

BRFSS Brief

Number 1711

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.

Fruit and Vegetable Consumption

New York State Adults, 2015

Introduction and Key Findings

Consuming a diet rich in fruits and vegetables every day is an important part of a healthy lifestyle. The 2015-2020 Dietary Guidelines for Americans recommend a healthy eating pattern that includes a variety of vegetables from all of the subgroups - dark green, red and orange, legumes (beans and peas) and starchy. Fruits are also recommended in a healthy eating pattern, especially whole fruits.¹ Fruits and vegetables are excellent sources of essential vitamins, minerals, fiber, and numerous phytochemicals. Substituting fruits and vegetables for higher calorie foods can support a healthy weight, meet nutrient needs, and help reduce the risk of stroke, high blood pressure, diabetes, and some cancers.^{1,2,3}

The National Fruit and Vegetable Alliance National Action Plan 2015 Report Card indicates that per capita fruit and vegetable consumption (excluding fried potatoes) has declined 5% between 2009 and 2014, for an average of 1.68 cups per day.⁴ The Healthy U.S.-Style Eating Pattern at the 2,000-calorie level recommends 2½ cup-equivalents of vegetables and 2 cup-equivalents of fruit per day. The State Indicator Report for Consumption of Fruits and Vegetables from 2013 shows that adults in New York State consume fruit about 1.1 times per day and vegetables about 1.7 times per day.⁵

Key Findings

More than one-third of adults (37.4%) in NYS consume fruit less than one time per day, and 22.4% consume vegetables less than one time per day. Daily consumption of fruits and vegetables is lower in adults who are male, are 18 to 24 years old, have less than \$50,000 annual household income, have less than a high school degree, and are living with any disability. In addition, daily consumption of vegetables is lower in Black, non-Hispanic adults.

BRFSS Questions

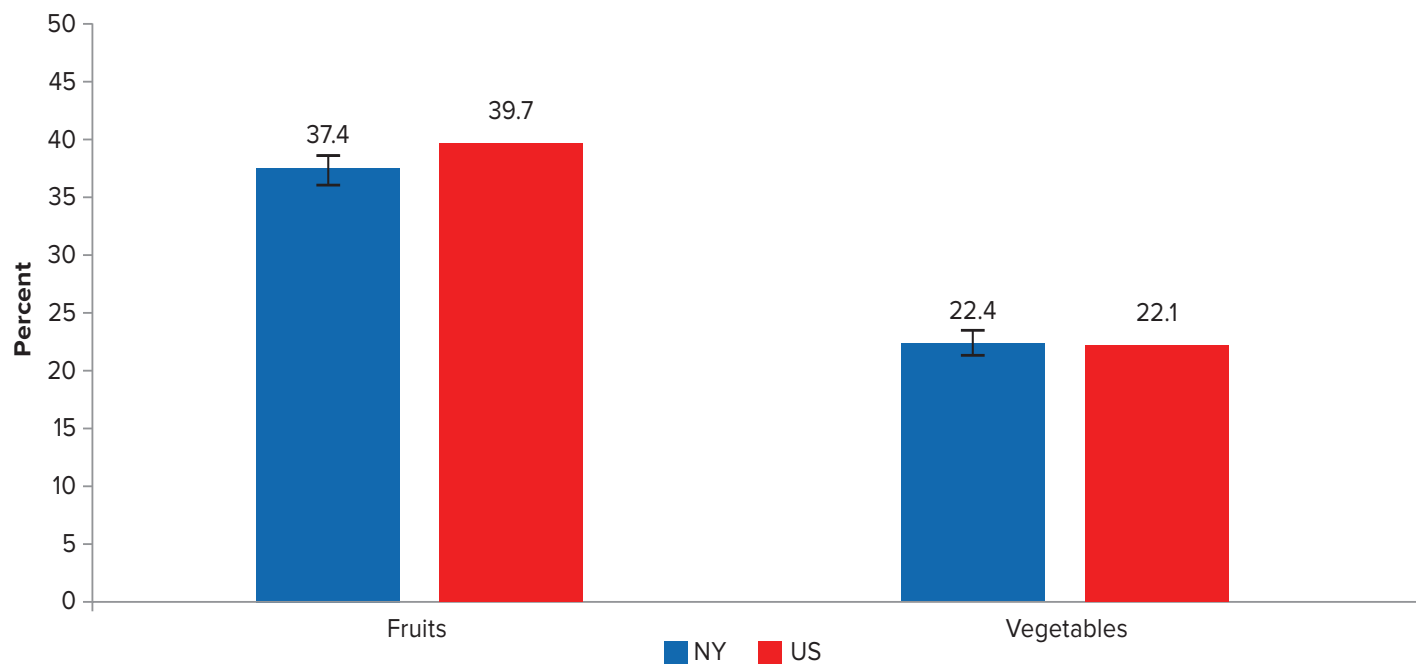
These next questions are about the fruits and vegetables you ate or drank during the past 30 days. Please think about all forms of fruits and vegetables including cooked or raw, fresh, frozen or canned. Please think about all meals, snacks, and food consumed at home and away from home. I will be asking how often you ate or drank each one: for example, once a day, twice a week, three times a month, and so forth.

