The Health Promotion Organization: A Practical Intervention Designed to Promote Healthy Living

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INTEREST IN THE SO-CALLED CRISIS of health care has increased steadily during the past decade, with widespread agreement concerning the need for reform in the American medical care system (*1–3*). Many suggested reforms reflect a preoccupation with the economic dilemmas of modern medicine (*4*). Less frequently considered are the institutional arrangements, technology, environment, and social networks associated with health-aversive lifestyles. Changes in the primary sources of morbidity and mortality since the 1900s illustrate the etiological significance of environmental and lifestyle factors. The problems of disease control have changed radically from a half-century ago, when pneumonia, tuberculosis, and other infectious diseases were among the leading illnesses and killers. Today, heart disease, cancer, stroke, respiratory diseases, and accidents constitute the principal cause of premature death and disability among adults in modern industrialized nations (*5–7*).

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An earlier version of the paper was presented at the annual meeting of the Commissioned Officers Association of the United States Public Health Service in San Francisco on May 23, 1977, and the paper was selected as a finalist for the J. D. Lane Award.

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Increasingly, there is recognition that the critical factors contributing to morbidity and mortality relate as much to social and environmental factors as they do to shortages of physicians, nurses, drugs, or hospitals. Wildavsky (*8*) reports that the medical system affects about 10 percent of the usual indices for measuring health. The remaining 90 percent are sensitive to factors over which physicians have little or no control, including individual lifestyle, social conditions, physiological inheritance, and the physical environment. "Most of the bad things that happen to people are at present beyond the reach of medicine" (*8*). Thus, efforts directed toward disease prevention and health promotion must extend beyond the traditional medical care system itself to include institutional linkages that promote health, changes in technology and environment, intervention in social support networks, and modification of individual lifestyles.

There is no denying the importance of appropriately reforming the health care system itself, but such reform can affect only one segment of the health status of the population. There has been in recent months a reemphasis of the importance of behavioral and environmental factors in the health of individuals. Two recent conferences reflect this broadening perspective about health and stress the need to reassess our current health policies. The conference on "Future Directions in Health Care: A New Public Policy," convened jointly by the Institute of Medicine of the Rockefeller Foundation, University of California Health Policy Program, and the Blue Cross Associ-

ation, focused on steps necessary to construct a new health policy. The other, a working conference on "Incentives for Health," conducted through the Health Promotion Project of the World Man Fund, a nonprofit foundation (*9*), examined the pertinence of lifestyle to health, as well as the inter- and intra-institutional incentive systems that can be developed or mobilized to encourage healthy living. Both conferences pointed to the need for policy initiatives and programatic efforts that deal effectively with environmental and lifestyle factors that are health-aversive.

In the present report, we describe the background and structure of a health promotion organization (HPO), an intervention designed to promote healthy living. The HPO ideally involves all social institutions in this effort. One of its key virtues is that it can be part of existing medical care facilities rather than requiring generation of yet another independent medical organization.

Behavior, Environment, and Health

Recent works by Navarro (*10*), Brenner (*11, 12*), McKeown (*7*), and others underscore the importance of environmental, social, and behavioral factors in overall health. Although the relationship between behavior and health has been recognized for some time, its policy implications have been stressed only recently (*13–18*). Western allopathic medicine defines disease inductively in terms of the body's deviation from physical norms and health as the absence of such deviation. In this context, treatment of a patient is pursued on a bio-chemo-surgical basis, relegating behavior to a minor role. Such a view is no longer tenable, considering the enormous social and technological changes that human society has undergone in the past century. As Rene Dubos has said (*19*):

> It is no longer permissible to take comfort in the belief that various types of vascular diseases, of cancers, chronic ailments of the respiratory tract, have become more prevalent simply because people live longer in affluent societies. The increase in chronic and degenerative diseases is due, in part at least, and probably in a very large part, to the environmental and behavioral changes that have resulted from industrialization and urbanization.

