

Public Health

The nation's public health system is the first line of defense against numerous threats. It ensures the public's health and safety by identifying and tracking disease, protecting food and water supplies, educating the public about health issues, and responding to disasters. Public health, however, remains largely invisible to most Americans—until something goes wrong. An outbreak of food poisoning or the start of the annual flu season heightens awareness of our vulnerability. These episodes also bring attention to an overburdened public health system challenged by fragmented funding streams, inadequate staffing and training, outdated information technology and communications systems, and an aging laboratory system.

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Public health stakeholders, including health philanthropy, can incite and sustain change to ensure that these systems are working. Health funders are uniquely positioned to strengthen the public health infrastructure. They can act as neutral conveners, provide grants for startup funding, coordinate collaborators, and encourage community engagement.

Foundations can also educate and inform the public about a wealth of public health issues, as well as impress upon policymakers the value and benefits of public health.

What is Public Health?

The vision of public health in the United States is one of healthy people living in healthy communities (American Public Health Association 2004). This ideal rests on the Institute of Medicine's (IOM) definition of public health as "organized community efforts aimed at the prevention of disease and promotion of health" and its mission as the "fulfillment of society's interest in assuring the conditions in which people can be healthy" (IOM 1988).

The network of people, systems, and organizations making it possible to carry out essential public services is considered the system's infrastructure. Essential public health services can reduce the burden of preventable illness and injury and avoid costly medical services needed to treat preventable illness. Basic infrastructure is also essential to respond effectively to bioterrorism, emerging infectious diseases, and other health threats.

The Evolution of Public Health and Its Expanding Role

Public health has evolved over time to reflect the changing health burdens on society. The discipline began in the 19th century as a response to local disease threats such as scarlet fever, measles, typhoid fever, smallpox, and yellow fever (Fee and Brown 2002). The majority of deaths early on were attributable to infectious diseases, as well as poor hygiene, deficient nutrition, and unsafe working conditions (CDC 1999). Successful public health interventions decreased the incidence of certain infectious diseases, and in most

TEN ESSENTIAL PUBLIC HEALTH SERVICES

- 1) *Monitor* health status to identify 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 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 assure the provision of health care when otherwise unavailable.
- 8) *Assure* a competent public health and personal health care workforce.
- 9) *Evaluate* the effectiveness, accessibility, and quality of person and population-based health services.
- 10) *Research* for new insights and innovative solutions to health problems.

Source: American Public Health Association, *The Essential Services of Public Health* (Washington, DC: 2004).

cases eradicated the threat. Public health then began to expand its role and increase its activities.

While the first half of the 20th century brought great advances in the public's health and longevity, public health as a discipline ebbed and flowed. In the 1940s it gained attention with the development and broad use of penicillin and improved vaccines. This period also saw establishment of the Center for Controlling Malaria, the precursor to the Centers for Disease Control and Prevention (CDC). Interest in public health waned in the 1950s but reemerged in the 1960s along with an increasing interest in addressing social inequities and the growth of the modern environmental health movement (Fee and Brown 2002).

The 1980s saw public health again retreat, largely due to the Reagan Administration's market-oriented policies and reductions in social programs and regulatory agencies (Fee and Brown 2002). The effects of cutbacks to state funding and the

use of block grants led to decreased funding for public health infrastructure. New infectious diseases such as HIV/AIDS began emerging at the same time; and diseases once thought to be under control, such as tuberculosis and cholera, were re-emerging.

In recent decades, chronic diseases, such as cancer and heart disease, have become the leading causes of death. In response, public health activities have broadened to include health education and promotion. To accommodate this shift toward personal health promotion, public health has been drawn away from some of its population-based core functions. Public health agencies have also taken on the added responsibility of providing health care services, most often to at-risk populations.

The importance of public health and experts' concerns about the weakness of our public health infrastructure resonated with the broader population in 2001. The terrorist attacks of

September 11th and subsequent anthrax attacks revealed the system's vulnerabilities, specifically in the area of emergency preparedness and response. As a result, vast amounts of public and private funds poured into the system to prepare for and respond to future disasters, whether manmade or natural. For example, funds were used to buy equipment, such as biohazard suits for first responders and to develop plans for mass vaccinations in case of a deliberately introduced smallpox outbreak. At the same time, new infectious diseases were emerging, including West Nile virus and SARS. The public health system's ability to monitor, detect, and respond to outbreaks on a global level was clearly challenged.

Hurricane Katrina tested the system again in 2005, revealing continued flaws in the public health system's infrastructure. Communication and coordination among federal, state, and local agencies, as well as non-profit entities such as the Red Cross and United Way, appeared to be almost nonexistent. Questions of who was leading recovery efforts, providing shelter and medical services, monitoring the immediate and long-term environmental impact, and clearing debris plagued the system in the weeks and months following the storm.

