



For the Public's Health: Investing in a Healthier Future

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Summary

The Institute of Medicine Committee on Public Health Strategies to Improve Health was asked to address three topics related to population health¹ in the United States—measurement, law and policy, and funding—in the context of the reform of the medical care system outlined in the Affordable Care Act. In its first and second reports, *For the Public's Health: The Role of Measurement in Action and Accountability* and *For the Public's Health: Revitalizing Law and Policy to Meet New Challenges*, the committee added its voice to a growing consensus that population health improvement depends on addressing the multiple determinants of health effectively. Much has been learned about the actual or distal (as opposed to the proximal) causes of death and disease, including social and economic conditions that impair health and make it hard to avoid health risks. Therefore, it is no longer sufficient to expect that reforms in the medical care delivery system (for example, changes in payment, access and quality) alone will improve the public's health. Large proportions of the US disease burden are preventable. The failure of the health system (which includes medical care and governmental public health) to develop and deliver effective preventive strategies is taking a large and growing toll not only on health, but on the nation's economy. That is evident in the nation's poor health performance and high per capita health expenditures compared with those of its high-income peers (Commonwealth Fund Commission on Health Performance Health System, 2011; OECD, 2010b).

Data collection, reporting, and action—including public policy and laws informed by data and quality metrics—are needed to support activities that will alter the physical and social environment for better health. In the present report, *For the Public's Health: Investing in a Healthier Future*, the committee continues the arguments presented in its first report: to the detriment of society, its fixation on clinical care and its delivery eclipses attention to population-based activities that offer efficient and effective approaches to improving the nation's health.

Viewing US health problems through a funding lens reveals two issues: (1) insufficient funding for public health and (2) dysfunction in how the public health infrastructure is funded, organized and equipped to use its funding.² The solutions that the committee proposes in this report are intended to address both issues. Chapter 1 provides an introduction and context for the report. In Chapter 2, the committee describes how the governmental public health system and its financing can be reformed. The two-part Chapter 3 discusses the administrative changes needed to facilitate more efficient and rational allocation and use of funds in public health, and the research needed to help the public health infrastructure to become more knowledgeable about and effective in its use of funding. Chapter 4 offers recommendations for providing funding that is sufficient, stable, and sustainable to permit optimal functioning of the public health infrastructure. Although the report focuses largely on the funding of governmental public health

¹ The health system as envisioned in the committee's previous reports, which comprises governmental public health, medical care, and other actors that have the ability to influence health.

² In Chapter 2, the committee revisits the multi-sector health system that it described in its first report and describes the evidence-based solutions that will help the nation to achieve better health outcomes and realize greater value from its investments in health.

activities, the committee recognizes that a far broader societal approach to improving population health is necessary. It would extend to an array of stakeholders and societal strategies to improve the conditions and environments that influence health (such as education, employment, and housing). Stakeholders, some described in the committee's other reports as actors in a multi-sectoral health system, include non-health government agencies, businesses, philanthropic organizations, and community-based organizations. Their contributions to health improvement include policy actions, financial support, and a variety of interventions. First, however, the nation's health investments require change to achieve better value for money. Solutions that have been proposed include

- Controlling administrative waste by harmonizing records and rationalizing insurance.
- Remediating sources of excess cost and other inefficiencies in clinical care, while improving quality (IOM, 2011b).
- Achieving universal coverage (this involves increased cost for basic services but also savings achieved by intervening earlier and broadening coverage) (CBO, 2009; IOM, 2003).
- Implementing population-based health improvement strategies (including action on non-health factors that are known to influence health outcomes).

The first three solutions have been discussed in detail by prior IOM committees, the IOM Roundtable on Value and Science-Driven Health Care, and many others (IOM, 2004; {IOM, 2011 #3509}; CBO, 2009; Berwick et al., 2008). The present committee has examined the fourth solution, although focusing mostly on the governmental public health enterprise and its contributions to population health.

