



Using the Tax System to Encourage Healthy Choices:

Implementing a Sugar-Sweetened Beverages Tax in the
Northwest Territories

Discussion Paper

January 2019

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English

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French

Kīspin ki nitawih̄tīn ē nīh̄yawih̄k ōma ācimōwin, tipwāsinān.

Cree

T̄h̄ch̄q yatī k'èè. Dī wegodī new̄q dè, gots'ō gonede.

T̄h̄ch̄q

ʔerih̄t'īs Dēne S̄h̄né yatī t'a huts'elk̄er xa beyáyatī theʔa ʔat'e, nuwe ts'ēn yóltī.

Chipewyan

Edī gondī dehgáh got'je zhatíe k'éé edat'éh enahddh̄e nīde naxets'é edah̄í.

South Slavey

K'áhshó got'ine xədə k'é hederī ʔed̄h̄t'íe yerin̄w̄e nídé dúle.

North Slavey

Jii gwandak izhii ginj̄ik vat'atr'ij̄ah̄ch'uu zhit yinoth̄an j̄i', diits'at̄ ginoh̄kh̄ii.

Gwich'in

Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.

Inuvialuktun

Ċ'bd̄l̄ n̄n̄^{sb}b̄Δ^c Λ^cL̄JΔ^rc̄ Δ^ob̄n̄c̄^{sb}γ^cL̄c̄n̄b̄, Δ^oc̄n̄^a Δ^cb̄c̄^aΔ^{sb}γ^cn̄c̄.

Inuktitut

Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.

Inuinnaqtun

Fiscal Policy: (867) 767-9158

Department of Finance

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Executive Summary

In NWT Budget 2017-18, the Government of the Northwest Territories committed to investigate introducing a sugary drinks¹ tax as a way to reduce sugar consumption and improve public health. This investigation into using the tax system as part of the public health initiative to reduce obesity and improve oral health has led to the proposal to introduce a sugar-sweetened beverages tax to reduce sugar consumption in the Northwest Territories. This paper is to generate public discussion on whether a sugar-sweetened beverages tax would be effective in reducing the consumption of sugar-sweetened drinks.

The GNWT proposes to tax sugar-sweetened beverages by applying a direct specific tax on all sugar-sweetened beverages (non-diet carbonated drinks, ready to drink tea and coffee drinks, energy drinks, sports drinks and fruit beverages that are not 100 per cent fruit juice) at a tax rate based on container size. Beverages that are 100 per cent fruit juice and milk and yogurt beverages will be exempt from the tax because they provide other nutrients may offset the harm created by the added sugar. Diet carbonated drinks are not included in the tax because the effect of diet drinks on health initiatives to reduce obesity is inconclusive. The tax will include sugar-sweetened fountain beverages except fountain beverages mixed with alcohol. The tax rates will be determined following public engagement. The proposed tax rates are 5 cents per 100 millilitres (ml) for pre-packaged drinks and are the following rates for fountain drinks:

- Less than 250 ml 10 cents
- 250 ml to 500 ml 20 cents
- 500 ml to 750 ml 30 cents
- Over 750 ml 45 cents

The objective of the sugar-sweetened beverage tax is to discourage the consumption of sugary drinks that are linked to health issues such as obesity, Type 2 diabetes, and tooth decay. Although the tax will increase government revenues, the high administration required to implement this tax means this tax is not an effective tax to generate revenues.

Although research supports that the conclusion that taxes on sugary drinks will reduce their consumption, other factors, such as substitution of other forms of sugar and public education, make it difficult to draw conclusions on how much a sugar-sweetened beverages tax would reduce consumption of sugar-sweetened drinks and therefore have an influence on reducing obesity and improving dental health.

¹ The technical definition of 'sugary drinks' is all beverages with 'free sugars', which includes all natural sugars in fruit juices and fruit juice concentrates, honey and syrups; and, monosaccharides and disaccharides that are added to foods and beverages. Although the 2017-18 Budget announced an investigation of a 'sugary drinks' tax, the need to balance sugar content and nutritional value of certain products, the proposal is for a tax on 'sugar-sweetened beverages,' which are defined as beverages with 'added sugars' and typically includes non-diet carbonated soft drinks, ready-to-drink sweetened tea and coffee, energy drinks, sports drinks, and 'fruit drinks' with less than 100 per cent juice.