Challenge: System Overburdened Infrastructure

Today's public health system is overburdened. And its responsibilities continue to expand. One major shift has been the movement from focusing on discrete interventions, such as water supply management and sewage disposal, to broader social

and cultural reforms to address the root causes of illness. For example, public health agencies have taken on overweight and obesity and are working to educate the public about the benefits of healthy eating and exercise. With this shift, public health has been drawn away from some of its core functions, such as epidemiology and surveillance.

In many communities, the public health system has also become a provider of health care services to the uninsured or in areas where services are unavailable. As suggested by the IOM in 2003, this default status of many public health agencies is "consuming resources and impairing the ability of governmental public health agencies to perform other essential tasks." Furthermore, the health care and public health systems often do not interact effectively. As a result of this poor communication and coordination, some public health services, such as disease detection, may be more difficult to carry out.

For too long, infrastructure has been neglected. As a result, public health does not have the capacity required to respond quickly and effectively to threats such as an influenza epidemic or a devastating hurricane. The three critical and interrelated elements of infrastruc-

ture are organizational capacity, workforce capacity and competency, and information and data systems. Each has its own unique set of hurdles to overcome in order for the public health system to function effectively. Health funders are well positioned to strengthen the public health infrastructure. Successful strategies include partnerships with public health agencies, academia, and community-based groups; support for workforce development and leadership training, including scholarships and training programs; and funding improvements in information technology and communication systems.

Organizational Capacity

The organizational capacity of the public health system is comprised of federal, state, and local health departments and laboratories. Effective functioning of public health agencies requires, among other things, a responsive organizational structure and modern facilities. Also included are partnerships with private entities to ensure that services are provided (CDC 2002).

One of the largest initiatives to strengthen state and local public health systems was Turning Point: Collaborating for a New Century in Public Health. The initiative, developed and funded by Robert Wood

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Johnson Foundation (RWJF) and the W.K. Kellogg Foundation, started in 1997. Its mission was to transform and strengthen the U.S. public health system by making it more community-based and collaborative. RWJF's participation in Turning Point stems in part from the IOM's seminal 1988 report, *The Future of Public Health*, which described a public health system in disarray and identified weaknesses such as funding, leadership, and data collection and analysis. Foundation staff also engaged in ongoing dialogue

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with experts in the field of public health. In exploring strategies to improve the public health system, the foundation took advantage of key strategic opportunities, signaling that this was the right time to invest in public health. As RWJF senior program officer Susan Hassmiller (2002) put it, "states faced increased responsibilities at the same time that resources for public health were diminishing...[and] there were new public health leaders coming to the forefront at the state and community level, providing the impetus for change with a vision for a more integrated health system."

At the same time RWJF was exploring how to strengthen public health

at the state level, the W.K. Kellogg Foundation was seeking strategies to build local public health capacity. At a joint meeting in 1996, the foundations decided that they could have the greatest impact on the public health system by forging a funding partnership. With combined commitments of more than \$24 million dollars from the two foundations, Turning Point provided support for state and local communities to improve the performance of their public health systems through strategic development and implementation processes. Its efforts drew upon the strength of collaborations and involved key public and private sector partners. RWJF ultimately funded projects in 21 states. The W.K. Kellogg Foundation funded 14 communities within these states.

Foundations at the state and local level have also contributed to the success of Turning Point programs. They have provided matching grants; supported conferences and other convenings; and awarded grants for scholarships, training, and other educational opportunities for individuals involved in Turning Point programs. States and communities were able to leverage these funds, some of which were only a few thousand dollars, to support the broader goals of Turning Point.

Several states participating in Turning Point took on the challenge of building public health organizational capacity. In New Hampshire, stakeholders, including the Community Health Institute and the New Hampshire Public Health Association, developed a grant program to create regional public health structures in areas where there were no

local health departments. At the time, only two of the state's 234 towns and cities had formal public health departments and there were no county health departments. By pooling resources from towns, the state health department, and the CDC, New Hampshire's Turning Point program was able to fund four community collaborations covering 37 towns and cities. State and local funders also contributed to this effort, including the Endowment for Health, the Foundation for Healthy Communities, and the New Hampshire Charitable Foundation.

The terrorist attacks of September 11th occurred just as New Hampshire's coalitions were beginning their work and attracted the attention of state leaders. Working with the state public health department, the coalitions were able to use new bioterrorism funds to develop systems and services that effectively respond to disasters and assist communities in recovery (Kassler and Goldsberry 2005). The new resources also allowed additional towns and cities to be brought into the program. By 2004, the New Hampshire Public Health Network, as the program became known, covered 67 percent of the state's population and included almost half of its cities and towns. Evaluation results show that the network helped increase coordination between state and local agencies, formalized the role of nongovernmental organizations in providing public health services, and strengthened the capacity of local governments to partner more effectively with nongovernmental agencies (Turning Point 2004). The success of the state's work became evident in early 2004 with an out-

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break of hepatitis A. Communities were able to quickly make decisions about informing the public of the outbreak and disease symptoms, and to provide more than 2,500 area residents with antibody treatments (Turning Point 2004).