ESSENTIAL INGREDIENTS FOR A RENEWED PUBLIC HEALTH ENTERPRISE AND A HEALTHY NATION

Solving the challenges described in this report will empower public health to “bend the curve” on health risks, contributing to a decrease in the volume of people who require medical care for preventable conditions, and in a broader sense, leading to improved population health outcomes. Steps to renew the public health enterprise include

- Ensuring adequate and sustainable funding for governmental public health, which is able to generate information about the influences on population health and lead or support interventions to address them.
- Reforming how governmental public health infrastructure is funded and operates, for example, changing how funds are allocated to align spending with need and escaping “siloed” funding of lower priority activities; articulating the boundaries, linkages and financial flows between state, local and federal programs; and creating a new chart of accounts that is integrated into a sound management information system)
- Using public health knowledge to help reform the delivery of clinical care quality with an emphasis on efficiency, appropriateness, and integration with public health's population-based efforts

To address the lackluster health outcomes and unsustainable health care expenditures of the United States, a critical first step is to focus national efforts by setting a national target for health system performance on two key measures: longevity and per capita health spending. Comparing life expectancy and health spending can help in assessing value realized for money; in this analysis, US performance is disappointing. Although US spending on health goes far beyond the threshold of diminishing returns, life expectancy and other key measures of health status lag behind those of other high-income nations (Darzi et al., 2011). Excessive spending on medical care also presents opportunity costs—less funding remains for investment in other socially important activities, such as education. Bringing health expenditures more in line with other wealthy nations will free up resources that can support other US objectives that improve not only the health of Americans, but their quality of life. The committee proposes a modest target for health improvement. Based on current data, the US would need to add an average of approximately 1.33 years to the life expectancies of 50 year old women and 0.90 years to the life expectancies of 50 year old men (NRC, 2011; OECD, 2010a). These estimates, however, do not reflect the fact that comparable countries will continue to make gains over time, thus, the committee recognizes that the current gap in years that needs to be closed is less than the increase that will be needed to bring US life expectancy to a level comparable to the average among its peers. Therefore,

Recommendation 1: The Secretary of the Department of Health and Human Services should adopt an interim explicit life expectancy target, establish data systems for a permanent health-adjusted life expectancy target, and establish a specific per capita health expenditure target to be achieved by 2030. Reaching these targets should engage all health system stakeholders in actions intended to achieve parity with averages among comparable nations on healthy life expectancy and per capita health expenditures.

REFORMING PUBLIC HEALTH AND ITS FINANCING

To achieve a more effective national public health effort, the nation will have to change how it allocates health expenditures in general and public health funds specifically. Spending on population-based public health prevention efforts is a very small proportion of overall national health expenditures. The allocation of public health spending also is not commensurate with need or with achieving the greatest value: conditions responsible for the highest preventable burden of disease are considerably underfunded. In addition, public health funding is inflexible, uncoordinated and fragmented. To transform how funding is allocated and used, the federal departments and agencies that fund state and local public health departments—the Department of Human Services (HHS), the US Department of Agriculture, the Environmental Protection Agency, and others—could make administrative rule changes and procedural changes in the existing funding streams (such as contracts, grants and cooperative agreements) to enable more flexible, rational, and efficient use of resources.

Recommendation 2: To ensure better use of funds needed to support the functioning of public health departments, the committee recommends that

- (a) The Department of HHS (and other departments or agencies as appropriate) enable greater state and local flexibility in the use of grant funds to achieve state and local population health goals;**
- (b) Congress adopt legislative changes, where necessary, to allow the Department of HHS and other agencies, such as the Department of Agriculture, the necessary funding authorities to provide that flexibility; and**
- (c) Federal agencies design and implement funding opportunities in ways that incentivize coordination among public health system stakeholders.**

