

# **DISEASE PREVENTION AND HEALTH PROMOTION**

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**Many of us old-time public healthers have never lost sight of the need for prevention, the value of prevention, and the cost-benefit superiority of prevention over treatment. We have watched with frustration and dismay while staggering billions have been poured into the sickness treatment system of our communities, states and Nation with unsatisfactory (though expensive) attendant impact on the health status of our citizens. It was erroneously concluded that treating health problems was sufficient to improve the health status of our citizens. Our citizens and political leaders are now seeing that the sickness treatment methodology and expenses have not been sufficiently effective. During the last ten to twenty years, sickness treatment costs have escalated and skyrocketed to the end that such costs have become a serious economic problem which has become a priority issue for our political leaders, health care officials and our health planning groups.**

**Within recent months and years, our leaders have finally become aware of the staggering costs of environmentally related diseases such as cancer, heart disease, and lung disease. They have finally learned that an estimated 60% to 90% of many of these chronic and fatal diseases are environmentally induced and preventable. They have been forcefully reminded of the unacceptable annual burden of \$100 billion for cancer, heart and lung disease, much of which is preventable through known health and environmental measures.**

**They have realized that controlling health costs depends on keeping people healthy. They have recognized that we must build a conscience for disease prevention, health promotion and environmental quality. They have been advised that we are going to be spending increasing piles of sickness treatment dollars with little overall impact on health status unless we improve our prevention efforts. They are increasingly recognizing that any national health insurance program will be doomed to failure and spiraling costs without more effective disease prevention and health promotion measures as a**

**prerequisite. Our leaders know that national health insurance without such measures will be another expensive experiment in the matter of misplaced priorities and improper timing. And our citizens are finally recognizing that we must stop expecting medicine to bail us out from the consequences of our own foolishness, and that we must stop waiting for tragedy before taking action.**

**It is a matter of serious concern that the human animal often seems more willing to suffer the health, social and economic consequences of disease and pollution than to pay for quality environmental health for this and future generations. Perhaps the human animal can slightly adapt to some degree of environmental degradation, but it is indeed alarming that the human animal might attempt to merely survive through disease-ridden adaptation rather than thrive through disease prevention, health promotion, and environmental quality.**

**Disease prevention and health promotion services in New Mexico have been delivered primarily by the New Mexico Health and Environment Department and its predecessor "health" agencies such as the Health and Social Services Department and the New Mexico Department of Public Health. Prevention has been a prime responsibility and activity of these agencies and programs since the New Mexico Department of Public Health was created in 1919. In New Mexico, we have traditionally equated public health with prevention.**

**It is instructive to briefly quote a few excerpts from the Bureau of Public Health Report of the Director in 1921-22: "The winter of 1921-22 witnessed dangerous outbreaks of smallpox in some neighboring states . . . . 444 cases appeared in Denver, with 140 deaths, or nearly 30%. For the entire two years (1921-22) 163 cases of smallpox appeared in New Mexico.**

**"When the Central Health Agency was created in 1919, smallpox was continuously prevalent throughout the year. One of the first activities of the new organization was to "hammer away" on the compulsory school vaccinations until over 20,000 were done that winter. Since then, there has been an unceasing campaign for general vaccination.**

**"Diphtheria is one of the most serious problems of disease with which we have to deal . . . One of the interesting phenomena which we have observed is that there is always a much greater prevalence of cases in the northern than in the southern half of the State . . . .**

**"On the subject of venereal diseases..... we realize our shortcomings in this respect. These diseases. . . represent a more serious menace to our people than any other in the entire realm of communicable infections. Yet they offer a peculiarly difficult problem, as they are so interwoven with social and economic considerations that they cannot be handled as easily as other infectious diseases.**

**"The most appealing phase of health work is maternal, infant and school hygiene, for it is here that we come into most intimate contact with the home and have the greatest opportunity to influence the future generation of citizens. In this State, the protection of the mother and child against the health hazards that beset them is most urgently needed. Our infant mortality rate is almost double that for the Registration Area of the United States..... To reach the mother who most needs (educational) material, it is necessary to take the education to her.....Here is where the public health nurse finds her greatest field.**

**"Of inestimable importance to the people, especially those in small towns, is the work of the Division of Sanitary Engineering and Sanitation. Several towns have been induced to build sewer systems or water works ... through the persuasion of the engineer. This Division is also working on the problem of pollution of Las Animas River, which appears to be resulting in much typhoid fever in San Juan County. This pollution seems to come from the towns of Silverton and Durango, Colorado, as they pour raw sewage into the river."**