A second component of Turning Point was the development of National Collaboratives of Excellence. During the initiative's planning phase, several areas were identified as requiring additional work to effectively improve the public health system, including information technology, public health law, performance management, leadership, and social marketing. Grantees were not only requesting additional information on these topics, but they began to exchange ideas and information with each other. As a result, RWJF decided to create a formal infrastructure for discussion of these topics, as well as development of models and solutions (Hassmiller 2002).

While the two foundations' funding of Turning Point has ended, the important work begun through the initiative continues. For example, a major accomplishment of the initiative was the development of new structures to expand the capacity of states to respond effectively to public health issues. These structures include offices dedicated to public health improvements in state health departments; public health insti-

tutes; and the expansion of local public health systems through governmental agencies and partnerships (Brodeur 2005). In addition, several participating states developed new or enhanced existing leadership programs and training opportunities to build a more competent public health workforce (Brodeur 2005). Bobbi Berkowitz (2005), director of the Turning Point National Program Office at the University of Washington, suggests that the initiative's legacy will include "the institutionalization of the collaborative partnership approach, permanent broad-based citizen involvement in public health, . . . steady and predictable funding for public health, . . . and informed and engaged policymakers."

Using lessons learned from Turning Point, RWJF has begun to focus on public health performance management. The foundation is supporting efforts to establish performance baselines and benchmarks that will help improve public health agencies' performance and accountability. It has awarded grants to the National Association of City and County Health Officials and the Association of State and Territorial Health Officials to develop a framework for a voluntary accreditation system for state and local public health agencies. Foundation staff are also working to build the field of public health systems research to determine the

optimal application of resources that public health agencies need to do their jobs effectively.

Workforce Capacity and Competency

The second core infrastructure element is workforce capacity and competency. This includes the more than 500,000 professionals working in federal, state, and local public health departments. These frontline workers are responsible for such tasks as tracking disease trends, inspecting restaurants and childcare centers, implementing community-wide immunization campaigns, and responding to emerging threats and outbreaks. Unlike other health profession fields, there is little uniformity and standardization in public health training. Only 44 percent of public health workers have received formal academic training in public health, and 78 percent of public health administrators lack such training (Baker and Koplan 2002). Admission into the public health workforce may be accomplished through many routes, from formal training in an accredited school of public health to a high school diploma with a willingness and aptitude for learning. Moreover, the public health field lacks continuing education and certification opportunities.

Foundations can build public health workforce capacity by providing grants to schools of public health, funding education and leadership training opportunities at the state and local levels, supporting research, and sponsoring national conferences. From the start, the Kansas Health Foundation has worked to strengthen its state's public health system. One of its first areas of

focus was workforce development. With the realization that the state's department of public health only had two epidemiologists, the foundation decided it could have a significant impact by supporting additional staff epidemiologists. This initial work led the foundation to look more closely at the needs of local public health agencies in educating and training staff. In the mid-1990s the foundation began to provide continuing education scholarships for local public health department employees. The scholarships were favorably received, with a program officer at the foundation noting that many local employees "tell us that they would not otherwise have the opportunity for continuing education because their small health departments just don't have the funding" (Williams 2002).

As the Kansas Health Foundation's work in this area evolved, staff also began to tackle the issue of leadership development. In 2003, the foundation awarded a six-month planning grant and a four-year implementation grant to support development of the Kansas Public Health Leadership Institute. The institute provides leadership training for workers in public health and allied fields. Its curriculum includes specific modules based on competencies developed by the National Public Health Leadership Development Network. It also provides an opportunity for participants to develop their leadership knowledge, skills, and competencies in order to strengthen organizational effectiveness and positively affect the state's public health system. In 2006, the leadership institute entered its fourth training cycle.

Information and Data Systems

The third infrastructure element is information and data systems. A 2001 study revealed that only 68 percent of county health agencies had Internet connectivity (Baker and Koplan 2002). Such shortfalls make it difficult for public health agencies to conduct day-to-day business, and can be deadly in emergency situations such as disease outbreaks or natural disasters. The delivery of effective public health services depends on timely and reliable information and data. This infrastructure element also includes alert systems, such as the CDC's Health Alert Network. This nationwide integrated information and communications system can distribute health alerts, prevention guidelines, and other information to public health professionals, health care providers, and the public in an efficient and timely manner.

Foundations can provide the resources necessary for public health departments to purchase, update, and utilize information and communication technology. They can also fund initiatives to support private organizations to collect information relevant to their communities. The Kansas Health Foundation supported the development and installation of the Kansas Integrated Public Health System (KIPHS). This comprehensive health information system is designed to enhance the quality, effectiveness, and efficiency of public health practice. It assists state and local health departments in obtaining accurate data on health issues and integrating data from multiple sources. For example, the system is connected to the CDC's national surveillance system. In

October 1998, the Kansas Health Foundation awarded a \$1.8 million grant to implement the KIPHS software throughout the state, and it has been installed in several county health departments. A central data clearinghouse was established, as well as an office within the Kansas Department of Health and the Environment. The Kansas Health Institute administers the grant, and the CDC provides additional support.