1. During the past month, how many times per day, week or month did you drink 100% PURE fruit juices? Do not include fruit-flavored drinks with added sugar or fruit juice you made at home and added sugar to. Only include 100% juice.
2. During the past month, not counting juice, how many times per day, week, or month did you eat fruit? Count fresh, frozen, or canned fruit
3. During the past month, how many times per day, week, or month did you eat cooked or canned beans, such as refried, baked, black, garbanzo beans, beans in soup, soybeans, edamame, tofu or lentils. Do NOT include long green beans

4. During the past month, how many times per day, week, or month did you eat dark green vegetables for example broccoli or dark leafy greens including romaine, chard, collard greens or spinach?
5. During the past month, how many times per day, week, or month did you eat orange-colored vegetables such as sweet potatoes, pumpkin, winter squash, or carrots?
6. Not counting what you just told me about, during the past month, about how many times per day, week, or month did you eat OTHER vegetables? Examples of other vegetables include tomatoes, tomato juice or V-8 juice, corn, eggplant, peas, lettuce, cabbage, and white potatoes that are not fried such as baked or mashed potatoes.

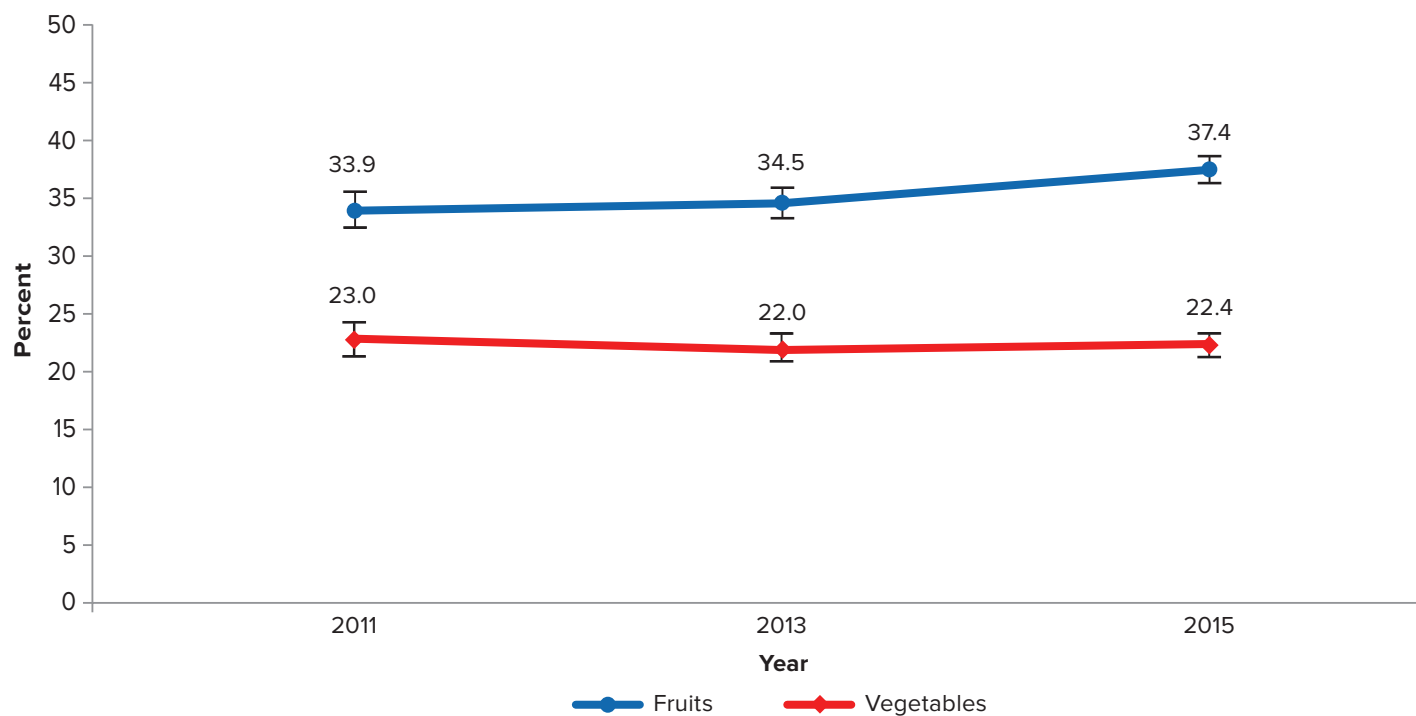
Total daily fruit consumption was calculated based on responses to questions 1 and 2, and total daily vegetables consumption was based on questions 3-6. Responses were combined to create a composite measure of average.

