# Moving into Action:
## Promoting Heart-Healthy and Stroke-Free Communities

# State Legislators

American Heart Association®
*Learn and Live*℠

American Stroke Association®
A Division of American Heart Association

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

# What Is *Moving into Action*?

*Moving into Action* is a series of action lists designed to help governors, state legislators, local officials, employers, and health care leaders promote heart-healthy and stroke-free communities. Each list suggests actions that range from ways to encourage general interest and awareness of these health issues to specific policies that promote healthy behaviors and reduce risks associated with heart disease and stroke. Included are examples gathered from states and communities that are working to reduce these risks and a summary of the science underlying heart disease and stroke prevention.

Suggested actions are based on current national guidelines, scientific evidence, and existing efforts from states throughout the country. For example, some actions are supported by years of research from leading public health, public policy, and medical organizations, while others stem from efforts by communities and organizations to address unhealthy behaviors related to heart disease and stroke.

*Moving into Action* can help policy makers, employers, and health care leaders assess what actions are most appropriate for their communities and can lend support to the efforts of individuals to prevent, manage, and control their risks for heart disease and stroke.

# Share Your Experiences

In suggesting these actions, we also invite you to share your ideas and experiences. Please e-mail your questions, suggestions, and experiences on how you are Moving into Action in your community at ccdinfo@cdc.gov.

## Additional Copies

Additional copies of these lists can be requested at ccdinfo@cdc.gov. They will also be made available on the Cardiovascular Health Web site at www.cdc.gov/cvh.

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# A Message from the Centers for Disease Control and Prevention

Heart disease and stroke, the principal components of cardiovascular disease, are the nation's first and third leading causes of death. They are also major causes of morbidity and health disparities. Millions of Americans are at risk for these largely preventable conditions. Advances in science have been considerable, but the challenge of translating this knowledge into action remains.

To address this need, the Centers for Disease Control and Prevention, in collaboration with the American Heart Association/American Stroke Association and the Association of State and Territorial Health Officials, along with a host of other partners, developed *A Public Health Action Plan to Prevent Heart Disease and Stroke*. The *Action Plan*, released in 2003, calls for engagement by all sectors of society to support the prevention and control of heart disease and stroke. *Moving into Action: Promoting Heart-Healthy and Stroke-Free Communities* suggests how certain sectors of society—policy makers, employers, and health care leaders—can take steps in this direction.

Can we imagine a world where our communities are designed to encourage safe physical activity? Where worksites and school cafeterias provide affordable, heart-healthy food options? Where the environment of public spaces is smoke-free? Where health care purchasers universally include preventive services, coverage for prescription drugs for heart disease, and counseling for therapeutic lifestyle changes? Where large and small health systems implement national guidelines recommended by federal agencies and national voluntary organizations? These scenarios are possible. The question is, how can we turn these scenarios into a reality?

Becoming engaged in the prevention of heart disease and stroke is a worthy cause for everyone, especially for those who can influence decisions that affect communities across the country. By sharing ideas, experiences, and expertise and by taking action now, we can effectively combat the persistent burden of heart disease and stroke and their related disparities in our society.

George A. Mensah, MD, FACP, FACC
Acting Director
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Centers for Disease Control and Prevention

# A Message from the American Heart Association/American Stroke Association

When *A Public Health Action Plan to Prevent Heart Disease and Stroke* was first released at the Steps for a HealthierUS Conference in April 2003, the American Heart Association's president, Dr. Robert Bonow, observed that "this plan will help the public health community make the nation's number-one health threat a number-one priority. We already have much science and knowledge to help prevent and treat heart disease and stroke. Now we have a national vision and roadmap for the public health community to help guide its efforts, and strategies to give Americans a healthier future."

As the nation's largest voluntary health organization fighting cardiovascular disease, the American Heart Association and our division, the American Stroke Association, recognized that the release of the *Action Plan* was only the first step in a journey that would require strong partnerships and the active involvement of a number of government agencies and other organizations. We are pleased to be working with the Centers for Disease Control and Prevention and the Association of State and Territorial Health Officials to help guide the projects and activities that continue to take place as a result of the release of the *Action Plan*.

