County and City Health Departments:
The Need for Sustainable Funding
and the Potential Effect of Health Care Reform
on their Operations

A Report for the Robert Wood Johnson Foundation
and the National Association of County & City Health Officials

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Executive Summary

Whatever health care reform the nation achieves in 2009, the need for local health departments (LHDs) and state health departments (SHDs) will not diminish.

Keeping people healthy is an important goal in itself. It also improves worker productivity, student learning and the national defense. Health departments play a vital role in keeping people healthy. These local and state health departments are unique among American institutions in protecting and improving the health of all residents of a community. Continuing waves of federal, state, and local budget cuts are threatening their survival. As the nation continues to struggle with the adverse effects of the deep recession, it is absolutely critical that we preserve and shore up our widespread network of local and state public health departments.

Local and state health departments are the community-based stewards of public health. Public health is what we, as a society, do collectively to assure the conditions in which people can be healthy. Public health is population-based. Public health practice focuses on prevention, and is based on epidemiology, biostatistics, environmental science, management sciences, and behavioral and social sciences. It is grounded in the lives of real people.

LHDs and SHDs protect the water we drink, the food we eat, and the air we breathe. They advance policies and promote conditions that make good health the default option, enable people to make healthier choices, prevent disease and manage chronic medical conditions. They advocate for smoke-free laws, safe places to be physically active, and for healthy food options. They identify disease outbreaks, and help people learn whether they have infectious diseases and stop further spread of disease. They may provide primary care or help people gain access to it. We all depend on LHDs and SHDs for our quality of life and our economic, educational, and social livelihood.

This report will focus on local health departments. We acknowledge that many of the findings and recommendations also apply to state health departments, and make a number of further references to these departments in the report. Our main emphasis is on LHDs, but this in no way diminishes the importance of assuring adequate support for both state and local health departments.

Key Findings:

- The sharp downturn in the US economy has led to funding cutbacks that are jeopardizing the ability of LHDs to protect and improve health. These funding cutbacks are continuing and deepening, and erode the capacity to deliver the core functions of assessment, policy development, and assurance on which states and the federal government in addition to community residents have come to depend.

- Recently, substantial funding cutbacks from local, state, and federal government sources are the greatest source of revenue loss for LHDs. Over an even longer period of time, stagnant funding levels have resulted in serious loss of purchasing power for these same funding sources.

- Demands for services are increasing in the community, arising from higher unemployment, changing patterns of disease, and reduced incomes.

- Loss of funding has led local health departments to reduce staff and vital services just at the time when the needs are greatest. A recent NACCHO survey found that LHDs lost approximately 8,000 staff positions in the first six months of 2009. An additional 12,000 LHD employees were subjected to reduced hours or mandatory furloughs.
• An estimated 55% of local health departments, and 76% of state health departments, reported program cuts in the past 12 months.

• Reduction of services will result in more infectious diseases such as tuberculosis, meningitis, hepatitis, sexually transmitted diseases, and other serious diseases because fewer people will be tested and treated.

• Novel H1N1 flu is a compelling reminder of the need for LHDs to be adequately staffed and funded to play an important role now in planning for and organizing response to this epidemic, as they will for future epidemics.

• Funding cutbacks also translate into fewer community-based interventions mounted against chronic diseases such as diabetes and asthma, further escalating illness, disability and health care costs.

• Federal funding for emergency preparedness at the local and state levels has been reduced, posing another threat to the health of the community.

• While clinicians promote behavior change with their patients, local health departments create the conditions that enable people to make healthier choices. Without adequate staff, local health departments and their boards are less likely to be able to adopt tobacco control measures, develop safe places for people to exercise, ensure the availability of healthy food options, and identify and address health issues in other policies related to transportation, education, and housing.

• Primary care, including immunizations, is becoming less accessible as are such important activities as screenings for lead poisoning and breast and cervical cancer. This can lead not only to tragic occurrences for patients, but also to higher spending later when avoidable illnesses or complications occur.

Implications of National Health Reform

• Congressional health reform proposals include new and vital support for local and state health departments. The most important feature involves dedicated trust funds that would provide a secure and sustainable source of funding for LHDs and SHDs. These reform plans also contain provisions to promote wellness and both clinical and community-based prevention serving all residents of a state.

• If the US achieves national health reform, the role of local and state health departments in protecting and improving health remains. In fact, as we plan for and implement national reforms, LHDs and SHDs can play a critical role in assuring that people newly insured, as well as those who remain uncovered, have access to timely medical care. They will also continue to implement and evaluate prevention programs and policies that keep people healthy and in some cases reduce health care costs. Thus, national health reform should not be used as a reason to diminish financial support for local and state health departments.

• While there are many national health reform issues that divide people with varying political perspectives, we can and should achieve a consensus about the need to address the underlying social, behavioral, and environmental forces that are causing people to become sick or develop chronic medical conditions. These forces include the prevalence of smoking and obesity, unsafe housing conditions, threats to clean water and clean air, poverty, and a lack of education and health literacy.

• Working to reduce these conditions that threaten public health and drive up medical spending is not a “liberal” or a “conservative” cause. All Americans have an interest in supporting the work of local and state health departments as they produce the many “public goods” that benefit society at large.
Recommendations

- The federal government should assign high priority to full funding for LHDs and SHDs under grants from the Department of Health and Human Services and the Department of Agriculture and from agencies such as the Centers for Disease Control and Prevention, Health Resources and Services Administration, the Office of the Surgeon General, the Food and Drug Administration, and the Environmental Protection Agency.

- Dedicated and sustained federal financing is needed to secure the vital activities of state and local public health departments. The best way to do this is through a new prevention and public health investment fund. This fund should be insulated from the budget cuts that accompany economic slowdowns and ongoing political battles.

- State, city and county governments should make every effort to preserve adequate funding for local and state health departments, even in this difficult economic climate.

- Health reform at the national level will take several years to implement. In the interim, we can learn from LHD innovation in prevention programs that provide the most health benefit and have greatest reach, as well as in local initiatives to enroll the uninsured in integrated systems of care that provide medical homes and “single point of entry” access to the system, and in efforts to reduce inappropriate use of the medical care system. Local health departments are in the forefront of some of these initiatives.

Introduction

This report focuses on the unique and distinctive roles of local health departments (LHDs) in creating conditions in which people will be healthy and how national health reforms could be structured to support this vital role. The principal focus is on LHDs, but we also note throughout the report the corresponding importance of state health departments (SHDs) and how they are affected by the same forces. We highlight the threats posed to the viability of LHDs and SHDs by the sharp economic downturn. The report also highlights how the economy has exacerbated long-standing federal budget problems and led to severe stress in state and local budgets. We call for new approaches to funding that could help place the broad range of local public health activities on a solid and sustainable course.

Guarding against ongoing government budget policies that squeeze the life out of the funding for local health departments should not be thought of as a “liberal” idea that is only supported by various parties in the advocacy community. People with widely varying philosophical and political perspectives can find common ground in assuring that LHDs and SHDs have a secure and sustainable source of funding. This common ground emerges from the recognition that our market-based economy and our social system are strengthened when “public goods” are “produced.” A public good or service benefits the entire community, and each individual or business in the community lacks the incentives and the wherewithal to pay the cost. So public goods and services will be under-produced in the absence of some public financing to which all contribute.

When governments take action to assure that public goods are adequately provided, this strengthens our market-based economy. This is a non-partisan idea that represents sound public policy; people who disagree about many other aspects of health policy can come together to support the work of LHDs as they promote improved health throughout the community. LHDs cannot fully fund the traditional public health functions related to surveillance, epidemiology, and public safety, along with the emerging roles related to emergency preparedness, through fees and donations alone. They need a stable and sustainable funding source.
In recent months, the debate over health reform has swirled around such topics as Medicaid expansion, setting up new health “insurance exchanges,” requirements for individuals and employers to contribute to health care financing, and how new insurance benefits will be financed. “Public options,” “pay-or-play” requirements, insurance exchanges, new fees on high-cost health plans, and Medicare payment cutbacks have all been stirred into the national health reform stew.

While this important drama over covering the uninsured and how to pay for it unfolds, another battle is being fought, deep in the trenches of communities. This battle is largely obscured from the public’s view and media radar screens. It occurs outside of the peripheral vision of fiercely clashing K Street lobbyists and Congressional staff. This is the day-to-day battle waged by city and county health departments to improve the public’s health while trying to survive in the face of cutbacks in funding coupled with demands for their services.

National health reform proposals address these needs. They provide new funding for the work of state and local health departments as they struggle to meet their long-standing multiple missions to improve the health of the public. This report focuses on the critically important work of city and county health departments as they face dual threats from rising demands coupled with severe budget cuts related to the nation’s deep recession.

Background Information

Nearly 2,800 local health departments (LHDs) perform a wide range of activities to improve the health of the US population. Sadly, less than 5 percent of total health care spending in the United States is devoted to public health. And only a fraction of those resources are available to local health departments. The vast majority of our nation’s health resources are devoted to medical services and, in fact, the US spends more on administrative overhead within the health care system than it does on public health.

