

ESTIMATES OF ADDED SUGARS CONSUMPTION IN CANADA

This article reviews current estimates of “actual intakes” of added sugars in Canada and estimates of added sugars “available for consumption” (also known as disappearance or availability). Both popular and scientific articles often incorrectly report availability data as actual intake. In fact, availability substantially overestimates actual intake because it represents the total amount available in the food supply, not accounting for sizable losses that occur at retail and in households during cooking, left on plates, or discarded.

TERMINOLOGY

Sugar	Common refined sugar, which consists of pure sucrose.
Sugars	All monosaccharides (e.g., glucose, fructose) and disaccharides (e.g., sucrose, lactose) in foods (e.g., milk, fruit and vegetables) or added to foods (e.g., white sugar, brown sugar, honey, syrups).
Added sugars	The sugars added to foods, including white sugar, brown sugar, and sugars from honey, maple syrup, and corn sweeteners (dextrose, glucose syrup, and high fructose corn syrup).
Food available for consumption (also known as disappearance or availability)	Data on the supply of food commodities, not accounting for losses in stores, households, private institutions or restaurants. Statistics Canada publishes this type of data. Availability = (beginning stocks + production + imports) minus (exports + manufacturing uses + feed + storage or processing waste + ending stocks).
Actual Intake	Estimates of actual food intake or “food consumed” derived from nutrition surveys (which ask consumers about their food intake) or by subtracting an estimate of retail and household losses from “food available for consumption”.

■ ACTUAL INTAKES OF ADDED SUGARS IN CANADA

Data from national nutrition surveys or an accurate estimate of all food losses are required to estimate actual intakes of added sugars (keeping in mind that nutrition surveys are limited by the accuracy of self-reported data). Unfortunately, no accurate estimate of food losses is available in Canada and neither of the two national Canadian surveys, conducted in 1970 and 2004, include estimates of “added sugars” intake because no adequate database of “added sugars” content of foods is available.

Given the lack of Canadian data, estimated intakes in Canada can be derived from U.S. nutrition surveys which do include added sugars data. U.S. survey and disappearance data can be used to derive the proportion of added sugars wasted or not eaten. Assuming the proportion is the same in Canada, this percentage can be applied to Canadian disappearance data (see page 2) to estimate actual intakes of “added sugars” in Canada. Based on that assumption, Table 1 shows estimates of total “added sugars” intake in Canada from 1994 to 2004 in grams/person/day and as a percentage of total daily calories (added sugars includes sugars from refined sugar, maple syrup, honey, high-fructose corn syrup, glucose syrup, and dextrose).

TABLE 1

Added Sugars	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Average daily intake (g/person)*	63.3	63.2	64.0	65.5	67.0	66.0	65.7	65.2	65.7	64.1	63.5
Percent of total daily calories*	12.7	12.6	12.8	13.1	13.4	13.2	13.1	13.0	13.1	12.8	12.7

* Estimated based on U.S. Continuing Survey of Food Intakes by Individuals 1994-1996¹ and total added sugars availability in Canada² and the U.S.³ Assumes mean of 2,000 kcal/day (U.S. mean = 2,007 kcal/day¹).

These data suggest that average intakes of “added sugars” in Canada are relatively stable and currently contribute approximately 13% of daily calories, which is considered a moderate amount. The suggested maximum intake of added sugars for individuals in Canada and the U.S. is 25% of daily energy.⁴

■ ADDED SUGARS AVAILABLE FOR CONSUMPTION IN CANADA

Statistics Canada publishes data on “food available for consumption” (or availability) twice per year, including data for refined sugar (includes white and brown sugars made from sugar cane or sugar beets).² These data reflect the total amount entering the market, regardless of final use. This provides a basis for examining food consumption changes over time (trends) without the problems implicit in consumer survey data or wastage estimates. If waste and other losses are relatively constant over time, these data provide a measure of changes in consumption patterns that is independent of and complements nutrition survey data.

