

(Summary of Presentation)

PUBLIC HEALTH IN AN ERA OF CHANGE

by

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SOME BENEFITS OF PUBLIC HEALTH SERVICES

Properly prioritized, designed, and targeted disease prevention, health promotion, and environmental health and protection programs --- all should be preventive in nature, and will yield many benefits. Among these benefits are improved health status and longevity, a brighter future for our families, less social problems, fewer unwanted pregnancies and children, fewer problems for our criminal justice and corrections systems, enhanced educational achievement, enhanced productivity, a more liveable environment, and a better quality of life for all. In many cases, public health programs will also lead to lowered health care costs. All of us in public health should understand these benefits of public health and be practicing what we preach. But do we really agree on what public health is? Are we devoting our efforts and careers to good public health practice?

WHAT IS PUBLIC HEALTH?

Definitions of public health vary by time as well as the group or agency involved. I define public health as:

... The art and science of preventing disease and disability, prolonging life, promoting the health and efficiency of populations, and insuring a healthful environment through organized community effort.

Many public health practitioners may not agree with this definition. Some relate public health to the **organizational** responsibilities of the U.S. Public health service, or public health association, or a state health department, or a local health department, or a school of public health rather than the **field** of public health. If we don't know what we are selling how can it be marketed? Are we attempting to sell a horse, a buggy, a cadillac, a rocket ship, or a disorganized bundle of spare parts for something we do not understand and for which we do not have a common definition?

Following considerable constructive discussion, the program development board of the American Public Health Association found it useful to define the terms "health department" and "health agency" as:

A public health department is an agency of government which includes the words public health department in its title and is charged with delivering identifiable services designed to prevent or solve public health problems.

A public health agency is an agency of government charged with delivering identifiable services designed to prevent or solve public health problems.

Numerous public health agencies in every state and major community deliver important services designed to protect and enhance the health of the public and the quality of the environment. Public health leaders should be prepared for, and filling, key policy and leadership roles in a comprehensive spectrum of public health agencies at the federal, state, and local levels.

PUBLIC HEALTH IS NOT HEALTH CARE

Many appear to confuse public health with anything related to health, including health care.

Health care is the diagnosis, treatment, or rehabilitation of a patient under care, and is practiced on a one-on-one basis.

Comprehensive health care reform might require that many prevention services currently delivered on a population basis through community public health agencies be delivered through the health care system. And comprehensive health care reform could result in public health departments re-emphasizing those public health services remaining within their domain. Or it could result in a de-emphasis of many population based community public health measures.

With regards to public health efforts being strengthened by health care reform, I am reminded of a statement occasionally made by one the governors for whom I worked. Particularly during legislative sessions he would say, "*blessed are those who expect little, for they shall not be disappointed.*"

THE SUPERIORITY OF PUBLIC HEALTH

Basic public health and environmental health and protection services delivered primarily through state and local public health agencies have done far more, and can continue to do far more, to enhance the health **status** and **quality of life** of our citizens than can health care measures. Public health, properly staffed and supported, stands ready to effectively attack the current leading causes of disease, disability, death, and environmental ills as it has in the past.

Many public health activities are highly cost effective for preventing disease and

disability, but more importantly, public health must be also **marketed** on the basis of improved **quality of life, extended life span, and enhanced quality of the environment**. While public health measures **do** prevent disease and enhance life quality and longevity, all such activities do not reduce health care costs. Each public health measure must be evaluated individually and in all its dimensions.

Health **care** reform in the absence of improved public health services will be not deal effectively with the health problems of our communities. Health care reform in the absence of improved public health services will be another expensive experiment and a misplaced priority.

Many health departments have become deeply involved in health care as a matter of choice as providers of last resort, or due to political necessity. This is one of the factors which have resulted in a lack of clarity, focus, definition, priority, and emphasis for public health, as well as ineffective marketing of public health. Public health may have collectively "shot itself in the foot" by making health care reform such a priority, rather than focusing on the priority of defining and marketing public health services which will enhance the health status, environmental quality, and quality of life of the public.

HEALTH SERVICES AS A CONTINUUM

Important **precursors** to improved human health status include genetic potential, economic vitality, educational achievement, positive environmental factors, and lastly, health services. Health services must be viewed as a **continuum**, with environmental health and protection, disease prevention, and health promotion preceding health care on the continuum.

