

At A Glance 2016

Heart Disease and Stroke

Preventing the Nation's Leading Killers



Heart disease and stroke—the first and fifth leading causes of death in the United States—are among the most widespread and costly health problems facing our nation today. They are also among the most preventable. About half (47%) of US adults have at least one of three

major risk factors for cardiovascular disease (CVD), which includes heart disease, stroke, and related conditions: uncontrolled high blood pressure, uncontrolled high LDL (low-density lipoprotein) cholesterol, or current smoking. Controlling these factors could reduce a person's risk of heart attack or stroke by up to 80%.

CDC translates prevention research into public health practice and provides national leadership to help prevent heart disease and stroke. The agency has funded prevention programs in the United States since 1998 and also funds national data collection, applied research, and evaluation efforts.

Public Health Problem

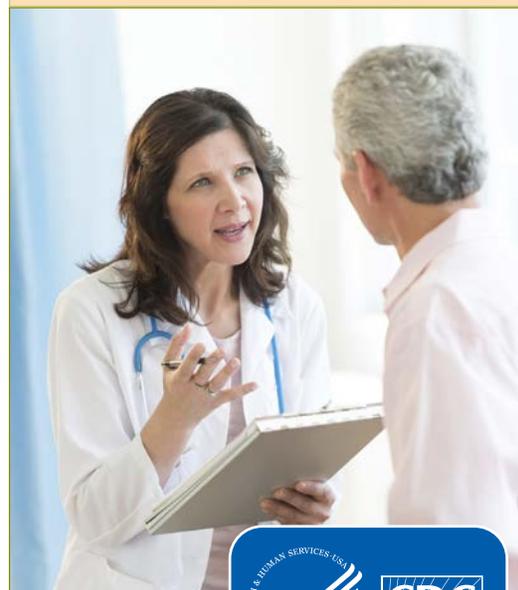
Staggering Costs of Cardiovascular Disease

Every 40 seconds, an adult dies of a heart attack, stroke, or related disease. These deaths account for about 31% of all US deaths each year—more than 800,000 people in 2014. About 20% of these deaths were among people younger than 65. Heart disease and stroke kill roughly the same number of people in the United States each year as cancer and chronic lower respiratory diseases combined. Heart disease and stroke can also lead to serious illness, disability, and lower quality of life.

The economic costs of CVD are high—more than \$317 billion each year. Direct medical expenses were \$193.1 billion per year on average during 2011–2012, and another \$123.5 billion annually was attributed to lost productivity due to premature death from CVD. Treatment of CVD accounts for about \$1 of every \$6 spent on health care in this country.

Fast Facts

- ◆ Every 42 seconds, someone in the United States has a heart attack, and every 4 minutes, someone dies of stroke.
- ◆ About half of US adults have at least one major risk factor for cardiovascular disease (CVD).
- ◆ 1 in 3 deaths in the United States in 2014 were due to CVD.
- ◆ CVD cost the United States an average of \$317 billion annually during 2011–2012.
- ◆ CDC funds efforts in all 50 states and the District of Columbia to prevent heart disease and stroke.



Health Disparities in Cardiovascular Disease

CVD is the leading cause of death for people of most racial and ethnic groups in the United States, but risk is highest for certain racial minority groups. African Americans have the highest prevalence of high blood pressure of all US population groups, and nearly half of all African American men and women have some form of CVD. African Americans are twice as likely as whites to die of preventable heart disease and stroke. CDC recognizes these disparities and focuses on strategies to reduce them.

CDC's Response

The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works in four key areas or domains to decrease the burden of CVD: epidemiology and surveillance, environmental approaches, health care system interventions, and community programs linked to clinical services. This comprehensive approach supports healthy choices and behaviors, makes healthier options more available, and helps Americans better manage their health.

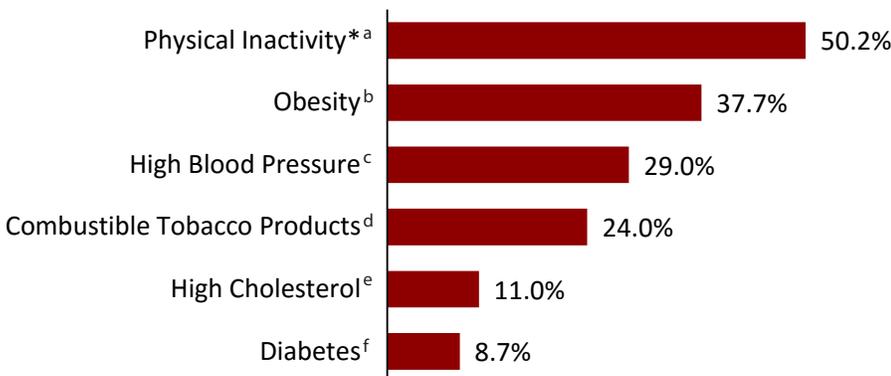
CDC works with partners such as state and local public health agencies, other federal agencies, universities, and community organizations to improve cardiovascular health in the United States. With \$185 million in FY 2016 funding, CDC's Division for Heart Disease and Stroke Prevention supports these efforts by focusing its activities in all four of NCCDPHP's domains through programs at the state, local, and tribal levels.

