

# Sugar-Sweetened Beverage Taxes: Industry Response and Tactics

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The consumption of sugary beverages (SBs†) has increasingly grown in many countries and is a significant contributor to the rise in obesity and non-communicable diseases (NCDs). In response, public health officials in multiple countries have pushed for implementing a tax on SBs in order to reduce their consumption. Today, many individuals, especially those of lower socioeconomic status, live in environments in which unhealthy foods and drinks are more accessible than healthier ones. The beverage industry has greatly contributed to the formation of these “obesogenic” environments through their extensive advertising activities and effective marketing strategies. With rising public awareness of sugar’s link to obesity, the industry has heavily invested in campaigns that seek to shift the blame away from their products and has aggressively opposed legislative efforts to pass an SB tax. This perspective will focus on explaining the rationale and necessity of an SB tax by highlighting the tactics the beverage industry has employed that have contributed to the formation and maintenance of the present unhealthy food environment.

## INTRODUCTION

A sugar-sweetened beverage (SB) tax has been widely used as a public health tool to help curb the rising global obesity prevalence by disincentivizing unhealthy behavior of consuming SBs. It has been implemented in six U.S. cities and 19 countries including Mexico, France, Chile, Brazil, and legislated in South Africa [1,2].

One-third of the world is obese or overweight with 62 percent living in developing countries [3]. In the U.S., two-thirds of the adult population is obese or overweight

and one-third is obese [4]. Obesity, a major risk factor for multiple non-communicable diseases (NCDs) such as Type II Diabetes and cardiovascular diseases, causes complications that are expected to collectively cost \$1.2 trillion globally to treat by 2025 [5]. Public health researchers believe an SB tax is an effective tool to control and reduce obesity and its associated NCDs [6].

Data from countries with an SB tax show that such policy is effective in decreasing soda sale and consumption, while simultaneously increasing the consumption of healthier alternative drinks. Mexico, after passing an SB

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†Abbreviations: SB, sugar-sweetened beverage; SBs, sugary beverages; NCDs, non-communicable diseases; T2DM, Type 2 Diabetes; ABA, American Beverage Association.

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tax in 2013, witnessed a 12 percent decline in per capita SB purchases after one year, 17 percent among those of lower socioeconomic status, and a 9.7 percent decrease in the second year [7,8]. Data showed a 4 percent increase in bottled water purchases after the first year and 2.1 percent increase in untaxed beverage purchases after the second year [8]. Berkeley, California, the first U.S. jurisdiction to pass an excise tax on SBs in 2014, observed a 9.6 percent decrease in sales for taxed SBs as well as a 3.5 percent increase for untaxed beverages after 1 year [9]. While evaluations of the tax's impact on health and economic indicators are underway, modelling studies have suggested that the effect will be largely beneficial [10-12]. In addition to lowering SB consumption, the tax generates revenue that can contribute towards programs that improve health or the socio-economic development of the public.

While the tax has been proven and projected to be effective in different settings, it has been met with enormous opposition by the beverage industry. The \$820 billion global non-dairy beverage industry produces both carbonated SBs such as soft drinks and non-carbonated SBs such as fruit and vegetable juices and ready-to-drink teas and coffee. Two American multinational corporations, Coca-Cola and PepsiCo, dominate the global soft drink market, controlling 69 percent of it including many formerly, local, independent brands [13]. The two beverage giants hold monopolies in many countries, especially those that are undergoing rapid economic growth and development.

This perspective aims to explain the necessity for a sugary beverage tax in the effort to curb the obesity epidemic by highlighting the present food environment in which the accessibility and affordability of unhealthy foods have increased as a result of the marketing activities of the beverage industry. In addition, this work will discuss the industry's role in maintaining these unhealthy environments by working to oppose and counter public health policies seeking to improve the dietary choices of individuals.

## WHY TARGET SUGAR?

The growing prevalence of obesity has been accompanied by a "Nutrition Transition," characterized by an increase in the consumption of more nutrient-poor, processed, energy-dense foods [14]. The changing pattern of consumption is striking for sugar consumption, particularly SBs, triggering adverse health conditions. Among the many high-calorie foods and drinks, SBs in particular are an appropriate target for a public health intervention for several reasons.