Another neglected area of importance to health is the quality of nutrition, now recognized increasingly as a vital component of the national health status. The Senate Select Committee on Nutrition and Human Needs (*20*) reported recently that a great deal of evidence continues to accumulate on the relationship between diet and several major causes of death and disability in the United States. Some witnesses estimate that improved nutrition might cut the nation's health bill by one-third. Concern, Incorporated (*21*) sponsored a conference on important policy issues relating to nutrition. These diverse studies all suggest that medical technology and improvement in the delivery of health care will not be sufficient to improve the overall level of health.

The need for environmental and lifestyle changes is further supported by the Canadian experience of the past decade. Studies by the Long-Range Health Planning Branch of the Canadian Ministry of Health and Welfare (*22*) suggest that little measurable improvement has occurred in the overall health of that na-

tion, despite rapid improvement in the quality and accessibility of health services during the last 20 years. The development of prepaid health insurance over the past 15 years, which culminated in the introduction of national universal Medicare in 1967, made health services available to all Canadians, but had little impact on mortality and morbidity rates. An analysis of the principal cause of morbidity and mortality revealed that environmental factors and lifestyle contributed so greatly as to constitute the keys to effective control.

The LaLonde document, "A New Perspective on the Health of Canadians," conceptualizes the health field as comprised of four general components: environment, lifestyle, health care organization, and human biology. The advantages of this approach are exemplified in the following statement (*22*):

> It permits a system of analysis by which any question can be examined under the four elements in order to assess their relative significance and interaction. For example, the underlying causes of death from traffic accidents can be found to be mainly due to risks taken by individuals, with lesser importance given to the design of cars and roads, and to the availability of emergency treatment; human biology has little or no significance in this area. In order of importance, therefore, Lifestyle, Environment and Health Care Organization contribute to traffic deaths in the proportions of something like 75%, 20% and 5%, respectively. This analysis permits program planners to focus their attention on the most important contributing factors.

While the need to achieve behavioral and environmental changes as a principal means of disease prevention and health promotion is evident, our understanding of the precise means by which to accomplish this change is less clear. Ironically, the failure to appreciate the role of behavior and institutions in disease prevention and health promotion stems, in no small measure, from the spectacular success of public health efforts in the elimination of infectious diseases. The public health model for infectious disease control (the vaccination model) encourages the belief that the most active thing people need do is to visit health care professionals for treatment. The inadequacy of this model in dealing with problems of environmental health and lifestyle is starkly obvious. Clearly, to deal adequately with environmental and lifestyle problems, we will need to develop ways to motivate people: (*a*) to stop doing things that are detrimental to their health and (*b*) to engage in alternative behaviors that will increase their health and well-being.

Institutions, Environment, and Health

A person's lifestyle and behavior cannot be viewed atomistically; the cultural, political, economic, and social milieus must also be considered. Lifestyle is directly linked to the activities of the political and economic institutions that support technology. But the same technology that has improved the quality of life in the United States has also degraded the physical environment through air and water pollution and other industrial byproducts. The resultant altered physical environment contributes to the incidence of chronic disease. Thus, any long-range health promotion effort must be concerned with improving the quality of the physical milieu.

In the area of occupational health the impact of environmental factors has unfortunately been demonstrated most clearly. Hunt (*23*) outlined the extent to which unprotected women workers have paid for occupational exposures with their own health problems and with teratogenic offspring. Recent study indicates that some occupational exposures of male workers also cause significant problems in their offspring (*24*). In his groundbreaking review of the effects of anesthesias on operating room personnel, Corbett (*25–27*) amply documented increases in cancer, birth defects, and abortion. The pesticide DBCP (dibromochloropropane) caused testicular atrophy in some workers, leading some researchers to term that effect "chemical vasectomy."

