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.

## Cardiovascular Disease

## New York State Adults, 2012

## Introduction and Key Findings

Cardiovascular disease (CVD) is a group of diseases involving the circulatory system and includes stroke and heart disease. Heart disease and stroke are major causes of disability. CVD is the leading cause of death in New York State (NYS), accounting for almost 40 percent of all deaths statewide ${ }^{1,2}$; it is also the leading cause of preventable death in people less than 65 years of age. ${ }^{3}$ Coronary heart disease (CHD), the most common type of CVD, occurs when plaque builds up and narrows the arteries that supply blood to the heart. Heart attack (also called acute myocardial infarction) occurs when an artery becomes completely blocked, resulting in lack of blood flow to the heart. Angina refers to pain or discomfort in the chest that occurs when some part of the heart does not receive enough blood and is a common symptom of CHD. A stroke (cerebrovascular disease) occurs when a clot blocks the blood supply to the brain or when a blood vessel bursts causing internal bleeding in the brain.

Never starting to smoke or quitting, being physically active, eating well, and being tested and treated for high blood pressure, elevated cholesterol and diabetes are all actions that can prevent CVD.

## KEY FINDINGS

An estimated 1,213,000 adults (7.9\%) in NYS reported they have had a heart attack, angina/CHD, or stroke. The proportion of adults reporting a heart attack, angina/CHD or stroke approximately doubled for each decade of life; for those aged 65 and older, one out of five New Yorkers reported having had some type of CVD (Table 1). Men, adults with less than a high school education, and adults with Medicare were more likely to report a heart attack, angina/CHD or stroke than women, adults with a high school education or more, and adults with health care coverage types other than Medicare. The prevalence of cardiovascular disease reported among adults living with disabilities (22\%) was more than five times greater than the prevalence reported among adults living without disabilities (4.2\%).

## BRFSS questions

Has a doctor, nurse, or other health professional ever told you that you had any of the following?

1. [Ever told] you had a heart attack, also called a myocardial infarction?
2. [Ever told] you had angina or coronary heart disease?
3. [Ever told] you had a stroke?

Figure 1. Prevalence of heart attack or angina/CHD among New York State adults, by BRFSS survey year


Note: Error bars represent 95\% confidence intervals.
Figure 2. Prevalence of stroke among New York State adults, by BRFSS survey year


Note: Error bars represent 95\% confidence intervals.
Figure 3. Prevalence of cardiovascular disease (heart attack, angina/CHD, stroke) among New York State adults, by BRFSS survey year


Note: Error bars represent $95 \%$ confidence intervals.

History of cardiovascular disease (self-reported heart attack, angina/CHD, or stroke) among New York State adults: 2012 BRFSS

