I. Introduction

In the last century, Americans’ life expectancy increased 25 years due to advances made in understanding how to safeguard the public’s health. Public health physicians, scientists, and professionals catalyzed scientific and engineering breakthroughs that resulted in sweeping improvements in sanitation, clean drinking water, nutrition, and injury prevention across the nation. These tremendous accomplishments turned what previously seemed like unconquerable acts of nature into preventable illnesses. Diseases like polio, measles, smallpox, and yellow fever were virtually eliminated, and infant and childhood mortality rates were reduced by 90 percent.

The nation’s public health professionals are hard at work looking out for the health of all Americans by:

- Tracking outbreaks of new disease and working to prevent or contain the spread of major infectious diseases such as a flu pandemic;
- Being among the first on the scene in natural disasters or acts of terrorism;
- Working to identify environmental factors contributing to a high incidence of cancer, heart disease, asthma, and other illness;
- Protecting the quality of the air we breathe and the water we drink;
- Monitoring health trends and conditions throughout communities; and,
- Developing communications, outreach, and intervention strategies to help Americans make healthier choices.

These professionals are part of a workforce that implements public health programs which prevent and reduce rates of illness and injury and keep Americans well. They are governmental and non-governmental experts. In the federal government, the Centers for Disease Control and Prevention (CDC) is the most visible agency, the Surgeon General is the best known spokesperson for public health, the Food and Drug Administration (FDA) is recognized as responsible for the safety of drugs and the nation’s food supply, and the Health Resources and Services Administration (HRSA) is relied on to improve access to health care for all. At the state, county, and city levels, the workforce includes directors of public health agencies, and their staffs, who serve critical functions in improving the health of the public. Their mission has never been more important.

Unfortunately, over the past several decades, public health programs at all levels of government have been allowed to decay -- and the consequences could be disastrous. In-depth

2 CDC. Achievements in Public Health, 1900-1999: Control of Infectious Diseases, MMWR 1999/48 (29):621-629
analyses by the Institute of Medicine (IOM), the Government Accountability Office (GAO), and
the CDC show that America’s public health system (its people, information systems,
laboratories, and organizations) has been systematically neglected and is not sufficiently
prepared to respond to such health threats as major infectious disease outbreaks, bioterrorist
attacks, natural disasters, and rising rates of chronic diseases including cancer and heart disease.
We have already seen the warning signs in the difficulty responding to the health challenges of
Hurricane Katrina and the earlier anthrax attacks, and in the increasing disparities in health based
on race, ethnicity, and income.

No less significant, despite spending more on health care than any other developed nation --
with expenditures reaching $1.7 trillion in 2003, or nearly 15 percent of the Gross Domestic
Product -- the United States ranks 12th in a comparison of 13 industrialized countries based on
sixteen health indicators. Illness and disability reduce the productivity of our workforce and,
combined with the cost of health care, our competitiveness in world markets. It is clear that we
need to rethink how we are spending our health dollars.

Modernizing the public health system will require critical advancements in research, and
technologies; a major effort to recruit the next generation of leaders and experts into public
health service at all levels of government; and strong, new partnerships with health care
providers and those in other sectors, such as business, agriculture and transportation, whose work
impacts America’s health.

Our nation can build an effective, modern public health system, but not without the necessary
resources and tools. It is an investment that can no longer be deferred.

The Public Health Leadership Initiative

The Public Health Leadership Initiative (PHLI) brought together leaders from the public
health community and other key sectors to develop an Action Plan to restore and modernize the
public health system (see Appendix A for a list of participants). This Action Plan presents a
vision and framework for a health system for the 21st century -- comprised of governmental
public health agencies and medical care providers working together with other partners with a
role in protecting our health. It identifies some important barriers and obstacles to achieving this
vision, and concludes with a concrete set of practical recommendations to achieve our health
goals in the 21st Century. These recommendations are largely directed at elected officials and
policy makers in Washington, D.C., state capitals, and local governments. However, broad
public support is critical to getting their attention and this Action Plan is also intended to serve as
a call to action to leaders in many other sectors of society who can and must play a critical role in
helping our nation achieve its health goals in the coming century.

II. A Vision and Framework for a Health System in the 21st Century

“Healthy people in healthy communities” is an overarching vision for health in the
United States and was the cornerstone of the Institute of Medicine’s 2003 report The Future of

the Public’s Health in the 21st Century. To achieve this vision in the 21st century we believe all Americans, regardless of where they live or their socioeconomic status should:

- Be equally protected from both natural and human-made health threats;
- Have reliable information to make informed decisions about their own health; and
- Have high quality preventive and curative health care services.

