

Current Comments

Is Preventive Medicine Taking Off at Last?

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Last winter I delivered a lecture at the Center for Disease Control (CDC) in Atlanta, Georgia.¹ During my stay there, I learned that CDC is broadening its horizons by becoming a national center for preventive medicine. Several years ago I suggested something very similar.² At that time, my plan involved the establishment of an Institute for Health Care Systems Research, to be financed by insurance companies. Unfortunately, despite meetings with government officials and the heads of five Blue Cross companies, nothing ever came of my idea.

In the last few years, however, there has been increasing support in both the medical and popular literature for organizations and institutions that would emphasize *preventive*, rather than *curative*, medicine. Preventive medicine is defined as "that branch of study and practice which aims at the prevention of disease."³ As such, preventive medicine can take many forms. An educational program designed to teach teenagers about the problems of VD, for example, is a form of preventive medicine. Vaccinating children against polio, and teaching women to perform breast self-examinations for early detection of cancer, are also forms of preventive medicine.

Reflecting the interest in preventive medicine, CDC, which is a federal agency under the Department of Health and Human Services (HHS) (formerly Health, Education, and Welfare), was recently reorganized to shift its focus

from disease control to disease prevention. This is a result of efforts by both CDC and the US Surgeon General, Julius B. Richmond. Larry Sparks, CDC's Washington special assistant, explains that CDC's role in national health programs has been evolving for some time toward health promotion. The new organization provides official recognition of that change.⁴

With its new organization CDC effectively becomes a national operating center for preventive medicine, with its function the active promotion of health through preventive medicine. While this is certainly a vital function, it only covers half the problem. Another institution—perhaps within the National Institutes of Health (NIH)—should be established to handle the *research* aspects of preventive medicine. Although both CDC and the NIH currently do much preventive medicine-related research, there is no US institute devoted to preventive medicine. The combined efforts of a research center and an operating agency would result in a comprehensive national program of preventive medicine.

CDC has long been a prevention-oriented institution. Established during the Second World War, CDC was originally an office for malaria control. It has grown steadily since then, continually adding the control of more and more diseases to its responsibilities.⁵ In 1970 it was officially named the Center for Disease Control, and in 1973 it became an agency within the Public Health Ser-

vice, charged with the reduction and prevention of unnecessary disease and death.⁴ The latest change, announced by HHS Secretary Patricia Roberts Harris on October 14, 1980, reorganizes CDC into six operational units. A new name, the Centers for Disease Control, reflects the reorganization. Each of the new centers will be concerned with a specific area of health promotion: prevention services, environmental health, occupational safety and health, health promotion and education, professional development and training, and infectious diseases. The Centers will incorporate the old divisions of CDC, and will continue to operate from its facilities in Atlanta.⁶

The division that deals with preventive medicine, the Center for Prevention Services, is charged with the responsibility of "planning, directing and coordinating national programs of assistance involving preventive health services to state and local agencies."⁶ It incorporates the old CDC immunization division, tuberculosis control division, VD control division, dental disease prevention program, quarantine division, diabetes and kidney donor activities, and health incentive grants program. Dennis Tolsma, CDC, office of the director, explains that CDC's function in these areas is one of assistance—technical, training, and financial—to state and local organizations. CDC also does various types of related research, including follow-up field studies of different programs.⁷

CDC's preventive programs, as indicated by their titles above, are diverse. For example, CDC provides financial assistance to communities nationwide for programs such as the fluoridation of water, screening children for lead-based paint poisoning, and rat control. Grants to state health agencies for general public health programs and for specific disease control activities are also made by CDC. These grants, explains Tolsma, allow individual organi-

zations to provide their own preventive medicine programs, while enabling CDC to study which sorts of programs are most effective.⁷

In addition, CDC has been active in other areas of health promotion. Staff members contributed a good deal of material to the recent Surgeon General's report on health promotion and disease prevention.⁸ That report, published in 1979, details the major health problems faced by Americans according to age group, and sets up prevention objectives for the nation. The Center was also instrumental in the preparation of yet another government report, *Model Standards for Community Preventive Health Services*.⁹ This document was prepared in accordance with the 1977 Health Programs Extension Act, which required the secretary of HHS to establish standards for community preventive health services. The report identifies a series of goals for all community health services and outlines a flexible schedule which can be used by communities in planning how to meet those goals.

