

# EVER EVOLVING ENVIRONMENTAL HEALTH AND PROTECTION: CIRCA 1946 - 2008

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Environmental health and protection is a high priority issue in our society. It is expected and demanded by the public, the media and our political leaders, and is widely considered to be an entitlement.

During the last few decades, leadership has evolved from sanitary engineers through public health engineers, environmental health engineers, environmental health professionals such as sanitarians, to the current situation in which the preponderance of environmental health and protection practitioners are practitioners other than environmental health and protection professionals.

Most current practitioners have little knowledge that well qualified public health engineers reigned supreme prior to the era of environmental health professionals. In 1946, the ten members of the Executive Board of the Conference of Municipal Public Health Engineers found the evolving roles of Sanitarians a matter of concern. They discussed “ --- *means of developing some basis for common action among personnel in the field of sanitation and for overcoming some of the divisive attitudes and influences which have developed in recent years. --- it is necessary to keep in mind that engineers, if they are to assume and maintain their proper position of administrative and technical leadership, must be able to manifest that leadership, directly or indirectly, in the organizations which have thus far been established by sanitation personnel. --- local, state and regional groups of sanitation personnel, particularly sanitarians, should continue to function as such and that they should be encouraged to function as such and that they should be encouraged to attend local meeting and programs for their principal contacts and exchange of ideas. -- - such a council might eventually obtain some financial backing and eventually, though not immediately, undertake the publication of a Journal of Sanitation.*” (The entire five page document is instructive and available.)

The incubators of environmental health and protection practitioners have also changed dramatically. Most schools of public health, once the prime incubators of environmental health and protection professionals, have opted to follow the money trail leading to health care and basic science research. Educating environmental health and protection practitioners, an early mainstay in schools of public health, is now almost forgotten. A small percentage of today's environmental health and practitioners are being trained in accredited environmental health science and protection programs, but the vast majority are, and will continue to be, products of other essential disciplines and professions such as geology, chemistry, biology, medicine, law, public administration, veterinary medicine, political science, engineering, social science, and economics.

It is estimated that no more than five percent of the current workforce is composed of environmental health and protection professionals, and this figure is decreasing. Efforts by environmental health and protection professionals to change this workforce development condition have been almost non-existent.

In the sanitation era, disease prevention was the benefit. Now, the benefits of environmental health and protection not only include reduced disease and disability, but also enhanced economic status, enhanced productivity, enhanced educational achievement, less social problems, a more livable environment, and better quality of life, as well as reduced health care costs.

The scope of environmental health and protection problems represents the most dramatic changes. From a concern primarily with water supply, sewage disposal, waste disposal, swimming pools, food and milk and vector control, the scope of environmental health and protection now includes (but is not limited to) such issues as air quality, radon, asbestos, noise, radiation, water pollution, drinking water, liquid wastes, food, fish and shellfish sanitation, poultry processing, milk, industrial hygiene and safety, disasters, housing, institutional facilities, unintentional injuries, swimming areas, solid wastes, hazardous materials, insects and rodents, bioterrorism, global climate change, stratospheric ozone depletion, and global toxification.

*“Environmental health and protection is 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; disease vectors; safety hazards; and habitat alterations.” Report of the Committee on the Future of Environmental Health.*

Responsibilities for environmental health and protection have changed significantly from the era of sanitation and health department responsibility to the current pattern in which, at the state level, 90 to 95% of environmental health and protection activities are assigned to agencies other than health departments, and there is a similar trend at the local level.

Few environmental health and protection professionals have led in supporting or opposing the foregoing policy changes. Many practitioners remain limited to the sanitation era, while others have evolved to embrace the current scope of environmental health and protection. Many remain adherents to the “inspect and react” mode, while others have evolved to utilize multiple program methods such as consultation, education, planning, community involvement, prevention, incentives, public information, research, public policy development, and marketing.

Lifelong learning should be available and promoted for the environmental health and protection workforce, no matter the agencies involved. This is particularly important due to the changing composition of the workforce. Such learning should take many forms, and the continuing education content will vary considerably depending on the audience. Some practitioners need training in epidemiology; others in leadership, management, planning, marketing, policy and politics, and finance. Such training should be a cooperative venture between the several major federal agencies having environmental health and protection responsibilities.