Résumé

Dans le cadre de son budget 2017-2018, le gouvernement des Territoires du Nord-Ouest s'est engagé à étudier la possibilité d'instaurer une taxe sur les boissons sucrées² en vue de réduire la consommation de sucre et d'améliorer la santé du public. Cette étude sur l'intégration de mesures fiscales au projet de santé publique destiné à freiner l'obésité et à améliorer la santé bucco-dentaire, a débouché sur la proposition d'instaurer une taxe sur les boissons édulcorées afin de diminuer la consommation de sucre aux Territoires du Nord-Ouest. Le présent document vise à susciter un débat public pour savoir si l'instauration d'une telle taxe permettrait effectivement de limiter la consommation de boissons édulcorées.

Le GTNO propose d'imposer une taxe directe sur les boissons édulcorées (boissons gazeuses autres que diète, boissons prêtes à boire à base de thé ou de café, boissons énergisantes, boissons pour sportifs, boissons à base de fruits à l'exception des jus de fruits purs à 100 %) à un taux calculé en fonction de la taille du récipient. Les jus de fruits purs à 100 % et les boissons à base de lait ou de yogourt seront exemptés de la taxe, car ils apportent d'autres nutriments qui peuvent contrecarrer les effets nocifs du sucre. Les boissons gazeuses diète ne sont pas concernées par la taxe étant donné qu'il n'a pas encore été démontré si elles pouvaient ou non réduire l'obésité. La taxe s'appliquera aux distributeurs de boissons édulcorées à l'exception de celles à base d'alcool. Le taux d'imposition sera fixé après la consultation du public. Le taux proposé est de 5 cents pour 100 millilitres (ml) pour les boissons préemballées. Les taux suivants s'appliquent pour les boissons en fontaine :

- Moins de 250 ml 10 cents
- 250 à 500 ml 20 cents
- 500 à 750 ml 30 cents
- Plus de 750 ml 45 cents

L'objectif de la taxe sur les boissons édulcorées est d'en décourager la consommation pour réduire les problèmes de santé comme l'obésité, le diabète de type 2 et les caries. La mise en place de cette taxe représentant une importante charge administrative, les recettes nettes revenant au gouvernement seront négligeables dans le contexte.

Bien que les recherches montrent que les taxes sur les boissons édulcorées permettent effectivement d'en limiter la consommation, d'autres facteurs comme les produits de substitution au sucre et la sensibilisation du public empêchent de tirer des conclusions claires sur le degré d'efficacité de l'approche fiscale pour freiner l'obésité et améliorer la santé bucco-dentaire.

² La définition technique de « boissons sucrées » comprend toutes les boissons contenant des « sucres libres », notamment les sucres naturels contenus dans les jus de fruits et les jus de fruits concentrés, le miel et le sirop, ainsi que les monosaccharides et les disaccharides ajoutés dans les aliments et les boissons. Même si une étude sur les boissons sucrées avait été annoncée dans le budget 2017-2018, la nécessité de trouver un équilibre entre la teneur en sucre et la valeur nutritionnelle de certains produits nous a poussés à proposer plutôt une taxe sur les boissons édulcorées qui sont définies comme des boissons contenant des « sucres ajoutés », notamment les boissons gazeuses autres que diète, les boissons prêtes à boire à base de thé ou de café, les boissons énergisantes, les boissons pour sportifs, et les boissons à base de fruits à l'exception des jus de fruits purs à 100 %)

Introduction

Obesity, Type 2 diabetes, heart disease and oral health problems are serious public health issues in the Northwest Territories, and consuming too much sugar is part of the problem. The Government of the Northwest Territories (GNWT) is conducting a public engagement on whether taxing added sugar in beverages will be an effective way to improve public health by discouraging sugar-sweetened beverage consumption.

This paper results from the commitment made in *NWT Budget 2017-18* to investigate introducing a sugary drink³ tax as a price incentive to discourage the consumption of sugary drinks that are linked to health issues such as obesity, Type 2 diabetes and poor oral health. Obesity and Type 2 diabetes lead to risk of other chronic disease conditions such as hypertension, cardiovascular disease and chronic kidney failure. The paper discusses the problems with sugar and provides information for a public discussion on the proposed tax on sugar-sweetened beverages to encourage Northwest Territories residents to consume less of these products.

