CHAPTER 4

Law, Government, and Public Health

Learning Objectives

After completing Chapter 4, learners will be proficient in describing the role of law and government in promoting and protecting the health of the public and in identifying specific functions and roles of governmental public health agencies in ensuring population health. Key aspects of this competency expectation include

- Identifying strategies used by governments to influence the health status of their citizens
- Describing how various forms of law contribute to government's ability to influence health
- Describing the basic administrative law processes carried out by public health agencies
- Identifying the various federal health agencies and describing their general purpose and major activities
- Identifying different approaches to organizing health responsibilities within state government
- Describing common features of local health departments in the United States
- Discussing implications of different approaches among states to carrying out public health's roles

Public health is not limited to what governmental public health agencies do, although this is a widely held misperception among those inside and outside the field. Still, particular aspects of public health rely on government. For example, the enforcement of laws remains one of those governmental responsibilities important to the public's health and public health practice. Yet, law and the legal system are important for public health purposes above and beyond the enforcement of laws and regulations. Laws at all levels of government bestow the basic powers of government and distribute these powers among various agencies, including public health agencies. Law represents governmental decisions and their underlying collective social values; it provides the basis for actions that influence the health of the public.

Decisions and actions that take place outside the sphere of government also influence the health of the public, perhaps even more than those made by our elected officials and administrative agencies. Private sector and voluntary organizations play key roles in identifying factors important for health and advancing actions to promote and protect health for individuals and groups. Public health involves collective decisions and actions, rather than purely personal ones; however, it is often governmental forums that raise issues, make decisions, and establish priorities for action. Many governmental actions reflect the dual roles of government often portrayed on official governmental seals and vehicles of local public safety agencies—to protect and to serve. As they relate to health, the genesis of these two roles lies in separate, often conflicting, philosophies and legacies of government. This chapter will examine how these roles are organized in the United States. This examination particularly emphasizes the relationships among law, government, and public health, seeking answers to the following questions:

- What are the various roles for government in serving the public's health?
- What is the legal basis for public health in the United States?
- How are public health responsibilities and roles structured at the federal, state, and local levels?

To review the organization and structure of governmental public health, this chapter, unlike the history briefly traced in Chapter 1, will begin with federal public health roles and activities, to be followed, in turn, by those at the state and local levels. The focus is primarily on form and structure, rather

than function. In most circumstances, it is logical for form to follow function. Here, however, it is necessary to understand the legal and organizational framework of governmental public health as part of the context for public health practice. The framework established through law and governmental agencies is a key element of the public health's infrastructure and one of the basic building blocks of the public health system. This structure is a product of our uniquely American approach to government.

AMERICAN GOVERNMENT AND PUBLIC HEALTH

Former Speaker of the U.S. House of Representatives, Tip O'Neil, frequently observed, "all politics is local." If this is so, public health must be considered primarily a local phenomenon, as well, because politics are embedded in public health processes. After all, public health represents collective decisions as to which health outcomes are unacceptable, which factors contribute to those outcomes, which unacceptable problems will be addressed in view of resource limitations, and which participants need to be involved in addressing the problems. These are political processes, with different viewpoints and values being brought together to determine which collective decisions will be made. All too often, the term politics carries a very different connotation, one frequently associated with overtones of partisan politics. However, political processes are necessary and productive, and perhaps the best means devised by humans to meet our collective needs.

The public health system in the United States is a product of many forces that have shaped governmental roles in health. The framers of the U.S. Constitution did not plan for the federal government to deal directly with health or, for that matter, many other important issues. The word *health* does not even appear in that famous document, relegating health to the group of powers reserved to the states or the people. The Constitution explicitly authorized the federal government to promote and provide for the general welfare (in the Preamble and Article I, Section 8) and to regulate commerce (also in Article I, Section 8). Federal powers evolved slowly in the area of health on the basis of these explicit powers and subsequent U.S. Supreme Court decisions that broadened federal authority by determining that additional powers are implied in the explicit language of the Constitution.

The initial duties to regulate international affairs and interstate commerce led the federal government to concentrate its efforts on preventing the importation of epidemics and assisting states and localities, upon request, with their episodic needs for communicable disease control. The earliest federal health unit, the Marine Hospital Service, was established in 1798, partly to serve merchant seamen and partly to prevent importation of epidemic diseases; it evolved over time into what is now the U.S. Public Health Service (PHS).

The power to promote health and welfare, however, did not always translate into the ability to act. The federal government acquired the ability to raise significant financial resources only with the authority to levy a federal tax on income, provided by the 16th Amendment in the early 20th century. The ability to raise vast sums generated the capacity to address health problems and needs through transferring resources to state and local governments in various forms of grants-in-aid. Despite its powers to provide for the general welfare and regulate commerce, the federal government could not act directly in health matters; it could act only through states as its primary delivery system. After 1935, the power and influence of the federal government grew rapidly through its financial influence over state and local programs, such as the Hospital Services and Construction (Hill-Burton) Act of 1946 and, after 1965, through its emergence as a major purchaser of health care through Medicare and Medicaid. As for a public health presence at the federal level, the best-known and most widely respected federal public health agency, now known as the Centers for Disease Control and Prevention (CDC), was not established until 1946.[1]

The emergence of the federal government as a major influence in the health system displaced states from a position they had held since before the birth of the American republic. States were sovereign powers before agreeing to share their powers with the newly established federal government; their sovereignty included powers over matters related to health emanating from two general sources. First, they derived from the so-called police powers of states, which provide the basis for government to limit the actions of individuals in order to control and abate hazards and nuisances. A second source for state health powers lay in the expectation for government to serve those individuals unable to provide for themselves. This expectation had its roots in the Elizabethan Poor Laws and carried over to states in the new American form of government. Despite this common heritage, states assumed these roles quite differently and at different points in time because the evolution of states themselves during the 19th century took place unevenly.