Health Services Continuum

ENVIRONMENTAL HEALTH AND PROTECTION	HEALTH PROMOTION	DISEASE PREVENTION	HEALTH CARE
Examples of Issues	Examples of Issues	Examples of Issues	Examples of Issues
Clean Air	Substance Abuse	Infectious Diseases	Diagnosis
Clean Water	Family Planning	Clinical Prevention	Primary Care
Toxic Chemicals	Nutrition	PKU Screening	Case Management
Safe Food	Health Education	Glaucoma	Outpatient Services
Radiation	Violence	Diabetes	Clinics
Solid Wastes	Obesity	Osteoporosis	Treatment
Occupational Health	Tobacco	Cancer	Surgery
Hazardous Wastes	Mental Health	Suicides	Long Term Care
Risk Assessment	Physical Activity and Fitness	Oral Health	Acute Care
Risk Communication	Access	Heart Disease and Stroke	Rehabilitation
Risk Management		Maternal and Child Health	Cost Containment
Global Degradation		Access	Health Insurance
Land Use			Mental Health and Treatment
Noise			Developmental Disabilities
Disease Vectors			Alcohol and Drug Treatment
Housing			Access
Ecological Dysfunction			
Unintentional Injuries			
Access			

HEALTH PROMOTION AS A PRIORITY

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 promotion as the best means of achieving public health goals. Improvements in health status must come largely from changes in lifestyles and in changing factors influencing such lifestyles. We can do more to enhance health status and quality of life through effective community health promotion than through most other public health activities. Health promotion continues to be more difficult to market to elected officials than activities defined in terms of clinics, hospital beds, patients, inspections, or numbers of analyses. Our states and nation need a commitment to public health, and health promotion should be the backbone of a concerted effort to improve the health status of our citizens. Citizens must understand health promotion as a promise to enhanced quality of life.

ENVIRONMENTAL HEALTH AND PROTECTION

The scope of environmental health and protection has changed significantly within the past 25 years. Priorities, program methods, and even goals have also continued to evolve. Ecological considerations have become an increasingly important component.

Many of the more important environmental health and protection problems have been attended, while many of the newer issues have an extremely poor cost/benefit ratio for improving and protecting public health. Much of the environmental health and protection agenda is being proposed by environmental activists, rather than by public health scientists.

The terminology "environmental health and protection" should be used, rather than environmental health or environmental protection, because all environmental health and protection programs share a public health goal and are usually based on public health standards. The differences are in their organizational settings rather than logical or definable differences in programs, missions, or goals. This distinction is artificial, and has led to inappropriate organizational separation of activities which share the common goal of protecting the public's health and enhancing environmental quality. In many cases, the separate terminology has created organizational barriers.

As the major subset of the field of public health, the following peer reviewed definition of environmental health and protection was developed and utilized for the "Report on the Future of Environmental Health."

... The art and science of protecting against environmental factors that may adversely impact human health or the ecological balances essential to long term human health and environmental quality. Such factors include, but are not limited to, air, food, and water contaminants; radiation; toxic chemicals; wastes; disease vectors; safety hazards; and habitat alterations.

ORGANIZATIONS

Environmental health and protection has increasingly ceased being a responsibility of public health **departments** at the state and federal levels since the creation of the U.S. Environmental Protection Agency in 1970. There is no standard organizational model for environmental health and protection programs. federal environmental health and protection agencies include the:

Environmental Protection Agency

Department of Labor

U.S Public Health Service, including the:

National Institute of Environmental Health Sciences

National Center for Environmental Health

Food and Drug Administration

Indian Health Service

Agency for Toxic Substances and Disease Registry

National Institute for Occupational Safety and Health

Coast Guard

Geological Survey

National Oceanographic and Atmospheric Administration

Nuclear Regulatory Commission

Corps of Engineers

Department of Transportation

Department of Agriculture, and

Department of Housing and Urban Development

For many years, I suggested that something like 75% of state environmental health and protection activities were administered by environmental health and protection agencies other than state health **departments**. A recent study conducted by the Johns Hopkins School of Public Health indicates that I had underestimated. The figure is greater than I had been suggesting --- more like 85% to 90% of state level environmental health and protection activities are administered outside the purview of state health departments. Examples include:

Health Departments

EPAs

Ecology Department

Conservation Departments

Environmental Quality Departments

Natural Resources Departments

Pollution Control Departments

Agriculture Departments, and

Labor Departments

By comparing state level environmental health and protection expenditures with other public health expenditures as reported by the public health foundation, we find that **states spend approximately the same total amounts on environmental health and protection as they do on all other public health programs administered by state health departments.**

Most local environmental health and protection programs are components of local health departments. However, a number of jurisdictions, have established separate environmental protection or environmental management departments. Environmental health and protection activities are also administered by such local agencies as:

health
environmental health
planning
public works
building and inspection
solid waste management
housing
councils of government
special purpose districts, and
regional authorities.