The patterns of other institutions contribute in less direct ways to current health problems. For example, the health care system provides economic incentives for sickness rather than health, in that people receive financial rewards from most health care plans only when they are ill. Physicians are paid only for treating illnesses, and there is no incentive to focus on methods for promoting health. These negative incentives extend into other realms as well. In the hospital, patients are rewarded by staff for being passive recipients of care. Little is done to encourage the individual person to take an active role in his own health and recovery through self-care and self-help (*28–30*). Such practices not only fail to reward those who are healthy or who make an effort to stay healthy, but also implicitly penalize them.

The primary social support networks surrounding the individual—the informal work group, the peer group, the neighborhood, and the family—can, and often do, contribute to health-aversive lifestyles. It has been well documented that the failure of social networks to support the individual can contribute to or exacerbate illness (*31*). However, there is another aspect that should be considered. Successfully functioning social support networks often provide incentives or rewards for behavior that is detrimental to health. Several common examples can be cited. Frequently, work groups reward substance abuse, par-

ticularly the consumption of alcohol. Teenage groups often provide status rewards for "adult" behaviors, such as smoking, sexual promiscuity, and drinking alcohol. The cultural patterns of particular families or groups encourage poor nutritional habits as well as sedentary lifestyles. Accordingly, primary social support networks constitute important targets for any institutional program seeking to improve the overall level of health.

This cursory examination of institutions suggests that the incentive systems operating at many levels of society tend to reward health-aversive lifestyles and behavior. Moreover, the very technology upon which present lifestyles are based contributes to the incidence of chronic disease. Thus, any effort at disease prevention and health promotion must seek to encourage healthy lifestyles by creating formal and informal incentives to motivate the individual person. Close cooperation among government, business, labor, and the health care system will be necessary to develop an array of incentives.

The recently passed Toxic Substances Control Act of 1976 (TSCA) illustrates how complex the situation is when Government alone attempts to control health hazards. Potentially, 70,000 chemicals are to be regulated, including existing chemicals for which new uses are suggested. Determinations must first be made that no existing legislation or Federal agency activity could better administer any specific questionable substance. Following this determination, the TSCA machinery is put in motion. Obviously, without Government incentives for industrial cooperation, TSCA is unenforceable. The need for toxic substances control cannot be questioned, but the possibility of achieving control without devising broad incentives for business seems grim. Without promoting voluntary corporate compliance, decades of Government regulation would be required.

Current Behavioral Strategies

Public health, in common with other major institutions in our society that are broadly concerned with human welfare, faces a conceptual and methodological crossroads. In addition to the customary passive strategies that constrain individual persons, active strategies that attempt to change behavior and institutions should also be employed to improve the health of the entire population. It is not sufficient to equip ambulances with cardiac pulmonary resuscitation equipment. People must also be motivated to lead healthier lifestyles, so that there is less need for such equipment.

Some potential active strategies for disease prevention and health promotion for individuals are described by Maccoby and Farquhar (*32*), Farquhar and co-workers (*33*), Bandura (*34, 35*) Mahoney and Thoresen (*36*), and others. Preliminary research on self-control and social learning suggests that reinforcement contingencies are more effective than punishment contingencies in achieving long-term behavioral change (*36*). In other words, people respond better to rewards for good behavior than to punishments for undesirable behavior.

These ideas have been successfully employed to effect behavioral change in the population of an entire community. Maccoby and Farquhar (*32*) compared the reported rates of smoking, exercise, and weight loss in three separate communities during the first 8 months of 1973. One community received mass media and personal instruction; another received only mass media instruction; and a third served as control, receiving no health intervention. Behavioral change was greatest when both mass media and personal instruction techniques were combined, although mass media instruction alone also helped. Used in conjunction with mass media, intervention reinforcement devices, such as instructor and spouse encouragement, group support, a progress report feedback system, and the anticipated gratification of doing well in physical examinations, promoted behaviors that resulted in weight loss, reduced smoking, and more exercise. For our purposes, however, an important finding of this work is that mass media techniques and intensive instruction by members of the community were effective in producing general improvement in community lifestyles and health.