Interest in preventive medicine is not limited to CDC, however. The idea of preventive medicine is actually an old one that has grown in popularity in recent years. Health foods, exercise, and high-fiber diets are all part of the preventive medicine craze now sweeping this country and many others. So far, though, there are few organized efforts to educate people about preventive medicine.

There are several reasons for the apparent lack of preventive medicine programs. First, as has been pointed out many times, we are a society geared toward the curing of disease, rather than the promotion of health.¹⁰⁻¹³ Our thinking and our medical facilities are all oriented toward handling disease once it appears, rather than keeping it from appearing in the first place. Second, as J.A. Muir Gray, Oxfordshire Area Health Authority, Oxford, En-

gland, points out, preventive medicine is a future-oriented concept, one which is difficult for our now-oriented culture to take seriously.¹⁴ And that is the difficulty of preventive medicine: people must be willing to learn from and take advantage of preventive programs. The issue of cigarette smoking provides a good example. Smoking has been shown to cause lung cancer, yet, despite intense government campaigns to educate people about that fact, the number of smokers in the world remains large. In fact, in 1978 it was estimated that over one third of the US adult population smokes regularly.¹⁵

Even when preventive measures are implemented, the results may be less than desirable. The swine flu fiasco in 1977 is a case in point. In that particular incident, an expected epidemic of swine flu was countered in the US by mass vaccinations. The epidemic never materialized and unfortunately, the vaccinations, for some people, proved to be dangerous.¹⁶

These factors, combined with the fact that preventive medicine can take so many forms, make planning and creating a good preventive medicine program difficult. Proposals for preventive medicine programs have been both numerous and varied. Ernest Saward and Andrew Sorensen, University of Rochester School of Medicine and Dentistry, for example, advocate more federal health insurance coverage for preventive services. They point out that the current "Medicare program specifically excludes payment for preventive services to the elderly."¹⁷ Bruce Stokes, Worldwatch Institute, Washington, DC, on the other hand, suggests that the government should only provide full insurance coverage for catastrophic illnesses. "If the first \$500 or \$1,000 that families spend on health care each year came out of their own pockets," he says, "there would be a built-in incentive to limit trips to the doctor and to practice more self-care." The money

saved by such a plan should be used to "finance courses for consumers on basic health care and home treatment of chronic illness."¹⁸

Another plan aimed at encouraging people to keep good health practices (such as eating right, exercising, and not smoking) provides insurance benefits, such as lower premiums, for preventive practices. A person who does not smoke, for example, pays less for health or life insurance than someone who does.¹⁰ Such programs, in fact, are now offered by several insurance companies. Educational programs of all types have also been proposed. Yet another report suggests the creation of lifetime health-monitoring programs. This system, worked out by Lester Breslow, University of California, Los Angeles, and Anne R. Somers, Rutgers Medical School, would require everyone to undergo a set number of physical examinations, spaced throughout different age periods. Each examination would concentrate on the particular health problems associated with the patient's age group.¹⁹

To date, the federal government's role in preventive medicine has been rather unorganized. The Public Health Service Act²⁰ (originally enacted in 1912, and continually amended since then) provides for federal grants and financial assistance to institutions such as hospitals, medical schools, and health care agencies, for research and health care programs. Some of the money is allocated for general use, and some for programs against specific diseases, such as cancer. Grants are available to states as well, to allow for the establishment and maintenance of public health services, in accordance with goals and priorities established by the state.

The Act also sets out guidelines for the creation and running of health maintenance organizations (HMOs) and makes funding available to these health centers. In the past few years, HMOs

have made valuable steps toward a national preventive medicine program. HMOs can be started by any group—both public and private—and they can now be found across the US. An HMO member pays a set monthly fee which entitles him or her to medical services, at established HMO facilities. This arrangement encourages regular check-ups, in the hope that potential problems can be caught and treated early. Many of ISI®'s employees participate in an HMO program.

Many private institutions have also recognized the need for preventive medicine. The American Hospital Association, for example, has established a prevention-oriented facility. Called the Center for Health Promotion of the American Hospital Association, 840 N. Lake Shore Drive, Chicago, Illinois 60611, it serves as a coordinating organization for hospital health programs. The Center aids hospital staffs in planning programs for three major groups: patients, employees, and the community in general. They offer advice and materials on different types of health prevention programs—such as smoking education, stress management, cardiopulmonary resuscitation (CPR) training, and prenatal classes—and guidelines on how a hospital can develop programs that are suited to its community. A hospital in a business community, for example, might wish to institute a program within local industries, such as a lecture series on cardiac risk reduction. A small town hospital, on the other hand, might choose to work with elementary school students, teaching them good health habits. The Center aids in programs of this sort by serving as a clearinghouse for information. It will steer a hospital to numerous organizations that are willing to provide material on the subjects needed. The Center also publishes a bi-monthly newsletter called *Promoting Health*, which features information

about programming, information resources, and views on the issues in hospital-based health promotion.