One such project is *Moving into Action: Promoting Heart-Healthy and Stroke-Free Communities*. This document can help elected policy makers, public employers, and health care leaders across the country become more meaningfully engaged in heart disease and stroke prevention.

Once again, we applaud the Centers for Disease Control and Prevention for the release of this publication and for its continued commitment to *A Public Health Action Plan to Prevent Heart Disease and Stroke*. This is a significant step forward in furthering the vision of the *Action Plan* and the achievement of our shared goal of reducing heart disease and stroke and their risk factors.

Rose Marie Robertson
Chief Science Officer
American Heart Association/American Stroke Association

# A Message from the Association of State and Territorial Health Officials

As one of the lead partners supporting *A Public Health Action Plan to Prevent Heart Disease and Stroke*, we are very pleased, along with the Centers for Disease Control and Prevention and the American Heart Association/American Stroke Association, to present *Moving into Action: Promoting Heart-Healthy and Stroke-Free Communities*.

Heart disease and stroke are the first and third leading causes of death in the United States and continue to pose a formidable challenge to the public health community. We cannot address this challenge alone. Only through collaboration with elected officials, employers, health care leaders, and others can we adequately address the continuing burden of heart disease and stroke.

ASTHO is the national nonprofit organization representing the state and territorial public health agencies. ASTHO's members, the chief health officials of these agencies, are dedicated to formulating sound public health policy and to assuring excellence in state-based public health practice. We hope this document can serve as an important resource for those interested in addressing heart disease and stroke in their states.

ASTHO is committed to this public health issue and we will continue to strive for policies that promote heart-healthy and stroke-free states and local communities.

George E. Hardy, Jr., MD, MPH
Executive Director
Association of State and Territorial Health Officials

# Heart Disease and Stroke Need Your Attention

## What do we know about heart disease and stroke?

Heart disease and stroke are deadly, disabling, and costly. They are the nation's first and third leading causes of death, killing nearly 930,000 Americans each year. Heart disease is a leading cause of premature, permanent disability in the U.S. workforce, and stroke alone has disabled more than 1 million currently surviving Americans. The cost of heart disease and stroke in the United States is projected to be $394 billion in 2005, of which $242 billion is for health care expenditures and $152 billion for lost productivity from death and disability. The costs, the disability, and the deaths will only increase as the baby-boomer generation ages and its age-dependent risks for heart disease and stroke increase.

Heart disease and stroke are largely preventable. Years of research have indicated that controlling high blood pressure and high blood cholesterol reduces a person's risk of developing heart disease or having a heart attack or stroke. Stopping smoking, eating a heart-healthy diet, being physically active, maintaining a healthy weight, and controlling diabetes can also help decrease a person's risk for heart disease and stroke.

## How can we translate knowledge into action?

Promoting heart-healthy and stroke-free communities involves efforts from all sectors of society. Health care systems, state and local governments, and workplaces have important and distinct roles to play in improving cardiovascular health. Health care organizations can implement systems to better monitor and manage cardiovascular conditions in accordance with national guidelines. Policy makers can establish coverage for preventive health services, no-smoking laws, and emergency response systems. Businesses can provide employees with screening and follow-up services for blood pressure and cholesterol control and offer opportunities for physical activity.

## Why should a state legislator promote heart-healthy and stroke-free communities?

State legislators hold an important and valuable position for protecting the health of the people in their state. This document provides a range of actions you can take to promote heart-healthy and stroke-free communities, which revolve around five central themes:

- Demonstrate leadership.
- Implement policies and incentives to make healthy choices the easy choices.
- Promote coverage for and use of preventive health services.
- Implement life-saving improvements in health services and medical response.
- Use your authority to strengthen state efforts to address heart disease and stroke.

The choice is yours. The time to act to address heart disease and stroke is now.

