TORONTO

STAFF REPORT
INFORMATION ONLY

The Health Rationale for Offering Healthy Choices in Beverages

Date:	March 21, 2011
To:	Government Management Committee
From:	Medical Officer of Health, Dr. David McKeown
Wards:	All Wards
Reference Number:	

SUMMARY

The purpose of this report is to update the Government Management Committee on the health rationale for offering healthy choices in beverages at Parks, Forestry and Recreation facilities and the public health impact of the consumption of sugar-sweetened beverages.

Financial Impact

This report is for information only. There are no financial implications related to this report.

DECISION HISTORY

At its meetings of July 19, 20, 21 and 26, 2005, City Council adopted a motion recommending the General Manager of Parks, Forestry and Recreation report to Council through the Government Management Committee for approval of the healthy cold drink vending criteria for the next Request for Proposal (RFP) addressing the option of providing 100 percent juice, water, and milk in vending machines. Council also recommended that with the exception of water, products must be delivered in serving sizes no greater than 250 ml.

City Council, at its meetings of June 8 and 9, 2010, referred item GM31.19, titled Healthy Vending Criteria – Cold Drink Vending Request for Proposal, back to the Government Management Committee for further consideration. City Council also extended the cold drink vending licence agreement for a one year period from

November 1, 2010 to October 31, 2011. City Council also recommended that the Medical Officer of Health report back to the Government Management Committee on the health rationale for offering healthy choices in beverages.

City Council Decision of July 19, 20, 21 and 26, 2005, item EDPC Report 7, Item 14 (http://www.toronto.ca/legdocs/2005/agendas/council/cc050719/cofa.pdf)

Report - Healthy Vending Criteria - Cold Drink Vending Request for Proposal (http://www.toronto.ca/legdocs/mmis/2010/gm/bgrd/backgroundfile-30121.pdf)

City Council Decision of June 8 and 9, 2010, item GM31.19 (http://www.toronto.ca/legdocs/mmis/2010/cc/decisions/2010-06-08-cc50-dd.htm)

ISSUE BACKGROUND

In June 2010, Parks, Forestry and Recreation reported to City Council, through the Government Management Committee, seeking authorization of the healthy Cold Drink Vending and Pouring Rights criteria for the next RFP. City Council referred this report back to the Government Management Committee for further consideration. In addition, Council recommended that the Medical Officer of Health report on the health rationale for offering healthy choices in beverages.

COMMENTS

Although the causes of obesity and being overweight are complex, dietary intake and food and beverage choices play an important role (1). Sugar sweetened beverages provide calories but virtually no nutrients and are thought to be one of the dietary factors leading to the increase in obesity and overweight. Evidence supporting this relationship in both children and adults has been mounting over the last few years with several studies demonstrating a link between body weight, risk for chronic disease and the intake of sugar sweetened beverages (2-6).

Definition of Sugar Sweetened Beverages
The definition of sugar sweetened beverages is not universal. It commonly refers to the full spectrum of carbonated sodas that could have a caloric or noncaloric sweetener. It is usually those soft drinks with sweetening such as sugar or high-fructose corn syrup (HFCS). The definition may be broadened to take into account noncarbonated sweetened beverages such as flavoured vitamin water, energy drinks, sports drinks, iced tea, fruitades, fruit juice drinks and punches, but not usually dairy-based beverages. In contrast, a beverage that is 100% fruit juice and not blended with added sweeteners is not considered a sugar sweetened beverage.

Effects of Sugar Sweetened Beverage Consumption
Canada's Food Guide suggests limiting beverages such as fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot and cold drinks because they contain high amounts of calories and sugar and very few other nutrients. For example, the caloric

value of soft drinks is approximately 150 calories and 38 grams of sugar per 355 ml. An additional concern is that sugar sweetened beverages may be displacing foods and beverages of higher nutritive value and contributing to poor nutrition.

The maximum Dietary Reference Intake is 25% of calories from "Added Sugar". Research has found that intake of added sugars above this level significantly reduces intakes of micronutrients (7). The World Health Organization also recommends limiting consumption of added or free sugars, with a limit of 10% of calories from "Free Sugars" (8). Studies indicate that intake of sugar sweetened beverages is increasing with a parallel decrease in milk consumption (9). Evidence suggests that individuals who drink sugar sweetened beverages do not typically change their eating patterns to compensate for these liquid calories (10-12).

Impact of Sugar Sweetened Beverages on Health

Overweight and obesity in all age categories are at historically high levels in Canada (13, 14). According to the 2004 Canadian Community Health Survey (CCHS), 26% of Canadian children and adolescents aged 2 to 17 were overweight or obese, which is similar (27%) to that of Ontarian children (14). Particularly troubling, is the doubling of the overweight/obesity rate for adolescents aged 12 to 17 (14). In Toronto, the proportion of overweight/obese children and adolescents aged 2 to 17 is 28.3% (14). In Canada, the costs of obesity are estimated at $4.3 billion annually, with $1.6 billion in direct costs and $2.7 billion of indirect costs (15, 16). Obesity costs Ontario approximately $1.6 billion annually, including $647 million in direct costs and $905 million in indirect costs (15).

The increase in overweight and obesity in Canada during the last three decades is paralleled by increased intake of fat and sugar, particularly sugar sweetened beverages leading to higher levels of energy intake.

A substantial proportion of Canadians' daily calories come not from what they eat, but from what they drink. This is particularly true for children. Beverages account for almost 20% of the calories consumed by children and teens aged 4 to 18 (17) based on findings from the CCHS - Nutrition. Establishing healthy eating patterns in childhood has long-term implications with respect to the prevention of diet-related diseases such as heart disease, cancer and osteoporosis (18-20).