First, as multiple multinational beverage companies have extended their market reach across the globe, the

availability and popularity of SBs has grown dramatically since the latter half of the 20<sup>th</sup> century [15]. Much of this growth comes from emerging markets in the Global South where soft drink consumption has increased by 5.2 percent on average between 1997 and 2009 [16]. In case of the U.S., 43 percent of the 250 to 300 calorie increase in daily diet from 1977 to 2001 was attributed to SBs alone [17]. While sales have decreased in the last decade, the U.S. remains as the fourth highest consumer of SBs globally [18]. Second, the nutritional properties of SBs are zero. They contain liquid sugar, rich in calories, poor in nutritional content, and less satiating, predisposing individuals to gain weight [19]. Third, SBs have been directly linked to obesity and its associated NCDs. Drinking one SB per day increases an adult's and child's likelihood of being overweight by 27 percent and 55 percent, respectively [20]. Meanwhile, consuming one to two SBs daily puts an individual at a 26 percent higher risk for developing Type 2 Diabetes (T2DM) [19]. While the harmful effect of SBs on the development of chronic diseases is not entirely mediated by weight gain [21], the well-established scientific link between SBs and obesity shows that these products are harmful.

## INDUSTRY'S CONTRIBUTION TO THE FORMATION OF OBESOGENIC ENVIRONMENTS

The marketing activities of the beverage industry since the mid-20<sup>th</sup> century have greatly contributed to the development of "Obesogenic Food Environments," spaces that promote high energy intake [22]. Global beverage companies have launched extensive marketing campaigns that have yielded extraordinary success in popularizing their brands, reaching the youngest, poorest, and most remote communities alike [15]. Through heavy advertisement and strong product distribution systems, the industry has successfully enhanced accessibility and affordability of SBs with minimal other choices. Beverage companies have employed tactical marketing strategies by integrating their brand into the culture of their various customer countries, for example emotively linking SBs with popular sports of many countries around the world such as cricket and soccer or a lifestyle that promises "happiness" [15].

Although beverage companies have made a public commitment to not advertise to children twelve years and under, many of their televised commercials continue to appear on youth and family programming channels [15]. Moreover, soda companies continue to heavily advertise to children on or around their school campuses while strategically placing vendors nearby to provide convenient access to their products. In addition, the beverage industry has strategically targeted their marketing

towards lower-income individuals and racial minorities, groups more prone to consuming more SBs and developing obesity-associated diseases [23]. The poor worldwide have less access to quality disease screening and healthcare. SABMiller, a multinational brewing and beverage company, had explicitly labeled the lower-income quintile of individuals as their highest market opportunity for SBs in South Africa, for example [24]. Meanwhile, African-Americans and Latino-American youth in the U.S. have been found to be exposed disproportionately to child-directed marketing displays by food and drink companies [25].

## STRATEGIES BY INDUSTRY TO OPPOSE THE SUGARY BEVERAGE TAX

In addition to being a major contributor to the formation of obesogenic environments, the beverage industry has also taken significant steps to oppose most public health regulations in the interests of profit. In 2015, leaked emails between executives of Coca-Cola revealed plans for a coordinated war involving the American Beverage Association (ABA) and various soda manufacturers against SB taxes and other public health policies seeking to lower sugary drink consumption [26]. Many of these strategies revealed in the internal documents have already been implemented by the beverage companies [27].

One prominent strategy employed is to cast doubt over and distort the established scientific evidence linking SBs to obesity. The industry has funded multiple studies of their own refuting this link and has used these studies to support the false claims it has widely distributed through the media. Notably, a systematic review casts doubts on the validity of these conclusions after finding that studies funded by the food and drink industry are five times less likely than those having no financial conflict of interest to find a positive association between SBs and obesity [28].

In addition to attempting to discredit the established link, the beverage industry has diverted the focus from the unhealthiness of its products to physical inactivity as the main driver for the obesity epidemic. Coca-Cola had funded scientists at different U.S. universities to establish a non-profit organization called the Global Energy Balance Network, which suggests that increasing physical activity can offset an unhealthy diet [29]. While the non-profit had denied it for a year before disbanding, the evidence indicates that the organization was simply Coca-Cola's sounding board to distribute its message and influence the public perception of the obesity problem [30]. The beverage giant has covertly funded journalism conferences in order to influence the media content surrounding the causes of the obesity epidemic [31]. Coca-Cola has even put its message into action by donating

millions of dollars to establish fitness programs in more than 100 schools in the U.S. as well as numerous active healthy living programs worldwide [32]. Not surprisingly, many of these charitable acts have been well-synchronized to the announcements of SB tax proposals. The soft drink industry had pledged to donate \$10 million to the Children's Hospital of Philadelphia if the city council had voted down the sugar tax that was being considered at the time [33]. In addition, Coca-Cola had donated \$3 million to establish fitness programs in Chicago after a soda tax was proposed for the city [29].