# Actions for State Legislators

## Demonstrate leadership

- Be a role model: display educational materials and establish worksite policies to support heart health in your office. Share your heart-healthy activities with the media (e.g., getting your blood pressure checked, using the stairs). If you or a family member has cardiovascular disease, share your story. ①

- Be a champion: create or serve on a statewide task force on heart disease and stroke. ①

- Support awareness campaigns about the
  - Signs and symptoms of heart attacks and stroke. ②
  - Urgency of calling 9-1-1 when someone is having a heart attack or stroke. ②
  - Prevention of risk factors, such as physical inactivity and smoking. ③

- Publicly support a statewide quitline to provide all smokers with access to the support and latest information to help them quit. ③

- Actively support mass media efforts to prevent tobacco use. ③

## Implement policies and incentives to make healthy choices the easy choices

- Gather employers in your state to explore offering worksite health promotion programs. Elements of such programs include
  - Placing signs placed by elevators that encourage people to use the stairs. ③
  - Promoting healthy options in cafeterias and vending machines. ②
  - Incorporating preventive services into health plans. ②
  - Providing services such as screening and treatment for high blood pressure, high cholesterol, smoking, and high blood glucose. ②
  - Establishing smoke-free worksites. ③
  - Ensuring coverage for prescription drugs used to prevent heart disease and stroke. ②

- Set an example by establishing a tobacco-free policy in public buildings, including schools and campuses. Support other tobacco-free policies such as prohibiting smoking in all enclosed workplaces, public places, government buildings, restaurants, bars, and gaming facilities. ③

- Assess the value of increasing excise taxes on tobacco products in your state. ③

- Promote coordinated school health programs, which can prevent risk behaviors that contribute to heart disease and stroke by
  - Maintaining or adopting enhanced physical education classes. ③
  - Serving and promoting heart-healthy food in cafeterias and vending machines. ②
  - Implementing smoke-free schools and campuses. ③
  - Prohibiting withholding of recess as punishment. ①

- Recognize localities that update zoning codes to encourage high-density and mixed land use, thereby increasing opportunities for walking and biking. ②

- Create opportunities for physical activity, such as
  - Walking and biking trails coupled with education efforts. ③
  - Policies that encourage use of mass transit, walking, and biking. ②
  - Walk-to-school initiatives. ②

## Promote coverage for and use of preventive health services

- Work with insurers in your state to develop health benefits packages that include preventive services and incentives for preventing cardiovascular disease. ②

- Work with small businesses and insurers to develop policies that allow small business groups to buy into group health plans, as self-insured organizations do. ①

- Work with the office that oversees the state health employee benefits plan to include preventive services and incentives for prevention. Ensure that school employees can participate in the health insurance program. ②

- Work with your insurance commissioner or department to monitor health insurance benefits and ensure that they include services to prevent cardiovascular disease. ①

- Recommend changes to your Medicaid program to promote reimbursement for preventive services that emphasize quality, cost-effective medical care. ②

## Implement life-saving improvements in health services and medical response

- Ensure that all communities in your state have access to 9-1-1. Establish wireless, enhanced 9-1-1 (WE9-1-1), which allows an emergency call center to capture the precise location of a caller. ②

- Ensure that everyone in your state has access to a coordinated system of care that treats stroke as a medical emergency and provides the latest treatment advances that can significantly reduce death and disability. ②

- Encourage primary care settings to enhance patient care management for high blood pressure, cholesterol, and heart disease using such approaches as the Chronic Care Model. ②

## Use your authority to strengthen state efforts to address heart disease and stroke

- Support data collection efforts and the sharing of data to document progress in preventing heart disease and stroke and their related risk factors. Examples of data sources include the Youth Risk Behavior Surveillance System (YRBSS), the Behavioral Risk Factor Surveillance System (BRFSS), and the Health Plan Employer Data and Information Set (HEDIS). ①

- Support policies to make heart attacks and acute strokes reportable conditions so that the state health department can use these data to promote and evaluate improvements in emergency response and hospital care. ①

- Support efforts by your state health and education departments to address heart disease and stroke and their risk factors. ①

### What the Symbols Mean

The actions in this document are divided into three categories, which are indicated by the number following each action.

① Approaches that will bring visibility and support to the issues of heart disease and stroke.
② Interventions found by several studies or scientific reviews to support cardiovascular health.
③ Interventions recommended by CDC's Guide to Community Preventive Services or clinical guidelines.