³ The technical definition of 'sugary drinks' is all beverages with 'free sugars', which includes all natural sugars in fruit juices and fruit juice concentrates, honey and syrups; and, monosaccharides and disaccharides that are added to foods and beverages. Although the 2017-18 Budget called for an investigation of a 'sugary drinks' tax, the need to balance sugar content and nutritional value of certain products, the proposal is for a tax on 'sugar-sweetened beverages,' which are defined as beverages with 'added sugars' and typically includes non-diet carbonated soft drinks, ready-to-drink sweetened tea and coffee, energy drinks, sports drinks, and 'fruit drinks' with less than 100 per cent juice.

The Problem with Sugar: Obesity, health, and sugar consumption

Obesity is cited in numerous medical and health journals as a largely preventable factor in a number of chronic diseases, including Type 2 diabetes, cardiovascular diseases (heart attacks and strokes), and some cancers. The health costs due to obesity are considered serious; a 2016 Senate committee report estimates that obesity costs Canada between \$4.6 billion and \$7.1 billion annually in health care and lost productivity.⁴

Obesity rates in the Northwest Territories are a serious health problem. Using 2015 data, over 39 per cent of the NWT adult (age 18 and over) population is considered obese (body mass index of 30 or more), which is significantly higher than the national rate of 26 per cent. The prevalence of diabetes in the NWT, of which obesity is a factor, is similar to the national average.⁵

Sugar sweetened beverages are the single largest dietary contributor of sugar and their role in obesity rates is receiving increasing attention. Medical studies link sugar-based foods to the increase in obesity, primarily because the sugar in these foods provides large amounts of calories that accumulate as weight gain if individuals do not exercise enough to burn off the excess calories. The sugar from beverages does not provide the signal to the brain that enough calories are consumed (the person is full) and so more simple sugars are consumed than the body needs. Too much sugar overloads the liver which turns the simple sugars into fat. This fat tends to be stored in the belly which increases the risk of heart disease and stroke. Too much simple sugar also increases the risk for insulin resistance and therefore creates a higher risk for Type 2 diabetes. Added sugars can also be addictive.

The Canadian Dental Association links beverages with high sugar content and acidity to the erosion of tooth enamel, especially if consumed frequently⁷. Sugar-sweetened beverages contain acids and sugars that lead to poor oral and general health. The number one reason that Northwest Territories children under the age of five are hospitalized (including day surgery) is for the surgical extraction of decayed teeth. Public education, preventative programs and a reduction in sugar consumption are all steps required to improve oral health in the territory.

A 2018 literature survey⁵ of studies published since 2006 that investigated the health effects of sugar-sweetened beverage consumption on children found consistent evidence of a negative sugar-sweetened beverage impact among research results, with the strongest support for the risk of obesity and dental caries. The great majority of the research literature supported the view that a reduction in sugar-sweetened beverage consumption would improve children's health.

⁴ Senate of Canada, *Obesity in Canada: A Whole-of-Society Approach for a Healthier Canada*

⁵ NWT Department of Health and Social Services, *Chronic Disease Registry* and Public Health Agency of Canada, *National Diabetes Surveillance System*

⁷ Canadian Dental Association, *Junk Food and Child Health*, Position Statement

It is difficult to determine the Northwest Territories consumption of all sugar-sweetened drinks; however, based on an annual consumption of 100 litres per person derived from Canadian Heart and Stroke Foundation data⁶, Northwest Territories residents consume about 4.4 million litres of soft drinks annually (includes diet drinks). This data does not include other non-carbonated beverages that contain sugar such as sugar-sweetened fruit beverages.

The following table shows that daily consumption of soft drinks containing sugar by NWT school age children is above the national average.

Table 1: Student beverage consumption at least once per day, by grade and by gender

2014 Health Behaviour in School-Aged Children Survey Results – Canada & NWT

Drink item	Gender	Grade			
		6- 8		9-10	
		Canada	NWT	Canada	NWT
Soft drinks that contain sugar	Boys	9%	14%	14%	16%
	Girls	7%	11%	7%	13%
Diet soft drinks	Boys	3%	3%	4%	3%
	Girls	2%	3%	2%	2%
Fruit juice	Boys	34%	29%	33%	21%
	Girls	35%	28%	30%	21%
Energy drinks	Boys	2%	2%	3%	3%
	Girls	1%	2%	1%	2%
Sports Drinks	Boys	5%	12%	7%	9%
	Girls	3%	5%	3%	2%

Source: 2014 Health Behaviours in School-Aged Children dataset, GNWT

⁵ Sarah N. Bleich et al., “The negative impact of sugar-sweetened beverages on children’s health: an update of the literature”.

