The Family Physician and Health Objectives for the Nation

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Specific, measurable health objectives for the nation have helped guide federal, state, and local policy in disease prevention and health promotion during the 1980s. About one half of these objectives will probably be achieved by 1990. Public awareness of hypertension and its consequences, for example, is at very high levels. Although the physician's office is a key setting for accomplishing many of the objectives, physicians remain largely uninformed about them and uninvolved in the broader process of public health policy formulation. Family medicine, as a specialty concerned about the care of the individual in the context of family and community, has much to contribute to future public health planning efforts. A plan for drafting the year 2000 objectives is beginning. Because the objectives will help shape health policy in the future, family physicians should be involved in developing appropriate health objectives for the nation and helping to implement them.

The emergence of family medicine in the 1960s as a specialty marked a change in the way the American health care system went about its business. In the 1980s, another shift has occurred—an emphasis on disease prevention and health promotion. The evidence is everywhere—lay and professional articles on nutrition, exercise, and the annual physical examination; workshops at the 1986 annual meeting of the American Academy of Family Physicians; hospital "wellness centers"; and questions patients increasingly ask about what they should eat, how they can quit smoking, and whether they need screening flexible sigmoidoscopy.

The change stems in part from the agenda-setting function of the federal government, one of its public health responsibilities. Since 1980 the Public Health Service has had a comprehensive set of health objectives for the nation. These objectives describe changes in the health status, risk factor prevalence, and health knowledge of the American people to be achieved by 1990. They are the

basis for many aspects of public health policy. Family physicians, by treating individual patients, affect the prevalence and incidence of disease. Their work is, in turn, affected by public health policy decisions that may not take into account the clinical perspective. As the Public Health Service prepares to write objectives for the year 2000, family physicians should review how the 1990 objectives came to be and what implications they hold for public health policy and clinical practice.

BACKGROUND

The health promotion revolution in American medicine was heralded by the 1979 publication of the Surgeon General's report, *Healthy People*.³ It described how the major causes of mortality were no longer infectious diseases such as influenza, pneumonia, and tuberculosis. As they were brought under control, new medical problems emerged. Instead of infectious diseases, the major causes of death in the United States had become heart disease, stroke, cancer, and accidents.

In 1900, personal choice had little effect on the chance of succumbing to influenza or tuberculosis. Conversely, the new "diseases of civilization" have everything to do with individual behavior. Apart from genetic susceptibility, one's risks of cancer, heart disease, stroke, and accidents depends on such decisions as whether to smoke,

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TABLE 1. PRIORITY AREAS FOR MEASURABLE HEALTH OBJECTIVES		
General Health Areas	Objectives	
Preventive health services	High blood pressure control Family planning Pregnancy and infant care Immunizations Sexually transmitted diseases services	
Health protection	Toxic agent control Occupational safety and health Accidental injury control Fluoridation of community water supplies Infectious agent control	
Health promotion	Smoking cessation Reducing misuse of alcohol and drugs Improved nutrition Exercise and fitness Stress control	

drive while intoxicated or while not wearing seat belts, eat a diet rich in saturated fats, and avoid exercise.

The Surgeon General's report set the ambitious goal of lowering the mortality rate for infants, children, adolescents and young adults, and adults. For older Americans the objective was to maximize function rather than to minimize mortality. The Public Health Service targeted two special health problems for each age group. For infants, the emphasis was on low birthweight and birth defects; for children, accidents and issues of development; for adolescents and young adults, substance abuse and motor vehicle injuries; for adults, cardiovascular diseases and cancer; and for the elderly, functional independence and premature death from influenza and pneumonia.