Developing and pursuing a meaningful vision for environmental health and protection that is more than blurred imagination would also help to invoke support of those charged with financing programs and educating the workforce. Vision is essential to leadership.

Environmental health and protection practitioners should embrace the comprehensive field of practice. Many educational programs, agencies, associations and practitioners have tunnel vision with regard to the breadth, depth and benefits of the field of practice. Too many feel it begins and

ends in health departments, and self-serving definitions are disturbingly narrow. Environmental health and protection is practiced in scores of local, state and federal agencies; voluntary and professional agencies, as well as in the private sector. Academicians and practitioners should expand their horizons and stretch their imaginations.

Environmental health and protection practitioners should be educated to become involved in prevention when initial decisions are made regarding land use, resource utilization, energy alternatives, global environmental health and protection problems, transportation methodologies, economic development and public education. To do this, requires that environmental health and protection professionals seek leadership and policy roles in a wide variety of environmental health and protection agencies, as well as in the private sector.

In 2005, I posted the following on the website of the once active and prestigious National Conference of Local Environmental Health Administrators:

*“The 1992 "Report on the Future of Environmental Health" flagged global warming as an environmental health problem. Since that time the vast majority of environmental scientists have concluded that global warming is real, is serious, and is the result of human activities. Unless necessary actions are taken, global warming could eventually devastate the world's ecosystem, economy, and agricultural systems and create serious environmental health problems.*

*Global Warming has not been given adequate consideration by federal, state and local environmental health agencies. Local environmental health agencies should have significant roles to play in order to effectively deal with global warming.*

*National Conference of Local Environmental Health officers and leaders should quickly appoint a Global Warming Committee composed of the most competent environmental health scientist members. The goal should be to develop a Global Warming Prevention Guide iterating local level involvement and activities. The NCLEHA Committee might approach NCEH and EPA for funding for the necessary activities that would culminate in the proposed Guide.*

*Environmental Health Practitioners can lead, follow, or be left behind.”*

Regrettably, no responses, no action and no leadership!

Environmental health and protection will continue to increase in complexity, and the public will increasingly deserve, expect and demand problem prevention and amelioration. Demographic changes, resource development and consumption, product and materials manufacturing and utilization, wastes, global environmental deterioration, technological development, terrorism, evolving disease patterns, changing patterns of land use and transportation methodologies, resource development and utilization, and continuing organizational diversification of environmental health and protection services will create unanticipated challenges. Environmental health and protection will continue to be basic to the health of the public and the quality of our environment. Environmental health and protection problems, programs, service delivery organizations, practitioners and educational needs will evolve in ways that are unforeseen. Ensuring an adequate supply of environmental health and protection practitioners qualified to handle the policy, leadership, managerial and scientific issues of the future should be of the highest priority.

Larry Gordon, M.S., M.P.H., D.H.L., D.E.A.A.S. has devoted almost 60 years to environmental health and protection including roles as a county sanitarian, district sanitarian, state sanitarian, chief sanitarian in a municipal health department, founding director of a city-county environmental health department, PHS consultant, PHS Commissioned Officer, frequent lecturer for CDC training courses, founding director of a state environmental health agency, founding director of a state scientific laboratory system, president of the American Public Health Association, state cabinet secretary for health and environment, chair of the national Committee on the Future of Environmental Health, visiting professor of public administration, senior fellow of a university institute for public policy, and adjunct professor of political science.

He was one of the 12 Founders and is one of five Diplomates Laureate of the American Academy of Sanitarians, one of five Diplomates Emeritus, and is a recipient of numerous state and national professional awards, as well as an Honorary Doctorate in 2007.

He was a founder of the Council on Education for Public Health, as well as a long time member of the National Environmental Health Science and Protection Accreditation Council.

He developed and gained enactment of numerous state and local environmental health and protection measures, testified before the Presidential Committee on Executive Reorganization regarding the creation and scope of EPA, and testified before Congressional Committees regarding key environmental health and protection issues.

He has over 240 publications, presentations and policy papers, many of which may be accessed at:

[http://www.sanitarions.org/sanitarian\\_resources.htm](http://www.sanitarions.org/sanitarian_resources.htm)

and

<http://hsc.unm.edu/library/development/endowment/Gordon/index.shtml>