

Message From the Secretary

With the release of *A Public Health Action Plan To Prevent Heart Disease and Stroke*, we will tackle one of the most formidable public health challenges of this century—reducing the burden of heart disease and stroke.

The *Action Plan* gives health practitioners and policymakers a framework for developing a healthcare system that equally supports treatment and prevention. This plan is a collaborative effort designed to guide the nation in taking action, strengthening capacity, evaluating impact, advancing policy, and engaging in partnerships to reverse the epidemic of heart disease and stroke.

A plan is not enough. I call on all Americans to join me and to learn what you can do to make a difference.

Tommy G. Thompson

U.S. Department of Health and Human Services

Save the Date

Save **April 29–30, 2004**. Be at the Baltimore Marriott Waterfront Hotel for the 2nd national *Steps to a HealthierUS* summit. The summit will focus attention on chronic disease prevention and health promotion and will feature presentations on asthma, obesity, diabetes, heart disease and stroke, and cancer. To register, visit www.healthierus.gov/steps. We hope to see you there.

Focus

Getting to the Heart of Prevention

Cardiovascular disease (CVD) is considered the nation's greatest health challenge. Despite a significant decline in death rates in the past four decades, heart disease remains the leading cause of death in the United States for both men and women and for nearly every racial and ethnic group. Stroke is the third leading cause.

Unless major efforts are made to meet the challenge and prevent heart disease and stroke, the outlook for reducing death and disability is not favorable. For example, the lifetime risk for developing coronary heart disease (CHD) is very high: One of every two men and one of every three women will develop CHD sometime in their life.

Heart disease and stroke are major causes of illness and disability and are significant contributors to healthcare costs and disease-related economic losses. The burden of heart disease and stroke is projected to cost more than \$351 billion in 2003 and to grow in the coming decades.

Heart disease deaths are projected to increase sharply between 2010 and 2030. The population of heart disease survivors is expected to grow at a much faster rate than the U.S. population as a whole. Marked increases in stroke deaths also are predicted.

Death, illness, disability, economic costs, and quality of life are well-known reasons why heart disease and stroke are among the chronic conditions targeted by the U.S. Department of Health and Human Services (HHS) *Steps to a HealthierUS* initiative. For example,

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stroke has left 1 million Americans with disability. Many can no longer perform daily tasks, such as walking and bathing, without help.

Trends affecting both ends of the age spectrum also are contributing to the prevalence of heart disease and stroke. Today's adolescents are at increased risk of heart disease. The increase in overweight among youth itself may be contributing to more cases of diabetes in younger people and earlier risk of such complications as heart disease. As reported in *A Public Health Action Plan To Prevent Heart Disease and Stroke*, "the aging of the baby boom generation portends a sharp rise by 2020 in the number of people who die from heart disease and stroke or survive with dependency." With this plan as a framework, public and private partners are charged to do more than merely identify opportunities for action. They are challenged to take many diverse actions and thereby bring about health behavior change.

The plan's premise is simple: The tools and the knowledge base exist to reduce the devastating impact of heart disease and stroke on individuals, their families, and the nation's economy. The full document (www.cdc.gov/cvh/action_plan/index.htm) presents the facts supporting statements such as "We have the scientific knowledge to create a world in which most cardiovascular disease could be eliminated" (*The 2000 Victoria Declaration on Women, Heart Diseases and Stroke*). The plan presents many specific recommendations and lays out the fundamental requirements for its implementation:

- Effective communication to ensure that the public at large and policymakers are fully aware of the urgent need and unprecedented opportunity to prevent heart disease and stroke.
- Transformation of the nation's public health infrastructure to provide leadership and to develop and maintain effective partnerships and collaborations to support the needed actions.

