

PUBLIC HEALTH IN PENNSYLVANIA:  
CRITICAL ISSUES FOR CHALLENGING TIMES

*An Issue Paper from the Deans of the Commonwealth's Schools of Public Health*

Presented by\*

Bernard D. Goldstein, MD, Dean  
Graduate School of Public Health, University of Pittsburgh  
(412- 624-3001 or [bdgold@pitt.edu](mailto:bdgold@pitt.edu))

and

Marla J. Gold, MD, Dean  
School of Public Health, Drexel University  
(215-762-7091 or [Gold@Drexel.edu](mailto:Gold@Drexel.edu))

\*Authors are listed on page 2.

***For information and additional copies of this paper, contact:***

**The Center for Public Health Practice, University of Pittsburgh  
(412-383-2230 or [mme@pitt.edu](mailto:mme@pitt.edu)).**

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Author Committee

George Board, Dr.PH  
Vice President  
Governmental Relations  
University of Pittsburgh  
Medical Center System  
Forbes Tower – Suite 10013  
200 Lothrop Street  
Pittsburgh PA 15213-2582  
412-647-8207  
fax: 412-647-9387

Margaret A. Potter, JD  
Associate Dean & Director  
Center for Public Health Practice  
Graduate School of Public Health  
University of Pittsburgh  
3347 Forbes Ave.  
Suite 202  
Pittsburgh PA 15260  
412-383-2400  
fax:412-383-2228

Molly M. Eggleston, MPH  
Project Coordinator  
Center for Public Health Practice  
University of Pittsburgh  
3347 Forbes Ave.  
Suite 202  
Pittsburgh PA 15260  
412-383-2230  
fax:412-383-2228

Robert O. Valdez, PhD  
Former Dean  
School of Public Health  
Drexel University  
Mail Stop 660  
245 N. 15th Street  
Philadelphia, PA 19102-1192  
703-587-6156  
fax: 215 762 4088

Bernard D. Goldstein, MD  
Dean  
University of Pittsburgh  
Graduate School of Public Health  
130 DeSoto Street  
A624 Crabtree Hall  
Pittsburgh PA 15261  
412 624-3001  
fax: 412-624-3309

## EXECUTIVE SUMMARY

Public health works to assure optimal health for communities and populations. It assures the conditions in which people can lead healthy, productive lives. However, public health agencies and professionals in Pennsylvania are under supported and overworked, rendered unable to assure that essential public health services are available to all Pennsylvanians. Without increased and sustained investment from the Commonwealth, the public health infrastructure will further decline and will not be able to provide basic protections for the health of the people. What Pennsylvania needs is leadership committed to developing our public health infrastructure.

**A Public Health Infrastructure in Decline.** Today, Pennsylvania's public health infrastructure is weak after decades of neglect. For its population size, Pennsylvania has the lowest number of public health personnel of any state: 37 professionals per 100,000 residents. The number is less than one-third of the national average. Public health professionals in Pennsylvania are insufficient in number and distribution to assure that essential public health services are available. Pennsylvania has no statewide network for public health communications based on either conventional or Internet technologies. Only ten of our 67 counties have opted to establish a comprehensive local public health agency. A fragmented patchwork of private-sector organizations and at least seven different state agencies provide some of the required public health services in the remaining 57 counties. But even in counties where local public health agencies exist, they rely on a patchwork of local and state agencies to accomplish their tasks because of outdated laws, regulations and lack of personnel or equipment.

**A Population at Risk.** The weak public health infrastructure is linked to poor health. Pennsylvania has worse health-status indicators than more than half of other states. Our 24.3% prevalence of smoking is linked to high rates of heart disease and cancer. The Commonwealth ranks third highest among the states in total funded SuperFund sites. We have extreme disparities in health status between African American and Latino and non-Latino White populations and between rural counties and non-rural counties.

**A Plan for Action.** Our next governor can make a real impact on the quality of everyday life. The Deans of Pennsylvania's two Schools of Public Health recommend concrete steps to rebuild public health infrastructure and improve the health our people and communities:

- *Convene a blue ribbon panel to review infrastructure weaknesses, recommend improvements, and oversee implementation of an action plan during the Governor's first term.*
- *Establish criteria for prioritizing health-care expenditures that will have the greatest impact on protecting and improving health by focusing on disease prevention and health promotion.*

## THE PURPOSE OF THIS PAPER

Public health works to assure optimal health for communities and populations. It assures the conditions in which people can lead healthy, productive lives. Although medical care systems are certainly important, they focus on diagnosing and treating individuals who are already sick or injured. Public health instead prevents disease and injury, and it promotes good health. The overall statistics prove this point: despite having a higher-than-national rate of medical-care insurance for its people, Pennsylvania has worse health-status indicators than more than half of other states.

