Public Health and the Role of Government in Health Care

This chapter presents the history of governmental efforts to prevent or control the problems of health and disease. Efforts to protect the public’s health, begun in early European history and transferred to Colonial America, are traced, with emphasis on their purpose, motivation, and success. The rise and decline of America’s once elaborate federal, state, and local partnerships in the delivery of public health services are described, as well as the efforts of private and voluntary agencies. Also discussed are the barriers to effective preventive services that result from the lack of a population perspective in the U.S. health care system. The chapter concludes with a discussion of public health challenges and goals, emerging issues, and the changing role of government.

The term “public health” is usually defined broadly as the efforts made by communities to cope with the health problems that arise when people live in groups. Community life creates the need to control the transmission of communicable diseases, maintain a sanitary environment, provide safe water and food, and sustain disabled and low-income populations. ¹

The world history of public health is a fascinating study of civilized society’s attempts to deal with the biologic, social, and environmental forces that have contributed to the pervasive problems of morbidity and
mortality and with the unfortunate citizens who have been handicapped by illness, disability, and poverty. The following observations are presented primarily to set the stage for understanding the development of government’s role in the evolution of public health in the United States.

Throughout history public health activities have reflected the state of knowledge at the time regarding the nature and cause of the diseases that afflict humankind, the practices used for their control or treatment, and the dominant social ideologies of political jurisdictions. From the concepts of spiritual cleanliness and community responsibility codified by the ancient Hebrews for religious reasons to the systems of personal hygiene practiced by the Greeks in an effort to achieve a perfect balance between body and mind, ancient civilizations learned patterns of individual behavior they believed promoted health and reduced the risk of disease. It remained for the Romans, however, to develop public health as a governmental matter beyond individual practice.

The feats of engineering and administrative accomplishments that provided the Romans with clean water and effective sewage and swamp drainage systems were the forerunners of politically sanctioned environmental protections of the public’s health. In addition, the Roman Empire is given credit for establishing a network of infirmaries to treat illness among the disadvantaged populations. These infirmaries are considered to be the first public hospitals.

The medieval period that followed the fall of Rome was characterized by the disintegration of the cities and the return of anarchy. The overpopulated walled towns built to withstand enemy attacks crowded families together in the unhealthiest circumstances. The pest-ridden, unsanitary living conditions and the narrow, dark streets that overflowed with human waste and refuse provided fertile environments for disease epidemics that decimated large segments of those populations. Superstitious, demonic, and theologic theories of epidemic disease displaced ancient concerns for personal hygiene and the quality of the environment.

The Renaissance, however, was characterized by a great revival of learning. Along with advances in art, literature, and philosophy and the rise of industry and commerce, there was a renewed interest in science and medicine. From the 16th to the 18th centuries public health was shaped by two countervailing trends. Although the administration of rudimentary medical and nursing services continued to be the responsibility of towns and other local units, the concept of the modern state was beginning to emerge.
Because only a political jurisdiction that protected and cared for its citizens could reap the continuing economic benefits of production and world trade, healthy laborers and soldiers became valuable commodities. Thus in the centralized national governments of Europe during the 16th and 17th centuries, maintaining the health of laborers and soldiers became important economic, political, and public health concerns.

Public Health in England

Poverty, illness, and disability were common problems in the towns and parishes of England during the 16th and 17th centuries, and most communities responded with some form of publicly supported medical care provided in private homes or at public infirmaries. The Elizabethan Poor Laws of 1601 addressed the issue of the “lame, impotent, old, blind, and such other among them being poor and not able to work” without dealing directly with health matters. The law was expanded subsequently to include the provision of nursing and medical care.

It was also in England that the collection and analysis of national statistics regarding industrial production and demographics began in the 17th century. The work of the father of political arithmetic, William Petty (1623–1687), and the statistical analyses of his friend John Graunt (1620–1674), established the importance of vital statistics and led to such epidemiologic tools as population-specific and disease-specific morbidity and mortality rates, life tables, and the calculus of probability. Study of the vital statistics contained in the Bills of Mortality published weekly in London led to a better understanding of the social phenomena that were factors in the promotion of health and the occurrence of disease.

Of interest, in light of subsequent debates about the merits of national health services, was the proposal of John Bellers, a London merchant and philanthropist (1654–1725). At the turn of the century he proposed dealing with public health problems on a national scale. In An Essay Toward Improvement of Physick, Bellers suggested that the people’s health was too important to the community to be left to the uncertainty of individual initiative. He argued that the health of the people was the responsibility of the state, whose task it was to establish and maintain hospitals and laboratories, erect a national health institute, and provide medical care for the sick.
The Elizabethan Poor Laws obligated each parish in England to maintain its own disadvantaged citizens. Despite a variety of schemes to deal with the health problems of the low-income populations, including the widespread development of workhouses to teach the unemployed to support themselves, the fundamental economic and social problems that led to pervasive poverty remained unsolved. By the 19th century, the industrialization of England had made poverty and social distress more prevalent than ever. It was in that climate that the drastic Poor Law Amendment Act of 1834 was passed. The dual intent was to reduce the rates of dependency and free the labor market to spur industrialization. The law required that able-bodied people and their families be given aid only in well-regulated workhouses.

The circumstances of the new industrial society, factories, and the congested dwellings of urban environments produced new health problems. As people crowded into burgeoning towns and cities, diseases flourished and spread. It was the Poor Law Commission of 1834 under the leadership of Edwin Chadwick that developed the means to address public health problems. Motivated by the belief that it would be good economy to prevent disease, Chadwick advocated the use of carefully collected data to link population characteristics, environmental conditions, and the incidence of diseases.

