

## Supplementary Materials:

Table 1: National and global recommendations for free and added sugar intakes for children

Organization	Free Sugar or Added Sugar Recommendations for Children
World Health Organization, 2015 <sup>1</sup>	“WHO recommends reducing the intake of free sugars to less than 10% of their total energy intake (strong recommendation). WHO suggests a further reduction to below 5% would provide additional health benefits (conditional recommendation).”
Health Canada, 2019 <sup>2</sup>	“Free sugars: Less than 10% of total energy”
American Heart Association-Scientific update, 2017 <sup>3</sup>	“Recommend that children consume $\leq 25$ g (100 kcal or $\approx 6$ teaspoons) of added sugars per day for children and to avoid added sugars for children $< 2$ years of age.”
Heart and Stroke Foundation of Canada, 2014 <sup>4</sup>	“In both adults and children, intake of free sugars not exceed 10% of total energy (strong recommendation). Further reduction to below 5% of total energy (conditional recommendation)”
Dietary Guidelines for Americans 2015-2020 <sup>5</sup>	“Consume less than 10 percent of calories per day from added sugars”
Institute of Medicine, 2002 <sup>6</sup>	“Although there were insufficient data to set a UL for added sugars, a maximal intake level of 25 percent or less of energy is suggested to prevent the displacement of foods that are major sources of essential micronutrients”

### Appendix:

The Guelph Family Health Study (GFHS) is a longitudinal family-based cohort study designed to identify early life risk factors for chronic disease and to identify effective family-based health promotion strategies.<sup>7</sup> Participants were recruited using posters and rack cards displayed at local family health team clinics and early childhood education centres as well as posts to these agencies’ websites and Facebook accounts. Families were eligible to participate if they had at least one child between 18 months and 5 years of age at the time of registration for the study, lived within the Guelph-Wellington area in Ontario and if one parent was comfortable responding in English to complete study questionnaires. The GFHS began with two pilot phases (phases 1 and 2), which started in 2014 and 2015, respectively, in advance of the launch of the full-scale study. A total of  $n=83$  families,  $n=117$  preschool-aged children were enrolled at baseline in the GFHS pilots. Families were given grocery gift card incentives in recognition of their participation. Parents provided informed, written consent at their initial study visit for themselves and their children. Child dietary data were gathered using paper-based 3-day food records completed in detail by the parents. Anthropometric assessment data was measured by trained research staff including waist circumference, body fat, weight and height. The GFHS pilot studies are still ongoing and have helped inform and implement changes for the full study that began in 2017. Currently, the full GFHS study includes 246 families at baseline. Please refer to the study website for further details: <https://guelphfamilyhealthstudy.com/>.

References:

1. *Guideline: sugars intake for adults and children*. Geneva: World Health Organization. 2015.
2. *Canada's dietary guidelines for health professionals and policy makers*. Ottawa: Health Canada; 2019
3. Vos MB, Kaar JL, Welsh JA, et al.; American Heart Association Nutrition Committee of the Council on Lifestyle and Cardiometabolic Health; Council on Clinical Cardiology; Council on Cardiovascular Disease in the Young; Council on Cardiovascular and Stroke Nursing; Council on Epidemiology and Prevention; Council on Functional Genomics and Translational Biology; Council on Hypertension. Added sugars and cardiovascular risk in children: a scientific statement from the American Heart Association. *Circulation* 2017; 135:e1017-34.
4. Sugar, heart disease and stroke [position statement]. Ottawa: Heart and Stroke Foundation; 2014.
5. *2015–2020 dietary guidelines for Americans*. 8th ed. Washington (DC): U.S. Department of Health and Human Services and U.S. Department of Agriculture; 2015
6. Institute of Medicine. Summary tables, dietary reference intakes. In: *Dietary reference intakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein, and amino acids*. Washington (DC): The National Academies Press; 2005:1319-31.
7. Haines J, Douglas S, Mirota JA, et al.; Guelph Family Health Study. Guelph Family Health Study: pilot study of a home-based obesity prevention intervention. *Can J Public Health* 2018;109:549-60.