## BRFSS Brief

## Number 1911

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, 2017

## Introduction and Key Findings

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

Effective management and control of HBP decreases the incidence of heart attacks, stroke and heart failure. ${ }^{4}$ 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. ${ }^{1}$ 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. ${ }^{5}$ 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 4.6 million adults in New York State report being told by a health professional they have HBP (29.4\%). Among that group, over three-quarters (75.6\%) 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 ( $55.6 \%$ and $92.7 \%$, respectively). Diagnosed HBP is also significantly more common among non-Hispanic Black adults ( $40.1 \%$ ) compared to non-Hispanic white (28.7\%), non-Hispanic other (21.6\%) and Hispanic adults (27.4\%). Over six in ten adults with diabetes report having HBP $(67.2 \%)$, while the proportion of HBP among adults who are obese is about 2.4 times higher than the proportion among adults who are neither overweight nor obese (45.5\% 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 2017


* Those respondents who were 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.

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


[^0]Figure 2. Use of high blood pressure (HBP) medication among U.S. and New York State adults aware they had HBP*, BRFSS 2017


* Those respondents who were 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.

Figure 4. Use of high blood pressure (HBP) medication among New York State adults aware they had HBP*, by BRFSS survey year


[^1]Blood pressure among New York State adults, 2017 BRFSS

|  | Diagnosed high blood pressure ${ }^{\text {a }}$ |  | Taking medication |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \% ${ }^{\text {b }}$ | 95\% Cl ${ }^{\text {b }}$ | \% | 95\% CI |
| Total New York State (NYS) [ $\mathrm{n}=12249$ ] | 29.4 | 28.3-30.5 | 75.6 | 73.7-77.5 |
| Sex |  |  |  |  |
| Male | 31.6 | 30.0-33.2 | 70.4 | 67.6-73.1 |
| Female | 27.4 | 26.0-28.9 | 81.1 | 78.7-83.6 |
| Age (years) |  |  |  |  |
| 18-24 | 7.8 | 5.4-10.2 | 6.4 | 0.5-12.2 |
| 25-34 | 11.3 | 9.3-13.4 | 24.0 | 15.7-32.3 |
| 35-44 | 17.2 | 14.9-19.6 | 47.9 | 40.5-55.3 |
| 45-54 | 30.8 | 28.1-33.4 | 72.2 | 67.7-76.7 |
| 55-64 | 43.5 | 40.7-46.2 | 84.8 | 81.9-87.7 |
| 65+ | 55.6 | 53.3-58.0 | 92.7 | 91.2-94.3 |
| Race/ethnicity |  |  |  |  |
| White, non-Hispanic | 28.7 | 27.4-30.1 | 77.6 | 75.2-80.0 |
| Black, non-Hispanic | 40.1 | 36.7-43.5 | 75.1 | 70.4-79.9 |
| Hispanic | 27.4 | 24.8-29.9 | 70.7 | 65.8-75.6 |
| Other, non-Hispanic | 21.6 | 17.9-25.2 | 72.3 | 63.8-80.8 |
| Annual household Income |  |  |  |  |
| <\$25,000 | 36.7 | 34.2-39.1 | 76.2 | 72.8-79.7 |
| \$25,000-\$49,999 | 31.9 | 29.3-34.4 | 75.0 | 70.8-79.3 |
| \$50,000 and greater | 24.8 | 23.2-26.3 | 76.6 | 73.6-79.5 |
| Missing ${ }^{\text {c }}$ | 28.3 | 25.4-31.2 | 75.6 | 70.1-81.1 |
| Educational attainment |  |  |  |  |
| Less than high school (HS) | 34.4 | 30.9-37.9 | 77.4 | 72.4-82.3 |
| High school or GED | 31.9 | 29.6-34.1 | 77.6 | 74.2-81.1 |
| Some college | 31.0 | 28.8-33.2 | 74.0 | 70.2-77.8 |
| College graduate | 23.9 | 22.5-25.4 | 74.0 | 70.8-77.2 |
| Insurance status |  |  |  |  |
| Private | 25.4 | 23.8-27.0 | 72.5 | 69.2-75.7 |
| Medicare | 52.0 | 49.1-54.8 | 89.7 | 87.2-92.2 |
| Medicaid | 29.9 | 26.5-33.4 | 70.8 | 64.5-77.1 |
| Other insurance ${ }^{\text {d }}$ | 32.8 | 27.0-38.6 | 74.6 | 65.6-83.7 |
| No coverage | 19.5 | 16.5-22.6 | 52.4 | 43.9-60.9 |
| Disability ${ }^{\text {e }}$ |  |  |  |  |
| Yes | 46.1 | 43.5-48.6 | 82.8 | 80.0-85.6 |
| No | 24.5 | 23.3-25.6 | 71.5 | 68.9-74.0 |
| Weight status |  |  |  |  |
| Neither overweight nor obese | 19.1 | 17.6-20.7 | 69.9 | 65.6-74.2 |
| Overweight | 30.8 | 28.9-32.6 | 76.4 | 73.3-79.6 |
| Obese | 45.5 | 43.0-48.0 | 79.2 | 76.2-82.2 |
| Diabetes |  |  |  |  |
| Yes | 67.2 | 63.7-70.6 | 90.5 | 87.9-93.2 |
| No | 25.0 | 23.9-26.1 | 71.0 | 68.7-73.3 |
| Region |  |  |  |  |
| New York City (NYC) | 27.3 | 25.6-29.0 | 72.7 | 69.5-75.9 |
| NYS exclusive of NYC | 31.0 | 29.6-32.4 | 77.6 | 75.3-79.9 |

${ }^{\text {a }}$ Of those respondents who were ever told by a doctor, nurse or other health professional that they had high blood pressure.
b \% = weighted percentage; $\mathrm{Cl}=$ confidence interval.
c "Missing" category included because more than $10 \%$ of the sample did not report income.
${ }^{\text {d }}$ Includes TRICARE, VA/Military, and Indian Health Services.
e 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
2. American Heart Association. AHA Statistical Update: Heart Disease and Stroke Statistics 2017 Update. Circulation. 2017; 135:e1-e458.
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4. Fryar CD, Ostchega Y, Hales CM, Zhang G, Kruszon-Moran D. Hypertension Prevalence and Control Among Adults: United States, 20152016. 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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[^0]:    * Those respondents who were ever told by a doctor, nurse, or other health professional that they had HBP.
    Note: Error bars represent $95 \%$ confidence intervals.

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