In the past, public health agencies typically developed information systems without taking advantage of the experiences of other agencies, or sharing information and collaborating across states and other jurisdictions. To foster collaborative work, RWJF awarded more than \$3 million to the Public Health Informatics Institute in 2004. The program, InformationLinks, is working to spur the development of collaboratives among state and local public health agencies to exchange health information and foster the rapid and timely sharing of information between public health and health care systems, between public health systems and local communities, and among public health agencies within and across jurisdictions. The institute also evaluated strategies aimed at advancing state and local public health agencies' informatics capacity. This evaluation revealed that collaboration was in fact a powerful lever to improve information infrastructure. A partnership between the Association for Public Health Laboratories and state and local public health laboratories, for example, was able to successfully define comprehensive technology requirements and design laboratory

information management systems (RWJF 2006).

RWJF is also supporting professional training in public health informatics. With demands on public health agencies increasing and resources growing ever scarcer, there is an urgent need for experts trained in the application of informatics to public health practice. The

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foundation is interested in promoting increased academic attention to training and research in public health informatics as a means to strengthen the bridges between universities and public health practitioners. Specifically, the foundation is supporting the National Institutes of Health's National Library of Medicine to provide in-depth training in basic information science and public health principles at four universities.

Challenge: Financing Public Health

Current financing of public health programs reflects the nation's health priorities. Historical investments in public health services and infrastructure have paid off. In the last century, support for immunization programs drastically reduced deaths due to infectious disease. Spending for public health today, however, is a small fraction of the nation's total health spending. In fact, as much

as 95 percent of health care-related spending is allocated to medical care and biomedical research (IOM 2003).

Funding for public health decreased throughout the 1990s and this had a direct impact on the quality, provision, and organization of public health services. The majority of public health funding is categorical, meaning it is designated for specific services or programs, making it difficult for state and local public health departments to respond to unexpected events, such as outbreaks of food-borne illness or West Nile virus. Tight state budgets have also reduced public health spending. The Trust for America's Health estimates that more than two-thirds of states cut public health funding during the 1990s (Trust for America's Health 2003).

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Public health received a huge influx federal of funds after September 11, 2001. Designed to improve the response to future emergencies, the funds went to states and localities, either directly or through grants from the CDC and other federal agencies. There are concerns, however, that while investments in emergency preparedness are critical to the nation's safety, this type of categorical spending may compromise public health's mission (Akhter 2002). For example, some local

health departments reported cutting back on public health services, such as screenings for heart disease and cancer, children's dental services, and prenatal care, to meet requirements in the federal government's new smallpox vaccination program (Trust for America's Health 2003).

While the funds helped address some problems, most states are now only modestly more prepared to respond to public health emergencies (2003). Funding aimed at preparing for crises, however, does have a dual utility. It can be used to build and repair the infrastructure required to sustain the public health system's day-to-day responsibilities. Much of the federal funding from 9/11 was used by states and localities to purchase or upgrade equipment, supplies, and pharmaceuticals to enhance preparedness and response; conduct exercises to test emergency response capabilities and timeliness; and improve surveillance and detection.

Working with public and private stakeholders, health grantmakers can educate legislators and other decisionmakers about the value of allocating integrated funds based on community need. State Turning Point programs, for example, learned early on that they must find new and creative approaches to using funds. In Nebraska, Turning Point participants developed a strategic plan to strengthen the state's fragmented and underfunded public health system. As a result, a portion of the state's tobacco settlement funds were dedicated to building the public health system. Keys to gaining and sustaining this funding include creating a diverse network

of partners to support collaborative decisionmaking, seeking input from the community, and demonstrating accountability by documenting results and communicating them to policymakers and the general public (Palm 2005).

Challenge: Emergency Preparedness and Response

In order for the public health system to respond in a timely and effective manner to natural disasters, chemical or biological events, or disease outbreaks, a stable infrastructure must be in place. Public health agencies must have the capacity to prepare for, detect, and respond to health threats. Most state and local public health departments, however, are not fully prepared. As evidenced by both the September 11th attacks and Hurricane Katrina, the public health system lacks key elements needed to respond adequately.

Public health preparedness efforts at all levels needs to be accelerated. In a study of preparedness for major emergencies, Trust for America's Health found that five years after the September 11th and anthrax tragedies, emergency preparedness is still inadequate, stating that the U.S. is "nowhere near as prepared as we should be for bioterrorism, bird flu, and other health disasters" (2006).

