

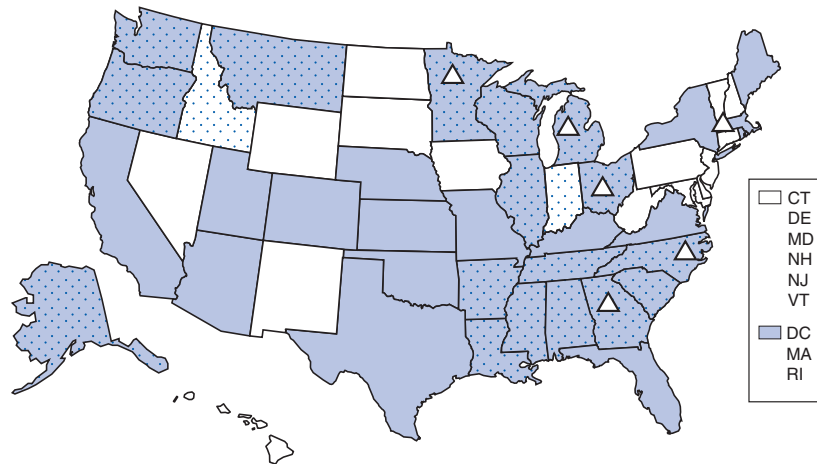


Division for Heart Disease and Stroke Prevention

Addressing the Nation's Leading Killers

2008

CDC-Funded Heart Disease and Stroke Prevention Programs, 2007



State Heart Disease and Stroke Prevention Programs

- No funding
- Funded states

Other Programs in the States

- Paul Coverdell National Acute Stroke Registries (6)
- Stroke Networks in funded states*

* Delta States Stroke Consortium (Alabama, Arkansas, Louisiana, Mississippi, Tennessee), Great Lakes Stroke Network (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Northwest Regional Stroke Network (Alaska, Idaho, Montana, Oregon, Washington), and Tri-State Stroke Network (Georgia, North Carolina, South Carolina).

“Established in 2006, the Division for Heart Disease and Stroke Prevention represents CDC’s public health response to our nation’s first and third leading causes of death and major contributors to disability, health disparities, and health care costs. Our mission is to serve as the nation’s public health leader for achieving cardiovascular health for all and reducing the burden and disparities in heart disease and stroke.”

Darwin R. Labarthe, MD, MPH, PhD
Director, Division for Heart Disease and Stroke Prevention, Centers for Disease Control and Prevention

February 2008

Heart Disease and Stroke: The Nation's Leading Killers

The Costs: Lives and Dollars

Heart disease and stroke are the most common cardiovascular diseases. They are the first and third leading causes of death for both men and women in the United States, accounting for more than 35% of all deaths. More than 870,000 Americans die of heart disease and stroke every year, which is about 2,400 people dying every day. Although these largely preventable conditions are more common among older adults, more than 148,000 (17%) of Americans who died of cardiovascular diseases in 2004 were younger than age 65 years. Heart disease and stroke also are among the leading causes of disability in the U.S. workforce. Nearly one million people are disabled from strokes alone.

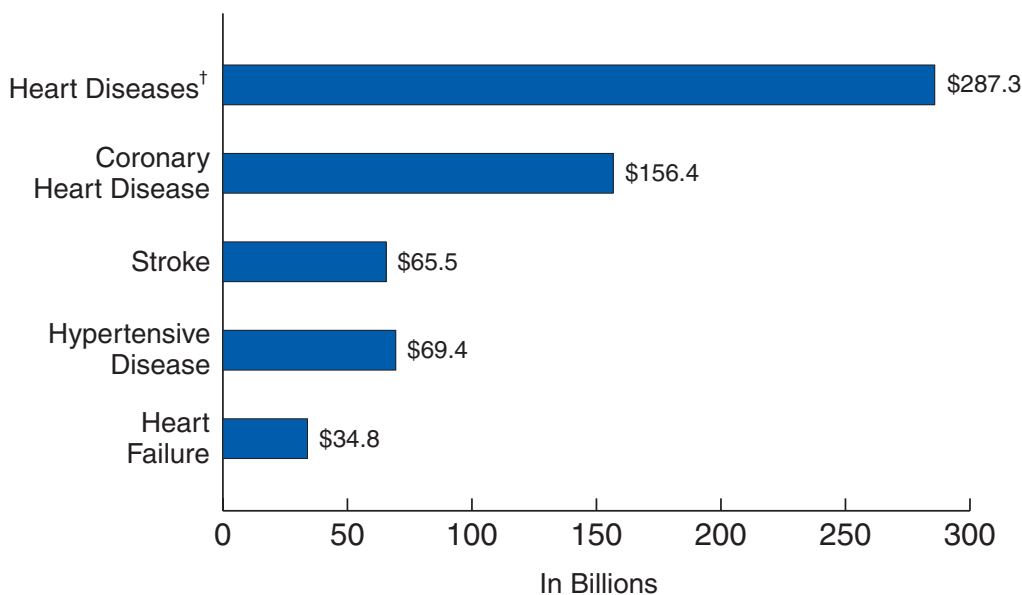
The burden of heart disease and stroke should not only be measured by death and disability. More than 80 million (1 in 3) Americans currently live with one or more types of cardiovascular disease. This figure includes 73 million people with high blood pressure, 5.8 million who have suffered a stroke, 5.3 million with heart failure, 8.1 million who have had a heart attack, and 9.1 million who suffer from regular chest pain (angina pectoris). This year alone, more than 920,000 people will have a heart attack (myocardial infarction) and an additional 780,000 will have a stroke. In total, more than 6 million hospitalizations occur each year because of cardiovascular diseases. Americans also make more

