

# BRFSS Brief

Number 1303

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.

## High Blood Pressure

New York State Adults, 2011

### Introduction and Key Findings

High blood pressure (hypertension) accounts for approximately 41% of cardiovascular disease deaths, and was estimated to be responsible for one in six deaths in the United States (US) in 2009.<sup>1</sup> High blood pressure has been estimated to cost the US an estimated \$131 billion annually in health care expenditures.<sup>2</sup> An Institute of Medicine report on strategies to improve blood pressure control identified high blood pressure as a “neglected disease” because of the lack of sufficient attention given to prevention and control.<sup>3</sup>

A recent analysis of the National Health and Nutrition Examination Survey (NHANES) data for 2003-2010 found that, among adults with hypertension, 54% did not have their hypertension controlled. Among those who were had uncontrolled hypertension, 39% were not aware of their hypertension, and 16% were aware but were not receiving drug therapy.<sup>3</sup> Obesity, high sodium intake, lack of physical activity, and tobacco and excessive alcohol use are common modifiable risk factors for developing high blood pressure.

### KEY FINDINGS

In New York, thirty-one percent (31%) of all adults and sixty-two percent (62%) of adults over 65 years of age report being told by a health professional they have high blood pressure. The rate of high blood pressure among adults who are obese is 2.5 times higher than the rate among adults who are neither overweight nor obese (51% compared to 19%). Nearly three-quarters (72%) of adults with diabetes also have high blood pressure.

Among adults with high blood pressure, 22% report not taking medication to treat their condition. Treatment rates differ significantly by age group and health care access. Among adults aged 35-44 years with high blood pressure, only half (54%) indicate taking medication to lower their blood pressure. In comparison, 94% of adults over 65 years of age report taking medications. Rates of medication use are significantly higher among those with health care coverage (80%) than among those without coverage (56%).

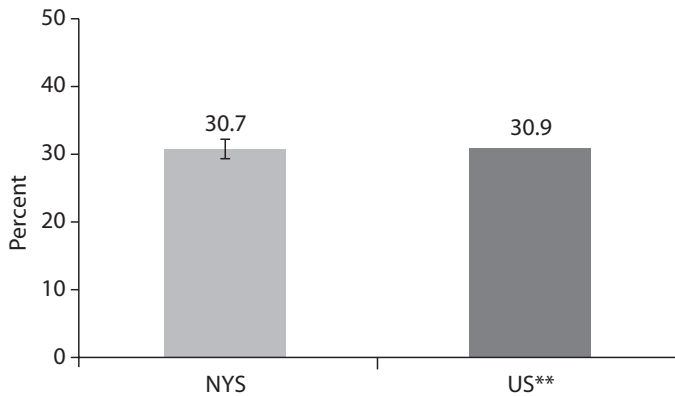
### BRFSS Questions

1. Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

[If “yes”]

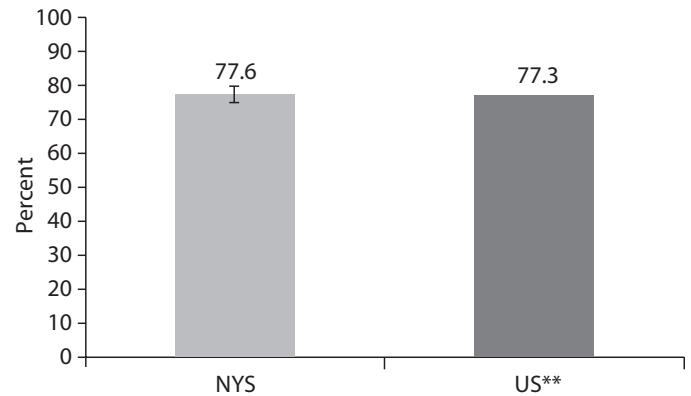
2. Are you currently taking medicine for your high blood pressure?