There is also wide variance in preparedness at the state level. In its *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism*, Trust for America's Health evaluated the emergency preparedness of all 50 states and the District of Columbia. States received one point for achiev-

ing each indicator, with zero as the lowest possible overall score and 10 the highest. The indicators focus on key areas of preparedness such as data systems that are compatible with the CDC National Electronic Disease Surveillance System, increased or maintained levels of funding for public health services, sufficient laboratory capacity, having two weeks of hospital bed surge capacity, and not having a nursing workforce shortage. Half of states scored six or less on the scale of 10 indicators. Oklahoma scored the highest with 10 out of 10; California, Iowa, Maryland, and New Jersey scored the lowest with four out of 10. As in past reports, Trust for America's Health continues to call for an all-hazards preparedness approach to protect against a range of possible threats (2006).

Trust for America's Health's *Ready or Not?* also makes specific recommendations to improve the nation's preparedness. It suggests developing federal standards that states should be accountable for reaching, the results of which should be made publicly available; establishing temporary health benefits for the uninsured or underinsured during times of emergency; designating a single senior official within the U.S. Department of Health and Human Services to be in charge of and accountable for all public health programs; improving emergency surge capacity capabilities; modernizing technology and equipment; and including the public in emergency planning (Trust for America's Health 2005)

A critical challenge to state and local health departments is that public

health crises, whether an outbreak of West Nile virus or a natural disaster, do not have borders. The nationwide E. coli bacteria outbreak in September 2006 is an excellent example. Contaminated spinach grown in California and shipped across the country resulted in E. coli-related illnesses in 26 states. Public health departments commonly look to geopolitical borders and focus on state and county lines. Communication and cooperation across boundaries are critical, but often do not exist.

In an emergency situation, an effective public health response requires partnerships between public health departments (including the CDC) and the health care providers, nonprofit organizations, and other agencies within a community. Developing new or enhancing existing emergency preparedness plans can contribute to strengthening the overall public health infrastructure. The tools needed to identify and respond to disease outbreaks are the same as those needed for a bioterrorist event. Health care providers are often the first to see patients with disease symptoms, whether the result of West Nile virus or anthrax. Communicating information about such patients to public health departments and coordinating efforts to track and contain disease are critical, but cannot take place unless the necessary relationships and tools—the infrastructure—are in place.

In the aftermath of the September 11th attacks, the CDC Foundation established the Emergency Preparedness and Response Fund to help the CDC and others prepare for

and respond to a variety of emergencies. The fund was created to address needs recognized on that day; CDC workers in New York City relying on cell phones to communicate and import data, could not get through because of the unusually high call volume following the disaster. These first responders lacked the means to purchase satellite phones that would have helped them perform their jobs more effectively, instead of relying on cell phones that could not transmit.

The Emergency Preparedness and Response Fund helps to remove barriers for public health workers responding to future emergencies. They are able to purchase time-sensitive, specialized equipment or services needed to get their jobs done when responding to an emergency event. At the request of CDC director, Dr. Julie Gerberding, the fund was activated in the aftermath of Hurricane Katrina. The fund allowed the CDC Foundation to respond immediately to requests for help from the Gulf Coast region. It supported CDC teams deployed to flooded communities and evac-

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uee shelters, allowing them to use special emergency credit cards to purchase needed tools, from laptop computers to wireless Internet cards to banners promoting hand washing in shelters.

Dr. Gerberding also requested that the scope of the Emergency Preparedness and Response Fund be broadened to provide resources directly to state and local public health agencies in the Gulf Coast region. To do this, the CDC Foundation issued a call for support. Kaiser Permanente gave a gift of \$2 million to the fund and RWJF awarded a \$1 million grant. Many other foundations gave grants as well, enabling the CDC Foundation to respond to requests from public health agencies. Initial grants focused on meeting immediate needs of hurricane evacuees and health professionals. The foundation provided grants to purchase medications for evacuees with chronic conditions, such as high blood pressure and diabetes; to provide emergency dental, hearing, and vision screenings for evacuees, as well as replacing eye glasses and hearing aids; and to evaluate the mental health needs of evacuees and health workers and provide counseling and assistance when needed.

Like many other communities, the September 11th attacks were a wakeup call for Howard County, Maryland. In order to meet the health consequences of natural or manmade disasters, the Horizon Foundation partnered with the county government to develop the Community Emergency Response Network (CERN). CERN is composed of approximately 40 members including frontline responders and representatives of numerous community organizations and is chaired by the foundation's president. Since its inception in 2001, CERN has developed a communitywide disaster response plan to ensure optimum preparedness in

the event of a terrorist attack. It has also supported government disaster planning through coordination of the emergency plans and resources of participating members. Specific CERN functions include planning, a high level of interagency coordination, the development of tabletop exercises, disaster plan review, shelter planning, and communications enhancement. Special attention has been paid to the provision of information on disaster response, the needs of public schools, and the roles of nonprofit providers. CERN activities fall under and are functionally integrated with the county's Emergency Operations Center. One of the network's many achievements was to develop new safeguards to support the county's first responders. They include upgraded planning capabilities by local institutions, enhanced communications, tabletop exercises to test local readiness, volunteer training and deployment, and expanded shelter capacity.

