

INSTITUTE OF MEDICINE

Shaping the Future for Health

THE FUTURE OF THE PUBLIC'S HEALTH IN THE 21ST CENTURY

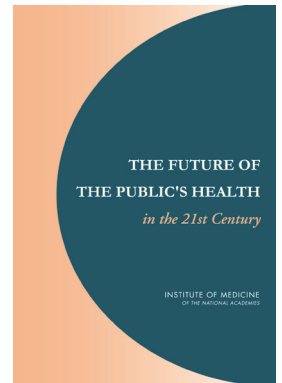
In 1988, the Institute of Medicine (IOM) published its landmark report *The Future of Public Health*. The report defined public health as what society does collectively to assure the conditions for people to be healthy, and presented strong evidence to indicate that the public health system—the organizational mechanism for achieving the best population health—was in disarray. Although the report described the public health system as the governmental public health agencies and “the associated efforts of private and voluntary organizations and individuals,” it focused specifically on ways to strengthen governmental public health infrastructure.

The Committee on Assuring the Health of the Public in the 21st Century was convened with the charge to create a framework for assuring population health¹ in the United States that would be more inclusive than that of the 1988 report and that could be effectively communicated to and acted upon by diverse communities. In the new report, the Committee uses the term “public health system” in a manner that builds on the 1988 usage, but reflects present realities. *The Future of the Public’s Health* examines both the governmental component of the public health system and the potential contributions of other sectors and entities.

AREAS OF ACTION AND CHANGE

The Committee decided to embrace the vision articulated by Healthy People 2010, the health initiative for the nation—*healthy people in healthy communities*. The report focuses on the governmental public health infrastructure and several potential partners in the public health system, namely, the community, the health care delivery system, employers and business, the media, and academia.

¹ Population health (also referred to in this report as *the health of the population*, or *the public’s health*) is the focus of public health efforts. It refers to “the health of a population as measured by health status indicators and as influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development and health services” (Federal, Provincial, Territorial, Advisory Committee on Population Health, 1997).



[T]he Committee decided to embrace the vision articulated by the health initiative for the nation, Healthy People 2010—*healthy people in healthy communities*.

Several areas of action and change are explored, including:

- adopting a focus on population health that includes multiple determinants of health;
- strengthening the public health infrastructure;
- building partnerships;
- developing systems of accountability;
- emphasizing evidence; and
- improving communication.

ACHIEVEMENT AND DISAPPOINTMENT

The health of the American people at the beginning of the 21st century would astonish those living in 1900. By every measure, we are healthier, live longer, and enjoy lives that are less likely to be marked by injuries, ill health, or premature death. In the past century, infant mortality declined and life expectancy increased. Vaccines and antibiotics made once life-threatening ailments preventable or less serious, and homes, workplaces, roads and automobiles became safer. In addition to the many health achievements facilitated by public health efforts, such as sanitation and immunization, unparalleled medical advances and national investment in health care have also contributed to improvements in health outcomes. Roughly 13 percent of our gross domestic product—about 1.3 trillion dollars in 2000, which represents a higher percentage than that of any other major industrialized nation—goes toward health-related expenditures.

Despite leading the world in health expenditures, the United States is not fully meeting its potential in health status and lags behind many of its peers. Although the pathways between health investments and health outcomes require further research, several trends are worth noting, as they may help explain why the nation seems to fall short of its potential. For example, the vast majority of health care spending, as much as 95 percent by some estimates, is directed toward medical care and biomedical research. However, there is strong evidence that behavior and environment are responsible for over 70 percent of avoidable mortality, and health care is just one of several determinants of health. Furthermore, the benefits of our current investments in health care are inaccessible to many due to lack of insurance or access to services.

MULTIPLE DETERMINANTS OF HEALTH

The report presents a heuristic to illustrate the well-supported hypothesis that the health of populations and individuals is shaped by a wide range of factors in the social, economic, natural, built, and political environments. These factors interact in complex ways with each other and with innate individual traits such as gender and genetics. Approaching health from such a broad perspective takes into account the potential effects of social connectedness, economic inequality, social norms, and public policies on health-related behaviors and on health status.

Health care services and biomedical technologies can generally only address the immediate causes of disease—for instance, controlling high blood pressure to prevent heart attacks—and do so on an individual basis. Preventive approaches that focus on populations are likely to have broader impact. Such approaches may include “healthy” policies that support education, adequate housing, a living wage, or clean air. In addition, they can

Despite leading the world in health expenditures, the United States is not fully meeting its potential in health status and lags behind many of its peers.