States developed structures and organizations needed to use their police powers to protect citizens from communicable diseases and environmental hazards, primarily from wastes, water, and food. State health agencies developed first in Massachusetts, then across the country, during the latter half of the 19th century. When federal grants became available, especially after 1935, states eagerly sought out federal funding for maternal and child health services, public health laboratories, and other basic public health programs. In so doing,

states surrendered some of their autonomy over health issues. Priorities were increasingly dictated by federal grants tied to specific programs and services. It is fair to say that the grantor-grantee arrangement has never been fully satisfactory to either party, and the results in terms of health, welfare, education, and environmental policy suggest that better frameworks may be possible.

States possess the ultimate authority to create the political subunits that provide various services to the residents of a particular jurisdiction. In this manner, counties, cities, and other forms of municipalities, townships, boroughs, parishes, and the like are established. Special-purpose districts for every conceivable purpose—from library services and mosquito control to emergency medical services and education—have also abounded. The powers delegated to or authorized for all of these local jurisdictions are established by state legislatures for health and other purposes. Although many big-city health departments were established prior to the establishment of their respective state health agencies, states are free to use a variety of approaches to structuring public health roles at the local level. Because most states use the county form of subdividing the state, counties became the primary local governmental jurisdictions with health roles after 1900.

State constitutions and statutes impart the authority for local governments to influence health. This authority comes in two forms: those responsibilities of the state specifically delegated to local governments and additional authorities allowed through home rule powers. Home rule options permit local jurisdictions to enact a local constitution or charter and to take on additional authority and powers, such as the ability to levy taxes for local public health services and activities.

Counties generally carry out duties delegated by the state. More than two thirds of U.S. counties have a county commission form of government, with anywhere from 2 to 50 elected county commissioners (supervisors, judges, and other titles are also used).[2] These commissions carry out both legislative and executive branch functions, although they share administrative authority with other local elected officials, such as county clerks, assessors, treasurers, prosecuting attorneys, sheriffs, and coroners. Some counties—generally, the more populous ones—have a county administrator accountable to elected commissioners, and a small number of counties (less than 5%) have an elected county executive. Elected county executives often have veto power over the county legislative body; home rule jurisdictions are more likely to have an elected county executive than are other counties.

Local governments in U.S. cities were first on the scene in terms of public health activities, as noted in Chapter 1. Big-city health agencies remain an important force in the public health system in the United States. However, after about 1875 when states became more extensively involved, the relative role of municipal governments began to erode. Both local and state governments were overwhelmed by the availability of federal funding in comparison with their own resources, finding it easier to take what they could get from the federal government rather than generating their own revenue to finance needed services.

Many forces have been at work to alter the initial relationships among the three levels of government for health roles, including

- Gradual expansion and maturation of the federal government
- Staggered addition of new states and variability in the maturation of state governments
- Population growth and shifts over time
- Ability of the various levels of government to raise revenues commensurate with their expanding needs
- Growth of science and technology as tools for addressing public health and medical care needs
- Rapid growth of the U.S. economy
- Expectations and needs of American society for various services from their government[3,4]

The last of these factors is perhaps the most important. For the first 150 years of U.S. history, there was little expectation that the federal government should intervene in the health and welfare needs of its citizenry. The massive need and economic turmoil of the Great Depression years drastically altered this longstanding value as Americans began to turn to government to help deal with current needs and future uncertainties.

The complex public health network that exists today evolved slowly, with many different shifts in relative roles and influence. Economic considerations and societal expectations, both reaching a critical point in the 1930s, set the tone for the rest of the 20th century. In general, power and influence were initially greatest at the local level, residing there until states began to develop their own machinery to carry out their police power and welfare roles. States then served as the primary locus for these health roles until the federal government began to use its vast resource potential to meet changing public expectations in the 1930s. Federal grant programs for public health and, eventually, personal healthcare service programs soon drove state actions, especially after the 1960s. It was then that several new federal health and social service programs were targeted directly to local governments, bypassing states. At the same time, a new federal-state partnership for the medically indigent (Medicaid) was established to address the national policy concern over the plight of the medically indigent.

Political and philosophical shifts since about 1980 are altering roles once again.[3] Debates over federal versus state roles continued throughout the decades between 1980 and 2010, initially resulting in some diminution of federal influence and enhancement of state influence. However, there has been an expansion of the federal role in the health reform legislation enacted in 2010. In the end, the federal government has acquired the ability to influence the health system through its fiscal muscle power, as well as its research, regulatory, technical assistance, and training roles.