In May 2006, The Horizon Foundation used the success of CERN to convene stakeholders, including government, health care providers, businesses, and civics groups, to plan how the county would respond in the case of an avian flu pandemic. This day-long conference introduced the foundation to new community partners and spotlighted areas where the foundation could apply its resources. For example, the meeting spurred the foundation to work more closely with neighborhood-based groups. This led to the foundation's support of Neighbor-to-Neighbor, a program to encourage communication within families and neighborhoods before a disaster occurs so that individual homes and

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neighborhoods will be prepared and self-reliant for up to three days following a local or regional disaster or emergency.

Challenge: Effective Partnership

Public health stakeholders are becoming increasingly aware of the benefits of partnerships. They are sharing information, leveraging resources, and engaging community members to generate positive results for population health.

While partnerships can create lasting change, there are obstacles to successfully working together. For example, philanthropy and government have their own cultures, time frames, calculus for risk, and ways of doing business. Building successful partnership requires that prospective partners understand these differences, and then work to address them. Public health departments, for example, are typically made up of career civil servants who work for and report to elected officials. Unless public health leaders are willing to take risks and elected officials offer their support, it can be difficult for a public health agency to go on record saying that it needs help or is not as prepared as it ought to be. Additionally, while an elected official may initially demonstrate public support for an effort, the actual work is often left to an underfunded and understaffed health

department. Personnel and funding changes, especially after an election, can be another challenge to partnering with government. Likewise, foundation decision processes are often not transparent to potential government partners. Patience and open communication on both sides are key to successful working relationships.

Many foundations are committed to improving the public health infrastructure by fostering partnerships among public and private stakeholders. Their work reflects a commitment to helping public health agencies improve overall community health, collect and track health data, develop leadership skills, and improve public health system functioning. The California Endowment developed Partnership for the Public's Health (PHH) to do just that in 1999. The \$40 million initiative brought together communities and local public health departments focused on the common goal of reducing health disparities and improving community health. Over five years the initiative, housed at the state's Public Health Institute, fostered partnerships among 14 county and city public health departments and 39 communities throughout the state.

Communities participating in PHH used broad strategies and multisectoral partnerships to improve the

health of Californians. Successes over the course of the initiative include changes to school nutrition policies, increased regulation of tobacco use by youth, increased monitoring and regulation of environmental pollutants, reductions in traffic fatalities, and the creation of community parks to encourage physical activity (Center for Community Health and Evaluation 2006). PHH also demonstrated that collaboration between public health departments and communities lead to new opportunities to address the social determinants of health and health disparities. The diverse talents and perspectives of stakeholders are vital to sorting through complex problems and developing creative, long-term solutions. The initiative also demonstrated the importance of place-based work. Place-based work can effectively identify conditions amenable to policy change within communities that shape their residents' health risks and individual choices. Consequently, the California Endowment has chosen to use this public health-community partnership model for new advocacy initiatives directed at on asthma and obesity prevention. George Flores, senior program officer at The California Endowment, noted that the results of PHH have helped to temper the endowment's expectations for its major obesity prevention initiative, Healthy Eating, Active Communities (HEAC). The partnership process and building the means to change health outcomes take a long time. While the foundation may see changes in policy or physical environments (such as removing soda machines from schools) in the HEAC four-year time frame, they do not expect to see a significant

drop in the number of overweight or obese individuals from this intervention alone.

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Fast Facts

Definitions

The Institute of Medicine defines public health as “organized community efforts aimed at the prevention of disease and promotion of health” and its mission as the “fulfillment of society’s interest in assuring the conditions in which people can be healthy” (IOM 1988).

The public health infrastructure is defined as the network of people, systems, and organizations making it possible to carry out essential public services (IOM 1988).



Impact of Public Health

Life expectancy has increased more than 60 percent in the past 100 years, mostly attributable to gains in public health (Beitsch et al. 2006).

There is strong evidence that behavior and environment are responsible for more than 70 percent of avoidable mortality (IOM 2003).

Population wide vaccination programs have resulted in the eradication of smallpox and polio in the Americas, as well as control of measles, rubella, tetanus, diphtheria, and other infectious disease in the U.S. and other parts of the world (CDC 1999).

Since 1972, death rates for coronary heart disease have decreased 51 percent. Decline in deaths from coronary heart disease and stroke are the result of risk-factor modification, such as smoking cessation and blood pressure control coupled with improved access to early detection and better treatment (CDC 1999).

In 2005, the average per capita federal investment in public health via the CDC was \$20.99. Per capita CDC funding for states ranged from \$53.36 for Alaska to \$11.38 for Florida (Trust for America’s Health 2006).