Public health lacks an organizing concept for the cross-cutting capabilities that every public health department needs to be effective, and this attests in part to the fragmented and rigidly siloed nature of much public health funding. All health departments need capacity in, for example, information technology, policy analysis, and communication which cross-cut programs. It would be inefficient and ineffective to build separate systems and capacity for different programs rather than having what the committee has termed *foundational capabilities* that apply to all programs. Moreover, the committee developed the concept of a *minimum package of public health services*, which includes the *foundational capabilities* and an array of *basic programs* that no health department can be without. Although this package is built on the well-known and long-established concepts of the Three Core Public Health Functions and the Ten Essential Public Health Services, it is intended to make more specific the services that every community should receive from its state and local health departments and to inform public health funding decisions. It is also intended to serve as a framework for program and financial management, including the development of charts of accounts. Communicating to the American public the nature of and need for a *minimum package of public health services* could enhance people's understanding of the critical nature of population-based approaches (what communities get for their investment), and their understanding of the package as an instrument to ensure a standard level of health protection for all communities.

Recommendation 3: The public health agencies at all levels of government, the national public health professional associations, policymakers, and other stakeholders should endorse the need for a *minimum package of public health services*.

The passage of health care reform, which makes coverage available to a broader cross-section of the population, raises the question of the role of some public health departments as clinical care providers. That responsibility has a complex history, and there are advantages and disadvantages to the public health role in direct provision of care. In large measure, however, public health agencies must be freed to focus more intensively on delivery of population-based services. Circumstances may make it more appropriate for public health agencies in some jurisdictions to provide specific kinds of clinical services directly. Examples might include specialized programs that have a population health component, such as tuberculosis or sexually transmitted disease control and specialized services delivered in community settings, such as nurse home visiting or community health worker health promotion activities, and in localities that do not have an infrastructure to serve at-risk (uninsured and underinsured) populations.

Aside from these exceptions, transitioning clinical care out of public health will give health departments the opportunity to forge new and stronger partnerships with the health care delivery system by applying its unique knowledge and skill sets to help clinical care to improve its performance from a population health standpoint.

Recommendation 4: The committee recommends that as clinical care provision in a community no longer requires financing by public health departments, public health departments should work with other public and private providers to develop adequate alternative capacity³ in a community's clinical care delivery system.

INFORMING INVESTMENT IN HEALTH

Building a stronger and more transparent public health system requires a financial management and services research infrastructure that is consistent among jurisdictions and capable of producing accurate data on program activities, especially those tied to the *minimum package of public health services*. Challenges to a better understanding of revenues and expenditures in public health agencies include the lack of universally accepted definition of what constitutes public health activity. There are differences in local and state practice (for example, some health departments include environmental health, others do not), and there are gaps in what financial data are collected and reported and how.

Recommendation 5: The committee recommends that a technical expert panel be established through collaboration among government agencies and organizations that have pertinent expertise to develop a model chart of accounts for use by public health agencies at all levels to enable better tracking of funding related to programmatic outputs and outcomes across agencies.⁴

The Affordable Care Act authorized a program of research related to many of the issues raised in this report (Section 4301, “Research on Optimizing the Delivery of Public Health Services⁵”), but funding and infrastructure development for this program is not yet available. The committee recommends steps to achieve a strengthened research infrastructure, including dedicated funding of up to 15 percent of total public health funding. That level of investment is benchmarked alongside high-growth, high-adaptation industries that rely on research and development innovations to sustain them.

³ Adequate capacity refers not merely to the ability to provide services of similar breadth, quality, and accessibility (such as cultural competence) but to the ability to provide care to the overall community as opposed to patient-by-patient.

⁴ Agencies and organizations would include HHS, public health departments, ASTHO, NACCHO, the Public Health Accreditation Board, and the National Association of State Budget Officers.

⁵ “This section would require the Secretary, through the CDC Director, to fund research on public health services and systems, to include (1) examining evidence-based prevention practices relating to prevention, including comparing community-based public health interventions in terms of effectiveness and cost; (2) analyzing the translation of interventions from academic settings to real world settings; and (3) identifying effective strategies for organizing, financing, or delivering public health services in community settings, including comparing state and local health department structures and systems in terms of effectiveness and cost. Such research would have to be coordinated with the TFCPS.”

