Free Executive Summary

The Future of Public Health

Committee for the Study of the Future of Public Health; Division of Health Care Services

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"The Nation has lost sight of its public health goals and has allowed the system of public health to fall into 'disarray'," from The Future of Public Health. This startling book contains proposals for ensuring that public health service programs are efficient and effective enough to deal not only with the topics of today, but also with those of tomorrow. In addition, the authors make recommendations for core functions in public health assessment, policy development, and service assurances, and identify the level of government--federal, state, and local--at which these functions would best be handled.

Summary and Recommendations

WHY STUDY PUBLIC HEALTH

Many of the major improvements in the health of the American people have been accomplished through public health measures. Control of epidemic diseases, safe food and water, and maternal and child health services are only a few of the public health achievements that have prevented countless deaths and improved the quality of American life. But the public has come to take the success of public health for granted. Health officials have difficulty communicating a sense of urgency about the need to maintain current preventive efforts and to sustain the capability to meet future threats to the public's health.

This study was undertaken to address a growing perception among the Institute of Medicine membership and others concerned with the health of the public that this nation has lost sight of its public health goals and has allowed the system of public health activities to fall into disarray. Public health is what we, as a society, do collectively to assure the conditions in which people can be healthy. This requires that continuing and emerging threats to the health of the public be successfully countered. These threats include immediate crises, such as the AIDS epidemic; enduring problems, such as injuries and chronic illness; and impending crises foreshadowed by such developments as the toxic by-products of a modern economy.

These and many other problems demonstrate the need to protect the nation's health through effective, organized, and sustained efforts by the public sector. Unfortunately, the findings of this committee confirm the concerns that led to the study. The current state of our abilities for effective

public health action, as documented in this volume, is cause for national concern and for the development of a plan of action for needed improvements. In the committee's view, we have slackened our public health vigilance nationally, and the health of the public is unnecessarily threatened as a result.

An impossible responsibility has been placed on America's public health agencies: to serve as stewards of the basic health needs of entire populations, but at the same time avert impending disasters and provide personal health care to those rejected by the rest of the health system. The wonder is not that American public health has problems, but that so much has been done so well, and with so little.

The Committee for the Study of the Future of Public Health is keenly aware of the public health system's many achievements and of the dedication and sustained efforts of public health workers across the country. The committee's purpose, however, is to bring the difficulties of public health to the attention of the nation in order to mobilize action to strengthen public health. Successes as great as those of the past are still possible, but not without public concern and concerted action to restore America's public health capacity.

This volume envisions the future of public health, analyzes the current situation and how it developed, and presents a plan of action that will, in the committee's judgment, provide a solid foundation for a strong public health capability throughout the nation.

THE APPROACH

During the past 2 years, the committee has studied America's public health system in detail. It has attempted to see public health in action, as revealed by data and as perceived by those involved in it, both inside and outside public health agencies. It has examined demographic and epidemiologic statistics, agency budgets, organization charts, program plans, statutes, and regulations. It has visited localities in six states and spoken with more than 350 people: state and local health officers, public health nurses, sanitarians, legislators, citizen activists, public administrators, voluntary agency personnel, private physicians, and many others. In addition, public meetings were held in Boston, Chicago, New Orleans, and Las Vegas, as well as a conference in Houston on public health education attended by public health educators and practitioners. Finally, the committee reviewed the history of American public health and visited with health officials in Toronto to glimpse the enterprise as practiced in another country, where universal entitlement to medical care is part of the context for that practice.

THE STATE OF U.S. PUBLIC HEALTH

Throughout the history of public health, two major factors have determined how problems were solved: the level of scientific and technical knowledge; and the content of public values and popular opinions. Over time, public health measures have changed with important advances in understanding the causes and control of disease. In addition, practice was affected by popular beliefs about illness and by public views on appropriate governmental action. As poverty and disease came to be seen as societal as well as personal problems, and as governmental involvement in societal concerns increased, collective action against disease was gradually accepted. Health became a social as well as individual responsibility. At the same time, advances such as the discovery of bacteria and identification of better ways to control and prevent communicable disease made possible effective community action under the auspices of increasingly professional public health agencies.

The Public Health Mission

Knowledge and values today remain decisive elements in the shaping of public health practice. But they blend less harmoniously than they once did. On the surface there appears to be widespread agreement on the overall mission of public health, as reflected in such comments to the committee as "public health does things that benefit everybody," or "public health prevents illness and educates the population." But when it comes to translating broad statements into effective action, little consensus can be found. Neither among the providers nor the beneficiaries of public health programs is there a shared sense of what the citizenry should expect in the way of services, and both the mix and the intensity of services vary widely from place to place.