|  | Heart attack |  | Angina/CHD |  | Heart Attack or Angina/CHD |  | Stroke |  | Heart attack, angina/CHD, or stroke |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% ${ }^{\text {a }}$ | 95\% Cla | \% ${ }^{\text {a }}$ | 95\% Cla | \% ${ }^{\text {a }}$ | 95\% Cla | \% ${ }^{\text {a }}$ | 95\% Cla | \% ${ }^{\text {a }}$ | 95\% Cla |
| New York State (NYS) $[\mathrm{n}=6,060]$ | 4.2 | 3.5-4.9 | 4.6 | 3.9-5.5 | 6.7 | 5.8-7.7 | 2.6 | 2.0-3.3 | 7.9 | 7.0-9.0 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male | 5.5 | 4.3-6.9 | 5.7 | 4.6-7.0 | 8.2 | 5.8-7.7 | 2.7 | 1.8-4.1 | 9.0 | 7.6-10.6 |
| Female | 2.9 | 2.2-3.9 | 3.7 | 2.8-4.9 | 5.3 | 4.3-6.6 | 2.5 | 1.9-3.3 | 7.0 | 5.8-8.4 |
| Age (years) |  |  |  |  |  |  |  |  |  |  |
| 18-24 | 0.0 | - | 0.4 | 0.1-2.0 | 0.5 | 0.1-2.0 | 0.0 | - | 0.5 | 0.1-2.0 |
| 25-34 | 0.2 | 0.04-0.9 | 0.5 | 0.3-1.7 | 0.6 | 0.2-1.8 | 0.1 | 0.01-0.8 | 0.7 | 0.3-1.8 |
| 35-44 | 0.6 | 0.3-1.4 | 0.5 | 0.1-1.5 | 1.1 | 0.5-2.1 | 1.5 | 0.6-3.8 | 2.4 | 1.3-4.6 |
| 45-54 | 3.1 | 1.8-5.1 | 3.3 | 1.9-5.8 | 5.3 | 3.4-8.2 | 2.0 | 0.9-4.3 | 6.1 | 4.1-9.0 |
| 55-64 | 8.7 | 6.2-12.2 | 9.2 | 6.7-12.5 | 12.0 | 9.2-15.5 | 5.9 | 3.6-9.5 | 13.9 | 11.0-17.5 |
| 65+ | 11.0 | 8.8-13.6 | 12.9 | 10.4-15.9 | 18.6 | 15.7-21.8 | 5.7 | 4.4-7.3 | 21.7 | 18.8-25.0 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |  |
| White, non-Hispanic | 4.2 | 3.5-5.0 | 4.8 | 4.2-5.5 | 6.9 | 6.1-7.8 | 2.3 | 1.8-2.8 | 8.1 | 7.3-9.1 |
| Black, non-Hispanic | 3.1 | 1.6-5.9 | 3.4 | 1.8-6.3 | 4.4 | 2.7-7.3 | 3.0 | 1.8-4.7 | 6.5 | 4..4-9.5 |
| Hispanic | 3.9 | 2.2-6.6 | 3.6 | 2.3-5.6 | 6.4 | 4.3-9.3 | 3.2 | 1.6-6.2 | 7.4 | 5.2-10.5 |
| Other, non-Hispanic | 4.6 | 1.8-11.5 | 6.2 | 2.7-13.8 | 8.3 | 4.2-15.8 | 3.7 | 1.2-10.7 | 9.4 | 5.0-16.9 |
| Annual household Income |  |  |  |  |  |  |  |  |  |  |
| <\$15,000 | 8.0 | 5.5-11.6 | 6.9 | 4.9-9.6 | 11.2 | 8.3-15.0 | 6.3 | 3.9-10.2 | 14.5 | 11.1-18.7 |
| \$15,000-\$24,999 | 5.2 | 3.7-7.2 | 6.2 | 4.2-9.2 | 8.9 | 6.5-12.0 | 3.9 | 2.6-5.9 | 10.5 | 8.0-13.7 |
| \$25,000-\$34,999 | 5.4 | 2.9-9.7 | 5.3 | 3.0-9.1 | 7.5 | 4.8-11.7 | 2.7 | 1.3-5.3 | 8.7 | 5.8-12.9 |
| \$35,000-\$49,999 | 3.5 | 2.3-5.1 | 5.2 | 3.1-8.4 | 7.3 | 5.0-10.6 | 2.2 | 1.0-4.6 | 8.8 | 6.1-12.4 |
| \$50,000-\$74,999 | 3.2 | 2.2-4.7 | 3.4 | 2.4-4.9 | 4.6 | 3.4-6.3 | 2.2 | 1.2-3.9 | 6.0 | 4.5-8.1 |
| \$75,000 and greater | 1.6 | 1.1-2.3 | 3.1 | 2.0-4.6 | 3.9 | 2.8-5.4 | 0.2 | 0.3-1.1 | 4.3 | 3.1-5.8 |
| Missing ${ }^{\text {b }}$ | 5.3 | 3.1-9.0 | 4.5 | 2.5-7.8 | 6.9 | 4.5-10.5 | 2.8 | 1.2-6.4 | 7.7 | 5.2-11.2 |
| Educational attainment |  |  |  |  |  |  |  |  |  |  |