Another organization, the American Board of Preventive Medicine, Inc., has approached the problem of preventive medicine in another way. (The Board has no permanent address; inquiries are handled by the incumbent secretary-treasurer, whose address can be found in the *Directory of Medical Specialists* published annually by Marquis Who's Who, Inc. The current secretary-treasurer is Herschel E. Griffin, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania 15261.) In an attempt to improve the quality of preventive medicine practiced in this country, the Board certifies doctors in preventive medicine. Applicants for certification must be licensed doctors, able to practice in the US and must have experience practicing preventive medicine, plus a master's degree in preventive medicine, to qualify for testing by the Board. Tests administered by the Board cover all aspects of preventive medicine in one of four fields: general preventive medicine, public health, occupational medicine, and aerospace medicine. Although the certificate has no legal significance, it does indicate a doctor's interest and competency in the area of preventive medicine.

Life and health insurance companies, though they would seem to be logical proponents of preventive medicine, have been slow to support this field. The scene seems to be changing at last as more and more insurance companies offer compensation for preventive medicine services and are engaging in self-medicine advertising campaigns. The introduction of a non-smoker's insurance policy by several insurance companies, which I mentioned earlier, is a positive step. Nonetheless, it is wise to be somewhat cautious as preventive medicine can be overdone. For exam-

ple, some doctors feel that annual check-ups are not appropriate in every age group. A recent report in *Consumer Reports* supports this position. The same report points out that some tests—such as electrocardiograms and chest X-rays—are usually a waste of time and money for apparently healthy people.²¹

Of course, the US is not the only country with an interest in preventive medicine. Most of the industrialized countries, in fact, share the growing trend toward preventive medicine care. Various types of programs and legislation have been discussed and implemented in many countries, including Great Britain,^{22,23} the Federal Republic of Germany,²⁴ Italy,²⁵ and Switzerland.²⁶⁻³¹ In Austria, for example, a unique prenatal and infant care preventive medicine program was instituted in 1973. Under this program, called the "Mother-Child Health Passport," pregnant women receive a cash award after undergoing a set number of prenatal examinations. A similar award is given after four check-ups during the infant's first year. Austrian authorities estimate that infant mortality dropped 30 percent in the first five years of the program.³²

The Chinese have been emphasizing preventive medicine for over 2,000 years. Since 1949, medicine in the People's Republic of China has especially focused on prevention. Measures include compulsory vaccinations for children, routine physical examinations, and regular exercise programs. The Chinese claim to have achieved disease prevention and health maintenance with their medicine programs.³³

Preventive efforts seem to be limited, however, to industrialized countries. In developing nations medical emphasis remains on selective primary care—mainly the control of major diseases such as measles, diphtheria, and malaria.³⁴ Several international health organizations—the World Health Or-

ganization (WHO), the Pan-American Health Organization (PAHO), the United Nations Children's Fund, the Agency for International Development, and the Peace Corps—are dedicated to the improvement of world health. Many of their services, such as vaccinations, cleaning up water supplies and sewage disposal, and the creation of health centers, are prevention-oriented.³⁵

The literature of preventive medicine is widespread, appearing in journals from all over the world. One journal, appropriately entitled *Preventive Medicine*, deals exclusively with that subject. *Preventive Medicine* began publication in 1972, and is covered in *Current Contents®/Clinical Practice*. Articles on preventive medicine can also be found in many medical and scientific journals, including *The Journal of School Health*, *The American Journal of Public Health*, and *The Bulletin of the World Health Organization*. All of these journals are covered in various editions of *CC®*.

The field of preventive medicine is clearly a growing one, but, as yet, still unorganized. The CDC reorganization should make CDC a focal point for all these varied activities in the US, and draw attention to preventive medicine. Such an institution is certainly much needed if we are ever to have complete and effective preventive services. It's too early to tell if CDC will live up to its promise, but HHS Secretary Harris is certainly to be commended for giving CDC the go-ahead. I hope her successor will consider preventive medicine worthy of support. One would hope that economy-minded leaders will recognize that preventive medicine outlays now can increase productivity in the future.

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