These three goals and the associated role that governmental public health agencies play in achieving them are described in more detail below.

A. Protecting Health

Governmental public health officials have certain fundamental and statutorily defined responsibilities and powers to protect the public’s health. These responsibilities include tracking disease and other threats to the public’s health; preventing communicable diseases; regulating dangerous environmental and workplace exposures; ensuring the safety of water, air, and food; and preparing for and responding to natural or human-made disasters.

While responsibility for protecting the public’s health is often shared with other government agencies and other sectors of society, this category differs from the other two described below because in the arena of protecting health, public health officials typically do have clear leadership roles based on specific statutory, regulatory, and administrative authorities. Assuming they are adequately funded, public health agencies can and should be accountable for these responsibilities to:

- Monitor and act on threats to the public’s health;
- Prepare for and protect the public against health consequences of natural disasters, emerging infections, and terrorism;
- Disseminate information about the effectiveness of various medical procedures and health interventions; and
- Conduct research that enables policy decisions that lead to safer and healthier physical environments.

B. Promoting Health

Promoting health requires a combination of governmental, non-governmental, and voluntary actions. Many of today’s preventable illnesses and health risks, such as heart disease, stroke, diabetes, and obesity, will be best addressed through voluntary actions by individuals, combined with political, policy, and managerial action led by those who have major influence on the social, economic, and environmental factors that influence health. For instance, public health agencies can provide information and guide action that can help reduce the number of avoidable, premature deaths due to chronic diseases, and individuals can engage in healthy behaviors such as physical activity and following a healthy diet.

In order to address these complex health challenges and foster healthy behaviors, governmental public health officials in the 21st century will need adequate resources to:
Catalyze population level interventions to prevent chronic illnesses and premature death, and maximize people’s ability to make healthy choices;

- Provide the science-based evidence necessary to define the nature of health problems and threats, as well as the most effective interventions available;

- Adopt a collaborative, adaptive, and educational approach to policy making and systems change, bringing together those at risk, health care providers and purchasers, and other stakeholders who can contribute to promoting healthier behaviors and taking action to address these types of health threats; and

- Contribute to improved cost-effectiveness of the health care system through increased emphasis on prevention.

C. Provision of Preventive and Curative Quality Health Care Services

To achieve “healthy people in healthy communities” in the U.S., people must have both:

- a) access to preventive and curative health care services (such as smoking cessation and nutrition counseling, and medical, dental, and mental health and substance abuse services); and

- b) a means of evaluating and assuring the quality of those services.

Regardless of the role some public health agencies play in providing safety-net personal medical services, it is essential to focus more broadly on population health. Ideally, in the 21st century, governmental public health agencies will be able to focus on population health rather than the delivery of direct services, and everyone will be provided medical care services by the medical care system. The governmental public health system and medical care system will work together to assure the quality of health care. The responsibilities of each will be clearly defined and adequate resources will be provided to support activities undertaken to assure the quality of health care services in the U.S.

III. Obstacles to Achieving this Vision

There are a variety of barriers and obstacles to achieving this vision for a public health system in the 21st century. Some are very practical (e.g., insufficient funding), some are systemic (e.g., unclear definitions of roles and responsibilities for many actors in public health), and some must be modified to integrate this new vision of how public health should operate. They include:

- The complexity of the health challenges we face as a society. In addition to the health system, health is affected by a diverse set of institutions (business, community, academia, media, etc.) with varying goals, some of which may not even be aware of the direct and indirect health implications of their actions. In addition, it is becoming clear that new challenges such as bioterrorism, emerging infectious diseases such as avian flu, and obesity will not be effectively addressed by the same regulatory methods that helped to achieve a safe food and water supply for our country. Many of our current public health challenges are associated with multiple stakeholders that must coalesce around multi-disciplinary solutions to these complex problems.
Lack of clarity regarding roles and responsibilities of the different levels of governmental public health – local, state, tribal and federal. For largely historical reasons, there is not a universally agreed upon understanding of the roles of each level of government in promoting the public’s health. As a result, there is considerable geographic variation in what services are available to protect individuals. Governance and coordination of public health services need to be improved and enhanced. Without a single person below the Secretary level responsible for all of the public health agencies in the federal government, day-to-day coordination is insufficient. Similarly, public health officers report directly to the governor in some states, but through intermediary officials with diffuse responsibilities in other states. There is also often a disconnect between public health safety net programs and the larger Medicaid and health financing systems, even when housed in the same agency. This results in diffuse leadership, insufficient accountability, and an increasingly demoralized workforce. Enhanced coordination could result in improved health for our nation and would provide decision makers with the information necessary to make informed choices and policies regarding health.