than 81 million doctor visits every year because of cardiovascular diseases. The cost of heart disease and stroke in the United States is projected to be more than \$448 billion in 2008, including health care expenditures and lost productivity from death and disability. As the population ages, the economic impact of cardiovascular diseases on our nation's health care system will become even greater.

The Cure: Prevention and Early Detection

Heart disease and stroke are among the most widespread and costly health problems facing our nation today, yet they are also among the most preventable. Leading a healthy lifestyle (avoiding tobacco, being physically active, and eating well) greatly reduces a person's risk of developing heart disease or stroke. Preventing and controlling high blood pressure and high cholesterol also can have a significant impact on cardiovascular health. For example, researchers estimate that a 10% decrease in total cholesterol levels in the U.S. population would translate into an estimated 30% decrease in heart disease across the nation. Public health strategies and policies that promote healthy living, encourage healthy environments, and promote control of blood pressure and cholesterol levels are key to improving the public's health and saving lives. Ensuring that all Americans have access to early, affordable, and appropriate treatment is also essential to reducing disability and costs.

**Estimated Direct and Indirect Costs of Major Cardiovascular Diseases and Stroke*
United States, 2008**



* Totals do not add up because of rounding and overlap.

[†] Includes coronary heart disease, congestive heart failure, part of hypertensive disease, cardiac dysrhythmias, rheumatic heart disease, cardiomyopathy, pulmonary heart disease, and other or ill-defined "heart" diseases.

Source: American Heart Association. *Heart Disease and Stroke Statistics—2008 Update*.

CDC's Leadership in Heart Disease and Stroke Prevention

CDC is committed to ensuring that all people, especially those at greater risk for health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life. With agency-wide health protection goals that support healthy people in healthy places across all life stages, CDC is setting the agenda to enable people to enjoy a healthy life by delaying death and the onset of illness and disability by accelerating improvements in public health.

The Division for Heart Disease and Stroke Prevention is CDC's response to the epidemic of heart disease and stroke facing our nation. We provide national leadership to reduce the burden of disease, disability, and death from heart disease and stroke for all Americans. With fiscal year 2008 funding of \$50.1 million, we fund state departments of health to conduct heart disease and stroke prevention programs at state and local levels. We also conduct public health research, develop resources, and evaluate programs to help advance state and local efforts. The foundation of our planning efforts is built on *A Public Health Action Plan to Prevent Heart Disease and Stroke Prevention*, a landmark document created by CDC and its national partners to guide the nation's cardiovascular health promotion strategies.

State Heart Disease and Stroke Prevention Programs

Through our state programs, we currently fund and support 33 State Heart Disease and Stroke Prevention Programs, as well as the District of Columbia. Funded states promote policy and systems-level changes to control high blood pressure and high cholesterol in health care, work site, and community settings.

In addition, states also work to increase awareness of the signs and symptoms of heart attack and stroke, promote the importance of calling 911 immediately after symptoms begin, improve emergency response and quality of care, and address health disparities among population groups at high risk. Examples of state activities include

- Helping health care providers make system changes designed to improve heart

health outcomes—for example, increasing the number of people who have their blood pressure under control.

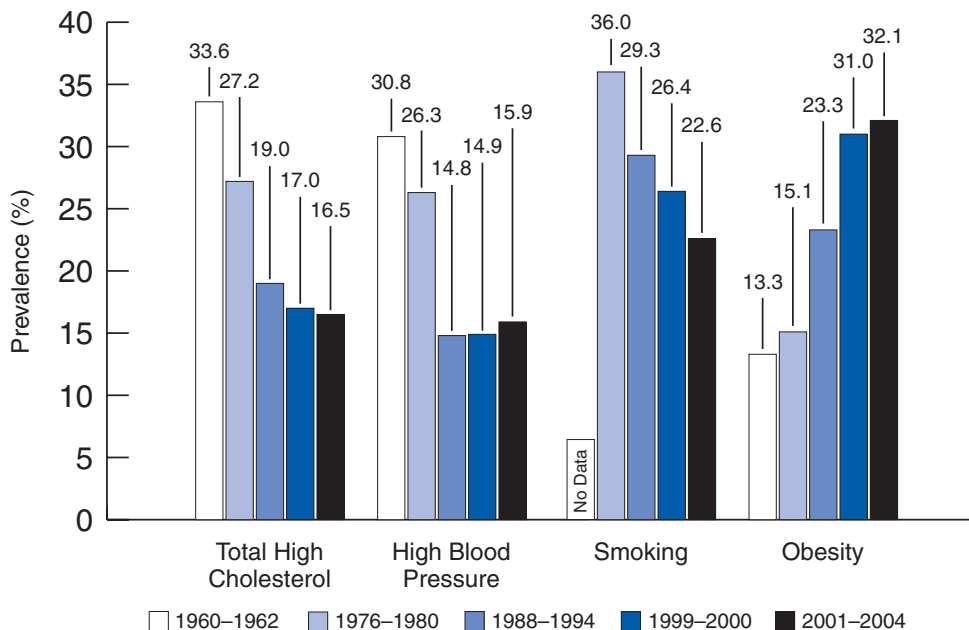
- Promoting heart-healthy and stroke-free work site policies and programs such as smoke-free workplaces and insurance coverage for employee preventive services.
- Promoting training and standard protocols for emergency medical service practitioners.