Current Institutional Strategies

Several recent initiatives undertaken by the Federal Government and the private sector are encouraging. The National Health Planning and Resources Development Act of 1974 (Public Law 93–641) specifies that Federal health systems agencies take responsibility for preventive measures. The Health Maintenance Organization Act of 1973 (Public Law 93–222), amended in 1976, also encourages preventive health care. The Secretary of Health, Education, and Welfare is sponsoring several initiatives to stimulate these developments by lessening barriers to the formation of HMOs and promoting some health education ventures regarding smoking. More recently, the National Consumer Health Information and Health Promotion Act of 1976 (Public Law 93–317) has specifically provided the legislative mandate for the Secretary of the Department of Health, Education, and Welfare to:

formulate national goals, and a strategy to achieve such goals, with respect to health information and health promotion, preventive health services, and education in the appropriate use of health care;

* * * *

/and/ undertake and support research and demonstrations respecting health information and health promotion, preventive health services, and education in the appropriate use of health care.

Private business has acknowledged a responsibility in health promotion for some time (*37–41*). The number of companies with innovative health programs is increasing. The Gates Rubber Company of Denver has a primary care clinic on its premises. IBM, Johns Mansville, ALCOA, and others of the Fortune 500 now provide a variety of health services to all employees; increasing numbers of firms are establishing HMOs for employees and their families. Within the health care sector itself, some interesting innovations have also occurred. Hawaii's Blue Shield provides its subscribers with health examinations, which consist of preventive screening and health promotion procedures. Blue Cross of Rhode Island has a program for its members designed to generate interest in self-care.

At the 1977 conference on "Future Directions in Health Care: A New Public Policy," White (*41*) outlined three strategies for encouraging health-promoting behaviors. First, at the individual level, he suggested mobilization of the educational, political, and health care enterprises, along with the advertising and communications industries, to improve American understanding of individual and collective responsibilities for health and health care. Second, at the corporate level, White proposed a system of "health accounts" as part of all annual corporate reports. These would specify how much each firm is paying for health benefits; what the corporation spends on occupational health and safety programs, on physical fitness activities, and on employee and community health education; and what the corporation does about smoking on the job and about vending machines with junk food, cigarettes, or soft drinks. Finally, he suggested that each health sciences school, hospital, and health care institution in the country should directly address the needs and demands of the populations it serves by including "market-oriented" or epidemiological accounting in annual institutional reports.

Suggested Strategies

These expressions of interest and concern point to a conceptual linkage between government and the private sector in health promotion and disease prevention, although the roles for each sector are as yet poorly defined. In the remainder of this paper, we will focus on the prospects for broadening this nascent interface and present a health promotion model that depicts the multiple ways in which government and the private sector may beneficially interact. Unless educational efforts are linked into a larger institutional framework that encourages health promotion, efforts at behavior change will probably be disillusioning. For example, little can be accomplished at the individual level if business and industry do not take responsibility for changing technologies that are health-aversive. Furthermore, much of our current health education makes the assumption that by making information available to the population, suitable behavior change will follow. This, obviously, does not occur. People cannot be motivated to initiate or maintain positive health-oriented behavior unless political, economic, and social institutions provide sufficient supports and incentives for such an undertaking.

A concerted enterprise is required that engages the collaboration of the public, goverment at all levels, the health professions, the insurance industry, and the whole range of consumer-related industries, for example, recreation, nutrition, fashion, media, and communications in order to give people and institutions the motivation, incentives, and techniques for altering their health-aversive lifestyles and for promoting behaviors that will increase their well-being. The Federal role in such an enterprise would be to provide the necessary legislative and economic supports to create physicial, cognitive, and social environments that encourage positive and meaningful participation. This is entirely consistent with the Federal intent as set forth in the Department of Health, Education, and Welfare's "Forward Plan for Health FY 1978–82" (*42*):

It is clear that the Government's function is to enable people to make sound decisions about their health, to equip them with information and skills and other resources to translate these decisions into action, and to aid in the removal of legal, economic, physical or other barriers that might prevent them from acting accordingly.