Figure 1. Percentage of adults in New York State and the U.S. who report consuming fruits and vegetables less than one time daily, BRFSS 2015



Note: Error bars represent 95% confidence intervals.

Figure 2. Percentage of adults in New York State who report consuming fruits and vegetables less than one time daily, by BRFSS survey year



Note: Error bars represent 95% confidence intervals.

Fruit and vegetable consumption among New York State adults: 2015 BRFSS

	Percentage who report consuming fruits and vegetables less than one time daily			
	Fruits		Vegetables	
	% ^a	95% CI ^a	% ^a	95% CI ^a
New York State (NYS) [n=12,357]	37.4	36.1-38.6	22.4	21.3-23.5
Sex				
Male	42.5	40.6-44.4	25.4	23.6-27.2
Female	32.7	31.1-34.4	19.6	18.2-21.1
Age (years)				
18-24	45.6	40.7-50.4	31.2	26.7-35.7
25-34	40.5	37.0-44.0	21.3	18.3-24.3
35-44	38.9	35.6-42.2	19.4	16.5-22.2
45-54	36.6	33.9-39.4	21.6	19.3-24.0
55-64	38.1	35.4-40.8	21.6	19.2-24.1
65+	28.3	26.3-30.3	21.8	19.9-23.7
Race/ethnicity				
White, non-Hispanic	36.0	34.5-37.4	20.5	19.2-21.7
Black, non-Hispanic	39.8	36.0-43.6	29.3	25.7-32.9
Hispanic	39.3	35.9-42.7	23.9	21.0-26.8
Other, non-Hispanic	37.7	32.6-42.8	21.3	16.8-25.8
Annual household income				
<\$15,000	40.4	36.3-44.6	32.8	28.8-36.8
\$15,000-\$24,999	43.7	40.1-47.3	28.4	25.0-31.7
\$25,000-\$34,999	37.0	32.6-41.5	24.8	20.8-28.7
\$35,000-\$49,999	39.4	35.5-43.4	22.3	18.8-25.8
≥\$50,000	34.4	32.6-36.2	16.5	15.0-18.0
Missing ^b	36.6	33.0-40.1	26.3	22.9-29.6
Education				
Less than high school	42.1	38.0-46.3	30.5	26.5-34.4
High school or GED	40.7	38.1-43.3	28.8	26.4-31.2
Some post-high school	38.2	35.7-40.7	21.4	19.2-23.5
College graduate	31.8	30.1-33.5	14.6	13.2-15.9
Disability status^c				
Yes	41.7	38.9-44.5	29.8	27.1-32.4
No	36.2	34.8-37.7	20.4	19.2-21.7
Weight status				
Neither overweight nor obese	34.9	32.8-37.0	20.1	18.3-22.0
Overweight	37.3	35.1-39.5	22.0	20.1-23.9
Obese	41.5	39.0-44.1	26.3	23.9-28.6
Region				
New York City (NYC)	38.5	36.4-40.6	22.4	20.5-24.3
NYS exclusive of NYC	36.5	35.0-38.1	22.4	21.0-23.7

a % = weighted percentage; CI = confidence interval

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

c All respondents who reported having at least one type of disability (cognitive, mobility, vision, self-care, or independent living)

References

1. U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 *Dietary Guidelines for Americans. 8th Edition*. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>
2. IARC Handbooks of Cancer Prevention. In: Fruits and vegetables. vol. 8:Lyon, France: IARC Press; 2003.
3. Hung HC, Joshipura KJ, Jiang R, et al. Fruit and vegetable intake and risk of major chronic disease. *J Natl Cancer Inst.* 2004;96:1577–1584.
4. National Fruit and Vegetable Alliance. National Action Plan to Promote Health Through Increased Fruit & Vegetable Consumption, 2015 Report Card. National Fruit and Vegetable Alliance, 2015. Web. <http://www.nfva.org/>
5. State Indicator Report on Fruits and Vegetables 2013 available at: <http://www.cdc.gov/nutrition/downloads/state-indicator-report-fruits-vegetables-2013.pdf>

Program Contributions

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

Order Information

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