ORLANDO – The problems associated with cardiovascular disease can only be solved by partnership—with patients, federal, state and local governments, and other health care organizations, according to the American Heart Association’s leadership meeting here at the organization’s 70th scientific session.

“Advances in the understanding of genetics, physiology, pathophysiology, and disease have created new opportunities for clinical research,” said Martha Hill, R.N, PhD, president of the American Heart Association. But this new knowledge will only have an effect if scientists and physicians can integrate behavioral and social sciences with the biomedical sciences. “This research transitions from the laboratory to new applications for diagnosis, therapy, and prevention in humans,” she said in her presentation during the opening session.

She called on the 37,000 meeting participants to lead the way in solving the problems of cardiovascular disease by:

* Embracing the scientific findings that are relevant to the AHA mission of reducing the burden of cardiovascular disease.
* Translating research not only from the bench to the bedside but also into the clinics, homes, and communities.
* Improving health behavior with the same zeal given to support for biomedical research.
* Protecting basic research funding and encouraging further work in the areas of behavioral science, epidemiology, and prevention.
* Communicating the possibilities for preventing and treating heart disease and stroke to members of Congress, state legislatures, and local governmental officials.

In aid of this, she said, the AHA is working to insure that the 7.1% increase for stroke and heart disease research currently in the federal budget stays there, and the organization is joining with others in pushing for a doubling of the budget of the National Institutes of Health by the year 2002.

She asked the AHA conference attendees to write the President and support local grassroots efforts to increase federal funding in the area of heart disease and stroke overall.

Research has also generated a new understanding in the behavioral sciences that could lead to better efforts at prevention and treatment of cardiovascular disease. “But putting the two kinds of findings together in a coherent program is difficult,” said Dr. Hill. “Individual lifestyle habits significantly impact healthy with unhealthy habits accounting for about 54% of known contributions to heart disease. We know that behavioral and biologic interventions can reduce morbidity, disability, and death due to heart disease and stroke.” However, what works in studies may or may not be effective in a physician’s office, clinic, or community, she said.

The “gap between potential and reality, intention and action, information and behavior” must be spanned by better integrating the information gleaned at the laboratory bench and the patient bedside with that gathered from sources in the community.

Dr. Hill asked three questions: “Why does the gap exist? Why must it be closed? What are we, as scientists and the AHA, doing to close it?” Her questions were echoed by David Satcher, MD, MPH, nominee for U.S. Surgeon General and currently director for the federal Centers for Disease Control and Prevention in Atlanta, Ga. “I think the real challenge now is how do we get people out there in the communities to change their behavior,” said Dr. Satcher. “That’s what the CDC and the American Heart Association can do together.”

Dr. Hill lamented the fact that although studies have shown there are ways to change and treat risk factors for stroke and cardiovascular disease, implementation of these strategies has been halting. “Despite programs that show how to lower cholesterol, increase awareness of blood pressure and the use of automated external defibrillators, the results have not been generalized to the public as a whole,” she said. “The failing starts with the biomedical community that emphasizes basic and translational research,” she said. Studies that show how to use such information have had to fight for funding and have often failed to get the money needed. “For example, in a review of the literature on the impact of medication non-adherence on coronary heart disease outcomes, no clinical trials that specifically tested the impact of a compliance-enhancing intervention were identified,” she said.

As physicians are increasingly able to diagnose and intervene in disease, the expectation is that all physicians will make use of such tools. And as such tools are conveyed to the patients, one expects that the problem will be solved. But, as Dr. Hill said, “Physician behavior is influenced by many factors, an increasing number of which they do not control. Patient behavior is also complex and influenced by many factors.” Physical and social environment has an impact as do the kinds of health insurance a person has. And, she said, the way in which academic health centers—where most research is conducted—are organized makes it difficult to set up interdisciplinary approaches to managing cardiovascular disease, even though these methods have been proven most effective in the major treatment trials.

Recognizing these barriers to effective practice will allow the AHA to overcome them and make major in-roads against cardiovascular disease—the disease that kills more people than any other in the United States today.

“None of this can be attained by the AHA alone,” said Dr. Hill. Among the partners working toward these goals are Research!American, a national research advocacy group; the American College of Cardiology, the North American Vascular Biology Organization, the CDC, the Health Care Finance Administration, the Health Employers Data Information Set, the National Committee for Quality Assurance, the National High Blood Pressure, Cholesterol and Heart Attack Alert...
Education programs of the National Heart, Lung and Blood Institute, as well as corporate partners in the pharmaceutical and medical device industry.

“Partnering will be important,” said Dr. Satcher, who delivered the Lewis A. Conner Memorial Lecture as part of the scientific session’s opening. The CDC has recently become more aware of the need for prevention in the area of chronic diseases, he said “It is the leading cause of death in this country, responsible for about 40% of all deaths,” he said. “We spend $250-$260 billion per year treating cardiovascular diseases in this country. What is the cause of this problem?”

“Let me say that cardiovascular disease prevention is at a crossroads,” said Satcher. “I think we need to take a new road. We are investing $1 trillion per year in our health care system in this country...Public health must work with practitioners to insure the prevention of cardiovascular diseases, and we must begin that partnership now. The nation spends $425 billion medical care dollars to treat chronic disease (each year). But the per capita expenditure for chronic disease prevention is only $1.21.” That means that far less than 1% of medical expenditures goes to prevention of chronic diseases. “There is obviously room for improvement,” he said.

“CDC hopes to improve by providing cardiovascular disease prevention projects in every area of the country—just as it has done with immunizations, programs to detect breast and cervical cancer, and diabetes education projects.” Dr. Satcher said. “But to do that effectively, the agency will need to partner with the American Heart Association,” he said.

A 1993 CDC study showed that of 2.1 million deaths annually, nine behaviors accounted for more than half. Tobacco accounted for 400,000, poor diet and lack of physical activity accounted for 300,000, alcohol use for 100,000. “It was clear from this study that if we were going to make progress, we were going to have to change behaviors,” he said. “Of those deaths related to tobacco, 43% were deaths from cardiovascular diseases,” he said. “Smoking is a major issue here; it doubles the risk of heart disease.” Surveys indicate that Americans—particularly the young—are unlikely to eat healthy diets or exercise regularly. “An armed forces report recently stated that the youth of the 1990s are less physically fit than their fathers—the first time that has happened in recent history,” said Dr. Satcher.

As a result, the declines in stroke and heart disease rates that were the cause of celebration in the 1960s and 1970s are beginning to stagnate. Dr. Satcher said that turning the situation around will take the partnership of public health and medical practitioners as well as organizations. “The future of public health in the United States will be difficult as cities become more crowded and young people continue to make deadly choices about sex, violence, tobacco, and diet,” said Dr. Satcher. But he is not without hope. “I believe the pressures to reduce health care costs will lead to more prevention and applied research.”

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