After many investigations, political debates, and subsequent political compromises, England’s Public Health Act became law in 1848, and a General Board of Health was created. Although the subsequent history of public health in England is a chronicle of social change, epidemics, and political machinations, it is evident that the growth of their sanitary reform movement and the creation of the General Board of Health in 1848 established the British as the world leaders in public health philosophy and practice. Public health in early America was heavily influenced by the medical and administrative experience of the British.²

**Public Health and Government-Supported Services**

The history of public health in the United States from the early colonial period to the end of the 19th century followed the same development pattern as that of England. Yellow fever and cholera epidemics stimulated
sanitary reforms, and the early cities and towns began to assume responsibility for the collective health of their citizens. Public medical care in the United States, however, bore the stigma of its “Poor Law” legacy. The New York Poor Law of 1788 provided that any town or city could establish an almshouse, and within a few years most towns and cities had done so. Although there was a series of shocking exposés of terrible conditions in many of these facilities, the concept of the almshouse and town-employed physicians remained the mainstay of sick people among the low-income population until the depression of the 1930s.

Lemuel Shattuck, a Massachusetts statistician, conducted U.S. sanitary surveys similar to those of Chadwick in England. In his Report of the Sanitary Commission, published in 1850, he documented differences in morbidity and mortality rates in different locations and related them to various environmental conditions. Consequently, he argued, the city or state had to take responsibility for the environment. Although largely ignored at the time of its release, the report has come to be considered one of the most influential documents in the evolution of public health in the United States.\(^3\)

In 1865, emulating the Shattuck survey in Massachusetts, the New York City Council of Hygiene and Public Health published a shocking exposé of unsanitary conditions in the city. Within a year a public health law was passed that created a city board of health. Creating an appropriate administrative structure for local public health efforts became a turning point for public health in the United States.

As in England and other countries, early federal public health initiatives were motivated more by economic and commercial concerns than humanitarian values. For instance, the Public Health Service came into being in 1798 as the Marine Hospital Service when President John Adams signed into law an act providing for the care and relief of seamen who were sick or disabled. Because healthy sailors were a valuable commercial commodity and because the seaport towns took responsibility for only their own citizens, it was left to the federal government to provide health services to the seamen and passengers of the important shipping industry. Additionally, it was of serious concern to the citizens of seaports that the personnel of foreign ships not transmit to them diseases contracted elsewhere.

Soon thereafter the first Marine Hospital was set up in Boston Harbor, and seamen received care in port cities along the East Coast. In 1870, the Marine Hospital Service was reorganized as a national hospital system
with a central headquarters in Washington, DC. The medical officer in charge, known at first as the supervising surgeon, was later given the title of surgeon general. It is significant in light of the commercial motivation for its creation that the Marine Hospital Service was established as a component of the Treasury Department.

In 1889 Congress established the Public Health Service Commissioned Corps. Envisioned as a mobile force of physicians to assist the nation in fighting disease and protecting health, the Corps was set up along military lines, with titles and pay corresponding to Army and Navy grades and physicians subject to duty wherever assigned. In 1891, the bacteriologic laboratory of Dr. Joseph J. Kinyuon in the Staten Island Marine Hospital was moved to Washington, DC, where it was expanded to include pathology, chemistry, and pharmacology. It was the forerunner of the National Institutes of Health, which today provides two-thirds of all federal support for biomedical research in this country.

Eleven years later, in 1902, a new law changed the Marine Hospital Service’s name to the Public Health and Marine Hospital Service. In 1912, the name would be changed again to its present designation: the U.S. Public Health Service. From this modest start, the Public Health Service underwent a series of reorganizations and expansions until it became a major agency of the U.S. Department of Health and Human Services (HHS) and responsible for the largest public health program in the world.

In 1933 it became apparent that state and local governments with limited tax revenues required help from the federal government to provide welfare assistance, and the Federal Emergency Relief Act was passed. It provided federal aid to the states and authorized general medical care for acute and chronic illness, obstetric services, emergency dental extractions, bedside nursing, drugs, and medical supplies. Because participation by the states was optional, the act was not implemented in many parts of the country.

The passage of the Social Security Act of 1935 ended the era of makeshift federal and state programs to meet the health needs of the sick people among the low-income population. Title VI of the landmark Social Security Act of 1935 was instrumental in the expansion of the Public Health Service. The Act delegated to the Public Health Service the authority to assist states, counties, health districts, and other political subdivisions to establish and maintain public health services. Title VI provided the
impetus for all political jurisdictions to create public health agencies and services. After 141 years, the Public Health Service was removed from the Treasury Department to become a component of a new Federal Security Agency, created in 1939 to bring together most of the health, welfare, and educational services scattered throughout the federal government.

During World War II the Public Health Service carried out emergency health and sanitation efforts that contributed substantially to the country’s defense efforts. Immediately thereafter, a critical shortage of medical facilities prompted the passage of the National Hospital Survey and Construction Act, called Hill-Burton after its congressional sponsors. The Act stimulated the growth of the health care industry by providing federal aid to the states for hospital and health center construction. Since 1946, the Public Health Service has provided national leadership in hospital planning, research, and operation. In 1946, the Federal Security Agency also was expanded to include the Children’s Bureau and the Food and Drug Administration.

In 1953, the Public Health Service, with the other components of the Federal Security Agency, became part of the newly created Department of Health, Education and Welfare (HEW). During the next decade the health care industry faced the multiple challenges of coping with a rapidly expanding U.S. population, rising public expectations for health services, and a host of technologic advances in health care with an inadequate supply of health professionals.

HEW responded in 1963 with the Health Professions Educational Assistance Act, which provided grants to build health professional schools, and in 1964 with the Nurse Training Act, which authorized federal aid for construction and rehabilitation of nursing schools and provided loans to nursing students.

