

# UNIVERSITY OF MINNESOTA

*Twin Cities Campus*

*Division of Epidemiology  
School of Public Health*

*Suite 300  
1300 South Second Street  
Minneapolis, MN 55454-1015  
612-624-1818  
Fax: 612-624-0315*

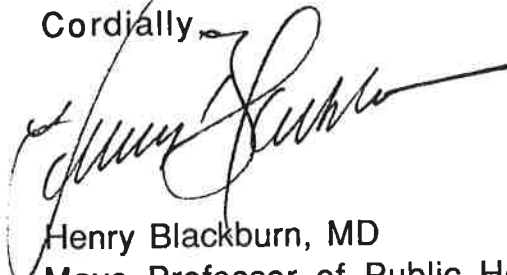
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November 3, 1992

The Honorable George Brown, Jr.  
House Committee on Science, Space and Technology  
U.S. House of Representatives  
Washington, DC 20515

Dear Congressman Brown:

The enclosed editorial voices some very particular concerns on the part of the biomedical research community concerned with epidemiology and prevention research. There may be some potential issues here of value to your staff in your efforts to improve the link between research and national public health goals.

Cordially,



Henry Blackburn, MD  
Mayo Professor of Public Health

Enclosure

## Ancel Keys Lecture

### The Three Beauties Bench, Clinical, and Population Research

Henry Blackburn, MD

To The Honorable George Somers  
Requiem  
Henry Blackburn

**The Three Beauties of Biomedical Research. Gaze on them admiringly:**

"The baroque beauty of biology,"<sup>1</sup>  
The modern beauty of the clinic,  
The classic beauty of epidemiology!

**Ponder their individual missions: the search for universal truths and specific mechanisms at the bench; for unique phenomena, their causes and cures in the clinic; and for mass phenomena, their causes and prevention in the population at large. Seek to preserve each, that all may flourish!** (*Circulation* 1992;86:1323-1331)

Ancel Keys made pioneer contributions to the basic concept of population causes of cardiovascular diseases (CVD).<sup>1</sup> The first lecturer, Geoffrey Rose of London, elaborated the rationale for population strategies of CVD prevention.<sup>2</sup> I want to develop further those concepts and address the pervasive influence of two views of disease—the population view and the individual view—on the thinking and activities in CVD research, policy, and practice. I propose that a narrow focus on the individual accounts for most of the professional misunderstanding and public confusion about preventing cardiovascular and other mass chronic diseases. I also will dwell on how these two views affect biomedical research in general and epidemiology and prevention in particular. To begin, I borrow from the insights of Charles Dickens in *A Tale of Two Cities*: "It was the best of times, it was the worst of times . . ." and suggest that this may be as true today for CVD epidemiology as it was for life in 18th century London and Paris!

#### The Best of Times

It is the best of times when medical science can predict the risk of cardiovascular events, identify those persons at high risk, and provide clear strategies for reducing that risk; when there is strong and congruent evidence that modifying risk characteristics can reduce CVD risk in high-risk individuals and in whole populations; when the goal of prevention extends beyond high-risk individuals to the entire population and, eventually, to the prevention of elevated risk in the first place.

The Ancel Keys Lecture, American Heart Association Annual Meeting, Anaheim, Calif., November 11, 1992.

Address for correspondence: Henry Blackburn, MD, University of Minnesota School of Public Health, Division of Epidemiology, 1300 South 2nd Street, Suite 300, Minneapolis, MN 55454.

The opinions expressed in this article are not necessarily those of the editors or of the American Heart Association.

<sup>1</sup>Term coined by Dr. Donald Fredericksen when Director of the National Institutes of Health.

It is the best of times when an informed populace demands health information, preventive services, and healthier products and environments and leadership is responsive to the demand; when death rates fall dramatically, indicating the dynamic nature of CVD processes and providing impetus to prevention research, policy, and interventions; when medical and social forces join enthusiastically in the control and prevention of elevated blood pressure and blood cholesterol levels, it is socially unacceptable for physicians to smoke, and the cultural climate evolves rapidly toward supporting healthy behaviors.

It is the best of times when the National Institutes of Health (NIH), the American Heart Association (AHA), and other health agencies establish clear policy, set goals, monitor progress, and support a broad strategy of preventive research and programs in CVD prevention.<sup>3</sup>

#### The Worst of Times

But it is also the worst of times when there is a major opportunity and need for research and programs in CVD prevention among many segments of society and when these are nowhere near a high government priority; when biomedical research and development, one remaining area of acknowledged national excellence and source of jobs and economic stimulus, is not among the highest government priorities; when the accelerated costs of doing research and administering programs are entrapped in a linear NIH budget, and the proportional annual increments for the National Heart, Lung, and Blood Institute (NHLBI), the leader of NIH in planning and strategy for prevention, are substantially diminished.

It is the worst of times when the long touted and essential balance of NIH research and program strategies is threatened by competition for resources and by a certain elitism about what is exciting and important in science, and "the baroque beauty of biology" threatens its counterpart, the "classic beauty of epidemiology."

#### Contributions of Epidemiology

As a background to understanding, let us recount what epidemiology contributes, as a major research