The report presents a heuristic to illustrate the well-supported hypothesis that the health of populations and individuals is shaped by a wide range of factors in the social, economic, natural, built, and political environments.

address some of the pervasive socio-economic inequities that appear to be associated with profound disparities in health status, access, and outcomes.

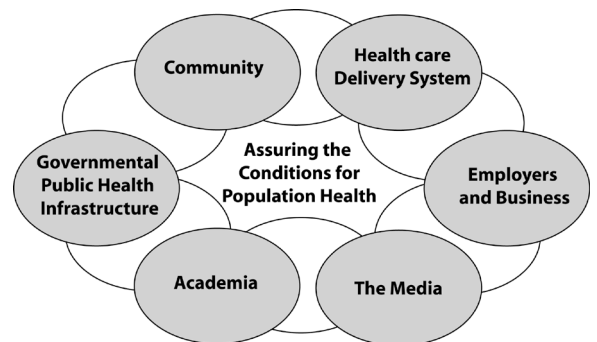
If assuring the conditions that support population health is an important social and political undertaking, as this committee believes, the government and its partners must be committed to a broad array of activities in order to change the conditions for health.

ACTORS IN THE PUBLIC HEALTH SYSTEM

Work on this report began well before the autumn of 2001, but the systemic deficiencies highlighted at that time underscore the report's central message: in order to protect and promote health and well-being, the nation needs a strong governmental public health infrastructure. The glare of a national crisis highlighted the state of the infrastructure with unprecedented clarity to the public and policy makers: outdated and vulnerable technologies; a public health workforce lacking training and reinforcements; antiquated laboratory capacity; lack of real-time surveillance and epidemiological systems; ineffective and fragmented communications networks; incomplete domestic preparedness and emergency response capabilities; and communities without access to essential public health services. Although these problems became apparent in a time of crisis, they gave rise to concerns about the integrity of the day-to-day functioning of the structures that promote and protect the public's health in the face of food safety issues, exotic or reemerging microbes, and escalating chronic disease.

...in order to protect and promote health and well-being, the nation needs a strong governmental public health infrastructure.

Government public health agencies, as the backbone of the public health system, are clearly in need of support and resources, but they cannot work alone. They must build and maintain partnerships with other organizations and sectors of society, working closely with communities and community based organizations, the health care delivery system, academia, business, and the media.



The public health system: government and some of its potential partners
SOURCE: *The Future of the Public's Health* (IOM, 2002)

The health care delivery system plays a vital role in assuring the health of the public. Academic institutions train health and public health workers and conduct essential health-related research. Communities function as both sites where health is supported or undermined and, through their various organizations and constituent entities, as potential partners within a public health system. Business and employers play important roles in shaping population health, not only in the occupational setting, but also through environmental impacts, as members of communities, and as purveyors of products available for mass consumption. The media has tremendous importance as people increasingly purchase, socialize, and gather information through electronic media and the Internet. News and entertainment media also play a major role as shapers and reflectors of popular culture, interests, and priorities.

RECOMMENDATIONS²

The Committee found that the governmental public health infrastructure has been neglected, and an overhaul of its components (e.g., workforce, laboratories, public

² For brevity, recommendations have been abridged. Please refer to the report for the complete text.

health law) is needed to ensure quality of services and optimal performance. Therefore, the Committee recommends:

1. The Secretary of Health and Human Services (HHS), in conjunction with the states, should appoint a national commission to develop a framework for state public health law reform.
2. The federal, state, and local government public health agencies should develop strategies to ensure and support public health worker competency in the public sector and to encourage competency development for private-sector public health workers.
3. Congress should designate funds to support the periodic assessment of workforce preparedness and the provision of needed training.
4. The federal, state, and local government public health agencies should prioritize leadership training, support, and development within government public health agencies and the academic institutions that prepare the workforce.
5. The Secretary of HHS should initiate a broad-based national dialogue to explore perspectives on workforce credentialing outlining next steps based on decisions reached.
6. The federal, state, and local government public health agencies and their partners should recognize communication as a critical core competency of public health practice, and implement steps to enhance communication activities and technologies.
7. The Secretary of HHS should facilitate the development and implementation of the National Health Information Infrastructure (NHII) under the leadership of the Secretary of HHS.
8. The Department of Health and Human Services (DHHS) should regularly assess the state of the nation’s public health system and its capacity to provide the essential public health services to every community.
9. DHHS should evaluate the status of the nation's public health laboratory system, and include an assessment of the impact of recent increased funding.
10. DHHS should develop a comprehensive investment plan for a strong national governmental public health infrastructure, with added infrastructure support from state and local governments.
11. The federal and state governments should renew efforts to experiment with clustering or consolidation of categorical grants for the purpose of increasing local flexibility to address priority health concerns and enhance the efficient use of limited resources.
12. The Secretary of HHS should appoint a national commission to consider if an accreditation system would be useful for improving and building state and local public health agency capacity, and as appropriate, collaborate with state and local governments in its implementation.
13. The Centers for Disease Control and Prevention (CDC) should develop a research agenda and estimate the funding needed to build the evidence base that will guide policy making for public health practice.
14. The Secretary of HHS should review the regulatory authorities of DHHS agencies to maximize effectiveness and collaboration across federal departments and with other state and local health agencies.