**There are now scores of other governmental, voluntary and professional groups which have played a key role in disease prevention programs for many years. These include programs administered through colleges and universities, schools, county agents, home extension specialists, professional societies, voluntary groups, tribal governments, the Indian Health Service, the U.S. Food and Drug Administration, the Consumer Product Safety Commission, the Health Education Coalition and scores of others too numerous to**

mention, but all of which have been essential in the struggle for quality prevention programs. It is probably fair to avow that New Mexico has done a good job of delivering health services in a broad sense, and has done an above-average job of designing and delivering various types of preventive services. We are indeed proud of the quality and quantity of preventive services delivered through the various offices and contract programs of the New Mexico Health and Environment Department. These include such programs as immunization, tuberculosis control, venereal disease control, cancer screening, hypertension screening, diabetes screening, maternal and child health, alcoholism prevention, mental health, substance abuse prevention, water pollution control, safe drinking water programs, air pollution control, radiation protection, occupational safety and health, insect and rodent control, food sanitation, solid waste management, hazardous waste control .... all in conjunction with the ever-present and vital support of their "silent partner", the New Mexico Scientific Laboratory Division; and with the important support of the State Health Planning and Development Bureau and the health systems agencies.

But despite this long-standing commitment to prevention, we have frequently witnessed more prevention rhetoric than substance. Prevention continues to be difficult to sell to the legislature and local governments, whereas treatment and rehabilitation programs continue to be better funded and more acceptable to those entrusted with authorizing and budgeting public funds. Even when our Department goes before the Legislature with "prevention" as our number one priority, the number one request has frequently been by-passed in favor of lower priorities such as treatment and rehabilitation. For the past two years, the Statewide Health Coordinating Council has listed prevention as the number one state health priority. Prevention programs, unlike treatment and rehabilitation programs, have lacked a constituency. When considering funding for any one of a number of treatment or rehabilitation programs, the legislative hearing room may be filled with assertive constituents wearing their appropriate hats, banners, or badges. Not so with prevention. Prevention has always been a rocky road and this continues to be the case, because in the eyes of many people it provides no immediate gratification or feedback. It does require the ability to look to the future. Prevention, thus far, lacks the

glamour commonly associated with physicians and hospitals, diagnosis and treatment, and therefore does not compete well with sickness treatment and crisis medicine.

While I have some reason to be proud of the various prevention programs in New Mexico such as I have briefly alluded to, I do not share this feeling when it comes to health promotion. By health promotion, I mean the effective use of health education in ways that move people to action. Our Department has not had a good handle on health education and health promotion, and to date, has not really packaged them properly so the services will be delivered in an effective, coordinated, and visible fashion. We have traditionally and historically been expert at telling people what to do, but have never, as a department, understood the desirability of working with people to determine what they want so that we might correlate health goals with other personal aspirations and desires of our citizens..

Realistically, we must admit that New Mexico health policy still remains focused on sickness treatment and rehabilitation rather than prevention and promotion, and this continues to be evidenced by the lopsided funding allocations for treatment and rehabilitation. Like beauty, health promotion lies in the eyes of the beholder rather than in the funding allocated.

Despite the problems with funding and policy acceptance, we can be proud of reduction in communicable disease, smallpox eradication, a high rate of immunization of school children against seven diseases, a decline in infant mortality, a decline in cardiovascular mortality, and a definite trend toward decision-makers realizing that an investment in health promotion and disease prevention makes good economic sense. We have seen a decline from 51% to 37% in adult smokers since the first Surgeon General's report; we have a tremendous interest in healthful diet; exercise and physical fitness are much better accepted; we have an improved knowledge of stress as a health factor; and better program relationships between mental health and other aspects of public health. And, in general, we have a great deal of public and social momentum toward acceptance and utilization of disease prevention and health promotion.

We are involved in a number of health promotion activities such as nutrition (including the Womens, Infants and Children's Program), an extremely limited health education effort, some aspects of physical fitness, and smoking cessation activities. But, here again, we have not used health education as a tool to better deliver these services in an effective manner. Running and jogging, for example, are usually perceived as being an activity engaged in by the middle and upper-class citizens, and may not be socially desirable at all for many citizens in other socio-economic categories. Good involvement with health education would help us determine what type of physical activities might be more desirable for people in various rungs of the socio-economic ladder. People in the slums of urban areas, for example, may place a great deal of emphasis on such physical activities as weight-lifting and body-building, but are not at all interested in jogging in the beautiful and inspirational environment of an urban slum.