PUBLIC HEALTH LAW

One of the chief organizing forces for public health lies in the system of law. Law has many purposes in the modern world, and many of these are evident in public health laws. Unfortunately, there is no one repository where the entire body of law, even the body of public health law, can be found. This has occurred because laws are products of the legal system, which, in the United States, includes a federal system and 50 separate state legal systems. These developed at different times in response to somewhat different circumstances and issues. Common to each is some form of a state constitution, a considerable amount of legislation, and a substantial body of judicial decisions. If there is any road map through this maze, it lies in the federal and state constitutions, which establish the basic framework dividing governmental powers among the various branches of government in ways that allow each to create its own laws.

As a result, four different types of law can be distinguished by virtue of their form or authority:

- Constitutionally based law
- Legislatively based law
- Administratively based law
- Judicially based law

This framework still allows latitude for judicial interpretation and oversight. A brief description of each of these forms of law follows.

Types of Law

Constitutional law is ultimately derived from the U.S. Constitution, the legal foundation of the nation, in which the powers, duties, and limits of the federal government are established. States basically gave up certain powers (e.g., defense, foreign diplomacy, printing money), ceding these to the federal government while retaining all other powers and duties. Health is not one of those powers explicitly bestowed upon the federal government. The federal constitution also included a Bill of Rights intended to protect the rights of individuals from abuses by their government. States, in turn, have developed their own state constitutions, often patterned after the federal framework, although state constitutions tend to be more clear and specific in their language, leaving less room and need for judicial interpretation. State constitutions provide the broad framework from which states determine which activities will be undertaken and how those activities will be organized and funded. These decisions and actions come in the form of state statutes.

Statutory (legislatively based) law includes all of the acts and statutes enacted by Congress and the various state and local legislative bodies. This collection of law represents a wide range of governmental policy choices, including

- Simple expressions of preferences in favor of a particular policy or service (such as the value of home visits by public health nurses)
- Authorizations for specific programs (such as the authority for local governments to license restaurants)
- Mandates or requirements for an activity to occur or, alternatively, to be prohibited (such as requiring all newborns to be screened for specific metabolic diseases or prohibiting smoking in public places)
- Providing resources for specific purposes (such as the distribution of medications to patients with acquired immune deficiency syndrome)

If the legislative intent is for something to occur, the most effective approaches are generally to require or prohibit an activity.

The basic requirement for statutory-based laws is that they must be consistent with the U.S. Constitution and, for state and local statutes, with state constitutions as well. State laws also establish the various subunits of the state and delineate their responsibilities for carrying out state mandates, as well as the limits of what they can do. At the local level, the legislative bodies of these subunits (e.g., city councils and county commissions) enact ordinances and statutes setting forth the duties and authorizations of local government and its agencies. Laws affecting public health are created at all levels in this hierarchy, but especially at the state and local levels. Among other purposes, these laws establish state and local boards of health and health departments, delineate the responsibilities of these agencies, including their programs and budgets, and establish health-related laws and requirements. Many of these laws are enforced by governmental agencies.

Administrative law is law promulgated by administrative agencies within the executive branch of government. Rather

than enact statutes that include extensive details of a professional or technical nature and to allow greater flexibility in their design and subsequent revision, administrative agencies are provided with the authority to establish law through rulemaking processes. These rules, administrative law, carry the force of law and represent a unique situation in which legislative, judicial, and executive powers are carried out by one agency. Administrative agencies include cabinet-level departments, as well as other boards, commissions, and the like that are granted this power through an enactment of the legislative body.

The fourth type of law is judicial law, also known as common law. This includes a wide range of tradition, legal custom, and previous decisions of federal and state courts. To ensure fairness and consistency, previous decisions are used to guide judgments on similar disputes. This form of law becomes especially important in areas in which laws have not been codified by legislative bodies. In public health, nuisances (unsanitary, noxious, or otherwise potentially dangerous circumstances) are one such area in which few legislative bodies have specified exactly what does and what does not constitute a public health nuisance. In this situation, the common law for nuisances is derived from previous judicial decisions. These determine under what circumstances and for what specific conditions a public health official can take action, as well as the actions that can be taken.

Purposes of Public Health Law

Two broad purposes for public health law can be described: protecting and promoting health and ensuring the protection of rights of individuals in the processes used to protect and promote health. Public health powers ultimately derive from the U.S. Constitution, which bestows the authority to regulate commerce and provide for the general welfare, and from the various state constitutions, which often provide clear but broad authorities, based largely on the police power of the state. States often have reasonably well-defined public health codes. However, there is considerable diversity in their content and scope, despite similarities in their basic sources of power and authority.

Many public health laws are enacted and enforced under what is known as the state's "police power." This is a broad concept that encompasses the functions historically undertaken by governments in protecting the health, safety, welfare, and general well-being of their citizens. A wide variety of laws derive from the police power of the state, a power that is considered one of the least limitable of all governmental powers. The police power of the state can be vested in an administrative agency, such as a state health agency, which becomes accountable for the manner in which these responsibilities are executed. In these circumstances, its use is a duty, rather than a matter of choice, although its form is left to the discretion of the user.

