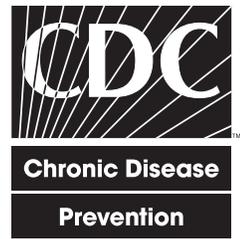


# Preventing Chronic Diseases: Investing Wisely in Health

## Preventing Heart Disease and Stroke



U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

### The Reality

- Heart disease and stroke—the principal components of cardiovascular disease—are the first and third leading causes of death in the United States, accounting for nearly 40% of all deaths.
- Nearly 930,000 Americans die of cardiovascular diseases each year, which amounts to one death every 33 seconds.
- About 70 million Americans (almost one-fourth of the population) have some form of cardiovascular disease, which is responsible for more than 6 million hospitalizations each year.
- Much of the burden of heart disease and stroke could be eliminated by reducing their major risk factors: high blood pressure, high blood cholesterol, tobacco use, diabetes, physical inactivity, and poor nutrition.
- About 90% of middle-aged Americans will develop high blood pressure in their lifetime, and nearly 70% of those who have it now do not have it under control.
- In 2002, more than 106 million people were told that they had total blood cholesterol levels that were above normal or high (200 mg/dL or higher).

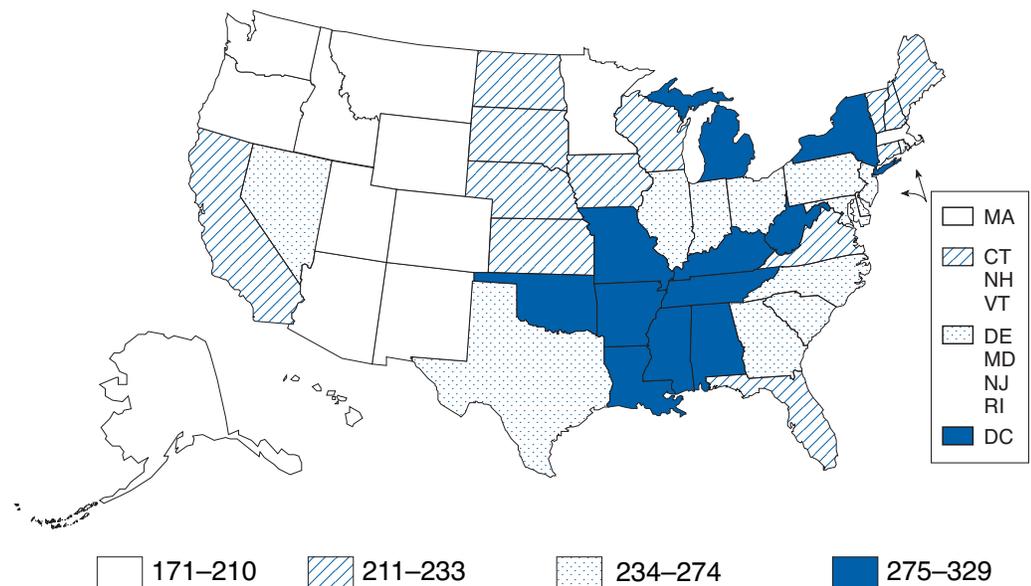
### The Cost of Heart Disease and Stroke

- In 2005, the cost of heart disease and stroke in the United States is projected to exceed \$394 billion: \$242 billion for health care expenditures and \$152 billion for lost productivity from death and disability.
- In 2001, the cost of hospitalization for cardiovascular problems among Medicare beneficiaries topped \$29 billion.
- In 2005, \$60 billion in health care spending was attributed to high blood pressure.

