# **BRFSS Brief**

Number 1203

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide telephone survey of adults developed by the Centers for Disease Control and Prevention and administered by the New York State Department of Health. The BRFSS is designed to provide information on behaviors, risk factors, and utilization of preventive services related to the leading causes of chronic and infectious diseases, disability, injury, and death among the noninstitutionalized, civilian population aged 18 years and older.

### **Sugar-Sweetened Beverage Consumption**

New York State Children Aged 2-17 Years, 2009-2010

#### **Introduction and Key Findings**

Sugar-sweetened beverages (SSBs), including regular (non-diet) soda, sports drinks, fruit drinks, lemonade, energy drinks, and caloric sweetened water, are the single largest source of added sugars in the diet of children in the United States (US).<sup>1</sup> SSBs are a source of excess calories with no or minimal nutritional value.<sup>2</sup> In children and adolescents, consumption of SSBs is associated with dental caries, diabetes, weight gain, and decreased bone density.<sup>3,4,5</sup>

Consumption of SSBs among children and adolescents more than doubled between 1977 and 1996.<sup>6</sup> In 2004, adolescents consumed an average of 300 calories per day from SSBs, which accounted for an estimated 13 percent of their daily calories.<sup>7</sup> The increase in SSB consumption parallels the increase in the prevalence of obesity among children and adolescents, which has tripled over the past three decades.<sup>8</sup> Currently one in three children in both New York State (NYS) and the US is considered overweight or obese.<sup>9,10</sup>

Data collected through the BRFSS in 2009 and 2010 indicate more than 30 percent of NYS children consume SSBs at least once a day. The percentage of children aged 2-17 consuming other SSBs (sugar sweetened drinks like iced tea, sports drinks or fruit punch drinks) daily is three-times greater than the percentage who consume regular soda daily (see Figure). Older children, aged 12-17 years, are more likely than younger children, aged 2-11 years, to consume SSBs every day. Children are more likely to consume SSBs daily if they have a TV in their bedroom, their parent or guardian has low educational attainment, their parent is non-White or Hispanic, their parent consumes SSBs at least weekly, their parent is obese or their family has a low household income.

#### **BRFSS Questions\***

- During the past 7 days, how many times did your child drink a can, bottle or glass of **regular soda**, such as Coke, Pepsi, or Sprite? Do **not** include diet soda, seltzer, club soda.
- During the past 7 days, how many times did your child drink a can, bottle or glass of sweetened beverage, such as Snapple, Gatorade, SunnyD, Hawaiian Punch, Hi-C, Kool-Aid, lemonade, or sugar sweetened iced tea? Do not include coffee or hot tea.

\*Note: The questions on child sugar-sweetened beverage consumption were administered to respondents with assistance from the Child Random Selection Module. Survey respondents were asked to identify all children less than 18 years of age living in their household and subsequently asked questions about one randomly selected child.

# Percentage of New York State children aged 2-17 years drinking regular soda, sugar-sweetened beverages other than regular soda (other SSB), and combined regular soda and other SSBs, 2009-2010 BRFSS