15. Congress should establish a National Public Health Council comprised of the Secretary of HHS and state health officers, to provide a forum for communication and collaboration on action to achieve national health goals as articulated in Healthy People 2010.

The committee found that communities have traditionally been passive recipients of services or subjects of research. To fully include communities as potential actors in the public health system and to sustain change in the conditions for health, the committee recommends:

16. Local health departments should support community-led efforts to promote and protect health.
17. Government and private funders of community health initiatives should focus on long-lasting change by supporting ongoing community engagement and leadership through supportive mechanisms and realistic expectations.

The committee found that the health care delivery system and the government public health agencies interface in many areas, but their relationship is often strained or fragmented and inefficient. In recognition of the important role of the health care delivery system in promoting and protecting the public's health, the committee recommends:

18. Adequate population health cannot be achieved without making comprehensive and affordable health care available to every person residing in the United States. The federal government should lead a national effort to examine the options available to achieve stable health care coverage of individuals and families, and to assure the implementation of plans to achieve that result.
19. All public and privately funded insurance plans should include age-appropriate preventive services as recommended by the U.S. Preventive Services Task Force and provide evidence-based coverage of oral health, mental health, and substance abuse treatment services.
20. The federal government and other major investors in health care should support bold, large-scale demonstrations to test radical new approaches to increase the efficiency and effectiveness of health care finance and delivery systems.

The committee found that the corporate community can positively or negatively shape the conditions for health, through employment and the provision of health benefits, through environmental impacts, and through products and services. The committee believes that employers and businesses can play a pivotal role in furthering population health goals, and recommends:

21. The federal government should develop programs to assist small and low-wage employers to purchase health insurance at reasonable rates.
22. The corporate community and public health agencies should engage in joint efforts to strengthen health promotion and disease and injury prevention programs for employees and their communities, including developing communication and information linkages, enhancing the research base, and recognizing business leadership in employee and community health.

The committee found that the entertainment and news media have powerful effects on health behavior and health knowledge. To enhance the potential role of the media in promoting and protecting the public’s health, the committee recommends:

23. Medical and public health officials, editors, and journalists at the local level and their representative associations nationally should engage in ongoing dialogue.
24. Television networks, stations, and cable providers should increase the amount of time they donate to public service announcements (PSAs), as partial fulfillment of the public service requirement in their Federal Communications Commission (FCC) licensing agreements.
25. The FCC should review its regulations for PSA broadcasting on television and radio to ensure a more balanced broadcasting schedule that will reach a greater proportion of the viewing and listening audiences.
26. Public health officials and local and national entertainment media should work together to facilitate the communication of accurate information about diseases and about medical and health issues in the entertainment media.
27. Public health and communication researchers should develop an evidence base of media influences on health knowledge and behavior, as well as on the promotion of healthy public policy.

The committee found that prevention and community-based collaborative research are frequently overlooked by educational institutions and research funders. To strengthen academia’s role within the public health system, through services, research and teaching, the committee recommends:

28. Increasing integrated learning opportunities for students in public health and other related health science professions.
29. Congress should increase funding for Health Resources and Services Administration (HRSA) programs that provide support for public health students, the Public Health Training Center, and the National and Regional Leadership Institutes that train public health and community leaders.
30. Federal funders of research and academic institutions should recognize and reward faculty scholarship related to public health practice research.
31. Congress should increase funding to support the CDC’s in enhancing its investigator-initiated program for prevention research in addition to maintaining a strong program of Centers, Institutes, and Offices (CIO)-generated research.
32. CDC should authorize an analysis of the funding levels necessary for effective Prevention Research Center functioning, taking into account the levels authorized by P.L. 98–551 as well as the amount of prevention research occurring in other institutions and organizations.
33. The National Institutes of Health (NIH) should increase the proportion of its budget allocated to population- and community-based prevention research.
34. Academic institutions should develop criteria for recognizing and rewarding faculty scholarship related to service activities that strengthen public health practice.