LHDs are mobilizing community partnerships to identify and solve health problems. They are working to encourage and reinforce healthy behaviors, to create through policy conditions that improve health outcomes, and to reshape the physical environment so that health becomes the default option rather than illness. While these activities collectively are the major drivers of health outcomes, only a fraction of the resources in our $2.4 trillion health care system are allocated to public health departments.

LHDs are found in very diverse settings. A few serve populations that approach 10 million people (e.g., New York, Los Angeles, and Chicago) while some serve very rural areas with less than 1,000 residents. About two-thirds (64%) of the nation’s LHDs serve populations of less than 50,000. Yet, nearly half of the US population (about 46%) lives in jurisdictions of the 5% of LHDs serving populations greater than half a million people. Sixty percent of LHDs are established as units of local government, and over 12% are units of a state health agency. Twenty-seven percent are mixed local and state.

This report focuses on county and city health departments. But we recognize that some of these departments, as noted above, are actually sub-units of state government. For example, in a number of states, all LHDs are units of state government. In other states, some LHDs are units of state government while others are units of...

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The need for sustainable funding and the potential effect of health care reform

State government. Moreover, as we will show, both state and local governments are suffering from the severe economic downturn, and unlike the federal government, they must balance their budgets year after year. This requirement forces painful choices among vital public services and the revenue base needed to support such services. States play a very important role in public health in their own right, and also provide a substantial share of the financial support for local health departments. Thus, many of the findings from this study of local health departments also apply to state health departments, and their role in improving health outcomes in the US should not be overlooked.

Roughly 155,000 people work for LHDs. Most city and county health departments perform their myriad functions, described below, with a very small staff. In fact, more than six of ten LHDs maintain fewer than 25 full-time equivalent staff, and only 12% have more than 100 FTEs. Yet their presence in nearly every community across the United States represents a vital and valued outpost regardless of community size. Occupations include nurses, public health professionals, physicians, environmental health coordinators, nutritionists, health educators, epidemiologists, and emergency preparedness coordinators.

Making People Healthier is One of the Most Effective Ways to Reduce Health Care Costs

A partnership of leading research and policy groups makes the case that the US could save health care costs if we invested more in disease prevention, specifically by funding proven community-based programs that result in improved nutrition, increased levels of physical activity, and a reduction in tobacco use. A review of evidence-based studies shows that proven community-based disease prevention programs can lead to improvements in nutrition, physical activity and preventing tobacco use, and this, in turn, can lead to reductions in type 2 diabetes and high blood pressure of 5% in 1-2 years; heart disease, kidney disease and stroke of 5% in 5 years; and some forms of cancer, COPD, and arthritis of 2.5% in 10 to 20 years. Many of these effective community-based programs cost under $10 per person per year. LHDs are conducting these vitally important community-based public health programs and disease prevention programs.

The researchers conclude than an investment of $10 per person per year in proven community-based disease prevention programs could yield net savings of more than $2.8 billion annually in health care costs in 1-2 years, more than $16 billion annually within 5 years, and nearly $18 billion annually in 10 to 20 years (in 2004 dollars.) Researchers predict that the national return on investment of $10 per person per year would be 5.6 to 1 within 5 years.

The Economic Downturn

The US downturn is placing LHDs in a squeeze resulting from a rising demand for their expertise and services coupled with diminished financial support. Since the recession began in December 2007, the number of unemployed persons in the United States has risen by 8.2 million, and the unemployment rate has risen by 5.3 percentage points to 10.2% in October 2009. In addition to measured unemployment, millions more people would like a full-time job but do not have one, and are not counted as unemployed. This includes some 9.3 million people who were “working part-time for economic reasons” in October 2009. These involuntary part-time workers would like a full-time job. Another 2.4 million people were “marginally attached” to the labor force. These people would like a full-time job but were not counted as unemployed, and were not looking for work recently. One additional 1.4 million people were “discouraged workers,” not counted as unemployed, who had given up looking for work recently.

4 NACCHO. 2008 National Profile. p. 11.
force in October 2009, including 808,000 “discouraged workers” (nearly double the number from a year ago) who are not currently looking for work because they believe that no jobs are available for them.7

LHDs have been adversely affected by the nationwide waves of job losses. We will explain below the magnitude of this effect and the serious consequences for the vital services provided by LHDs.

In addition to the widespread job losses, the foreclosure rate has soared, and all of this, along with unpaid medical bills, has led to more people declaring bankruptcy.

Many of the people who have lost their jobs and/or their homes have also lost private health insurance, and most will not qualify for Medicaid. The majority are either ineligible for COBRA (insurance continuation after a job loss as defined in the Consolidated Omnibus Budget Reconciliation Act of 1985) or will decide that they cannot afford it. Many other low-income people fall outside the job-based health insurance system, are ineligible for public programs, and have nowhere else to turn for health care than a city or county health department. In addition to the strong roles of LHDs in surveillance, policy development, and analytic capacity, they can provide a vital point of access to health services for people who have lost jobs and health insurance.

Framework for Analysis

Public health is what we, as a society, do collectively to assure the conditions in which people can be healthy—“the science and art of preventing disease, prolonging life, and promoting health and efficiency through organized community effort.”8 Public health is population-based, focused on prevention, and grounded in epidemiology, biostatistics, environmental science, management sciences, and behavioral and social sciences. Local health departments are stewards for this approach in every community across the country. Fully functional local health departments offer the following operational framework.9

Operational Definition of a Functional Local Health Department

1. **Understands the specific health issues confronting the community**, and how physical, behavioral, environmental, social, and economic conditions affect them.

2. **Investigates health problems and health threats.**

3. **Prevents, minimizes, and contains adverse health effects** from communicable diseases, disease outbreaks from unsafe food and water, chronic diseases, environmental hazards, injuries, and risky health behaviors.

4. **Leads planning and response activities for public health emergencies.**

5. **Collaborates with other local responders** and with state and federal agencies to intervene in other emergencies with public health significance (e.g., natural disasters).

6. **Implements health promotion programs.**

7. **Engages the community** to address public health threats.

8. **Develops partnerships** with public and private healthcare providers and institutions, community-based organizations, and other government agencies...engaged in services that affect health to collectively identify, alleviate, and act on the sources of public health problems.

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7 [http://www.bls.gov/news.release/empsit.nr0.htm](http://www.bls.gov/news.release/empsit.nr0.htm)

8 Institute of Medicine, 1988, and Charles-Eduard A. Winslow, 1920.

9 National Association of County and City Health Officials, 2005. Operational Definition of a Functional Local Health Department.
9. Coordinates the public health system's efforts in an intentional, non-competitive, and non-duplicative manner.

10. Addresses health disparities.

11. Serves as an essential resource for local governing bodies and policymakers on up-to-date public health laws and policies.

12. Provides science-based, timely, and culturally competent health information and health alerts to the media and the community.

13. Provides its expertise to others who treat or address issues of public health significance.

14. Ensures compliance with public health laws and ordinances, using enforcement authority when appropriate.

15. Employs well-trained staff members who have the necessary resources to implement best practices and evidence-based programs and interventions.

16. Facilitates research efforts, when approached by researchers, that benefit the community.

17. Uses and contributes to the evidence base of public health.

18. Strategically plans its services and activities, evaluates performance and outcomes, and makes adjustments as needed to continually improve its effectiveness, enhance the community’s health status, and meet the community’s expectations.

One way to organize the key elements of our framework draws from McGinnis and Foege’s work to identify and quantify the major external (non-genetic) factors that contribute to death in the United States. The authors found that the most prominent contributors to mortality in 1990 were tobacco (estimated 400,000 deaths), diet and activity patterns (300,000), alcohol (100,000), microbial agents (90,000), toxic agents (60,000), firearms (35,000), sexual behavior (30,000), motor vehicles (25,000), and illicit use of drugs (20,000). While socioeconomic status and access to medical care are also important contributors, they are difficult to quantify, independent from the factors above. Although the figures should be viewed as first approximations, the authors concluded that approximately half of all deaths that occurred in 1990 could be attributed to the factors identified above, the greatest being tobacco use, poor diet and a lack of physical activity. Although no attempt was made to further quantify the impact of these factors on quality of life and morbidity, they impose a considerable public health burden, and these key research findings offer guidance for shaping health policy priorities.10

In 2004, Mokdad et al. published a replication study of McGinnis and Foege’s work demonstrating that a large proportion of the more than 2 million deaths each year in the United States are preventable through lifestyle changes, such as tobacco cessation, better nutrition, and increased physical activity.11 Paula Lantz notes that “if public investments were channeled to ensure that more citizens have economic security, receive high-quality education, and grow up and live in thriving communities, medical care would be one resource among many to improve the health of vulnerable populations.”12

The Wisconsin Public Health and Health Policy Institute’s work builds on this foundational research and concludes that actual health care drives only about 10% of these outcomes. Key threats inside the health care system emerge from inadequate access to care arising from the uninsured and those who did not receive needed care, even if they have insurance, and from poor quality of care, in areas such as diabetes management. Health behaviors are believed to comprise some 40% of the determinants of outcomes, again based on trends

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in tobacco use, diet and exercise as key behaviors. Socioeconomic factors determine another 40 percent of outcomes, and are comprised of such important “social determinants” as education and income. Finally, the physical environment, comprised of such important factors as air and water quality and housing with lead risk, contribute the remaining 10%. The diagram below depicts the critical role of health behaviors and socioeconomic factors as being dominant drivers of health outcomes.

