

# BRFSS Brief

Number 1311

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.

## Actions to Control High Blood Pressure

New York State Adults, 2011

### Introduction and Key Findings

High blood pressure (HBP) or hypertension for adults is defined as a systolic blood pressure of 140 mmHg or higher or a diastolic blood pressure of 90 mmHg or higher. HBP increases the risk for coronary heart disease, heart failure, stroke, and kidney disease. The association between HBP and cardiovascular disease (heart disease, heart failure and stroke) is independent of other risk factors such as smoking, high cholesterol and obesity.<sup>1</sup>

Although HBP is easily detected and is treatable, the condition is not controlled in a substantial proportion of adults.<sup>2</sup> Adults with HBP can self-manage their condition by making lifestyle modifications such as dietary changes, exercising, limiting alcohol use, and taking prescribed medications. Clinicians can contribute to adults taking action to control their high blood pressure by advising them to make lifestyle changes.<sup>1</sup>

Promoting use of evidence-based care to manage chronic diseases is a major goal in the effort to prevent and reduce the burden of chronic disease in the New York State Department of Health Prevention Agenda 2013-17. By increasing the proportion of adults taking action to control their HBP, the number of people impacted by disability and death from heart disease and stroke can be greatly reduced.<sup>3,4</sup>

#### KEY FINDINGS

In New York State, more than three out of four adults with HBP report they are changing their eating habits (76.4%), reducing or not using salt (90.3%), reducing or not using alcohol (80.3%), or taking antihypertensive medication to control their HBP (80.8%) (see Table, page 3). Exercising is the least reported action for controlling HBP (69%). Adults aged 65 and older are significantly more likely to be taking antihypertensive medications to control their HBP than adults aged 45-64. The prevalence of those taking an action to lower or control their HBP was significantly higher among those given advice by a health professional than among those never given advice specific to that action, and almost everyone who received any advice took at least one action to control their HBP (98.6%) (Figure 2). Adults with HBP were more likely to receive advice from physicians about taking HBP medication and exercising than changing their eating habits. Adults with HBP were least likely to report receiving advice to reduce their alcohol consumption.

### BRFSS questions

For those who have answered "Yes" to:

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

Are you now doing any of the following to help lower or control your high blood pressure?

1. (Are you) changing your eating habits (to help lower or control your high blood pressure)?
2. (Are you) cutting down salt (to help lower or control your high blood pressure)?
3. (Are you) reducing alcohol use (to help lower or control your high blood pressure)?
4. (Are you) exercising (to help lower or control your high blood pressure)?

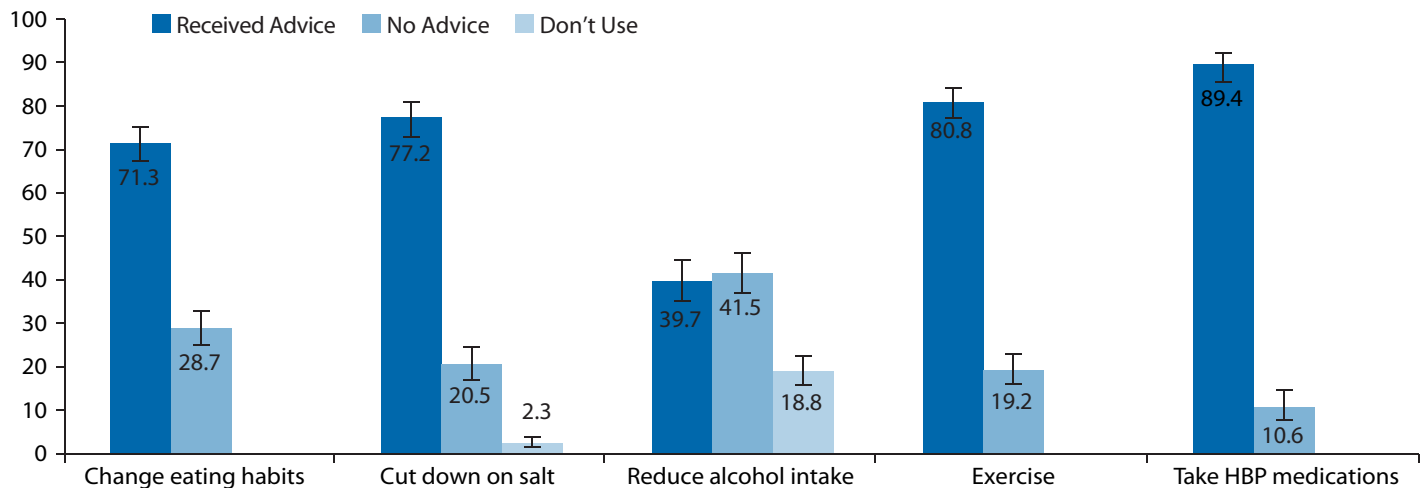
Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood pressure?