Recommendation 6: The committee recommends that Congress direct the Department of Health and Human Services to develop a robust research infrastructure for establishing the effectiveness and value of public health and prevention strategies, mechanisms for effective implementation of these strategies, the health and economic outcomes derived from this investment, and the comparative effectiveness and impact of this investment. The infrastructure should include

- **A dedicated stream of funding for research and evaluation.**
- **A national research agenda.**
- **Development of data systems and measures to capture research-quality information on key elements of public health delivery, including program implementation costs.**
- **Development and validation of methods for comparing the benefits and costs of alternative strategies to improve population health.**

Research infrastructure would be shared among three HHS agencies—the National Institutes of Health, the Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention—and a national research agenda needs to include a prioritized list of topics to be addressed by the research. Development of data systems and measures to capture research-quality information (and training of staff to do so) is needed at the national, state, and community levels. The information should include expenditures, workforce size and composition, and the volume, intensity, and mix of activities produced.

On the basis of what is known about what public health agencies can and cannot afford to do and the imbalance in national spending on clinical care compared to population-based health services, the committee concludes that the nation does not invest sufficiently in public health. The information available, however, does not allow the committee to determine with any precision what portion of the nation's health spending is needed to support population-based public health efforts. Improvements in the tracking of revenues and expenditures in public health and the enhancements in research and evaluation described above will inform the determination of public health funding needs better, but a nationally guided effort is needed to review information as it is developed and to make recommendations for an optimal balance. As the *minimum package of public health services* is established and the resources required to deliver them are ascertained, the public will gain a deeper understanding of how and in what settings public health action at the population level can create greater value and efficiency than can clinical care. This also will inform investment in the public health system and the appropriate allocation between clinical care and population health.

Recommendation 7: Expert panels should be convened by the National Prevention, Health Promotion, and Public Health Council to determine

- **The components and cost of the *minimum package of public health services* at local and state and the cost of main federal functions.**
- **The proportions of federal health spending that need to be invested in the medical care and public health systems.**

The information developed by the panels should be included in the council's annual report to Congress.

FUNDING SOURCES AND STRUCTURES TO BUILD PUBLIC HEALTH

The committee concluded that funding for governmental public health is inadequate, unstable, and unsustainable. There is also considerable imbalance between federal contributions and state and local contributions to public health activity in the United States. The National Health Expenditure Accounts estimate that federal contributions amount to just under 15 percent of the \$77.2 billion in governmental public health spending (\$11.6 billion) in 2009. The \$77.2 billion in total governmental public health spending represents a mere 3 percent of the nation's overall spending on health. Although the data available to estimate the need are characterized by weaknesses and limitations (including inconsistent definitions of public health), the committee made several calculations to arrive at a figure that could serve as a starting point for dialogue on the funding needed to strengthen and advance the governmental public health infrastructure.

Recommendation 8: To enable the delivery of the *minimum package of public health services* in every community across the nation, the committee recommends that Congress double the current federal appropriation for public health, and make periodic adjustments to this appropriation based on the estimated cost of delivering the *minimum package of public health services*.

As discussed in Chapter 2, public health agencies will continue to play a role in assuring the availability of clinical care in their communities. As recommended in the committee's first report (IOM, 2011a), public health departments could work to form partnerships with medical care entities and share information derived from clinical data sources to identify health priorities in their communities. Public health can also collaborate with the clinical care system to inform Americans about the appropriateness, quality, safety, and efficiency of clinical care services delivered in their communities. Reducing the role of governmental public health in direct clinical service delivery could free up general state or local funds in public health budgets that have been allocated to provision of care—apart from funding streams that are specifically allocated for clinical care, such as state or local Medicaid. The newly available funds could be used to build data capacity and other essential public health services in localities. As coverage for health care is extended to the entire population in the course of implementing health care reform, public health departments need to be able to retain for their population-health mission general state and local resources that were previously used to cover clinical care.