Our framework for supporting the activities of local public health departments starts with a recognition of the resources necessary to better organize and coordinate local efforts to address the “social determinants of health,” which can be thought of as societal activities in the domain of primary prevention—those laws and governmental policies that make it easier for people to avoid disease, unhealthy environments, and poverty. The literature on this subject has documented the critical importance of factors such as poverty, lack of education, inadequate food and nutrition, and an unhealthy environment to public health. In their book, “Social Determinants of Health: The Solid Facts,” Richard Wilkinson and Michael Marmot note “the remarkable sensitivity of health to the social environment and to what have become known as the social determinants of health… While medical care can prolong survival and improve prognosis after some serious diseases, more important for the health of the population as a whole are the social and economic conditions that make people ill and in need of medical care in the first place. Poor social and economic circumstances affect health throughout life. People further down the social ladder usually run at least twice the risk of serious illness and premature death as those near the top.”

This framework also recognizes the critically important role most local public health departments play at the next level of prevention—the early detection of disease through timely outreach and screening. Individual health care providers, of course, are important in conducting this screening and early detection. But they frequently do not have the capacity or expertise to conduct “partner notification” and community outreach or to communicate and follow up with those who have been or might have been infected by the original patient so as to prevent further spread of disease. Particular importance and expertise is attached to communicable diseases such as tuberculosis and sexually transmitted diseases. The recent arrival of H1N1 flu, and the recurrence of this strain of flu in Fall 2009, underscore the importance of containing and controlling infectious diseases, through clinical services and screening but also through population-based activities such as surveillance (to identify community-wide burden and threat) as well as community-wide planning and coordination, each vital and unique roles of LHDs.

Local health departments are also very involved in the third level of prevention—better managing chronic illness to avoid flare-ups and complications that lead to adverse health outcomes and higher spending. Treating patients with chronic diseases now accounts for 75% of the nation’s health care spending and 83 percent of state Medicaid spending. Beneficiaries with five or more conditions accounted for 75% of total Medicare spending and virtually all spending growth since 1987. Programs administered by local health departments have been cited as models of effective practice. With an emphasis on the community at large, health department resources are often targeted

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**Driver Diagram | Determinants of Population Health**

**Wisconsin Model**

- **Health Outcomes**
  - Mortality (length of life)
  - Morbidity (quality of life)

- **Health Behaviors**
  - Tobacco Use
  - Diet and Exercise
  - Alcohol Use
  - Sexual Behavior
  - Driving

- **Clinical Care**
  - Access to Care
  - Quality of Care

- **Social and Economic Factors**
  - Education
  - Employment
  - Income
  - Family and Social Support
  - Community Safety

- **Physical Environment**
  - Air and Water Quality
  - Built Environment

toward those with the highest burden disease. For example, the Centers for Disease Control and Prevention (CDC) implements “Racial and Ethnic Approaches to Community Health Across the United States” (REACH US). Forty communities are funded to serve as the cornerstone of CDC’s efforts to eliminate racial and ethnic health disparities using community-based participatory approaches that address social determinants of health through policy, systems, and environmental changes.

In addition, local health departments are the eyes and ears of the community, detecting a wide range of threats to each community’s health, and they are frequently the “first responders” in public health crises. It is local health departments who receive the first calls from community members about people sickened as a result of eating at a local restaurant. They alerted the nation to the anthrax attacks in 2001, to outbreaks of E. coli, to H1N1 and to a broad range of illnesses, which can often be the starting point for identifying wider outbreaks. And it is the expertise of the state health department staff that support and assist local communities when outbreaks spread within or beyond jurisdictional capacities or boundaries.

The framework also recognizes that despite the important work of LHDs, they frequently go unnoticed. For example, when we dine at a restaurant, we typically don’t think about the safety of the food—but that is because restaurants are inspected by local health departments and held by them accountable for safety. When we draw drinking water from a well or depend on a septic system to process human waste, we often rely on the standards adopted by a local health department and the work of their staff to assure adequate performance standards by those contracted to create or maintain these vital home resources. When we take a breath of air, we rely on the work of LHDs that improves air quality. Further, it isn’t until we lose our health care as a result of job loss that we come to depend upon the clinic operated by our local health department for access to the health care system. The infectious disease our teenagers fail to pick up may be the result of identification made and treatment given to a sexual partner.

Functional local and state health departments are really the only resources in the community and across the state taking responsibility for the health of the entire population. Community health centers, hospitals, office-based physicians, employers, and third-party payers all work on improving the health of specific individuals or certain sub-groups of the population through treatment. But LHDs transcend the boundaries of our fragmented health care system and try to drive improvement in health across the whole community with an operational emphasis on prevention. They are the first to point out disparities in health equity or health status, for example.

LHDs understand how physical, behavioral, social, and economic conditions affect not just an individual but a larger community of people. In addition to investigating health problems and threats, and preventing, minimizing, and containing adverse health effects from communicable diseases, disease outbreaks from unsafe food and water, chronic diseases, environmental hazards, injuries, and risky health behaviors, LHDs also lead planning and response activities for public health emergencies, implement health promotion and chronic disease management programs, and engage the community to address public health issues.17

Against the backdrop of this multi-faceted range of factors affecting the operating environment of local health departments, it is useful to remember that the battle over how to extend health insurance to those who now lack it, and how to reconfigure and augment the health care financing system to pay for health reform, will affect only part—and some believe a relatively small part—of the factors affecting the health of the community. We must move ahead with covering the uninsured—this is a necessary even if not sufficient step to improving

health status in a nation that spends more than any other nation on health care but still ranks poorly in a number of health status metrics.

As health reforms are debated, however, it is important to be sure that funds are reserved for the many essential activities carried out by governmental public health departments at the state and local levels. We also need to nurture and evaluate the roles played by selected LHDs in convening or participating in community-wide collaboratives that design innovative ways to cover the uninsured, usually in a non-insurance model, and combine this coverage with reforms in the local delivery system designed to reduce duplication and overlap, reduce inappropriate ER use, and guide people to a medical home. Since national health reforms now on the table would not actually enroll the uninsured for some three to four years, these local community innovations, frequently the result of local health department engagement or initiative, could serve as effective pilots or “natural experiments” with important lessons for larger-scale reforms.

The Three Key Roles of Local Health Departments

Local health departments play three key roles: Assessment, Policy Development, and Assurance. These roles are linked and interactive.

Assessment

This role involves collecting and analyzing health data, including health status indicators, vital statistics, demographic information, and epidemiological data tracking for both communicable and non-communicable diseases. These data are assessed and analyzed to identify suspicious or unusual outbreaks of disease, identify trends in illness and death to help target interventions, evaluate the success of interventions, and forecast the human and financial resources needed to address the problem. LHDs measure the prevalence, incidence, and health effects of injury or disease. Activities also include disease reporting, anonymous surveys, and other epidemiological investigations. The assessment role can involve population-wide assessments (including morbidity and mortality rates), the collection of vital statistics, and testing and pathology services.18

Policy Development

As they identify a range of threats to our health through their ongoing assessments, LHDs then advocate for policy changes that will alleviate these threats and improve our health. Local health departments will “make their case” to city or county councils or to county or city executives or boards, to take action on the most pressing public health problems. These might include smoking cessation, overseeing the purification of water supplies and hygienic condition of restaurants, improving building conditions, STD screening, improving access to culturally competent care, outreach on vaccinations (e.g. to foreign-born Asian populations not vaccinated in their home countries for hepatitis), working toward reductions in obesity and hypertension, and better disease management for people with diabetes and asthma. Increasingly, assessment and policy development work addresses preparedness for biological threats and other emergencies where the local health department frequently plays a leadership role since disease outbreaks, environment hazards, and natural disasters such as floods and earthquakes affect human and environmental health profoundly.

Assurance: The direct provision of health services

While frequently unnoticed and unheralded and usually not able to derive benefit from the favored funding status given to community health centers, providing health services to vulnerable populations is another important role for many local health departments. The majority of health departments provide direct services to contain communicable diseases, for example, vaccine preventable childhood diseases, flu, TB, STDs and HIV/AIDS. Many people fall through the cracks between commercial insurance and public programs (e.g. the poor childless adult who is not old enough for Medicare, ineligible for Medicaid, and uninsured). As a result, LHDs often step in to fill these gaps through direct service provision, with some providing full service primary health care clinics.

Ironically, direct service provision is the role that many observers emphasize when they think of local health departments, when in fact, it is frequently not the dominant function.

CASE STUDY | A Public Health Intervention that Applies Assessment, Policy Development and Assurance to Address a Chronic Disease of Epidemic Proportion.

In 1998, asthma was afflicting a half-million New York City residents, including 130,000 children, and was the leading cause of hospitalization among children. Neal Cohen, then Commissioner of the NYC Department of Health and Mental Hygiene, recognized that asthma care required a new approach. With funding from then-Mayor Giuliani, the Department spearheaded the NYC Childhood Asthma Initiative.

