

## Cardiovascular Health



### FACING THE ISSUES

- *Cardiovascular diseases (heart disease and stroke) account for more than 40% of all deaths in the United States each year.*
- *Approximately 61 million Americans live with some form of cardiovascular disease and suffer from resulting disabilities; stroke alone disables more than 1 million Americans, and heart disease is a leading cause of premature, permanent disability among working adults.*
- *Death and disability due to heart disease and stroke will cost the United States about \$364 billion in health care and lost productivity in 2004.*
- *Losing weight, quitting smoking, and controlling high blood pressure and high cholesterol levels are several ways Americans can help keep themselves from developing cardiovascular disease.*

*CDC's Prevention Research Centers use multiple strategies to reduce the risks for heart disease and stroke, which cost America millions of lives and billions of dollars each year.*

### Communities for Heart Health

A healthy lifestyle can prevent cardiovascular disease (CVD) or improve the health of people already affected by heart disease or stroke. Researchers at several Prevention Research Centers (PRCs) are training community members to promote heart health in their neighborhoods. Some residents learn to conduct educational workshops in tobacco cessation, nutrition, or physical activity, while others learn to lead health fairs, walking clubs, and exercise classes. This training helps improve people's heart health and gives communities the know-how to develop programs and activities that address other health needs.

Researchers at one PRC are measuring the lifestyle changes community health advisors make among themselves and their effects on the community's knowledge, attitudes, beliefs, and behaviors related to reducing heart disease risk. Researchers at another PRC are studying whether a

community's *social capital* (resources that enhance trust, cooperation, and social engagement among residents and organizations) can affect the incidence of CVD and related conditions. Some of the indicators being measured include membership in religious and civic organizations, crime rates, housing turnover, voter registration, and number of single-parent families.

### Addressing Women's Needs

Researchers at one PRC are examining a nutrition program to determine if it helps reduce heart disease among older women who lack health insurance. Participants receive individual nutrition counseling, group learning sessions, and referrals to local resources. Researchers are seeing if significant improvements are made in participants' physical activity levels, diets, cholesterol and blood pressure levels, attitudes, knowledge, and motivation. If the program is effective, researchers will develop a plan to disseminate it among other populations of older women.



The Prevention Research Centers are a network of academic health centers, partner communities, and public health practitioners that conduct community-based participatory research to prevent disease and disability.

Researchers are also addressing the needs of low-income women at risk for heart disease who may not have access to dietary counseling. Little by Little is a low-cost, easy-to-use program on compact disk (CD) that helps women assess their diets, learn about nutrition, get personal recommendations, and set goals for improving dietary habits. Of 300 initial participants, 90% said they learned something new and put their dietary goals into practice—even after spending only about 12 minutes using the program.

Researchers at several PRCs are studying Little by Little's effectiveness with more than 400 middle-aged, low-income women at high risk for heart disease. The studies will determine whether using the CD even one time increases the amount of fruits and vegetables participants eat, and whether a follow-up telephone call from a health advisor is more effective than CD use only.

## Improving Measurement Tools

PRC researchers developed and are testing survey questions for assessing the quality of life among people with CVD. The questions will measure perception of recovery from illness, emotional health, social interactions, daily functioning, energy level, and overall satisfaction with health care.

Researchers will select the most valid and reliable questions and

recommend them for addition to the nation's Behavioral Risk Factor Surveillance System. The new questions will help health departments assess the quality of life for people with CVD and measure progress toward achieving state and national health objectives.

## Spotlight on Success

**In Missouri, PRC-led research trained members of 12 community coalitions to promote health and education activities aimed at reducing residents' risk for heart disease and other chronic diseases. The trainees helped their coalitions conduct health fairs (for more than 10,000 school children and their families), lead aerobics and arthritis exercise classes, organize community sports teams, and build 25 walking trails. Other coalition activities have included free cholesterol and blood pressure screenings (for more than 2,500 participants) and workshops on tobacco education and healthy eating.**

Identifying people with familial hypercholesterolemia (FH), a genetic condition marked by high cholesterol levels at birth that often contributes to heart attack at an early age, concerns other PRC researchers. Early diagnosis and treatment are important, so

researchers are establishing FH diagnostic criteria, designing a referral and treatment protocol, and determining what increases participation in diagnosis and treatment programs.

## Improving Care for People with CVD

Some PRCs are working to improve the delivery of health care for people in poor cardiovascular health. For example, PRC researchers are studying the extent to which women newly diagnosed with heart disease are referred to, enroll in, and complete cardiac rehabilitation programs that include exercise training, nutritional counseling, smoking cessation, and therapy for mental health issues.

In another community, researchers are asking medical directors and physicians to identify the best indicators (e.g., cholesterol level) for determining if patients' risks for heart disease are decreasing.

PRCs are also studying how policies and procedures in managed care organizations influence physicians' approaches to diagnosing, treating, and preventing heart disease. The project aims to encourage doctors to actively reduce heart disease by knowing what to look for, when to recommend tests and treatments, and how to counsel patients on making healthy behavior changes.