The Challenge of Implementing the Prevention Goals: Some Questions for Researchers and Communicators

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SYNOPSIS

Two important issues in achieving change are how biomedical and behavioral research advances are viewed and used and the problem of "translation"—that is, how the results are put into practice. Momentum in federally funded research has been continued because we are betting that today's knowledge is limited relative to what remains to be learned about the prevention of disease. Those who administer programs, give primary care, and educate health professionals would benefit if they became fully sensitized to the world of research, and the planning of research would be invigorated by the perceptions of administrators and practitioners.

The process of translation depends on the information function, and this function is as important as research and delivery. The schools and the media have created a public interested in science and medicine, but persuading people to change lifestyles is relatively unexplored territory. More knowledge in this area would help to decrease, for example, the number of smokers in the population and the number of accidents on the highways and in the workplace.

A YEAR AGO I ASKED that the Public Health Service develop an implementation plan for the 15 areas in "Objectives for the Nation" (*1*). I also asked that we identify which PHS agencies would take the lead in each area. Since then, all 15 plans have been drawn up and approved. In addition, I have held six progress reviews to make sure that we are moving forward on all the objectives and that we identify any problems early and solve them. The results of these reviews are being published in *Public Health Reports* (*2,3*).

By 1985 there will be hundreds of new physicians practicing primary care in this country. How can we make them and their colleagues in other health professions more sensitive to prevention?

We are working to implement the objectives at a high energy level because we enjoy the solid support of the Secretary of Health and Human Services. Secretary Schweiker has kept a promise he made before his confirmation to place prevention at the top of the Federal medical agenda. He has established a national health promotion program with specific tasks assigned to the Social Security Administration, Health Care Financing Administration, Human Development Services, and of course, the Public Health Service. Secretary Schweiker and I co-chair the Executive Committee that watches over this effort.

The national program zeroes in on five specific areas: nutrition, physical fitness and exercise, alcohol and drugs, smoking, and preventive services. The objective of this fifth area is to ensure that every "primary care" physician is actively engaged in providing effective preventive services to children, adults, and the elderly. Such services would include immunizations, diabetes and hypertension detection and management, cancer screening, and so on.

We hope that such a level of sensitivity will be achieved by the year 1985. Of course, by then there will be hundreds of new physicians practicing primary care in this country. How can we make them and their colleagues in other health professions more sensitive to prevention?

The Department has just announced the Secretary's Award for Innovation in Health Promotion

and Disease Prevention. It is being carried out in collaboration with the Federation of Associations of Schools of the Health Professions. Students who attend these schools are eligible to compete. The students include our future physicians, dentists, nurses, pharmacists, and many others for whom health promotion and prevention can—and should—play a major role in their career development.

In the past year or so, we have made a great deal of progress in elevating prevention and health promotion in the scheme of national health priorities. At this point, however, I would like to raise two issues that do not ordinarily come up in formal agendas, but are nevertheless part of any effort to bring about change. The first issue concerns research—how it is viewed and used—and the second issue concerns the problem of "translation," for want of a better word.

Role of Research

I am a firm believer in the necessity for maintaining a strong Federal presence in biomedical and behavioral research. The Federal Government is the most logical agent for long-term, costly research, particularly basic research. Even in this period of great constraints on Federal spending this Administration has tried to maintain momentum in federally funded research affecting public health. We do this because we believe that our vast research enterprise—both public and private—will produce new and useful information in the months and years ahead, just as it has in the past.

What are the implications of that statement? First, it means that, as a matter of national policy, we are betting on the fact that today's knowledge is limited, relative to what remains to be learned. In other words, a great deal of the strategy for achieving prevention objectives may shift a degree or two, depending on the new knowledge coming along in the future. We must work with the ghost of physicist Werner Heisenberg looking over our shoulder, reminding us how uncertain we really are of the physical world today—and how risky it is to be categorical about the way things will look in the future, whether the future is the next few seconds or the next few decades.

We hope that by 1990, we will have come up with the vaccines to prevent the spread of herpes or other sexually transmitted diseases. We are pursuing behavioral research that might enable us to reduce significantly the incidence of alcoholism or to help people decide to quit smoking and then stick with that decision. None of these breakthroughs would lead us to relax the prevention program, but they might well convince us to shift some priorities and fine-tune our strategies.

I wonder if we will be equipped to learn about those research developments, to understand adequately which development can really make a difference and which one is merely part of the record that will lead to the big breakthrough still ahead. I raise this point because, in this age of specialization, most of us tend to stay close to our own field and to become excellent in what we do as a professional. At the same time, I think we tend not to exploit all the available opportunities to acquire a more catholic awareness of new developments in biomedical and behavioral research. As a result, there tends to be a significant gap between the discovery of important information and the time when that discovery is understood and applied in medical practice.

In addition, because we often come upon these developments as if they were brand-new, rather than culminations of a long research process, we may not be able to handle them with sufficient care and understanding. We may leap to conclusions about their applications that are simply not warranted. Such a reaction is a real danger that surrounds the working life of today's compartmentalized practitioner. It is dangerous for the continued professional growth of the practitioner and for the people who depend on that practitioner for guidance and help.

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What can we do to maintain a strong link with the world of research? A first step, in my judgment, would be for each of us in public health administration, health delivery, or education to sensitize ourselves to the world of research—to try to understand it and to see how it relates to our own work. Somehow, we need to keep up to date on what the world of research is contributing to the knowledge base of public health.