In one state the committee visited, the state health department was a major provider of prenatal care for poor women; in other places, women who could not pay got no care. Some state health departments are active and well equipped, while others perform fewer functions and get by on relatively meager resources. Localities vary even more widely: in some places, the local health departments are larger and more sophisticated technically than many state health departments. But in too many localities, there is no health department. Perhaps the area is visited occasionally by a "circuit-riding" public health nurse —and perhaps not.

Lack of agreement about the public health mission is also reflected in the diversion in some states of traditional public health functions, such as water and air pollution control, to separate departments of environmental services, where the health effects of pollutants often receive less notice.

In some states, mental health is seen as a public health responsibility, but in many the two are organizationally distinct, making it difficult to coordinate services to multiproblem clients. Some health departments are part of larger departments of "social and health services," where public health scientists find their approaches, which benefit society as a whole, stamped with a negative welfare label.

Such extreme variety of available services and organizational arrangements suggests that contemporary public health is defined less by what public health professionals know how to do than by what the political system in a given area decides is appropriate or feasible.

Professional Expertise and the Political Process

Tension between professional expertise and politics can be observed throughout the nation's public health system. Public health professionals rely on expert knowledge derived from such areas as epidemiology and biostatistics to identify and deal with the health needs of whole populations. A central tenet of their professional ethic is commitment to use this knowledge to fulfill the public interest in reducing human suffering and enhancing the quality of life. Thus their aim is to maximize the influence of accurate data and professional judgment on decision-making—to make decisions as comprehensive and objective as possible.

The dynamics of American politics, however, make it difficult to fulfill this commitment. Decision-making in public health, as in other areas, is driven by crises, hot issues, and the concerns of organized interest groups. Decisions are made largely on the basis of competition, bargaining, and influence rather than comprehensive analysis. The idea that politics can be restricted to the legislative arena, while the work of public agencies remains neutral and expert, has been discredited. Professional analysis and judgment must compete with other perspectives for policy attention and support.

Public health has had great difficulty accommodating itself to these political dynamics. Technical knowledge in fact plays a much more restricted role in public health decision-making than it once did, despite the fact that we now know more. The impact of politics is clearly evident in the rapid turnover among public health officials (the average tenure of a state health officer is now only 2 years); in a marked shift toward political appointees as opposed to career professionals in the top ranks of health agencies; and in the gradual disappearance of state boards of health, which have dwindled by half (from nearly all states to 24) in only 25 years. Too frequently during its investigations, the committee heard legislators and members of the general public castigate public health professionals as paper-shufflers, out of touch

with reality, and caught up in red tape. There is a sharp tendency to take what are perceived as "important" programs (for example, Medicaid and environmental programs) away from health departments. The growing perception of health as big business has led to attempts to take public health "out of the hands of the doctors" by interposing a nonmedical administrator between the health officer and elected officials.

Perhaps because they view their professional knowledge and skills as effective and therefore obviously valuable, public health professionals appear to have been slow in developing strategies to demonstrate the worth of their efforts to legislators and the public. Public health crises, not public health successes, make headlines. A number of well-informed members of the public had only vague ideas about what their local health department did. Without broad support, public health officials appear defensive and self-serving when they attempt to answer the criticisms of legislators or mobilize needed resources. Yet many public health professionals who talked with us seemed to regard politics as a contaminant of an ideally rational decision-making process rather than as an essential element of democratic governance. We saw much evidence of isolation and little evidence of constituency building, citizen participation, or continuing (as opposed to crisis-driven) communications with elected officials or with the community at large.

Public Health and the Medical Profession

The political difficulties of public health are reflected in an especially vivid way in its associations with private medicine. Historically, this has been an uneasy relationship. The discovery of bacteria, which proved such a boon to public health's disease control efforts, also brought it into competition with physicians, inasmuch as control measures such as immunizations were carried out not in the environment but on individual patients, who were the purview of the private doctor. Today, while numerous examples can be found of medical community support for public health activities (witness the American Medical Association's stance on AIDS), too often confrontation and suspicion are evident on both sides. For example, the director of one state medical association characterized the health department as distrustful of physicians and cited the director's effort to push a mandatory data-reporting system through the legislature without consulting the society. The committee found medical leaders who were unaware of public health activities in their communities; yet these same leaders are crucial to the implementation of many public health measures and vital in building political support.