Pennsylvania's public health infrastructure is weak after decades of neglect. But today, new funding sources, applied science, and the Commonwealth's own public health expertise offer support for a gubernatorial initiative that could turn around the decades-long decline. Recent terrorist attacks have heightened people's awareness of the need for a vigorous public health system. But if public health cannot meet the day-to-day needs of assuring healthy conditions, then how can it respond to an emergency?

This paper helps to explain the need for a strong public health infrastructure, and it offers a concrete approach for improvement in this Commonwealth. Our next governor can have a real impact on the quality of everyday life in each and every one of our communities.

## WHAT IS PUBLIC HEALTH & WHAT DOES IT DO?

Public health has been called a system of "organized community efforts aimed at the prevention of disease and promotion of health." Its work can be described as three core functions that fundamentally are public in nature: **assessing** the health needs of a population, **developing policies** to meet these needs, and **assuring** that services are always available and organized to meet the challenges at the individual and community levels. Though some aspects of these core functions may be carried out by private-sector professionals and organizations, ultimate responsibility and accountability for them rests with government at the state level.

A healthy population needs clean water and air, safe food and housing, and an adequate supply and distribution of competent health professionals. These conditions for health depend on a strong public health infrastructure of support. The public health infrastructure includes a well-trained workforce, up-to-date communications systems, and effective organizations. When these infrastructure components are well-maintained, public health carries out its core functions effectively. When they are neglected, people have poorer quality of life, and they are dangerously vulnerable in emergencies.

## **PUBLIC HEALTH INFRASTRUCTURE IN PENNSYLVANIA**

Pennsylvania's public health infrastructure is now overworked, fragmented, and ill-equipped. Its workforce is sparse and insufficiently trained, its communications systems are outdated and poorly distributed, and its organizational capacity is strained. Here are some examples:

### ***The Commonwealth's Public Health Workforce***

For its population size, Pennsylvania has the lowest number of public health personnel of any state: 37 professionals for every 100,000 residents compared with 138 nationally. Many of these dedicated but overworked individuals are concentrated in only ten counties (those with a local health department). The remaining 57 counties have a near-absence of public health professionals. In states that border Pennsylvania and that share similar geography, economics, and demographics, the presence of public-health professionals is far higher. The comparable statistics per 100,000 residents are 65 in New Jersey, 67 in Ohio, 73 in New York, 244 in West Virginia, and 304 in Maryland.

The lack of public health professionals means that Pennsylvania's citizens are dependent on private and community-based organizations to carry out essential public-health services. While competent at what they do, they have neither the capacity nor the mandate to do the comprehensive work of public health. As private entities, they do not necessarily assess the needs of the people they serve, nor can they share such information as they may have for purposes of emergency planning. They are not directly accountable to the public or to state policy makers for program and service decisions. When financial incentives are lacking, they may not provide services everywhere according to actual needs.

Furthermore, other health professionals in Pennsylvania are insufficient in number and distribution to assure that essential health services are always available. The supply of personal health-service providers such as physicians, nurses, and dentists is scarce in many rural counties and urban communities. Even where the supply is adequate, the ethnic and racial mix of these professionals often does not match those of the populations they serve. This scarcity is likely to get worse in the near future. Elderly people (over 65 years old) need more personal health services than younger ones; and by 2020, Pennsylvania's elderly population will grow by 24% while its total population will increase by only 3%. The retirement rate of public health and personal health services professionals is also increasing, creating a severe shortage in many communities at a time of growing needs.

### ***Communication Systems and Data***

Pennsylvania needs robust public health communication systems. Whether for a bioterrorist event, a natural disaster, or an infectious disease outbreak, an effective public health response depends on constant surveillance, early detection, and prompt communication.

Currently, Pennsylvania has no statewide network for public health communications based on either conventional or Internet technologies. Many rural health counties have road systems that are closed or impassible during bad weather, making transportation difficult. Public health field work requires travel, so that personnel may be inaccessible by fax, telephone, and email for hours at a time. Routine data reporting -- such as the tracking of reportable infectious diseases -- is highly unreliable, often based on paper-and-pencil systems. We were one of the last states to qualify for federal funding in support of the national Health Alert Network, an Internet-based system that assures the rapid dissemination of public health information from the national level, through states, and to the local level. Nevertheless, high-speed Internet lines are not yet available to all of our ten local health departments let alone to the counties that have no local public health agency.