⁶ Canadian Health and Stroke Foundation, *Sugar, Heart Disease and Stroke*, Position Statement

Using taxes to reduce sugary beverage consumption

Studies suggest that reducing the consumption of calories can reduce population weight effectively⁸. These studies have led researchers and policymakers to propose introducing taxes on specific sugar-based goods, especially sugar-sweetened beverages, as a way to reduce consumption of these products with no nutritional value but significant calories. Other jurisdictions (mainly at the national level but also a few municipalities) have imposed sugar taxes (see Appendix).

The rationale for imposing a tax on sugar-based beverages is to provide a market incentive, through an increased price, to reduce consumption of these products because they are linked to negative health consequences and the rising health care costs resulting from them. The same rationale is used in taxing tobacco products to discourage smoking that contributes to raising health care costs of smoking-related illnesses.

A tax on sugar-sweetened beverages is expected to influence consumers of the taxed beverages in two ways:

- First, the tax will reduce the consumer's ability to buy other goods if expenditures of the taxed beverages are not reduced.
- Second, the tax makes the sugar-based beverages more expensive relative to other products, which may encourage consumers to substitute other products for the taxed beverages. The amount of substitution depends on each consumer's preferences and may result in substitution of other products that also have implications for health, such as substituting sugar-based drinks with other sugar products such as candy.

Recent studies modelling the effect of taxes to reduce sugar consumption support the rationale that a sugar-sweetened beverages tax in the Northwest Territories will provide health and economic benefits by reducing sugar consumption. These studies include:

- A 2017 University of Waterloo study⁹ estimated that a 20 per cent excise tax levied at the manufacturing level over the next 25 years would save 13,000 lives and prevent 600,000 obesity cases, up to 200,000 cases of Type 2 diabetes, 60,000 incidents of heart disease, and 20,000 cancer cases, and would produce \$11.5 billion in health care savings.
- A 2016 University of Queensland study¹⁰ modelled the impact of a 20 per cent tax on soft drinks and flavoured mineral waters and found that over 25 years the tax would save 1,600 lives, prevent 4,400 heart attacks and 1,100 strokes, and provide savings of A\$609 million for the health care system.

⁸ Tatiana Andreyeva et al., "The Impact of Food Prices on Consumption", 216-222.

⁹ Amanda C. Jones et al., "The Health and Economic Impact of a Tax on Sugary Drinks in Canada."

¹⁰ Lennert J. Veerman et al., "The Impact of a Tax on Sugar-Sweetened Beverages on Health and Health Care Costs: A Modelling Study."

- A 2016 University of York study¹¹ compared the effects of 20 and 40 per cent tax rates on shopper purchases of unhealthier breakfast cereals and sugary drinks. The study determined that a 40 per cent tax reduced purchases of both unhealthier cereals and sugary soft drinks, while a 20 per cent tax significantly reduced cereal sales but not sweetened drinks. Purchases of both products declined by one half if shoppers knew they were being taxed by 20 per cent, showing the benefit of making shoppers aware of how much tax they are paying.

On the other hand, a study by Oxford Economics¹² concludes that establishing sugar taxes for health objectives is “highly speculative”, since there are very few studies that provide complete and vigorous accounts of the expected impacts. According to this study, the success of sugar taxes to reduce consumption depends on the pass-through rate of the tax, how responsive people are to the price increase, how much consumers substitute the taxed unhealthy food for other equally unhealthy food that is not taxed, and whether the introduction of the tax creates increased trans-border purchases.

Since most sugary drink taxes are relatively recent and use different methods for implementation, studies evaluating the effectiveness of the taxes over time are limited. Information from an analysis of 160 studies¹³ for major food categories indicate that the price elasticity of soda pop ranges from negative 0.13 to -1.77, which means that for every 10 per cent increase in price, consumption will decrease between 1.3 per cent and 18 per cent. For convenience, analysts tend to take a midpoint of -0.8. However, a range this large shows how difficult it is to measure how effective a tax would be to reduce consumption.

