

# BRFSS Brief

Number 1808

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, 2016

### Introduction and Key Findings

High blood pressure (HBP) is one of the leading risk factors for cardiovascular disease (CVD) and stroke, and is known as the silent killer because there are often no warning signs or symptoms.<sup>1</sup> An estimated 85.7 million U.S. adults ages 20 and older have HBP, defined as a blood pressure equal to or greater than 140/90mmHg.<sup>2</sup> Projections show that by 2030, the total cost of HBP in the U.S. could increase to an estimated \$274 billion.<sup>3</sup>

Effective management and control of HBP decreases the incidence of heart attacks, stroke and heart failure.<sup>4</sup> Taking medications as prescribed (medication adherence), reducing sodium in the diet, getting daily physical activity and quitting smoking are all strategies that can help keep blood pressure under control.<sup>1</sup> Medication adherence is critical to achieving blood pressure control, however only 51% of Americans treated for HBP follow their health care provider's advice with respect to medications.<sup>5</sup> The [Million Hearts Initiative](#), lead by the U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention, aims to prevent one million or more heart attacks and strokes by 2022. The initiative's website offers tools and resources for health care providers, public health professionals and patients to support the prevention and management of HBP.

#### Key Findings

Over 4.9 million adults in New York State report being told by a health professional they have HBP (31.7%). Among that group, over three-quarters (76.9%) are taking medication to control their HBP. Being diagnosed with HBP and taking medication to control HBP were highest among adults over 65 years of age (61.2% and 91.8%, respectively), and among those with Medicare coverage (55.7% and 89.0%, respectively). Over seven in ten adults with diabetes report having HBP (74.5%), while the proportion of HBP among adults who are obese is 2.5 times higher than the proportion among adults who are neither overweight nor obese (47.8% compared to 19.1%).

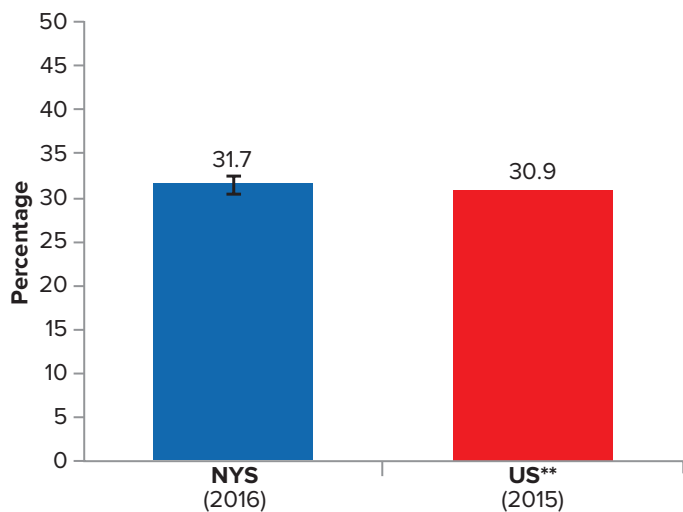
### BRFSS questions

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

[If "yes"]

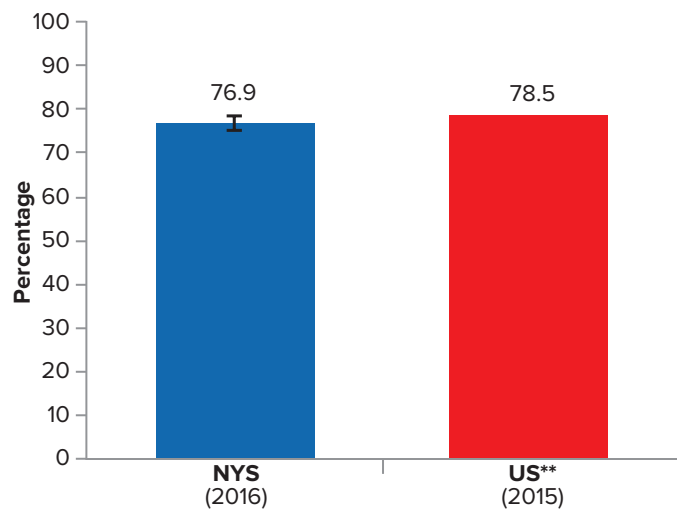
2. Are you currently taking medicine for your high blood pressure?