All 50 states, the District of Columbia, and four large cities receive funding to prevent, manage, and reduce heart disease and stroke. The programming focuses on reducing risk factors for chronic diseases,

"Our aim is to prevent heart disease and stroke for all Americans, making sure to direct our resources to high-burden populations and keeping a focus on younger generations to maintain heart and brain health across their lifespan."

*Wayne H. Giles, MD, MS
Director, Division for Heart Disease and Stroke Prevention*

Prevalence of Cardiovascular Disease Risk Factors, United States



* Refers to the percentage of adults not getting the equivalent of moderate-intensity physical activity for ≥ 150 minutes/week.

Sources: ^a National Health Information Survey (NHIS), 2015; ^b National Health and Nutrition Examination Survey (NHANES), 2013–2014; ^c NHANES, 2011–2014; ^d National Survey on Drug Use and Health, 2013–2014; ^e NHANES, 2013–2014; ^f NHIS, 2015.



including heart disease and stroke, as well as reducing health disparities through community and health system interventions.

Other major programs are:

- ◆ [Comprehensive Approach to Good Health and Wellness in Indian Country](#). CDC partners with 12 tribes, 11 tribal organizations, and 12 tribal epidemiology centers for this 5-year program designed to adapt cultural practices and behaviors to improve health outcomes.
- ◆ [Sodium Reduction in Communities](#). This program funds 8 sites across the country to reduce sodium intake as part of sustainable, comprehensive strategies to improve the food environment.
- ◆ [WISEWOMAN](#). This program funds 19 states and 2 tribal-serving organizations to provide low-income, underinsured, or uninsured women aged 40 to 64 with chronic disease risk factor screening, risk reduction counseling, lifestyle programs, and referral services.
- ◆ [Paul Coverdell National Acute Stroke Program](#). CDC funds 9 states through this program to develop, set up, and improve systems for collecting data on patients who have a stroke.
- ◆ [Million Hearts®](#). This initiative promotes a small set of changes that can be made in communities and health care systems to prevent 1 million strokes and heart attacks over 5 years.

Epidemiology and Surveillance

CDC tracks trends in cardiovascular risk factors and diseases and shares data in a variety of formats, such as maps, scientific articles, and computer-based tools. The agency manages the [Interactive Atlas of Heart Disease and Stroke](#), a resource that state and local health departments can use to track CVD and associated risk factors, like diabetes, obesity, and physical inactivity, at national, state, and local levels. The atlas is also used for trainings and web-based education. In addition, CDC advises and collaborates with heart disease and stroke program grantees and other external partners on best practices for collecting surveillance data and using it to guide public health strategies.

The Atlas includes social and economic data at the subcounty level, which allows users, especially state and local health departments, to better understand the context for their programs or policies. As a result, the site had a 15% increase in views in the first year of including this information. CDC continues to add county-level data and new tools to help users explore data and compare and analyze data sets.

Environmental Approaches

CDC and its partners are working to make environments healthier for people who are at the greatest risk for heart disease and stroke. Strategies that can help reduce heart attacks and strokes include creating smoke-free environments and increasing access to healthier

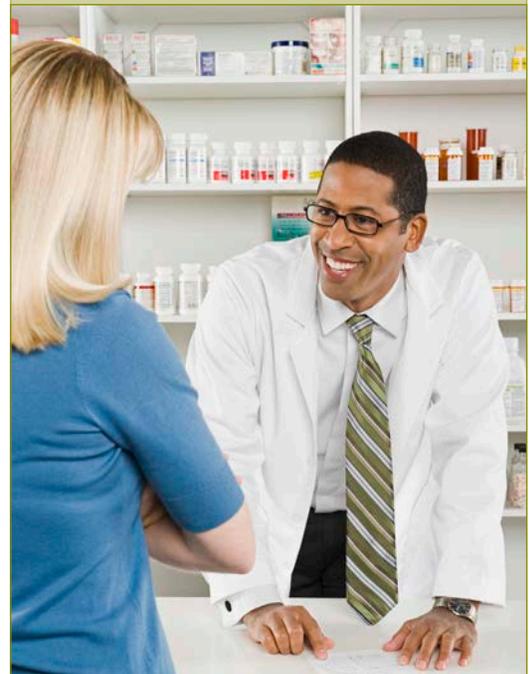
CDC Awardees Focus on Team-Based Approach to Care

Forty-one states funded by CDC are working with health care systems to encourage a multidisciplinary team approach to blood pressure control.