Approximately 80 percent of CDC funds are redistributed to states and private partners to support a variety of services and programs, ranging from disease prevention initiatives to bioterrorism preparedness (Trust for America’s Health 2006).

In fiscal year 2005, per capita public health funding from state governments ranged from \$123.10 in Hawaii to \$3.76 in Nevada. On average, states spent approximately \$35 per capita, with nearly 30 states spending less than that (Trust for America’s Health 2006).

Organization

Under the U.S. Constitution, each of the 50 states has primary legal jurisdiction and responsibility for the health of its citizens. States differ in how they structure and deliver public health services. In some states, the public health system is centralized, and the state has direct control and supervision over local health agencies. In other states, local public agencies developed separately from the state and are run by counties, cities, or townships and usually report to one or more elected officials (IOM 2003).

There are approximately 3,000 local health departments (LHDs) in the U.S. serving populations ranging from fewer than 1,000 people to almost 10 million. More than half (54 percent) of Americans live in the jurisdictions of the 6 percent of LHDs that serve populations of more than 500,000 (National Association of County and City Officials 2005).

An estimated 50 percent of U.S. public health laboratories lack the capacity to exchange electronic laboratory data with partners (Association of Public Health Laboratories 2006).



Workforce and Education of Professionals

A public health professional is defined as “a person educated in public health or a related discipline who is employed to improve health through a population focus” (IOM 2002).

In 2003, there were more than 556,000 full-time equivalent public health professionals working for federal, state, and local public health agencies (Gebbie and Turnock 2006).

Approximately 25 percent of public health professionals are public health nurses, 10 percent are environmental professionals, 7 percent are public health laboratory professionals, 3 percent are public health physicians and nutritionists, 1 percent are social workers and dental workers, and 0.5 percent are epidemiologists. The remaining 49 percent represent a variety of positions in office administration, information technology, and administrative support (Gebbie 2001).

In 2005, there were 37 accredited schools of public health in the United States, within 12 private and 25 public universities (Association of Schools of Public Health 2005).

In the fall of 2005 there were 19,443 students enrolled in 36 of the 37 accredited schools of public health. Of this total, 70.6 percent were female and 14.7 percent were foreign nationals. Of the U.S. students, 5,615 or 33.9 percent were members of minority groups.



Emergency Preparedness and Response

Nearly half of U.S. states do not use national standards to track disease outbreak information (Trust for America's Health 2005).

Hospitals in over 40 percent of states do not have sufficient backup supplies of medical equipment to meet surge capacity needs during a pandemic flu or other major infectious disease outbreak (Trust for America's Health 2005).

More than one-quarter of states do not have sufficient bioterrorism laboratory response capabilities (Trust for America's Health 2005).



Influenza

During a typical year, 5 percent to 20 percent of the U.S. population gets the flu. Of these, more than 200,000 are hospitalized from flu complications, and about 36,000 die (CDC 2006).

U.S. influenza vaccine manufacturers are projecting that as many as 115 million doses of vaccine will be available in the U.S. for the 2006-07 influenza season. This will be the most flu vaccine ever distributed in the U.S. during a single influenza season (CDC 2006).

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Institute of Medicine, *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century* (Washington, DC: National Academy Press 2002).

National Association of County and City Health Officials, *2005 National Profile of Local Health Departments* (Washington, DC: 2005).

Trust for America's Health, *Shortchanging America's Health 2006: A State-by-State Look at How Federal Public Health Dollars are Spent* (Washington, DC: 2006).

Trust for America's Health, *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism* (Washington, DC: December 2005).

Recommended Reading

Beitsch, Leslie, Robert Brooks, Nir Menachemi, and Patrick Libbey, "Public Health at Center Stage: New Roles, Old Props," *Health Affairs* 25(4):911-922, July/August 2006.

This article looks at the many roles and responsibilities of the nation's public health system. With public health in the spotlight, the authors examine new challenges and the resources available to meet them.



Brodeur, Paul, "The Turning Point Initiative," in Stephen L. Isaacs and James R. Knickman, eds., *The Robert Wood Johnson Foundation Anthology: To Improve Health and Health Care, Volume VIII* (Princeton, NJ: 2005). Available on-line at http://www.rwjf.org/files/publications/books/2005/chapter_05.pdf.

This chapter in Robert Wood Johnson Foundation's *To Improve Health and Health Care, Volume VIII* reflects on the Turning Point initiative, including the concepts behind this collaborative program with the W.K. Kellogg Foundation to incite improvements in the public health system. It also examines five state Turning Point programs, documenting the challenges they faced and their successes.



Grantmakers In Health, *Preparedness or Panic: Resources for Grantmakers* (Washington, DC: 2006). Available on-line at [www.gih.org/usr_doc/Emergeprep Doc.pdf](http://www.gih.org/usr_doc/EmergeprepDoc.pdf).