### Daily consumption of soda and sugar-sweetened beverages (SSBs) among NYS children aged 2-17 years, 2009 - 2010 BRFSS

	Consumed at least one regular soda per dayª		Consumed at least one other SSB per day <sup>b</sup>		Consumed at least one regular soda or other SSB per day <sup>a,b</sup>	
	% <b>c</b>	95% Cl <sup>c</sup>	% <sup>c</sup>	95% CI <sup>c</sup>	% <sup>c</sup>	95% Cl <sup>c</sup>
New York State (NYS) [n= 1692]	9.1	7.3-11.3	27.3	24.3-30.6	31.1	27.9-34.4
Sex						
Male	9.5	7.1-12.7	28.0	23.8-32.7	32.8	28.4-37.6
Female	8.8	6.2-12.2	26.8	22.5-31.7	29.6	25.1-34.5
Age (years)						
2-5	3.9	2.0-7.7	23.7	17.8-30.9	25.2	19.1-32.4
6-11	7.4	4.7-11.5	26.8	21.8-32.5	30.6	25.3-36.5
12-17	17.0	12.9-22.0	31.0	25.7-37.0	37.8	32.2-43.8
Parent race/ethnicity						
Non-Hispanic White	8.3	6.3-10.8	21.4	18.4-24.9	25.5	22.2-29.2
Non-White or Hispanic	10.5	7.2-14.9	37.5	31.5-43.8	40.6	34.5-47.0
Parental educational attainment						
High school grad/GED or less	11.9	8.7-16.3	37.4	31.4-43.8	41.4	35.2-47.9
Some post-high school	11.8	7.5-18.2	31.5	24.7-39.2	36.0	28.9-43.7
College graduate	5.7	3.8-8.6	18.0	14.5-22.0	21.3	17.5-25.6
Annual household income						
<\$25,000	13.9	8.8-21.1	39.4	31.3-48.2	42.9	34.6-51.7
\$25,000-\$74,999	8.7	5.9-12.7	32.2	26.7-38.2	35.4	29.7-41.6
\$75,000 and greater	6.5	4.4-9.6	17.7	13.9-22.1	21.2	17.2-25.9
Missing <sup>d</sup>	10.7	5.6-19.4	26.1	16.9-38.0	33.0	22.9-45.0
Region						
New York City (NYC)	10.8	7.4-15.6	30.6	25.1-36.7	34.9	29.1-41.1
NYS exclusive of NYC	8.1	6.2-10.5	25.5	22.0-29.3	28.9	25.2-32.8
Child has a television in his/her bedroo	m					
Yes	10.8	8.2-14.0	36.0	31.0-41.4	40.7	35.5-46.2
No	7.9	5.6-11.2	21.2	17.5-25.5	24.3	20.4-28.8
Parent weekly consumption of soda or other SSB						
Yes	10.1	7.8-13.0	33.4	29.3-37.8	37.7	33.5-42.2
No	7.4	4.7-11.4	17.1	13.2-21.8	19.8	15.7-24.7
Parent weight status						
Normal	8.0	5.4-11.8	22.8	18.3-28.0	26.5	21.8-31.9
Overweight	9.6	6.7-13.6	27.5	22.8-32.8	29.5	24.6-34.9
Obese	9.5	6.5-14.5	30.7	24.3-37.9	36.4	29.7-43.7

a Includes caloric sweetened soda only.

b Other sugar-sweetened beverages include sugar-sweetened drinks like iced tea, sports drinks or fruit punch.

c % = weighted percentage; CI = confidence interval.

d "Missing" category included because more than 10% of the sample did not report income.

#### References

- Reedy J, Krebs-Smith SM. Dietary sources of energy, solid fats, and added sugars among children and adolescents in the United States. J Am Diet Assoc. 2010;110:1477-84.
- 2. Guthrie JF, Morton JF. Food sources of added sweeteners in the diets of Americans. J Am Diet Assoc. 2000; 100:43-51.
- 3. Tahmassebi J, Duggal M, Malik-Kotru G, et al. Soft drinks and dental health: a review of the current literature. JDR. 2006; 34(1):2-11.
- Whiting S, Healey A, Psiuk S, et al. Relationship between carbonated and other low nutrient dense beverages and bone mineral content of adolescents. Nutrition Research. 2001;21(8):1107-1115.
- Yoo S, Nicklas T, Baranowski T, et al. Comparison of dietary intakes associated with metabolic syndrome risk factors in young adults: the Bogalusa Heart Study. Am J Clin Nutr. 2004;80:841-848.

- 6. Nielsen SJ, Popkin BM. Changes in beverage intake between 1977 and 2001. Am j Prev Med. 2004; 27(3)205-210.
- Wang YC, Bleich SN, Gortmaker SL. Increasing caloric contributions from sugar-sweetened beverages and 100% fruit juices among US children and adolescents, 1988-2004. Pediatrics. 2008;121(6):e1604-e1614.
- 8. Malik VS, Popkin BM, Bray GA, et al. Sugarsweetened beverages, obesity, type 2 diabetes mellitus, and cardiovascular disease risk. Circulation. 2010;121:1356-1364.
- 9. New York State Department of Health. http:// www.health.ny.gov/prevention/obesity/. Accessed January 23, 2012.
- National Center for Health Statistics. Health, United States, 2010: With Special Features on Death and Dying. Hyattsville, MD; U.S. Department of Health and Human Services; 2011.

#### **Program Contributions**

New York State Department of Health Bureau of Chronic Disease Evaluation and Research Bureau of Community Chronic Disease Prevention

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