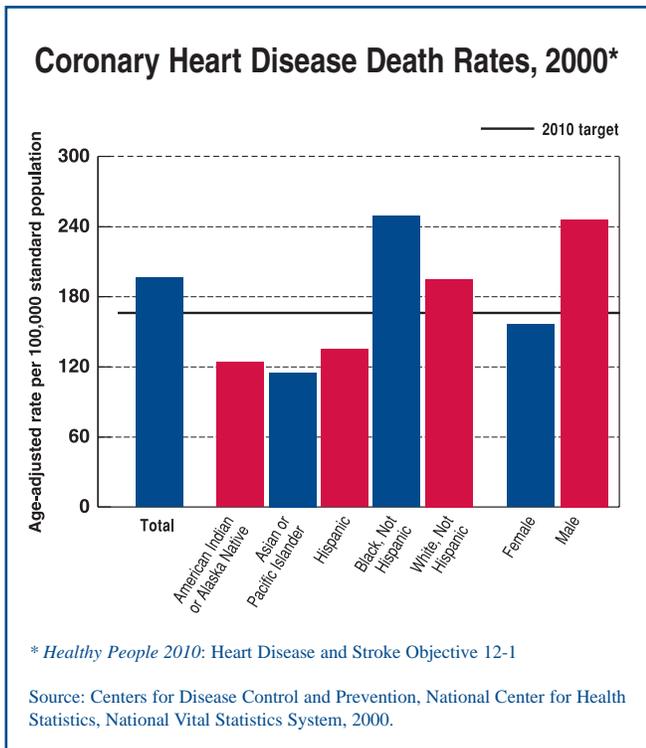
Much is known about the CVD risk factors and what targeted investments in prevention can achieve. For example, about 90 percent of middle-aged Americans will develop high blood pressure in their lifetime, and nearly 70 percent of those who have it now do not have it under control. Lowering blood pressure levels reduces the risk of death from CHD, stroke, and total CVD. Altogether, *Healthy People 2010* targets four high blood pressure objectives (www.healthypeople.gov/document/html/volume1/12heart.htm).

In addition to high blood pressure, risk factors for heart disease and stroke include high blood cholesterol, overweight/obesity, cigarette smoking, and physical inactivity, all of which are addressed in *Healthy People 2010*. The science base has demonstrated effective strategies to prevent and control these risk factors. Illness, death, and disability from heart disease and stroke can be reduced.

Healthy People 2010 also aims to eliminate health disparities. That goal is particularly relevant in the heart disease and stroke focus area, as shown in the chart on page 3. Death rates by racial and ethnic groups and gender are shown for the year 2000. The *Healthy People 2010* target is 166 deaths per 100,000 population, which represents a large gap for some groups. As the chart indicates, African Americans are affected more adversely by heart disease and stroke than any other racial group in the United States. Striking disparities in heart disease deaths among blacks are found for both men and women, compared with all other groups. In 1995, the age-adjusted death rate for heart disease was 42 percent higher in African American males than in white males, 65 percent higher in African American females than in white females, and almost twice as high in males as in females.

Clearly, culturally appropriate prevention strategies and programs are mandatory. These programs must go beyond increasing awareness to promoting healthy lifestyle choices that can make a difference. Both public- and private-sector organizations are sponsoring

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such tailored educational efforts, including the Association of Black Cardiologists (www.abccardio.org) (*Children Should Know Their Grandparents: A Guide to a Healthy Heart* campaign) and the National Heart, Lung, and Blood Institute (NHLBI) (for example, *Más Vale Prevenir Que Lamentar: Una guía para la salud del corazón [An Ounce of Prevention: A Guide to Heart Health]*, which can be found at www.nhlbi.nih.gov/health/prof/heart/latino/lat_foto.htm).

Effective programs also need to address disparities that exist in health outcomes by gender and by geographic location. For example, 44 percent of females who have a heart attack die within a year, compared with 27 percent of males. CHD death rates are higher in the southern and southeastern states. Age-adjusted average annual stroke death rates are highest in the southeastern states, particularly in the so-called “stroke belt,” a region comprising Georgia, South Carolina, eastern North Carolina, and adjacent parts of neighboring states.