5. (Ever advised you to) change your eating habits (to help lower or control your high blood pressure)?
6. (Ever advised you to) cut down on salt (to help lower or control your high blood pressure)?
7. (Ever advised you to) reduce alcohol use (to help lower or control your high blood pressure)?
8. (Ever advised you to) exercise (to help lower or control your high blood pressure)?
9. (Ever advised you to) take medication (to help lower or control your high blood pressure)?

## Changes to BRFSS Methodology

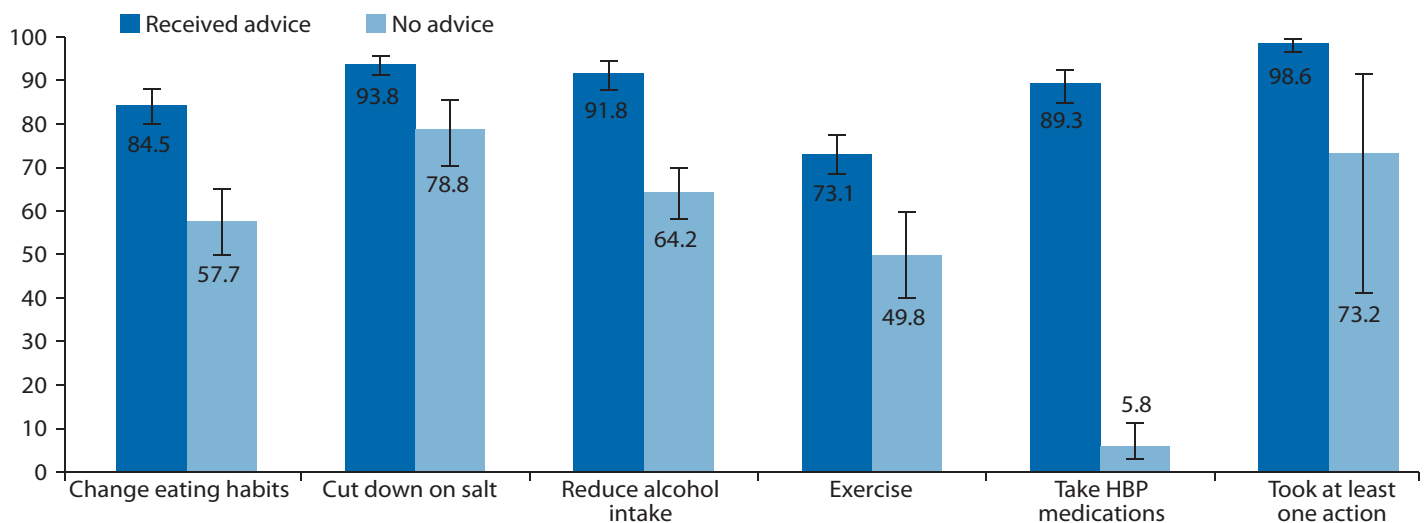
Beginning in 2011, BRFSS data includes data from interviews completed by people with cell phones in addition to interviews completed by people with landlines. The data also reflect changes in how the Centers for Disease Control and Prevention (CDC) weight the data. Weighting ensures that the data collected 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 1. Prevalence of reported advice from health professional to lower or control high blood pressure (HBP) among NYS adults: 2011 BRFSS**



Note: Error bars represent 95% confidence intervals.

**Figure 2. Prevalence of reported actions to lower or control high blood pressure (HBP) by receipt of health professional advice among NYS adults: 2011 BRFSS**



Note: Error bars represent 95% confidence intervals.

**Percentage of respondents taking selected actions to control high blood pressure (HBP) among adults told by a health professional that they have HBP<sup>a</sup>: 2011 BRFSS**

