

Consumption of sugary drinks among children and their parents or caregivers

Background

The increasing consumption of sugary drinks has been a major factor contributing to the global obesity epidemic (Harvard School of Public Health, 2012; Institute of Medicine, 2012). These “liquid lollies” also increase the risk of other health conditions such as type 2 diabetes, heart disease, gout, dental decay, and dental erosion (Choi & Curhan, 2008; Choi, Willett, & Curhan, 2010; De Koning et al., 2012; Fung et al., 2009; Gibson, 2008; Malik et al., 2010; Morgan, 2013; Tahmassebi, Duggal, Malik-Kotru, & Curzon, 2006; Vartanian, Schwartz, & Brownell, 2007). Parents and caregivers are encouraged to give their children water and low-fat unflavoured milk and to role model healthy behaviours by limiting their own consumption of these beverages (Ministry of Health, 2012).

The Health Promotion Agency’s (HPA’s) nutrition and physical activity programme promotes these beverage recommendations. Data on what families eat and drink are collected in the HPA’s Health and Lifestyles Survey (HLS) in order to monitor consumption trends and patterns. Findings from the 2012 HLS are reported here.

Methodology

Parents and caregivers were asked how often they consume sugary drinks, including soft (fizzy) drinks, energy drinks, and sports drinks. They were also asked how often their child consumes these beverages. The reported frequencies include drinks consumed at home and away from home. The eight response options are: never; less than once a month; 1 to 3 times a month; 1 to 2 days a week; 3 to 4 days a week; 5 to 6 days a week; once a day; twice a day or more often. These responses are grouped into five categories to report on overall prevalence: less than one day a week; 1 to 2 days a week; 3 to 4 days a week; 5 to 6 days a week; once a day or more often.

Further analyses investigate if there are differences in sugary drink consumption by gender, ethnicity, age, neighbourhood deprivation status, and parents/caregivers’ education levels. For these analyses, consumption is grouped by consumed three or more days per week or consumed less than three days per week. These response groupings are in accordance with Ministry of Health reporting of beverage consumption (University of Otago and Ministry of Health, 2011).

Statistically significant differences ($p < .05$) are reported.

Children’s consumption of sugary drinks

Table 1 shows the reported frequencies of children’s and parents/caregivers’ consumption of sugary beverages. More than half (60.0%, 54.8-65.2%) of parents and caregivers report that their child consumes sugary drinks less than one day a week. About one in five (21.4%, 17.2-25.6%) report that their child drinks them 1 to 2 days a week, while 8.2% report consumption rates of once a day or more often.

Children who are more likely to consume sugary drinks three or more days a week are:

- those aged 14 to 16 years (25.5%) compared to children aged 5 to 7 years (14.1%)
- Māori (25.0%) and Pacific (27.9%) children compared to European/Other (13.8%).

There are no differences by gender, neighbourhood deprivation status, or parent’s/caregiver’s education level.

Table 1. Consumption frequency of sugary drinks (i.e. soft drinks, energy drinks, and sports drinks)

Frequency of consumption	Children % (Confidence Interval)	Parents/Caregivers % (Confidence Interval)
Less than 1 day a week	60.0 (54.8-65.2%)	63.0 (57.5-68.6%)
1 to 2 days a week	21.4 (17.2-25.6%)	18.4 (13.7-23.2%)
3 to 4 days a week	6.3 (4.0-8.5%)	6.8 (4.3-9.3%)
5 to 6 days a week	4.1 (2.4-5.9%)	2.2 (0.9-3.6%)
Once a day or more often	8.2 (5.3-11.1%)	9.5 (6.5-12.5%)
Grouped frequency:		
Less than 3 days a week	81.4 (77.1-85.7%)	81.4 (77.8-85.1%)
3 or more days a week	18.6 (14.3-22.9%)	18.6 (14.9-22.2%)

Parents and caregivers' consumption of sugary drinks

The rates of parents and caregivers' consumption of sugary drinks are similar to those of their children. In fact, the grouped frequencies for children and for parents/caregivers are exactly the same. Consumption rates of less than one day a week are reported by 63.0% of parents/caregivers while 18.4% consume these beverages 1 to 2 days a week. About 1 in 10 (9.5%) report that they consume sugary drinks once a day or more often.

