

Thinning Out the Obesity Epidemic: Examining the Effects of a Tax on Sugar Sweetened Beverages

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Introduction

The average American is more than twenty-four pounds heavier today than in 1960. [1] Along with the physical burden of weight gain, these extra pounds are felt financially. Within the U.S., the medical costs associated with obesity and obesity related illnesses total approximately \$147 billion annually, leaving taxpayers responsible for a large portion of this cost. Currently the obesity epidemic is affecting nearly 34% of Americans, largely due to increased consumption of unhealthy foods and drinks. [2] Historically, a solution to cutting America's bad habits has been the addition of an excise tax to reduce intake of harmful products. Taxes on both cigarettes and alcohol have been proven to cause significant decreases in consumption. [3] Why can't this same logic be applied to foods and beverages that are proven to be unhealthy? This policy brief introduces the concept of a tax on sugar sweetened beverages (SSBs) in the United States and argues for its ability to combat rising obesity rates through limiting intake of drinks with added sugars as well as generating a significant revenue that could support nutritional and well being programs.

Background

Obesity has recently emerged as a global health problem—one that has significant negative consequences for health and wellbeing in both childhood and adult life. As numbers of obese Americans has inflexed, a simultaneous increase in

knowledge of obesity trends—genetic, nutritional and other risk factors—and preventative treatment strategies have become available. [4] Nutrition directed policy and health interventions, particularly directed at individuals of low socioeconomic status, play an integral role in influencing healthy decision-making and combating the obesity epidemic.

Research Findings:

Current Knowledge Base

In 2009, the American Heart Association released a scientific statement recommending reduction in added sugar intake to no more than 100-150 kcal per day for most Americans and identified SSBs as the primary source of added sugars in the American diet. [5] In the past thirty years, the United States has observed a 3-fold increase in intake of SSBs, including soft drinks, fruit drinks, energy and vitamin water drinks. Evaluations of change in BMI per one serving of SSB per day provide positive association between increase SSB uptake and weight gain. On average, SSB contain 140 calories and 26 grams of sugar per 12-oz serving. If normal dietary intake does not decrease by an equivalent amount of calories per serving, then weight gain is expected. [6]

Additionally, SSB consumption has been associated with type 2 diabetes, cardiovascular diseases, and other non-communicable diseases. Higher consumption of SSBs leads to greater magnitude of weight gain and increases an individual's risk of T2D. [7] Data regarding cardiovascular health related to SSB consumption shows impact of increased intake on cardio-metabolic risk factors. SSBs contribute to such increased health

risks in part due to their ability to induce weight gain but also due to high amounts of rapidly absorbable carbohydrates contributing to a high dietary glycemic load. [6]

Past Policies and Outcomes

Currently, seven states within the United States have proposed fourteen pieces of legislation to implement a tax on SSBs, but only four states-- California, Illinois, Pennsylvania, and Colorado-- and the Navajo Nation, have successfully passed legislation. [8] Due to recent implementation of these bills, research in upcoming years will be crucial to determine the effects of taxes on intake. Particular attention should be placed on differing demographics of the cities and examine possible variation in consumption within different SES groups.

Outside of the U.S. many countries have toyed with the idea of a tax on sugary beverages. Significant data has been collected following the implementation of a sugary drink tax in Mexico in 2013. Short-term changes in purchasing behavior in stores are seen following the 1 peso per liter tax. The average volume of taxed beverages purchased was 6% lower in 2014 compared with expected purchases with the tax absent. Additionally, the reduction was greatest in low SES households, averaging 9.1% decrease. [9] Additional studies focusing on the health benefits of taxing SSBs examine reduced intake in relation to calorie reduction and weight loss. One study proposing a tax of 1 cent per ounce of beverage would increase the cost of a 20-oz soft drink by 15-20% and predicted a decrease in consumption of 8% for every 10% increase in cost via a price elasticity analysis. The decrease in intake would lead to a reduction of 10% in calorie consumption, or 20kcal per person leading to sufficient weight loss. [10] Other studies

examining taxing SSBs have been more modest in the estimated reduction in calories. One study projected decrease of .06 body mass index points resulting from high (>20%) soft drink tax. [11]