The National Institute for Occupational Health and Safety, the National Institute on Alcohol Abuse and Alcoholism, the National Health Service Corps, and major initiatives in addressing cancer and heart, lung, and blood diseases were initiated in the early 1970s. In 1979, the education component of HEW was transferred to a new Department of Education, and HEW was renamed the Department of Health and Human Services.4

Now, with a proposed 2010 budget of $879 billion, the HHS is the federal government’s principal agency concerned with health protection and promotion and provision of health and other human services to vulnerable
populations. In addition to administering the Medicare and Medicaid programs, HHS includes over 300 separate programs\textsuperscript{7} that encompass activities such as

- Medical and social science research
- Infectious disease prevention and control
- Assurance of food and drug safety
- Child support enforcement
- Improvement of maternal and child health
- Management of preschool education services (e.g., Head Start)
- Prevention of child abuse and domestic violence
- Substance abuse prevention and treatment
- Provision of services for older Americans

HHS carries out these activities through the following Public Health Service Operating Divisions\textsuperscript{8}:

1. **National Institutes of Health (NIH):** Established first as a laboratory in 1887, the NIH is the world’s premier medical research organization and includes 18 separate health institutes, the National Center for Complementary and Alternative Medicine, and the National Library of Medicine. The NIH supports over 30,000 research projects on a variety of medical conditions and has a proposed budget for 2010 of almost $31 billion.

2. **Food and Drug Administration (FDA):** This agency is responsible for ensuring the safety of foods and cosmetics and the safety and efficacy of pharmaceuticals, biologic products, and medical devices. Its 2010 proposed budget is $2.10 billion.

3. **Centers for Disease Control and Prevention (CDC):** Established in 1946, the CDC is the primary federal agency responsible for protecting the American public’s health through monitoring disease trends, investigations of outbreaks and health and injury risks, and implementation of illness and injury control and prevention measures. The proposed 2010 budget is over $10 billion.

4. The **Indian Health Service (IHS):** The IHS operates 38 hospitals, 56 health centers, 4 school health centers, and 44 health stations. Through transfers of IHS services operating authority, tribes also administer an additional 13 hospitals, 160 health centers, 3 school health centers, 76 health stations, and 160 Alaska village clinics.
Services are provided to nearly 1.5 million Native Americans and Alaska Natives of 557 federally recognized tribes in Alaska and the 48 contiguous states. The agency has a proposed 2010 budget of almost $5 billion.

6. **Health Resources and Service Administration (HRSA)**: Established in 1982 to provide a coordinated agency for multiple programs serving low-income, uninsured, and medically underserved populations, the HRSA provides funds for comprehensive primary and preventive services through community-based health centers at more than 3,000 sites nationwide. The HRSA also supports maternal and child health programs, programs to increase diversity and numbers of health care professionals in underserved communities, and supportive services for HIV/AIDS victims through the Ryan White Care Act. It has a proposed 2010 budget of over $7 billion.

7. **Substance Abuse and Mental Health Services Administration (SAMHSA)**: The agency works to improve the quality and availability of substance abuse prevention, addiction treatment, and mental health services through federal block grants. It provides a variety of grants to states and local communities to address emerging substance abuse trends, mental health service needs, and HIV/AIDS. The agency’s proposed 2010 budget is over $3.5 billion.

8. **Agency for Healthcare Research and Quality (AHRQ)**: Established in 1989, AHRQ is the lead agency for supporting research to improve the quality of health care, reduce its cost, improve patient safety, address medical errors, and broaden access to essential services. Major activities include sponsoring and conducting research to provide evidence-based information on health care outcomes with respect to quality, costs, uses, and access. The agency’s proposed budget for 2010 is $372 million.

9. **Centers for Medicare & Medical Services (CMS), formerly the Health Care Financing Administration**: This agency administers the Medicare and Medicaid programs. Medicare insures over 40 million Americans, and Medicaid, a joint federal–state program, provides coverage for over 34 million low-income persons, including 18 million children, and nursing home coverage for low-income older adults. It administers the Children’s Health Insurance Program, which covers several million children. The agency has a proposed 2010 budget of $759 billion.
10. *Administration for Children and Families (ACF)*: The ACF administers over 60 programs to promote the economic and social well-being of families, children, individuals, and communities. It administers the state/federal welfare program, Temporary Assistance to Needy Families, national child support enforcement, and the Head Start program. It provides funds to assist low-income families with childcare expenses, supports state programs in adoption assistance and foster care, and funds child abuse and domestic violence prevention programs. The agency has a proposed 2010 budget of almost $16 billion.

11. *Administration on Aging (AoA)*: The federal focal point and advocate agency for older persons, the AoA administers federal programs under the Older Americans Act. Programs assist older persons to remain in their own homes by supporting services such as Meals on Wheels. The AoA collaborates with its nationwide network of regional offices and state and area agencies to plan, coordinate, and develop community-level systems of services that meet needs of older individuals and their caregivers. The agency has a proposed 2010 budget of almost $1.5 billion.

HHS has been the federal government’s largest grant-making agency under the aegis of its various operating divisions. In recent years, however, there has been a sharp reduction in research grants with most research and demonstration activities funded through solicited contracts. Unsolicited research proposals are unlikely to be funded.9

**Veterans Health Administration System**

Initiated to provide care for Civil War veterans who were disabled or indigent, or both, the Veterans Health Administration (VHA) system has grown to become one of the world’s largest health care delivery systems. It currently operates 153 medical centers, 909 ambulatory care and community outpatient clinics, 135 nursing homes, 47 residential rehabilitation treatment programs, 232 Veterans Centers, and comprehensive home care programs.

The VHA maintains major affiliations with 105 medical schools throughout the United States. VHA medical centers also affiliate with 54
dental schools and 1,140 other schools throughout the United States. Each year approximately 90,000 health professionals receive training at VHA medical centers. The VHA also conducts a broad array of world-class clinical and health services research projects.\textsuperscript{10}

Because the VHA system usually has a lifelong relationship with its patients, it has instant access to each patient’s complete medical record, an advantage over private medicine that reduces both costs and medical errors. The long-term relationship also allows more preventive care, higher quality services, and greater patient satisfaction along with monetary savings.\textsuperscript{7}

Through the Department of Defense Military Health Service program, the federal government provides both direct health care services and support for health care services for U.S. military personnel and their dependents, military retirees and their families, and others entitled to Department of Defense benefits.\textsuperscript{11} The Military Health Service operates 98 hospitals and 480 clinics worldwide, primarily servicing active-duty members of the armed forces. Most civilian care is purchased through managed care support contracts implemented under a program entitled TRICARE. Since the “war on terror,” the Department of Defense has not revealed the actual costs of providing medical care to military personnel.

