

# Preventing Chronic Diseases: Investing Wisely in Health

## Preventing Heart Disease and Stroke

U.S. DEPARTMENT OF HEALTH AND  
HUMAN SERVICES

### The Burden

- 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.
- About 950,000 Americans die of cardiovascular disease each year, which amounts to one death every 33 seconds.
- About 61 million Americans (almost one-fourth of the population) have some form of cardiovascular disease, which is responsible for almost 6 million hospitalizations each year.
- Ten million Americans are disabled as a result of stroke and heart disease.
- 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 2000, more than 105 million people were told that they had high total blood cholesterol levels (200 mg/dl or higher).

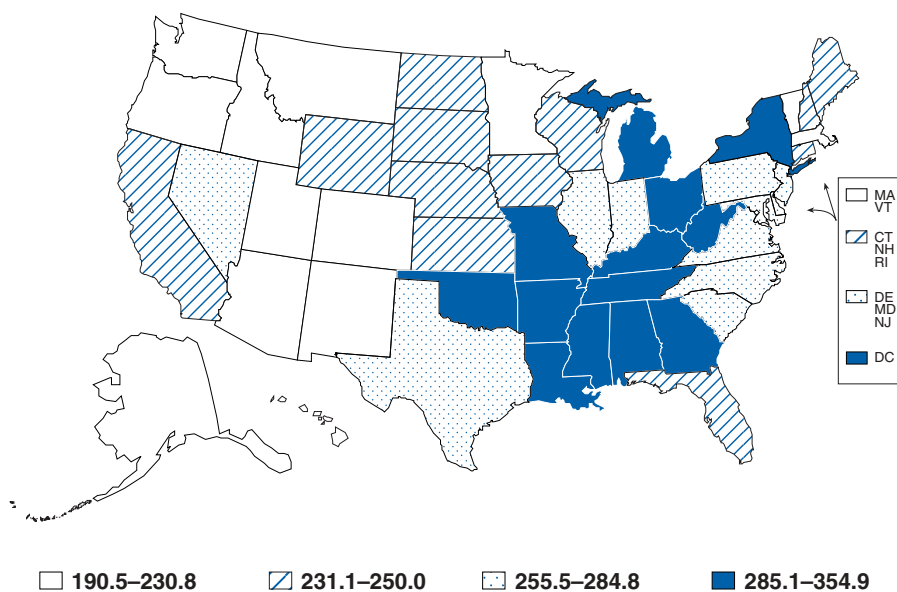
### The Cost of Heart Disease and Stroke

- In 2003, the cost of heart disease and stroke in the United States is projected to be \$351 billion: \$209 billion for health care expenditures and \$142 billion for lost productivity from death and disability.
- In 1999, the cost of hospitalization for cardiovascular problems among Medicare beneficiaries totaled \$26.3 billion.
- In 1998, \$108.8 billion in health care spending was attributed to high blood pressure.

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

- From 1981 to 1990, reductions in risk factors such as high blood pressure and high cholesterol reduced heart disease rates by an estimated 7%–11% among people of all ages and both sexes.
- These reductions in risk factors resulted in 430,000 fewer heart disease deaths between 1981 and 1990, of which 55% were due to reductions in blood pressure and 38% to reductions in cholesterol levels.
- Among Americans aged 35–84 years, these reductions in risk factors added an estimated 1.9 million quality-adjusted years of life. Between 1991 and 2015, a projected 32 million quality-adjusted years of life will be added.
- From 1981 to 1990, reductions in risk factors reduced coronary heart disease costs by an estimated 9% (from about \$240 billion to about \$220 billion).

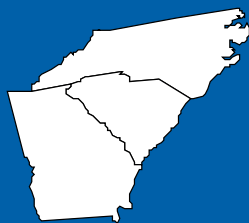
Rates of Death Due to Diseases of the Heart,\* 1999



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

## State Programs in Action: Tri-State Stroke Network

The eastern coastal plains of North Carolina, South Carolina, and Georgia have had the highest stroke death rates in the United States for the last 50 years. In 1999, the three state health departments co-sponsored a Tri-State Stroke Summit in collaboration with public health and medical professionals, policy makers, and stroke prevention advocates from each state. The summit addressed trends in stroke, clinical treatment, public health prevention, and public awareness of stroke burden, symptoms, and risk factors. Since 2000, CDC has provided supplemental funds to the North Carolina Cardiovascular Health Program to support a region-wide coordinator for Tri-State Stroke Network activities. Collaborative efforts in 2002 included a partnership with the National Institute of Neurological Disorders and Stroke for a stroke education campaign called “Know Stroke. Know the Signs. Act in Time.” In addition, a second Stroke Data Summit was held in Atlanta in February 2002. Efforts within each state to reduce stroke rates include the following:



**North Carolina**—Partners with the American Heart Association/American Stroke Association in the Triangle and Charlotte Operation Stroke to increase public and professional awareness of the warning signs of stroke and of the importance of treating and controlling high blood pressure to prevent stroke.

**South Carolina**—Joined North Carolina in proclaiming May 2002 as Stroke Awareness month in the Carolinas. Both Governor Mike Easley and Governor Jim Hodges signed a joint proclamation. A Stroke Legislative Day on the Hill was held in May 2002 at the North Carolina General Assembly.

**Georgia**—Participates with the American Heart Association/American Stroke Association in Operation Stroke, which has 21 sites in Atlanta to promote public awareness of stroke symptoms and the importance of calling for emergency transport to a hospital at the first sign of these symptoms. Other activities have included helping to train 1,200 emergency medical services technicians and paramedics on stroke in eight metro Atlanta counties. This training is now being offered in Savannah, Thomasville, and Statesboro.



### Effective Strategies

- A key strategy for reducing risk factors is to educate the public and health care practitioners about the importance of prevention. People can reduce their risk for cardiovascular disease by controlling high blood pressure and high blood cholesterol levels.
- A class of drugs called statins can reduce deaths from heart disease by reducing cholesterol levels, and medications that reduce blood pressure levels can reduce the risk for heart disease, strokes, and other coronary events.
- Patients who take beta blockers within days or weeks of a heart attack have a greater chance of surviving the heart attack.
- People need to be educated about the signs and symptoms of heart attacks and stroke and the importance of calling 911 quickly. Research indicates that nearly 70% of deaths from heart disease occur before a person can be admitted to a hospital, and about 48% of stroke victims die before emergency medical personnel arrive.
- Other important ways that people can reduce their risk for heart disease and stroke are to avoid using tobacco, adopt healthier diets, and increase their levels of physical activity.

### 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. These efforts also include promoting policy and environmental changes, such as universal 911 coverage in all states.

For more information or updates, 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).