A major social marketing campaign was launched on subways and city buses and an Asthma Information Line was established. Teachers, coaches, day care providers, city ambulance EMTs and others were trained and equipped to deal with asthma symptoms and emergencies; many had no previous preparation. The Department set up outposts in several neighborhoods considered “hot spots” of childhood asthma, hiring and preparing people from those neighborhoods as community health workers. The workers screened children for asthma in the local schools; it was clear that asthma was under-diagnosed and that many children diagnosed with the condition had uncontrolled asthma.19

Those who screened positive for asthma symptoms were linked with medical care, and upon the doctors’ requests, the Department’s community health workers provided self-management support to the children and their families until they understood how to manage the disease. Children were given the right to bring asthma medication into the schools. Pediatricians and family practice physicians (even hard-to-reach providers in solo practice) were trained in evidence-based guidelines for treating childhood asthma. Many of these physicians had been failing to recognize or under-treating the disease. Providers representing all city clinics and hospitals were trained. All of the NYC Medicaid managed care organizations were brought together to strengthen and standardize approaches to managing asthma since beneficiaries frequently moved from one managed care organization to another.

The program was evaluated and the results are remarkable – while the prevalence of asthma continued to increase, the hospitalization rate among children in 2005 was 43% lower than in 1997 (9,000 children up to 14 years old compared to nearly 15,000). The Department continues to work on childhood asthma, though the strategic focus has shifted away from administering direct services, to activities that support broader system improvements, and the program scope includes enhancement of clinical and self-management support for adults with asthma.20

Local Public Health Initiatives Improve Health and Save Lives

A new study by Glen P. Mays and Sharla A. Smith shows how widely spending on local public health varies. The authors found that communities in the top quintile had spending levels more than 13 times higher than communities in the lowest quintile. Public health agencies in the highest quintile of spending provided a broader group of clinical preventive services, population-based services, medical treatment services, and specialty services compared with their lower-spending counterparts. Other research by Mays and Smith indicates that more spending per capita on local public health is associated with better health performance, controlling for the effects of other institutional and community characteristics. For example, a $10 increase in per capita spending on local public health departments led to increases in performance in the enforcement of laws and regulations (3%); linking people to needed health services (1.5%), research on solutions to health issues (2.6%); and investigation of health problems (1.5%). However, Mays and Smith found that mortality rates declined more rapidly in communities that experienced larger increases in local public health spending, controlling for demographic, socioeconomic, and health resources characteristics of the communities. This included mortality rates related to heart disease, diabetes, and influenza, and the all-cause mortality rate. Keeping people healthier is both a desired end in itself and one of the most effective ways to create the conditions for learning, commercial productivity and to reduce avoidable health care costs.

There are numerous examples of community-based prevention and public health programs that have very modest costs and achieve promising results. Examples include:

- “The Stanford Five-City Project” used a mass media campaign and community programs to target a population of 122,800 people. At five years, risk for coronary heart disease had decreased by 16 percent, cardiovascular disease mortality risk had decreased by 15%, prevalence of smoking was down 13 percent, blood pressure was down 4%, resting pulse rates were down 3 percent, and cholesterol was down 2 percent among members of the randomly selected intervention population.

- A study of the California Tobacco Control Program examined the impact of a $0.25 increase in the price of cigarettes that allocated $0.05 of the net tax for an anti-tobacco educational campaign. At three years, coronary heart disease mortality had decreased by 2.93 deaths per year for every 100,000 members of the California population, and the amount Californians smoked decreased by 2.72 packs per person per year.

- “Shape Up Somerville,” a comprehensive effort to prevent obesity in high-risk first through third grade students in Somerville, Massachusetts, included improved nutrition in schools, a school health curriculum, an after-school curriculum, parent and community outreach, collaboration with community restaurants, school nurse education, and a “safe routes to school” program. After one year, on average the program reduced weight gain by one pound over 8 months for an 8-year-old child. On a population level, this reduction in weight gain would translate into large numbers of children moving out of the overweight category and reducing their risk for chronic disease later in life.

- The Healthy Living Project aimed to reduce the risk of transmission among people living with HIV through behavioral intervention. More than 450 individuals participated in a 15-session, individually

delivered, cognitive behavioral intervention that included modules on stress, coping, and adjustment; safer behaviors; and health behaviors. The participants and the members of a control group completed follow-up assessments at 5, 10, 15, 20, and 25 months after randomization. Overall, a significant difference in mean transmission risk acts was shown between the intervention and control groups over 5 to 25 months. The greatest reduction occurred at the 20-month follow-up, with a 36% reduction in the intervention group compared with the control group. This study demonstrates that cognitive behavioral intervention programs can effectively reduce the potential of HIV transmission to others among people living with HIV who report significant transmission risk behavior.24

The Impact of Federal and State Budget Crises on LHDs

In aggregate, federal and state funding supports more than half the budgets of local health departments: 20% state direct funding, 19% federal direct and pass-through funding, 10% Medicaid, and 5% Medicare (See Figure 3 below). Because federal and state funding are critical to supporting the work of LHDs, the current and projected plight of federal and state budget shortfalls poses a strong threat to the viability of LHDs.

The weak U.S. economy has exacerbated longer-term structural deficits in the federal budget, and has generated a crisis in the budgets of virtually all of the states. The combination of federal and state budget woes is dealing a one-two punch to local health departments that rely on federal and state grants and programs for a significant portion of their funding. This, in turn, leads to reductions in vital community-based and clinical prevention services that affect people throughout the community.

The Federal Budget Outlook

The forecast of unprecedented federal debt in relation to our economy portends a worsening of disastrous cutbacks in an array of public health services delivered at the local level. The most recent long-term federal budget outlook published by the US Congressional Budget Office (CBO) shows that the ratio of federal government debt to our economy could soar to levels that exceed those incurred during and after World War II.

The CBO projections make it clear that under any scenario, federal spending for Medicare, Medicaid, and Social Security will account for most of federal revenues collected after the next several years, and under some plausible scenarios, could eventually exceed total revenues. Over time, this scenario will gradually reduce and eventually shut out the many vital needs, including those clearly related to improving public health, that are funded by federal government programs other than the biggest three entitlement programs. If this scenario is allowed to unfold, federal funding directed to city and county health departments will dry up even further as programs sponsored by HRSA or CDC, among many others, are subjected to drastic spending reductions or elimination.

CBO’s new projections show that those who are concerned about “the big three” entitlement programs squeezing out other spending priorities must join the deliberation about how to restructure these programs to put them on a more affordable path. This discussion is already underway with Medicare, where the Hospital Insurance Trust Fund is projected to run out of money in 2017. Equally important, the US will also soon face some critical decisions on the revenue side, which will strongly influence long-term budget control.

Figure 1 shows what is at stake in the critical decisions about these tax provisions that must be made next year. Federal debt held by the public would remain steady at 55-56 percent of GDP between now and 2020 under the CBO’s “extended-baseline scenario” (2001 and 2003 tax cuts allowed to expire) whereas this debt ratio would shoot up from 55 percent of GDP to 87 percent between now and 2020 under the alternative scenario under which these tax cuts are extended indefinitely.25 More startling, debt held by the public would reach 79 percent of GDP by 2035 under the extended-baseline scenario but soar to 181 percent of GDP in 2035 under the alternative scenario and to 321 percent of GDP by 2050. According to CBO, such debt to GDP ratios are completely unprecedented, not only in the US, but in other developed countries. This growth of debt “would lead to a vicious cycle in which the government had to issue ever-larger amounts of debt in order to pay ever-higher interest charges. Eventually, the government would need to adopt some offsetting measures—such as cutting spending or increasing taxes—to break the cycle and put the federal budget on a sustainable path.”26

Figure 1 | Federal Debt Held by the Public Under CBO’s Long-Term Budget Scenarios
(Percentage of gross domestic product)

Source: Congressional Budget Office.
Note: The extended-baseline scenario adheres closely to current law, following CBO’s 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO’s baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

The bottom line is this: those who have an interest in the wide array of federal assistance to states and communities have a clear interest in addressing the long-term imbalance between federal budget commitments to Social Security, Medicare, and Medicaid and projected federal revenues. Those on one side of the political spectrum will favor preserving the basic nature and structure of these programs and finding ways to restore or augment the revenue base. Those on the other side of the spectrum will favor holding taxes down to current levels and finding ways to restructure federal commitments under the major entitlement programs to substantially reduce the upward path of spending under such programs.

25 The extended baseline scenario also assumes that the alternative minimum tax (AMT) is left alone and would therefore continue to reach further down the income ladder while the alternative scenario is premised upon the indexation of the AMT for inflation.
Of course, in the end, we will likely have to find a balanced approach blending spending reductions and tax increases. The point is that if we fail to find a solution, all other functions of the federal government will gradually disappear.

The States’ Fiscal Situations

A report by Iris Lav and Elizabeth McNichol of the Center on Budget and Policy Priorities shows the severity of state budget shortfalls. Lav and McNichol find that as of June 2009, 48 of the 50 states were experiencing budget deficits. What is more startling is that the projected FY 2010 deficit for all of these states as a whole is $166 billion, while the forecast for 2011 is $180 billion of red ink. The projected 2010 deficits amount to a 24 percent shortfall for the average state. At least 29 states are projecting deficits for 2011. Deficits of this size are very hard to close. Figure 2 shows how much larger these projected deficits are than in the last recession.27

CBPP found that “at least 21 states have implemented cuts that will restrict low-income children’s and families’ eligibility for health insurance or reduce their access to health care services. Programs for the elderly and disabled are also being cut. At least 22 states and the District of Columbia are cutting medical, rehabilitative, home care, or other services needed by low-income people who are elderly or have disabilities...”28

Figure 2 | How Bad Will It Get?
Total state budget shortfall in each fiscal year, in billions

Source: Center on Budget and Policy Priorities, June 2009.

