

# SCIENCE

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# LETTERS

## Medical Research: Alternative Views

The hubris of Michael E. DeBakey's Policy Forum of 22 October (p. 523), in which he attributes the increase in life expectancy and the reduction of premature mortality to medical research, is breathtaking, self-serving, and mostly wrong.

While medical research has done some truly wonderful things, we have increased life expectancy mainly through the public health system. As Victor Fuchs has observed (1, p. 156)

When the state of medical science and other health determining variables are held constant, the marginal contribution of medical care to health is very small in modern nations.

I know of no thoughtful observer in the health care system who would agree with DeBakey's statement that "[t]he most effective way to improve health is to gain new medical knowledge. . . ." The great enemies of death and disease in the modern world have been sanitation, pasteurization, chlorination, refrigeration, soap, diet, and a high standard of living. Today, a similar challenge faces America, but it has little to do with the agenda of the academic medical centers. Of the ten leading causes of death in America, smoking is a significant factor in four, alcohol a major factor in six, and diet a significant factor in four. Academic health centers have done little to deal with these challenges. No glamour here.

For 12 years as governor of Colorado, I listened to self-serving statements from our medical center, which did little or nothing about our major health challenges: increasing primary care; expanding coverage to the uninsured; dealing with smoking, alcohol abuse, dietary excesses, and deficits; non-medical drugs; and violence. Their biomedical model had little room for the chronic degenerative diseases that are the predominant health issues of the elderly.

Academic health centers have their place in the health care system, but they are also fiscal black holes into which society can pour endless resources and often get little in return. Indeed, an emerging argument is that it may be counterproductive to the total health of society. As Robert Evans points out (2, p. 1360)

A society which spends so much on health care that it cannot or will not spend adequately on other health-enhancing activities may actually be reducing the health of its population through increased health spending.

Evans speculates that the reason Japan has the best health statistics is that they spend the *smallest* amount on health care and use those resources instead on raising their education levels and standard of living.

The United States spends 50% more on health care than its leading competitors. Yet, in no health statistic (except life expectancy at age 80) are we as healthy as the people in Europe, Canada, or Japan. Perhaps we should ask our academic health centers why?

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\*Governor of Colorado, 1975–1987.

In his discussion of the U.S. health care reform, DeBakey argues for continued support for medical centers of excellence and says that "[t]he advances made by medical research are also reflected in mortality statistics over the last century." However, this argument may not serve DeBakey's purpose of securing continued support for clinical and basic research at the major medical centers. As forcefully shown by Thomas McKeown (1) and supported by U.S. statistics (2), preventive efforts have contributed so much to decreasing national mortalities from many causes that the influence of medical research, let alone health care services, is hard to document. While health care for all is certainly a necessary step, it should not detract from the need to promote health and prevent diseases. The potential contributions of scientists and health care personnel toward achieving the latter goals deserve increased attention.

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2. J. B. McKinlay, S. M. McKinlay, R. Beaglehole, *Int. J. Health Services* 102, 181 (1989).