**Figure 1. Diagnosed high blood pressure (HBP)\* among US and New York State adults, BRFSS 2011**



\* Those ever told by a doctor, nurse, or other health professional that they had high blood pressure.  
 \*\* Median percent; includes data from all 50 states and the District of Columbia.  
 Note: Error bars represent 95% confidence intervals.

**Figure 2. Use of high blood pressure (HBP) medication among US and New York State adults aware they had HBP\*, BRFSS 2011**

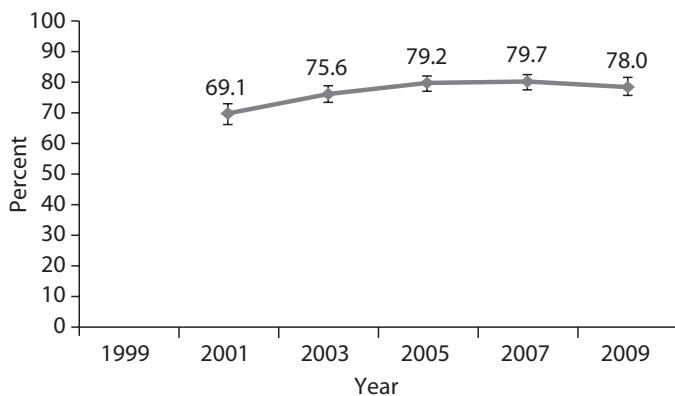


\* Of those respondents who were ever told by a doctor, nurse or other health professional they had high blood pressure.  
 \*\* Median percent; includes data from all 50 states and the District of Columbia.  
 Note: Error bars represent 95% confidence intervals.

### Changes to BRFSS Methodology

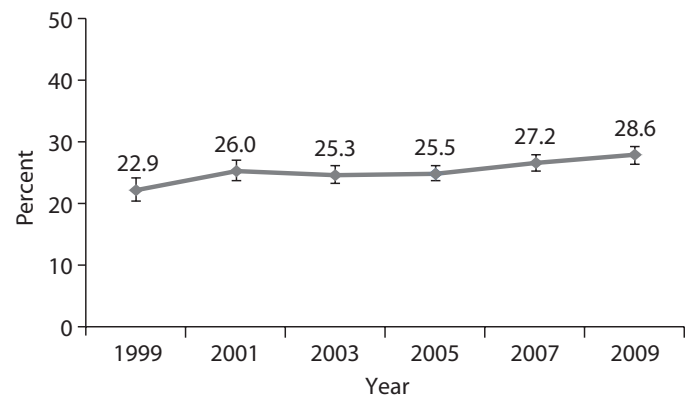
Beginning in 2011, BRFSS data includes data from interviews completed by people with cell phones in addition to interviews completed by people with landlines. The data also reflect changes in how the Centers for Disease Control (CDC) weight the data. Weighting ensures that the data collected are as representative of New York's population as possible. The new method of weighting enables more demographic information about the respondents to be incorporated into the weighting. While these two changes improve the accuracy of the BRFSS, they may result in prevalence estimates that are significantly different from those previously calculated. **Because of the differences in data collection, it is not appropriate to compare 2011 data to prior years and the BRFSS 2011 prevalence data should be considered a baseline year for data analysis.**

**Figure 3. Use of high blood pressure (HBP) medication among New York State adults aware they had HBP\*, by BRFSS survey year**



\* Of those respondents who were ever told by a doctor, nurse, or other health professional that they had high blood pressure.  
 Note: Error bars represent 95% confidence intervals.

**Figure 4. High blood pressure (HBP)\* among New York State adults, by BRFSS survey year**



\* Those ever told by doctor, nurse, or other health professional that they had high blood pressure.  
 Note: Error bars represent 95% confidence intervals.