Linkage across programs and messages is a challenge, too. For example, diabetes is one of the chronic

conditions targeted by the *Steps* initiative and a growing threat to heart health. Indeed, the proportion of heart disease deaths caused by diabetes is projected to increase from 21 to 29 percent of the total by 2025. Prevention is a must, and it is the fundamental thrust of the *Action Plan* as well as an increasing number of national and local programs. Examples include the American Heart Association (“Heart health should be the front line of diabetes care.”), the joint initiative of the American Diabetes Association and the American College of Cardiology (“Make the Link! Diabetes, Heart Disease and Stroke”), and the National Institute of Diabetes and Digestive and Kidney Diseases (“Prevent Diabetes Problems: Keep Your Heart and Blood Vessels Healthy”).

These examples demonstrate educational efforts and ways to put present knowledge to work. The *Action Plan* calls for a balanced investment in all available intervention approaches—including education to support individual efforts to prevent or control risk factors but also encompassing policy and environmental changes designed to prevent risk factors and assurance of quality care for the victims of heart disease and stroke.

With the plan’s announcement earlier this year, public- and private-sector organizations have begun defining the steps for implementation and priority setting. The Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH), co-lead agencies for the Heart Disease and Stroke Focus Area of *Healthy People 2010*, are providing national leadership.

The *Action Plan* presents 2 fundamental recommendations and 10 summary recommendations. Its five components are

- **Taking action.** Translating current knowledge into effective public health action.
- **Strengthening capacity.** Transforming public health agencies with new competencies and resources and expanding partnerships to mount and sustain such action.
- **Evaluating impact.** Systematically monitoring and evaluating the health impact of interventions to

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identify and rapidly disseminate those most effective.

- **Advancing policy.** Defining the most critical policy issues and pursuing the needed prevention research to resolve these issues and expedite policy development.
- **Engaging in regional and global partnerships.** Multiplying resources and capitalizing on shared experience with others throughout the global community who are addressing similar challenges.

Meeting the challenge requires more than leadership and recommendations. More money must be spent on prevention, and more efforts must be undertaken to halt and reverse the epidemic. Specifically, the Action Plan cites three factors that affect the current challenge:

Support for public health programs to prevent heart disease and stroke is low. State public health agencies spend less than 3 percent of their budgets on chronic disease programs, including heart disease and stroke prevention.

The costs of failure are very high. The economic costs of heart disease and stroke rise each year. These costs include the numbers of people requiring treatment for risk factors or early signs of disease; emergency treatment for first or recurrent episodes of heart attack, heart failure, or stroke; and efforts to reduce disability and prevent recurrent episodes. Chronic diseases and conditions, including heart disease, consume more than 75 percent of our nation's health care dollars, yet they are largely preventable.

An unprecedented opportunity to prevent heart disease and stroke exists today in the United States. We know what causes these conditions and how to prevent them, largely because of the decades of research supported by NIH, the American Heart Association, and others. *Healthy People 2010* has outlined clear goals, and the *Healthy People 2010* Heart Disease and Stroke Partnership* was established to help achieve these goals. Also, health

professionals have become more aware of the need for immediate action as they recognize the continuing cardiovascular epidemic, recent unfavorable trends, and forecasts of a mounting disease burden.

Those are the broad challenges. For the *Healthy People 2010* Heart Disease and Stroke Progress Review conducted earlier this year, specific challenges and barriers were described. For example, for increasing physical activity:

- Women generally are less active than men at all ages.
- People with lower incomes and less education are typically not as physically active as those with higher incomes and education.
- African Americans and Hispanics are generally less physically active than whites.
- Adults in northeastern and southern states tend to be less active than adults in north-central and western states.
- People with disabilities are less physically active than people without disabilities.
- By age 75, one in three men and one in two women engage in **no** regular physical activity.

Fortunately, the science base backs up the importance of physical activity in reducing weight, blood cholesterol levels, and high blood pressure. Strategies for using this knowledge and addressing barriers have become an essential part of every education program, including NHLBI's Hearts N' Parks outreach efforts for the public and the Heart Truth campaigns targeting women. (See *Spotlight*.)

Using the science base is fundamental to *Healthy People 2010* and *Steps to a HealthierUS*. The *Action Plan* complements both initiatives and all efforts aimed at preventing heart disease and stroke. It serves as a roadmap for public health agencies to provide leadership in collaborative efforts to conceive and rally

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* Current partners include the American Heart Association/ American Stroke Association, CDC, Centers for Medicare & Medicaid Services, Indian Health Service, HHS, and the Office of Public Health and Science, HHS.