Taxes on products may also change the behaviour of the companies selling the product, and this corporate behaviour should be considered when assessing the potential efficiency of reducing sugar consumption through a tax on sugar-sweetened beverages. Companies producing sugar-based beverages are likely to offer incentives to discount the tax’s ability to influence consumers by lowering prices to absorb some or all of the tax and increasing promotion activities. These companies may also focus their efforts on selling untaxed no-calorie drinks, which have no nutritional value.

¹¹ Daniel John Zizzo et al., “The impact of taxation and signposting on diet: an online field study with breakfast cereals and soft drinks”.

¹² Oxford Economics. “The Impact of Selective Food and Non-Alcoholic Beverage Taxes”. *International Tax and Investment Centre*.

¹³ Tatiana Andreyeva et al., “The Impact of Food Prices on Consumption”, 216-222.

Unhealthy food taxes in other Canadian jurisdictions

While the federal government and some provinces use sales taxes to tax sugar-based drinks and “junk” food, the proposed sugar-sweetened beverage tax would make the Northwest Territories the first jurisdiction in Canada to impose a type of sugary drink tax on certain products based on the retail sale volume.

Soft drinks, candy, and snack food (for example, potato chips) are currently taxed under the federal Goods and Services Tax (GST) and the harmonized provincial sales taxes (HST) of Ontario, Quebec, Newfoundland & Labrador, New Brunswick, Prince Edward Island, and Nova Scotia, while other foods in grocery and drug stores are not taxed. Manitoba applies its provincial sales tax on soft drinks, candy and snack foods in stores. Saskatchewan and British Columbia exempt soft drinks, sweets, and snack food from their provincial sales taxes. Alberta and the three territories do not have provincial/territorial sales taxes. Canadian sales tax rates are shown in Table 2.

Table 2: Federal/Provincial/Territorial Sales Tax Rates

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NU	NT	YK
GST	-	-	-	-	-	-	5%	5%	5%	5%	5%	5%	5%
PST	-	-	-	-	-	-	8%	6%	-	7%	-	-	-
HST	15%	15%	15%	15%	14.975%	13%	-	-	-	-	-	-	-
Sales tax on soft drinks, candy and snacks	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No

Sales taxes are levied on the retail price, which some studies indicate may reduce their effectiveness as a price signal to discourage consumption because consumers are less aware of the tax. The retail price change due to the sales tax may also encourage substitution to cheaper sugary drinks or to larger containers to reduce the cost per volume.

Promotional programs can also have a role in reducing soft drink consumption. In 2015-16, the Northwest Territories *Drop the Pop* Campaign completed its tenth year encouraging school children and their families to eat healthy food and drink healthy beverages. The Canadian Beverage Association created a public education campaign called *Balanced Choices NWT*¹⁴, which provides Northwest Territories residents with information on identifying low and no calorie options.

¹⁴ Canadian Beverage Association *Balanced Choices NWT* <https://balancecalories.ca/balanced-choices-nwt/>

Sugar-sweetened Beverage Tax Proposal

The GNWT proposes to tax sugar-sweetened beverages by applying a direct specific tax on all:

- sugar-sweetened (non-diet) carbonated drinks;
- ready-to-drink sweetened tea and coffee;
- energy drinks;
- sports drinks; and
- sugar-sweetened fruit beverages that contain less than 100 per cent fruit juice.

The tax rate will be determined based on container size.

The proposed tax is not a “sugary drinks” tax because it excludes 100 per cent fruit juice. 100 per cent fruit juices provide other nutrition that is especially important in the Northwest Territories where fresh fruit is difficult to obtain at affordable prices. Sugar-sweetened beverages such as flavoured dairy and non-dairy milk and drinkable yogurt also have other nutritional value and are excluded from the proposed tax.

The tax will include fountain beverages except fountain beverages mixed with alcohol served in bars and restaurants. The tax exemption for the beverages mixed with alcohol is because it would be administratively difficult to tax these drinks directly.

The proposed tax rate for sugar-sweetened drinks sold in containers is 5 cents per 100 millilitres (ml) of product. Fountain drinks vary in size depending on the establishment and for administrative simplicity the following tax rates based on a range of container sizes are proposed in Table 3. The proposed tax rate is based on a recommendation from the Canadian Heart and Stroke Foundation⁶.