References for level ② and level ③ actions are listed on the following page. References for level ② include pre/post, quasi-experimental, and experimental studies.

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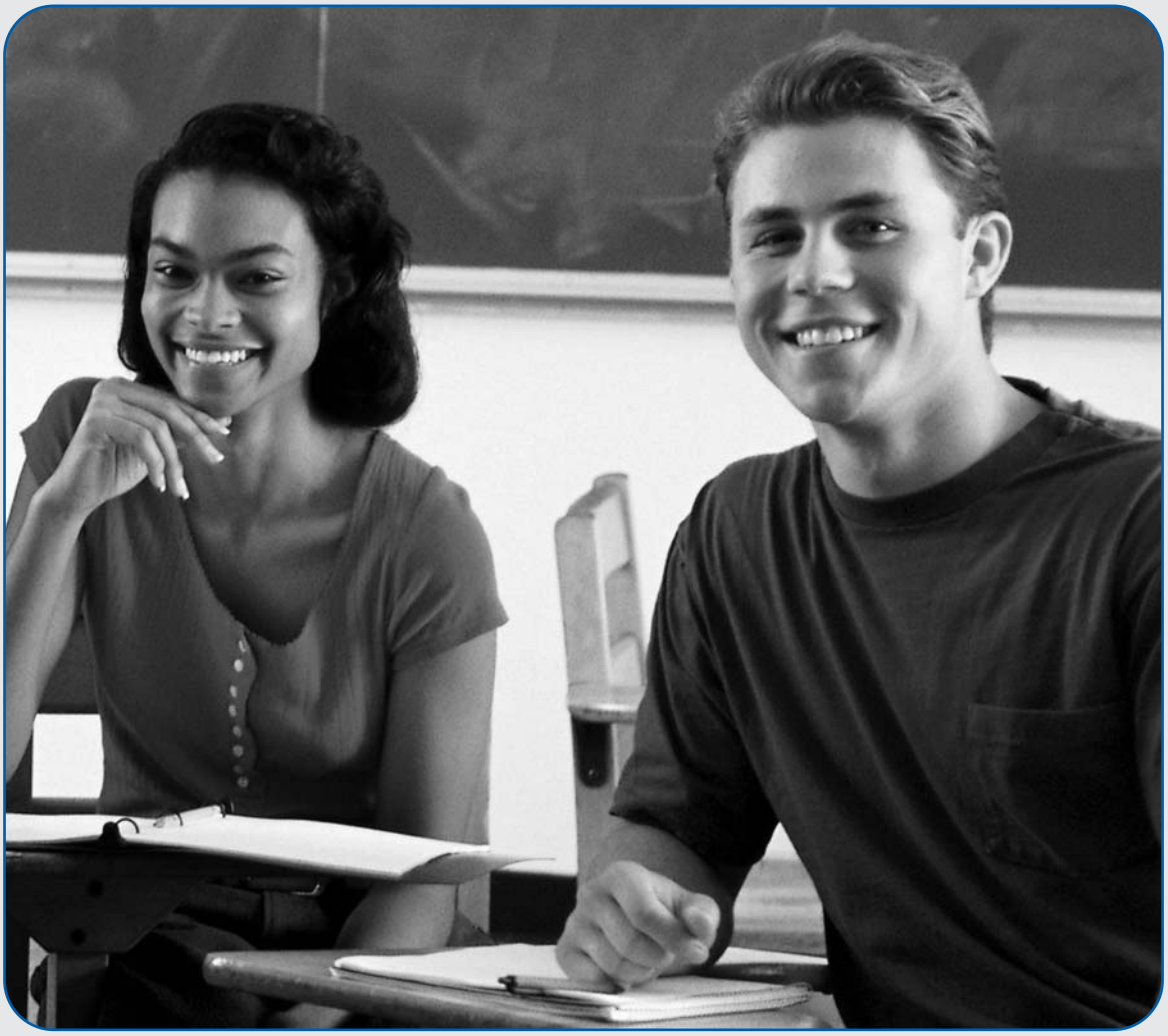
# Examples of Policies that Promote Heart-Healthy and Stroke-Free Communities

➤ **Assess the value of increasing excise taxes on tobacco products in your state.**