The next step was writing 226 specific, measurable health objectives in 15 separate priority areas (Table 1). To accomplish this undertaking, Public Health Service agencies developed background papers and suggested possible objectives for each of the 15 areas. Almost 200 experts from inside and outside the federal government reviewed these materials at a 1979 conference and developed draft objectives, which were published in the *Federal Register* and circulated for comment to more than 2,000 groups and individuals before their final publication in 1980.²

THE OBJECTIVES

The objectives for high blood pressure control (Table 2) illustrate how all the objectives are written. Each priority

TABLE 2. HIGH BLOOD PRESSURE CONTROL OBJECTIVES

Priority Goals, Knowledge, and Means

Improved health status: By 1990, at least 60% of the estimated population having definite high blood pressure (160/95 mmHg) should have attained successful long-term blood pressure control, ie, blood pressure at or below 140/90 mmHg for two or more years

Reduced risk factors: By 1990, the average daily sodium ingestion (as measured by excretion) for adults should be reduced to at least to the 3- to 6-g range

By 1990, the prevalence of significant overweight (120% of "desired" weight) among the US adult population should be decreased to 10% of men and 17% of women, without nutritional impairment

Increased public and professional awareness: By 1990, at least 50% of adults should be able to state the principal risk factors for coronary heart disease and stroke, ie, high blood pressure, cigarette smoking, elevated blood cholesterol levels, diabetes

By 1990, at least 90% of adults should be able to state whether their current blood pressure is normal (below 140/90 mmHg) or elevated, based on a reading taken at the most recent visit to a medical or dental professional or other trained reader

Improved services and protection: By 1990, no geopolitical area of the United States should be without an effective public program to identify persons with high blood pressure and to follow up on their treatment

By 1985, at least 50% of processed food sold in grocery stores should be labeled to inform the consumer of sodium and caloric content, employing understandable, standardized, quantitative terms

Improved surveillance and evaluation systems: By 1985, a system should be developed to determine the incidence of high blood pressure, coronary heart disease, congestive heart failure, and hemorrhagic and occlusive strokes. After demonstrated feasibility, by 1990 ongoing sets of these data should be developed

By 1985, a methodology should be developed to assess categories of high blood pressure control, and a national baseline study of this status should be completed. Five categories are suggested: (1) unaware; (2) aware, not under care; (3) aware, under care, not controlled; (4) aware, under care, controlled; (5) aware, monitored without therapy

area includes five categories of objectives: improved health status, reduced risk factors, improved public and professional awareness, improved services and protection, and improved surveillance and evaluation. The first two categories contain the overall goals for that priority area, that is, the intended changes in overall health status and risk factor modification. The third category includes knowledge goals for the priority area. The remaining items—improved services and improved surveillance systems—

represent the means for achieving the goals. The latter three categories of objectives include specific proposals for public and professional education, involvement of other groups besides the health care system (some high blood pressure objectives concern the food industry, for example), policy priorities for public health, and a recognition of data needs to monitor progress toward achieving the objectives. The objective-setting process highlighted the data shortage about behavioral risk factors and underscored the need for chronic disease surveillance systems analogous to those already monitoring infectious diseases.⁴

The objectives as a whole are national, not federal; that is, they do not constitute a government plan. Instead, the objectives are a set of benchmarks that national organizations, voluntary associations, and all levels of government can use to develop health programs and measure their progress.

A MIDCOURSE REVIEW

A recently published report⁵ documents substantial overall progress toward the five goals outlined in *Healthy People*. There are grounds for optimism. Infant mortality has declined by 24 percent, childhood mortality by 23 percent, adolescent and youth mortality by 13 percent, and adult mortality by 16 percent. Of the 226 objectives, 13 percent have already been met and another 35 percent are on the track and are likely to be reached by 1990. There are no data for 26 percent of the objectives, and the remainder are unlikely to be achieved by 1990.

A more detailed look at several of the 15 priority areas demonstrates the way progress in public health is described and measured, the interaction between health objectives and factors that cannot be controlled, and the limits of any long-range planning process, the purpose of which is to improve the health of a population.

One example of success is the dramatic increase in public awareness about hypertension. The National Health Interview Survey found that almost all Americans know whether their last blood pressure reading was high, low, or normal and are aware that high blood pressure is a major risk factor for heart disease and stroke. Two thirds of hypertensive patients are using antihypertensive medications, and a great majority are trying to cut down on sodium, lose weight, and exercise more.