The recommendations above are directed to many parties, because in a society as diverse and decentralized as the United States, achieving population health requires contributions from all levels of government, the private business sector, and the variety of institutions and organizations that shape opportunities, attitudes, behaviors, and resources affecting health. Government public health agencies have the responsibility to facilitate and nurture the conditions conducive to good health. But without the active collaboration of other important institutions, they cannot produce the health outcomes envisioned in Healthy People 2010.

COMMITTEE ON ASSURING THE HEALTH OF THE PUBLIC IN THE 21ST CENTURY

JO IVEY BOUFFORD, M.D. (*co-chair*), Professor of Health Policy and Public Service, Robert F. Wagner Graduate School of Public Service, New York University

CHRISTINE K. CASSEL, M.D. (*co-chair*), Dean, School of Medicine, Oregon Health and Science University

KAYE W. BENDER, Ph.D., RN, FAAN, Deputy State Health Officer, Mississippi State Department of Health

LISA BERKMAN, Ph.D., Chair, Department of Health and Social Behavior, Thomas Cabot Professor of Public Policy and Epidemiology, Harvard University School of Public Health

JUDYANN BIGBY, M.D., Associate Professor of Medicine and Director, Community Health Programs, Harvard University School of Medicine

THOMAS A. BURKE, Ph.D., M.P.H., Associate Professor of Environmental Health Policy, Department of Health Policy and Management, Johns Hopkins University School of Hygiene and Public Health

MARK FINUCANE, Principal, Leadership Development Solutions, Health Sciences Advisory Services, Ernst & Young LLP

GEORGE R. FLORES, M.D., M.P.H., Consultant and Public Health Advisor, The California Endowment

LAWRENCE O. GOSTIN, JD, Professor of Law, Georgetown University, Professor of Public Health, Johns Hopkins University, Director, Center on Law and the Public's Health

PABLO HERNANDEZ, M.D., Administrator, Wyoming Mental Health Division

JUDITH R. LAVE, Ph.D., Professor of Health Economics, Graduate School of Public Health, Department of Health Services Administration, University of Pittsburgh

JOHN LUMPKIN, M.D., M.P.H., Director, Illinois Department of Public Health

PATRICIA A. PEYSER, Ph.D., Professor, Department of Epidemiology, University of Michigan School of Public Health

GEORGE STRAIT, Chief Executive Officer, MedComm Inc.

THOMAS W. VALENTE, Ph.D., Associate Professor, Preventive Medicine Director, Master of Public Health Program, Department of Preventive Medicine, University of Southern California School of Medicine

PATRICIA WAHL, Ph.D., Dean, School of Public Health and Community Medicine, University of Washington

LIAISONS FROM THE BOARD ON HEALTH PROMOTION AND DISEASE PREVENTION

GEORGE J. ISHAM, M.D., Medical Director and Chief Health Officer, HealthPartners, Inc., Minneapolis, MN

HUGH H. TILSON, M.D., Dr.P.H., Senior Advisor to the Dean of the School of Public Health, University of North Carolina at Chapel Hill

STAFF

Monica S. Ruiz, Ph.D., M.P.H., Senior Program Officer, Study Director (until June 2002)

Alina Baci, M.P.H., Program Officer

Lyla Hernandez, M.P.H., Senior Program Officer

Rose Marie Martinez, Sc.D., Director, Board on Health Promotion and Disease Prevention

Lori Young, Project Assistant

Rita Gaskins, Administrative Assistant, Board on Health Promotion and Disease Prevention



For More Information...

Copies of *The Future Of The Public's Health in the 21st Century* are available for sale from The National Academies Press; call (800) 624-6242 or (202) 334-3313 (in the Washington metropolitan area), or visit the NAP home page at www.nap.edu. The full text of this report is available at <http://www.nap.edu>

Support for this project was provided by Centers for Disease Control and Prevention (CDC); the National Institutes of Health (NIH), the Health Resources and Services Administration (HRSA); the Substance Abuse and Mental Health Services Administration (SAMHSA); the Department of Health and Human Services (DHHS), Office of the Secretary, Assistant Secretary for Planning and Evaluation (DHHS/OS/ASPE); and the DHHS Office of Disease Prevention and Health Promotion (ODPHP). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the organizations or agencies that provided support for the project.

The Institute of Medicine is a private, nonprofit organization that provides health policy advice under a congressional charter granted to the National Academy of Sciences. For more information about the Institute of Medicine, visit the IOM home page at www.iom.edu.

Copyright ©2003 by the National Academy of Sciences. All rights reserved.

Permission is granted to reproduce this document in its entirety, with no additions or alterations