	Changing eating habits		Reducing use of or not using salt		Reducing use of or not drinking alcohol		Exercising		Taking antihypertensive medication	
	% <sup>b</sup>	95% CI <sup>b</sup>	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>New York State (NYS)</b> [n=3,058]	76.4	72.4-80.0	90.3	87.7-92.4	80.3	77.0-83.3	68.9	64.7-72.9	80.8	76.3-84.6
<b>Sex</b>										
Male	74.3	67.5-80.1	88.9	84.5-92.1	80.3	74.9-84.8	72.5	65.9-78.3	76.2	68.6-82.5
Female	78.5	74.1-82.4	91.8	88.4-94.2	80.4	76.1-84.0	65.2	59.9-70.2	85.4	80.5-89.2
<b>Age (years)</b>										
18-24	—	—	—	—	—	—	—	—	—	—
25-34	—	—	88.8	61.1-97.5	—	—	—	—	—	—
35-44	—	—	88.2	77.7-94.2	79.5	65.5-88.7	—	—	—	—
45-54	79.9	71.0-86.6	90.5	83.0-94.9	84.7	77.5-90.0	68.0	58.0-76.6	86.1	79.9-90.6
55-64	83.0	76.6-87.9	88.3	82.4-92.4	77.0	70.1-82.8	68.4	60.8-75.2	83.4	77.5-88.0
65+	72.2	66.6-77.2	92.2	89.4-94.3	79.9	75.7-83.5	67.7	61.8-73.1	94.8	92.5-96.4
<b>Race/ethnicity</b>										
White non-Hispanic	76.4	71.8-80.5	88.9	86.0-91.3	76.3	72.1-80.0	67.8	62.7-72.4	80.0	74.5-84.6
Black non-Hispanic	78.9	67.9-86.9	94.6	87.5-97.7	90.4	83.2-94.7	72.8	62.8-80.9	81.7	71.4-88.9
Hispanic	74.8	59.1-85.9	89.3	73.2-96.2	90.0	76.8-96.0	—	—	80.0	62.5-90.5
Other non-Hispanic	—	—	—	—	—	—	—	—	88.5	71.1-96.1
<b>Annual household income</b>										
<\$15,000	77.7	66.1-86.2	94.3	87.9-97.4	91.8	84.2-95.9	—	—	78.1	65.5-87.1
\$15,000-\$24,999	84.0	75.3-90.1	95.8	90.5-98.3	90.6	84.7-94.4	73.8	63.9-81.7	72.3	57.8-83.3
\$25,000-\$34,999	73.2	61.2-82.6	90.0	81.7-94.8	82.5	73.5-89.0	70.7	60.5-79.2	88.5	80.4-93.5
\$35,000-\$49,999	68.1	52.0-80.9	91.7	79.4-97.0	84.1	74.4-90.6	61.1	46.7-73.9	86.6	69.2-94.9
\$50,000-\$74,999	77.6	66.1-86.0	90.0	80.0-95.3	74.2	62.5-83.2	66.9	54.5-77.3	86.0	76.3-92.1
\$75,000 and greater	80.3	73.9-85.4	85.0	79.2-89.4	64.7	56.3-72.3	74.2	66.0-81.0	79.5	70.9-86.0
Missing <sup>c</sup>	67.7	54.6-78.5	86.2	74.6-93.0	78.8	66.7-87.4	—	—	83.1	71.7-90.5
<b>Educational attainment</b>										
Less than high school (HS)	79.4	68.5-87.2	94.8	88.2-97.8	91.9	82.8-96.4	—	—	93.7	87.7-96.9
High school or GED	80.0	72.3-86.0	92.5	87.4-95.7	82.6	76.7-87.2	69.9	62.1-76.7	79.9	70.2-87.1
Some college	72.7	64.4-79.6	89.4	82.7-93.7	80.6	73.4-86.2	69.5	61.3-76.6	75.5	66.0-82.9
College graduate	75.2	69.1-80.4	84.1	78.9-88.3	67.7	60.6-74.1	75.0	69.2-80.0	77.5	69.8-83.8
<b>Disability<sup>d</sup></b>										
Yes	75.1	67.9-81.2	92.4	89.0-94.9	83.6	78.5-87.6	60.8	53.4-67.7	78.6	69.3-85.6
No	77.1	72.3-81.3	88.8	84.9-91.8	78.2	73.6-82.3	74.4	69.1-79.0	81.8	76.8-85.9
<b>Health care coverage<sup>e</sup></b>										
Yes	75.7	71.7-79.2	89.3	86.4-91.7	79.1	75.5-82.2	68.5	64.2-72.6	83.5	79.7-86.8
No	—	—	97.7	92.8-99.3	89.7	77.9-95.6	—	—	—	—

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

<sup>e</sup> Includes health insurance, prepaid plans such as HMOs, and government plans such as Medicare.

## References

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2. Hajjar I, Kotchen TA. Trends in prevalence, awareness, treatment, and control of hypertension in the United States, 1988-2000. JAMA 2003;290:199-206.
3. Ogden LG, He J, Lydick E, Whelton PK. Long-term absolute benefit of lowering blood pressure in hypertensive patients according to the JNC VI risk stratification. Hypertension.2000;35:539-43.
4. New York State Prevention Agenda Preventing Chronic Diseases Action Plan available at: [http://www.health.ny.gov/prevention/prevention\\_agenda/2013-2017/docs/prevent\\_chronic\\_diseases.pdf](http://www.health.ny.gov/prevention/prevention_agenda/2013-2017/docs/prevent_chronic_diseases.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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