Through our state program, we also fund four multi-state Stroke Networks to increase stroke awareness and enhance stroke prevention across state lines (see map, page 1).

Paul Coverdell National Acute Stroke Registry

Through the Paul Coverdell National Acute Stroke Registry program, we provide funding and support to state health departments to develop and maintain data systems that collect, measure, and track hospital data to improve the delivery and quality of care for acute stroke patients. States use the data to identify gaps between recommended treatment guidelines and actual hospital practice. They help hospitals make system changes to ensure high-quality patient care. In 2007, the number of funded states was expanded to six (Georgia, Massachusetts, Michigan, Minnesota, North Carolina, Ohio).

Cardiovascular Risk Factor Trends Among U.S. Adults Aged 20–74*



* Data are from the National Health Examination Survey (NHES), 1960–1962, and the National Health and Nutrition Examination Surveys (NHANES), 1976–1980, 1988–1994, 1999–2000, and 2001–2004. Sources: *JAMA* 2005;293:1871. Unpublished CDC data for NHANES 2001–2004.

CDC Helps Advance State Programs

At CDC, we conduct the following activities to support states and communities in preventing heart disease and stroke throughout the nation:

- **Evaluation.** We conduct evaluation research and provide assistance to states to evaluate and improve their programs. Of special interest is improved evaluation of policy and system-level changes.
- **Monitoring and Tracking Disease.** We track data and trends in heart disease and stroke to help states make informed program decisions. For example, we recently published the first-ever report of state-by-state prevalence rates for heart disease and stroke.
- **Training and Technical Assistance.** We provide guidance to states on how to best apply evidence-based practices.
- **Translating Science into Practice.** We interpret the science of prevention and translate it into practices and programs that can be applied by states and communities.
- **Partnerships.** To improve the nation's health, we build partnerships with other federal agencies and national groups to promote heart disease and stroke prevention policies and system improvements. In 2007, we worked with the Joint Commission and the American Heart Association to standardize stroke performance measures for hospitals to improve the quality of stroke care. These measures have reduced duplication of effort and encouraged more hospitals to participate in quality improvement programs.

Future Directions

The aging of the U.S. population, coupled with adverse risk factor trends (such as increased rates of high blood pressure, obesity, and diabetes), will make cardiovascular health promotion even more important in the years to come. We are committed to funding and providing support to as many state heart disease and stroke prevention programs as possible. We will also continue our work in eliminating disparities related to cardiovascular health among population groups at high risk. Significant gaps exist between public health needs and the current surveillance systems that monitor and track heart disease and stroke trends. We will forge partnerships to promote more comprehensive heart disease and stroke surveillance systems. These efforts will support the development of more effective and cost-efficient public health programs.

State Programs in Action

Washington State's Heart Disease and Stroke Prevention Program collaborated with a state Emergency Cardiac and Stroke Work Group to assess the emergency medical response for heart attack and stroke victims throughout the state. Results of this work led to the adoption of state recommendations for enhancing and improving prevention and care in prehospital, emergency department, hospital, and rehabilitation settings.

The **Oregon Heart Disease and Stroke Prevention Program** promotes the Living Well chronic disease prevention program to work sites and insurance carriers across the state. This program has helped people learn to manage their blood pressure and cholesterol levels better, and has reduced their trips to the emergency room. Because of its success, several insurance carriers in the state now offer reimbursement for members who participate in the Living Well program. In addition, the state's largest Medicaid insurance contractor is pilot testing reimbursement for Living Well workshops.

The **New York State Healthy Hearts Program** conducted a public awareness campaign in the Capital Region of the state on the signs and symptoms of stroke and the need to call 911 at the onset of symptoms. This campaign led to an increase in the percentage of stroke patients who arrived at hospitals by ambulance.

The **Maine Heart Disease and Stroke Prevention Program** is working to reduce state health insurance costs by promoting employer-sponsored health improvement programs. As a result, a major insurance carrier in the state is lowering premiums for small businesses (and the self-employed) that offer health and wellness programs. To be eligible, businesses had to increase employee participation in activities such as health-risk appraisals and wellness programs. This initiative was promoted through the Maine State Chamber of Commerce and was created as an incentive to help businesses lower their medical costs through work site health promotion programs.

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