The states also play an important role in funding health care and health-related services. Each year, state and local governments contribute about 14\% of total health care expenditures, including hospital, nursing home, or home health care services.\textsuperscript{12} Many states also operate and fund state mental institutions, support medical schools, maintain health departments that provide direct preventive and primary care services, and support maternal and child health improvement, infectious disease monitoring and control, and other community health initiatives.

City and county government jurisdictions support and deliver general and specialty health care services through their health departments and over 100 hospitals and health systems that together comprise the infrastructure of many of America’s metropolitan health systems. The outpatient and inpatient services of government-supported public hospitals provide a community’s “safety net” for individuals who are uninsured or underinsured and cannot access care elsewhere. Public hospitals also are often the sites of major teaching programs for an area’s medical school. Frequently, they provide services that are financially unattractive to other community hospitals, such as burn care, psychiatric medicine, trauma
care, and crisis response units for both natural and human-made disas-
ters. In addition, city and county health departments may provide
direct patient care services in clinics or health centers, referrals for care,
and other services to meet community needs of their high-risk, medically
underserved populations.

Decline in Influence of the Public
Health Service

Over the years, public health agencies’ many accomplishments have con-
tributed to significant improvements in both the health and life expectancy
of Americans. Using population-based strategies for disease and injury
prevention, public health has contributed to substantial declines in mor-
bidity and mortality and dramatically changed the profiles of disease,
injury, and death in the United States. Yet, despite the centrality of pub-
lic health in providing the basis for the health of Americans, its funding
has always competed with other more highly valued demands in the
health sector.

The several reorganizations of federal public health agencies occurred
in response to continuing criticism of their failure to improve access to at
least minimally adequate medical care to underserved populations. Pressures emanated from public health professionals, medical care organi-
izations, political leaders, and the popular media. Criticism of the Public
Health Service rose in the 1960s when its efforts to provide incentives to
state and local agencies for more innovative approaches to meeting these
demands through categorical and project grants were judged ineffective.
Thus when several new and important programs for improving access to
medical care were passed, agencies other than the Public Health Service
were assigned to administer them. Medicare was assigned to the Social
Security Administration, Medicaid to the Social and Rehabilitation
Services, Head Start and Neighborhood Health Centers to the Office of
Economic Opportunity, and the Model Cities Program to Housing and
Urban Development.

The end of President Johnson’s term of office in 1968 marked the end
of an era in federal health policy. The Nixon administration took issue
with the three-tiered system of the federal Public Health Service, state
health agencies, and local public health departments that was expected to
combine local initiative with policy input and national standards for advancing access to adequate health services. In its place, a new policy, dubbed the “New Federalism,” was initiated. It involved the progressive removal of federal responsibilities for a uniform, cooperative national public health system and the transfer of those responsibilities to the states. It was the beginning, at the federal level, of the Republican strategy of converting federal program support to block grants, reducing the available funds and sending them to the states for administration. Though the effort was relatively unsuccessful during the Nixon–Ford administrations, it was revived in a new and more extreme form when Ronald Reagan was elected in 1980, and public health became the primary target. The decline of the government’s organized system of public health services accelerated thereafter.14

Responsibilities of the Public Health Sector

In 1990, the HHS published Public Health Service: Healthy People 2000: National Health Promotion and Disease Prevention Objectives.15 Objective 8.14 of that document calls for 90% of the population to be served by local health departments that would effectively carry out the three core functions of public health: assessment, policy development, and quality assurance. These core health department functions are intended to put into operation, within the resource and other constraints extant in each jurisdiction, the following generally accepted health department performance responsibilities16:

- Focus on primary prevention: prevention that occurs before the onset of disease. Identify environmental and behavioral factors that are associated with conditions, such as lung cancer or heart disease, and educate the community or protect it from the risk.
- Protect communities from infectious and toxic agents through monitoring or surveillance. Gather information to control and, where possible, prevent health problems resulting from these agents.
- Respond to unanticipated natural and human-generated disasters. Assess health risks posed by contaminated food, water, or air and inform the public and the medical care system of sources of danger and strategies for appropriate response.
Promote the well-being of the public through programs to notify and educate people about risks and protective measures that can be applied at the community level.

Target hard-to-reach populations with clinical services. Create outreach programs to link high-risk populations to medical services to address individual health care need, as well as to interrupt the spread of disease in the community.

Maintain diagnostic laboratory services to support diverse monitoring and prevention programs. These facilities permit identification of emerging threats from infectious agents and environmental toxins. Set and enforce standards for new and existing laboratory tests conducted in medical settings.

Collect information on health outcomes to ensure the quality of services provided through hospitals, nursing homes, and other medical care delivery institutions. Develop referral systems for high-risk perinatal care, and plan regionalization of trauma and cardiac care. Provide aggregate information on health outcomes to inform consumers and medical care professionals about the quality of care being delivered at the community level.

It is through the fulfillment of these public health responsibilities that public health departments protect the public against preventable communicable diseases and exposure to toxic environmental pollutants, harmful products, and poor quality health care. These public health practices promote healthy personal behaviors and risk factor reduction community-wide by identifying and modifying patterns of chronic disease and injury, informing and educating consumers and health care providers about appropriate use of medical services, developing and maintaining comprehensive health programs in schools and child daycare facilities, providing occupational safety and health programs, and ensuring that HIV and sexually transmitted disease prevention programs are implemented. These public health practices are the bedrock foundations of modern population-focused health care.

However, in 1993, a team of investigators from the School of Public Health at the University of Illinois at Chicago, working with representatives of the CDC, surveyed 208 health departments responding from a random national sample stratified by jurisdiction and population base. The findings suggested that less than 40% of the U.S. population was
served by a health department that effectively addressed the core functions of public health.\textsuperscript{17}

Clearly, with resource support for public health continuing to decline, it was not surprising that the United States had failed to meet 85\% of the challenging goals of Healthy People 2000. In the 10-year plan Healthy People 2010 released by the HHS in January 2000,\textsuperscript{18} the government admitted that the nation had met only 15\% of the 319 targets established in 1990. In some areas, particularly obesity, marijuana use, exercise, asthma, and diabetes, the health of Americans either stayed the same or worsened.