All of this means that U.S. cities and counties will be under enormous pressure as severe federal and state budget cuts “flow downhill” to the local level. Interviews conducted for this study show that this is already occurring. Such decreases in revenue have already affected state governmental public health. In fiscal year 2009, 76% of states made cuts to the budget while the fiscal year was underway while 61% of states had to make cuts for FY 2010.

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27 Iris J. Lav and Elizabeth McNichol. “State Budget Troubles Worsen.” Center on Budget and Policy Priorities.
28 Center on Budget and Policy Priorities. Supra.
The Impact of Hard Economic Times on Local Public Health Departments

HMA conducted interviews with seven local health departments around the country to collect specific information on the recent budget picture and the nature and extent of funding cutbacks they have experienced. We conducted these interviews with leaders of LHDs in large cities such as Boston, Chicago, and San Francisco and also with those in small and medium-size communities. These interviews also provided us with a better understanding of the multiple missions and day-to-day workings of LHDs, along with the challenges they face in serving both vulnerable and mainstream populations in extremely difficult economic times.

HMA sought information about four topics in our interviews: (1) how LHDs are funded, and the distribution of funding across categories such as direct federal grants, state-only funds, state pass-throughs of federal funds, and local revenues; (2) changes that have occurred in the very recent past (e.g. primarily in 2009) in these sources of revenues; (3) the impact of funding cutbacks and how LHDs are adjusting—the specific adverse impacts of cuts on the operations of the departments, and ultimately, on the health of the community; and (4) the likely effect of national health reform on LHDs’ financial situation.

How are LHDs Funded?

Local health departments, on average, receive 25% of their funding from local sources—including city/township revenue and county revenue. Another 20% of LHDs funding comes from direct state funds. Federal funds that “pass-through” states en route to localities accounts for another 17% of the typical LHD’s revenues (See Figure 3.)

Figure 3 shows that close to half of all revenues come from either local funding or state-initiated funding, especially since some of the 7% of funds shown in the “Other” category come from foundations, and many of these grants are from local foundations. Our interviews indicated that it is this roughly half of the budgets from state and local sources that has taken the greatest hit in recent months. The shrinkage in the assets of many foundations has led to the reduced availability of these short term funds as well.

In the other roughly half of the budgets of LHDs, federal grants are very important, whether direct or via the states. Some important federal programs with special importance to LHDs have been subject to substantial budget cuts in recent years. For example, the Preventive Health and Health Services Block Grant appropriations fell from $194.1 million in FY 1998 to $130.8 million in FY 2003, and dropped further to $97 million in FY 2008.29 This Block Grant gives LHDs the flexibility to prioritize the use of funds to fill funding gaps in programs that address the leading causes of

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29 http://www.cdc.gov/nccdphp/blockgrant/history.htm
death and disability, as well as the ability to respond rapidly to emerging health issues, including outbreaks of food borne infections and water borne diseases.

These are federal expenditures on a nationwide basis which do not even amount to the operating budget for a single, moderately-sized local hospital. Yet they are considered adequate to support nationwide efforts to prevent disease!

Similarly, funding for emergency preparedness has been cut. CDC Cooperative Agreements with the states for Emergency Preparedness and Response fell from $970 million in the first quarter of 2003 to $897 million in the second quarter of 2007.30 A report by the Trust for America’s Health and the Robert Wood Johnson Foundation found that federal funding for state and local emergency preparedness was cut more than 25 percent between 2005 and 2008.31

The Scope and Impact of Recent Changes in Funding

All of the LHDs we interviewed are experiencing funding cutbacks, some more serious than others. Generally speaking, we found that:

- Cutbacks in local funding were most severe.
- State budget cuts were right behind these local government cuts in their magnitude and importance.
- Federal grants have not kept up with increases in the cost of living; while these grants have been reduced, they have not yet been cut to the same extent as local and state funding. To date, federal funds, where available, have provided some stability, but there have still been reductions adversely affecting LHDs.
- The worst news is likely yet to come. Many of the funding cutbacks have occurred very recently, particularly in June 2009 (the end of state and local fiscal years in many cases). Thus, many of the people we interviewed had just received startling bad news about deep cuts.
- Medicare and Medicaid are not very important sources of financial support to local health departments and therefore recent changes in funding streams do not provide much relief.
- Donations and fees have not been major sources of problems, but donations are down, and in some cases revenues from fees has dropped as well, both reflecting the economy, particularly that portion of the economy related to the housing market.
- States have also been forced to take actions in response to revenue losses. These actions include:
  - **State A**: Limited eligibility for Maternal and Child Health services and the WIC program
  - **State B**: Cut the scope of the childhood vaccination program
  - **State C**: Eliminated the HIV prevention program
  - **State D**: Eliminated the Hepatitis C and Rift Valley Fever prevention programs, and slowed down its vital records process, reduced epidemiological investigations, laboratory tests, children’s vaccines, and oversight of WIC.
  - **State E**: Reduced cancer reporting, immunization, and food safety inspections, flu vaccine purchases, HIV and STD medication purchases, lab testing capacity, and support for local public health clinics, dental clinics, federally qualified health centers, and women’s health services.
• Eight states have made cuts to environmental health programs; seven states have cut immunization programs; seven states have cut back on HIV and STD screening and treatment; and seven states have reduced epidemiological investigations.\textsuperscript{32}

These cutbacks, of course, are having an adverse impact on LHDs. Their reactions to funding cutbacks vary, as would be expected, but there are some common threads with our communities increasingly at risk:

• Recent funding cutbacks have translated directly into personnel cutbacks. LHDs simply do not have the capacity to absorb these cuts and carry on with the same size staff or the same constellation of programs. In some cases, the staff cuts are small proportionately; in other cases, they are very deep. But the real problem is that deeper cuts are anticipated in 2010 and perhaps also 2011. The trends are clear.

• In 2008, 7000 jobs were lost in local health departments. A recent survey conducted by the National Association of County and City Health Officials found that LHDs lost approximately 8,000 staff positions in the first six months of 2009. An additional 12,000 LHD employees were subjected to reduced hours or mandatory furloughs. In one way or another, 51% of LHD staff were affected by these job losses or reduced hours and pay. In fourteen states, 75% of LHDs lost staff positions due to layoffs or attrition.\textsuperscript{33}

• These recent staff reductions frequently come on top of other staff cuts that have occurred bit by bit over the past several years. In some cases, LHD staffing has declined significantly over several years even as the needs increase, creating a severe shortfall in capacity to meet community needs. For example, the staff of the Chicago Department of Health totaled 1,600 a few years ago (and was at one time about 2,000); it is now down to about 1,000.

• Health service delivery has taken the brunt of the hit; in a number of cases, LHDs have sharply curtailed the direct delivery of primary care services, at least for adults, while in other cases these services are still provided but there is a long queue. LHDs have also been forced to cut back chronic disease management.

• LHDs also report reductions in vital clinical services related to screening tests such as mammograms and PAP smears.

• In addition, there have been cutbacks related to the detection and treatment of communicable diseases such as tuberculosis, hepatitis, flu, meningitis, and STDs.

• Substance abuse treatment and mental health services have been cutback in response to budget cuts.

• Emergency preparedness funding has also been reduced.

• Cutbacks in funding and staff could jeopardize the capacity of LHDs to adequately address the H1N1 flu in the very near future.

• Cutbacks reduce the ability of local health departments to be fully functional, crippling their ability to serve people in a wide variety of ways.

The impact of these cuts on the maintenance of vital services has been severe. As one local leader stated, “Everything is at risk; it’s a downward spiral right now.” This leader also said that “As of yesterday, we no longer provide any direct health services.” This LHD had to eliminate WIC, family planning services, and their STD program. They cut 20 FTEs (a large reduction for this mid-sized community) due to a county general fund shortfall of $6 million and a state shortfall of $9 billion.


\textsuperscript{33} National Association of County and City Health Officials. “Survey of Local Health Department Job Losses and Program Cuts.” September 2009.
Some of the services cut will be picked up by federally qualified health centers, which have benefitted from receiving federal stimulus funds, and some LHDs themselves may benefit from stimulus funding. Yet, these offsets will not fully make up for the cutbacks emerging from these state and local funding reductions. As this leader stated, “If we don’t have the money, we don’t do it.” This LHD has raised fees about 50%, and is trying to get new foundation grants to compensate for state and local budget cutbacks.

Another leader noted that “Every single line of the state budget has been cut, and the state is in terrible shape.” This leader zeroed in on the immediate impact on the LHDs work in homeless shelters. “We lost $1.3 million for homeless shelters. We had to pare down operations in these shelters, and eliminated everything not essential to day-to-day safety and the delivery of meals. Social workers and case manager positions were eliminated. The shelters save lives immediately. But now we are crippled and blocked from transitioning people from shelters to supportive services—which could provide assistance to help them stabilize their lives. What a tragedy that is.”