But back to prevention -- while the toxic effects of tobacco and alcohol are well-documented, a little plague or cadmium in the environment creates havoc with our staff and the news media. I cringe with embarrassment and frustration when I note the effort our Department devotes to minor public health issues such as plague or rabies, and the space and attention afforded such minor issues by news media; and always wonder how many New Mexicans suffered or died prematurely that same day from the toxic effects of tobacco or alcohol. Or of equal importance, how many New Mexicans are not enjoying positive health and well-being due to the insidious creeping effects of tobacco? We need to re-define the term "crisis" to include conditions which allow a crisis to exist, such as the growing of tobacco, the sale of tobacco, the promotion of tobacco, and utilization of tobacco.

It is essential to understand, however, the large stakes that some industries have in opposing widespread behavior change with respect to their products. For example, an employee publication of R. J. Reynolds Tobacco Company recently included the following: "If the current efforts of anti-smoking groups to restrict smoking in public places were to result in no-smoking laws which caused every smoker to smoke one less cigarette a day, R. J. Reynolds Tobacco Company would stand to lose \$92 million in sales every year." The chairman of the company added, "But we have no intention of standing idly by while this happens." As if to prove its point, Reynolds spent \$40 million "in one six-

month period in 1977 to launch a single cigarette. The industry's highly successful advertising and lobbying efforts are legendary.

Not too long ago, Russell Baker, of the New York Times, was saying he had no objection to people who did not smoke just so they did not do it around him. Now, non-smoking has become more fashionable than smoking.

By and large, providing people with health information does not change health attitudes and health behavior, and it is more important to learn what people want than for us to tell them what they need. Public health information does create an awareness, but not necessarily behavior change. People are more apt to respond to public health information if it does not involve a change in lifestyle: for example, the administration of polio vaccine. People are not so apt to respond to something they fear and do not wish to discuss, such as cancer.

We must constantly elicit the view of what people themselves want. Only in this way will the social pressures be developed for changing health behavior. We -professionals bring an expertise, but so do consumers, and we need consumers in alliance with us.

People are by nature suspicious of coercion, and resist both restrictions imposed on them for their own good, and exhortations to shape up in their personal lifestyles. Yet again and again, our citizens have responded to leadership and reason when a convincing case has been made to them in terms they can weigh and evaluate.

The federal Alcohol, Drug Abuse, and Mental Health Administration has finally recognized the importance and necessity of prevention, and has stated that the major focus for policy and program development will be on primary prevention; the greatest long-term potential for significant changes in health status appears to lie with primary prevention efforts. That is a far step from the funding concepts used in the past which have been totally oriented to treatment and rehabilitation rather than prevention and promotion. So much for the past and the present.

What about the future? Surveys continue to indicate that more than 90% of our citizens agree that if we Americans lived healthier lives, ate more nutritious food, ceased smoking, decreased consumption of alcohol, maintained proper weight, and exercised regularly, it would do more to improve our health than anything doctors and medicine

could do for us. There is widespread recognition among the public of the need for a major shift of emphasis toward more and better disease prevention and health promotion efforts: However, many still have unhealthy aspects of their lifestyles. Knowledge alone is not enough to change health habits. For example, the vast majority of smokers know that smoking increases their chances of getting cancer or one of many other adverse health conditions and yet they still smoke. But knowledge is a necessary first step and is almost always an essential component of change.

We must organize our prevention and promotion activities within the logical framework of:

- 1) Risk Identification, to track down factors contributing to sickness and death,
- 2) External risk reduction, consisting of improving the physical and social environment within our state. Such external risk reduction usually requires the power of collective citizen action through local, state, and federal governments, and
- 3) Personal risk reduction by the informed choice of individuals to adopt lifestyles that prevent disease and accidents, and promote the quality of life. This power of personal risk reduction lies within us as individuals, but government, the media, schools, and other institutions have the responsibility to inform the public regarding the matters on which they as individuals need to make choices.

And this logically leads me into discussing community health education as one essential ingredient in attempting to further our disease prevention and health promotion efforts. More than ever before, examination of the causes of poor health and disability and the means available for improving health status must focus on health education as the best means of achieving public health goals. The next improvements in health status must come from changes in lifestyles and from improved control of health hazards in the environment.

In the New Mexico Health and Environment Department, we are placing a renewed emphasis on health education, have re-allocated a number of positions to this end, and have recently provided for greater visibility, emphasis, coordination and effectiveness by creating Bureau of Health Education and Promotion. The effort is still evolving. We continue to face internal problems of staff acceptance, understanding, and

effective utilization of health educators. Too many continue to view health educators as over-paid public information specialists and custodians of educational materials instead of properly viewing them as agents of community health improvement through influencing motivation and behavior.

