against obesity and its dire effects on health. The fight is bound to be lengthy, and it must be waged on many fronts.

**Read more in Jason M. Fletcher, David E. Frisvold, and Nathan Tefft, “Are Soft Drink Taxes an Effective Mechanism for Reducing Obesity?” *Journal of Policy Analysis and Management* 30, no. 3 (2011) and “The Effects of Soft Drink Taxation on Soft Drink Consumption and Weight for Children and Adolescents.” *Journal of Public Economics* 94, no. 11-12 (2010): 967-974.**