This resource guide is designed to help grantmakers working at the local, state, and national levels better understand how they can contribute to strengthening the public health system, as well as become more proactive in their efforts to prepare for and respond to emergencies.



Grantmakers In Health, *Building a Healthier Future: Partnering to Improve Public Health* (Washington, DC: 2005). Available on-line at http://www.gih.org/usr_doc/pubhealthpartner.pdf.

This Issue Brief identifies significant opportunities for grantmakers to partner with public health agencies at the local, state, and national levels, as well as with organizations outside of the traditional public health system, such as faith-based communities, employers, and community organizations. Specifically, this report can help further grantmaker efforts to build and sustain public health partnerships.



Grantmakers In Health, *Strengthening the Public Health System for a Healthier Future* (Washington, DC: 2003). Available on-line at http://www.gih.org/usr_doc/public_health.pdf.

This Issue Brief examines the nation's public health infrastructure and explores opportunities for grantmakers to strengthen and sustain this troubled system. The report provides an overview of the public health system and its infrastructure weaknesses, as well as the challenges faced by state and local public health agencies. The report also looks at foundation strategies to help buttress the public health system's infrastructure.



Institute of Medicine, *The Future of Public Health* (Washington, DC: National Academy Press, 1988). Available on-line at <http://www.iom.edu/?id=15251>.

This seminal report declared the U.S. public health system in disarray. It lays out a vision of public health in America and provides recommendations for strengthening the system.



Institute of Medicine, *The Future of the Public's Health in the 21st Century* (Washington, DC: National Academies Press, 2003). Available on-line at <http://www.iom.edu/?id=16741>.

This report builds on the IOM's 1988 report, *The Future of Public Health*. It examines a broader scope of public health including the roles of government, the health care delivery system, communities, businesses and employers, the media, and academia.

Institute of Medicine, *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century* (Washington, DC: National Academy Press 2002). Available on-line at <http://www.iom.edu/?id=16743>.

In this report the IOM defines who public health professionals are and looks at the many institutional settings in which they work. It also closely examines how public health professionals are educated and trained, opportunities for leadership development, and the workforce needs of the future.



Isaacs, Stephen L., "The Robert Wood Johnson Foundation's Response to Emergencies September 11th, Bioterrorism, and Natural Disasters," in Stephen L. Isaacs and James R. Knickman, eds., *The Robert Wood Johnson Foundation Anthology: To Improve Health and Health Care, Volume VII* (Princeton, NJ: 2004). Available on-line at www.rwjf.org/files/publications/books/2004/index.html.

This chapter of Robert Wood Johnson Foundation's *To Improve Health and Health Care, Volume VII* reflects how the foundation responded to public health emergencies including the terrorist attacks of September 11, 2001, natural disasters, and bioterrorism. It considers the role of the Robert Wood Johnson Foundation, as well as the broader field of philanthropy.



Journal of Public Health Management and Practice, 11(2), March/April 2006. Articles from this issue May be purchased on-line at www.jphmp.com.

This issue of the *Journal of Public Health Management and Practice* is dedicated to Turning Point, an initiative jointly funded by Robert Wood Johnson Foundation and the W.K. Kellogg Foundation. Articles examine progress made by Turning Point states and communities, as well as the initiative's National Excellence Collaboratives.

Levi, Jeffrey, and Chrissie Juliano, *Shortchanging America's Health 2006: A State-by-State Look at How Federal Public Health Dollars are Spent* (Washington, DC: Trust for America's Health, 2006). Available on-line at <http://healthyamericans.org/reports/shortchanging06/>.

In this analysis, the Trust for America's Health reviews key health statistics and key federal public health funding at a state-by-state level. The report finds funding levels for programs to protect the public's health vary dramatically among states, the country is falling short on achieving federally established goals for reducing disease and improving health, and there has not been sufficient funding to result in wide-scale change.



National Association of County and City Health Officials, *2005 National Profile of Local Health Departments* (Washington, DC: 2006). Available on-line at www.naccho.org/topics/infrastructure/documents/NACCHO_report_final_000.pdf.

This report provides information about local health department infrastructure. Topics include local health department jurisdictions and governance, financing, workforce, emergency preparedness, activities and services, planning and performance improvement, partnerships and policymaking, and information technology.



Trust for America's Health, *Ready or Not? Protecting the Public's Health from Diseases, Disasters, and Bioterrorism* (Washington, DC: December 2006). Available on-line at <http://healthyamericans.org/reports/bioterror06/>.

Each year the Trust for America's Health has issued an annual *Ready or Not?* report assessing the level of preparedness in the states, evaluating the federal government's role and performance, and offering recommendations for improving emergency preparedness. The 2006 report states that five years after the September 11th and anthrax tragedies, emergency preparedness is still inadequate in America. The report contains state-by-state health preparedness scores based on 10 key indicators to assess health emergency preparedness capabilities. All 50 U.S. states and the District of Columbia were evaluated. Half of states scored six or less on the scale of 10 indicators.