Table 3: Proposed Fountain Drink Tax Rates

Container size (ml)	Tax rate (per container)
Less than 250	10¢
250 - 500	20¢
500 - 750	30¢
Over 750	45¢

For the proposed tax to meet the health objective to reduce sugar consumption by Northwest Territories residents, it needs to apply to as many sugar-sweetened beverages as possible, which is why the tax applies to all non-diet carbonated drinks and fruit beverages.

⁶ Canadian Health and Stroke Foundation, *Sugar, Heart Disease and Stroke*, Position Statement

A tax only on sugar-based carbonated beverages will fail to reduce sugar consumption if consumers switch to alternatives such as sweetened fruit juice. The health implications if individuals substitute sugar-sweetened carbonated drinks for artificially-sweetened carbonated drinks with no nutritional value to avoid the tax are unknown. Although taxing no-calorie carbonated drinks to avoid this substitution is an option, there is not enough available evidence to justify taxing diet beverages for health reasons and it could be seen as being a discriminatory tax on diabetic consumers faced with a paucity of sugar-free drink options other than water. The health implications, especially for oral health, if consumers switch to non-taxed sources of sugar such as candy or junk food, are a consideration.

Sugar-sweetened beverages cannot be taxed at the manufacturer level because the Northwest Territories does not have the legal authority to impose indirect taxes. The tax would have to be applied at the retail level similar to a sales tax. Vendors of taxable products would be required to collect the tax from their customers and remit the tax to the GNWT. Vendors include distributors, wholesalers, retailers, vending machine operators, and restaurant operators. Caterers that offer free beverages as part of a package and airline operators offering free inflight beverages would be deemed to purchase the products for their own consumption and would therefore be subject to the tax.

Fountain drinks are created at the point of sale by adding syrup to water and injecting it with carbon dioxide. Since the imposition of a tax on the syrup would be an indirect tax, a direct tax on the final consumer will be applied based on a range of cup sizes. Many food establishments and stores, such as convenience stores and grocery stores in smaller communities, sell sugar-sweetened drinks in containers and through soda fountains. Although administration will be complex, taxing bottled drinks without taxing fountain drinks would create a tax distortion and encourage substitution to the less taxed item, which would defeat the objective of introducing the tax to reduce sugar-sweetened beverage consumption.

The GNWT already has a bottle deposit program to reduce landfill waste. The sugar-sweetened beverage tax will not eliminate the bottle deposit program since it serves a separate purpose. However, if the sugar-sweetened beverage tax is successful at reducing drink consumption, it will also reduce landfill waste and the revenues of non-profit organizations that benefit from bottle refunds.

Considerations for Taxing Sugar-sweetened Beverages

What should be the Tax Rate?

Studies suggest that a sugary drink tax rate must be high if it is to change consumer behaviour.

In general, the efficiency in reducing sugar consumption will depend on the sensitivity of the consumer to the price change and how the consumer's behaviour changes as a result (absolute decrease in sugar consumption or substitute for different sugar foods).

For the analysis in Table 4, the price signal (price elasticity) chosen ranges from negative 0.8 to negative 1.0 per cent so that every ten per cent increase in price will reduce consumption between eight and ten per cent¹⁵.

Soft drinks have different prices across the Northwest Territories because of transportation costs. The different prices play a role in determining the tax rate, and have implications for the price effect in different regions. For example, using the assumptions in Table 4, the 22 per cent price increase and consumption decrease of 18 to 22 per cent estimated for Yellowknife would represent about an 8 per cent price increase in Norman Wells and a drop in consumption of between 6 and 8 per cent.

¹⁵ Kelly D. Brownell et al, "The Public Health and Economic Benefits of Taxing Sugar-Sweetened Beverages".

