President's Address to the 64th Scientific Sessions of the American Heart Association

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It is a great honor to address the 64th annual Scientific Sessions of the American Heart Association. This meeting represents the best of American cardiovascular science and is wonderfully enriched by the participation of scientists from all over the world. I ask for the indulgence of those from other countries as I discuss some of our successes as an association and highlight a few of the problems yet to be solved in the United States. You may recognize some of these issues as common to experiences in your own land.

Perhaps the most telling measure of an organization's success is the way it spends its money. I believe we can take pride in how the AHA has done in this regard. During the last year $277 million was spent. Of this, 34.3%, or $95.1 million, was used to fund research; 31.0% was spent on public and professional education; and 13.4% was spent on community service. Only 13.6% was required for fund raising and 7.7% for administrative costs.

In 1990 we reached almost 25 million Americans with interactive programs such as our school site-, work site-, and physicians' office-based programs, all of which contributed to the knowledge and improved behaviors that underpin the prevention of heart disease. There is no question that we have begun to win the war against cardiovascular disease—to quote an old friend from another era, Winston Churchill, we are at the end of the beginning.

You probably recall the picture of Stalin, Churchill, and Roosevelt at Yalta, when major decisions were being made about the form of post-war Europe and Asia. Although World War II had been won, the battle against heart disease was still being lost in 1945. In that famous picture President Roosevelt appears gaunt; he was in heart failure with systolic blood pressure over 200 mm Hg. His mental acuity had been dulled for months. The inadequacy of high blood pressure treatment at that time was painfully evident. President Roosevelt lost his life to a cerebral hemorrhage a few weeks later.

Let me tell you about a patient who suffered from rheumatic heart disease. He experienced his first episode at the age of 8, and he had recurrences at the age of 11 and again at 29. He also had repeated dental abscesses. In his thirties he developed a febrile illness and edema and finally succumbed to this malady a few weeks later. In retrospect, almost certainly subacute bacterial endocarditis was superimposed on his damaged heart valve.

This was in December 1791, 200 years ago. The young man was Wolfgang Amadeus Mozart, who died at the age of 35 before finishing the Requiem Mass, his 626th musical composition. What additional musical delights might have followed if penicillin had existed in 1791? Because of knowledge gained through research, medical treatment, and community efforts, rheumatic heart damage is now much less common in the developed world, and the consequences are much more treatable.

I cite these two cases because they are dramatic examples of how the world has changed through programs strongly supported in this country by the AHA. It is abundantly clear that the true benefits of such programs cannot be measured by any of the mathematical models used by economists today. The dollar cost per year of life saved does not express the value of research to a child whose father in years past would have died without the benefits of cholesterol-lowering therapy.

Research has led to convincing evidence that identifying and altering a series of personal traits, or risk factors, can prevent death and disability from coronary heart disease and stroke. Within the last decade dramatic changes have occurred in the cause-specific mortality rates in the United States—changes evident even without adjusting for aging of the population. This is also true in other nations where public health policy has duly recognized this research.

However, the job is far from complete. Cardiovascular disease remains the number one cause of death in the United States; nearly twice as many people die of cardiovascular disease as of all other causes combined.

Cardiovascular disease continues to damage the lives and productivity of too many people. In the United States alone almost 70 million people have treatable cardiovascular disease. High blood pressure affects the largest number, but more than 6 million have known coronary heart disease, almost 3 million are living with the consequences of a stroke, and 1.3 million have hearts damaged by rheumatic fever. In fact, during the last decade our ability to identify coronary disease earlier and to treat it more effectively has resulted in a significant increase in the number of people with this diagnosis. Much of this increase is in the number of people who are still active and productive because of procedures like angioplasty and coronary artery bypass grafting—and, importantly, more of these people are altering their behavior and lowering their risk of continuing advancement of their cardiovascular disease.
However, the cost of caring for these people is rising at a rate no one finds acceptable. It has been estimated that the 5-year cost of a myocardial infarction in America is more than $50,000. Current treatments, very effective and widely used, are also very expensive.

It is, of course, cheaper to die. In the race for cost-effectiveness, any therapy will find it hard to beat death.

