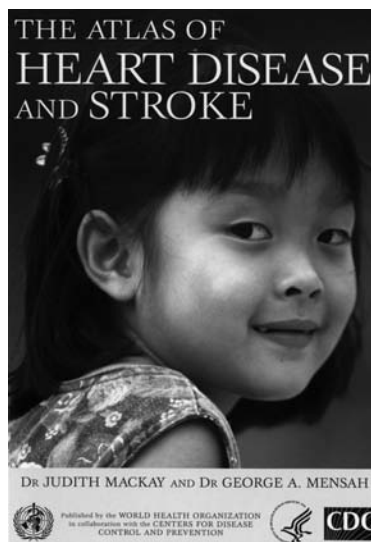
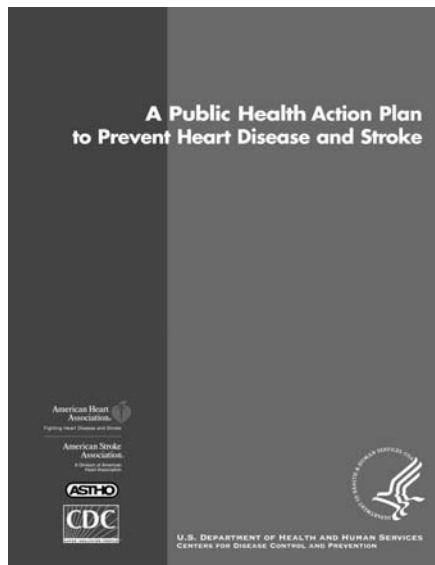


Preventing Heart Disease and Stroke

Addressing the Nation's Leading Killers

2005

Prevention Works: Strategies for a Heart-Healthy and Stroke-Free America



"[We] cannot afford to lose sight of the growing social and economic threats posed by cardiovascular diseases. The population-wide application of existing knowledge has the potential to make a major, rapid and cost-effective contribution to the prevention and control of cardiovascular disease and to benefit all segments of the population."

*The World Health Report 2003: Shaping the Future
World Health Organization*

Heart Disease and Stroke: The Nation's Leading Killers

Deaths, Disability, and Cost

Heart disease and stroke—the principal components of cardiovascular disease—are the first and third leading causes of death for both men and women in the United States, accounting for nearly 40% of all deaths. Over 927,000 Americans die of cardiovascular disease each year, which amounts to 1 death every 34 seconds. Although these largely preventable conditions are more common among people aged 65 years or older, the number of sudden deaths from heart disease among people aged 15–34 has increased.

In addition, more than 70 million Americans (over one-fourth of the population) live with a cardiovascular disease. Coronary heart disease is a leading cause of premature, permanent disability in the U.S. workforce. Stroke alone accounts for disability among more than 1 million Americans. Over 6 million hospitalizations each year are due to cardiovascular disease.

The economic impact of cardiovascular disease on the U.S. health care system continues to grow as the population ages. The cost of heart disease and stroke in the United States is projected to be \$394 billion in 2005, including health care expenditures and lost productivity from death and disability.

Risk Factors Must Be Addressed

Two of the major independent risk factors for cardiovascular disease are high blood pressure and high blood cholesterol.

- During 1999–2000, nearly 30% of U.S. adults had high blood pressure (hypertension), and another 31% had prehypertension. In addition, the estimated direct and

indirect cost of high blood pressure is \$59.7 billion in 2005. A 12–13 point reduction in blood pressure can reduce heart attacks by 21%, strokes by 37%, and all deaths from cardiovascular disease by 25%.

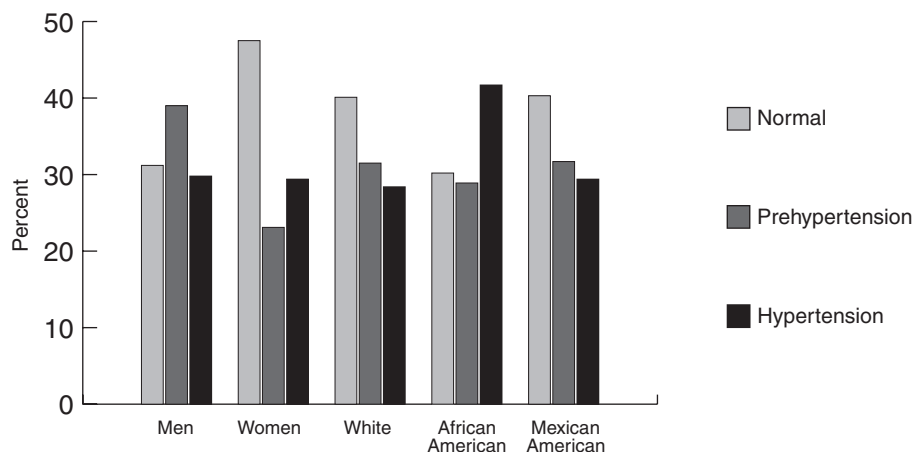
- More than 80% of people with high blood cholesterol do not have it under control. A 10% decrease in total blood cholesterol levels may reduce the incidence of coronary heart disease by as much as 30%.

