

Taxing Sugar Sweetened Beverages: The Case for Public Health

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Issue:

Obesity and overweight in all age groups are at historically high levels in Canada (1-3). In 2014, 20% of adults were obese, while 40.0% of men and 27.5% of women were overweight (4). In this same year, 6.2% of Canadian children were obese and 17% were overweight (5). Being overweight or obese is a risk factor for cancer and other chronic diseases (6-8). Obesity in childhood is an especially serious concern as extra body weight over time further increases the risk for developing chronic diseases (9). In 2005, obesity and overweight was estimated to cost the province over \$1.27 billion (10, 11). In Canada, the direct and indirect economic costs of obesity in 2008 were estimated to total between \$4.6 and \$7.1 billion (12).

Although the causes of overweight and obesity are complex, dietary intake and food choices play an important role (13). Sugar sweetened beverages (SSBs) are one food product that provides calories, but virtually no nutrients. SSBs are defined as beverages that contain added sugar, corn syrup, or other caloric sweeteners, and include products such as soft drinks, sports and energy drinks, vitamin water, and sweetened tea and coffee beverages (14, 15).

Individuals who drink SSBs do not typically change their eating patterns to compensate for these liquid calories, which is one likely mechanism linking SSBs to weight gain (16-18). Regularly choosing water or other low-calorie beverages instead of SSBs is associated with lower dietary energy intake and weight gain over time, as well as lowered risk for type 2 diabetes and stroke (19). In a study of almost 125,000 adults in the United States, who were followed for 16-20 years, researchers estimated that replacing one serving of SSBs with one cup of water, coffee, tea, diet beverage, or low-fat milk every day, was associated with a 0.2 - 0.5 kg lower weight gain every four years (20). Similarly, a study of 9 to 15 year olds in Europe found that replacing daily intake of SSBs with water, coffee, tea, or milk was inversely related to increases in body mass index, waist circumference, and fat mass after 6 years (21).

SSBs are unique products because they are linked only to health risks and offer no benefits when consumed (21). In addition, SSBs may displace nutritionally superior beverages, such as milk (22-24), in daily diets (25, 26). According to 2014-2015 self-reported data from the Alberta Community Health Survey, among the adult population in Alberta, daily consumption of sweetened coffee and/or tea beverages was 12.7% and consumption of soda drinks was 10.9% (27). This survey also found that male's consumption of sugary drinks (14.7%) was twice that of females (7.3%) (27). Additional evidence from the Canadian context suggests that children aged 1-3 years old generally drink water, milk, and fruit juices. However, as children get older, both boys and girls are found to drink less milk and juice and consume more SSBs, such as soft drinks and fruit drinks (28).

Government public health policies, including taxation, have proven to be effective tools for facilitating a healthy lifestyle in Alberta. In the field of tobacco control, increasing taxes on tobacco products as part of a comprehensive strategy has contributed to a decrease in tobacco use in the province (29). Similarly, fiscal measures can encourage healthy eating by creating financial disincentives for purchasing and consuming unhealthy foods and beverages. In fact, over the past several years, there have been a number of calls to implement a general junk food tax (30-32). However, unlike tobacco products, which have no safe level of use, the challenge of defining what constitutes 'junk food' has often stalled public health efforts to tax unhealthy foods and beverages.

In contrast to other unhealthy foods, SSBs offer limited nutritional value other than calories, which are derived almost exclusively from simple sugars. Therefore, developing criteria for a tax on SSBs compared to other foods is a simpler and more feasible policy option.

To-date, many jurisdictions around the world, including Finland, France, Hungary, Mexico, the Cook Islands, St. Helena, India, Chile, Belgium, and the American cities of Berkley and Philadelphia, have already implemented some form of SSB tax (33, 34). A tax on SSBs has also been endorsed by the World Health Organization (35). Further, many Canadian civil society organizations, such as Chronic Disease Prevention Alliance of Canada (CDPAC), Dietitians of Canada, Heart and Stroke, Canadian Diabetes Association, Quebec Weight Coalition, Childhood Obesity Foundation, and the British Columbia Healthy Living Alliance (33, 36-41), are calling for government action to implement a tax on SSBs as a way to address obesity and chronic diseases in Canada.

There are a number of different taxation models for a levy on sugary drinks (e.g. sales taxes, excise taxes and special taxes). Sales taxes are applied as a percentage of the product's price and are reflected at the cash register (33). Excise taxes, on the other hand, tend to be levied on the manufacturer as a fixed amount per volume (33). Another policy option is implementation of a special tax (% of product price or per volume) at the retail level, similar to certain tobacco and alcohol special tax models in Canada (33).