New York City became the first community in the nation to meet the Healthy People 2010 objective of increasing the cigarette excise tax to $2 per pack. As a result, the combined federal, state, and local taxes total $3.39 on each pack of cigarettes. The effectiveness of this tax hike is reflected in declining rates of cigarette smoking among high school students. Nearly 33% of high school students smoked cigarettes in 1997, but this percentage declined to 26.8% by 2000, according to the New York State Youth Tobacco Survey. Because most cigarette smokers begin smoking by age 18, preventing tobacco use among young people is critical to the overall goal of reducing the prevalence of smoking. Adult smoking rates have also decreased dramatically in New York in recent years as a result of the tax increase along with stricter indoor smoking laws and free nicotine replacement therapy. Programs like the New York State Tobacco Control Program play pivotal roles in reducing and eliminating tobacco use among state residents.



➤ **Support data collection efforts and the sharing of data that can document progress in preventing heart disease and stroke and their related risk factors.**

In 2000, Wisconsin's Cardiovascular Health Program collaborated with a statewide group of HMO's and health systems, as well as other public and private heath organizations to increase the percentage of patients who have high blood pressure controlled. Participating HMOs represented 84% of the people enrolled in HMOs in the state in 2000 and more than 98% of those enrolled in 2001. The Cardiovascular Health Program asked the 20 participating health plans with commercial enrollees to collect four cardiovascular-related measures from the Health Plan Employer Data and Information Set (HEDIS). These data provided a baseline assessment for planning quality improvement strategies within the health plans. Only 48% of patients with a history of high blood pressure in the participating health plans were found to have their high blood pressure controlled. On the basis of this information, the health plans put into place strategies to improve blood pressure control. As a result, by 2003, 62% of patients had their high blood pressure controlled — a relative increase of nearly 30% over 3 years. By working with other health systems and organizations and sharing quality improvement data, the cardiovascular health program provided a population-based perspective that promoted health system changes and led to better health outcomes.

➤ **Publicly support a statewide quitline to provide all smokers with the support and latest information to help them quit.**

The state of California implemented a Smokers' Helpline in 1992. It is available in six languages (English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean) and through a TTY line for the hearing impaired. Specific protocols are used depending on whether the caller is an adult, teen, or pregnant smoker. The Helpline currently serves about 45,000 callers per year, 34% of which are from ethnic minority groups. The quitline's protocol has been shown to be effective through a large randomized trial. This trial found that smokers who receive multiple telephone counseling sessions have a higher one-year quit rate than those who receive only one session or who rely on self-help approaches. These results have been replicated in another study that applied the protocol in a "real world" setting. One of the challenges faced in California has been increasing physician referrals of smoking patients to the Helpline. One useful strategy used in California is to acknowledge clinicians' time constraints in providing cessation counseling and to offer the Helpline as a way to ease some of this burden. Letters are periodically sent to physicians who have referred patients to the Helpline thanking them and indicating how many of their patients have called the Helpline due to referrals.

# What the Science Tells Us

## Blood Pressure

- Sixty-five million Americans have high blood pressure, and another 59 million are prehypertensive.[1]

- A 12–13 point reduction in systolic blood pressure can reduce heart attacks by 21%, strokes by 37%, and all deaths from cardiovascular disease by 25%.[2] Nearly 70% of people with high blood pressure do not have it under control.[3]

- The Dietary Approaches to Stop Hypertension (DASH) study has shown that following a healthy eating plan can both reduce a person's risk of developing high blood pressure and lower an already elevated blood pressure.[4]

- Medications can also help reduce high blood pressure.[5]

## Cholesterol

- A 10% decrease in total blood cholesterol levels may reduce the incidence of coronary heart disease by as much as 30%.[6] Only 18% of adults with high blood cholesterol have it under control.[7]

- Lowering saturated fat and increasing fiber in the diet, maintaining a healthy weight, and getting regular physical activity can reduce a person's risk for cardiovascular disease by helping to lower LDL (bad) cholesterol and raise HDL (good) cholesterol.[8]

- A class of drugs called statins can reduce deaths from heart disease by reducing cholesterol levels.[9]