The courts have upheld laws that appear to limit severely or restrict the rights of individuals where these were found to be reasonable, rather than arbitrary and capricious attempts to accomplish government's ends. The state's police power is not unlimited, however. Interference with individual liberties and the taking of personal property are considerations that must be balanced on a case-by-case basis. At issue is whether the public interest in achieving a public health goal outweighs the public interest in protecting civil liberties. Public health laws requiring vaccinations or immunizations to protect the community have generally withstood legal challenges claiming that they infringed upon the rights of individuals to make their own health decisions. A precedent-setting judicial opinion upheld a Massachusetts ordinance authorizing local boards of health to require vaccinations for smallpox to be administered to residents if deemed necessary by the local boards.[5] Such decisions argue that laws that place the common good ahead of the competing rights of individuals should govern society. Similarly, courts have weighed the power of the state to appropriate an individual's property or limit the individual's use of it if the best interests of the community make such an action desirable. In some circumstances, equitable compensation must be provided. Issues of community interest and fair compensation are commonly encountered in dealing with public health nuisances in which an individual's private property can be found to be harmful to others.

The various forms of law and the changing nature of the relationships among the three levels of government have created a patchwork of public health laws. Despite its relatively limited constitutionally based powers, the federal government can preempt state and local government action in key areas of public health regulation involving commerce and aspects of communicable disease control. States also have authority to preempt local government actions in virtually all areas of public health activity. Although this legal framework allows for a clear and rational delineation of authorities and responsibilities, a quite variable set of arrangements has arisen. Often, the higher level of government chooses not to exercise its full authority and shifts that authority to a lower level of government. This can be accomplished in some instances by delegating or requiring, and in other instances by authorizing (with incentives), the lower level of government to exercise authorities of the higher level. This has made for a complex set of relationships among the three levels of government and for 50 variations of the theme to be played in the 50 states. These relationships and their impact on the form and structure of

governmental public health agencies will be evident in subsequent sections of this chapter.

There have been many critiques of the statutory basis of public health in the United States. A common one is that public health law, not unlike law affecting other areas of society, simply has not kept pace with the rapid and extensive changes in science and technology. Laws have been enacted at different points in time in response to different conditions and circumstances. These laws have often been enacted with little consideration as to their consistency with previous statutes and their overall impact on the body of public health law. For example, many states have different statutes and legal frameworks for similar risks, such as general communicable diseases, sexually transmitted diseases (STDs), and human immunodeficiency virus infections. Confidentiality and privacy provisions, which trace their origins to the vow in the Hippocratic oath not to reveal patient's secrets, are often inconsistent from law to law, and enforcement provisions vary as well. Beyond these concerns, public health laws often lack clear statements of purpose or mission and are not linked to public health core functions and essential public health services.

In view of these criticisms, recommendations have been advanced calling for a complete overhaul and recodification of public health law. Recommendations for improvement of the public health codes often call for

- Stronger links with the overall mission and core functions of public health
- Uniform structures for similar programs and services
- Confidentiality provisions to be reviewed and made more consistent
- Clarification of police power responsibilities to deal with unusual health risks and threats
- Greater emphasis on the least restrictive means necessary to achieve the law's intent through use of intermediate sanctions and compulsive measures, based on proven effectiveness
- Fairer and more consistent enforcement and administrative practices

Although these recommendations have been advanced for several decades, little progress has been made at either the federal or state level. At times, states have sought to recodify public health statutes by relocating their placement in the statute books, rather than dealing with the more basic issues of reviewing the scope and allocation of their public health responsibilities so that these are clearly presented and assigned among the various levels of government. The intricacies of public health law often help drive the inner workings of federal, state, and local public health agencies. We will now turn to the form and structure of these agencies.

