

Medical Care Reform Requires Public Health Reform: Expanded Role for Public Health Agencies in Improving Health

A Prevention Policy Paper Commissioned by
Partnership for Prevention

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Executive Summary

--Covering the uninsured and modernizing America's health care system are urgent priorities, but they are not enough. Simply put, in the absence of a radical shift toward prevention and public health, we will not be successful in containing medical costs or improving the health of the American people.

- Barack Obama's Plan for a Healthy America

Many policymakers assume that individual, patient-based medical care is the best way to improve health. We have learned, though, that the underlying determinants of our collective health – the economic, social, and physical environments – have a greater bearing on health than does direct medical care. Thus, true *health* reform must address these underlying drivers of poor health.

Efforts to address these underlying drivers, along with other population-level initiatives to promote health and prevent disease, comprise the public health system. The three overarching goals of public health are to protect the health and safety of the population, prevent the suffering and consequences of disease, and promote improved health for everyone. These goals are accomplished primarily by acting at the population level as opposed to in one-on-one interactions between patients and health care providers.

State and local public health agencies serve as the foundation of the nation's public health efforts. Our understanding of which public health interventions are effective in improving health is now greater than it has ever been. Yet funding for the nation's public health agencies falls far short of the amount needed to adequately accomplish the goals of public health. Much of the funding for state and local public health agencies comes in the form of disease- or issue-specific funding that is of little help in enabling agencies to carry out their core mission.

A skilled public health workforce is needed if we are to successfully address the many difficult public health issues our nation faces, ranging from an epidemic of chronic disease to threats posed by both natural and man-made disasters. Our inability to train, recruit, and retain an adequate workforce has weakened our public health infrastructure.

Further, compared to our investment in biomedical research, the nation has invested little in understanding how the public health system can function most productively, which public health policies and programs have the greatest impact on health, and the impact on health of policies and programs that are not traditionally viewed as health policies.

The authors recommend that Congress take a number of actions to strengthen the nation's state and local public health system. The actions include the following:

- Establishing a dedicated, predictable revenue stream to support core state and local public health activities.
- Establishing a national Public Health Advisory Commission to report on progress toward achieving national health objectives, including ways to strengthen the public health infrastructure and to hold public health agencies accountable for achieving the national health objectives.

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- Strengthening the public health workforce by revising and amending training and loan forgiveness programs for public health professionals and by requiring Medicare's Graduate Medical Education program to support training for preventive medicine physicians.
- Expanding support for identifying effective public health policies, programs, and systems, and for examining the impact on health of new environmental, social, and other policies not specifically directed at health but with important likely health impacts.

Note: The views expressed in this paper are those of the authors. They do not necessarily represent the views of Partnership for Prevention.

Introduction: Stating the Problem and the Potential

For the last 40 years, the national political debate has focused on alternative ways to bring about what has been loosely referred to as “health care reform.” The focus has generally been on the medical care system, not on the population-based efforts needed to improve health and prevent disease, which are an essential complement. This preoccupation is understandable because of the stark reality that tens of millions of Americans do not have health insurance despite per capita spending on health care expenses that, even including the uninsured, far exceeds that of any other nation in the world. In fact, to a large extent, health care spending has crowded out investments necessary in other critical areas; as a result, it is a perennial priority issue for legislators and executive branch leaders alike.

Many policymakers assume that individual, patient-based medical care is the best way to improve health. They hope that additional financial investment in health care will yield good health returns and will reduce the gaping disparities in health status among different racial and ethnic groups. Providing every American with access to quality medical care will no doubt contribute to health, particularly by leading to a reduction in the number of preventable premature deaths^{1,2} However, the implicit assumption that individual, patient-based medical care is the primary way to improve health is not consistent with the best evidence.

There is incontrovertible evidence that by acting at the population level, policies targeted to improve everyone’s health are able to affect the health of large numbers of people in ways that personal medical care cannot. These public health policies and programs protect populations from harm, prevent diseases and injury, and promote better health and economic productivity. It was primarily these approaches that almost miraculously increased the average lifespan from 47 in 1900 to 78 in 2005, a stunning 66% increase in a little more than a century.³ Most of this increase in life expectancy resulted from a combination of public health policies to improve sanitation; ensure that the water supply was pure; make workplaces safer; improve food and drug safety; immunize children against serious diseases; and improve housing, nutrition, and hygiene.