FIGURE 1: Refined Sugar Available for Consumption (kg/person/year)

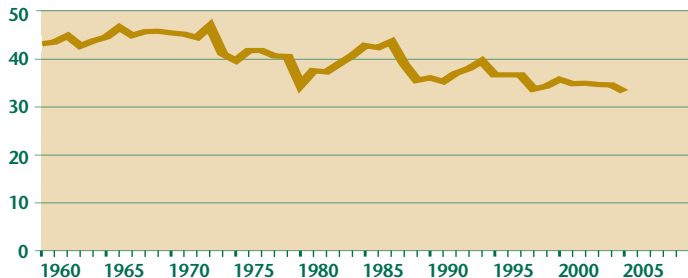


FIGURE 2: Soft Drinks (Regular and Diet) Available for Consumption (litres/person/year)

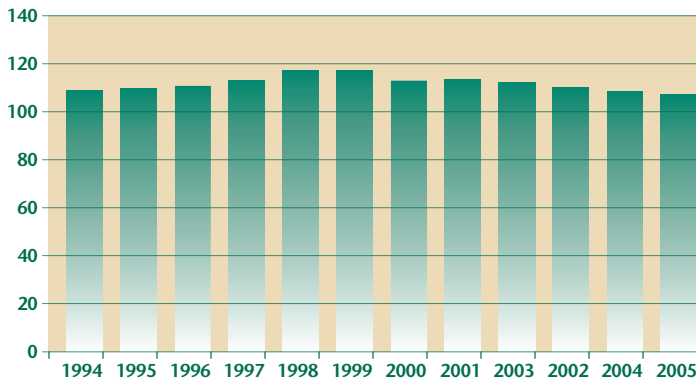
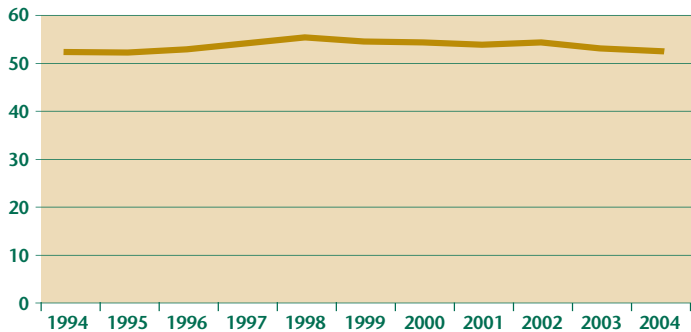


FIGURE 3: Added Sugars Available for Consumption* (kg/person/year)



*“Added sugars” includes sugars from refined sugar, maple syrup, honey, high-fructose corn syrup, glucose syrup, and dextrose.

References

1. US Department of Agriculture, Agriculture Research Service. Pyramid servings intakes by U.S. children and adults: 1994-96, 1998, 2000.
2. Statistics Canada. Food Statistics 2005, Vol. 5, No. 1, 2006.
3. US Department of Agriculture, Economic Research Service. Food consumption (per capita) data system, 2005.
4. Institute of Medicine. Dietary Reference Intakes: energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein, and amino acids. Washington, DC: National Academies Press, 2005.

REFINED SUGAR

Statistics Canada data for refined sugar (sucrose), shown in Figure 1, indicates that availability has been decreasing since the 1960s.² These data include revisions by Statistics Canada from previously published data to correct certain methodological errors and to account for the large growth in exports of sugar in food products that are not consumed in Canada. Refined sugar availability decreased by 16% from 39.1 to 32.7 kg/person/year between 1994 and 2005 (Figure 1).

TOTAL ADDED SUGARS

Statistics Canada does not publish data on total “added sugars” because data are not available for corn sweeteners (i.e., dextrose, glucose syrup, and high-fructose corn syrup). However, estimates have been made based on soft drink availability, which is the major source of these sweeteners, and estimates of use in other products.

Statistics Canada data show that soft drink availability has remained stable over the past decade.² Soft drink availability for both diet and regular soft drinks combined is shown in Figure 2 indicating this flat trend. Although the availability data does not distinguish between diet and regular soft drinks, data on the contribution of soft drink calories (i.e., from regular soft drinks) as a percentage of the total food supply shows a similar trend (Table 2).²

TABLE 2

Soft Drinks as a Percentage of Total Calories Available in the Canadian Food Supply

1994	3.78%
1995	3.80%
1996	3.77%
1997	3.74%
1998	3.84%
1999	3.79%
2000	3.66%
2001	3.65%
2002	3.62%
2003	3.57%
2004	3.48%
2005	Not available

Consistent with these data, an estimate of the availability of all “added sugars” shows that it has been relatively stable from 1994 to 2004 (Figure 3).



10 Bay Street, Suite 620
 Toronto Ontario M5J 2R8
 Tel: 416.368.8091
 Fax: 416.368.6426
 Email: info@sugar.ca
 www.sugar.ca