## Emergency Response

- Forty-seven percent of heart attack deaths occur before an ambulance arrives and 48% of stroke deaths occur before hospitalization.[10, 11]

- Only 3%–10% of eligible stroke victims get the emergency therapy (tPA) that can lead to recovery.[12]

## Tobacco

- Cigarette smokers are 2–4 times more likely than nonsmokers to develop coronary heart disease.[13]

- Cigarette smoking approximately doubles a person's risk for stroke.[13]

- People who quit smoking reduce their risk of death from cardiovascular disease by half within a few years.[13]

- Each year, secondhand smoke results in an estimated 35,000 deaths due to heart disease among nonsmokers.[14]

## Nutrition[15]

- Fruits and vegetables are high in nutrients and fiber and relatively low in calories. A diet rich in fruits and vegetables can lower a person's risk of developing heart disease, stroke, and hypertension.

- Grain products provide complex carbohydrates, vitamins, minerals, and fiber. A diet high in grain products and fiber can help reduce a person's cholesterol level and risk of cardiovascular disease.

- Foods that are high in saturated fats (e.g., full-fat dairy products, fatty meats, tropical oils) raise cholesterol levels.

- People can lower their blood pressure by reducing the salt in their diets, losing weight, increasing physical activity, increasing potassium, and eating a diet rich in vegetables, fruit, and low-fat dairy products.

## Physical Activity[16]

- Regular physical activity can decrease a person's risk of cardiovascular disease and prevent or delay the development of high blood pressure.

- People of all ages should get a minimum of 30 minutes of moderate-intensity physical activity (such as brisk walking) on most, if not all, days of the week.

## Obesity[15, 17]

- Because people who are overweight or obese have an increased risk for cardiovascular disease, diabetes, and hypertension, weight management can reduce a person's risk for these conditions.

## Diabetes[17, 18]

- Adults with diabetes have heart disease death rates about 2 to 4 times higher than adults without diabetes, and the risk for stroke is 2 to 4 times higher among people with diabetes. About 65% of deaths among people with diabetes are due to heart disease and stroke.

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## The Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention (CDC) is one of the 13 major operating components of the Department of Health and Human Services (HHS), which is the principal agency in the United States government for protecting the health and safety of all Americans. Since it was founded in 1946 to help control malaria, CDC has remained at the forefront of public health efforts to prevent and control infectious and chronic diseases, injuries, workplace hazards, disabilities, and environmental health threats.

CDC's Heart Disease and Stroke Prevention Program is located in the National Center for Chronic Disease Prevention and Health Promotion, which is part of the Coordinating Center for Health Promotion. The central strategies of the program include a focus on high blood pressure and cholesterol control, increasing knowledge of signs and symptoms of heart attack and stroke, improving emergency response, improving quality of care, and eliminating health disparities between population groups. Heart disease and stroke outcomes are also related to healthy eating, physical activity, and tobacco use, as well as diabetes and obesity. CDC's Heart Disease and Stroke Prevention Program coordinates these activities to improve overall cardiovascular health in the United States.

For more information on heart disease and stroke prevention at CDC, please visit www.cdc.gov/cvh.

## The American Heart Association/American Stroke Association

The American Heart Association is a national voluntary health agency whose mission is to reduce disability and death from heart disease and stroke. Together with the American Stroke Association, the volunteer-led affiliates and their divisions form a national network of local AHA organizations involved in providing research, education, and community programs to prevent heart disease and stroke. The network continues to gain strength as it expands at the grass-roots level in states and local communities.

For more information on the American Heart Association/American Stroke Association, please visit www.americanheart.org.

## The Association of State and Territorial Health Officials

The Association of State and Territorial Health Officials (ASTHO) is the national nonprofit organization representing the state and territorial public health agencies of the United States, the U.S. Territories, and the District of Columbia. ASTHO's members, the chief health officials of these jurisdictions, are dedicated to formulating and influencing sound public health policy, and to assuring excellence in state-based public health practice.

For more information on the Association of State and Territorial Health Officials, please visit www.astho.org.

Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

Heart Disease and Stroke Prevention Program

www.cdc.gov/cvh