Fiscal Year 2002 federal funding will provide seed money to build Pennsylvania's communications infrastructure, but the quality of our risk-communication processes remains uncertain. Pennsylvania still needs more and better planning, coordination, and technology. We need a statewide radio communications system and information and data systems that are compatible for sharing information across all jurisdictions. Likewise, the Commonwealth needs high-speed Internet access, email, and broadcast facsimile capabilities for emergency notification.

### ***Organizational Capacity***

Over fifty years ago Act 315, the Local Public Health Law, was passed in Pennsylvania, making per-capita grants available from the state's General Fund to counties that established comprehensive public health agencies. Today, only ten of our 67 counties (or municipalities within counties) have opted to do so. Public health services in the other 57 counties remain the responsibility of the Department of Health, which groups them into six multi-county health districts. Staffing for each district is typically minimal and centralized, so that the Health Department's daily presence in rural counties may be limited to a nurse and a secretary.

What's more, the Health Department's scope of authority under state law is not as comprehensive as that of the local departments under Act 315. At the state level, responsibility for traditional public health services is distributed across at least six executive departments of state government (Aging, Agriculture, Environmental Protection, Health, Insurance, and Public Welfare) and extends also to the Pennsylvania Emergency Management Agency. The functioning of the ten local health departments and these seven executive agencies is independent of each other. The result for Commonwealth residents is a fragmented dispersal of responsibility for personal health services assurance, restaurant inspections, air and water quality, agricultural safety, school health programs, and many other important determinants of health and well-being. From an organizational standpoint, the Commonwealth lacks a comprehensive and uniform approach to assessing health needs, developing health policies and plans, and assuring the quality and accessibility of public health and personal health services.

Laboratory capacity is one of the most important ingredients for effective public-health surveillance both for routine monitoring of infectious diseases and for catastrophic and emergency events. Up to now, Pennsylvania has had only one certified Bio-Safety Level 3 (BSL-3) State Health Laboratory equipped to conduct the secure testing of bio-hazardous materials in Chester County. The recent federal bioterrorism preparedness grant will provide funds to establish a second BSL-3 laboratory in Allegheny County. This will provide both coverage in the western part of the Commonwealth and some needed surge capacity, such as in the recent anthrax threat. However, these two laboratories for a population as large and diverse as Pennsylvania's may still be inadequate. In the event of bioterrorism or a major epidemic, additional laboratory capacity in urban and suburban centers would reduce the time, distance, and potential hazard of transporting samples. Personnel in the state's laboratory system need additional training.

## **HEALTH STATUS OF PENNSYLVANIANS**

The weak public health infrastructure is linked to our poor health in Pennsylvania. Public health systems promote healthy choices to prevent costly disease and disability. Successful health promotion and health education can decrease risk behaviors for chronic disease, such as smoking and sedentary lifestyle, as well as create environments and attitudes that promote environmental, community, and individual health, including the prevention of accidents and violence. An overview of recent health-status reports shows how much the Commonwealth needs a more effective public health infrastructure.

### ***Major Health Indicators***

Since 1990, Pennsylvania's ranking among states on a variety of health indicators has fallen from #22 to #26 -- now in the bottom half of the country. Fewer than half of our counties have met the national "Healthy People 2010 Objectives" for six major health-status indicators: breast cancer, colon cancer, lung cancer, stroke, suicide, and motor vehicle accidents. Progress toward these objectives in the remaining counties is stagnant.

Pennsylvania has higher than national rates for diseases of the heart, including cardiovascular disease, and female breast cancer. Both tobacco use and obesity are well-known risk factors for a number of serious chronic diseases that are highly prevalent, including diabetes, chronic heart disease, and cancer.

### ***Smoking***

The 24.3% prevalence of smoking in Pennsylvania's population is linked to its high rates of heart disease (291.0 deaths per 100,000) and cancer (557.0 cases per 100,000). Even though since 1990 the prevalence of smoking has decreased from 29.3% of the population, this five percentage point decrease is much smaller than the decrease that many other states achieved during the same time period.

## ***Environment***

Natural disasters, such as fires, floods, tornadoes, hurricanes, and snow storms occur regularly in Pennsylvania. Philadelphia experiences nightly at least four major fires. Each of these events amounts to a disaster for the community and it strains the agencies and organizations that respond to it.