Health Promotion Organizations

We propose the establishment of voluntary, community-based health promotion organizations (HPOs) that will (*a*) reward healthy lifestyles by teaching people to take greater responsibility for their own health, and (*b*) create incentives for health promotion and disease prevention by stimulating a closer working relationship among government, business, labor, and the health care system.

Community involvement in health care means more than conventional public participation in environmental cleanups or health screening campaigns. Adeniyi-Jones (*43*) suggests that one rational starting point for developing new approaches to community health participation is a realization that the individual and social networks, family, neighborhood, and community are in fact already involved and already participate. Accordingly, existing natural affinity groups from the community, such as schools and factories, should be incorporated into the HPO to insure its success.

Several potential entry points can be suggested for reaching the general public. Annually, the unemployment, welfare, and social security systems provide billions of dollars in direct compensation. If recipients could be encouraged to join an HPO and solicit other family members and neighbors to join, several benefits could be derived. The unemployed and retired could become involved in health-oriented service to the community, the overall level of health in the community would improve, and the direct cost to the government for medical services under the welfare and social security systems could be reduced. Such a system could provide incentives not only to the individual, but to the community and government as well.

Consider further the value of utilizing the vast lay resources in health promotion. Mothers, or homemakers, comprise the frontline health workers in both developed and developing societies. In this regard, women may be thought of as family "gatekeepers" (*44*), in that they are instrumental in opening the family's gates to behavior changes and are an important potential resource for the HPO. As far as is possible, the HPO would also rely on physician extenders, particularly for health tests, health care, and preventive maintenance services. Stead (*45*), Silver and co-workers (*46*), and Ostergard and co-workers (*47*) noted that the recently upgraded training of paraprofessionals permits them to function as primary providers of patient health services with excellent results. A more recent investigation (*48*) of the utilization of paraprofessionals in a poor rural area indicated that a single physician can increase productivity 300 to 400 percent through utilization of existing resources—for example, specially trained and supervised nurse-practitioners, problem-oriented charting, and selective multiphasic screening.

Premises of the HPO. The HPO ought to be based upon the following premises:

1. All people can strive to improve their health, relative to their own individual capacities and restrictions.
2. Achieving physical and mental well-being is a learning process for people. Individuals can develop and maintain behaviors consistent with good health if they are given appropriate incentives and rewards and shown how to do it.
3. Involving and teaching people about self-help and self-control practices in disease prevention and health promotion is possible only if the public and private sectors are willing to make major intermediate and long-range investments in the restructuring of economic and social incentives that will encourage change in the behavior of both consumers and providers.

Health goals of the HPO. A new value system is central to the proposed HPO. One important task would be to develop a set of principles of living, which could serve as health goals for members of the HPO. As a starting point, we may use, with minor modification, the principles set forth in the Canadian report (*22*):

1. It is better to be slim than fat.
2. The excessive use of medication is to be avoided.
3. The fewer cigarettes smoked, the better it is.
4. Exercise and physical fitness are better than sedentary living and lack of exercise.
5. Alcohol is a danger to health, particularly when driving a car.
6. Mood-modifying drugs are a danger to health, unless properly supervised.
7. Tranquility is better than excess stress.
8. The more responsibility one takes for one's own health, the better it is.
9. The less polluted the environment, the healthier it is.

It is important to review these or any other set of health goals as open-ended and empirical, thus permitting change, evolution, and self-correction as new knowledge and understanding become available in specific areas. These health goals would serve as the modus operandi upon which the HPO would be based.