Sugar sweetened drinks have been linked to weight gain and higher body mass index in children and teenagers (17). Sweetened drinks, has also been associated with an increased risk of tooth decay (17). At older ages, children's beverage consumption increases and becomes more varied. Water, milk and fruit juice account for about 85% of the beverages consumed by children aged 1 to 3, but at ages 14 to 18, the figure is just over 60% (17). Sweetened beverages – soft drinks and fruit drinks with less than 100% juice – make up most of the difference. More children choose these beverages, and those who drink them drink more. This is particularly true for regular soft drinks. At ages 14 to 18, the percentages are 53% for boys and 35% for girls (17). Among soft drink consumers, the average daily intake is slightly more than 200 grams at ages 1 to 3, but at ages 14 to 18, 715 grams for boys and 514 grams for girls (17).

Emerging evidence also suggests that habitual sugar sweetened beverage consumption, in conjunction with large volumes consumed is associated with increased risk of type 2 diabetes due to the high content of rapidly absorbable carbohydrates such as sucrose and high-fructose corn syrup (21). An analysis of 91,249 women in the Nurses Health Study revealed that those drinking one or more standard servings of sugar sweetened soft drinks per day were at increased risk for type 2 diabetes compared with those who consumed less than one standard serving per month (22). Consumption of sugar sweetened soft drinks is positively associated with other adverse health outcomes. Dental caries (23) increases in blood pressure (24), increased incidence of kidney stones (25) and decreased bone mineral density and risk of fracture have all been reported (26). The other health risk from consumption of soft drinks is that these may displace other nutritious foods such as milk, fresh vegetables and fruit and fibre. It is postulated that calorically sweetened soft drinks may fail to initiate the same satiety signals as solid food and might increase the appetite drive for other foods (22, 24).

Other Jurisdictions

Some public health initiatives are already underway to address sugar sweetened beverage consumption among children. Complete or partial bans have been placed on sales in government facilities and schools in many parts of the world.

In 2009, in an effort to address the obesity epidemic in the United States, the Centers for Disease Control and Prevention initiated the Common Community Measures for Obesity Prevention Project (the Measures Project). The objective of the Measures Project was to identify and recommend a set of strategies and measurements that communities and local governments can use to plan and monitor environmental and policy-level changes for obesity prevention. One of twenty-four recommended strategies identified that, "Communities Should Restrict Availability of Less Healthy Foods and Beverages in Public Service Venues". Current Federal nutritional guidelines prohibit the sale of foods of "minimal nutritional value" in school cafeterias while meals are being served. However, the guidelines do not prevent or restrict the sale of these foods in vending machines near the cafeteria or in other school locations (27). The suggested measurement is a policy that prohibits the sale of less healthy foods and beverages within local government facilities or on public school campuses during the school day. This measurement captures all policies designed to restrict the availability of less healthy foods and beverages sold in local government facilities and in public schools.

In October 2001, the Ontario government set out policy restricting the sale of all food and beverage items in elementary school vending machines to those that are healthy and nutritious, in accordance with the recommended standards. The Ontario government has also introduced the School Food and Beverage Policy (PPM150) that includes nutrition standards for food and beverages sold in schools. The policy will apply to food and beverages sold in all venues on school property such as cafeterias and tuck shops; and at all events on school property, including bake sales and sport events. The policy was announced in January 2010 and takes effect on September 2011.

Recreation facilities have been identified as an important setting in which to enact policies and practices in support of healthy dietary behaviours (28). Canadian provinces have recently initiated action to address recreational facility food environments (29, 30-32). Current efforts include providing supportive materials, toolkits, websites, and guidelines to encourage and support facilities to voluntarily adopt the sale of healthy foods and beverages. Preliminary results from BC and Ontario are encouraging, with positive environmental change and a majority of facilities willing to continue to adhere to nutrition standards (30, 31). Under the BC Healthy Eating Strategy, one of four target health promotion initiatives in the province is to "Support Healthy Food and Beverage Sales in Recreation Facilities". An evaluation of the pilot phase was conducted May 2008 to January 2009 in eight communities. The largest barrier patrons experience to choosing healthy options was lack of selection (65% at baseline and 50% at follow-up), followed by cost (14% and 23%, respectively). It was postulated that project activities that include increasing healthy options may be effectively removing the barrier of lack or selections (31).

The City of Hamilton proposed and passed a resolution in 2006 which recommended increasing the percentage of healthy beverages in recreation facilities from 25% to 50% of total products available in all food service configurations (vending machines, snack bars)(33). In 2010, the municipalities of Markham and Ottawa implemented a 50% healthy cold drink vending service, while Mississauga offers 25% healthy cold drink vending at recreation facilities. There is, however, no known Ontario municipality currently providing 100% healthy, cold drink vending at recreation facilities.

Promoting Healthy Choices in Cold Beverages
To create supportive environments which encourage the provision of healthy cold beverages, Toronto Public Health will:

1. continue to provide health promotion messages regarding recommended cold beverage consumption guidelines for Toronto residents;

2. strengthen current programs aimed at children and youth on the impact of sugar sweetened beverage consumption and the benefits of healthy options;

3. continue to advocate for 100% healthy food and beverage policy within City of Toronto government offices and facilities.

CONCLUSION

Overweight and obesity is a significant public health challenge facing Torontonians and beverage choices play an important role in this complex health issue. Policy change such as the Cold Drinking Vending and Pouring Rights criteria at PFR facilities is a critical environmental influence on consumption patterns for residents using these community and recreational settings.

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