Table 4: Implications of Sugar-sweetened Beverage Price Elasticity of -0.8 to -1 on 5 cent per litre tax in Yellowknife on various products

Product	Yellowknife Grocery Price	GST, Refundable deposit and Container recycling fee	Total retail price	5 cent per 100 mL tax	Price increase from tax	Consumption decrease -0.8 price elasticity	Consumption decrease -1 price elasticity
355 ml pop	\$0.58	\$0.21	\$0.79	\$0.18	22%	-18%	-22%
222 ml pop	\$0.50	\$0.21	\$0.88	\$0.11	13%	-10%	-13%
237 ml bottle	\$0.83	\$0.22	\$0.88	\$0.12	13%	-11%	-13%
2 L pop	\$1.99	\$0.45	\$2.42	\$1.00	41%	-33%	-41%

Table 5: Implications of Sugar-sweetened Beverage Price Elasticity of -0.8 to -1 on 5 cent per litre tax in Norman Wells on various products

Product	Norman Wells Grocery Price	GST, Refundable deposit and Container recycling fee	Total retail price	5 cent per 100 mL tax	Price increase from tax	Consumption decrease -0.8 price elasticity	Consumption decrease -1 price elasticity
355 ml pop	\$2.55	\$0.21	\$2.76	\$0.18	6%	-5%	-6%

The proposed sugar sweetened drinks tax would generate tax revenue of about \$2.6 million, if the price increase is assumed to not change consumption. Based on price elasticity ranging from -0.8 to -1 per cent and tax induced price increases of 22 per cent in large centres and about 6 per cent in the more rural communities, the proposed tax would reduce sugar sweetened drink consumption between 15 and 18 per cent and the estimated tax revenue generated would decline to between \$2.1 million and \$2.2 million per year.

Implementation and Administrative Costs

The tax system should be simple to understand and easy for compliance. Complex legislation may be necessary but taxpayer compliance should be simple.

Most Northwest Territories retailers of sugary drinks receive their products for sale from two long-term Northwest Territories beverage distributors that employ approximately 40 to 50 employees, depending on the season. Large retailers have their own supply systems. The GNWT can use legislation to require wholesalers/distributors, whether in or out-of-territory, to collect the sugar-sweetened beverage tax on behalf of the government. This system is used to collect the Northwest Territories tobacco tax: the tax is collected at the wholesale level by tobacco distributors on sales to retailers, who then pass the tax on to consumers at the retail level. This system works well because all provinces tax tobacco and are willing to enforce compliance on each other's behalf. This co-operation will not be available for the sugar-sweetened drinks tax because no other jurisdiction in Canada has a sugar-based drinks tax other than sales taxes.

Under the proposed system, large retailers may choose to become tax collectors themselves and collect the tax from their consumers at the point of sale. Small vendors may choose to pay the tax up-front when buying their inventory to avoid administrative costs, especially if they are not using computerized cash registers. However, all businesses that distribute or sell taxed beverages would incur additional administrative costs relating to tax remittances and tax return filings. Computerized cash registers will need to be changed to record the tax and more engagement is required with business to determine how to administer the tax through small retailers and restaurants, caterers, and take-out establishments.

The sugar-sweetened beverage tax will be administratively more difficult than tobacco tax administration because unlike tobacco taxes, which affect a relatively small number of customers, sugar-based drinks are consumed by many people, making tax administration for businesses more complex. For the sugar-sweetened beverage tax to be effective in influencing the decision to purchase, the tax needs to be included in the retail price at the shelf since consumers paying for their purchases have already made the decision to buy.

Conclusion

Research shows that the Northwest Territories obesity rate is higher than Canada's rate and is growing at a faster rate.

In response to the link between sugar consumption and health issues such as obesity and diabetes and to improve oral health, the Minister of Finance committed in *NWT Budget 2017-18* to investigate introducing a sugary drinks tax. However, considerations about the balance between health risks and nutrition lead to a proposal for a sugar-sweetened beverage tax that would exclude 100 per cent fruit juices and flavoured dairy drinks. This discussion paper serves as the basis for engagement with the public, business, and other stakeholders on the value of implementing a sugar-sweetened beverage tax to reduce sugar consumption and therefore obesity and diabetes. There is not enough information to conclude that the reduction of sugar-sweetened beverages will improve oral health.

Many studies support the hypothesis that that introducing taxes on specific sugar-based goods, especially sugar-sweetened drinks, will help reduce the consumption of products that have significant calories but no nutritional value and be effective in reducing obesity rates. The objective of the proposed sugar-sweetened beverage tax on most beverages with sugar added, whether purchased in containers or as fountain drinks in the Northwest Territories is to reduce sugar-sweetened beverage consumption.

If implemented, the Northwest Territories sugar-sweetened beverage tax should be evaluated for its effectiveness in meeting the objectives of reducing obesity levels and improving oral health by reducing sugar-sweetened drink consumption. A long-term scientific evaluation would require the collection of baseline data before the tax is implemented.