Structure of the HPO. The diagram shows the operational components of the proposed HPO and their interrelationships. The following paragraphs briefly describe the components.

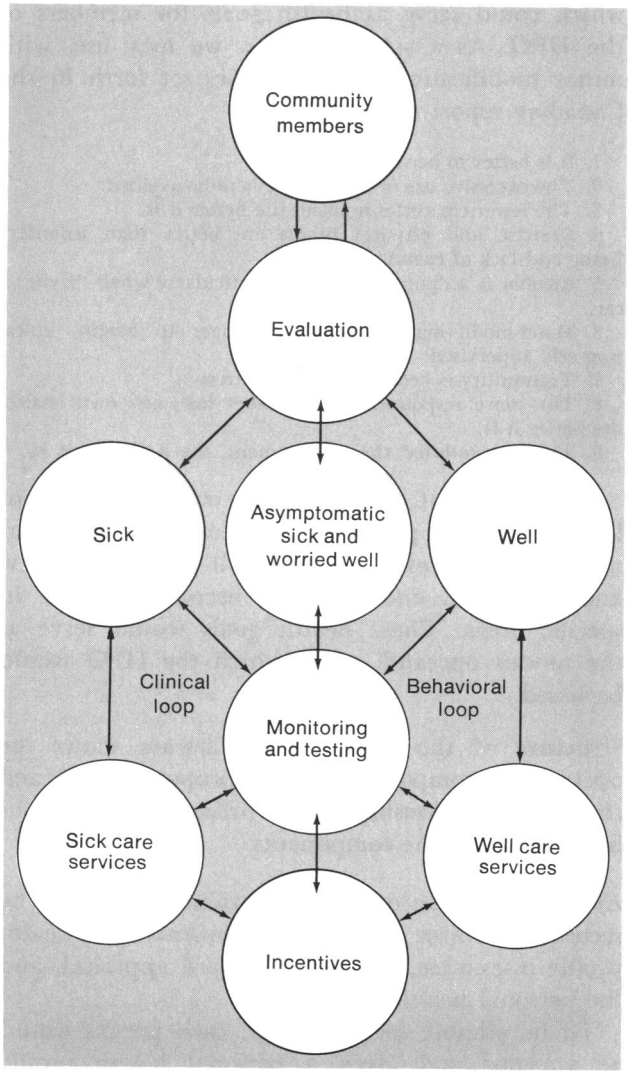
Evaluation. The outcome of evaluations would be recorded in three important documents—the health profile assessment, the health hazard appraisal, and the personal health passport.

To be eligible for the HPO, each person would be screened and given a personal health profile

based upon objective medical criteria and clinical and lifestyle self-report histories. Paramedical personnel would make these assessments. The experience of the Kaiser-Permanente Medical Group (*49, 50*) suggests that such a health profile assessment screening could be accomplished quite cheaply, possibly at $10 or less per person.

The self-reported lifestyle data would also be used to develop an initial health hazard appraisal for each person (*51, 52*). The specific contribution of health-aversive behaviors, such as occupational exposure, overeating, alcohol, drug, or other substance abuse, to reductions in longevity can be computed for each person, based on morbidity statistics for a standard, normative population. Life expectancies can be specified, based on the projected cumulative effects of unhealthy lifestyles. This appraisal can be used to motivate people to change aversive behaviors by illustrating graphically the number of years they can expect to increase their lifespan by modifying harmful behavior patterns (*52*). This procedure permits a quantitative approach for measuring progress toward the goal of better health, and it can thus be used for positive reinforcement.

Operational components of the health promotion organization



Subsequently, HPO members would be issued health passports that describe their personal health profile status and health risk status. The health passports would serve two functions: (*a*) members would be informed about their personal health vis-a-vis an idealized set of conditions postulated under the list of health goals and (*b*) members would be encouraged to participate in training to alter their lifestyles and lessen their risks. Following evaluation, members may be classified according to the triage system of Garfield (*50*) as falling into categories of sick, asymptomatic sick or worried well, and well.