Nevertheless, Healthy People 2010, the third set of 10-year targets for health improvement in the United States, set two broad goals, supported by 467 objectives that are grouped into 28 focus areas: to increase the years and quality of health life and to eliminate health disparities.\textsuperscript{19}

These goals and their supporting objectives were developed for the new decade by Healthy People Consortium, a group of 650 national, professional, and voluntary organizations; the business community; and state and local public health agencies. Meetings began in 1996 and the first completed draft of 7,704 pages was posted on the Internet for public comment in September 1998. More than 11,000 comments were received electronically. The recommendations from a series of public hearings and other web-based communications were processed before publication of the final report.

Given the dismal failure to meet the multitudinous objectives of the two previous Healthy People reports, one might question whether the extraordinary effort expended in these highly labor-intensive, expensive, and time-consuming exercises might be better spent in more pragmatic and potentially productive efforts.

In 1985 the Institute of Medicine, concerned about the need to protect the nation’s health through an effective, organized public health sector, convened a special committee to study the status of public health in the United States. The committee reported its findings and recommendations in 1988. The report concluded, “Public health is a vital function that is in trouble.”\textsuperscript{3} In an analysis of the contributing factors, it noted the following:

We have observed disorganization, weak and unstable leadership, a lessening of professional and expert competence in leadership positions, hostility to public health concepts and approaches, outdated statutes, inadequate
financial support for public health activities and public health education, gaps in the data gathering and analysis that are essential to public health functions of assessment and surveillance, and lack of effective links between the public and private sectors for the accomplishment of public health objectives.³

The report linked the poor public image of public health and the public’s lack of knowledge and appreciation for the mission and content of public health to those deficiencies and to a number of other problems. Particular emphasis was placed on the failure of sound policy development in public health as evidenced by ambiguous responses to the AIDS epidemic, the “politicalization” of public health agencies, and the lack of clear delineation of the responsibilities between levels of government.

In 1988, the committee made organizational, educational, financial, and political recommendations for addressing these complex and interrelated problems. Unfortunately, its strategies depended on continuing strong financial support for existing public health agencies and stronger, more sharply focused leadership that could build increasingly productive links with the private and voluntary health care sectors. In the ensuing years the required leadership has not been evident, financial support for public health continued to decline, and public and political support for government public health agencies has further diminished.

Although the goals and objectives of the Healthy People reports are commendable and their definition gives the agencies involved a sense of accomplishment, it should be obvious that the lack of an effective, well-organized public health sector makes the effort an exercise in futility. Clearly, one of the weaknesses of public health is the propensity of its advocates to set arbitrary and usually unobtainable goals rather than face the more difficult challenge of developing the leadership, expertise, and political strength to achieve them.

The September 11 terrorist attacks and the subsequent anthrax incidents revealed public health as ill prepared to provide an effective health defense system. A report of the CDC called for a system of “public health armaments,” including a “skilled professional workforce, robust information and data systems and strong health departments and laboratories.”²⁰

There are serious concerns that the inadequate numbers of skilled public health professionals, such as public health nurses, epidemiologists, laboratory workers, and others, result from public-sector budget restraints and competition with other sectors of the economy. As a result, many
public health employees are inadequately prepared through education and training for the jobs they perform.  

Relationships of Public Health and Private Medicine

Public health and clinical medicine have complementary roles in caring for the health of the American people. Although they often address the same health problems, their attention is directed at different stages of disease or injury. Clinical medicine devotes its most intensive resources to restoring health or palliating disease in relatively small numbers of individuals. Rather than targeting individuals, public health uses strategies that promote health or prevent disease in large populations.  

Unfortunately, the implementation of these roles has been hindered by the often contentious relationship that has existed for decades between public health leadership and the private medical practitioners and their advocacy organization, the American Medical Association. Although the need for curative medicine administered to individuals and the need for preventive measures for the protection of populations have coexisted in all societies since ancient civilizations, and physicians who specialize in public health or preventive medicine have received the same basic medical education as those who pursue the diagnostic and therapeutic specialties, the ideologic differences between them have produced vigorous debate. J. G. Freymann suggests that the reasons for the persistent discord include the identification of public health by practicing physicians with governmental bureaucracy, the linking of the care of low-income populations with welfare, the focus of physicians toward individuals, and the custom of being paid only for active therapy.  

Historically, the different emphasis of the two types of practitioners, that is, the population-based orientation of public health professionals and the individual-centered focus of private health providers, has often divided rather than enhanced public and private health services. The scientific advances in medicine since World War II only served to emphasize the value differences between practitioners with a population perspective and those focused on individual patients. Physicians educated and socialized to a biologic model of medicine that emphasized sophisticated technologies and practice specialization have shown little appreciation for the simpler
organizational measures that reach out to the underserved and provide access to basic health monitoring, preventive care, and primary medical care.

Understandably, individual physicians with the daily responsibility and heavy workloads of caring for waiting rooms full of patients consider that their personal professional efforts fully meet their community or societal obligations. For the most part, they are more than willing to delegate to the public health professionals concerns for the overall health of society and for those who do not have access to their offices.

Opposition to Public Health Services

The history of public health is marked by struggles over the limits of its mandate. Just as the opponents of the several attempts to initiate programs of national health insurance described public health prejudicially as “socialized medicine,” special interest groups are threatened by the perception that public health programs represent subversive social change that constitutes an unjustified intrusion of government into the lives of private individuals.

The medical profession had both philosophical and economic reasons for voicing their concerns. P. Starr observed: “Doctors fought against public treatment of the sick, requirements for reporting cases of tuberculosis and venereal disease, and attempts by public health authorities to establish health centers to coordinate preventive and curative medicine.”