### Reducing Risk Factors for Heart Disease Saves Lives and Money

- An average reduction of just 12–13 mm Hg in systolic blood pressure over 4 years of follow-up is associated with a 21% reduction in coronary heart disease, a 37% reduction in stroke, a 25% reduction in total cardiovascular disease deaths, and a 13% reduction in overall death rates.
- A 10% reduction in serum cholesterol levels can result in a 30% reduction in the incidence of heart attacks and strokes.
- U.S. adults substantially lowered their blood pressure, high cholesterol levels, and other heart disease risk factors during the 1980s. As a result, U.S. costs associated with coronary heart disease declined by an estimated 9%—from about \$240 billion in 1981 to about \$220 billion in 1990.

### Rates of Death Due to Diseases of the Heart,\* 2001



\* Deaths per 100,000, age adjusted to 2000 total U.S. population.



## State Program in Action:

### Wisconsin Partners with Health Plans To Help People Control Their Blood Pressure

In Wisconsin, 1 in 4 adults has high blood pressure that has been diagnosed by a health professional. Many more people have high blood pressure but are not aware of it. Keeping blood pressure under control is essential to preventing heart attacks and strokes, averting disability, and cutting hospitalization charges.



To increase the percentage of patients who have their blood pressure under control, the state's Cardiovascular Health Program collaborated with many public and private health organizations. In just 1 year, these partners demonstrated a 21% relative increase in the number of health maintenance organization (HMO) patients with their high blood pressure under control. The Wisconsin Collaborative Diabetes Quality Improvement Project asked 20 of its participating HMOs to collect data on cardiovascular disease among their patients. Only 48% of patients were found to have their high blood pressure controlled in 2000. The health plans used this information to put into place strategies to improve their patients' blood pressure control. As a result, 58% of patients had their high blood pressure controlled by 2001. The Cardiovascular Health Program is currently coordinating efforts to help these partners address both high blood pressure and high cholesterol.

Wisconsin's experiences demonstrate how a state program can provide a population-based perspective to health plans and can bring these plans together to share information on how to improve the quality of services they offer. This exemplary state program is promoting changes that will lead to better cardiovascular health for state residents.

## Effective Strategies

- Community health centers and other health care settings need to have systems in place that will improve the quality of care that high-risk patients receive. For example, community health centers and private clinics and doctor's offices can use electronic reminder messages to alert doctors to patients' follow-up needs. In Utah, community health centers have used such a system to substantially increase the proportion of patients who have their blood pressure under control. Before the system was in place, 33% of patients had their blood pressure under control, compared with 58% of patients just 6 months after the centers began using the system.
- Work sites are an ideal place to promote the cardiovascular health of millions of people. For example, employers can offer health screenings and follow-up services to help employees control their blood pressure and cholesterol levels. These services are proven effective in the workplace. In addition, employees can be trained to recognize the signs of a heart attack and stroke and how to respond. Another strategy is for work sites to offer adequate insurance coverage for health services that aim to prevent heart disease and stroke.
- Educating the public about signs of a heart attack and stroke and the importance of calling 911 quickly is an important step to improving the chances for survival and minimizing the damage that can occur following a heart attack or stroke. Research indicates that 47% of deaths from heart attack occur before a person can be admitted to a hospital, and about 48% of stroke victims die before emergency medical personnel arrive. Only 11% of adults in this country know both the signs of a heart attack and the urgency of calling 911.
- Other important strategies to reduce people's risk for heart disease and stroke are to avoid tobacco use, eat healthier foods, control diabetes, and be more physically active.

## Hope for the Future

The prevention and control of the major risk factors for heart disease and stroke are critical to achieving a heart-healthy and stroke-free America. Health agencies at the federal, state, and local levels are working to reduce these risk factors and to eliminate disparities in health as well as those in the delivery of health care services.

Whether you are a citizen, health care provider, employer, school administrator, or elected official, there are things you can do to improve the health of your heart. For suggestions, check out CDC's *Moving Into Action*, available at <http://www.cdc.gov/cvh>.

For more information and references supporting these facts, visit [www.cdc.gov/nccdphp](http://www.cdc.gov/nccdphp). For additional copies of this document, E-mail [ccdinfo@cdc.gov](mailto:ccdinfo@cdc.gov).