On the other hand, although one objective calls for reducing to less than 6 percent the proportion of children and youth aged 12 to 18 years who smoke, as of 1985 the proportion of smokers in this age group was 11.7 percent. About 20 percent of high school seniors smoke. Peer pressure and the advertising of cigarettes⁷ play an important

role in the establishment and maintenance of this habit. School-based programs and interventions by physicians could make this objective achievable by 1990.

In Table 3 the objectives are listed for an area in which public health and clinical practice have traditionally had overlapping responsibilities—sexually transmitted disease. Here the results are mixed. Gonorrhea rates in 1984 through 1986, for example, demonstrated the apparent end of a steady decline in the disease over the previous eight years. It appears that the 1990 objective may not be met, in part because of the epidemic rise in cases due to organisms resistant to conventional therapy.

Yet rates of syphilis in men have declined over the last several years, probably as a result of behavioral changes among homosexuals in response to a health problem not contemplated when the objectives were written in 1980—acquired immunodeficiency syndrome (AIDS). Paradoxically, the appearance of this new, lethal health problem has produced progress in the control of another disease. Seen in the light of AIDS, the objective that 25 percent of sexually active persons would use condoms has a positively nostalgic ring to it. AIDS should figure prominently in the next set of health objectives for the nation.

What general conclusions can be drawn from the midcourse review of progress toward the 1990 health objectives? First, establishing specific, measurable objectives is a useful aspect of formulating health policy. Second, a change in scientific or public priorities may make some objectives not worth devoting resources to and some others worth writing. Finally, an analysis of objectives not achieved or on track can serve as raw material for policy making in the future.

THE OBJECTIVES AND THE PHYSICIAN

The 1990 objectives are a part of public health policy. Clinically oriented physicians may not be used to thinking about the impact of health policy on their work, with the exception of Medicare and Medicaid reimbursements. Yet public health decisions do affect the practice of medicine. In part because of the 1990 objectives, preventive medicine is becoming part of the standard of care. The scientific basis of prevention includes epidemiologic studies of the relationship between risk factors and disease rates, behavioral studies of risk factor change and the impact of change on disease rates, and bench studies of how risk factors produce disease. 10 As the science base improves, prevention will be increasingly incorporated into routine medical practice. 11 An expert panel assembled by the Public Health Service has reviewed the science base for a number of recommended clinical preventive services and will be making a number of recommendations about them. 12 As prevention becomes part of the standard of

TABLE 3. SEXUALLY TRANSMITTED DISEASES OBJECTIVES

Priority Goals, Knowledge, and Means

Improved health status: By 1990, reported gonorrhea incidence should be reduced to a rate of 280 cases per 100,000 population

By 1990, reported incidence of gonococcal pelvic inflammatory disease should be reduced to a rate of 60 cases per 100,000 women

By 1990, reported incidence of primary and secondary syphilis should be reduced to a rate of 7 cases per 100,000 population per year, with a reduction in congenital syphilis to 1.5 cases per 100,000 children under 1 yr

By 1990, the incidence of serious neonatal infection due to sexually transmitted agents, especially herpes and chlamydia, should be reduced to a rate of 8.5 cases of neonatal disseminated herpes per 100,000 children under 1 yr, and a rate of 360 cases of chlamydial pneumonia per 100,000 children under 1 yr

By 1990, the incidence of nongonococcal urethritis and chlamydial infections should be reduced to a rate of 770 cases per 100,000 population

Reduced risk factors: By 1990, the proportion of sexually active men and women protected by properly used condoms should increase to 25% of those at high risk of acquiring sexually transmitted diseases

Increased public and professional awareness: By 1990, every junior and senior high school student in the United States should receive accurate, timely education about sexually transmitted diseases

By 1990, at least 95% of health care providers seeing suspected cases of sexually transmitted diseases should be capable of diagnosing and treating all currently recognized sexually transmitted diseases, including genital herpes diagnosis by culture, therapy (if available), and patient education; hepatitis B diagnosis among homosexual men, prevention through a vaccine (when proved effective), and patient education; and nongonococcal urethritis diagnosis, therapy, and patient education