The beverage industry has also attempted to directly counter the efforts of SB tax proponents. In Colombia, a provocative television advertisement highlighting the link between sugar and obesity and diet-related illnesses was removed by a government consumer protection agency in response to a soda company's complaints that the advertisement was misleading [34]. The government agency went further to prohibit the public health workers that had created the advertisement from publicly discussing sugar's health risks, under penalty of a \$250,000 fine. In both Mexico and Colombia, public health advocates have reported receiving threats from beverage companies through social media as well as in-person encounters [35].

Establishing and operating anti-tax campaigns and lobbying against SB tax proposals is another well-established strategy of the industry. Annual lobbying dollars spent by the beverage industry in the U.S. skyrocketed to \$60 million in 2009, the year a federal soda tax was proposed, and has stayed consistently high ever since [36]. Between 2011 and 2015, when more SB taxes in different cities were proposed, Coca-Cola spent on average \$6 million a year, PepsiCo spent \$3 million per year, and ABA spent \$1 million a year [37]. Notably, the amount of lobbying dollars spent by the industry has greatly outweighed that paid by the pro-tax side, mostly comprised of billionaire philanthropists including Michael Bloomberg and Laura and John Arnold [38]. As a result, the industry has won a large majority of sugar tax battles. Between 2006 and 2016, industry lobbyists have defeated soda tax proposals in nearly 30 U.S. cities and states ranging from small cities such as Richmond and El Monte, California to large metropolises like New York and Chicago [39,40]. Since 2014, when Berkeley became the first U.S. jurisdiction to pass an SB tax, the industry has invested \$37.7 million while the pro-tax side has put in \$12 million [41]. The industry has also directly challenged in court the legality of SB taxes that have already went into effect. In 2018, the ABA had its appeal to the Pennsylvania Supreme Court granted which challenged the legality of Philadelphia's SB tax [42].

## CONCLUSIONS AND OUTLOOK

The magnitude of the obesity epidemic in terms of both public health and economic costs has grown to astonishing proportions in many parts of the world while at the same time the dangerously high consumption rate of SBs continues to rise. The increasing accessibility and relentless marketing of unhealthy foods and drinks have made it more difficult for individuals, especially children, lower-income groups, and racial minorities, to consume healthier foods and drinks. Due to extensive marketing campaigns and the lack of public knowledge of the dangers of liquid sugar, individual choices to consume these products are distorted. Furthermore, the SB market imposes major financial external costs on society for treating the multiple diseases these products are known to cause. Therefore, public health policies are necessary at this stage [43], but the beverage industry's vested interests will likely continue to influence public perception as well as the legislative debates and the implementation surrounding the SB tax.

Public and policymaker support is also crucial for the successful implementation of SB taxes. For example, South Africa's tax, which comes into effect in April 2018, has experienced multiple delays in its implementation since it was originally proposed in 2016 mostly due to industry pushback. U.S. cities that have passed SB taxes through a public vote tend to have experienced this problem to a lesser extent. As an example, Berkeley's proposal was mainly driven by a grassroots organization that mobilized public support to attaining a 75 percent vote in favor of the tax [44]. On the other hand, cities that have passed a tax through their city council have encountered more public opposition as seen from the experiences of Philadelphia and Cook County, Illinois [45,46]. The latter was forced to repeal its tax in 2018.

There are three potential challenges to consider regarding the implementation of an SB tax. First, taxes have been argued to be regressive as the poor pay a higher proportion of their income, although there have been studies suggesting that this burden is minimal [8]. Earmarking some of the tax revenue towards programs that alleviate socioeconomic disparities may alleviate the possible negative effects related to this concern. In addition, the poor suffer disproportionately from the outcomes of obesity and related diseases and in turn benefit the most from these taxes. Second, decisions concerning the allocation of tax revenue have also been of concern. Recent literature has suggested that earmarking tax revenue towards health programs may not always be beneficial in terms of increasing priority to health for national budget spending [47]. If not health programs, tax revenue may be more effectively distributed towards infrastructural development such as water systems, especially in coun-

tries where SBs are more affordable than bottled water [48]. Lastly, implementing an SB tax by itself will not be sufficient to significantly lower the prevalence of obesity and diet-related diseases. Multiple cities and countries are considering or have mandated the placement of SB warning labels, an effective intervention that has been found to reduce obesity prevalence [49,50]. Public service advertisements that emphasize the harmful effects of over-consuming SBs serve as another effective initiative to consider provided that their arguments are strongly presented [51,52]. Other beneficial interventions include the implementation of education campaigns, easy-to-understand food labelling, food advertising regulations, and government subsidies for healthier foods. A comprehensive set of interventions targeting and regulating different stages of the delivery process of foods and drinks to consumers is necessary to effectively tackle the obesity and related disease epidemic.

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