Recommendation 9: The committee recommends that state and local public health funding currently used to pay for clinical care that becomes reimbursable by Medicaid or state health insurance exchanges under Affordable Care Act provisions be reallocated by state and local governments to population-based prevention and health promotion activities conducted by the public health department.

The annual appropriations process and frequent fluctuations in funding (such as funding cuts interspersed with increases due to bioterrorism and stimulus legislation) are reducing the ability of public health departments to prevent disease, promote health, and protect the health of their communities in the face of a wide array of threats. The committee reviewed a variety of options for raising funds to support an adequate level of annual funding for governmental public health. A national tax on medical care transactions, which exists in a number of states and has

been used to raise funds to expand access to medical care in Minnesota and Vermont, meets the committee's three criteria for evaluating potential funding sources: ability to raise sufficient funds, pertinence or a link to population health, and low likelihood of deleterious economic effects.

Recommendation 10: The committee recommends that Congress authorize a dedicated, stable, and long-term financing structure to generate the enhanced federal revenue required to deliver the *minimum package of public health services in every community* (see Recommendation 8 above).

Such a financing structure should be established by enacting a national tax on all medical care transactions to close the gap between currently available and needed federal funds. For optimal use of new funds, the Secretary of HHS should administer and be accountable for the federal share to increase the coherence of the public health system, support the establishment of accountabilities across the system, and ensure state and local co-financing.

CONCLUDING OBSERVATIONS

This report has several key messages. First, the committee echoes the widespread concern in the health sector about the increasing costs of medical care and the poor value realized. The United States is first in health spending but far from its peer nations in health outcomes. The committee calls on the nation in the next 20 years to achieve outcomes and control costs that are commensurate with the average of other wealthy nations. That will require changing how the nation invests its health funding. Second, the committee reiterates the finding in its first report that population-based prevention efforts are critical for improving population health and that the public health infrastructure of federal, state and local health departments is qualified to implement such efforts. Third, the public health infrastructure is not funded adequately to carry out its mission, and the ways in which funding is allocated and used require retooling and the application of knowledge derived from better financial information and research. Investment of dividends in the nation's economic productivity and ultimately many small and moderate changes could lead to a more sustainable future for national health spending and could increase healthy-life expectancy. Finally, the committee revisits the notion of a multisectoral health system and reasserts the need for greater collaboration between public health and its clinical care counterparts to improve the outcomes of clinical care and the field's contributions to population health.

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Board on Population Health and Public Health Practice

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*“Knowing is not enough; we must apply.
Willing is not enough; we must do.”*

—Goethe



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This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Research Council's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process. We wish to thank the following individuals for their review of this report:

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Although the reviewers listed above have provided many constructive comments and suggestions, they were not asked to endorse the conclusions or recommendations, nor did they see the final draft of the report before its release. The review of this report was overseen by **Kristine M. Gebbie**, Flinders University and **Donald M. Steinwachs**, Johns Hopkins University. Appointed by the National Research Council and Institute of Medicine, they were responsible for making certain that an independent examination of this report was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this report rests entirely with the authoring committee and the institution.

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Preface

Introduction to the Series of Reports

In 2009, the Robert Wood Johnson Foundation asked the Institute of Medicine (IOM) to convene a committee to examine three topics in relation to public health: measurement, the law, and funding. The committee's complete three-part charge is provided in Box P-1. The IOM Committee on Public Health Strategies to Improve Health explored the topics in the context of contemporary opportunities and challenges and with the prospect of influencing the work of the health system (broadly defined as in the report summary) in the second decade of the 21st century and beyond. The committee was asked to prepare three reports—one on each topic—that contained actionable recommendations for public health agencies and other stakeholders that have roles in the health of the US population. This report is the third and final in the series.