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



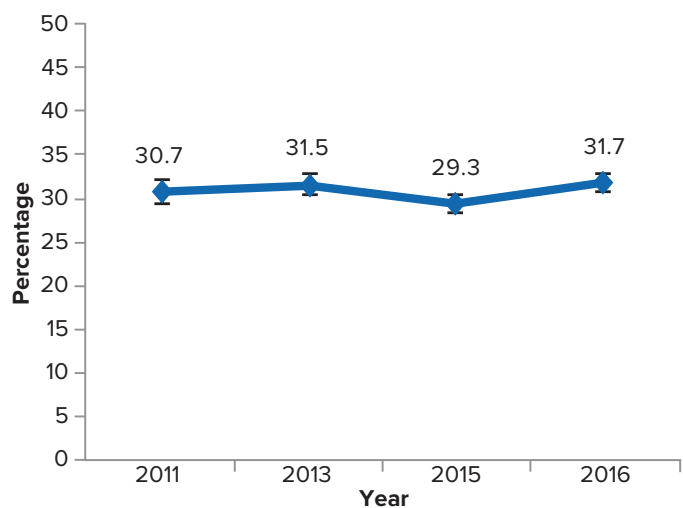
\* Those ever told by a doctor, nurse, or other health professional that they had HBP.  
 \*\*Median percent; includes data from all 50 states and the District of Columbia.  
 Note: Error bars represent 95% confidence intervals. 2016 BRFSS data HBP not available for US.

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



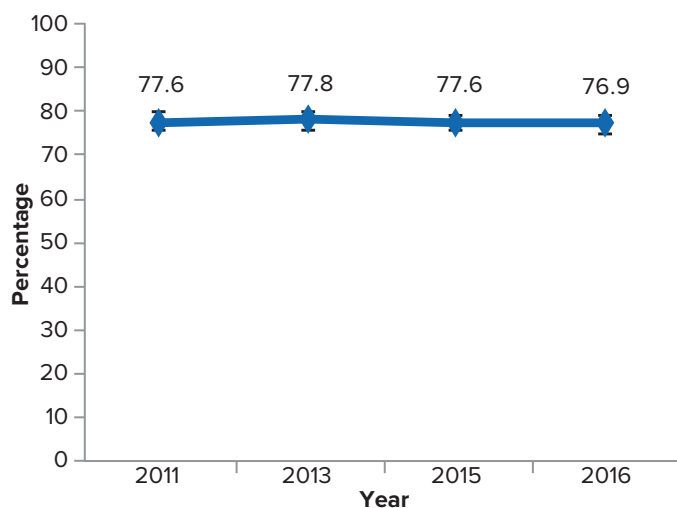
\* Of those ever told by a doctor, nurse, or other health professional that they had HBP.  
 \*\*Median percent; includes data from all 50 states and the District of Columbia.  
 Note: Error bars represent 95% confidence intervals. 2016 BRFSS data on use of HBP medication not available for US.

**Figure 3. High blood pressure (HBP)\* among New York State adults, by BRFSS survey year**



\* Those 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. 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.