GOVERNMENTAL PUBLIC HEALTH

Federal Health Agencies

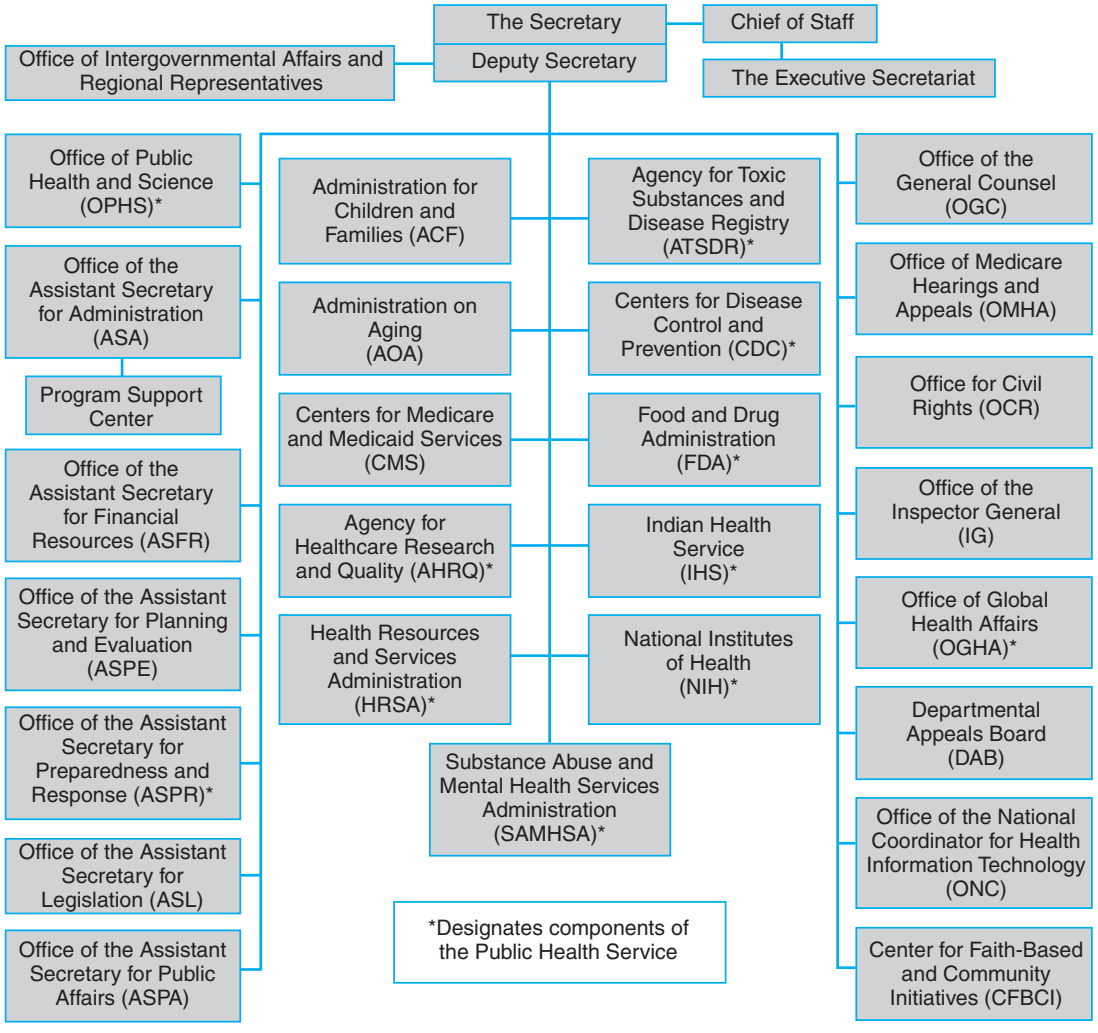
The PHS serves as the focal point for health concerns at the federal level. Although there have been frequent reorganizations affecting the structure of PHS and its placement within the massive Department of Health and Human Services (DHHS), the restructuring completed in 1996 was the most significant in recent decades. The changes were undertaken as part of the federal Reinvention of Government Initiative to bring expertise in public health and science closer to the Secretary of DHHS. In the restructuring, the line authority of the Assistant Secretary for Health over the various agencies within PHS was abolished, with those agencies now reporting directly to the Secretary of DHHS, as illustrated in Figure 4–1. The Assistant Secretary for Health became the head of the Office of Public Health and Science (OPHS), a new division reporting to the Secretary that also includes the Office of the Surgeon General. Each of the former PHS agencies became a full DHHS operating division. These eight operating agencies, the OPHS, and the regional health administrators for the 10 federal regions of the country now constitute the PHS. In effect, PHS has become a functional rather than an organizational unit of DHHS. In 2003, several activities related to emergency preparedness and response were moved into the newly established Department of Homeland Security (see Chapter 5). An Office of Public Health Emergency Preparedness and Response remained at DHHS to coordinate bioterrorism and other public health emergency activities managed by various PHS agencies.

The PHS agencies address a wide range of public health activities, from research and training to primary care and health protection, as described in Table 4–1. The key PHS agencies are

- Health Resources and Services Administration (HRSA)
- Indian Health Service
- CDC
- National Institutes of Health (NIH)
- Food and Drug Administration
- Substance Abuse and Mental Health Services Administration
- Agency for Toxic Substances and Disease Registry
- Agency for Healthcare Research and Quality (AHRQ)

PHS agencies actually represent only a small part of DHHS. Other important operating divisions within DHHS include the Administration for Children and Families, the Health Care Financing Administration (HCFA), and the Office of the Assistant Secretary for Aging. In addition, there are several administrative and support units within DHHS for man-

FIGURE 4–1 U.S. Department of Health and Human Services organization chart, 2010.



Source: From U.S. Department of Health and Human Services, 2010.

agement and the budget, intergovernmental affairs, legal counsel, civil rights, the inspector general, departmental appeals, public affairs, legislation, and planning and evaluation.

Beyond DHHS, health responsibilities have been assigned to several other federal agencies, including the federal Environmental Protection Agency (EPA) and the Departments of Homeland Security, Education, Agriculture, Defense, Transportation, and Veterans Affairs, just to name a few. The importance of some of these other federal agencies should not be underestimated in terms of the level and proportion of their resources devoted to health purposes. Health-specific agencies at the federal level are a relatively new phenomenon. PHS itself remained a unit of the Treasury Department until 1944, and the first cabinet-level federal human services agency of any kind was the Federal Security Agency in 1939. This historical trivia demonstrates that federal powers and authority in health and public health are a relatively recent phenomenon in U.S. history.