The Knowledge Base and its Application

This summary of the state of U.S. public health began with the observation that both technical knowledge and public values determine how public health is practiced. Clearly, the current impact of public values is troublesome, as political dilemmas attest. But there are also problems on the knowledge front.

Effective public health action must be based on accurate knowledge of the causes and distribution of health problems and of effective interventions. Despite much progress, there are still significant knowledge gaps for many public health problems, for example, the health risks of long-term exposure to certain toxic chemicals or the role of stress in disease.

Because public health is an applied activity, operating under fiscal constraints, it is often difficult to mobilize and sustain necessary research. In our site visits, we found that only one of six states had made a substantial investment in research. Similarly, technical expertise is unevenly distributed: public health employees in some larger states have a considerable skill level, but many others do not. The problem is exacerbated by a shortage of epidemiologists and other trained experts. In many jurisdictions low salary structures and unrewarding professional environments may further inhibit the acquisition of expertise.

In addition, there has been little attention in public health to management as a technical skill in its own right. Management of a public health agency is a demanding, high-visibility assignment requiring, in addition to technical and political acumen, the ability to motivate and lead personnel, to plan and allocate agency resources, and to sense and deal with changes in the agency's environment and to relate the agency to the larger community. Progress in public health in the United States has been greatly advanced throughout its history by outstanding individuals who fortuitously combined all these qualities. Today, the need for leaders is too great to leave their emergence to chance. Yet there is little specific focus in public health education on leadership development, and low salaries and a low public image make it difficult to attract outstanding people into the profession and to retain them until they are ready for top posts.

THE FUTURE OF PUBLIC HEALTH: RECOMMENDATIONS

In conducting this study, the committee has sought to take a fresh look at public health—its mission, its current state, and the barriers to improvement. The committee has concluded that effective public health activities are essential to the health and well-being of the American people, now and in the future. But public health is currently in disarray. Some of the frequently heard criticisms of public health are deserved, but this society has contributed to the disarray by lack of clarity and agreement about the mission of

public health, the role of government, and the specific means necessary to accomplish public health objectives. To provide a set of directions for public health that can attract the support of the total society, the committee has made three basic recommendations dealing with:

- the mission of public health,
- the governmental role in fulfilling the mission, and
- the responsibilities unique to each level of government.

The rest of the recommendations are instrumental in implementing the basic recommendations for the future of public health. These instrumental recommendations fall into the following categories: statutory framework; structural and organizational steps; strategies to build the fundamental capacities of public health agencies—technical, political, managerial, programmatic, and fiscal; and education for public health.

THE PUBLIC HEALTH MISSION, GOVERNMENTAL ROLE, AND LEVELS OF RESPONSIBILITY

Mission

- **The committee defines the mission of public health as fulfilling society's interest in assuring conditions in which people can be healthy.** Its aim is to generate organized community effort to address the public interest in health by applying scientific and technical knowledge to prevent disease and promote health. The mission of public health is addressed by private organizations and individuals as well as by public agencies. But the governmental public health agency has a unique function: to see to it that vital elements are in place and that the mission is adequately addressed.

The Governmental Role in Public Health

- **The committee finds that the core functions of public health agencies at all levels of government are assessment, policy development, and assurance.**

Assessment

- **The committee recommends that every public health agency regularly and systematically collect, assemble, analyze, and make available information on the health of the community, including statistics on health status, community health needs, and epidemiologic and other studies of health problems.** Not every agency is large enough to conduct these activities directly; intergovernmental and interagency cooperation is essential. Nevertheless each agency bears the responsibility for seeing that the assessment function is fulfilled. This basic function of public health cannot be delegated.

Policy Development

- **The committee recommends that every public health agency exercise its responsibility to serve the public interest in the development of comprehensive public health policies by promoting use of the scientific knowledge base in decision-making about public health and by leading in developing public health policy. Agencies must take a strategic approach, developed on the basis of a positive appreciation for the democratic political process.**

Assurance

- **The committee recommends that public health agencies assure their constituents that services necessary to achieve agreed upon goals are provided, either by encouraging actions by other entities (private or public sector), by requiring such action through regulation, or by providing services directly.**
- **The committee recommends that each public health agency involve key policymakers and the general public in determining a set of high-priority personal and communitywide health services that governments will guarantee to every member of the community. This guarantee should include subsidization or direct provision of high-priority personal health services for those unable to afford them.**

Levels of Responsibility

In addition to these functions, which are common to federal, state, and local governments, each level of government has unique responsibilities.