From a financial perspective and support for a tax policy, economists agree that government intervention in a market is warranted when there are market failures leading to suboptimal production and consumption. In terms of food consumption, many believe a tax on unhealthy food and beverages is necessary because of individuals' lack of appreciation for the link between consumption of these beverages and health consequences, which is further distorted due to the industry's extensive marketing budgets. Additionally, time-inconsistent preferences is inherent in diet and food choices, meaning decisions that provide short-term gratification but long term harm are common with food choices further contributing to a market failure. This issue is exacerbated in children and adolescents who place higher value on present satisfaction. Further financial externalities exist in that consumers do not bear the full cost of their consumption decisions. Medical costs associated with obesity and being overweight are estimated to be 9.1% of U.S. health expenditures, most of which is felt by taxpayers not the overweight individual. [10]

Although taxes are one main approach to combatting the intake of SSBs, other methods have been used in hopes to combat the obesity epidemic. These include restrictions on availability of SSBs in schools, restrictions on advertising and marketing, labeling requirements and government procurement and benefits standards. Many controversies surround implementing policies that restrict SSB purchasing, particularly when recipients are

of low income. Although approaches vary, all hope to de-normalize SSB consumption. [11]

Policy Implications

Controlling intake of SSBs represents an important component of lifestyle management for weight control and maintenance. Several considerations arise when implementing an excise tax and attempting to change the eating culture within America. Many individuals argue the excise tax to be regressive in that low-income populations would naturally spend a greater relative portion of their annual income on an unhealthy food tax when compared to higher-income individuals, leading to concerns of ethicality. However, countering this stand, the revenue generated could offset the costs that low-income consumers bear. Additionally, children in low income households are 50% more price sensitive than higher income children, suggesting that the tax could help combat the obesity epidemic particularly among populations with low SES and high consumption of junk food. [12]

Other parties, including physicians will be key players in decreasing the intake of SSBs, through stressing the importance of replacing SSBs, starting at birth, with other beverages such as water with no added sugars. Additionally, the government needs to ensure that current food directed programs are coordinated in health goals. Examples could include coordinating food stamps to provide discounts to proven healthy food, such as fresh produce and high protein products, and not subsidize beverages with high sugar content like fruit juices. When implementing the policy, it is crucial to earmark the revenue for programs directed at wellness and healthy lifestyles or subsidies for healthy food in grocery stores

in low SES neighborhoods because currently taxes of this realm just goes toward general revenue. [13]

A recommendation is to implement a nationwide excise tax of 1.5 cents per ounce on any drink with added sugars. The revenue collected from the tax will be earmarked for specific nutritional campaigns and interventions. In general, there is apparent incoherence of SSB-related taxes due to the fact that they are designed with the main focus of raising revenue, not primarily reducing consumption or promote health. [11] This is a missed opportunity due to evidence from financial modeling studies that suggest properly designed taxes likely would be effective in curbing SSB consumption. Depending on the success of the nationwide excise tax, the government should highly consider increasing the tax incrementally so it can provide direct health benefits.

Although the tax alone will not solve the obesity crisis, there is a clear, evidence-supported link between unhealthy food consumption, including sugar sweetened beverages, and the obesity epidemic and the government needs to shift the culture of health conscious decision-making.

Further Recourses

- <http://www.kickthecan.info/legislative-campaigns>
- <http://www.uconnruddcenter.org/revenue-calculator-for-sugar-sweetened-beverage-taxes>
- http://www.publichealthlawcenter.org/sites/default/files/resources/phlc-fs-Healthy%20Bevs_Sickly%20Sweet%20J%20une%202013.pdf

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