Approximately 12% of our gross national product is spent on health care—the highest percentage in the world. With the prospect of the national health bill approaching $1.5 trillion in the year 2000—15% of the estimated gross national product in that year—professional societies, third-party payers, industry, and Congress are all searching for and proposing solutions. Although as an organization the AHA has not been proactive on medical reimbursement issues, it is clear that some of the proposed solutions will have profound implications for cardiovascular care. They could also impair our ability to develop effective medical programs for prevention and further erode research funding.

Reducing medical care costs may be possible by streamlining reimbursement systems, managing malpractice insurance costs, and introducing competitive pricing. What we must not allow to happen is a reduction in prevention efforts and research. The most expensive aspects of medicine stem from ignorance about the causes of disease and the partially effective therapies that we apply empirically. The only definitive and truly satisfactory approach to reducing cost for the long term is to answer the fundamental questions about disease with the scientific method and then to use that knowledge to prevent illness. Accordingly, the AHA’s Steering Committee has recently recommended the establishment of a working group to monitor activity in this area and to help prepare statements that emphasize the importance of research and prevention.

I believe you will agree that we are not using our full biomedical research talent. This is not unique to the United States; in this country and others, a cadre of superb scientists have ideas that could explain etiology, improve diagnosis, and provide more effective measures for treatment and prevention of disease. They are willing to work diligently to test those ideas and to bring information to the medical profession and the public that could truly cut the cost as well as the pain and suffering of disease.

There is little debate about the method. The issue is the level of effort. How do we determine the appropriate expenditure for biomedical research? After considering the cost of community programs, professional education, fund raising, and administration, the AHA set a goal of devoting to research 40% of all money raised by its affiliates through the annual campaign, major gifts, and bequests. This year the AHA reached the 40% goal and surpassed it, with 42.7% of the money from these sources going to the direct support of research projects at institutions across the country. These dollars have been particularly useful in helping young investigators begin their independent research careers and preparing them to compete for other funding.

At the beginning of November 1991, the AHA reached a noteworthy milestone, the allocation of its first billion dollars to cardiovascular research. This is the total amount contributed since the first AHA grant in 1948. Our new commitment is to provide an additional billion dollars for research by the year 2000. The AHA is second only to the federal government in the funding of cardiovascular research in the United States and is dedicated to supporting a larger federal commitment.

The AHA’s efforts in this respect have been helped tremendously by industry. Examples include the commitment of the Pharmaceutical Roundtable, nine companies that have pledged $13.5 million to research over a 5-year period. In addition to its contributions to the roundtable, Genentech, Inc., has pledged $3 million to train physicians in basic science, and the Parke-Davis Company has funded four Special Clinician–Scientist Awards for 6 years with a gift of $1 million. Bristol-Myers Squibb has provided $3 million over 3 years to establish six centers for training physicians in the management of lipid disorders. Most recently, Lederle Laboratories has committed $1.4 million to fund the American Heart Walk in 1992, an event we expect will raise $11 million for research, education, and community programs annually. With the support of the American people and of industry, the AHA has been doing its job over the last year and has set truly challenging goals for the future.

But it is from Congress that the major funding for American biomedical research must come. Are wise decisions being made in those chambers? Is the AHA providing appropriate input to affect those decisions? Are we as scientists and as citizens providing appropriate input to make certain our top-priority issues are being addressed?

How did Congress arrive at the current appropriations of approximately $9 billion for the total National Institutes of Health budget and approximately $1.2 billion for the National Heart, Lung, and Blood Institute? Was it a rational process that took into consideration the cost of health care, approaching $700 billion annually, or the cost of cardiovascular disease, now exceeding $100 billion per year? Was it based on an analysis of long-term goals, specific objectives, and the needs and capabilities of the research establishment? Unfortunately, the answer is no. The budget is largely a political document that has to do with the relative amount allocated to each institute last year and in years past, the number of visits by interested groups to Capitol Hill, the letters received at the White House and by Senate and House offices, and, in some cases, the number of marchers in the streets and the headlines provoked.

To induce larger allocations, our strategy has usually been to focus on the value of maintaining the research establishment and of bringing in new investigators as well as the importance of research activity to the quality of the educational system and to national competitiveness. Although valid, these arguments are often viewed as self-serving. I believe these are tired and progressively less effective methods of getting the federal establishment to do what is, after all, in the best interest of the American people and of the people of the world. We know that biomedical research has been one of the best investments ever made by society. The knowledge gained will continue to pay off as long as we occupy this planet.

