

CDPAC Position Statement

Extra Sugar, Extra Calories, Extra Weight
More Chronic Disease
The Case for a Sugar-Sweetened Beverage Tax



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Background:

Obesity levels among adults and children in Canada are at historically high levels.^{1,2} Obesity has been linked to the development of chronic diseases³ with overweight and obesity estimated to cost the Canadian health system and economy \$30 billion annually⁴ and chronic diseases around \$93 billion annually.⁵ The Federal, Provincial & Territorial Ministers of Health have responded by proposing a framework to promote healthy weights. One of the key priorities identified in this framework involves looking at ways to decrease the availability, accessibility and marketing of beverages high in sugar content to children.⁶

Prevalence of Sugar-Sweetened Beverages (SSBs)

In the mid 1990s, in the US, children's intake of sugar-sweetened beverages (SSBs) surpassed that of milk.⁷ In the past decade the average intake of calories from SSBs increased by almost 30%.⁸ In Canada, consumption of SSBs increases with age up until at least 18 years of age. For example, fewer than 10% of children aged 1 to 3 had a regular soft drink the day before a Canadian Community Health Survey interview, but at ages 14 to 18, the percentages were 53% for boys and 35% for girls.⁹ The average Canadian consumed 73.2 litres of soft drinks in 2008.¹⁰

The Impact of SSBs on Obesity & Health:

Children

Strong evidence supports the association between the consumption of SSBs and the development of childhood obesity.^{11,12} In one Canadian study, children who consumed SSBs between meals from the ages of 2.5 and 4.5 years were twice as likely to be overweight compared to children who did not consume SSBs. Each additional serving (12 ounces) of a SSB increases the risk of obesity in middle-school students by 60%.¹³ The consumption of SSBs has also been linked to dental caries among young children.¹⁴

General Population

Among the general population SSB consumption increases the risk of obesity and associated risks, particularly diabetes,¹⁵ but also heart disease, stroke, arthritis and cancer.¹⁶ Increased SSB consumption has also been associated with poor nutrition and displacement of more healthful beverages.¹⁷ A systematic review of the literature concluded that all lines of evidence consistently support the conclusion that the consumption of SSBs has contributed to the obesity epidemic and that effective actions to reduce SSB consumption are likely to have an impact on obesity.¹⁸

The Role of Taxation on SSB Consumption:

It is widely recognized that in order to effectively address obesity and chronic diseases a multi-pronged, multi-sectoral and whole-of-society approach to achieving healthy weights is required. To that end, the Chronic Disease Prevention Alliance of Canada (CDPAC) has called for restrictions on the marketing of unhealthy foods and beverages to children, increased education, action on food security and community design that facilitates active living. These issues were also raised at the September 2010 meeting of the Federal/Provincial/Territorial Ministers of Health. Additionally, a

* SSBs are defined as any drink that has added sugar or other caloric sweeteners such as high fructose corn syrup. These include soda/soft drinks, fruit drinks (punch, cocktail), sport drinks, sweetened teas, vitamin waters and energy drinks. Exempted are sugar-free diet drinks, diet beverages, sugar free juice, and flavoured milk. From: Faulkner G, Grootendorst P, Nguyen VH, et al. Economic Policy, Obesity and Health: A Scoping Review. Report commissioned by the Heart and Stroke Foundation, July 2010.

recent public awareness campaign on children's health undertaken by Health Canada drew attention to the link between SSBs and childhood obesity.¹⁹

Adding taxation to the arsenal of interventions is consistent with a multi-pronged approach. The tobacco control field has underscored this very clearly – demonstrating that although public education is necessary, it is unlikely to have sufficient impact on consumption of a product unless it is combined with a variety of other measures. In the case of SSBs, this could include restricting marketing, limiting accessibility, subsidizing healthful options and taxation.

As with tobacco control, price/tax increases of the target product, in this case SSBs, are associated with reduced consumption. For example, as the price of one particular brand of carbonated soft drink increased by 12%, sales were seen to drop by 14.6%.²⁰ To that end, a panel of Canadian experts from a variety of fields, after undertaking a systematic review of the domestic and international literature concluded that a tax on SSBs would have a modest impact on obesity, but that it could have an even more powerful impact over time.²¹ The reason for this modest impact can be attributed to the fact that taxes on SSBs are typically small in magnitude (e.g., 7%). A larger tax (e.g. 20%) would be more impactful.²² There is no indication from empirical evidence that a tax on SSBs would be regressive and unfairly penalize low income individuals and households.²³ It has also been indicated that taxes are likely to be more impactful if they are made visible to consumers, for example at the point of purchase or by indicating on the front of the package/container how much extra the consumer is paying as a result of the tax.²⁴

The reality is that SSBs are in a class of their own, they are a discrete category with virtually no health benefits or nutritional value - providing only empty calories, low satiety, incomplete compensation for total energy - with a very strong evidence of harm and high consumption rates. And they are easy to define, unlike some less healthy food and beverage choices.

An added benefit of a SSB tax is that it would generate substantial revenues that could be used to support healthy living initiatives. Specifically, a tax on SSBs could be used to help offset the cost/price of healthier foods and drinks, such as vegetables and fruit and low-fat non-flavoured milk and also help to offset the costs of SSB-related health care costs. Moreover, given that healthier beverages are generally more expensive than SSBs, a tax on SSBs would increase the price of SSBs, lessening the relative price difference and making the healthier beverages more desirable. For these reasons, it would be justified for governments to apply taxes on SSBs, as has been done for alcohol and tobacco. The higher the tax, the greater the benefit!