Improved services and protection: By 1990, at least 50% of major industries and governmental agencies offering screening and health promotion programs at the worksite should be providing sexually transmitted disease services (education and appropriate testing) within those programs

Improved surveillance and evaluation systems: By 1985, data should be available in adequate detail (but in statistical aggregates to preserve confidentiality) to determine the occurrence of nongonococcal urethritis, genital herpes, and other sexually transmitted diseases in each local area, and to recommend approaches for preventing sexually transmitted diseases and their complications

By 1990, surveillance systems should be sufficiently improved so that at least 25% of sexually transmitted diseases diagnosed in medical facilities are reported, and that uniform definitions are used nationwide care, failure to offer appropriate services may have important liability consequences.

Indeed, the physician's office is a key site for accomplishing a large number of the objectives. ¹³ Some can be done only in the clinical setting. For example, one occupational safety and health objective is for 70 percent of physicians to take an occupational history routinely.

A sizable literature has emerged, however, documenting the relative lack of participation by physicians in prevention and analyzing the reasons for it. 14-19 These studies have policy implications for the education and training of physicians and for the economics of medical practice. Experiments are under way, for example, on the effect of training and reimbursement on physicians' willingness to provide screening and counseling for their patients. 20

Given the impact of public health policy on the practice of medicine, it would seem logical that physicians would wish to influence policy making prospectively. An effort to do so has involved over 100 organizations in a process orchestrated by the American Medical Association. Regrettably, this health policy agenda discusses biomedical research, health professions education, health manpower, planning and development of the health care delivery system, quality assurance, and payment for medical services—but not health itself. Disease prevention and health promotion are mentioned only indirectly and in passing in this set of policy guidelines.

The evidence suggests, however, that the American people would welcome the involvement of their physicians in the formulation and implementation of a prevention-oriented public health policy. Physicians can influence strongly their patients' health-related decisions. The emerging science base for disease prevention and health promotion, the increasing interest in health among members of the general population, an existing prospective attempt by organized medicine to formulate health policy, and almost a decade's experience with managing the nation's health by objectives: the confluence of these factors suggests that prevention-minded physicians might have an important impact on public health policy for the next decade and beyond.

THE POTENTIAL IMPACT OF FAMILY MEDICINE

Family medicine, characterized above all by a commitment to people rather than to a specialized body of knowledge, ²³ could play a unique role in the development of prevention policy. Many aspects of the specialty could contribute a fresh perspective to the problem of delivering preventive services—immunizations, screening for early disease, counseling about unhealthy behaviors—in the clinical setting:

Missing risk factors. Because of its emphasis on the biopsychosocial model, family medicine is in a unique position to call attention to other than conventional risk factors, such as age, sex, and socioeconomic status, that may be amenable to intervention. Low birthweight, for example, appears to be significantly affected by abnormal family functioning.²⁴

New model. Community-oriented primary care (COPC)²⁵ has been nurtured and developed by family physicians. The COPC model offers the exciting possibility of integrating a concern for the individual patient with a concern for the health of a defined population.

New tools. For public health to bring chronic disease

wew toots. For public health to bring chronic disease under control, surveillance data will be needed. Family medicine has led the way in describing a new theory of primary care epidemiology^{26,27} and new, practice-based surveillance systems. ^{28,29}

The potential of the clinical encounter. Family physicians can illuminate the public health policy debate by teaching others to use the potential of the clinical encounter for preventive interventions. In 1985 the average American visited a physician 5.2 times.³⁰ The office visit, often triggered by an underlying, potentially preventable condition, has untapped potential as a vehicle for patient counseling and screening for preventable disease.³¹

The practical limits of change. Because they have continuity relationships with their patients, family physicians understand that change is idiosyncratic and incremental, and will occur over long periods of time.³² Clinical wisdom can improve public health objectives and intervention strategies by keeping them in touch with actual problems of real patients who seek to make changes in their health behaviors.