Extending the boundaries of public health was regarded as the opening wedge for usurping the physicians’ role. Physicians opposed disease screening and primary care services, even though they were targeted at the populations with the lowest incomes, because physicians feared that public health agencies were expanding into activities they believed were rightfully their own.

There are, of course, many examples of the synergistic effects of private and public medicine. The immunization of children and adults against a variety of preventable diseases is a good example of how public health and private medical practitioners have worked together effectively. A number of screening programs, such as those for tuberculosis, lung cancer, breast cancer, and hypertension, have linked the personal services of private medicine and the population-oriented practice of public health in productive liaisons.
Resource Priorities Favor Curative Medicine

The allocation of U.S. health resources provides persuasive evidence of the public’s and the professionals’ fascination with dramatic high-technology diagnostic and therapeutic medicine. Despite the centrality of public health in providing basic health programs and the effectiveness and economic advantages inherent in prevention as compared with cure, there is little funding for research or practice for public health promotion or disease prevention. This is in contrast to the large sums that finance the research in and practice of remedial medical care. Less than 1% of the almost $1 trillion spent annually for health care was allocated to government public health activities. In fact, between 1981 and 1993 there were public health imperatives on the emergence of AIDS, the reemergence of tuberculosis and measles, and the escalating problems of substance abuse, violence, and teenage pregnancy. Total U.S. health expenditures increased by more than 210%, whereas funding of public health services as a proportion of the health care budget declined by 25%.16

In 2006, the July/August issue of the prestigious journal Health Affairs was devoted to the “State of Public Health.” In a prologue to one of its published articles, the editors wrote the following:

Public health has always been the neglected stepchild of the U.S. health care system. It subsisted on whatever funding was left over after flashier parts of the system took their cut, and it took on tasks, such as being the provider of last resort for the uninsured and indigent, that no one else was willing to perform. In Washington, D.C., legions of lobbyists in expensive suits frequented congressional hearings on Medicare policies toward physicians or pharmaceutical manufacturers, while public health hearings attracted much smaller crowds and less sartorial splendor. After September 11, 2001, and the anthrax attacks around the country, some $5 billion made its way from Washington to state public health and emergency preparedness systems. Many thought that between this and the reemergence of infectious disease threats, public health’s neglect was a thing of the past. ............. the new money, rather than sparking a long-needed new vision for public health, reinforced the status quo. It flowed according to existing geographic lines, reflecting political, not functional boundaries. States that sought to use the grants in imaginative ways were, ironically, criticized by their local public health agencies.24

Clearly, public health has neither public nor political recognition as an essential and all-encompassing effort to prevent illness and promote
health. Rather, it has a continuing identity problem when people persist in thinking of public health as publicly funded medical care for the poor. And, in the decades since it lost its positive image and financial support, it has failed to develop the leadership to change that image.25

One might expect with the many schools of public health in the United States that offer masters and doctorate degrees in public health there would be a continuing source of future public health officials, leaders with skills in leadership, management, and negotiation. Unfortunately, most such graduates gravitate toward academia, forsaking public health administration for teaching and research. Thus a substantial portion of politically appointed public health officials continue to lack formal public health training.25

Absence of Preventive Care

The current medical care system fails to provide effective preventive services even when they are demonstrated to be the most cost-effective procedures available. In contrast, new treatment technologies are implemented despite serious reservations about their efficacy and cost effectiveness. Thus, with all its groundbreaking research, talented workforce, and technologic know-how, the United States has the distinction of having the world’s most costly and inefficient health care system.26

The major investment in hospital neonatal intensive care units during the last two decades is a dramatic example of the lack of balance in the health care system. Though numerous studies have demonstrated that funds expended for prenatal care of high-risk mothers reduce the number of premature births requiring exceedingly expensive and often futile efforts to save those infants, public subsidies for prenatal care have declined, while more and more costly technology has been introduced to increase the ability to salvage increasingly small and premature infants. For example, the federal Special Supplemental Food Program for Women, Infants, and Children (WIC), which provides supplemental food, nutrition, and health education to low-income pregnant and postpartum women, infants, and children, is estimated, after careful studies, to reduce low-birth-weight rates by 25% and very-low-birth-weight rates by 45%, with Medicaid savings of $4.21 for every WIC dollar spent on pregnant
women. In contrast, neonatal intensive care, although effective in reducing neonatal mortality, is the least cost-effective strategy.\textsuperscript{27}

**Challenge of an Aging America**

These questionable funding priorities will be of critical importance in determining the effectiveness of health care in the future. Just as the preference for support of costly neonatal intensive care units rather than public health programs of prenatal care contributes to the unacceptably high rates of infant mortality in the United States, the focus on remedial medicine for America’s growing older population denies the reality of the changing distribution of illness and disability. The major causes of disease and disability among the increasing numbers of older adults are chronic conditions that result from multiple causes that are not usually amenable to technologic remedies.

Thus, the traditional medical model of clinical practice poorly serves many older individuals. Normal function and the absence of disease characterize the medical definition of health. Health is assumed by the absence of symptoms and signs that the human body is in some state of biologic equilibrium. The accepted medical focus on the biomedical aspects of care with an emphasis on specific diseases and organ systems assumes that nonphysiologic malfunction, such as the inability, common to advancing age, to carry out the roles and tasks of one’s usual social milieu, is not part of health.

Most older patients need a multidisciplinary approach that focuses on overall needs. Attention needs to be paid to managing chronic conditions—helping patients adjust to their limitations and maintain daily functioning within the context of their living arrangement and family and social support.

Unfortunately, the medical and public health systems that evolved from the remarkable scientific achievements since World War I placed their emphases on tests, drugs, surgeries, vaccines, and environmental controls. Personal behaviors were considered either outside the scope of medical care system or immutable to change. Medical insurance companies that rarely reimbursed providers for preventive services in general, and behavioral counseling in particular, reinforced these assumptions.
Hospital-Sponsored Public Health Activities

The market forces that have changed the structure and character of hospitals during the last two decades have stimulated them to initiate or expand a variety of outpatient public health–type services, including community-based and worksite health promotion. This integration of outpatient medical and public health services is a direct response to the pressure placed on hospitals by third-party payers to reduce inpatient admissions and lengths of stay. In many cases acute-care hospitals have added services such as community education on healthy behaviors and risk factor reduction, comprehensive school health programs, preventive health programs in child daycare facilities, community education on chronic disease prevention and management, and occupational safety and health programs. These services have both helped their service populations and provided new sources of much-needed revenue.

