Cardiovascular disease myths and facts

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ABSTRACT

Myths about cardiovascular disease—that the problem is going away, that it is a "good" way to die, and that no further research is needed —are undermining prevention efforts and funding for research. Physicians need to counteract these myths.

MANY PEOPLE, both the public and health care policy planners, believe many myths about cardiovascular disease. In part, these myths are the result of our successes in preventing and treating cardiovascular disease. Yet they are having a negative effect on what research is funded and not funded, and on how people behave in their daily lives.

The decrease in mortality may be a statistical artifact

MYTH: Heart disease is going away

Those who believe that the battle against heart disease is being won point to the age-adjusted death rate, which shows that about 300 per 100,000 people died of heart disease in 1960, vs only about 140 per 100,000 in 1994. This rate uses a mathematical formula to correct for changes in the demographics of a population over time. I believe that much of the decrease in the age-adjusted death rate for heart disease is due to the large increase in the number of older Americans in this interval, which results in a statistical artifact, not a real decrease.

An example of the depth of the problem is a May 1996 editorial in *Science*, titled "Heart attacks: Gone with the century?"[1] The authors, who are molecular geneticists, conclude: "Exploitation of recent breakthroughs—proof of the cholesterol hypothesis, discovery of effective drugs, and better definition of genetic susceptibility factors—may well end coronary disease as a major public health problem early in the next century."

FACT: Heart disease prevalence is skyrocketing

By almost any measure, the problem of cardiovascular disease is increasing.

- About 750,000 people per year die of cardiovascular disease, more than from any other single cause.
- Some 13.5 million Americans have survived a heart attack or are living with symptomatic heart disease. Belying the belief that most people with heart disease are the very old, 6.6 million are under age 60.
- Another 4 million Americans have survived a stroke. This does not include the many elderly people with dementia caused by multiple small cerebral infarcts.
- The number of procedures performed each year to diagnose and treat heart disease quadrupled between 1979 and 1994, from 1.2 million to 4.8 million.
- Congestive heart failure, a particularly disabling and expensive condition, is continuing to increase.

The picture will only grow worse as baby boomers age. In 1994 there were 33.2 million Americans over the age of 65. By 2030 that number will reach 70 million. So, despite *Science*'s optimistic prediction that coronary disease will not be a major public health problem in the 21st century, quite the opposite is true.

MYTH: Heart disease is a "good" way to die

This myth is based on the fiction that most people with heart disease live to the ripe old age of 80, and then simply die of a heart attack in their sleep without suffering and without becoming a burden to their family and community.

Partly because of this myth, the American public is turning its back on heart disease prevention. Over the last 6 years, the prevalence of smoking has increased by 50% among 8th graders, and 30% among 10th graders.[2] In 1985, 25% of the population exceeded their

ideal body weight by 25%; in 1995, the figure was 33%.[2] Relatively few Americans exercise regularly, and data indicate that people are exercising less, especially teenagers.

The Centers for Disease Control and Prevention (CDC) awards block grants to states for programs in preventing chronic diseases, and 49 out of 50 states have such programs. Currently, these programs concentrate on diabetes, breast cancer, and cervical cancer prevention. But as of 8 months ago, none of the states had prevention programs for cardiovascular health. None had nutrition programs. None had programs encouraging physical activity.

FACT: Heart disease is often a disabling chronic disease causing premature death

As I noted above, many people under age 60 have heart disease. Forty-five percent of heart attacks and 125,000 heart disease deaths occur in people under age 65.[3]

Thanks to better treatment today, more people are surviving heart attacks, but many suffer long-term problems. Five million Americans now have heart failure. Four of the top five disease categories at hospital discharge (excluding childbirth and its complications) are cardiovascular: ischemic heart disease (including unstable angina), heart failure, acute myocardial infarction, and stroke. Number 4 on the list is pneumonia. The direct cost in medical care is about $160 billion out of the total American health care expenditure of about $1 trillion. Thus, we are spending about 1 out of every 6 health care dollars on cardiovascular disease, and the spending trajectory is heading up.[3]

MYTH: No major research effort into cardiovascular disease is needed

Many health experts and the public believe that if we can just get people to lower their cholesterol levels, cardiovascular disease will just go away.

This view is having a chilling effect on funding for research and prevention. I have grown increasingly dismayed at the underfunding of research into the basic causes of cardiovascular disease and how to prevent and treat it. Between 1986 and 1996 the total NIH budget increased 36%, adjusted for inflation. However, the budget for the NIH's Extramural Heart Program decreased 5.5%.[3] Almost every young researcher in cardiovascular disease is having trouble getting his or her career off the ground.

FACT: Basic and clinical research is needed

Known risk factors explain only about 50% of coronary heart disease risk. Risk factor reduction delays the onset of coronary heart disease, but does not prevent it. And acute therapies such as tissue plasminogen activator, angioplasty, and stenting reduce the symptoms but do not cure the disease, a distinction that even many physicians do not keep clearly in mind.

The American Heart Association has compiled a list of needed research projects that runs for many pages, and ranges from molecular biology to clinical trials. Examples[2]:

- How to prevent stroke and how to minimize brain damage when one occurs.
- How the fetal heart develops—the better to prevent and treat the congenital heart defects found in 32,000 infants each year.
- Why arrhythmias develop. Recent breakthroughs in understanding the genetics of prolonged QT syndrome highlight the value of research in this area.
- Better imaging methods to detect, measure, and assess lesions.
- How to surmount barriers to behavioral changes.

Americans are turning their backs on prevention

THE CHALLENGE TO PHYSICIANS

As physicians, we must get the message out that cardiovascular disease is still our nation's number one health problem, and that heart disease and stroke kill one out of every two Americans.[3] And with the aging of the population, in the 21st century the disease burden from cardiovascular disease will be immense. Only through redoubled efforts in prevention and research will we make any progress against cardiovascular disease.

REFERENCES

1. **Brown MS, Goldstein JL.** Heart attacks: Gone with the century? (editorial) Science 1996; 272;629.
2. **Breslow JL.** Why *you* should support the American Heart Association. Circulation 1996; 94:3016–3022.
3. **Breslow JL.** Cardiovascular disease burden increases, NIH funding decreases. Nat Med 1997; 3:600–601.