Those practitioners in the broad **field** of public health should recognize the size and importance of environmental health and protection efforts as a key component of the field of public health. Just to exemplify what this recognition would mean, I offer the following examples:

- The document *Year 2000 Health Objectives for the Nation* would have as many chapters dealing with environmental health and protection as it does with all other public health activities, instead of just one chapter titled environmental health.
- The Institute of Medicine Report of The Future of Public Health would provide significantly greater balance for environmental health and protection.
- Academic institutions training public health professionals would insure that a more comprehensive scope of environmental health and protection competencies are taught, and that more effective linkages are developed with the various agencies responsible for delivering environmental health and protection services.
- Public health textbooks would provide coverage of environmental health and protection in balance with other public health programs.
- Environmental health and protection interests and issues would be considered a full partner with have more than token representation at all public health meeting, training courses, symposia, boards, and committees.

- Public health personnel would be as involved in linkages with environmental agencies and groups as they are with the field of health care.
- We would place as much emphasis on educating and training environmental health and protection practitioners as we do on all other public health practitioners.

The trend to organizationally diversify environmental health and protection programs will continue in response to the increasing complexity and importance of environmental health and protection, in response to the demands of environmental advocates, and in response to evolving priorities of many health departments which become increasingly involved in health care issues in addition to public health. It is unrealistic to develop programmatic relationships between hazardous waste management, for example, and any one of a number of health care treatment and rehabilitation programs. The drift of federal, state and local health departments toward more and more health care (as providers of last resort) may translate into less and less leadership for environmental health and protection within such health departments.

Environmental health and protection deserves and demands organizational support, visibility and effectiveness which may translate into organizational diversification and programmatic change. Environmental constituents and political leaders frequently demand such change.

The scope of environmental health and protection concerns now includes ecological issues as a full partner. Whatever long-term health threats there may be, the public also knows that pollution kills fish, dirties the air, creates a foul stench, ruins rivers, destroys recreational areas, and endangers species. Public health departments have found it difficult to deal with ecological issues.

RISK ASSESSMENT

Considering the serious differences in recommended priorities between public health scientists and the priorities of the public and political leaders, risk assessment must be considered a high priority issue to be understood and practiced by all interests involved in protecting the health of the public and the quality of the environment.

We do not live in a risk-free society or environment, therefore the goal for many environmental health and protection programs may not always be "zero-risk." The pursuit of zero-risk as a standard or goal is frequently unnecessary, economically impractical, frequently unattainable, and may create unfounded public concern when zero-risk is not, or cannot be achieved. Additionally, the pursuit of zero-risk as a goal for one issue may preclude resource availability to deal with higher priorities.

Utilizing sound scientific principles to assess risk is vital to recommending priorities, designing environmental health and protection programs, requesting funds, and evaluating

control efforts.

RISK COMMUNICATION

Many of us have not demonstrated adequate skills as risk communicators. This is one of the reasons environmental health and protection priorities and policies frequently differ from those recommended by scientists. In the absence of continuing effective risk communication, sound risk assessment is merely an academic exercise. Many practitioners continue to confuse public information and the distribution of public information materials, with the art of risk communication.

Risk communication is an art requiring complete openness throughout any planning and decision process, as well as embracing, and involving appropriate interest groups. Failures to communicate risk and develop scientifically valid priorities and policies are frequently linked to the failure to involve and educate the public and appropriate interest groups throughout the process and to openly discuss the needs, assumptions, and alternatives, as well as the data on which risk has been assessed.

Public health practitioners must understand that risk assessment and risk communication are among the most critical environmental issues. Establishing priorities and communicating risk on the basis of the risk to public health and the environment is a basic precursor to improved environmental management.

While resources should be allocated to address actual and significant risks, public perception will continue to drive the response of elected officials and public agencies.