## Blood Pressure among New York State adults<sup>a</sup>, 2011 BRFSS

	No. of respondents [n=7735]	Blood pressure			
		Diagnosed high blood pressure		Taking medication <sup>b</sup>	
		% <sup>c</sup>	95% CI <sup>c</sup>	%	95% CI
<b>Total New York State (NYS)</b>		<b>30.7</b>	<b>29.4-32.1</b>	<b>77.6</b>	<b>75.2- 79.9</b>
<b>Sex</b>					
Male		31.6	29.5-33.8	72.1	68.1-75.8
Female		29.9	28.2-31.6	83.0	80.1-85.5
<b>Age (years)</b>					
18-24		6.5	4.2-10.0	—	—
25-34		11.9	9.0-15.4	20.0	11.4-32.8
35-44		18.4	15.6-21.6	53.8	44.8-62.5
45-54		31.7	28.7-34.9	79.3	73.9-83.8
55-64		48.1	44.9-51.3	84.0	80.5-87.0
65+		61.6	59.0-64.1	94.3	92.7-95.6
<b>Race/ethnicity</b>					
White, non-Hispanic		31.8	30.1-33.4	80.1	77.3-82.6
Black, non-Hispanic		36.4	32.5-40.5	76.0	69.3-81.6
Hispanic		27.6	24.0-31.5	68.2	59.3-76.0
Other, non-Hispanic		21.7	17.3-26.9	76.1	65.3-84.4
<b>Annual household income</b>					
<\$25,000		36.2	33.4-39.1	72.7	67.5-77.4
\$25,000-\$49,999		34.8	31.8-37.9	82.3	77.3-86.3
\$50,000 and greater		25.1	23.2-27.1	77.4	73.5-80.9
Missing <sup>d</sup>		29.5	26.1-33.2	82.1	76.4-86.6
<b>Educational attainment</b>					
Less than high school (HS)		35.9	31.8-40.3	81.7	74.8-87.1
High school or GED		35.9	33.1-38.8	78.5	73.6-82.8
Some college		29.8	27.2-32.5	76.0	71.3-80.1
College graduate		23.7	22.0-25.5	74.4	70.0-78.3
<b>Have health care coverage</b>					
Yes		32.3	30.9-33.8	80.2	77.8-82.4
No		22.2	18.6-26.3	56.1	46.0-65.8
<b>Have a personal doctor</b>					
Yes		34.3	32.8-35.8	80.7	78.2-82.9
No		13.3	10.8-16.3	36.5	26.9-47.3
<b>Disability<sup>e</sup></b>					
Yes		48.0	45.0-50.9	79.5	74.8-83.5
No		24.9	23.4-26.5	75.6	72.4-78.6
<b>Weight status</b>					
Neither overweight nor obese		19.0	17.2-21.0	70.0	63.8-75.5
Overweight		30.8	28.6-33.2	76.6	72.6-80.2
Obese		50.9	47.8-53.9	83.7	80.1-86.8
<b>Diabetes</b>					
Yes		71.5	67.4-75.2	88.1	83.2-91.7
No		25.9	24.5-27.2	74.3	71.4-77.0
<b>Region</b>					
New York City (NYC)		31.9	30.1-33.8	76.0	72.3-79.4
NYS exclusive of NYC		29.1	27.2-31.0	78.7	75.4-81.7

<sup>a</sup> Rows with less than 50 observations and rows that contain a confidence interval with a half-width of greater than 10 have been suppressed.

<sup>b</sup> Of those respondents who were ever told by a doctor, nurse or other health professional that they had high blood pressure; equivalent to CDC indicator "in treatment".

<sup>c</sup> % = weighted percentage; CI = confidence interval.

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

<sup>e</sup> All respondents who report activity limitations due to physical, mental, or emotional reasons OR have health problems that require the use of special equipment.

## References

1. Go AS, Mozaffarian D, et al. Heart Disease and Stroke Statistics – 2013 Update: A Report from the American Heart Association, 2013, 127: e0-e242.
2. Vital Signs: Awareness and Treatment of Uncontrolled Hypertension Among Adults – United States, 2003-2010, Morbidity and Mortality Weekly Report, September 4, 2012.
3. IOM (Institute of Medicine). 2010. A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension. Washington, DC: The National Academies Press.

## Program Contributions

New York State Department of Health  
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## Order Information

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