Parents and caregivers who are more likely to consume sugary drinks three or more days a week are:

- those aged 25 to 34 years (27.8%) compared with those aged 35 to 44 years (16.2%) or those aged 45 to 54 years (15.3%)
- those with no formal educational qualification (26.6%) compared with those who completed secondary school (14.9%).

There are no differences by gender, ethnicity, or neighbourhood deprivation status.

Relationship between parents/caregivers' consumption and their children's consumption

The frequency of parents/caregivers' consumption of sugary drinks is strongly associated with their child's consumption frequency. Children who consume sugary beverages three or more days a week are more likely to have a parent/caregiver who consumes sugary beverages three or more days a week, compared with having a parent/caregiver who consumes these beverages less frequently (OR=4.8, 2.9-7.9).

Key points

- Nearly 1 in 10 children (8.2%) and parents/caregivers (9.5%) consume sugary drinks once a day or more often.
- About one-fifth (18.6%) of both children and their parents/caregivers drink sugary beverages three days a week or more often.
- Children who consume sugary beverages three or more days a week are more likely to have a parent/caregiver who consumes sugary beverages three or more days a week, compared with having a parent/caregiver who consumes these beverages less frequently (OR=4.8, 2.9-7.9).
- Older children (aged 14 to 16 years) and younger adults (aged 25 to 34 years) have higher rates of consumption compared with younger children and older adults, respectively.
- Māori and Pacific children are more likely to have consumption rates of three or more days a week (25.0% and 27.9%, respectively) compared with European/Other children (13.8%).

About the Health and Lifestyle Survey

- The HLS is a nationwide in-home face-to-face survey conducted every two years, starting in 2008. The 2012 HLS consisted of a sample of 2,672 New Zealanders aged 15 years and over, who provided information about their health behaviours and attitudes relating to tobacco, sun safety, healthy eating, gambling, and alcohol. Parents and caregivers also responded to a sub-set of questions for 806 children aged 5 to 16 years.
- In 2012, the parent/caregiver sample, with a response rate of 87.7%, included 337 people of European/Other ethnicity, 211 Māori, 213 Pacific people and 45 Asian people (prioritised ethnicity).
- The data have been adjusted (weighted) to ensure they are representative of the New Zealand population.
- Sugary drink consumption data were analysed by;
 - gender
 - ethnicity (Māori; Pacific; Asian; European/ Other)
 - age (Children: 5 to 7 years; 8 to 10 years; 11 to 13 years; 14 to 16 years. Adults: 15 to 24 years; 25 to 34 years; 35 to 44 years; 45 to 54 years; 55 and above.)
- neighbourhood deprivation status (Low: Deciles 1 to 3; Mid: Deciles 4 to 7; High: Deciles 8 to 10)
- parents/caregivers' education level (No formal qualification; Secondary school; Trade/Professional/Undergraduate diploma; Bachelor's Degree/Postgraduate).
- For this analysis, proportions and 95% confidence intervals were produced. Odds ratios were undertaken to compare responses between groups. The significance level used for statistical analyses was set to $\alpha=0.05$.
- A full description of the 2012 HLS survey methodology and further HLS publications can be found online at <http://www.hpa.org.nz/research-library/research-publications>.

About the HPA

The HPA is a Crown entity that leads and delivers innovative, high quality and cost-effective programmes and activities that promote health, wellbeing and healthy lifestyles, and prevent disease, illness and injury. The HPA also enables environments that support health and wellbeing and healthy lifestyles, and reduce personal, social and economic harm.

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