Insufficient funding. It is estimated that 95 percent of health spending goes toward medical interventions and only 5 percent to population based (public health) interventions. Based on studies of per capita expenditures required to support the health of the public, compared with current spending, it is estimated that an additional investment of $1.5-2 billion annually will be required to protect and promote the health of all Americans. To date, the return on investment that would be generated by such support for public health has not been communicated effectively to taxpayers and policy makers.

Insufficient workforce and tools to do the job. The public health workforce is experiencing a classic “brain drain.” About one-fourth of public health workers are eligible for retirement, with many more becoming eligible over the next 5 years, and many experienced officials are being recruited into more lucrative fields. Now is the time to recruit, educate, and train the next generation of public health professionals. However, recruiting new people into the field is challenging due to uncompetitive compensation and lack of appropriate power and authority to achieve public health goals. Training a workforce for a 21st century model for public health requires an expansion of the skills being taught in schools of public health, particularly regarding communication and collaborative styles of leadership, and retraining opportunities are needed for those already in the public health workforce. Unlike other health fields, there are no credentialing requirements for those working in public health; many jurisdictions do not have a minimum public health education requirement for those serving as public health directors. There has been a traditional commitment to federal support for medical and nursing education; there needs to be a similar commitment to public health education.

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In addition, key mechanisms for tracking and identifying new health problems are not in place. While there has been an investment in public health laboratories for homeland security purposes, many remain outdated. Data systems are antiquated, so data gathered and analyzed are not real time, are not truly population based, and are not integrated with other providers of data or even across governmental public health. In fact, legal barriers prevent governmental public health data sharing. Finally, full consideration of the public health value and implications of the transition to electronic medical records is often lacking.

- **Insufficient public health research to make good policy decisions.** The U.S. has made a major commitment to biomedical research, as evidenced by the $28 billion budget for the National Institutes of Health, an amount that has doubled over the last half decade. There has not been a comparable investment in public health research -- from testing health promotion interventions on a broad scale to systems research regarding the most effective means of delivering public health services. A balanced investment strategy is needed in order to support evidence-based decisions about health policy and to translate and apply the findings of biomedical and other health research.

IV. **Recommended Actions and Strategies for Overcoming the Obstacles**

The recommendations that follow are intended to help our nation overcome the obstacles described above and achieve the vision of “healthy people in healthy communities” and goals defined by the *Healthy People*\(^7\) initiative and in IOM reports. We believe that health goals can only be achieved when diverse but interdependent interests, institutions, and individuals work together to address the complex societal problems that underlie and often prevent these goals from being achieved. This transformation will require both leadership and structural changes. In this section we offer our thoughts on the most important changes we believe are necessary to bring about this transformation.

**Leadership and Governance**

Most public health problems require an intergovernmental and multi-sectoral approach. Each level of government, together with private stakeholders, should operate in concert to achieve clearly defined goals for health improvement. A system of overlapping but complementary and shared responsibility among federal, state, tribal, and local governments is necessary. In addition to public health officials, consumers, community-based organizations, health care providers, health care purchasers, businesses, and other relevant players must be engaged in a process that recognizes this new, collaborative model.

To assure this collaborative leadership model, we believe the federal government, in partnership with the states, has an obligation to:

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\(^7\) The *Healthy People* initiative refers to a series of reports – the 1979 Surgeon General's Report, *Healthy People*, *Healthy People 2000* and *Healthy People 2010*. Each provides a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.
Assure the capacity, through funding and, if necessary, technical assistance, for all levels of government to provide essential public health services; Facilitate the formulation of public health goals in collaboration with state and local governments and other relevant stakeholders; Act when health threats may span states, regions, or the whole country; Act where the solution may be beyond the jurisdiction of individual states; and Act when the states simply do not have the expertise or resources to mount an effective response to a natural disaster, bioterrorism event, or an emerging disease outbreak.