The federal government is the largest purchaser of health-related services, with spending on health representing more than one fourth of the total federal budget. Figure 4–2 compares total national health expenditures with health expenditures attributed to the federal government and to state local governments. Health expenditures constituted nearly 26% of total federal expenditures in 2007, up from 12% in 1980, and only 3% in 1960 (Figure 4–3). Escalating costs for healthcare services seriously constrain efforts to reduce the federal budget deficit, and there is little public or political support for additional taxes for health purposes.

It is no simple task to describe the federal budget development and approval process that determines funding levels for federal health programs. Although one fourth of the federal budget supports health activities, the major share is spent on Medicare and Medicaid. These and other entitlement programs constitute two thirds of the federal budget; this spending is mandatory and cannot be easily controlled. The remaining one third represents discretionary spending; half of this is related to national defense purposes. Spending for discretionary programs is more readily controlled. Nondefense discretionary spending for health purposes competes with a wide array of programs, including education, training, science, technology, housing, transportation, and foreign aid. Despite a small increase as a result of national terrorism preparedness initiatives, nondefense discretionary funding for

TABLE 4–1 U.S. Public Health Service Agencies

Health Resources and Services Administration (HRSA)	HRSA helps provide health resources for medically underserved populations. The main operating units of HRSA are the Bureau of Primary Health Care, Bureau of Health Professions, Maternal and Child Bureau, and the HIV/AIDS Bureau. A nationwide network of 643 community and migrant health centers, plus 144 primary care programs for the homeless and residents of public housing, serve 8.1 million Americans each year. HRSA also works to build the health care workforce and maintains the National Health Service Corps. The agency provides services to people with AIDS through the Ryan White Care Act programs. It oversees the organ transplantation system and works to decrease infant mortality and improve maternal and child health. HRSA was established in 1982 by bringing together several existing programs. HRSA has more than 1,850 employees at its headquarters in Rockville, Maryland.
Indian Health Service (IHS)	IHS is responsible for providing federal health services to American Indians and Alaska Natives. The provision of health services to members of federally recognized tribes grew out of the special government-to-government relationship between the federal government and Indian tribes. This relationship, established in 1787, is based on Article I, Section 8 of the Constitution, and has been given form and substance by numerous treaties, laws, Supreme Court decisions, and Executive Orders. IHS is the principal federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. IHS currently provides health services to approximately 1.9 million American Indians and Alaska Natives who belong to more than 564 federally recognized tribes in 35 states. IHS was established in 1924; its mission was transferred from the Interior Department in 1955. Agency headquarters are in Rockville, Maryland. IHS has more than 15,000 employees.
Centers for Disease Control and Prevention (CDC)	Working with states and other partners, CDC provides a system of health surveillance to monitor and prevent disease outbreaks, including bioterrorism events and threats, and maintains national health statistics. CDC also provides for immunization services, supports research into disease and injury prevention, and guards against international disease transmission, with personnel stationed in more than 54 foreign countries. CDC was established in 1946; its headquarters are in Atlanta, Georgia. CDC has 9,000 employees.
National Institutes of Health (NIH)	Begun as a one-room Laboratory of Hygiene in 1887, NIH today is one of the world's foremost medical research centers and the federal focal point for health research. NIH is the steward of medical and behavioral research for the nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability. In realizing its goals, NIH provides leadership and direction to programs designed to improve the health of the nation by conducting and supporting research in the causes, diagnosis, prevention, and cure of human diseases; in the processes of human growth and development; in the biological effects of environmental contaminants; in the understanding of mental, addictive and physical disorders; and in directing programs for the collection, dissemination, and exchange of information in medicine and health,

TABLE 4–1 U.S. Public Health Service Agencies (*continued*)