Public Health Services of Voluntary Agencies

The role of volunteerism, voluntary agencies, and institutions as adjunct resources and services to those provided by governments and for-profit practices and corporations is a major theme in the evolution of health care in the United States. Private, not-for-profit institutions have been the prevailing mechanism through which health care services in the United States, and with the government, share the responsibilities for meeting the needs of communities and special populations.28

In addition to this country’s not-for-profit hospitals, there are a host of voluntary agencies providing nursing home care, hospice care, home care, medical and vocational rehabilitation, and other personal health care services. A variety of voluntary agencies serves the special needs of persons with specific medical conditions such as AIDS, asthma, diabetes, cerebral palsy, hemophilia, and muscular dystrophy. Similar organizations support research on conditions such as cancer, heart disease, and respiratory disorders. Others, such as the American Red Cross, Planned Parenthood, and Meals on Wheels, focus on providing specific services. Of significant importance is the fact that voluntary agencies provide many valued and effective services that are not prominent in the private medical care sector. Programs directed at health education, disease prevention, disease
detection, health maintenance, rehabilitation, and terminal care have been the province of voluntary not-for-profit agencies.

The influence of large nonprofit foundations, such as the Robert Wood Johnson Foundation and the Pew Charitable Trusts, on the advancement of health care from a population perspective has been considerable. By providing funds on a competitive basis to stimulate research and innovative program demonstrations, these and other foundations have caused hospitals and other agencies, in collaboration with universities and colleges, to engage in progressive health service delivery improvements that may otherwise have been years in development. Particularly commendable is the selection of health care objectives to which those funds are dedicated.

The synergistic effect of government, private, and voluntary efforts has been both a bane and a blessing in the provision of health care in the United States. Our system’s disorderly evolution as a combination of the charitable efforts of voluntary and religious organizations, multilevel government responses to community needs, and traditional U.S. free enterprise ensured the development of a complex network that is both inordinately successful in a technologic sense and plagued by costly inefficiencies, duplications, and inequities in access and quality. Nevertheless, this pluralistic approach, rather than the types of national health care systems common to other industrial societies, appears, at least for the near future, to be the only health care system strategy acceptable to the U.S. people.

Changing Roles of Government in Public Health

For decades, all three levels of government in the United States—federal, state, and local—have played significant roles in financing and regulating public health services and in maintaining agencies and systems that directly or indirectly deliver health care. The federal government surveys the population’s health status and health needs, sets policies and standards, passes laws and regulations, supports biomedical and health services research, provides technical assistance and resources to state and local health agencies, helps finance health care through support of programs (such as Medicare and Medicaid), and delivers personal health care services through networks of facilities (such as those maintained by the
Department of Defense, the Department of Veterans Affairs, and the Administration on Native Americans).³

Public health services in the states are financed, regulated, and delivered through a variety of organizational structures. In some states, public health activities are divided among several entities, including health departments, social service, welfare, aging, and Medicaid. Many states now combine health and social service agencies to create large human service operations that join health and social services for children and youth, for people with developmental disabilities and other special populations, and for special problems such as alcoholism and drug abuse. Most states contribute heavily to the financing of Medicaid, medical education, and public health programs, and to mental health through both community mental health programs and state-operated psychiatric hospitals. States also are involved in regulation through health codes, licensing of facilities and personnel, and supervision of the insurance industry.

Considerable variation exists in the organizational structure of agencies engaged in public health activities in local governmental jurisdictions. Counties, districts, and other local governments may have health, social service, environmental, and mental health departments. They can be independent or divisions of state agencies. Many cities and counties support and operate local health departments, public hospitals, clinics, and various other services. They also establish and enforce local health codes.

Rather than supporting and acknowledging the many benefits of this multilevel configuration of public health agencies that ensure safe food and water, control of epidemic diseases, and programs of care for infants, children, and adults with special needs and, in general, improve the length and quality of life in the United States, the nation has moved toward increased privatization, withdrawn support from public health activities, and allowed the system to fall into disarray. Before the terrorist attacks of September 11, the United States appeared to have lost sight of both the goals and benefits of public health.³

**Public Health in an Era of Privatization and Managed Care**

The market forces affecting hospitals, nursing homes, voluntary agencies, and other institutions of the U.S. health care system are also significantly changing the financial base and functions of public health
departments. The declines in public health funding and the trend toward privatization of those public health services that could be delivered more efficiently outside of local bureaucracies have left many local health departments with minimal staff focused on only the most essential public health services.

Outsourcing to private providers who often had more comprehensive clinical capacity was one of several organizational strategies to contain or reduce costs while maintaining or improving the quality and efficiency of necessary public health services. Survey findings indicate that those health departments merely became smaller while cost savings were rare.\(^{29}\)

With few exceptions, most health departments have maintained their responsibilities for assessing and ensuring the delivery of necessary public health services even though privatized. As might be expected, however, the reduction of health department–delivered services has made it difficult for many departments to maintain a strong community presence. In addition, negotiating with private service entities for the delivery and monitoring of public health services requires staff not customarily employed by public health departments. Health departments now find it necessary to replace service personnel with management staff knowledgeable in contracting and other business-related skills.

**Future Role of Government in Promoting the Public’s Health**

Because the provision of medical treatment and related services accounts for approximately 99% of aggregate national health expenditures, national debate and efforts to reform the U.S. health care system have focused on financing, insurance, and cost containment of treatment. Various estimates suggest that only about 10% of all early deaths can be prevented by medical treatment. In contrast, population-wide public health approaches have the potential to help prevent some 70% of early deaths in the United States through measures targeted to the social, environmental, and behavioral factors that contribute to those deaths.\(^{30}\) Clearly, the value placed on high-technology clinical medicine by individuals, societies, and governments within the United States overwhelms consideration of the more cost-effective, but less dramatic, prevention strategies of public health. Unlike pictures of heart transplant recipients, for example, images of the hundreds of thousands of children who have *not* been crippled and have *not* died due
to poliomyelitis since successful immunization programs have been instituted cannot be shown by the media.