It is probable that we can do more to enhance health status and quality of life through more effective community health education than through some of our other time-honored and better accepted and funded activities. However, issues of federal, state and local mandates and expectations, and constituency pressures preclude complete managerial flexibility and effectiveness in developing programs best designed to solve or ameliorate priority health problems.

The role of the Health and Environment Department in community health education is established by statute, but the statute is quiet about quality, quantity, or scope of health education services.

Health education has repeatedly been more difficult to sell to budget officials and legislators than activities defined in terms of clinics, hospital beds, patients, immunizations, inspections or numbers of analyses.

Prevention and promotion is "an issue whose time has come," in terms of rhetoric --- while funding continues to be channeled to treatment and care programs that have the citizen constituency who regularly appear at administrative and legislative budget hearings. We do not have an organized prevention promotion constituency despite the acknowledged fact that prevention and promotion are cheaper and more effective than care --- and enhance the quality and enjoyment of life.

If we as a state or nation are to have a commitment to prevention, and promotion, health education must be the mainstay -- the backbone of a concerted effort to improve the health status of our citizens. We must have a commitment to preventing damage to the human machine in balance with efforts to repair the human machine after it is wrecked. And again, I would emphasize the importance of enjoying positive health through known, documented changes in lifestyle related to smoking, exercise, nutrition, drinking, weight and obesity, mental health, and environmental health. Such changes in lifestyle would directly affect the leading causes of death and disability among New Mexicans, such as heart disease, cancer, and accidents. Health education is also a basic strategy when dealing with

**hypertension, family planning, maternal and infant mortality, immunizations, venereal disease, control of toxic chemicals and hazardous wastes, occupational health and safety, dental health, communicable disease control, mental health, alcoholism and drug abuse.**

**Disease prevention and health promotion are ideas whose time have arrived. We need an extension of such services to the un-served and the under-served, and we must target our efforts in more effective ways even though this will mean a reallocation of personnel and resources.**

**We must have a realistic, accepted and working health policy based on health and wellness. All this will imply major changes in public health where the priorities will be centered around lifestyles and require a multitude of decisions by all of our citizens daily. A rational public health future is possible and whether it occurs or not depends upon all of us. One of our most compelling messages is not that our citizens can merely live longer, but that they will enjoy life more and feel younger -- or die young as late in life as possible. It is up to us to see that citizens see health promotion as a promise and important to the enjoyment of life. The obstacles remain numerous, varied, and formidable, but we must remember that public health is purchasable, and that within natural limitations any community may determine its own health status and environmental quality. Let's not allow disease prevention, health promotion, and environmental quality to be ignored and left half way between leprosy and the quarantine station. Let's make certain that prevention and promotion programs are effectively supported, organized, and administered.**

**From the Arizona Public Health News, "Prevention," by Joseph Melin:**

*"Twas a dangerous cliff, as they freely confessed,*

*Though to walk near its crest was so pleasant;*

*But over its terrible edge there had slipped*

*A duke and full many a peasant.*

*So the people said something would have to be done*

*But their projects did not all tally.*

*Some said, "Put a fence round the edge of the cliff*

*Some, "An ambulance down in the valley."  
But the cry for the ambulance carried the day,  
And it spread through the neighboring city;  
A fence may be useful or not, it is true,  
But each heart became brim full of pity  
For those who slipped over the dangerous cliff,  
And dwellers in highway and alley  
Gave pounds or gave pence, not to put up a fence,  
But an ambulance down in the valley.  
Then an old sage remarked, "It's a marvel to me  
That people give far more attention  
To repairing results than to stopping the cause,  
When they'd all better aim at prevention."  
"Let us stop at its source all this mischief," cried he.  
"Come neighbors and friends; let us rally.  
If the cliff we will fence we might almost dispense  
With the ambulance down in the valley."  
"Oh, he's a fanatic," the other rejoined;  
"Dispense with the ambulance? Never!  
He'd dispense with all charities, too, if he could.  
No, no, we'll support them forever!  
Aren't we picking up folks just as fast as they fall?  
And shall this man dictate to us? Shall he?  
Why should people of sense stop to put up a fence  
While the ambulance works in the valley?"  
But a sensible few, who are practical too,*

*Will not bear with such nonsense much longer;  
They believe that prevention is better than cure,  
And their party will soon be the stronger.  
Encourage them, then, with your purse, voice and pen  
And while other philanthropists dally  
They will scorn all pretense and put up a stout fence  
On the cliff that hangs over the valley."*

**I hope that this conference is as rewarding for you as the preparation has been for me.**