States

- **The committee believes that states are and must be the central force in public health. They bear primary public sector responsibility for health.**
- **The committee recommends that the public health duties of states should include the following:**

  — assessment of health needs in the state based on statewide data collection;
  — assurance of an adequate statutory base for health activities in the state;
  — establishment of statewide health objectives, delegating power to localities as appropriate and holding them accountable;
  — assurance of appropriate organized statewide effort to develop and maintain essential personal, educational, and environmental health services; provision of access to necessary services; and solution of problems inimical to health;
  — guarantee of a minimum set of essential health services; and

— support of local service capacity, especially when disparities in local ability to raise revenue and/or administer programs require subsidies, technical assistance, or direct action by the state to achieve adequate service levels.

Federal

- **The committee recommends the following as federal public health obligations:**

— support of knowledge development and dissemination through data gathering, research, and information exchange;
— establishment of nationwide health objectives and priorities, and stimulation of debate on interstate and national public health issues;
— provision of technical assistance to help states and localities determine their own objectives and to carry out action on national and regional objectives;
— provision of funds to states to strengthen state capacity for services, especially to achieve an adequate minimum capacity, and to achieve national objectives; and
— assurance of actions and services that are in the public interest of the entire nation such as control of AIDS and similar communicable diseases, interstate environmental actions, and food and drug inspection.

Localities

Because of great diversity in size, powers, and capacities of local governments, generalizations must be made with caution. Nevertheless, **no citizen from any community, no matter how small or remote, should be without identifiable and realistic access to the benefits of public health protection, which is possible only through a local component of the public health delivery system.**

- **The committee recommends the following functions for local public health units:**

— assessment, monitoring, and surveillance of local health problems and needs and of resources for dealing with them;
— policy development and leadership that foster local involvement and a sense of ownership, that emphasize local needs, and that advocate equitable distribution of public resources and complementary private activities commensurate with community needs; and
— assurance that high-quality services, including personal health services, needed for the protection of public health in the community are available and accessible to all persons; that the community receives proper consideration in the allocation of federal and state as well as local resources for public health; and that the community is informed about how to obtain public health, including personal health, services, or how to comply with public health requirements.

FULFILLING THE GOVERNMENT ROLE: IMPLEMENTING RECOMMENDATIONS

A number of specific steps should be taken to enable public health agencies to fulfill the functions outlined above. These include modification of public health statutes, changes in the organizational structure, special linkages, strategies for building agency capacity, and improvements in education for public health.

Statutes

- **The committee recommends that states review their public health statutes and make revisions necessary to accomplish the following two objectives:**
  - — clearly delineate the basic authority and responsibility entrusted to public health agencies, boards, and officials at the state and local levels and the relationships between them; and
  - — support a set of modern disease control measures that address contemporary health problems such as AIDS, cancer, and heart disease, and incorporate due process safeguards (notice, hearings, administrative review, right to counsel, standards of evidence).

Organizational Structure

States

As the primary locus for action in the public health arena, states must establish a clear organizational focal point for public health responsibility.

- **The committee recommends that each state have a department of health that groups all primarily health-related functions under professional direction—separate from income maintenance. Responsibilities of this department should include disease prevention and health promotion, Medicaid and other indigent health care activities, mental health and substance abuse, environmental responsibilities that clearly require health expertise, and health planning and regulation of health facilities and professions.**
- **The committee recommends that each state have a state health council that reports regularly on the health of the state's residents, makes health policy recommendations to the governor and legislature, promulgates public health regulations, reviews the work of the state health department, and recommends candidates for director of the department.**

- **The committee recommends that the director of the department of health be a cabinet (or equivalent-level) officer. Ideally, the director should have doctoral-level education as a physician or in another health profession, as well as education in public health itself and extensive public sector administrative experience. Provisions for tenure in office, such as a specific term of appointment, should promote needed continuity of professional leadership.**
- **The committee recommends that each state establish standards for local public health functions, specifying what minimum services must be offered, by what unit of government, and how services are to be financed. States (unless providing local services directly) should hold localities accountable for these services and for addressing statewide health objectives, using the** *Model Standards: A Guide for Community Preventive Health Services* **as a guide.**

Localities

Local circumstances will determine the appropriate balance between state and local responsibilities. But in general the committee prefers delegation of responsibilities to the local level.