Next Steps

The next step is to hear from Northwest Territories residents and stakeholders on how best to implement a tax on sugar-sweetened beverages to reduce consumption in an effort to reduce health problems such as obesity, diabetes, and tooth decay, especially:

- Do you support taxing sugar-sweetened beverages to reduce consumption in an effort to reduce health problems such as obesity, diabetes and tooth decay?
- Do you think that a sugar-sweetened beverage tax will reduce your consumption of sugar-sweetened drinks?
- Do you think that a sugar-sweetened beverage tax may cause you to substitute sugar-sweetened drinks for diet drinks?
- In general, do you think that a sugar-sweetened beverage tax will reduce the consumption of sugar-sweetened drinks?
- What types of beverages should be taxed under the propose Northwest Territories sugar drinks tax to reduce sugar consumption:
 - Current proposal to tax sugar-sweetened drinks (non-diet carbonated soft drinks, ready-to-drink sweetened tea and coffee, energy drinks, sports drinks, and 'fruit

drinks' with less than 100 per cent juice). This tax excludes 100 per cent fruit juice and chocolate milk.

- All carbonated drinks (sugar-sweetened or artificially-sweetened) only.
 - Sugar--sweetened carbonated drinks only.
 - All sugary drinks (current proposal plus fruit juices and sweetened dairy and non-dairy milks).
 - None of the above – disagree with taxing beverages.
- What tax rate would encourage you to reduce your consumption of sugar-sweetened drinks?
 - Approximately 10 per cent of the price,
 - 10 to 25 per cent of the price,
 - 25 to 50 per cent of the price,
 - No tax rate will keep me from drinking sugar-sweetened drinks.

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Appendix

International Experience with Sugar Sweetened Beverages Taxes

- Since the 1950s, several jurisdictions have implemented (e.g. Norway, Finland) – and sometimes repealed (e.g. Denmark, Finland in 2017 for confectionary but not sugar sweetened beverages) – taxes on soft drinks and confectionery to generate revenues
- Since 2010 there has been a transition to a public health rationale to justify sugar sweetened beverages taxes:
 - Hungary (2011), France (2012), Chile (2014), Mexico (2014), Belgium (2016), Ireland (2018), Philippines (2018), Portugal (2017), South Africa (2018), Sri Lanka (2017), Thailand (2017), United Arab Emirates (2017), United Kingdom (2018)
 - US Cities: Philadelphia (2017), Boulder (2017), Seattle (2018), and California cities Berkeley (2015), San Francisco (2017), Oakland (2017), and Albany (2017)
- A 2016 World Health Organization (WHO) report states that sweetened beverages taxes “help reduce consumption and prevent obesity”.

Tax Model

- Most jurisdictions have implemented an excise, volume-based tax model based on sugar content (Excise duties on producers/importers in France, Finland, UK, Hungary but on distributors in US cities)
- Usually collected upstream to minimize administration and business compliance costs
- Usually applied at the national level

Tax Base

- Most taxes include all sweetened beverages (e.g. pop, fruit drinks, iced teas, energy drinks, and sports drinks) and generally include concentrates, such as fountain drinks to reduce the potential for substitution and increase revenues.
- Artificially-sweetened beverages (e.g. diet beverages) sometimes included (e.g. France, Norway, Portugal)
- Fruit juices and milk-based beverages are generally exempted, or imposed at lower rate (e.g. Norway)
- Does not include alcoholic beverages or products sweetened at point of sale (e.g. coffee)
- Some jurisdictions exempt small producers (e.g. UK, Finland)

Effect on Consumption

- Few assessments have been made on the effectiveness of sweetened beverages taxes in reducing consumption
 - Several of these measures were implemented primarily to generate revenues, giving little incentive to assess their impact on obesity
- Many sweetened beverages taxes have been implemented recently, making their effectiveness difficult to determine.
- Long-term effects are uncertain but some positive effects have been seen:
 - Sugary drink purchases fell 10 per cent during the first two years of the Mexican tax, with an average decline of 14.3 per cent among low-income households, and sales of bottled water increased 16 per cent in 2014;
 - Sweetened beverages sales had declined 10 per cent and bottled water sales had increased 16 per cent one year after Berkeley, California’s sweetened beverages tax implementation.