One key lesson from the last century is that underlying determinants of our collective health – the economic, social, and physical environments – have a greater bearing on health than does direct medical care. Thus, true *health* reform must address these underlying drivers of poor health. Medical reform alone cannot be relied on to improve the health of our population or to reduce health disparities among population subgroups.

As Steve Schroeder, the former President of the Robert Wood Johnson Foundation wrote, “When it comes to early deaths, medical care has a relatively minor role. Even if the entire U.S. population had access to excellent medical care – which it does not – only a small fraction of these deaths would be prevented.”⁴

In addition, many of the most serious public health problems cannot be addressed by the health care and public health sectors alone. They require collaboration with a wide variety of public and private entities. For example, take childhood obesity. The rising incidence of childhood obesity

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is related to a wide variety of factors, such as school physical education policies, land use and urban design policies that affect physical activity and exercise, junk food advertising to children, school nutrition policies, and many other policies.

Thus, to be most effective, federal, state, and local public health departments need to work outside the health care sector on opportunities to change the physical and social environments in ways that improve health, prevent disease, and reduce health disparities. Making such changes includes working with school districts, private employers, city planning and regional transportation agencies, and other agencies involved in these issues.

Our understanding of which public health interventions are effective in improving health is now greater than it has ever been. The Task Force on Community Preventive Services, an independent expert panel sponsored by the Centers for Disease Control and Prevention (CDC), has conducted extensive systematic reviews of the scientific literature to assess the effectiveness of important public health policies and programs. The challenge now is to encourage and incentivize public health departments (and other entities responsible for the health of specific populations) to lead the charge to implement the Task Force's evidence-based recommendations.

The Goals of Public Health

The three overarching goals of public health are to protect the health and safety of the population, to prevent the suffering and consequences of disease, and to promote improved health for everyone. Over a decade ago, a number of public health leaders came together to identify the essential services that are necessary to achieve the goals of public health. They identified “ten essential services” that describe the public health activities that should be undertaken in all communities (see Table 1).

Table 1. Ten Essential Public Health Services

1. **Monitor** health status to identify and solve community health problems.
2. **Diagnose and investigate** health problems and health hazards in the community.
3. **Inform, educate, and empower** people about health issues.
4. **Mobilize** community partnerships and action to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and ensure the provision of health care when otherwise unavailable.
8. **Ensure** competent public and personal health care workforce.
9. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services.
10. **Research** new insights and innovative solutions to health problems.

Source: Core Public Health Functions Steering Committee. Available at <http://www.cdc.gov/od/ocph/nppsp/essentialphservices.htm>.

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The sorts of environmental protections and personal health improvement efforts needed to achieve the benefits of improved health will not occur on their own. They require the presence in every state and community, no matter the size and character, of an organized system of state and local (or regional) public health departments.

One of the core responsibilities of governmental public health is to be the primary responder to natural or man-made disasters that have adverse health effects. This responsibility has become even more critical in the wake of the 9/11 attacks; the threats of novel communicable diseases or those being introduced into the U.S.; and the growing toll of hurricanes, wildfires and floods which, in part, may be early consequences of global warming. Yet in much of America, emergency management agencies cannot find their institutional health counterpart in a parallel public health agency network. As a result, we remain ill-equipped to respond to the public health consequences that have accompanied terror attacks and natural disasters such as Hurricane Katrina.

To achieve important public health goals, the Federal government issues a comprehensive package of health objectives for the nation at the beginning of each decade known as the Healthy People objectives.⁵ These objectives serve as important benchmarks for assessing the health of the American people. The objectives encompass a wide range of public health issues, including disease states, risk factors, and other cross-cutting areas such as information technology.

The most recent mid-course assessment of our progress toward achieving the Healthy People 2010 objectives, now complete, reveals that the nation will fail to achieve many of its most important objectives. It also reveals unacceptable disparities among different ethnic and racial minorities in important measures of health status.

While the Healthy People objectives provide important goals and a useful road map for the nation, they carry little formal weight. Healthy People 2020, however, currently under development, can point to the best opportunities for both Congress and the new administration—actions that will improve our collective health as a nation and improve our disappointing health statistics compared to virtually all developed countries.

A new, high-level commission focused on improving the health of all Americans would be helpful to Congress in highlighting the state of the nation's public health system and priority health improvement priorities. The commission could provide objective guidance to Congress as it strives to obtain the best health outcomes for our health care dollars, and it could identify mechanisms for assigning accountability to federal, state, and local health agencies for making progress toward our national health objectives. This commission also could help counterbalance the understandable focus on issues of health care financing and access to medical care by pointing to the importance of keeping issues related to health status and public health at the top of our national radar screen. .