Rhode Island, a State and Local Public Health Actions awardee, has used its funding to implement this approach through local policies or systems.

Activities include bi-directional referrals, which link patients to community and clinical resources, promotion of patient and clinician-focused tools and resources, lifestyle change programs with community health workers, and medication therapy management programs with community pharmacies.

From February 2015 to June 2018, over 48,000 more patients in Rhode Island will be served by health care systems that use a team-based care approach to blood pressure control.



foods, including foods with less sodium. CDC's funded heart disease and stroke programs are using some or all of these strategies in all 50 states and the District of Columbia.

Through the Sodium Reduction in Communities Program, the San Antonio Metropolitan Health District worked with a private worksite cafeteria to reduce sodium in menu offerings. The cafeteria, which serves more than 800 employees, reduced the average sodium content in menu items by about 22%, from 1,040 mg to 811 mg per entrée. These changes made a difference in 28 of 44 meals and sides offered in three of seven cafeteria food stations, broadening healthy options.

Health Care System Interventions

CDC funds state and local programs and key partner organizations to implement health care system activities for heart disease and stroke prevention. These activities focus on achieving excellence in the ABCS (Aspirin when appropriate, Blood pressure control, Cholesterol management, and Smoking cessation) and include:

- ◆ Improving use of health information technology, especially to find patients with high blood pressure who are not yet diagnosed.
- ◆ Using team-based care to better manage heart disease and stroke and associated risk factors.
- ◆ Adopting clinical blood pressure control protocols.
- ◆ Improving medication adherence.

Community Programs Linked to Clinical Services

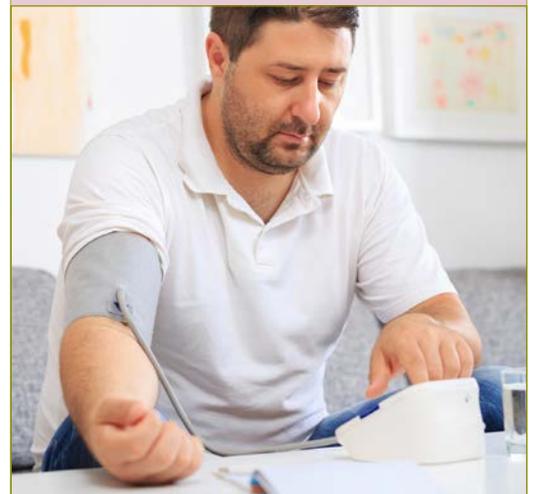
Linking community programs to clinical services can increase and improve access to the resources people need to prevent and manage heart disease and stroke. Grantees of CDC's WISEWOMAN, State Public Health Actions, State and Local Public Health Actions, and Comprehensive Approach to Good Health and Wellness in Indian Country programs are working to increase community-clinical links by partnering with community groups that provide evidence-based lifestyle programs, implementing and improving community resource referral systems, and increasing use of community health care extenders to support self-management of blood pressure.

For example, YMCA of the USA receives Million Hearts® funding to support and engage people with high blood pressure in a self-measured blood pressure monitoring program, including individualized support from trained "Healthy Heart Ambassadors." Patients share their blood pressure readings with their health care providers during clinic visits, by phone, or electronically. These measurements are monitored and used in treatment decisions to improve blood pressure control. The pilot program included nearly 1,600 participants. Patients who participated for more than 2 months significantly reduced their blood pressure. The program now has nearly 1,900 participants through 43 YMCA associations in 25 states.

Future Directions

CDC will continue to identify strategies to improve blood pressure control, stroke care, and sodium reduction to help prevent and manage heart disease and stroke. In support of these strategies, CDC will invest in state, local, and tribal programs to build practice-based evidence and demonstrate the effectiveness of evidence-based strategies for heart disease and stroke prevention.

CDC is committed to keeping the federal and national focus on the most effective strategies for preventing heart attacks and strokes through the Million Hearts® initiative, building on the successes and lessons learned from the conclusion of this 5-year campaign in 2016 to launch a new, bold, and engaging campaign in pursuit of greater impact to prevent heart disease and stroke.



For more information, contact

Centers for Disease Control and Prevention
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1-800-CDC-INFO (232-4636); TTY: 1-888-232-6348

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