Another leader of a local health department reported that “we had to lay off 20 people yesterday!” This leader projected that the department’s entire maternal and child health activities were at risk if there were any further cuts, and that already they had given up an effective nurse/family partnership program under which public health nurses conducted home visits with highly vulnerable new mothers. Also at risk was First Steps, a program for low-income pregnant women and infants to help them get the health and social services they need.

Summing up the frustration exhibited by most of our respondents, one interviewee stated: “We are talking survival here!”

We heard of several attempts to streamline programs and cobble together funding streams to keep essential services going in the face of continued budget cuts. But one leader of an LHD who is also a national leader in this field noted that while these attempts are important, sometimes you just have to cut back services so that people who make these decisions remote from the grassroots level understand the impact of the budget cuts—if they think that LHDs can always make do with less money, they will keep cutting, according to his experience.

**CASE STUDY: The Chicago Department of Public Health’s recent experience illustrates the emerging threats to public health:**

The majority of the Chicago Department of Public Health’s budget comes from state and federal government grants. Recent cuts in state and city budgets forced the Department to eliminate approximately 260 positions between March 2008 and May 2009. Among other negative programming effects, this has resulted in the elimination of dental services, and significant decreased staffing capacity in mental health.

Chicago receives approximately $2.5 million annually in the form of a “local protection grant” from the State’s General Revenue Funds. The grant is provided to local health departments on a needs-based formula to assure the provision of health protection programs, including but not limited to infectious disease and food protection. Given the State’s budget crisis, the “local protection grant” was on the chopping block. The anticipated service reductions and community impacts were quantified and are stated below. Chicago was lucky this time and the grants were included in the budget. Continual threats to local public health re-emphasize the need for predictable funding streams for support of these critical services.

The loss of the “local protection grant” was expected to result in the following service reductions and impacts on the community:

- Severely compromised control of communicable diseases: 8,000 annual investigations would no longer be conducted, contributing to the spread of diseases such as H1N1 and other influenza, meningitis, food-borne illnesses, rabies, hepatitis, and vaccine-preventable illness.
An increased risk of vaccine-preventable diseases for all children: 6,407 fewer vaccinations of infants and young children against diseases such as measles, mumps, rubella, polio, diphtheria, tetanus, whooping cough, and meningitis. For every dollar spent on the vaccination program, research indicates that $5 is saved in direct medical costs and $11 is saved in societal costs.

Increased cases of lead poisoning: 1,718 fewer children would be screened for lead poisoning and more than 5,700 fewer homes would be inspected for lead hazards. Given that 2.5% of Chicago children who are tested for lead are found to have elevated lead levels, at least 43 children would not know their status and suffer the consequences of lead poisoning. If homes with lead are not identified, children would continue to live in environments with lead hazards and may suffer from learning disabilities, mental retardation, behavioral problems, lowered IQ and problems later in life.

Increased hospitalizations and suicides among the mentally ill and costly social problems in Chicago communities: 3,117 fewer patients with mental illness would be treated at Chicago Department of Public Health facilities. When mental illness is not treated on an outpatient basis, it leads to increased rates of hospitalization. For example, 60 - 70% of patients with schizophrenia relapse within one year without maintenance treatment, and almost 90% relapse within two years without this treatment. Suicide, homelessness, lost work productivity, and incarceration are other costs of untreated mental illness.

Undetected breast and cervical cancer: 1,632 fewer mammograms and 340 fewer screenings for cervical cancer would occur as the result of the budget cuts. Cancer identified in the later stages has lower survival rates, and treating cancers in early stages reduces overall costs because early detection may prevent tragic and costly recurrences.

Poor health outcomes and increased violence for substance abusers: 61 fewer treatment slots would be available through the Chicago Department of Public Health for people seeking methadone maintenance treatment (MMT) for heroin addiction. Without participation in an effective treatment program like MMT, heroin users are 13 times more likely to prematurely die from violence, overdose and infectious disease when compared to their non-heroin-using peers. In addition, heroin addicts who do not participate in MMT are at increased risk for hepatitis C and their risk of contracting HIV is greater than five times their peers who do participate in an MMT program. Abrupt termination of MMT leads to higher arrests, more contact with the criminal justice system, and reduced employment.

Increased risk of tuberculosis: The Chicago Department of Public Health anticipates that 25 patients with active TB would not receive directly-observed therapy (DOT). DOT has been shown to reduce treatment non-compliance by 77 percent, and plays an essential role in preventing TB the spread of the disease from infected individuals. The World Health Organization found that if untreated, each person with active TB can infect, on average, 10-15 people per year; thus, the 25 people not receiving DOT could cause at least an additional 250 cases of tuberculosis in one year alone. According to the 2008 survey of LHDs conducted by NACCHO, 81 percent of LHD jurisdictions conduct tuberculosis screening and 72 percent conduct tuberculosis treatment.

Increased cases of sexually transmitted diseases: In 2007, Cook County ranked second in cases of chlamydia and first in gonorrhea among all US counties. Proposed budget cuts would force the Chicago Department of Public Health to provide 12,000 fewer clinic visits to patients with STDs, costing the city more money in the long-run.

LHD Perspectives on National Health Reform

A uniform theme running through our interviews is that national health reform is pretty far removed from the day-to-day struggles of local health departments as they try to link vulnerable populations, including both working and recently unemployed adults, with a wide range of health and social services, and to protect the public from many different threats. Respondents generally felt that the battle in Washington over health reform was mainly about financing of our health care system, a system that they believe is over-built and frequently not well connected to the actual drivers of poor health. Some seemed unaware of the important

34 National Association of County and City Health Officials. 2008 National Profile of Local Health Departments. p. 49.
County and City Health Departments: The Need for Sustainable Funding and the Potential Effect of Health Care Reform

prevention and public health elements that are incorporated in the national health reform bills, along with proposed dedicated funding sources, and these respondents were heartened to hear about these provisions.

Reflecting this frustration, one respondent stated that “federal health reform is mostly about giving people an insurance card, but that doesn’t guarantee access.” She stressed that we are spending hundreds of billions of dollars on a health care system that really only affects 10 percent of a person’s future health status. “We need complementary investments in wellness and prevention.” This respondent, like a few others, referred to national health reform as “working on the sick care system” rather than tackling initiatives directly aimed at better health.

Another interviewee summed up the views that we frequently heard by saying, “The problem of the uninsured—sure, go ahead and fix it. National reform will help. But it doesn’t get at the ‘social determinants’ of good health, such as reducing poverty, better education, and housing for those who can’t afford it.” Our interviewees strongly favored covering the uninsured, but did not see it as a “profound shift” in health reform. One respondent warned: “Don’t throw dollars after dollars: we spend enough already—what we need is to reallocate what we already spend toward prevention and care management for high-cost chronic disease.”

Why Financially Viable LHDs Will be Even More Important Under Health Reform

Local health departments generally do not receive direct government subsidies to cover the cost of the uninsured. Much of the safety net funding, such as Disproportionate Share Hospital (DSH) funds, are directed to hospitals with large indigent care loads. Other funding, such as Section 330 monies, is directed to federally qualified health centers (FQHCs). In contrast, LHDs are funded by a combination of local revenues, and a range of different federal and state government grants. These funding streams will remain vital, and in fact, need to be supplemented, if we enact a plan to cover the uninsured. National health reform will augment the need for LHDs.

Local departments can help translate the right to gain access to services, as manifested in a new insurance card, into the reality of access. This will require addressing and overcoming the many non-insurance barriers to care. Patients frequently need transportation to get to a doctor, and a culturally competent physician and staff when they get there. Some need help with nutrition, and prompts to adopt healthy behaviors. Others are struggling with threats to their health from domestic violence or the risk of sexually transmitted diseases. Local health departments address all of these problems.

Some observers note that Medicaid covers some transportation costs and federally qualified health centers can provide some of the services noted above. While this is helpful, in some locations, LHDs are the only place where the uninsured and under-insured can obtain timely and needed services. LHDs, then, are a companion to health coverage expansion. If they have the support to continue their critical community-wide and population-based initiatives, they can translate the new coverage called for in national reforms into the reality of access. This can also help contain medical cost increases in the long run.

Further, LHDs can facilitate the achievement of the goals of national health reform by serving as conveners of many different stakeholders in the community, representing physicians, nurses, social workers, patients, and business and labor groups. Operating as a watchdog, they can feed back data to policymakers and providers who may be otherwise unaware of the dimensions of county-wide problems and may have little incentive to decrease spending on their own.

Moreover, even the boldest of the national reform proposals now on the table purports to cover 97% of the non-elderly US population of legal residents. Others would cover an estimated 94% of the nonelderly population. The process of moving from the 83% of this under-65 population that we cover today to 94-97%, if
we can achieve it, would take at least several years. CBO estimates that under the Senate Finance Committee Chairman’s mark, 94% of the non-elderly population would be insured in 2019, leaving 25 million still without coverage in that year (about a third of whom would be undocumented immigrants). In fact, plans now under active consideration do not bring new enrollees into subsidized programs until 2013. Thus, it will be at least three to four years before the number of uninsured begins to significantly decline and as a result, there will still be millions of residents left in limbo who will require the same local health department clinical services provided today.