Barriers to Meeting Public Health Goals

There are many reasons why our public health system has not kept up with the demands of the 21st century. The following section identifies these barriers, along with strategies that could help remove these barriers and bring about much needed change.

Organization of the State and Local Public Health System

State and local public health agencies serve as the foundation of the nation's public health efforts by providing, paying for, ensuring, or at the very least coordinating and advocating for the public health and personal health services and policies needed to achieve public health goals. Each state and locality organizes its governmental public health efforts differently.

The nation's state health departments vary widely in their scope of responsibilities and their size. More than half of all state health departments are freestanding agencies, but many are part of a larger agency that encompasses other health and human services activities. In about half of the states, the public health agency and the state Medicaid program are part of the same department. In some states, responsibility for local health department activities is centralized in the state agency; in other states, local health responsibilities are shared between the state and local entities; and in still other states, the local health agency structure is almost entirely decentralized.⁶

The size of state health agencies also can vary dramatically. The California state health department, for example, employs approximately 3,500 staff, while the state health department in Alabama, which has responsibility for administering the local health departments in the state, employs 4,100 people.

Local health departments are even more diverse than state health departments. The more than 3,000 local public health departments in the country employ approximately 160,000 workers, but there is great variability in number of employees from department to department. The average local health department has 67 employees, but 75% have fewer than 50 employees, and 36% employ fewer than 10 people. For jurisdictions serving populations below 25,000, the median number of FTEs is 8. In contrast, health departments in jurisdictions between 500,000 and 1 million people employ a median of 285 people. In jurisdictions of more than 1 million people, the median number of health department employees is 467.⁷

Overall, 54% of the U.S. population is served by 6% of the local health departments. Sixty-two percent of local health departments serve a jurisdiction of fewer than 50,000, and collectively these small jurisdictions account for only 10% of the U.S. population. In five states, local health departments are units of the state health agency; in 34, they are units of local government; and in the remaining states there is mixed type of governance.

The role of local public health agencies varies greatly by state. For example, in California, almost all local public health services are performed by county public health agencies, but with great variation in size and capacity. Los Angeles County, with over 10 million residents, is served by a county public health agency with over 4,000 employees, 40 programs, and an annual

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budget exceeding \$750,000,000. By contrast, in Maine, only the two largest cities, Portland and Bangor, have organized local health departments, and only one county (of the 16) has even a modest county-based official board of health. The remainder of the state is served by a network of dedicated but essentially unsupported volunteer local health officers (486 of them), and a creative network of locally active contract coalitions, primarily focused on educational and informational efforts related to tobacco prevention, and more recently, other personal health risk reduction efforts. In many jurisdictions, public health functions, if provided by local government at all, are embedded within health care or social services agencies.

Many local health jurisdictions are simply too small to provide essential public health services. When a department is too small, it can become part of a coordinated network with other departments, or several departments can be merged to create a regional agency with greater depth and breadth of capacities. Several rigorous and ambitious efforts have demonstrated the benefits of a distributed, locally available network of public health agencies able to carry out the essential public health services (also frequently called core public health functions).⁸ Nonetheless, there is great heterogeneity in the staffing, capacity, scope, and depth of expertise among state and local public health agencies, and even how each defines its responsibilities.

By giving local health departments incentives to merge to form regional health departments where appropriate or to form stronger well-defined collaborative efforts, these agencies can take advantage of economies of scale and provide the full range of essential public health services. Incentives could be based on a variety of factors, such as the minimum effective size of a regional public health agency or collaborating network, needed workforce and effective workforce mix(es), and geographic area covered (maximum allowable distances/time traveled for service).

It should be noted that a nationwide network of approximately 1,200 community health centers complements, but is quite distinct from, local public health agencies. Community health centers provide primary care services to those with limited resources, but they do not provide population-level public health services.

Inadequate and Disorganized Public Health Funding

Funding for the nation's federal, state, and local public health agencies falls far short of the amount needed to adequately carry out the essential services of public health. According to the Trust for America's Health (TFAH), current federal, state, and local spending totals about \$35 billion. TFAH estimates that public health agencies actually would need \$55-60 billion to adequately carry out the essential services.⁹ The \$120 per person spent on public health compared to the more than \$7,000 in per capita medical spending across the United States shows how unbalanced our expenditures for health have become.