Sick care services (clinical loop). Those who require immediate care would be referred for medical care through the sick care bypass. All others requiring sick care would be monitored and tested appropriately. The standard range of medical personnel (pediatricians, obstetricians and gynecologists, family practitioners, internists, and other specialists) would manage the sick care service.

Well care services (behavioral loop). HPO members not requiring sick care attention, that is, the well, the worried well, and the asymptomatic sick would be referred to the well care services. The range of well care services might include, among others, health educational courses in self-care and self-help, workshops in management of substance abuse, nutritional awareness and diet seminars, physical fitness testing and exercise programs, stress management workshops, as well as family planning for teenagers and adults. Wherever appropriate, extensive use would be made of resources from the community to assist people in initiating and maintaining appropriate behavioral and lifestyle changes.

Monitoring. Those identified as being at high risk because of their behavioral profiles (those who have problems of obesity, excessive drinking, smoking, or other substance abuse or exposure to suspected toxic substances) would be encouraged to participate in programs intended to produce changes in their health profiles. Change would be evaluated in terms of a person's past record, rather than in competition with other HPO members. Improvement in health status would be recorded on visual displays ap-

pended to personal records and could be publicly rewarded as well. Those who repeatedly failed to improve would be eligible to participate voluntarily as research subjects in innovative experimental approaches.

The incentive system. At all levels, the incentive system, which is central to the HPO, would be geared to motivate people to seek required sick or well care services and to change their health profiles. The incentive system would include courses in self-care and stress management (relaxation training, yoga, biofeedback, transcendental meditation); consumer discounts on material goods and services; and recreational facilities and activities (gymnasiums, tennis, swimming, and other athletic clubs).

Economic incentives could also be used. One form this might take derives from the literature on token economies (*53*). At each step throughout the HPO, people could be rewarded with health stamps analogus to green stamps. For instance, as an incentive to undergo certain tests, a person would receive a fixed number of stamps. Also, for maintaining or achieving certain desirable health norms, people would be rewarded with health stamps. Accumulation of these stamps would allow people to choose among certain rewards, such as running shoes, athletic club membership, discounts on certain foods, and health educational courses in self-care, things which themselves encourage healthy lifestyles. These rewards could be provided by local businesses or institutions that, in turn, would receive tax benefits for such contributions. Furthermore, those who attain desirable health profiles and maintain good health status might be offered reductions in life and health insurance premiums, based upon their record of utilization and claims to loss ratio.

In addition, sociocultural incentives giving healthy behavior a coveted status symbol should be developed. Those who achieve standards of optimum health would be eligible for special recognition, for example, a citation or medal for achievement or continued exemplary performance. Some of this recognition is happening today. Public and media attention is given to those who participate in nonprofessional marathon races, hikes, and other athletic events.

As mentioned earlier, part of the HPO's paraprofessional staff would be community gatekeepers. These community members would lead workshops in self-control and thus reinforce healthy behavior by their own examples and presence. Furthermore, the HPO would be allied with existing social support systems throughout the community in an attempt to encourage social status for participation in the HPO. Specific community projects would be undertaken to foster interest in a healthy lifestyle. Individuals and groups would be encouraged to develop innovative ways to promote health, and such efforts would be rewarded by social recognition.

Financing the HPO. Several potential mechanisms might be employed to provide the funds necessary to operate the HPO. These include funding by the Federal Government under a comprehensive program of national health insurance, funding by health insurance companies through innovative programs, and funding by business and industry as part of the fringe-benefits package provided to employees. The premise underlying each of these mechanisms is that less cost will be incurred in maintaining and enhancing health than in treating sickness. The actual form of any HPO will be greatly constrained by emerging Federal policies for health care cost containment.

