Guest Editorial

Rethinking Prevention

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The last century has seen breathtaking progress in morbidity and mortality prevention, but within the last decade, progress has been scarcely measurable, and, when measurable, largely unexplained.[1] Simple interventions with dramatic impact are becoming more and more difficult to achieve. No longer the exclusive province of the medical profession, issues in prevention have been taken up by numerous other private and public groups. It is time for the medical profession as a whole, and for those of us in family practice in particular, to pause and reconsider some of the goals, obstacles, and responsibilities for prevention in the next decades.

One could compose endless lists of all the diseases and deaths one would like to prevent, but among possible goals in prevention, how should priorities be determined? In the United States priorities are the result of a haphazard conjunction of factors: local, state, and federal health initiatives; availability of research funds; private special-interest groups (eg, American Cancer Society, March of Dimes); current popular opinion; and others. The perspective of one group is likely to differ from that of any other. Thus, on the apparent assumption that crude numbers of deaths offer the best way to set priorities, we spend more on cancer and heart disease prevention (small though the sums may be) than we do on accident prevention, even though the latter is the greatest cause of lost years of life. We profess a commitment to cancer prevention on the one hand (National Cancer Institute), but on the other, we pass out subsidies to tobacco farmers (US Department of Agriculture).

Even the straightforward goal of preventing premature death is controversial. How does one define premature? How should the quantity and quality of life saved be balanced? One of the ironies of modern research in gerontology is that dying of old age is no longer fashionable; we are told that there is no particular reason that someone dies of advanced age alone. What, then, lies just beyond our most common killers? Can it be prevented? Our situation today may be compared with that of our professional colleagues a century ago as they confronted the leading causes of death at the time. Could anyone in the nineteenth century have predicted the heart disease, cancer, strokes, and accidents lurking just behind the infectious diseases about to be controlled? Actuarial calculations do not suggest that average life span would increase by much if, for example, heart disease and cancer were restrained.[2] Should not then the goal of preventing these diseases be reconsidered?

Were it possible for us to agree upon general goals and priorities in prevention, we would still need to determine the level of intervention. For example, the attention paid to the first human recipient of an artificial heart indicates that tertiary prevention and dazzling technology are the preferred level of controlling heart disease in our society. The development of programs in primary prevention, whatever that might be for heart dis-

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ease, is less exciting, less glamorous, and, unfortunately, less marketable to the population.

We in the medical field can, perhaps, be forgiven for taking a medical view of the goals of prevention, but there are other perspectives. Some of the most important goals of prevention are not the province of the medical profession at all, but rather are social and cultural issues of immense scale. If health is broadly defined, good nutrition, adequate housing, a safe workplace, and the pursuit of happiness are reasonable goals for prevention, unmet even in our affluent society. A disquieting perspective, shared by many physicians, is afforded by the regeneration of interest in nuclear disarmament: what could possibly be of more preventive import than the destruction of the planet?

An inquiry about the goals of prevention, then, is not an idle question, but one with many potential answers in several dimensions. Answers offered by private citizens, physicians, local health departments, county governments, state agencies, the National Institutes of Health, the World Health Organization, or by any other individual or institution are likely to differ generally and specifically. Unlike suppression of infectious diseases in the past, control of the multifaceted conditions currently pressing the population will require more agreement on goal and method than we have so far observed.

Regardless of goal, we can identify significant barriers to successful prevention falling into several categories: biological, environmental, social, governmental, and lifestyle.[3] To illustrate, consider the obstacles to the prevention of lung cancer. At the biological level, there are many questions unanswered: we need to exhaust the list of carcinogens, we need to understand carcinogenesis, we need to understand differences in host susceptibility, we need to develop better detection strategies, we need better treatment protocols, and so on—all issues related to how lung cancer begins, is detected, and is treated. The environmental level poses other challenges: how to control known pollutants, how to minimize occupational exposures, and how to protect those at high risk. The government, heavily invested in tobacco subsidies and paralyzed in its attempts to control environmental hazards, is far behind in its efforts to identify other potential causes of lung cancer. Social obstacles are several: normative behavior, especially among young people under pressure from peers to smoke; the political and economic power of cigarette companies; and the slow progress in making smoking socially unacceptable. Finally, personal habits and lifestyles are substantial impediments if lung cancer incidence is to be reduced.

The problem here is that any goal identified for prevention is likely to be impeded by a variety of factors requiring further research, education, and social and political action. It seems that even the simplest goals may require removal of a remarkably complex network of obstacles.

Goals set, obstacles identified—who should lead the attack? Let us pause before volunteering the medical profession. Responsibility connotes action as well as blame for inaction, and I am unsure that we want to place ourselves in such a position. Given that many of the problems have decidedly nonmedical causes (eg, poverty, social deprivation, pollution), where does the medical profession fit? An extreme view is that we do not fit at all, that physicians should stay out of prevention, a fundamentally nonmedical issue.[4] The other extreme is that the nation's health is the full responsibility of the medical profession. The medical profession itself seems curiously schizophrenic on the issue: we are the first to (incorrectly) take credit for declines in cardiovascular mortality or rheumatic fever, but also the first to bring to attention others who have failed in the prevention of teenage pregnancy or of lung cancer in women.

My view is that everyone shares individual and corporate responsibility for setting goals and removing obstacles for effective prevention—the physician, the lawyer, the elected official, the bureaucrat, the economist, the industrialist, and the citizen. Physicians have important knowledge, needed skills, and, in part, a unique perspective, but the problem is not ours alone and we cannot hope to suggest all the potential solutions.

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