| Less than high school (HS) | 7.1 | 4.7-10.7 | 7.5 | 5.0-11.2 | 11.6 | 8.4-15.8 | 4.7 | 2.8-7.9 | 13.2 | 9.9-17.5 |
| High school or GED | 5.9 | 4.4-8.1 | 5.1 | 3.7-7.0 | 7.8 | 6.0-9.9 | 3.5 | 2.3-5.5 | 9.3 | 7.5-11.5 |
| Some college | 3.2 | 2.4-4.1 | 4.7 | 3.3-6.6 | 6.1 | 4.6-8.0 | 1.9 | 1.3-2.6 | 7.0 | 5.4-8.9 |
| College graduate | 1.8 | 1.3-2.3 | 2.7 | 2.2-3.5 | 3.6 | 3.0-4.4 | 1.4 | 0.8-2.3 | 4.8 | 3.9-5.9 |
| Disability ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |
| Yes | 12.5 | 9.8-15.9 | 12.6 | 10.0-15.7 | 18.2 | 15.2-21.7 | 9.0 | 6.7-12.2 | 22.0 | 18.8-25.6 |
| No | 1.9 | 1.6-2.4 | 2.6 | 2.0-3.4 | 3.7 | 3.0-4.5 | 0.9 | 0.6-1.2 | 4.2 | 3.5-5.1 |
| Health care coverage type |  |  |  |  |  |  |  |  |  |  |
| Private | 2.2 | 1.6-3.1 | 3.3 | 2.4-4.5 | 4.1 | 3.2-5.3 | 0.9 | 0.6-1.4 | 4.7 | 3.8-6.0 |
| Medicare | 11.6 | 8.5-15.5 | 13.0 | 9.7-17.3 | 18.4 | 14.7-22.9 | 8.7 | 5.9-12.7 | 22.3 | 18.3-26.9 |
| Medicaid | 7.5 | 4.3-12.8 | 6.6 | 4.1-10.4 | 11.6 | 7.6-17.3 | 5.6 | 2.7-11.2 | 13.1 | 8.9-18.8 |
| Other government assistance pland | 4.6 | 2.8-7.6 | 4.2 | 2.4-7.3 | 6.7 | 4.3-10.3 | 1.4 | 0.6-3.2 | 7.1 | 4.6-10.8 |
| Other sources | 4.7 | 2.7-8.1 | 4.2 | 2.5-6.9 | 6.4 | 4.1-9.8 | 3.1 | 1.5-6.2 | 7.8 | 5.2-11.6 |
| Not insured | 0.8 | 0.3-2.2 | 1.9 | 0.8-4.5 | 2.5 | 1.2-5.0 | 0.1 | 0.01-0.8 | 2.6 | 1.3-5.1 |

a $\%=$ weighted percentage; $\mathrm{Cl}=$ confidence interval.
b "Missing" category included because more than $10 \%$ of the sample did not report income.
c All respondents who report activity limitations due to physical, mental, or emotional reasons OR have health problems that require the use of special equipment.
${ }^{d}$ includes Family Health Plus, Military, and Indian Health Services

## References

1. Cardiovascular Disease Mortality in New York State, Results from the New York State Vital Records Death Statistics and the Bureau of Vital Statistics New York City Department of Health and Mental Hygiene. Available at: http://www.health. ny.gov/ diseases/cardiovascular/heart_disease/ docs/cvd_mortality.pdf Accessed September 3, 2012
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3. Roger VL, et al. Heart Disease and Stroke Statistics 2012 Update. A Report From the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Circulation. 2012;125(1):e2e220. Available at: http://circ.ahajournals.org/ content/early/2011/12/15/ CIR.0b013e31823ac046 Accessed September 4, 2012.

## Program Contributions

New York State Department of Health
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Bureau of Community Chronic Disease Prevention

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