Last year, in his presidential address, Dr. Frank Abboud discussed the report of the Task Force on
Strategies to Increase Federal Research Funding, developed under the chairmanship of Drs. Michael R. Rosen and Harold C. Strauss. This report clearly states the rationale for research funding, sets goals, and provides short-term strategies. It also calls for a long-term plan.

I believe that, to be successful, this long-term plan must have some new elements. These elements must be built on the recognition that we as individual members of the biomedical community have a personal responsibility to carry the message of the importance of research.

I believe it is time we recognize that we live in a democracy run by elected officials who are only human—often very human indeed. If we expect our senators and representatives to recognize our view of the world's needs, we must recognize their needs. Common sense, as well as advice from people who know Congress well, suggests that legislators remember people and work best on a personal level. Do you personally know a member of your state's congressional delegation? Have you invited a member of Congress or a congressional staff member to visit your institution? If you are employed by a university or teaching hospital, you work at an institution that is a major employer in a congressional district. In addition, you perform work that constituents are likely to have given top priority on a toll. When your representative considers the NIH budget, his or her concept of research is likely to be influenced by visits to your laboratory and by your hard work, your dedication, and your concerns. It is appropriate to write letters and to visit your legislator's office when you are in Washington. Finally, if there is a senator or representative whom you support, participate in democracy in a meaningful way with a campaign contribution. Even a small gift makes a statement like no other.

What can the AHA do to help increase research funds? The association must confine its lobbying activities to those that apply to specific priorities set by the AHA's mission and the leadership's sense of your interests and concerns. By law, the AHA must limit its national expenditures for political lobbying to less than $1 million, approximately 0.3% of the annual budget.

However, I believe we can make it easier for the AHA's approximately 3.5 million volunteers and the more than 17,500 members of the scientific councils to be more effective individual spokespersons for the research effort. To examine the various possibilities, the Board of Directors will establish a working group to develop strategies for educating the American people and their representatives about the value, even the necessity, of a more active biomedical research enterprise. We believe that the problem involves more than our own parochial interests in cardiovascular research.

We must develop strong collaborative partnerships with other voluntary health agencies whose missions are research based. We believe that additional investments are needed in the understanding of diabetes, cancer, lung disease, arthritis, AIDS, and other maladies that damage and destroy lives. We must not be seen as attempting to garner funds for cardiovascular disease research at the expense of a sensible, balanced approach to biomedical research.

I believe that the AHA and its sister agencies, such as the American Cancer Society, the American Lung Association, and the American Diabetes Association, can help by organizing this effort and making your activities better directed and more efficient. As partners in this effort, universities and medical schools can be helped to develop a more organized approach to increasing funding for research. Model systems could be put into place at our research institutions to link the appropriate faculty members with their state congressional delegations so that legislators can see scientists conducting the research that they are called on to support in Washington. In the age of electronic communication, better systems for contacting our representatives could be designed for local use. We need to be innovative and coordinated. We need a program that tests new approaches, and we must share those that work with all research institutions. To be truly effective, we must make this a practical and long-term endeavor. Is this creating another special-interest group? No; it is increasing the effectiveness of one that already exists. Our interest is very special—it is the health and welfare of the world.

We must always place the public interest first. As long as our actions are taken in that spirit, it is our responsibility to seek action on the part of our government. On the other hand, seeking action that serves our individual career goals, our local institutions, or the AHA in a manner that does not serve the public interest is inappropriate and would correctly leave us open to criticism.

As the working group begins planning, I hope each of you will share your ideas and help us build a program that will be compatible with the ethical standards and psychology of our research community and that will produce meaningful action on this front.

This morning we are beginning a truly spectacular meeting that will allow both the celebration and the criticism of our finest achievements in biomedical research. I hope that when you leave at the end of the week, you will feel enriched but still curious, with a new resolve to reach your own scientific goals, having recognized that more is possible than you had dreamed. I hope that you will also resolve to help the AHA grow stronger in its mission to reduce disability and death from cardiovascular diseases and stroke.
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