State and local governments struggling with large deficits have considered it necessary to sacrifice the personnel and services of their public health agencies. The shortsightedness of those decisions, however, is becoming increasingly evident. Although there is continued general unhappiness with tax-supported programs and institutions, pressures for improving state and local public health services are developing outside the community of public health advocates. Leaders in business and industry connect a healthy and educated public to economic growth and development. They, and others concerned about the demise of such programs as school health, maternal and child health, water quality, community nutrition, environmental control, and disease control, are rethinking the wisdom of some of these governmental cost-cutting priorities. Private foundations and voluntary agencies are not able to fill the gaps left by the withdrawal of governmental support.

The people and political leaders of the United States are going through an unprecedented reassessment of guiding principles, core values, and funding priorities. Experience with the democratic process suggests that the voting public will respond to legislative and policy errors only after the untoward effects of faulty decisions touch on them personally and significantly.

After the terrorist assaults of September 11, 2001, lawmakers, prodded by the public, recognized that a broader public health infrastructure is required to protect Americans against chemical or biologic attacks. A number of public health defense programs have been proposed that include stockpiling vaccines against anthrax, plague, and smallpox. Of particular importance is the need to prepare health care professionals, hospitals, and other agencies to respond quickly and effectively to threats or actual disasters.\(^3\)

To that end, the largest reorganization of the federal government since World War II took place in April 2003 with the establishment of the Department of Homeland Security (DHS). Twenty-two new and existing governmental agencies that include 180,000 employees were assembled under the leadership of a newly appointed Secretary of Homeland Security. The DHS has the broad mission of strengthening this country’s borders, improving intelligence analyses, infrastructure protection, and comprehensive response and recovery operations should there be a terrorist attack with chemical or biologic weapons.
To help fulfill its mandate, the new department has a host of interlocking governmental relationships with other federal and state units. Among those are liaisons with the NIH, the CDC, the U.S. Public Health Service, the FDA, and other units of the HHS. Most importantly, state and local health departments are expected to play principal roles in prevention of spread or in response and recovery operations should any attacks occur.32

That federal strategy, or lack thereof, has resulted in a series of completely disjointed public health activities and practices across 3,000 local agencies operating under 50 state health departments. Without nationally consistent plans and systems, public health responses will, as occurred during the New Orleans experience, find it difficult to coordinate with other responders such as law enforcement and transportation during disasters that cross political jurisdictions. Clearly, there is no forethought of how national health protection activities should be organized and delivered. The objective of protecting the nation against catastrophic events may have been gravely weakened by leaving local and state health departments to make up their own goals and priorities. After 6 years of preparedness funding, states and localities still lack the guidance and capabilities to develop effective preparedness capabilities.33

Health Care Reform and the Public Health–Medicine Relationship

Important factors in the current effort to reform the U.S. health care system give promise of a more functional future partnership between public health and private practice medicine. The drive by those paying for health care (employers, organized consumers, and governments) for improved measures of health status and system performance and the emphasis on integrated health systems that focus on health improvement for defined populations are creating pressures within the system for more cost-effective, community-driven strategies for combining the resources of public health and networks of personal care services.

Table 10-1 reveals the magnitude of preventable mortality. In total, these causes of death account for 40% of all deaths occurring each year. Tobacco, diet, and sedentary lifestyles are major contributors to early mortality, yet effective medical interventions are not integrated into the practice standards that drive the delivery of medical services.
Both public health leaders and clinicians would need sufficient motivation to improve preventive service rates. Strong external incentives or requirements as well as perceptive internal vision are required to change organizational commitment. A new emphasis on prevention would have to be seen as important for organizational promotion or financial viability before providers would be galvanized to action. The history of public and preventive health services in the United States illustrates, time and again, that the prestige priorities—and profits—in its remedial medicine system lie with diagnosing and treating already existing disease.

Although complementary, if not integrated, systems of public health and medical care services seem like ideal models with which to address the nation’s health care problems of the 21st century, the long-standing differences in philosophy, values, and assumptions between public health and organized medicine are likely to make cooperative ventures difficult. Nevertheless, in the current era of previously inconceivable health system changes, a new and functional relationship driven by mutual needs could develop between these two sectors.

Nevertheless, the fear of bioterrorism and concern for addressing potential epidemics such as evidenced by the response to the potential of a “swine flu” outbreak may provide persuasive motivation to create a system of highly effective public health departments after years of neglect. With proper systems development, operational practices, and personnel who meet high standards of professional preparation and performance, public health departments could achieve high levels of both health promotion and health protection. The next few years will be crucial to the future of public health. If governments at every level do not seize the

### Table 10-1 Deaths from Preventable Causes, USA, Year 2000

<table>
<thead>
<tr>
<th>Cause</th>
<th>Number</th>
<th>Percent of Total U.S. Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>435,000</td>
<td>18.1</td>
</tr>
<tr>
<td>Poor diet/physical inactivity</td>
<td>400,000</td>
<td>16.6</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>85,000</td>
<td>3.5</td>
</tr>
<tr>
<td>Motor vehicle crashes</td>
<td>43,000</td>
<td>1.8</td>
</tr>
<tr>
<td>Firearms</td>
<td>29,000</td>
<td>1.2</td>
</tr>
<tr>
<td>Sexual behaviors</td>
<td>20,000</td>
<td>.08</td>
</tr>
<tr>
<td>Illicit use of drugs</td>
<td>17,000</td>
<td>.07</td>
</tr>
<tr>
<td>Total preventable deaths</td>
<td>1,029,000</td>
<td>41.35</td>
</tr>
</tbody>
</table>

moment to create vibrant and effective systems of public health practice, the opportunity will be lost.

References