PROBLEM PREVENTION

Developing the capacity and authority to function effectively in environmental health and protection planning is necessary as environmental health and protection agencies strive to function in a primary prevention mode, rather than secondary prevention or treatment of the environment after the contamination or pollution has been produced and emitted. While the field of environmental health and protection identifies with prevention, a preponderance of effort is devoted to solving problems created as a result of earlier decisions and actions taken by the public or private sectors. Therefore, public health practitioners must have the knowledge, skills, and authority to become effectively involved in problem prevention during the planning, design, and construction stages of:

- energy development and production
- land use
- facilities design and construction
- resource development and utilization, and
- product design and development activities.

Environmental health and protection planning requires effective linkages with a comprehensive galaxy of groups and agencies involved in the struggle for a quality environment. Environmental policy **must** be based on prevention if there is to be any hope of preventing further resource depletion, ecological dysfunction, and minimizing the health impacts of environmental contaminants.

ADVOCACY FOR PUBLIC HEALTH POLICY

As public health practitioners, we should be designing and leading necessary changes, rather than simply responding to changes in public policy. We must understand and participate in the development of public policy.

Many of us who are imbued with conventional public health wisdom and public health egocentrism do not view the world as our political leaders do. It would be interesting and very useful to understand why so many of us in public health are so politically naive, and often disdainful of the political process. Do we attract and retain a certain type of individuals and culture, or do we fail to properly train public health personnel to understand and constructively impact the various public policy elements within our political systems?

Elected officials **will** respond to the need for improved support for public health if they perceive that as a need and strong desire of their constituents.

BUILDING BRIDGES

We must be building and constantly travelling two-way bridges between all the organizations involved in the struggle for enhanced public health and environmental quality. These linkages must result in effective partnerships with scores of agencies, groups, and interests. Key public health practitioners in each organization must be formally charged with insuring effective communication and linkages with specific interests. Such linkages are too important to be left to chance and constantly changing personalities. Integrated information systems would be a major advance in assuring joint understanding and effort.

TWO-WAY BRIDGES

ENVIRONMENT

OTHER PUBLIC
HEALTH

CHURCHES
HOSPITALS
NEWS MEDIA
BUSINESSES
AGRICULTURE
ENGINEERING
TRADE GROUPS
LABOR GROUPS
CONSERVATION
PUBLIC WORKS
UNIVERSITIES
INDUSTRY GROUPS
HOUSING AGENCIES
WELFARE AGENCIES
ELECTED OFFICIALS
ENERGY PRODUCTION
LAND USE PLANNING
RESEARCH INTERESTS
COMMUNITY PLANNING
PROFESSIONAL GROUPS
ECONOMIC DEVELOPMENT
CHAMBERS OF COMMERCE
HEALTH CARE PROVIDERS
TRANSPORTATION PLANNING
VOLUNTARY HEALTH GROUPS
NEIGHBORHOOD ASSOCIATIONS
PUBLIC AND PRIVATE SCHOOLS
ENVIRONMENTAL ORGANIZATIONS
NATURAL RESOURCE DEVELOPMENT
HEALTH ACTIVIST ORGANIZATIONS
OTHER HEALTH SERVICES AGENCIES
PRODUCT DESIGN AND DEVELOPMENT
HEALTH SYSTEM PROFESSIONAL GROUPS
COMMUNITY BASED HEALTH ORGANIZATIONS

INCUBATING PUBLIC HEALTH PRACTITIONERS

Schools of public health and other accredited graduate public health programs should be among the major incubators for developing potential public health leaders. But to offer some dangerous generalizations, this role of such academic entities has been diminishing for a number of reasons, including the following:

- Most faculty are primarily interested in research and have not had experience as practitioners.
- Research funds are essential for faculty support. Some schools require that faculty derive up to 100% of their salaries from research funds.
- Schools appear to have difficulty in establishing useful practice linkages with the broad field of public health practice.
- A large percentage of faculty are not public health professionals, but are research professionals in other academic disciplines.
- In schools of public health, health care administration, health care policy, health care law, health care economics, and health care finance are now the norm rather than **public health** administration, **public health** policy, **public health** law, **public health** economics, and **public health** finance. Many students and graduates have told me that they did not learn about **public health** in schools of public health.
- Large percentages of school of public health graduates do not practice public health, but enter into health care, or educational efforts, or research, or industry.
- Public health practitioners do not exert adequate organized pressure on schools and academic public health programs to insure that graduates are inculcated with the essential competencies for leadership in the **practice of public health**.
- Education for public health is not always the priority of schools of public health. For example the Association of Schools of Public Health Executive Committee recently established a committee to... "Encourage the addition of new members on the council on education for public health that represent "new" fields that graduates are choosing to enter (e.g., managed care organizations)."