This is not a one-way street, however. I believe that researchers would also benefit from the practitioner's and the administrator's perceptions of what society's needs and priorities may be. The planning for research that goes on in the National Institutes of Health and at the Centers for Disease Control, for example, does make room for many nonresearch interests to be heard. But I am not convinced we have yet been able to stimulate enough interest and involvement from a broad spectrum of the health community.

At no time would I advocate a minority role for researchers in setting priorities and allocating resources. Nevertheless, I also believe that their planning would be much improved if it grew out of a more vigorous consensus process that involved concerned practitioners, public health administrators, educators, and leaders of our professional and voluntary health and medical associations.

I think much of this "give-and-take" goes on now in such disguises as the scientific assemblies held by State medical associations and continuing education programs put on for State and local health administrators by the faculties of nearby medical centers or schools of medicine and public health. I fully support these activities.

Also, I suggest that we not look upon them as "add-on" activities that one attends in order to be advanced in a particular hierarchy or as a way of gaining some relief from routine. Instead, I hope these mechanisms can become integrated into our whole strategy for promoting health and preventing disease and disability. They would be introductions to the future—to change and to living with uncertainty.

The first issue, then, poses this question: What role does research play in the total strategy of health promotion and disease prevention, and how do we ensure a role for research? The answer is: Research plays a critical role because of the way it affects the future of our strategy, and that is something upon which each of us, in turn, can exert some influence. And that leads me to the second issue.

Translation

One of the great accomplishments of the Centers for Disease Control (CDC) has been its ability not only to track down the mysteries of legionnaire's disease or of toxic shock, but also to explain to the general public just what these things are. Even when dealing with disease conditions not fully understood, like Kaposi's sarcoma and genital herpes, CDC has shared with the public whatever information it had and, in that way, gained greater participation by the public in refining and expanding our programs of detection and treatment of these diseases.

But CDC must share whatever praise it may receive with scores of health officials in State, county, and local governments that are in daily contact with the public and the media—truly an extraordinary partnership at work in the public interest. It is based not only upon solid, professional understanding of the scientific and medical data available, but also on a shared dedication to informing the public of the health issues about which it has a right and a need to know.

If the public information role—or the "translation" role—is being carried out so well, why do I identify it as an issue? The answer is that, in the overall strategy of prevention, the information function takes on an importance virtually equal to the research and service delivery functions. When we identify changes in lifestyle as the key to more effective prevention programs, we are, in effect, admitting to our reliance on the power of public education and information. And the issue is simply this: Are we adequately prepared to use such power in order to achieve the 1990 objectives?

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I would not minimize the need for excellence in the transmission of messages between and among different levels of government. But I want to take that activity another step and heighten our awareness of the general public as listeners and actors.

First, it would be a mistake to underestimate the level of knowledge about—and interest in—science and medicine among the public. Our schools have done a fairly good job in producing a generation that is more literate in science than its parent's generation. The public press and television have been devoting more and more of their resources to stories

about new advances in science and medicine. They obviously believe that is a way of capturing a larger share of the audience, and we should believe it, too.

But delivering news and stimulating changes in behavior are different information activities. The first, delivering news, we can do pretty well; the second, changing behavior, we are just beginning to explore. The antismoking program is probably the best example of this dichotomy. We have done very well in delivering to the general public a lot of complicated, unpleasant, and controversial information about the dangers of smoking cigarettes. That information has obviously had some effect; the overall number of smokers is declining, although in some age groups and among women the best we may have accomplished is a leveling off of the numbers of smokers.

We have a fair idea of the motivations for most people who have quit, but we are not positive. Also, less than 5 percent of those who quit do so with the help of some smoking cessation program. The rest quit on their own. We are still trying to find out why this is so, how we might capitalize on it, and how we might strengthen the resolve of persons who consider taking up the habit once again.

Are we delivering the right kinds of information to support local ordinances requiring nonsmoking sections in restaurants and airplanes? Is there something else we ought to be saying to make that kind of legal and administrative action more acceptable and understandable? The answers to such questions should not only strengthen our antismoking campaigns but also help us do a better job in preventing highway accidents, especially those that are alcohol-related.

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Those are the comparatively easy questions regarding the issue of public education for prevention. There are other questions, however, for which we do not have ready answers. For example, we have been open with the public about the nature of sexually transmitted diseases (STD), and we have cooperated with the media in getting as much information out as possible. But how are we doing as far as changing behavior is concerned? What *can* we do in that area? Is there a government role for encouraging lifestyle changes because of the STD danger? Maybe there is; I do not believe that even this opinion would be unanimous.

The problem is similar in occupational safety and health. There certainly are a number of things that individual employees ought to do for themselves that would not interfere with their work responsibilities, but these constitute a rather limited list. The other safety and health concerns in business and industry tend to be intertwined with many purely economic considerations. Again, I doubt that there will be unanimous agreement on what all employers and all employees should do to maximize on-the-job health promotion and the prevention of disease and disability.

In these cases, we need the help of good research, enlightened media coverage, sympathetic educators, and a thoughtful public. This is a difficult combination to achieve for any purpose in our society, much less prevention and health promotion. Hence, we need to move ahead with great caution when we begin translating the work of colleagues in health, science, and medicine so that it is accessible by the general public. The public may or may not want it. It may or may not be appropriate.

Conclusion

I know that the implementation effort can be highly successful. It is happening in smoking, and we *are* making headway against drunk driving. Gradually, the research community is coming around to seeing the need for adjusting its sights to include more effort in the prevention area.

I am an optimist with great faith in public health workers. But I am also impatient. I want our successes to multiply. I do not want to retreat on this important prevention campaign, because it would have grave consequences for the health of our citizens.

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