Threats to public health in Pennsylvania exist in the form of hazardous-materials transportation accidents, uncapped natural gas wells, unregulated drinking water supplies, industrial emissions, air-quality breeches, unsafe bridges, an older housing stock, open waterways, crop disease, animal disease, and nuclear power accidents. In 1999, Pennsylvania ranked in the top 90% of "dirtiest" states for cancer and non-cancer risks (air and water releases) and air releases of known carcinogens. The Commonwealth ranks third among the states in total funded SuperFund sites; and, if funding were available under the SuperFund program, Pennsylvania would unfortunately rank first with more sites than any other state in the nation.

## ***Maternal and Child Health***

Pennsylvania is in the bottom half of states rank-ordered for the adequacy of prenatal care. From 1998-2000, 7.8% of all babies born in the Commonwealth were characterized as having low birth-weight -- a major risk-factor for premature death, future poor health, and learning disabilities. This high-risk factor is associated with inadequate prenatal care and teen-pregnancies: 14.9% of pregnant Pennsylvania women received no prenatal care in their first trimester -- higher than the national rate; and 3.6% of Pennsylvania births were to mothers under age 18.

## ***Infectious Diseases***

An example of our infectious disease problem is Pennsylvania's sexually transmitted disease epidemic: the rate for number of reported Gonorrhea cases (an index for other sexually transmitted diseases in a community) is 113.4 reported cases per 100,000 people, compared to the Healthy People 2010 Objective of 19 cases per 100,000. Other communities have recently experienced major outbreaks of ventilation-borne Legionella cases and food borne E. coli infections. All of these situations are preventable.

## ***Health Disparities***

Black and Latino Pennsylvanians consistently have higher than national rates for all maternal and child health-status indicators. The Black infant mortality rate is almost three times higher than that of non-Hispanic whites, and the Latino rate is twice as high. As such, our Black and Latino residents are among our most vulnerable populations and will continue to be unless we invest in active and innovative disease prevention and health promotion programs. Similarly investment in programs in our rural counties will address major disparities to be found in those communities. Obesity, diabetes, stroke, and lung cancer are particularly significant causes of illness and premature death in the Commonwealth's rural counties, where health status indicators are among the worst in the country. From 1994 to 1996, three times the number of Pennsylvanians died from heart disease in our Appalachian counties than in other counties.

## RECOMMENDATIONS

By comparison with the health-status indicators in other states and in terms of capabilities for both routine functions and emergency response, the public health infrastructure of Pennsylvania is in critical condition. We urge the next Governor to lead a two-pronged initiative aimed at improving health and assuring long-term well-being for all the people of this Commonwealth:

1. ***Convene a blue ribbon public health panel to review infrastructure weaknesses, recommend improvements, and oversee implementation of an action plan for building a robust public health system over the next four years.***

Public health infrastructure improvements should be a major focus for the next Governor's administration. The Commonwealth's academic and professional leaders, convened as a blue ribbon panel, can provide the expertise to identify current weaknesses, recommend a definitive set of actions for improvement, and provide guidance and oversight for change. This panel should consider how public health can function as an integral system in Pennsylvania, not only on a routine basis but also in the event of terrorist attacks and natural disasters. It should assess the adequacy of the Commonwealth's half-century old "Local Public Health Law." It should review the current federal grant for public health infrastructure to determine how best to use it as seed money for long-term investment in the public health.

2. ***Establish criteria for prioritizing health-care expenditures that will have the greatest impact on protecting and improving health by focusing on disease prevention and health promotion.***

Emphasizing that prevention is basic to health improvement, the next Governor should use prevention-focused criteria to prioritize executive actions and to evaluate health-related expenditures in the Commonwealth. Priority should be given to funding programs, services, and initiatives that target communities and populations. Programs, services, and activities that are preventive in nature and age-appropriate should encourage:

- the prevention of and abstinence from tobacco, drug, and alcohol use
- physical activity
- avoidance and prevention of intentional and accidental injuries.

High priority should be given to science-based interventions at the community and state-wide levels that reduce or eliminate the use of tobacco products. Appropriate prevention counseling, education, and clinical preventive services should receive priority in allocating resources to personal health services. The Commonwealth should consider creating an Office of Rural Health within the state Health Department to help close the rural-nonrural disparities gap.

We stand ready to assist the new Governor in developing a plan to address these and other issues that profoundly influence the health and quality of life for all Pennsylvanians.

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