States, tribes, and localities have an obligation to:

- Support and fulfill core public health functions such as diagnosing and investigating health threats, informing and educating the public, mobilizing community partnerships, protecting against natural and human-made disasters, and enforcing state health laws;
- Provide relevant information to the public on the community’s health, the availability of the ten essential public health services, and the quality of health care services so that residents can understand how well the health system in a community is addressing population-based concerns. Integrated electronic reporting systems should provide information that is publicly available and utilized by public health departments to work collaboratively with hospitals, physicians, and others to set health goals;
- Work collaboratively with the multiple stakeholders who influence public health at the community level in designing appropriate policies, programs and interventions that address the problems and national health goals and priorities identified by the Intergovernmental Public Health Coordinating Council discussed below; and
- Serve as “laboratories” for addressing complex, poorly understood problems.

In order to implement this collaborative way of doing business and meet these obligations, we make the following recommendations:

1. The federal government should:
   a. Establish an Intergovernmental Public Health Coordinating Council to clarify roles and responsibilities for governmental public health agencies at all levels (federal,
tribal, state, and local). This should be jointly chaired by the Secretary of Health and Human Services (DHHS) and a representative from the participant group of state, tribal, and local health directors, perhaps two or three from each DHHS region, and one from the Territories. The Council should:

- Establish a collaborative, inclusive mechanism and process for setting health goals and priorities for the nation. This process should create a dynamic public dialogue to establish those goals and priorities, create an understanding of what would be required to achieve them, and track progress towards goals when defined;
- Advise the Secretary of DHHS on public health issues;
- Advise the Secretary of DHHS on financing and regulations that affect the governmental public health capacity at the state and local levels;
- Provide a forum for overseeing the development of an incentive-based federal–state-funded system to sustain a governmental public health infrastructure that can assure the availability of essential public health services to every American community and can monitor progress toward this goal (e.g., through report cards);
- Review and evaluate the domestic policies of other cabinet agencies for their impacts on national health outcomes (e.g., through health impact reports) and for their impacts on the reduction and elimination of health disparities; and
- Submit an annual report on their deliberations and recommendations to Congress.

b. Establish a coordinating mechanism within the White House to ensure all federal agencies with health responsibilities are working in a systematic and coordinated manner to achieve the established health goals and priorities. A senior public health advisor to the President and/or an individual on the Domestic Policy Council staff with public health expertise should be delegated with the convening authority of the President to bring together the principals from agencies whose actions affect critical determinants of health, including: Department of Health and Human Services, Office of Personnel Management (federal employee benefits), Department of Labor (regulation of employer-provided health insurance), Department of Veterans Affairs, Department of Defense, Environmental Protection Agency, Department of Homeland Security, Department of Transportation, Department of Commerce, Department of Education, etc.

2. **Governors and local elected representatives** for each state should reexamine the public health structure in place and make adjustments to assure effective delivery of public health functions. Directors of state and local public health departments should have:

- A direct reporting relationship to the lead elected official (e.g., governor, mayor, county executive, etc.) or an Oversight Board with staggered appointments;
- Public health education and/or commensurate experience;
- Budget and management authority over the resources invested in the essential public health functions; and
- A formal role in coordinating public health functions with safety net health care programs such as Medicaid.
3. *Schools and Programs of Public Health, in coordination with other educational institutions*, should provide curriculum and continuing education courses on leadership and convening skills, communication and media relations, politics and policy, and work with public health agencies and others to develop internships and opportunities for their students to experience real world provision of public health services.

**Funding**

To assure that actions can be taken to protect, promote, and provide for the health of the public, there must be a substantial and stable commitment to the public’s health at all levels (e.g. federal, state and local). Funding obligations should be a shared responsibility among federal, state, tribal, and local governments.

4. *Congress and the executive branch*, given the gravity and importance of the situation, should create a Trust Fund for Public Health to provide substantial and stable Federal resources to rebuild the eroded public health infrastructure (e.g. workforce, education, laboratories, data systems, research) and implement core public health functions. Non-governmental trust fund approaches as have been implemented in other countries should also be explored.

5. *The Department of Health and Human Services* should project the amount of funding required by refining and applying existing tools for determining per capita investment needed to build and maintain a public health infrastructure that meets a minimum standard across the nation. In working with the Intergovernmental Public Health Coordinating Council, appropriate matching and maintenance of effort formulas should be developed to define the state and local financial responsibility as part of the increased federal financial commitment to core public health functions.

**Accountability**

Clear measures of accountability to the public are necessary at each level of governmental public health responsibility, as well as for other sectors that contribute to achieving health goals. It is particularly important that organizations/agencies be held accountable when they are receiving public funds in support of their activities. Efforts should be made to evaluate cost effectiveness and to establish a relationship between funding levels and achievement of desired objectives. All affected stakeholders should be involved in the development of appropriate accountability mechanisms and measures.