The only source of federal funding for state health departments that gives states substantial flexibility in how they can use the funds is the Preventive Health and Health Services Block Grant. This block grant, however, provides only a small portion of the funds needed for public health agencies to carry out essential public health services. Funding has declined in both real

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and inflation-adjusted dollars over the last 15 years, from nearly \$150 million in 1993 to less than \$100 million today. Its average funding of less than \$2 million per state pales in comparison to the need.

State and local health agencies must typically cobble together funding from a wide variety of sources. As a result, the per capita expenditures for state and local public health vary widely, and these differences do not generally correspond to the health needs of their populations.^{10,11} According to a study by the National Association of County and City Health Officials, nationwide the revenues for local health departments come directly from the state (23%), local appropriations (29%), federal sources (20%), Medicaid (9%), Medicare (2%), and fees (6%), with 12% from other sources.¹²

Much of the funding for state and local public health agencies comes in the form of disease- or issue-specific funding that is of little help in enabling agencies to carry out their core functions. Recent cuts in funding, such as for control of tuberculosis and sexually transmitted diseases, have diminished the core capacities of public health agencies. The current state of affairs stands as stark evidence of the hazard of superimposing categorical funding upon a core infrastructure that does not itself have viable long-term support.

In large measure, the failure to build and sustain an effective, distributed public health infrastructure derives from the history of a system that developed prior to recognition that an effective public health system required substantial federal support. Nonetheless, the lack of a strong, distributed public health system dramatically weakens our ability to address the many serious health problems facing the country, including the health problems that are the primary drivers of skyrocketing health care costs.

Clearly, a more rational and thoughtful approach is needed to support state and local public health agencies to ensure that they are capable of dealing with important health problems. Congress should provide funding to support core public health activities in addition to the disease-specific funding currently provided. In an efficiently functioning health system, we should spend resources where they will have the most impact, based on such factors as disease and injury burden, the evidence about the effectiveness of programs and policies to prevent early deaths and reduce health disparities, and the likelihood of natural or man-made emergency situations. If the nation were to do this, we would undoubtedly spend a greater portion of our health care dollars on population-based, prevention-oriented services than we currently spend and fewer dollars on many high-tech medical alternatives.

Inability to Build and Sustain a Public Health Workforce

The public health challenges of the 21st century are exceedingly complex, and a skilled public health workforce is needed if we are to successfully address these difficult issues. According to the Institute of Medicine and others, our inability to recruit and retain an adequate number of the nation's best and brightest into federal, state, and local public health agencies has made it difficult to build the strongest possible public health system. There is a shortage of trained public health workers, and many others working in public health are inadequately trained.¹³ In addition,

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many public health officials have expressed concern that the public health workforce is aging, while the number of newly trained public health professionals falls short of the number needed to replace retirees, and far short of the number needed to address growing public health needs.

Public health workers include those who are trained specifically in public health, but they also include many professionals who work in public health settings but have not received formal public health training. Regardless of whether or not those workers have formal training in the field, individuals working in public health need to understand key principles of public health, including the many forces that affect health. A substantial body of research has identified the key skills and competencies needed by public health professionals, along with strategies for training and building the workforce.

Many stakeholders have a role in building a strong workforce, including schools of public health and public health agencies themselves. But the Federal government also has an important role. For example, the Health Resources and Services Administration's Title VII health professions program supports the training of a limited number of preventive medicine physicians; that is, physicians who are trained in both public health and clinical medicine, as well as students in graduate public health programs. CDC's Epidemic Intelligence Service also provides important training to public health professionals.

These efforts have fallen short, however, in building a sufficiently deep public health workforce. Institutional barriers exist for training medical professionals—namely, preventive medicine physicians—who wish to specialize in public health. Specifically, residency training in preventive medicine, which includes training in public health, is not supported by Medicare's Graduate Medical Education program, the backbone of America's postgraduate medical education system. As a result, public health is not a viable career choice for most new physicians. Further, based as it is in government service, remuneration in public health is, on average, lower than for other specialties, so those emerging from medical schools with large debts are even less likely to consider a career in public health.¹⁴

One strategy Congress should employ to overcome the high education cost, low salary dilemma is to expand the National Health Service Corps program, which provides education loan forgiveness to those physicians who practice in rural or underserved areas. The program should be expanded to encompass those receiving training in public health who then practice in state and local health departments.

Without federal leadership and new workforce initiatives, the public health system is unlikely to be able to keep pace with increasing demands to protect the nation against a wide range of public health threats.