- **The committee finds that the larger the population served by a single multipurpose government, as well as the stronger the history of local control, the more realistic the delegation of responsibility becomes: for example, to a large metropolitan city, county, or service district. Two attributes of such a locally responsible system are strongly recommended:**
  - — To promote clear accountability, public health responsibility should be delegated to only one unit of government in a locality. For example, in the case of large cities, public health responsibility should be lodged either in the municipal or the county government, but not both.
  - — Where sparse population or scarce resources prevail, delegation to regional single-purpose units, such as multicounty health districts, may be appropriate. In order to be effective, health districts must be linked by formal ties to, and receive resources from, general-purpose governments.
- **The committee recommends that mechanisms be instituted to promote local accountability and assure the maintenance of adequate and equitable levels of service and qualified personnel.**
- **The committee finds that the need for a clear focal point at the local level is as great as at the state level, and for the same reasons. Where the scale of government activity permits, localities should establish public health councils to report to elected officials on local health needs and on the performance of the local health agency.**

Federal

- **The committee recommends that the federal government identify more clearly, in formal structure and actual practice, the specific officials and agencies with primary responsibility for carrying out the federal public health functions recommended earlier.**
- **The committee recommends the establishment of a task force to consider what structure or programmatic changes would be desirable to enhance the federal government's ability to fulfill the public health leadership responsibilities recommended in this report.**

Special Linkages

The committee finds that environmental health and mental health activities are frequently isolated from state and local public health agencies, resulting in disjointed policy development, fragmented service delivery, lack of accountability, and a generally weakened public health effort.

Environmental Health

The removal of environmental health authority from public health agencies has led to fragmented responsibility, lack of coordination, and inadequate attention to the health dimensions of environmental problems.

- **The committee recommends that state and local health agencies strengthen their capacities for identification, understanding, and control of environmental problems as health hazards. The agencies cannot simply be advocates for the health aspects of environmental issues, but must have direct operational involvement.**

Mental Health

The separation of public health and mental health leads to fragmentation at the service delivery point, to the detriment of clients.

- **The committee recommends that those engaged in knowledge development and policy planning in public health and in mental health, respectively, devote a specific effort to strengthening linkages with the other field, particularly in order to identify strategies to integrate these functions at the service delivery level.**
- **The committee recommends that a study of the public health/mental health interface be done in order to document how the lack of linkages with public health hampers the mental health mission.**

Social Services

In states where public health is part of a "super" department of social services, the income maintenance function tends to detract from communitywide services and give public health a negative welfare image.

- **The committee recommends that public health be separated organizationally from income maintenance, but that public health agencies maintain close working relationships with social service agencies in order to act as effective advocates for, and to cooperate with, social service agency provision of social services that have an impact on health.**

Care of the Indigent

Many public health agencies have become last-resort providers of personal medical care, draining vital resources away from populationwide services.

- **The committee endorses the conclusion of the President's Commission for the Study of Ethical Problems in Medical Care and Biomedical and Behavioral Research that the ultimate responsibility for assuring equitable access to health care for all, through a combination of public and private sector action, rests with the federal government.**
- **The committee finds that, until adequate federal action is forthcoming, public health agencies must continue to serve, with quality and respect and to the best of their ability, the priority personal health care needs of uninsured, underinsured, and Medicaid clients.**

Strategies for Capacity Building

To equip public health agencies to fulfill adequately their assessment, policy development, and assurance functions, it is necessary to go beyond reorganization to build agency competence. The types of competence needed are technical, political, managerial, programmatic, and fiscal. The committee recommends the following steps.

Technical

- **A uniform national data set should be established that will permit valid comparison of local and state health data with those of the nation and of other states and localities and that will facilitate progress toward national health objectives and implementation of** *Model Standards: A Guide for Community Preventive Health Services.*
- **There should be an institutional home in each state and at the federal level for development and dissemination of knowledge, including research and the provision of technical assistance to lower levels of government and to academic institutions and voluntary organizations.**

- **Research should be conducted at the federal, state, and local levels into population-based health problems, including biological, environmental, and behavioral issues. In addition to conducting research directly, the federal government should support research by states, localities, universities, and the private sector.**