A key strategy for addressing these risk factors is to educate the public and health care practitioners about the importance of prevention. Current guidelines recommend that all adults have their blood pressure checked regularly and their blood cholesterol levels checked every 5 years. Systems changes are also needed to help practitioners adhere to guidelines for treating patients with or at risk for heart disease and stroke, such as prescribing beta-blockers and aspirin. Preventive actions can help people with any level of blood pressure or cholesterol reduce their risk.

People also need to be educated about the signs and symptoms of heart attacks and stroke and the importance of calling 911 quickly. Forty-seven percent of heart attack victims and about the same percentage of stroke victims die before emergency medical personnel arrive.

Other important risk factors for heart disease and stroke—such as diabetes, tobacco use, physical inactivity, poor nutrition, and overweight and obesity—need to be addressed through lifestyle changes and appropriate use of medications.

Percentage of People with Normal Blood Pressure, Prehypertension, and Hypertension,* 1999–2000



* Age-adjusted to the 2000 U.S. standard population. Source: Greenlund et al. *Archives of Internal Medicine* 2004;164(19):2113–8.

State Programs and Key Partnerships

State Heart Disease and Stroke Prevention Programs

With support from CDC, states are conducting a range of activities to reduce the burden of heart disease and stroke, including the following:

- As part of the National Health Disparities Collaborative, partnering with the Health Resources and Services Administration and health care centers to help these centers better manage high blood pressure among underserved populations.
- Establishing policies to treat stroke as an emergency in hospitals, provide diagnostic evaluation immediately and treatment within 3 hours, and have a neurologist on call at all times.
- Providing work site detection and follow-up services to control high blood pressure and high blood cholesterol among workers.
- Using educational initiatives to raise awareness of the signs and symptoms of heart attack and stroke and the need to call 911 immediately.
- Funding the Tri-State Stroke Network, Delta State Stroke Network, and Stroke Belt Elimination Initiative to increase prevention activities and enhance interstate collaborations.

Collaborations Are Key to Success

Internally, CDC fosters collaboration in cardiovascular health by linking five components of the National Center for Chronic Disease Prevention and Health Promotion and the clinical chemistry laboratory of the National Center for Environmental Health. This collaboration allows for better communication and coordination of activities across CDC.

Future Challenges and Directions

CDC will continue to provide national leadership to prevent death and disability from heart disease and stroke and to eliminate disparities in health and health care. In this leadership role, CDC will work with partners to fully implement *A Public Health Action Plan to Prevent Heart Disease and Stroke*. Priorities will be to build the public health foundation for translating science into practice, to address disparities in quality years

State Programs in Action

Wisconsin Cardiovascular Health Program

Wisconsin worked with 20 health plans to collect Health Plan Employer Data and Information Set (HEDIS) measures related to cardiovascular health. On the basis of these data, health plans put into place strategies to improve blood pressure control among clients. As a result, a 21% relative increase was reported in the percentage of patients who had their blood pressure under control, going from 48% in 2000 to 58% in 2001.

South Carolina Cardiovascular Health Program

South Carolina collaborated with local community partners to promote heart health in African American communities. Several faith organizations implemented culturally appropriate policy and environmental strategies designed to reduce high blood pressure and high blood cholesterol levels and to prevent tobacco use among their members.

Montana Cardiovascular Health Program

Montana launched a public education campaign in the Great Falls area to teach people the signs and symptoms of stroke. State officials also are working with local hospital and health systems, a stroke task force, and local fire and ambulance services to improve emergency medical services and hospital responses to stroke victims.

New York Cardiovascular Health Program

New York assesses work sites using a Heart Check tool and helps employers make changes to promote the heart health of their employees. After an initial 3-year intervention, participating work sites had increased environmental and policy supports for heart health 65%.

of healthy life by ensuring the availability of basic essential services, and to fund the 18 unfunded states to help prevent heart disease and stroke among all Americans.

For more information or additional copies of this document, please contact
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K-47
4770 Buford Highway NE, Atlanta, GA 30341-3717
Telephone: (770) 488-2424 • Fax: (770) 488-8151
E-mail: ccdinfo@cdc.gov • Web: <http://www.cdc.gov/cvh>