

# Prevalence and Patterns of Sugar-sweetened Beverage Consumption in Canadian Youth Grades 6 to 10

Laura Davis<sup>1, 2</sup>, Colleen Davison<sup>1,2</sup>

<sup>1</sup>Kingston General Hospital Research Centre, <sup>2</sup>Department of Public Health Sciences, Queen's University

## Background

- Sugar-sweetened beverage (SSB) are beverages that contain added caloric sweeteners.
  - Soft drinks, fruit drinks, sports drinks and energy drinks
- SSB consumption patterns have been shown to vary across Canada and in different populations and subgroups.
  - In northern Canada, Nunavut especially, there are concerns over very high consumption rates with some communities reporting overall consumption of more than **5 cans a day**.<sup>1</sup>
- Parent-child relationships have been shown in association with SSB consumption, however, results are largely inconsistent and do not discuss supportive relationships.<sup>2</sup>
- Currently, there are no studies which describe national SSB consumption patterns or highlight the potential northern anomalies.



## Objectives

- To describe patterns of SSB consumption in Canadian youth by geographical region (Nunavut, northern territories, Canada as a whole).
- To investigate the relationship between SSB consumption and parent-child relationships.

## Data Source

- 2013/2014 Health Behaviour in School-aged Children (HBSC) survey, n = 29,756
- HBSC is a continuing cross-national survey of over 43 countries in collaboration with the World Health Organization.
- Samples students grades 6 to 10 through a self completed questionnaire.

## Methods

Objective 1: Patterns of SSB consumption in Canadian youth grades 6 to 10

**Data:** HBSC survey, Statistics Canada, Google Maps

**Analysis:** Univariate and bivariate descriptive analyses based on cross-sectional data.

Table 1: Outcome and exposure variables for objective 1

Outcome	Exposures
Frequency of the consumption of all beverages (soft drinks, diet soft drinks, fruit juice, energy drinks and sports drinks).	Sex, age, geographic location (Google Maps), socioeconomic status, community level affluence, fruit and vegetable consumption, screen time, total family members in the home, community accessibility and soft drink prices (Statistics Canada).

Objective 2: Assessment of parent-child supportive relationships on SSB consumption

**Data:** HBSC survey

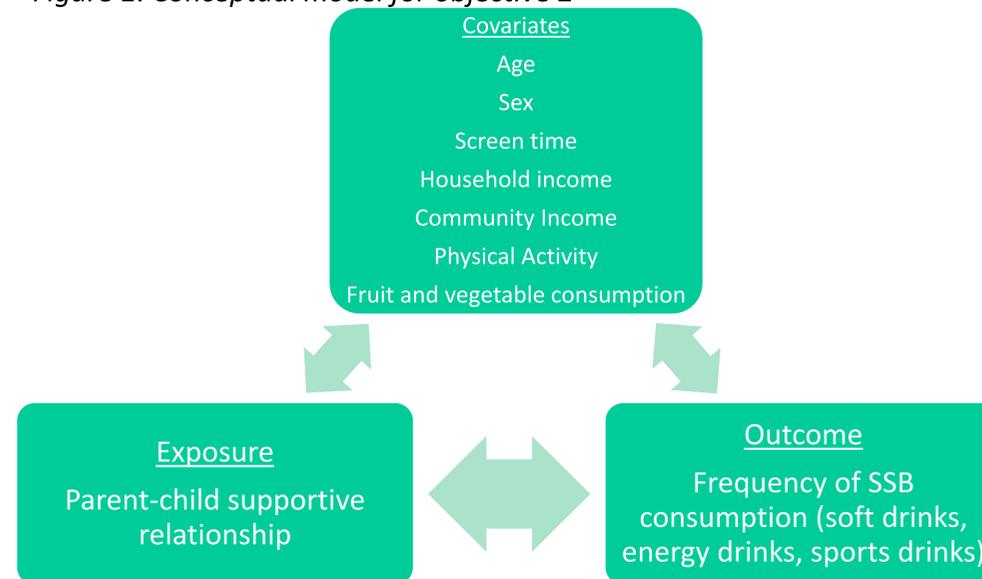
**Analysis:** Multi-level log binomial regression modelling will be used which will account for the clustered nature of the data.

**Exposure:** Parent-child supportive relationship will be measured using a parental support scale. Below is an example:

*Please show how much you agree or disagree with the following statements.*

**My parents understand me**  
**My parents expect too much of me**

Figure 1: Conceptual model for objective 2



## Strengths and Limitations

### Strengths

- Large sample size
  - Indicates accurate prevalence and statistical analyses of SSB consumption.
- Nationally representative sample of Canada.
- Will clarify associations between parent-child supportive relationships and high SSB consumption in a Canadian setting.
  - This is especially important in Nunavut where little is known about the high SSB consumption.

### Limitations

- Cross sectional data
  - Data collection is carried out at one time resulting in no indication of exposure preceding the outcome.
- The study does not include children who are home schooled, attend private schools or live on First Nations reserves.

## Public Health Implications

### Objective 1

- Data on the prevalence and patterns of SSB consumption in Canadian youth will show where the risk for SSB consumption is highest, allowing program and policy makers to target those at the highest risk.

### Objective 2

- A relationship found between parent-child supportive relationships and SSB consumption will inform program and policy makers – this is especially important in school settings and for nutritionists.

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CIHR IRSC

## References

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