A changing attitude. Family medicine as a specialty is working to eliminate some of the identified barriers to the delivery of clinical preventive services. Training in health promotion and disease prevention has been proposed as a central component of graduate training in family practice for the future.³³ Family medicine departments have been at the forefront of innovative curricular development in preventive medicine,³⁴ and these efforts appear to be working.³⁵

IMPACT ON PUBLIC HEALTH POLICY

How might the family medicine "family"—organizations concerned about the growth and development of the discipline—systematically affect prevention policy? An answer is suggested by the results of a prevention policy review meeting held in early 1986.³⁶ The Public Health Service asked a distinguished group of former assistant secretaries for health and presidents of major national public health organizations to recommend directions for

Policy Area	Description
National objectives	Refine and apply national objectives disease prevention and health promotion
Reimbursement	Facilitate broader reimbursement for preventive services delivered in clinical settings
School health	Foster a major national effort to enhance the quality and scope of school health problems
Marketing strategies	Develop methods of effectively presenting health promotion by using simple, clear messages with unifying and mutually reinforcing themes
Low-income populations	Establish as a special priority a focus on the health promotion and disea prevention opportunities for low- income Americans
The elderly	Establish as a special priority a focus on the health promotion and disea prevention opportunities for older Americans
Capacity building	Stimulate and support efforts, including training, to strengthen state and local capabilities in disease prevention and health promotion
Coalition building	Support the development and strengthening of community-level coalitions for achieving disease prevention and health promotion
Economic analyses	Undertake economic analyses that consupport efforts to change reimbursement decisions and tax policies favorable to disease prevention and health promotion
Transfer of research results	Foster the expeditious application of research findings, particularly for applied research, by strengthening mechanisms for systematically synthesizing, classifying, and translating research results in prevention

its prevention efforts for the rest of the century. Ten critical policy themes were identified (Table 4). Family medicine could have an impact on the making of public health policy in at least five of these areas:

National objectives. Planning is under way for a new

set of health objectives for the year 2000. Efforts will be made to assure that all interested parties are able to participate in the objective-setting process. Regional hearings are planned, and a number of organizations concerned about public health will hold hearings of their own. National family medicine organizations should consider participating in these hearings.

In addition, a number of states have begun objectivesrelated activities of their own.³⁷ State chapters of family medicine organizations, medical school departments, and community hospital residency programs might be able to have a more significant influence on state and local health

policy.

Low-income populations. Family medicine residency programs often serve a disproportionate share of impoverished patients. The lessons learned in providing preventive care to these populations can enhance family medicine's credibility as a source of expertise during the national policy debate over the care of the medically indigent. As front-line primary care providers, family physicians can articulate from their own experience the relationship between access to care and control of chronic diseases.³⁸

The elderly. Family physicians care for elderly patients, and family medicine and internal medicine have begun work on a joint certificate of special competence in geriatrics. There are a number of unresolved policy issues surrounding preventive services for the elderly.³⁹ The biopsychosocial perspective of family medicine can be a real asset to decision makers. The state-based objectives efforts usually contain an explicit focus on geriatric care and the functional independence of the elderly.

Coalition building. Family medicine emphasizes a multidisciplinary approach to solving clinical problems. ⁴⁰ Carried over into the public health realm, this perspective allows for a natural coalition-building mentality to

emerge.41

Transfer of research results. There is an acute need for practical research on ways of overcoming the barriers to physician involvement in office-based preventive medicine. One way for family medicine's "family" to influence health policy would be to emphasize research in this important area.

CONCLUSIONS

Almost a decade of experience confirms the value of a management-by-objectives approach to the nation's health. Similar efforts will be used in the future to guide policy. Public health policy would be improved by including the viewpoint of clinical medicine. Family medicine could offer a much needed perspective on the de-

velopment of policy for prevention of excess mortality and morbidity in the United States. The specialty's unique commitment to the care of the individual in the context of family and community offers a special opportunity to influence health policy in the decade ahead.

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