Political

- **Public health agency leaders should develop relationships with and educate legislators and other public officials on community health needs, on public health issues, and on the rationale for strategies advocated and pursued by the health department. These relationships should be cultivated on an ongoing basis rather than being neglected until a crisis develops.**
- **Agencies should strengthen the competence of agency personnel in community relations and citizen participation techniques and develop procedures to build citizen participation into program implementation.**
- **Agencies should develop and cultivate relationships with physicians and other private sector representatives. Physicians and other health professionals are important instruments of public health by virtue of such activities as counseling patients on health promotion and providing immunizations. They are important determinants of public attitudes and of the image of public health. Public health leaders should take the initiative to seek working relationships and support among local, state, and national medical and other professional societies and academic medical centers.**
- **Agencies should seek stronger relationships and common cause with other professional and citizen groups pursuing interests with health implications, including voluntary health organizations, groups concerned with improving social services or the environment, and groups concerned with economic development.**
- **Agencies should undertake education of the public on community health needs and public health policy issues.**
- **Agencies should review the quality of "street-level" contacts between department employees and clients, and where necessary conduct in-service training to ensure that members of the public are treated with cordiality and respect.**

Managerial

- **Greater emphasis in public health curricula should be placed on managerial and leadership skills, such as the ability to communicate important agency values to employees and enlist their commitment; to sense and deal with important changes in the environment; to plan, mobilize, and use resources effectively; and to relate the operation of the agency to its larger community role.**

- **Demonstrated management competence as well as technical/ professional skills should be a requirement for upper-level management posts.**
- **Salaries and benefits should be improved for health department managers, especially health officers, and systems should be instituted so that they can carry retirement benefits with them when they move among different levels and jurisdictions of government.**

Programmatic

- **The committee recommends that public health professionals place more emphasis on factors that influence health-related behavior and develop comprehensive strategies that take these factors into account.**

Fiscal

- **The committee recommends the following policies with respect to intergovernmental strategies for strengthening the fiscal base of public health:**

  — Federal support of state-level health programs should help balance disparities in revenue-generating capacities and encourage state attention to national health objectives. Particular vehicles for such support should include "core" funding with appropriate accountability mechanisms, as well as funds targeted for specific uses.

  — State support of local level health services should balance local revenue-generating disparity, establish local capacity to provide minimum levels of service, and encourage local attention to state health objectives; support should include "core" funding. State funds could be furnished with strings attached and sanctions available for noncompliance, and/or general support could be provided with appropriate accountability requirements built in. States have the obligation in either case to monitor local use of state funds.

Education for Public Health

Many educational paths can lead to careers in public health. However, the most direct educational path to a career in public health is to obtain a degree from a school of public health. Many of the 25 schools of public health are located in research universities and thus have a dual responsibility to develop knowledge and to produce well-trained professional practitioners. These dual roles are not always easy to balance.

Many observers feel that some schools have become somewhat isolated from public health practice and therefore no longer place a sufficiently high value on the training of professionals to work in health agencies. The dearth

of professional agency leadership noted by the committee during the study may lend support to this view. The observed variations in agency practice, inadequate salaries, and frequently negative image of public health practice may partly account for any less-than-desirable responses by the educational institutions to the needs of practice.

In addition, most public health workers have no formal training in public health, and their need for basic grounding may not be appropriately met by the degree programs appropriate to prepare people for middleand upper-level positions. To these ends the committee recommends:

- **Schools of public health should establish firm practice links with state and/or local public health agencies so that significantly more faculty members may undertake professional responsibilities in these agencies, conduct research there, and train students in such practice situations. Recruitment of faculty and admission of students should give appropriate weight to prior public health experience as well as to academic qualifications.**
- **Schools of public health should fulfill their potential role as significant resources to government at all levels in the development of public health policy.**
- **Schools of public health should provide students an opportunity to learn the entire scope of public health practice, including environmental, educational, and personal health approaches to the solution of public health problems; the basic epidemiological and biostatistical techniques for analysis of those problems; and the political and management skills needed for leadership in public health.**
- **Research in schools of public health should range from basic research in fields related to public health, through applied research and development, to program evaluation and implementation research. The unique research mission of the schools of public health is to select research opportunities on the basis of their likely relevance to the solution of real public health problems and to test such applications in real life settings.**
- **Schools of public health should take maximum advantage of training resources in their universities, for example, faculty and courses in schools of business administration, and departments of physical, biological, and social sciences. The hazards of developing independent faculty resources isolated from the main disciplinary departments on the campus are real, and links between faculty in schools of public health and their parent disciplines should be sought and maintained.**
- **Because large numbers of persons being educated in other parts of the university will assume responsibilities in life that impact significantly on the public's health, e.g., involvement in production of hazardous goods or the enactment and enforcement of public health laws, schools of public health should extend their expertise to advise and assist with the health content of the educational programs of other schools and departments of the university.**