## Blood pressure among New York State adults, 2016 BRFSS

	Diagnosed high blood pressure <sup>a</sup>		Taking medication	
	% <sup>b</sup>	95% CI <sup>b</sup>	%	95% CI
<b>Total New York State (NYS) [n=34190]</b>	31.7	30.6-32.8	76.9	75.1-78.6
<b>Sex</b>				
Male	34.6	32.9-36.2	72.8	70.2-75.4
Female	29.1	27.7-30.5	81.2	78.9-83.5
<b>Age (years)</b>				
18-24	8.7	6.0-11.4	6.4	0.4-12.5
25-34	10.7	8.9-12.4	28.3	20.0-36.5
35-44	20.4	17.9-22.9	53.3	46.4-60.2
45-54	28.9	26.5-31.4	72.9	68.7-77.1
55-64	44.4	41.7-47.0	85.3	82.7-87.9
65+	61.2	59.1-63.4	91.8	90.1-93.5
<b>Race/ethnicity</b>				
White, non-Hispanic	32.5	31.3-33.7	78.2	76.4-80.0
Black, non-Hispanic	39.0	35.4-42.7	77.8	73.0-82.6
Hispanic	26.2	23.5-29.0	69.5	63.7-75.3
Other, non-Hispanic	26.6	21.7-31.4	78.8	69.7-87.9
<b>Annual household income</b>				
<\$25,000	35.5	33.3-37.8	80.2	77.2-83.1
\$25,000-\$49,999	35.1	32.6-37.7	76.3	72.2-80.3
\$50,000 and greater	28.0	26.5-29.6	75.6	72.8-78.3
Missing <sup>c</sup>	32.0	28.8-35.3	74.9	69.5-80.4
<b>Educational attainment</b>				
Less than high school (HS)	37.2	33.7-40.8	81.3	77.1-85.5
High school or GED	34.3	32.1-36.4	76.6	73.2-80.0
Some college	32.1	30.0-34.3	75.2	71.7-78.7
College graduate	26.4	24.8-28.0	76.0	73.1-78.9
<b>Insurance status</b>				
Private	26.4	24.9-27.8	71.4	68.6-74.2
Medicare	55.7	53.1-58.2	89.0	86.8-91.3
Medicaid	28.4	25.5-31.4	69.1	63.4-74.8
Other insurance <sup>d</sup>	34.6	29.3-39.9	85.2	79.9-90.6
No coverage	21.6	17.9-25.3	62.1	53.3-71.0
<b>Disability<sup>e</sup></b>				
Yes	53.7	51.2-56.1	82.6	80.2-85.1
No	25.1	24.0-26.3	73.3	70.9-75.7
<b>Weight status</b>				
Neither overweight nor obese	19.1	17.5-20.7	73.1	68.8-77.5
Overweight	34.4	32.5-36.3	76.7	73.8-79.6
Obese	47.8	45.6-50.1	79.1	76.6-81.7
<b>Diabetes</b>				
Yes	74.5	71.7-77.3	92.5	90.4-94.6
No	26.7	25.6-27.8	71.8	69.7-74.0
<b>Region</b>				
New York City (NYC)	29.8	27.7-31.8	75.6	72.1-79.2
NYS exclusive of NYC	33.0	31.8-34.2	77.6	75.8-79.4

<sup>a</sup> Of those respondents who were ever told by a doctor, nurse or other health professional that they had high blood pressure.

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

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

<sup>d</sup> Includes TRICARE, VA/Military, and Indian Health Services.

<sup>e</sup> All respondents who reported at least one type of disability (cognitive, self-care, independent living, vision, hearing or mobility).

## References

1. CDC Division of Heart Disease and Stroke Prevention, High Blood Pressure Fact Sheet. Updated June 16, 2016. Available at: [https://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/fs\\_bloodpressure.htm](https://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_bloodpressure.htm)
2. American Heart Association. AHA Statistical Update: Heart Disease and Stroke Statistics - 2017 Update. *Circulation*. 2017; 135:e1-e458.
3. Mozaffarian D, Benjamin EJ, Go AS, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics-2016 update: a report from the American Heart Association. *Circulation*. 2016; 133(4):e38-e360.
4. Fryar CD, Ostchega Y, Hales CM, Zhang G, Kruszon-Moran D. Hypertension Prevalence and Control Among Adults: United States, 2015-2016. NCHS Data Brief (#289). October, 2017. Available at: <https://www.cdc.gov/nchs/data/databriefs/db289.pdf>
5. Ho PM, Bryson CL, Rumsfeld JS. Medication Adherence: Its Importance in Cardiovascular Outcomes. *Circulation*. 2009;119:3028-3035.

## 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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