Per volume taxes have a number of benefits over those applied as a percentage of the product price. For example, their impact does not fluctuate with price, they are easier to administer because the tax is based on volume and are less susceptible to industry manipulation (33, 42). In Canada, many organizations have recommended an excise tax at the federal level, while implementation of a special tax may be more feasible for provinces (33).

Benefits to Taking Action:

- Taxation has the potential to reduce consumption of SSBs in Alberta and increase intake of more nutritious beverages (43-48). Although taxation has not yet been implemented in a Canadian province, economic models suggest that a 10% increase in the price of SSBs would reduce consumption of these beverages by 12-13% (49). Findings from Mexico illustrate that, as a result of the 1 peso per liter excise SSB tax, in 2014-2015 per capita sales of sugary drinks decreased by 7.3% and sales of plain water increased by 5.2% compared to the pre-tax period (2007-2013) (50). Further, a study exploring the short-term impacts of the Berkley soda tax found that, in low-income neighbourhoods, SSB consumption declined by 21% over a 1-year period from before the tax to after the tax (51).
- Reviews have found that as the cost of soft drinks or SSBs increased, there was a tendency for population-level body weight to decline (46, 52). Some studies found no impact or small increases in body weight (46, 47), but this is hypothesized to be due to existing tax rates that are low and limited in scope (e.g. only cover soft drinks or are only applied at certain locations) (52).
- Taxation would be applied in the general retail environment in Alberta. Thus, the impact of taxation would be felt beyond specific food settings (e.g. schools, workplaces) and could achieve a greater effect on the overall consumption of SSBs at the population level. This broad-based policy intervention could create an environment where drinking water or healthier beverages becomes a relatively easier choice for Albertans, and the price of purchasing SSBs effectively becomes a barrier to consumption.
- Taxation is a cost-effective intervention for governments and taxpayers to reduce SSB consumption and the related costs from obesity and chronic disease, while providing new government revenue. According to the CHOICES project at the Harvard T.H. Chan School of Public Health, an \$0.01/ounce excise tax in 15 American cities could raise over \$600 million in the first year of implementation, as well as prevent 115,000 cases of childhood and adult obesity in 2015 (53). University of Alberta researchers estimate that a national 50 cent per litre levy could generate up to \$1.8 billion each year within the Canadian context (43, 44).

- Government should invest a portion of revenue generated from a tax on sugary drinks in health promotion initiatives aimed at preventing obesity and chronic disease. Over time, investing in prevention will contribute to direct financial gain for government by helping to reduce future health-care costs. Evidence suggests that a \$1 investment in health promotion can be expected to result in a minimum of \$4-5 cost savings (54).

Considerations:

There are criticisms of using taxation as a policy tool. A common argument against SSB taxation is that such a policy intervention would be regressive, causing harm to vulnerable members in society, such as Albertans with the lowest incomes. However, experts have not found robust empirical evidence of this (49, 55). Further, SSBs provide no nutritional benefit while water, a generally accessible beverage for Albertans, would provide hydration without the negative health impact of consuming SSBs. In short, no one in Alberta physically needs to consume SSBs or experiences health benefits from their consumption (49).

It is also important to note that many studies exploring the impact of taxing or subsidizing food and beverages have indicated that a substantial difference in price is needed to have a significant impact on purchasing behaviours (52, 56-59). In fact, experts suggest a minimum tax of about 20% of the price, as a current tax of 7% in the US has not produced the desired effect on weight outcomes (60).

Finally, public opinion polling indicates that there is support for action on SSBs. According to a 2013 Ipsos Reid poll of Canadians, 88% agree that large servings of SSBs can lead to bad health and 94% consider over consumption of these drinks to be an important contributor to obesity among Canadians (61). Further, according to a 2016 survey administered to 1,200 people in Alberta, the majority of respondents (58%) would support a tax on soft drinks and energy drinks (62). When government revenue from taxes is reinvested in health, the general public appears to be even more supportive of taxation as a means to encourage healthy lifestyles. A poll in New York found that support for a soft drink tax increased from 52% to 72% when respondents were informed that the revenue would be directed to obesity prevention efforts (63).

APCCP Priorities for Action:

- Advocate for a 50 cent per litre levy on sugary drinks in Alberta. A portion of the revenue generated should be invested into health promotion initiatives aimed at keeping Albertans healthy and out of the hospital.

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