The committee's three tasks and the series of reports prepared to respond to them are linked by the recognition that measurement, laws, and funding are three major drivers of change in the health system. Measurement (with the data that support it) helps specialists and the public to understand health status in different ways (for example, by determinant or underlying cause where national, local, and comparative evidence is available), to understand the performance of the various stakeholders in the system, and to understand the health-related results of investment. Measurement also helps communities to understand their current status, to determine whether they are making progress in improving health, and to set priorities for their next actions. Although the causal chains between actions of the health system and health outcomes are not always clearly elucidated, measurement is a fundamental requirement for the reasons listed above.

BOX P-1 **Charge to the Committee**

Task 1 (completed)

The committee will review population health strategies, associated metrics, and interventions in the context of a reformed health care system. The committee will review the role of score cards and other measures or assessments in summarizing the impact of the public health system, and how these can be used by policy makers and the community to hold both government and other stakeholders accountable and to inform advocacy for public health policies and practices.

Task 2 (completed)

The committee will review how statutes and regulations prevent injury and disease, save lives, and optimize health outcomes. The committee will systematically discuss legal and regulatory authority; note past efforts to develop model public health legislation; and describe the implications of the changing social and policy context for public health laws and regulations.

Task 3 (accomplished in the present report)

The committee will develop recommendations for funding state and local health systems that support the needs of the public after health care reform. Recommendations should be evidence based and implementable. In developing their recommendations the committee will:

- Review current funding structures for public health
- Assess opportunities for use of funds to improve health outcomes
- Review the impact of fluctuations in funding for public health
- Assess innovative policies and mechanisms for funding public health services and community-based interventions and suggest possible options for sustainable funding.

Laws transform the underpinnings of the health system and also act at various points in the complex environments that generate the conditions for health. Those environments include the widely varied policy context of multiple government agencies—such as education, energy, and transportation agencies—and many statutes, regulations, and court cases intended to reshape the factors that improve or impede health. The measures range from national tobacco policy to local smoking bans and from national agricultural subsidies and school nutrition standards to local school-board decisions about the types of foods and beverages to be sold in school vending machines.

Funding that supports the activities of public health agencies is provided primarily by federal, state, and local governments, and it varies widely among states and localities. However, government budgets must balance a variety of needs, programs, and policies, and the budgets draw on different sources (including different types of taxes and fees), depending on jurisdiction. Therefore, the funds allocated to public health depend heavily on how the executive and legislative branches set priorities. Other funding sources support public health activities in the community, including “conversion” foundations that are formed when nonprofit hospitals and health insurers became privatized (such as the California Wellness Foundation). Funds for population health and medical care activities are also provided by community-based organizations that have substantial resources, by not-for-profit clinical care providers, and by stakeholders in other sectors.

The subjects addressed in the committee’s three reports are not independent of each other and, indeed, should be viewed together. For example, measurement of health outcomes and of progress in meeting objectives can provide evidence to guide the development and implementation of public health laws and the allocation of resources for public health activities. Laws and policies often require the collection of data and can circumscribe the uses to which the data are put by, for example, prohibiting access to personally identifiable health information. Similarly, statutes can affect funding for public health through such mechanisms as program-specific taxes or fees. And laws shape the structure of governmental public health agencies, grant them their authority, drive partnerships with other sectors, and influence policy.

In its three reports, the committee has made the case for increased accountability of all sectors that affect health—including the clinical care delivery system, the business sector, academe, nongovernment organizations, communities, the mass media, and various government agencies—with coordination, wherever possible, by the governmental public health agency that is leading or coordinating activities and sectors.

The committee’s first report, released in December 2010, focused on measurement of population health and related accountability at all levels of government. The second report, released in June 2011, reflected the committee’s thinking about legal

and public policy reform on three levels: the public health departments' powers, duties, and limitations as defined in enabling statutes (which that establish their structure, organization, and functioning); the use of legal and policy tools to improve the public's health; and other sectors of government at the national, state, and local levels and diverse private and not-for-profit sector actors. This third report on funding, in a time of declining resources, considers resource needs and approaches to addressing them in a predictable and sustainable manner to ensure a robust population health system.