Furthermore, many of the uninsured will be placed into Medicaid. While this program provides very comprehensive benefits, and making the program available to everyone in poverty is certainly an important step, Medicaid pays providers well below commercial rates. In fact, the U.S. average of all state payments to physicians is about 70 percent of commercial rates. In some states, payments to physicians may be as low as 50% of the commercial market. The House of Representatives’ health care reform legislation calls for an increase in Medicaid payment rates, but it remains to be seen if this provision will survive in final legislation. If not, Medicaid enrollees will continue to experience access problems as many providers do not accept Medicaid patients. LHDs will continue to provide a welcoming atmosphere for Medicaid patients and uninsured people under health reform, if sufficient funding is available to them.

LHDs Can Address Work Force Challenges

LHDs can also facilitate and support national health reform by addressing a wide range of expected work force challenges. In a recent article, Colwill and colleagues projected a 20% shortage of adult care generalist physicians in 2025, or perhaps as much as a 27% shortage if graduation rates continue their decline. This arises from both the limited number of physicians going into primary care and a 29% increase in the workload of “generalist physicians, including family practice doctors, general internists and generalist pediatricians. These physicians provide 52% of all ambulatory care visits, much inpatient care, 80% of visits for hypertension, and 69% of visits for both chronic obstructive pulmonary disease (COPD) and diabetes. The total shortfall is expected to fall in a range of 35,000-44,000 primary care physicians.” The authors also note that the problem is made more serious by the fact that we have a decade of declining graduates from these fields even as population growth and aging drive up the use of primary care and almost a third of generalist internal medicine physicians are now hospitalists. They also note that while physician assistants and nurse practitioners can help alleviate this looming shortage, in most practice settings, a large majority of physician visits do not involve either type of medical professional.

Colwill and colleagues note that “Our shortage estimates will be low if the population increases more than projected, and if universal coverage provides access for the uninsured.” This occurs because even near-universal coverage, a more likely reality, would result in added demand for services pressing upon an already limited supply. This, of course, is no reason not to press ahead with health reform, but rather a cautionary note that our planning for such reforms must include ways to augment the supply of care to meet the added demand.

37 Colwill, supra. p. w238.
38 Colwill, supra. p. 236.
LHDs, through their planning and policy work, and their monitoring of the work force in their jurisdictions (if funded to do so), can provide the data and information that could facilitate this transformation.

Concern about potential shortages, however, is not limited to physicians and nurses. As noted earlier, a good public health system requires an adequate number of and properly trained nutritionists, social workers, epidemiologists, lab technicians, environmental health specialists, emergency preparedness coordinators, and program evaluation personnel and policy analysts, among other skills and occupations. Salaries must be adequate to attract sufficient staff who frequently have job opportunities in the private sector.

**Legislative Provisions Directed to Alleviate Work Force Shortages**

One possible but partial solution may be found in America's Affordable Health Choices Act (AAHCA), the joint product of three committees in the U.S. House of Representatives, calls for the creation within the Public Health Service of the Public Health Workforce Corps for the purpose of ensuring an adequate supply of public health professionals throughout the nation. According to the bill, the Secretary of HHS, acting through the CDC, would develop a methodology for placing and assigning Corps participants as public health professionals. The bill stipulates that this methodology “may allow for placing and assigning such participants in State, local, and tribal health departments and Federally qualified health centers.”39 (emphasis added). This Act also proposes to set up a Public Health Workforce Scholarship Program. Eligibility requires that an individual be enrolled as a full-time or part-time student, in a course of study or program at an accredited graduate school or program of public health, or have demonstrated expertise in public health and be accepted for enrollment in various public-health related academic programs. Alternatively, the individual could hold an appointment as a commissioned officer in the Regular or Reserve Corps of the Service or be eligible for civilian service in the Corps. Upon graduation, the person must serve full-time as a public health professional for one year for each year in which the individual received a scholarship, and serve at least two years.

AAHCA also calls for the establishment of the Public Health Workforce Loan Repayment Program for individuals pursuing higher education in public health fields. For each year of service as a public health professional that such an individual commits to after graduation (a minimum of two years of service is required), the federal government would repay up to $35,000 of education loans that the individual incurred, updated for inflation.40

**Assuring Stable Revenue Sources**

We now present and explain the need for a stable revenue source to provide fully adequate and sustainable financing over time for local and state health departments. As noted earlier, discretionary budgets from fragmented and poorly coordinated funding sources and reduced revenues leave LHDs and SHDs vulnerable to both the ups and downs of our economy and the unpredictability of the political and budget processes from all three levels of government: federal, state, and local. A sustainable source of revenue could help LHDs and SHDs weather these storms and meet the needs of the community on an ongoing basis. Here we note some hopeful signs in emerging national health reform legislation and outline a promising approach to sustainable financing.

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Before describing the recommended approach, we note that there are a variety of ways to provide more funding for LHDs and SHDs. The strategy favored here is to create a special, stable, continuous earmarked fund to finance the activities of LHDs, paid for through federal general revenues. Other approaches include:

- A “surcharge” on the premiums to which all health care payers contribute. This would include private and public employers, consumers who pay either a portion of the premium under employer-sponsored health insurance or the full premium in the individual market; and Medicare and Medicaid.
- An increase in various excise taxes on products believed to have an adverse effect on public health.
- An “ad valorem” tax that would work like a sales tax, with the revenue dedicated to supporting LHDs. This is a tax assessed directly on real property within a municipality (e.g. city, county, borough) based on a fixed proportion of real property's value. A number of municipalities have used revenues from ad valorem taxes to fund local public health.41

Each of these possible funding sources has strengths and limitations. Further, there may be other approaches to funding local and state public health departments. We now zero in on the option that we believe is the most sensible and feasible approach to providing a long-term and stable source of support for LHDs and SHDs.

Federal General Revenues

A preferred funding approach would be the establishment of a national trust fund that provides funding every year for a range of programs and services related to the core functions of state and local and state public health departments. This would include funding for all three of the core public health department functions noted earlier: the operational definition functions as well as the more general functions of assessment, policy development, and assurance. It would include both clinical preventive services and community-based prevention. And it would also help pay for many functions related to food safety, air and water quality, and emergency preparedness that are vulnerable to funding cutbacks.

This fund would be financed annually by a mandatory federal appropriation. Funds could be used for a variety of Public Health Service Act programs, many of which directly support local and state public health activities.

National health reform plans have incorporated this approach, and it is important that some version of this type of trust fund covering a wide range of LHD and SHD functions be included in the final version of national health reform. It is particularly important that the scope of a new trust fund and the range of programs encompassed in its reach not be limited to clinical prevention services. Important as these services are, they are only a portion of the activity carried out by local health departments.

The Senate HELP Committee Bill Approach

The Senate Health, Education, Labor, and Pensions (HELP) Committee approved The Affordable Health Choices Act (AHCA) in August 2009. This bill calls for the President to establish a National Prevention, Health Promotion and Public Health Council. This interagency group will provide coordination and leadership at the federal level with respect to prevention, wellness and health promotion practices, the public health system, and integrative health care in the United States. This Council will develop strategies that incorporate the most effective and achievable means of improving the health status of the population and reducing the incidence of preventable illness and disability.

The most important feature of the AHCA bill for supporting the work of LHDs and SHDs is the proposed “Prevention and Public Health Investment Fund.” This Fund would provide for “expanded and sustained national investment in prevention and public health programs to improve health and help restrain the rate of growth in private and public sector health care costs.” The Fund will receive federal appropriations of $2 billion in 2010, $4 billion in 2011, $6 billion in 2012, $8 billion in 2013, and $10 billion a year for fiscal years 2014 through 2019 and not less than this amount for the years 2020 onward.\(^42\) Amounts from this Fund may be used to increase funding, over the FY 2008 level, for programs authorized under the Public Health Service Act (42 U.S. C. 201 et seq.) for prevention, wellness, and public health activities, including prevention research and health screenings. The bill notes that amounts appropriated under this provision of the bill shall not be taken into account for purposes of any “budget enforcement procedures” including the Balanced Budget and Emergency Deficit Control Act and budget resolutions for fiscal years during which appropriations are made from the Investment Fund.\(^43\) This provision helps insulate the support for prevention and public health from the various and ongoing budget squeezes and measures to reduce budget shortfalls, and this protection is vital to help avoid the kind of deep cuts in funding for LHDs and SHDs that have been documented in this report.

The HELP bill also calls for awarding annual grants to each state for the establishment of “Right Choices” programs. Under these programs, states would “conduct outreach activities through State health and human services programs, through safety net facilities, or through other mechanisms determined appropriate by the State and the Secretary, to identify uninsured individuals”\(^44\) and provide them with a “Right Choices Card.” To be eligible, people must have a family income below 350% of the FPL, and have not been covered by public or private insurance for six months. Participants would receive a one-time health risk appraisal and a risk-stratified care plan provided by a primary care professional. The care plan would “include recommendations for behavioral changes, referrals to community-based resources, and referrals for age and gender appropriate immunizations and screenings to prevent chronic disease…”\(^45\)

LHDs and SHDs would also benefit from an important provision of AHCA calling for the Director of the Centers for Disease Control and Prevention to convene an independent Community Preventive Services Task Force. This Task Force would review the scientific evidence related to the effectiveness, appropriateness, and cost-effectiveness of community preventive interventions. This Task Force would publish a Guide to Community Preventive Services for individuals and organizations delivering population-based services. Community preventive services include any policies, programs, processes or activities that are designed to improve health at the population level.