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around a common agenda. With every step and every beat, individuals and organizations can make the nation's public health system more effective in protecting the health and enhancing the daily lives of all Americans.

Heart Facts

- Every 29 seconds, someone will suffer a coronary event in the United States. Every 60 seconds, someone will die from such an event.
- Every 45 seconds, someone will suffer a new or recurrent stroke. Every 3.1 minutes, someone will die from a stroke.
- Many people believe that cardiovascular disease only affects men and older people. But heart disease and stroke are among the leading causes of death for U.S. women and men in all racial and ethnic groups, and sudden cardiac deaths have increased dramatically among people younger than age 35.

Spotlight

Working Together Works

Strategic partnerships and local programs are the lifeblood of effective prevention programs. In recent years, federal agencies have joined with national partners to launch programs featuring strong community-based components. For example, the National Heart, Lung, and Blood Institute (NHLBI) and the National Recreation and Park Association (NRPA) have teamed together on Hearts N' Parks, which helps local agencies promote heart-healthy lifestyle changes among their residents (www.nhlbi.nih.gov/health/prof/heart/obesity/hrt_n_pk). The community mobilization guide has facts, resources, ideas for possible activities, and easy-to-follow suggestions for how to launch, publicize, and evaluate a local program.

Hearts N' Parks was piloted during the summer of 1999 in 33 sites in 12 North Carolina communities involving more than 2,000 participants. An evaluation showed that participants retained information about heart-healthy behaviors and intended to eat healthier.

In addition, children reported learning new physical activities and improving their performance in others; seniors reported feeling healthier and experiencing less pain in their daily lives by the end of the program.

Another example of community partnerships is the WISEWOMAN (Well-Integrated Screening and Evaluation for Women Across the Nation) program administered through the Centers for Disease Control and Prevention (CDC) and its Division of Nutrition and Physical Activity (www.cdc.gov/wisewoman). Currently, CDC funds 10 ongoing and 2 new WISEWOMAN projects in 12 states, tribes, and territories. The WISEWOMAN program provides low-income, underinsured and uninsured women aged 40 to 64 years with chronic disease risk factor screening, lifestyle intervention, and referral services in an effort to prevent cardiovascular disease. As of 2002, more than 12,000 women had been screened through the program.

WISEWOMAN projects are culturally tailored, because interventions that take into account a woman's culture are more likely to give her the knowledge and skills she needs to make healthy lifestyle changes. For example, the Southcentral Foundation in Alaska named its program *Traditions of the Heart* to reflect the cultural practices of Alaska Native women. The program highlights commonly eaten and traditional foods, such as salmon and berries, and encourages activities that fit the climate, budget, and environment of Alaska Native women.

NHLBI sponsors "The Heart Truth" campaign (www.nhlbi.nih.gov/health/hearttruth/partners/index.htm) in partnership with many groups committed to the health and well-being of women, including the General Federation of Women's Clubs, National Black Nurses Association, and Working Hearts Coalition. Campaign materials are available in English and Spanish and include tips on how to get involved and spread the word about heart disease.

NHLBI funds 12 Cardiovascular Disease (CVD) Enhanced Dissemination and Utilization Centers (EDUCs) to conduct performance-based education

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projects to prevent and control CVD and promote heart-healthy behavior in high-risk communities. The EDUCs represent a network of performance partners that use NHLBI's science-based information to inform their communities of the public health burden of CVD and to develop and implement focused educational strategies to reduce this burden through changes in healthcare provider practice and patient and consumer behavior. Two EDUCs are highlighted below; for more information on all the projects, visit <http://hin.nhlbi.nih.gov/educs/awardees.htm>.

The Wake Forest University School of Medicine in North Carolina is targeting African Americans and providing screening, referral, and followup services. Other strategies include creating personalized health action plans to facilitate positive behavior change and training community health advisors to implement heart health education activities.