It is important that public health practitioners support relevant education for public health practitioners. Public health practitioners should aggressively seek appointments as adjuncts or instructors to enhance student opportunities for developing competencies to become public health practitioners. Public health practice agencies should insure the availability of practical experiences for public health students. And public health practitioners should strive to be involved in curriculum development and in external advisory committees

to public health academic programs.

It is equally important that we support relevant continuing education. Formal education in public health was once considered to be a vaccine that would prevent ignorance and ineffectiveness later in one's career. However, such formal education is inadequate by itself, and does not provide personnel all the knowledge and skills for leadership and effective careers. Continuing education is an essential component of a career, not only to be effective, but personnel learn more readily as they encounter specific needs. Distance-based training and education has an outstanding potential to significantly enhance training for public health practitioners. Continuing education should be budgeted, timely, relevant, economical and convenient, as well as strongly supported by management.

We in the public health **practice** community should encourage adoption of the universal competencies for public health education which were developed by the Public Health Faculty/Agency Forum in 1991. Educating public health practitioners must be a joint vision and responsibility of practitioners and academicians.

MARKETING PUBLIC HEALTH

All of us believe that public health is an excellent and essential product, but why hasn't our product -- enhanced health status of the public -- been better recognized and supported? Do we have a problem with the product, the need, the marketing, or the sales persons? Public health organizations should take a page from the private sector and commission a comprehensive national social marketing analysis to develop recommendations to succinctly define the product, determine priority needs and demands, describe the market, recommend marketing strategies, and implement effective marketing recommendations.

Public health continues to be difficult to sell, whereas health care continues to be demanded and better funded. Public health programs, unlike health care issues, lack an effective constituency. Public health has always been a rocky road, as it provides no immediate gratification or feedback. It requires the ability to look to the future, which is not a customary trait of our political leaders who are looking to the next election rather than the status of their constituents health and well-being in coming decades. Public health **does** have the glamour associated with hospitals, organ transplants, emergency medicine, diagnosis, treatment and rehabilitation. However, the excitement and effectiveness of the products of public health have not been convincingly marketed, and public health has not competed well with health care.

LEADERSHIP FOR PUBLIC HEALTH

Managing public health agencies in accordance with legislative and executive branch dictates is comparatively easy. Legislative and executive elected officials have their own priorities based on the demands of their constituents.

But to be an public health leader and impact local, state and national public health policy based on sound public health practice is often career threatening. Leadership on the road to **improved** public health is difficult and hazardous. There are many potholes in the way of providing effective, priority public health services. The journey requires vision and steadfastness of purpose, as it is beset by emotional pressures, tempting comfortable detours, political surprises, and frequently offers no short-term gratification or pay-off. There are few if any rest stops along the way.

Ensuring enhanced public health for this and future generations will require partnerships between government and the private sector, community agencies, individual citizens and citizen groups, professional and trade groups, and academia.

The future of public health is bright for those practitioners who exhibit the necessary competencies, and who demonstrate vigorous leadership in visualizing, defining, prioritizing, planning, designing, marketing, implementing and managing disease prevention, health promotion, and environmental control strategies. Those who are inflexible and rely on past accomplishments, professional standing, the status quo, and misguided organizational turf protection will be numbered among endangered species eking out a subsistence in a constantly shrinking organizational environment. Anticipating and meeting the challenges of the future will insure a bright public health future, as well as rewarding opportunities for those practitioners prepared to meet the challenges of the future.

We must develop consensus regarding the field of public health, and the destination required for improved public health, or it will not make much difference which road is taken to get there. Lack of definition and consensus breeds confusion, diversification of effort, lack of essential data, and an absence of meaningful public health priorities and direction. We must be affirmative regarding public health, and effectively market the need for improved public health services.

We need a re-invigorated game plan, and a purposeful identity. This will result in a clear, crisp, marketable vision of public health and its potential for the enhancement of health status, the quality of our environment, and the well-being of our families and communities.