Undoubtedly, the implementation of any of these funding mechanisms will require substantial major changes. Health insurance premium and payment practices would have to be altered. For example, reduced premiums could be effected as incentives to encourage participation in an HPO, and payment programs could be revised to support the operation of an HPO. Similarly, medical, corporate, and Federal thinking about health would have to change. This would entail acceptance of programmatic changes so that the HPO could become an integral component of current medical care organizations. As a component rather than an independent organization, the HPO could operate with a high degree of financial efficiency.

Discussion

Although we are optimistic about the potential value of HPOs for improving health, the practical utility of such interventions must be assessed through small-scale demonstrations. Demonstrations would not only provide the information necessary for adequate evaluation, but would also permit further elaboration of the structure and process of the HPO.

As a demonstration project, the first HPO can obviously have only a limited impact on the community. Nevertheless, we expect a general improvement in public health can be measured in the reduced use of costly sick care services. The LaLonde document indicates that human biology, health care delivery, environment, and lifestyle simultaneously influence the demand for health care. By modifying

health-aversive lifestyles, the HPO should reduce demands on the costly sick care system.

The HPO strategy of encouraging group-generated self-modification of health-aversive lifestyles does not preclude more passive interventions when these are appropriate. For example, inoculations to prevent the spread of infectious disease and structural designs that reduce the trauma caused by highway accidents are excellent passive interventions. Less environmental pollution by industry, as well as further restriction on the sale of substances deleterious to health, would also passively facilitate the goal of better health. However, other behavior, such as poor dietary habits and avoidance of physical exercise, are less amenable to passive intervention. Thus, to be optimally effective, disease prevention and health promotion require the individual's active participation and motivation.

It is important to point out that it is not necessary to achieve perfect results to justify an HPO. What may be critical is the potential social utility of such a prevention-oriented endeavor compared with the cost of conventional ameliorative treatment. By promoting healthier lifestyles and environment, through the involvement of individuals, business and labor, and government, HPOs might be expected to reduce national health costs and indirectly stimulate the economy. Such considerations indicate solely the potential economic value of establishing HPO-like organizations across the nation. Yet, if the HPOs did nothing but increase longevity and decrease morbidity, they would be worthwhile. The short-run costs of health care must be weighed against the intermediate costs of lost worker days, and tertiary care interventions, which now outpace any other sector in cost inflation. As a potential strategy for keeping a lid on immediate costs and reducing reliance on more costly tertiary care, the HPO merits a serious trial.

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SYNOPSIS

NG, LORENZ K. Y. (National Institute on Drug Abuse), DAVIS, DEVRA L., and MANDERSCHEID, RONALD W.: *The health promotion organization: A practical intervention designed to promote healthy living. Public Health Reports, Vol. 93, September-October 1978, pp. 446–455.*

Most discussions of the crisis in health care overlook the contributions of lifestyle and environment to health status. It is becoming increasingly clear that the leading causes of morbidity and premature death, for example, heart attack, cancer, accidents, and stroke, are associated with living patterns. This paper suggests ways to reduce the prevalence of these pathologies.

The authors propose the development of health promotion organizations (HPOs) that can be incorporated in existing medical care facilities, avoiding the tendency to promulgate new, independent facilities which subsequently increase the costs of health care. The proposed HPO will create incentives for good health practices by (*a*) rewarding healthy lifestyles, (*b*) teaching people techniques that promote health, and (*c*) stimulating more effective linkages between the private sector and government.

Private insurance companies presently reward sickness, but the proposed HPO will encourage the private sector to shift its incentives from illness to health. The HPO model integrates existing social support networks from the community, business, labor, and health professions. Extensive use of allied health professionals in the HPO acknowledges the need to go beyond the confines of the traditional medical profession to improve the overall level of health. The paraprofessionals would perform assessment and health hazard appraisals. The sick would be referred for medical care; the well, the worried well, and the asymptomatic sick would be offered education and skilled training in self-care and self-help.