In Maryland, the Housing Authority of Baltimore City is using both community- and environmental-based approaches to increase heart-healthy behavior among children and adults in public housing developments. The project is working with neighborhood grocers and fast-food establishments to increase the availability of heart-healthy food and with schools to improve nutrition and physical activity.

Community Grants Announced

HHS Secretary Tommy G. Thompson has announced 12 grants totaling \$13.7 million for community initiatives to promote better health and prevent disease (www.healthierus.gov/steps/grants.html). Funded under the *Steps to a HealthierUS* program, the grants target border populations, Hispanics and Latinos, Native Americans, African Americans, Asians, immigrants, low-income populations, the disabled, youth, senior citizens, uninsured and underinsured people, and people at high risk. Grant recipients comprise 1 tribal consortium, 15 small cities or rural communities, and 7 large cities.

Resources

Web World Beats With Heart News

The science and information base about heart disease and stroke grows in print and in cyberspace. New information about prevention and treatment gets posted almost daily. Public and private World Wide Web sites inform consumers, patients, health professionals, public health officials, policymakers, and the news media. Some of the most important sites are highlighted below.

A heart disease search of the federal healthfinder® guide to reliable health information yields more than 200 articles. This gateway site (www.healthfinder.gov) links to *Ask NOAH About: Heart Disease and Stroke* (New York Online Access to Health) and many carefully selected resources in English and Spanish.

The National Heart, Lung, and Blood Institute's Cardiovascular Information site (www.nhlbi.nih.gov/health/public/heart/index.htm/other) for patients and consumers covers high blood pressure, cholesterol, obesity, heart attack, and other topics. It features Latino resources (www.nhlbi.nih.gov/health/public/heart/index.htm/latino) and "Healthbeat" radio programs. Scientific resources can be found at www.nhlbi.nih.gov/resources/index.htm. Other Web sections of interest include the Heart Truth campaign at www.nhlbi.nih.gov/health/hearttruth and Hearts 'N Parks at www.nhlbi.nih.gov/health/prof/heart/obesity/hrt_n_pk.

The Centers for Disease Control and Prevention (www.cdc.gov/cvh/library/index.htm) presents statistical data, such as state fact sheets about heart disease, as well as interactive maps, atlases of racial and ethnic disparities in mortality from heart disease for women and for men, a host of publications, and information on projects.

In an effort to get life-saving information to patients and to serve as a resource for busy health professionals, the National Stroke Association has created "Ask Your Doctor." This public education campaign is designed to increase communication

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between patients and primary care providers about stroke prevention and treatment (<http://209.107.44.93/NationalStroke/HavingAStroke/default.htm>).

The American Heart Association's comprehensive site (www.americanheart.org/presenter.jhtml?identifier=1200000) serves consumers, patients, health professionals, and researchers. Topics under "Healthy Lifestyle" encompass diet and nutrition, cholesterol, women and cardiovascular disease, exercise and fitness, managing your lifestyle, your heart at work, how your heart works, and children and youth.

The American Stroke Association, a division of the American Heart Association, offers an A to Z Heart & Stroke Encyclopedia on hundreds of topics (www.strokeassociation.org/presenter.jhtml?identifier=10000067).

The National Institute of Neurological Disorders and Stroke site (www.ninds.nih.gov/health_and_medical/disorders/stroke.htm) has publications in English and Spanish, links to other resources, lists of clinical trials seeking patients, and reports on research findings.

The National Women's Health Information Center (www.4women.gov/heart/index.htm), sponsored by the Office on Women's Health, HHS, posts information on heart health programs and activities. Its "For Your Heart" section escorts individual women through a short, confidential survey of questions about their health and lifestyle. Based on their answers, visitors receive a series of articles detailing the latest information on exercise, nutrition, smoking, diabetes, cholesterol, high blood pressure, and other factors that affect women and their risk for heart disease.

Activities

Watch your calorie intake by eating a wide variety of foods low in saturated fat and cholesterol. Download a cholesterol tracker to record your progress in lowering your cholesterol level. Visit www.americanheart.org/presenter.jhtml?identifier=3002238 for more information.