- **In view of the large numbers of personnel now engaged in public health without adequate preparation for their positions, the schools of public health should undertake an expanded program of short courses to help upgrade the competence of these personnel. In addition, short course offerings should provide opportunities for previously trained public health professionals, especially health officers, to keep up with advances in knowledge and practice.**
- **Because the schools of public health are not, and probably should not try to be, able to train the vast numbers of personnel needed for public health work, the schools of public health should encourage and assist other institutions to prepare appropriate, qualified public health personnel for positions in the field. When educational institutions other than schools of public health undertake to train personnel for work in the field, careful attention to the scope and capacity of the educational program is essential. This may be achieved in part by links with nearby schools of public health.**
- **Schools of public health should strengthen their response to the needs for qualified personnel for important, but often neglected, aspects of public health such as the health of minority groups and international health.**
- **Schools of public health should help develop, or offer directly in their own universities, effective courses that expose undergraduates to concepts, history, current context, and techniques of public health to assist in the recruitment of able future leaders into the field. The committee did not conclude whether undergraduate degrees in public health are useful.**
- **Education programs for public health professionals should be informed by comprehensive and current data on public health personnel and their employment opportunities and needs.**

CONCLUDING REMARKS

This report conveys an urgent message to the American people. Public health is a vital function that is in trouble. Immediate public concern and support are called for in order to fulfill society's interest in assuring the conditions in which people can be healthy. History teaches us that an organized community effort to prevent disease and promote health is both valuable and effective. Yet public health in the United States has been taken for granted, many public health issues have become inappropriately politicized, and public health responsibilities have become so fragmented that deliberate action is often difficult if not impossible.

Restoring an effective public health system neither can nor should be achieved by public health professionals alone. Americans must be concerned that there are adequate public health services in their communities, and

must let their elected representatives know of their concern. The specific actions appropriate to strengthen public health will vary from area to area and must blend professional knowledge with community values. The committee intends not to prescribe one best way of rescuing public health, but to admonish the readers to get involved in their own communities in order to address present dangers, now and for the sake of future generations.

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This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of the appropriate professions in the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 congressional charter responsibility to be an adviser to the federal government and its own initiative in identifying issues of medical care, research, and education.

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COMMITTEE FOR THE STUDY OF THE FUTURE OF PUBLIC HEALTH

RICHARD D. REMINGTON,* *Chairman,* Vice President for Academic Affairs and Dean of the Faculties, University of Iowa, Iowa City, Iowa

DAVID AXELROD,* Commissioner of Health, State of New York Department of Health, Albany, New York

EULA BINGHAM, Professor, Environmental Health, and Vice President for Graduate Studies and Research, University of Cincinnati, Cincinnati, Ohio

JOSEPH BOYLE, Executive Vice President, American Society of Internal Medicine, Washington, D.C.

LESTER BRESLOW,* Professor of Public Health, UCLA School of Public Health; Co-Director, Division of Cancer Control, UCLA Jonsson Comprehensive Cancer Control, University of California, Los Angeles, California

TOBY CITRIN, J. A. Citrin Sons Company, Romulus, Michigan

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ROBERT J. HAGGERTY,* President, William T. Grant Foundation, New York, New York

ROBERT HARMON, Director, Missouri Department of Health, Jefferson City, Missouri

RUTH KNEE, Consultant, Long-Term Mental Health Care, Fairfax, Virginia

* Institute of Medicine member.

STUDY STAFF

* Institute of Medicine member.
† Deceased December 1986.

Preface

In recent years, there has been a growing sense that public health, as a profession, as a governmental activity, and as a commitment of society is neither clearly defined, adequately supported, nor fully understood. Concerns for chronic diseases, geriatric disorders, substance abuse, teen pregnancy, and toxic substances in the environment seem to some critics of public health, both within and outside government, to be inadequately addressed by a public health apparatus originally conceived and constructed to meet a different set of concerns. To many observers, problems of delivery, financing, coverage, and quality of personal health services seem inadequately addressed by health departments and other official agencies.