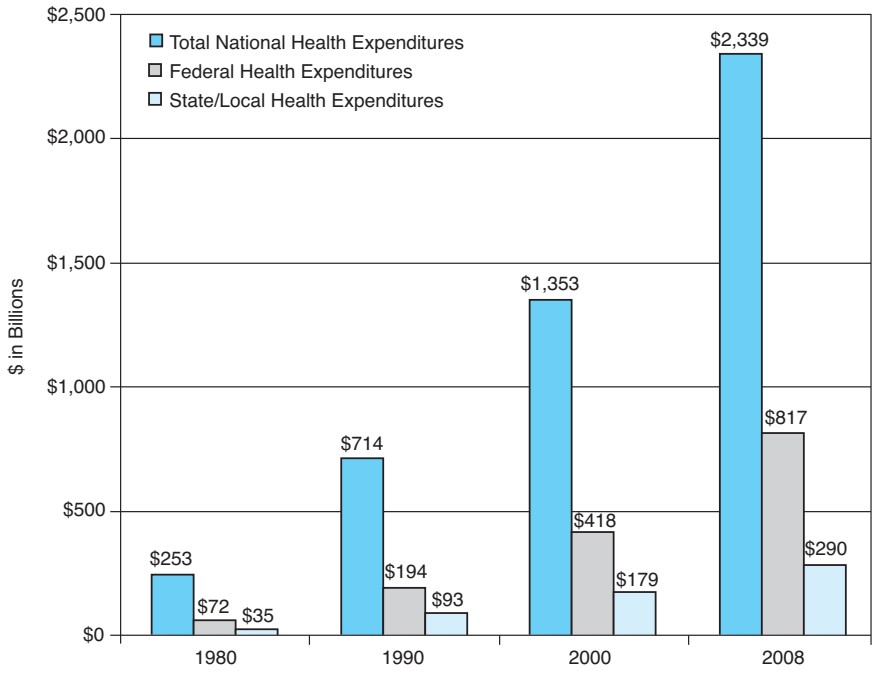
National Institutes of Health (NIH) (*continued*)	including the development and support of medical libraries and the training of medical librarians and other health information specialists. Alhough the majority of NIH resources sponsor external research, there is also a large in-house research program. NIH includes 27 separate health institutes and centers; its headquarters are in Bethesda, Maryland. NIH has more than 19,000 employees.
Food and Drug Administration (FDA)	FDA ensures that the food we eat is safe and wholesome, that the cosmetics we use won't harm us, and that medicines, medical devices, and radiation-transmitting products such as microwave ovens are safe and effective. FDA also oversees feed and drugs for pets and farm animals. Authorized by Congress to enforce the Federal Food, Drug, and Cosmetic Act and several other public health laws, the agency monitors the manufacture, import, transport, storage, and sale of $1 trillion worth of goods annually, at a cost to taxpayers of about $3 a person. FDA has over 11,000 employees, located in 167 U.S. cities. Among its staff, FDA has chemists, microbiologists, and other scientists, as well as investigators and inspectors who visit 16,000 facilities a year as part of their oversight of the businesses that FDA regulates. FDA, established in 1906, has its headquarters in Rockville, Maryland.
Substance Abuse and Mental Health Services Administration (SAMHSA)	SAMHSA was established by Congress under Public Law 102-321 on October 1, 1992, to strengthen the nation's healthcare capacity to provide prevention, diagnosis, and treatment services for substance abuse and mental illnesses. SAMHSA works in partnership with states, communities, and private organizations to address the needs of people with substance abuse and mental illnesses as well as the community risk factors that contribute to these illnesses. SAMHSA serves as the umbrella under which substance abuse and mental health service centers are housed, including the Center for Mental Health Services (CMHS), the Center for Substance Abuse Prevention (CSAP), and the Center for Substance Abuse Treatment (CSAT). SAMHSA also houses the Office of the Administrator, the Office of Applied Studies, and the Office of Program Services. SAMHSA headquarters are in Rockville, Maryland; the agency has about 600 employees.
Agency for Toxic Substances and Disease Registry (ATSDR)	Working with states and other federal agencies, ATSDR seeks to prevent exposure to hazardous substances from waste sites. The agency conducts public health assessments, health studies, surveillance activities, and health education training in communities around waste sites on the U.S. Environmental Protection Agency's National Priorities List. ATSDR also has developed toxicologic profiles of hazardous chemicals found at these sites. The agency is closely associated administratively with CDC; its headquarters are also in Atlanta, Georgia. ATSDR has more than 400 employees.
Agency for Health Care Research and Quality (AHRQ)	AHRQ supports cross-cutting research on healthcare systems, healthcare quality and cost issues, and effectiveness of medical treatments. Formerly known as the Agency for Health Care Policy and Research, AHRQ was established in 1989, assuming broadened responsibilities of its predecessor agency, the National Center for Health Services Research and Health Care Technology Assessment. The agency has about 300 employees; its headquarters are in Rockville, Maryland.

health purposes has declined as a proportion of all federal spending.

Decisions authorizing and funding health programs are made in an annual budget approval process. The current process is a complex one that establishes ceilings for broad categories of expenditures and then reconciles individual programs and funding levels within those ceilings in omnibus budget reconciliation acts. For discretionary programs, Congress must act each year to provide spending authority. For mandatory programs, Congress may act to change the spending that current laws require. The result is a mixture of substantive decisions as to which programs will be authorized and what they will be authorized to do, together with budget decisions as to the level of resources to be made available through 13 annual appropriations bills. In recent years federal law has imposed a cap on total annual discretionary spending and requires that spending cuts must offset increased mandatory spending or new discretionary programs. This budgetary environment presents major challenges for new public health programs and, not infrequently, threatens continued funding for programs that have been operating for decades.

The organization of federal health responsibilities within DHHS is quite complex fiscally and operationally. In federal fiscal year 2011, the overall DHHS budget is about $900 billion.[6] DHHS has nearly 73,000 employees and is the largest grant-making agency in the federal government, with some 60,000 grants each year. DHHS manages more than 300 programs through its 11 operating divisions. The major share of

FIGURE 4–2 Total national health expenditures, and federal and state/local government expenditures for health-related purposes, United States, 1980–2008.