Need to Improve Public Health Research

Much has been learned in recent decades about how to enable our public health system to function more effectively. Still, compared to our investment in biomedical research, the nation has invested little in understanding how the public health system can function most productively,

which public health policies and programs have the greatest impact on health, and the impact on health of policies and programs that are not traditionally viewed as health policies.

Efforts by the Institute of Medicine, the Centers for Disease Control and Prevention, and others have contributed to the development of standards and an understanding about the components of a well-functioning public health system. However, there is still much we do not know, particularly related to documenting cost-effective delivery approaches. A recommended program of public health systems research has been outlined by such groups as the Council on Linkages between Academia and Public Health Practice.¹⁵ The proposed research program addresses pressing practical issues of how policies and services can be configured, implemented, and monitored to improve the health of all residents and reduce health disparities.

In addition, the CDC-sponsored Task Force on Community Preventive Services has begun the groundbreaking work of conducting systematic reviews of best available evidence regarding what works to improve health at the population level. Yet the Task Force operates on a limited scale and needs additional resources to examine key public health interventions and perform frequent updates. Just as a network of academic institutions has helped the U.S. Preventive Services Task Force, sponsored by the Agency for Healthcare Research and Quality, systematically review the scientific literature to assess the effectiveness of clinical preventive services, funding is needed to support a network of institutions to assess the impact of community preventive services.

Finally, policymakers make many decisions that are not viewed as health policy decisions but do in fact affect human health. As a result, the health impacts of these decisions often are not examined or considered. Health impact assessments (HIAs) can be useful in helping policymakers understand the likely impact of these decisions. An HIA is a multidisciplinary process that utilizes a structured framework to assess the impact on health of policies and programs based on a range of economic, political, social, psychological, and environmental factors. The UCLA School of Public Health has, for example, conducted HIAs on such diverse topics as living wage ordinances, after-school programs, and crop subsidies. Health impact assessments can be extremely useful in determining the likely health benefits and harms of proposed state and local environmental and social policies and programs. HIAs can be especially useful when applied to federal legislative proposals, since the impact of federal legislation can be so far-reaching.

Recommendations to Congress

The authors recommend that Congress take a number of actions to strengthen the nation's state and local public health system. These actions would greatly enhance efforts to address the considerable health challenges facing the nation.

Recommendation 1: Congress should establish a dedicated, predictable revenue stream to support core state and local public health activities.

- In order to receive funding, health departments should (1) use evidence-based programs and policies (such as those recommended by the CDC-sponsored Task Force on

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Community Preventive Services) in areas where they exist and (2) collaborate with agencies outside the health sector to address the key intersectoral determinants of the public's health and of large health disparities among groups.

- In addition, incentives should be provided to encourage regionalization of public health to ensure delivery of essential functions where necessary, especially in rural areas.

Recommendation 2: Congress should establish a national Public Health Advisory Commission.

The goals of this commission would be to report annually on progress toward reaching national Healthy People objectives, including the contributions of state and local public health agencies, the integrity of the public health infrastructure, and strategies for holding federal, state, and local public health agencies accountable for achieving the national public health objectives.

Recommendation 3: Congress should strengthen the public health workforce.

This could be accomplished by revising and amending training and loan forgiveness programs for public health professionals. Congress also should require Medicare's Graduate Medical Education program to support training for preventive medicine physicians.

Recommendation 4: Congress should expand support for research activities.

These should include systematic reviews to identify effective public health policies and programs, research on public health systems, and the administration of health impact assessments that examine the impact on health of new environmental, social, and other policies not specifically directed at health but with important likely health impacts.

Conclusion

While addressing the financing and access problems that plague our health system is certainly important, solving these problems alone will not make our citizens as healthy as they can be. The reason is that many of the nation's most pressing public health problems are a result of unhealthy behaviors – tobacco use, poor diet, physical inactivity, alcohol use and abuse –as well as unhealthy aspects of the broader social, economic and physical environments. The majority of these issues can be addressed most effectively by population-level interventions, which are the foundation of our public health system. Focusing on these risk factors and underlying determinants also offer substantial potential to improve quality of life and economic productivity, while also impacting the leading causes of preventable premature death and disability and related costs.

Unfortunately, in national health reform discussions, public health often is overshadowed by access and health care financing issues. Education of the public and policymakers about the value of public health is needed if we are to strengthen our public health system. The nation must strike the proper balance between a strong public health system and an advanced medical care system if we are to make the United States the healthiest nation in the world.

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