Yet, many of these critics express the belief that the health problems now facing the public are complex, challenging, and diverse; that they cover a broad spectrum of infectious and chronic diseases; that they demand superior personal and environmental health services; and that they involve preventive, therapeutic, and rehabilitative intervention. This very complexity, when added to the perceived potential vulnerability to new epidemics and environmental hazards of virtually the entire population, lead many observers to conclude that a governmental presence, perhaps an expanded presence, in health has never been more necessary.

But what is the most appropriate nature of that governmental presence? How should government's role relate to that of the private sector? How should governmental responsibility for public health be apportioned among local, state, and federal levels? Should government be the health care provider of last resort or does it have a greater responsibility? Should public health consist only of a necessary residuum of activities not met by private

providers? How should governmental activities directed toward the maintenance of an environment conductive to health be apportioned among various agencies? But above all, just what is public health? What does it include and what does it exclude? Based on an appropriate definition, what kinds of programs and agencies should be constructed to meet the needs and demands of the public, which is often resistant to an increasing role, or at least an increasing cost, of government?

All these questions and more are considered in this report. Its recommendations and conclusions are based on an extensive contemporary assessment of public health as it is now practiced, as well as the opinions of hundreds of individual commentators. But ultimately, when data gathering has been completed, a synthesis and integration of findings must occur. It is this synthesis that has led to the results reported here. It is the hope of the committee, staff, reviewers, the Institute of Medicine, and the sponsors that this report will be helpful in focusing attention upon the public health and some means for its advancement.

RICHARD D. REMINGTON,

Chairman, Committee for the Study of the Future of Public Health

TO BEVERLEE A. MYERS

Beverlee Myers was a member of this committee until her untimely death in December 1986. Her contributions to the formulation and early implementation of the committee's work were extraordinary, even after her final illness was advanced. These contributions reflected her characteristic insight, energy, and dedication to public health. Her remarkable ability to dissect and analyze complex issues, and the coupling of that analysis with her broad experience in public health activities, enabled all of us to see our task more clearly. She was an exemplar of the best in public service. We share with many an appreciation of her accomplishments and a deep sense of loss. We dedicate this report to the memory of Beverlee Myers with affection and respect.

Acknowledgements

The committee thanks the many persons who assisted in the conduct of this study. Without their contributions, the study could not have been accomplished.

First, it thanks the practitioners of public health who shared their time and knowledge. Special thanks go to the several hundred people who welcomed the committee into their communities in the six states it visited. The persons with whom the committee spoke in California, Mississippi, New Jersey, South Dakota, Washington, and West Virginia were gracious, thoughtful, and informative beyond request. Many spent hours patiently explaining public health issues and operations within their communities; others spent considerable time assisting with arrangements for the visits. The insights and information they provided are an important foundation of this report. Another several hundred people from dozens of states spoke at four public meetings. The committee thanks them for their words and thoughts. And the committee thanks the health officials of Toronto, Canada, who provided valuable information on the Canadian public health system. We also thank the many public health educators, public health practitioners, and others concerned with public health who participated in the conference on education and training for public health in Houston, Texas, in March 1987.

The staffs of numerous national organizations, including the Public Health Foundation, the Association of State and Territorial Health Officials, the Association of Schools of Public Health, the American Public Health Association, and others provided assistance, advice, and information crucial to the report. And the staff of the Health Sciences Center of the University of Texas at Houston School of Public Health assisted in sponsoring the conference

on research, education, and training in public health. The staffs of the organizations sponsoring the report—the Kellogg Foundation, the Centers for Disease Control, and the Health Resources and Services Administration—were also unfailingly encouraging and generous with information and assistance.

An additional person must also be thanked for finding and returning notes and drafts that were lost when baggage was stolen at the airport. The committee is grateful to him for his public spirit at a crucial stage in the preparation of the report. Without his assistance, completion of the report would have been considerably more difficult.

The committee would also like to thank its staff. Karl Yordy, Study Director, Camilla Stivers, Associate Study Director, Susan Sherman, Research Associate, and H. Donald Tiller, Administrative Secretary, served with grace, insight, and exceptional diligence in carrying out the complex arrangements for this study and in pursuing the suggestions of the committee.

Finally, the committee would like to state its great gratitude and admiration for the hundreds of people with whom it spoke who have dedicated their lives to protecting the public's health. Without the unflagging commitment of these people, the nation's public health system would not be as successful as it is. While the committee presents many suggestions for improving the public health system in the following report, it is confident that improvements can be made precisely because the individuals who work in the system are so capable. The committee wishes to thank these individuals for their tireless contributions to society.

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