**The House Bill Approach**

The House health reform bill, the Affordable Health Care for America Act of 2009, or AHCAA, also calls for a dedicated source of funding that would be helpful to the work of LHDs and SHDs. This proposed legislation calls for establishing the “Public Health Investment Fund,” which would finance existing programs such as Section 330 for federally qualified community health centers, the National Health Service Corps, the Agency for Healthcare Research and Quality (AHRQ), and the National Center for Health Statistics.

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\(^43\) The Affordable Health Choices Act.


Federal appropriations for the overall Public Health Investment Fund would begin at $4.6 billion in 2011 and rise to $9 billion in 2015.\(^{46}\)

AHCAA also calls for a Prevention and Wellness Trust fund. This fund would start with $2.4 billion in 2011, and increase to $3.6 billion in 2015. This Trust includes Prevention Task Forces, Prevention and Wellness Research, Community Preventive and Wellness Services, and Core Public Health at Health Departments and the Centers for Disease Control and Prevention.\(^{47}\)

Under this bill, the federal government would develop a National Prevention and Wellness Strategy, which would be updated every two years. This is designed to improve the nation’s health through evidence-based clinical and community prevention and wellness activities, including core public health infrastructure improvement activities.

Local and state health departments would also benefit from a provision of the House bill that sets up Core Public Health Infrastructure and Activities for State and Local Health Departments. The bill calls for $800 million in 2011, rising to $1.265 billion in 2015.\(^{48}\) The term “core public health infrastructure” includes workforce capacity and competence; laboratory systems; health information systems and analysis; communications, financing, and other relevant components of organizational capacity.

Under this program, the Secretary of HHS would award a grant to each state health department, and may award grants on a competitive basis to State, local, or tribal health departments. Not less than 50% of the total funds should be awarded to state health departments and not less than 30 percent should be awarded to state, local, or tribal health departments. States must show in their applications to the federal government that the state health department will address its highest priority infrastructure needs and “as appropriate, allocate funds to local health departments within the state.”

All grantees, state or local, must agree to use the funds to address core public health infrastructure needs. Awards would be made in accordance with a formula based on population size, burden of preventable disease and disability, and core public health infrastructure gaps.

The House bill also calls for the establishment of a public health accreditation program. Acting through CDC, the Secretary of HHS would develop, and periodically review and update, standards for voluntary accreditation of State, local, or tribal health departments and public health laboratories for the purpose of improving their quality and performance. This would be followed by implementing an accreditation program consistent with these standards.

In summary, a dedicated source of revenue is required to help fund the work of LHDs. The best option is a series of dedicated trust funds (e.g. Public Health Investment, Prevention and Wellness) included in the major health reform legislative blueprints. This should be supplemented by federal assistance to LHDs and SHDs for core public health infrastructure. These funding streams should support both clinical and community-based prevention. They would help insulate LHDs and SHDs from the sharp declines in revenue associated with steep and lasting recessions, such as we are now experiencing. These funds would also provide a buffer to help LHDs and SHDs maintain adequate financial support in the face of cutbacks in federal spending associated with long-term federal deficits, and the severe reductions in non-entitlement spending that are likely to accompany efforts to trim back these deficits.

This Trust Fund should not displace, but rather supplement state and local sources of revenues for LHDs. Locally provided funds remain critical to the core mission of LHDs.

\(^{47}\) H.R. 3962. p. 1286.
\(^{48}\) H.R. 3962. p. 1286.
LHDs Can Lead Initiatives to Enroll the Uninsured in Locally Designed Coverage Systems

In a few cities, LHDs have led new initiatives to enroll uninsured people in coverage systems providing access to affordable health services. These coverage plans are non-insurance models that provide a card to enrollees enabling them to use a full range of health services from a network of providers.

The major example can be found in San Francisco. City health director Mitch Katz has led an effort featuring medical homes for the uninsured, redirecting people from ER and hospital settings to primary care settings, electronic medical records, and a single point of entry and related reforms to streamline enrollment and administration. Currently, Healthy San Francisco covers 43,000 of the city’s 60,000 uninsured residents. It is open to all residents regardless of family and immigration status.

Healthy San Francisco is built around a network of some eleven hospitals, including San Francisco General, a public hospital, 13 community health centers, and several private clinics. A hallmark of the program is to redirect patients to a medical home when they self-refer to ERs and hospital outpatient departments for non-emergency care or care that did not require seeing a specialist. The ER or outpatient department goes beyond just recommending such a new pattern of care, and actually makes the patient an appointment at a clinic or other primary care setting. Moreover, the findings from the patients’ ER or hospital outpatient visits are sent to the entity that will serve as the medical home, in advance of their first appointment, and reminders for that primary care appointment are sent.

In addition to savings from better patterns of service utilization, substantial savings in pharmaceutical costs are generated from the deep price discounts obtained under the 340B program. Further, Healthy San Francisco has obtained substantial funding from requiring employer participation in the financing of the program. Employers can offer coverage or contribute to the cost of the program. Litigation to block this required employer participation was filed by an employer group, but the Ninth Circuit US Appellate Court ruled in favor of the city. An appeal to the Supreme Court is pending.

A program of similar size has been underway in the District of Columbia since 2001. After the closure of the public hospital system, including DC General Hospital, the DC Department of Health took the lead in forming The Alliance, a network that initially included Greater Southeast Community Hospital along with several other hospitals, and Unity, a group of community health centers. In 2006 members of the Alliance were enrolled in Medicaid managed care plans, and as of March 2009, more than 52,000 people (out of an estimated 74,000 uninsured) are enrolled in three Medicaid managed care plans.

Finally, the Genesee County, MI health department has played an important role in covering almost all of the uninsured in this community. This Flint, MI region has developed a plan that provides primary, specialty, and pharmaceutical services to about 26,000 uninsured adults. Some dramatic improvements have been achieved, including a 50% reduction in ER visits among this population and a 40% reduction in referrals to specialist physicians. An emphasis on care management for people with chronic illnesses has resulted in improvements in complying with best medical practices for patients with asthma and diabetes. Funding has come from the county health department, foundation grants, and a mill levy increase earmarked for this program.
Conclusion

Local and state health departments play a series of vital roles in improving the public’s health in America one person at a time as well as on a community-wide basis. Most importantly, they help make people healthier, which should be the ultimate health policy goal. Keeping people healthy is important to long-term cost control and it also improves worker productivity, student learning and the national defense. LHDs and SHDs screen, treat and contact patients to help control outbreaks of infectious diseases, educate the public about health risks and prevention strategies, monitor community health status, and protect the safety of our water, air, and food supplies. They make basic primary and preventive health care services available in culturally sensitive ways to vulnerable populations who fall outside eligibility for public programs, cannot participate in the job-based health care system, and cannot afford to buy health insurance on their own. For millions of Americans, local and state health departments provide a lifeline to screening and early detection of disease and the treatment and management of chronic illness.

The sharp economic downturn has both driven more people to the doors of LHDs and at the same time yanked away significant chunks of their revenues. The combination of rising needs and falling resources is jeopardizing their long-standing and essential roles. LHDs cannot fully fund the traditional public health functions related to surveillance, epidemiology, and public safety, along with the emerging roles related to emergency preparedness, through fees and donations alone. They need a stable and sustainable funding source.

Long-term federal deficits and stubborn state and local revenue shortfalls projected to last at least through 2011 are pulling the revenue plug on local and state health departments. Our interviews revealed a stark picture of how the state and local budget cuts and a drop-off in federal grants to LHDs are leading directly to staff and service cutbacks.

Many of the activities of LHDs and SHDs are classic “public goods.” They will be under-produced if there is not a secure public funding stream because their benefits redound to the entire community. No one set of private actors in our health care system can see the full return on investments in public goods such as the control of infectious diseases. We all stand to benefit from such investments, and we all risk exposure and illness if we subject our local health departments to “death by a thousand cuts.” Assuring that LHDs and SHDs are properly supported is a goal that should transcend philosophical debates about public policy and cross political party lines.

Our expensive and very high-tech health care system has produced medical miracles and saved many lives. But we also have ample evidence of widespread unnecessary and inappropriate care, and waste and inefficiency. For every dollar spent on prevention, twenty more are spent on taking care of people after they get sick. We need to redirect resources within our system, and focus on addressing the most important drivers of poor health, which include smoking, poverty, homelessness, threats to air and water quality, violence, and substance abuse.

To help “turn the health care battleship” toward front-end investments in public health, this report has offered clear policy recommendations for developing a secure funding source for LHDs and SHDs. We take note of several very promising features of national health reform proposals that offer important assistance for state and local health departments. We have also highlighted several promising models of local health reform in which LHDs have taken the lead.

It is time for bold thinking to preserve and strengthen the backbone of our health system.