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CORRESPONDENCE

Letters to the Editor

Fantastic Voyage Through Cardiology: From 1969 to 2008

Hecht and Colmer (1) deserve praise for their fantastic account of 2 generations of cardiology encompassed in 1 still-living patient. As I reviewed their wonderful presentation of historical text, images, and videos, I could not help but reminisce about the joy of discovering, as a medical student, the numerous interventions possible in cardiology practice. During my cardiology fellowship training, publication of Waller's (2) account of "crackers, breakers, stretchers, drillers, scrapers, shavers, burners, welders and melters" in the future treatment of coronary artery disease only added to the excitement about the specialty.

In my old age, however, I have become equally impressed with the power of public health measures and the impact of prevention (3,4). Aspirin, beta-blockers, statins, and the control of blood pressure and cholesterol play a crucial role in reducing cardiovascular morbidity and mortality (4). Similarly, policy-based initiatives (4,5) and other public health measures that reduce population exposure to risk factors or support health-improving behaviors, such as smoking cessation, increased physical activity, and a diet rich in fruits and vegetables, play important roles, although they are by no means as glamorous as the interventions described by Hecht and Colmer (1) or chronicled by Waller (2).

Several studies from the U.S., New Zealand, Scotland, England, Wales, Ireland, and Finland suggest that 45% to 75% of the decline in coronary mortality can be attributed to risk factor changes, and the remaining 25% to 55% to treatments (6). In fact, improved risk factor levels explained 53% to 72% (and treatments only 23%) of the decline in coronary mortality in Finland (7). It would be highly instructive to learn from Hecht and Colmer how the spectrum of risk factors and major preventive practices changed during this fantastic voyage. In the words of the legendary broadcaster, Paul Harvey, providing this account may tell "the rest of the story" (8).

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Please note: The findings and conclusions in this letter are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Reply

We are delighted to respond to Dr. Mensah's query regarding the changes in risk factors and major preventive practices during the 2 generations of the "fantastic voyage" (1). Sadly, there is a large gap between progress in prevention and the spectacular progress in diagnostic testing and intervention. This prevention gap may be attributed to several factors:

1. In primary prevention, there is a disconnect between risk assessment by risk factor analysis (Framingham Risk Score, Procam, European Society of Cardiology) and the actual risk determined by events, which is much more accurately predicted by coronary calcium scanning (2,3).
2. Despite the superiority of coronary calcium scanning to identify candidates for aggressive prevention, its widespread use for screening has been road-blocked by demands for randomized controlled trials showing its effect on outcomes. This criterion has never been fulfilled by the Framingham Risk Score, Procam, European Society of Cardiology, or, for that matter, by nuclear stress testing, rest and stress echocardiography, cardiac catheterization, and most interventions. Nonetheless, they are accepted as gospel.
3. This "deadly double standard" (4) and the continued reliance on risk-factor-based prognostication will continue to deprive high-risk patients of the possibility of early identification, with an unconscionable and unnecessary increased morbidity and mortality.
4. Indeed, there has been an explosion of risk factor identification (including high-sensitivity C-reactive protein), none of which