Jump Rope for Heart is an educational fund-raising event. It is held each year in thousands of elementary schools across the nation by the American Heart Association and the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD). Jump Rope for Heart raises funds for medical research and for programs such as HeartPower! that help prevent heart disease and stroke. Jump Rope for Heart teaches students the benefits of physical activity, how to keep their heart healthy, and that they can help save lives right in their own community. Jump Rope for Heart was developed in 1978 by the American Heart Association and AAHPERD. The event has raised more than \$327 million for cardiovascular research and education programs. For more information, visit www.americanheart.org/presenter.jhtml?identifier=2360.

Hearts N' Parks is a national community-based program supported by the National Heart, Lung, and Blood Institute of the National Institutes of Health and the National Recreation and Park Association. This innovative program aims to reduce the growing trend of obesity and the risk of coronary heart disease in the United States by encouraging Americans of all ages to aim for a healthy weight, follow a heart-healthy eating plan, and engage in regular physical activity. Individuals interested in signing up to become a Hearts N' Parks community should contact the National Recreation and Park Association at programs@nrpa.org or call 1-800-649-3042.

To fight heart disease and stroke, just walk or run regularly! These are not just enjoyable activities, they are two things you can do to reduce your individual stress and increase HDL cholesterol. The American Heart Association can help you get started. Walk in your local American Heart Walk or participate in the Train To End Stroke marathon training and fund-raising program. You can get fit, have fun, and save lives! Call 1-800-AHA-USA1 to find out more about the American Heart Walk, or call 1-888-4-STROKE to get involved in Train To End Stroke.

In the Literature

Effect of Smoking and Sedentary Behavior on the Association Between Depressive Symptoms and Mortality From Coronary Heart Disease.

BH Brummett et al. *American Journal of Cardiology*(September 2003):529–532.

This study assessed smoking and exercise in patients with coronary artery disease in whom depressive symptoms had been shown to predict decreased survival and found that smoking and/or sedentary behavior may partially mediate the relation between depressive symptoms and mortality. No evidence for moderation was found.

Differences in Medical Care and Disease Outcomes Among Black and White Women With Heart Disease. AK Jha et al. *Circulation* 108(September 2003):1089–1094.

In a large cohort of women with heart disease, black women less often received appropriate preventive therapy and adequate risk factor control than white women despite a greater risk for a coronary heart disease event. Interventions to improve appropriate therapy and risk factor control in all women, and especially black women, are needed.

Diabetes and Heart Disease: An Evidence-Driven Guide to Risk Factors Management in Diabetes.

AA Lteif et al. *Cardiology in Review* 11(September–October 2003):262–274.

Despite its known benefit on the prevention of the microvascular complications of diabetes, intensive glycemic control may or may not have a significant effect on reducing macrovascular diseases. Lifestyle changes and other cardiovascular therapies aimed at preventing heart disease may also prevent or delay the development of diabetes.

Soy Food Consumption Is Associated With Lower Risk of Coronary Heart Disease in Chinese Women.

X Zhang et al. *Journal of Nutrition* 133(September 2003):2874–2878.

This prospective cohort study of 75,000 Chinese women aged 40 to 70 years examined the relationship between soy food intake and incidence of coronary heart disease and found evidence that soy food consumption may reduce the risk of coronary heart disease in women.

Meetings

3rd State-of-the-Art Stroke Nursing Symposium.

San Diego, CA. Visit www.americanheart.org/presenter.jhtml?identifier=3012510. **February 4, 2003.**

29th International Stroke Conference.

San Diego, CA. Visit www.strokeconference.org/portal/strokeconference/s.c. **February 5–7, 2004.**

5th Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke.

Washington, DC. Visit www.americanheart.org/presenter.jhtml?identifier=3009665. **May 15–17, 2004.**

30th Ten-Day Seminar on the Epidemiology and Prevention of Cardiovascular Disease.

Tahoe City, CA. Visit www.americanheart.org/presenter.jhtml?identifier=1200035. **July 18–30, 2004.**

Second National CDC Prevention Conference on Heart Disease and Stroke: Charting the Course.

Atlanta, GA. Visit www.chronicdisease.org/conferences.html. **August 17–19, 2004.**