A recent public opinion poll found that the majority of Canadians agree that governments should add a tax on sugary drinks if the revenue from the tax is invested in the prevention of obesity and the promotion of healthy lifestyles.²⁵ Similar results have been found in other polls among British Columbians (70%)²⁶ and in New York City (72%).²⁷ These polling results underscore the importance of communicating to consumers how the tax will be reinvested, in order to increase its palatability.

There are two main types of taxes that could be applied to SSBs, an excise tax or a sales tax. Although sales taxes are the most common form of beverage and food tax, a significant downside with this type of tax is that it would encourage the sale of less expensive brands and large containers.

On the other hand, excise taxes, structured as a fixed cost per ounce of sweetener, provide an incentive to buy less and therefore could be more effective at reducing consumption.²⁸ An excise tax could also be made visible to consumers at point of purchase and would be much easier to implement versus a sales tax.

In summary, a tax on SSBs is an important component within a multi-pronged, comprehensive approach to address SSB consumption, obesity and chronic disease prevention.

Recommendations

That the federal, provincial & territorial governments:

- 1. As a part of a comprehensive approach to achieving healthy weights, introduce a tax in their respective jurisdictions on sugar-sweetened beverages, and;**
- 2. Use some of the revenues generated from this tax to fund healthy living initiatives.**

Endnotes

¹ Tjepkema M. Measured obesity: adult obesity in Canada: measured height and weight. Statistics Canada Catalogue no. 82-620-m/2005001; 2005.

² Shields M. Overweight and obesity among children and youth. Statistics Canada catalogue no. 82-003; 2006.

³ Childhood Obesity and the Role of the Government of Canada. Public Health Agency of Canada, <http://www.phac-aspc.gc.ca/ch-se/obesity/obesity-eng.html>, 2007-08-23.

⁴ Behan DF, Cox SH. Obesity and its relation to mortality and morbidity costs. The Society of Actuaries. December 2010.

⁵ Mirolla M. The cost of chronic disease in Canada. *A study prepared for the Chronic Disease Prevention Alliance of Canada*. January 2004.

⁶ Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights. September 2010.

⁷ Nielsen SJ, Popkin BM. Changes in beverage intake between 1977 and 2001. *Am J Prev Med* 2004;27:205-210

⁸ Nielsen SJ, Popkin BM. Changes in beverage intake between 1977 and 2001. *Am J Prev Med* 2004;27:205-210

⁹ Garriguet D. Beverage consumption of children and teens. Health Reports: Statistics Canada. January 2009.

¹⁰ Statistics Canada. Canada Food Stats Highlights. 2009.

¹¹ Ludwig DS, Peterson KE, Gortmaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective observational analysis. *Lancet*. 2001 Feb 17;357:505-8

¹² Is Intake of sugar-sweetened beverages associated with adiposity in children? Nutrition Evidence Library, 2010. United States Department of Agriculture.

¹³ Ludwig DS, Peterson KE, Gortmaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective observational analysis. *Lancet*. 2001 Feb 17;357:505-8

¹⁴ Marshall TA, Levy SM, Broffitt B, Warren JJ, Eichenberger-Gilmore JM, Burns TL; and Stumbo PJ. Dental Caries and Beverage Consumption in Young Children. *PEDIATRICS* Vol. 112 No. 3 September 2003.

¹⁵ Schulze MB, Manson JE, Ludwig DS, et al. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. *JAMA*. 2004; 292:927-934.

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- ¹⁶ Kim S, Popkin BM. Commentary: Understanding the epidemiology of overweight and obesity - a real global public health concern. *International Journal of Epidemiology* 2006;35(1):60-67.
- ¹⁷ Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *Am J Public Health* 2007;97:667-75.
- ¹⁸ Woodward-Lopez G, Kao J, Ritchie L. To what extent have sweetened beverages contributed to the obesity epidemic? *Public Health Nutrition*. September 2010.
- ¹⁹ Children's Health and Safety Ad Campaign. <http://www.youtube.com/healthcanada#p/c/0/eTSJ6XdOotk>. Health Canada, November 22, 2010 - March 31, 2011.
- ²⁰ Elasticity: big price increases cause Coke volume to plummet. *Beverage Digest*. November 21, 2008:3-4.
- ²¹ Faulkner G, Grootendorst P, Nguyen VH, et al. *Economic Policy, Obesity and Health: A Scoping Review*. Report commissioned by the Heart and Stroke Foundation, July 2010.
- ²² Dietitians of Canada. *Reducing consumption of sugar-sweetened beverages: Does taxation have a role?* Current Issues series, December 2010.
- ²³ Faulkner G, Grootendorst P, Nguyen VH, et al. *Economic Policy, Obesity and Health: A Scoping Review*. Report commissioned by the Heart and Stroke Foundation, July 2010.
- ²⁴ Chetty R, Looney A, & Kroft K. Salience and taxation: Theory and Evidence. *American Economic Review*; 99(4), 1145-77, 2009.
- ²⁵ Ipsos Descarie Web Omnibus Poll commissioned by the [Coalition québécoise sur la problématique du poids](#) (2291 respondents). October 13-19, 2010.
- ²⁶ Childhood Obesity Foundation. *Preventing unhealthy weights: A tax on sugar sweetened beverages (SSBs) as part of the solution*.
- ²⁷ Citizen's Committee for Children of New York Inc. *Public opinion poll conducted by Beck Research, LLC. Voter preferences for closing the New York State budget gap*. 2008.
- ²⁸ Brownell KD, Frieden TR. Ounces of prevention – the public policy case for taxes on sugared beverages. *N Engl J Med* 360;18 April 30, 2009.