6. *The federal government, as a condition of funding to state and local health departments*, should require the establishment of and reasonable progress toward accountability mechanisms to include performance standards, accreditation, certification, etc. These should:

   a. Permit the public to judge the progress of the nation, states, and localities toward achieving national and local health goals;
b. Permit the public to assess the quality and impact of public health departments’ programs and policies, as well as the effectiveness of their coordination with other sectors to protect and improve the public’s health and safety;

c. Allow reasonable flexibility for state and local governmental public health agencies in demonstrating how they meet established standards and be designed to help state and local health departments improve performance and meet the standards; and

d. Ensure that the residents in poorly performing jurisdictions do not suffer ill consequences due to local funding limitations.

**Workforce and Education**
A well trained and skilled workforce will be critical to achieving this vision and specific public health outcomes.

7. *State and local governments* should create a salary structure for public health workers that assures that they will attract the best and the brightest to the public health field. To advance the profession, a nation-wide, portable retirement system should be created for public health workers to enable state and local health departments to recruit on a national basis.

8. *The federal government* should support undergraduate and graduate level public health education through a variety of mechanisms, including but not limited to: scholarships, loan repayment programs, and credentialing of public health workers.

**Information Systems**

Modern health data and information systems are critical to enabling the tracking of health threats and identification of effective interventions.

9. *The Department of Health and Human Services* should conduct a systematic analysis of policies affecting public health data sharing and clinical health data.

10. *Federal, state, tribal and local governmental* public health agencies should update their information technology systems in order to make data available (electronically and in other formats) for use in tracking of disease and other threats, preparing and planning for possible threats and disaster response, and for use in health services research. In addition, public health agencies should standardize and disseminate best practices for data collection and integration of public health data with other data collection systems (including data from hospitals, physicians and other health care providers as well as other sectors, e.g. EPA, city planning departments, agriculture, etc.). Data should be collected at scales appropriate to the decisions that will be made (e.g. local, state, tribal, national).

11. *Public health professionals* should play a major role in the development of the National Health Information Infrastructure (NHII) that is being undertaken by the National Committee on Vital and Health Statistics (NCVHS) – including but not limited to the development of data standards and interoperability across various health information systems – as well as in the work of the Office of Health Information Technology. Public
health professionals must also be more actively involved as an electronic medical records (EMR) system is designed to assure that appropriate population-level data are collected.

Science and Research

Maintaining a strong science or evidence base for public health work is critical to assuring that all public health programs are effectively designed and implemented.

12. *The federal government* should continue its lead role as the major funder of public health and biomedical research, lead the development of a stakeholder-driven research agenda, and substantially increase funding for public health research to ensure biomedical and behavioral research findings can be applied to achieve improved health outcomes.

13. *CDC and NIH* should conduct a range of research that supports evidence-based public health practice to promote a better understanding of what interventions work, to what extent and under what circumstances, as well as the return on investment of these interventions. This includes: population based research, translational research, applied public health system research, the role of genomics in public health, and community-based participatory research.

Conclusion

We believe implementation of these recommendations is critical. Currently health care costs continue to skyrocket, without a concomitant improvement in health outcomes. A coherent, well-funded investment strategy for the public health system has the potential to greatly improve the health of Americans by protecting and promoting health and, especially in coordination with our medical care system, increasing efforts to prevent disease while assuring high quality health care. The result of such an investment will be a more cost effective health system and longer, healthier lives for all of us.
The following have signed onto the Action Plan:

Rachel Block, United Hospital Fund
Dr. Georges Benjamin, American Public Health Association
Dr. Jo Ivey Boufford, New York University Wagner School of Public Policy
Shannon Brownlee, New America Foundation
Maureen Byrnes, Human Rights First (Formerly with The Pew Charitable Trusts)
Dr. Lawrence Deyton, Veterans Health Administration, U.S. Department of Veterans Affairs
Dr. Jonathan Fielding, Los Angeles County Department of Health Services
Dr. David Fleming, Bill & Melinda Gates Foundation
Dr. C. Earl Fox, University of Miami (Formerly with Johns Hopkins School of Public Health)
Professor Lawrence Gostin, Georgetown University Law Center
Dr. Peggy Hamburg, NTI
Dr. James J. James, American Medical Association
Dr. James Marks, Robert Wood Johnson Foundation
Dr. Dennis O’Leary, Joint Commission on Accreditation of Healthcare Organizations
Dr. Alonzo Plough, The California Endowment
Dr. Kathleen Toomey, Emory University
Dr. Kenneth Warner, University of Michigan