Source: Data from Centers for Disease Control and Prevention, National Center for Health Statistics. *Health, United States, 2009*. Hyattsville, MD: NCHS; 2009.

the DHHS budget supports the Medicare and Medicaid programs within HCFA. PHS activities account for less than one tenth of the DHHS budget. In addition to HCFA and the PHS agencies, DHHS also includes the Administration for Children and Families and the Administration on Aging.

Budgets for PHS operating divisions in federal fiscal year 2011 range from $32 billion for NIH to $600 million for AHRQ (Figure 4–4). Just over 50% of all PHS funds support NIH research activities, and another $32 billion support the remaining PHS agencies with HRSA and CDC together accounting for about $18 billion, which represents about 2% of total DHHS resources and about 0.5% of all federal spending.

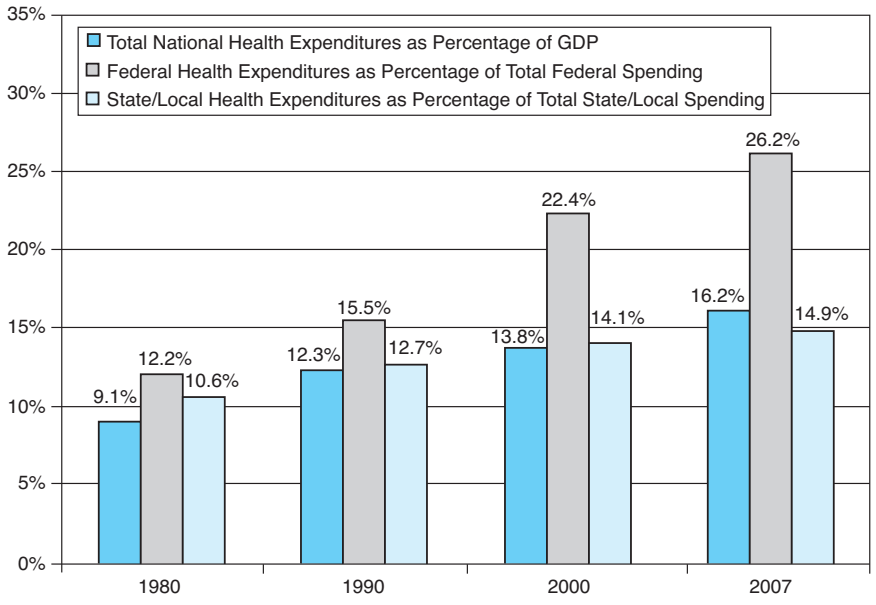
Since the late 1970s, the Office of Health Promotion and Disease Prevention within the Office of the Assistant Secretary for Health has coordinated the development of the national agenda for public health and prevention efforts. Results of these efforts are apparent in the establishment of national health objectives that targeted the years 1990, 2000, 2010, and 2020 (see Chapter 2). Only one of more than 500 objectives from the 1990 and 2000 processes related to the public health system; that objective called for 90% of the population to be served by a local public health agency (LPHA) that was effectively carrying out public health's core functions.[7] Current estimates are that about 95% of the U.S. population is served by an LPHA functioning at some level of capability. Baseline data on how many local agencies were effectively carrying out the core functions were not available when this objective was established in 1990. Several studies of core function-related performance in the 1990s suggest that the nation fell far short of achieving its year 2000 target.

PHS agencies have promoted greater use of performance measures in key federal health programs, including immunizations, tuberculosis control, STDs, substance abuse, and mental health services. As previously described, federal grants-in-aid have long been the prime strategy and mechanism by which the federal government generates state and local action toward important health problems. A variety of approaches to grant making have been used over recent decades. These can be categorized by the extent of restrictions or flexibility imparted to grantees. The greatest flexibility and lack of requirements are associated with revenue-sharing grants. Block grants, including those initiated in the early 1980s, consolidate previously categorical grant programs into a block that generally comes with fewer restrictions than the previous collection of categorical grants. Formula grants are awarded on the basis of some predetermined formula, often based at least partly on need, which determines the level of funding for each grantee. Project grants are more limited in availability and are generally intended for a specific demonstration program or project.

In the 1990s, DHHS proposed a series of federal partnership performance grants to address some of the shortcomings attributed to block grants implemented in the early 1980s. At that time, restrictions were relaxed for the categorical programs folded into the block grants, including the Maternal and

Child Health Block Grant and the Prevention Block Grant. Lessons learned from the previous experience suggest the need for a cautious approach to new federal block grant proposals. In the 1980s, the new block grants indeed came with fewer strings attached. However, they also came at funding levels that were reduced about 25% from the previous arrangement. The blocking of several categorical programs into one mega grant also served to dissipate the constituencies for the categorical programs. Without active and visible constituencies advocating for programs, restoration or even maintenance of previous funding levels proved difficult. In addition, the reduction in reporting requirements made it more difficult to justify budget requests. Any new federal approaches to overcome these obstacles will be watched closely by advocates, as well as by state and local public health officials.

FIGURE 4–3 National health expenditures as percent of gross domestic product (GDP), and federal and state/local government health expenditures as percent of total government expenditures, United States, 1980–2007.



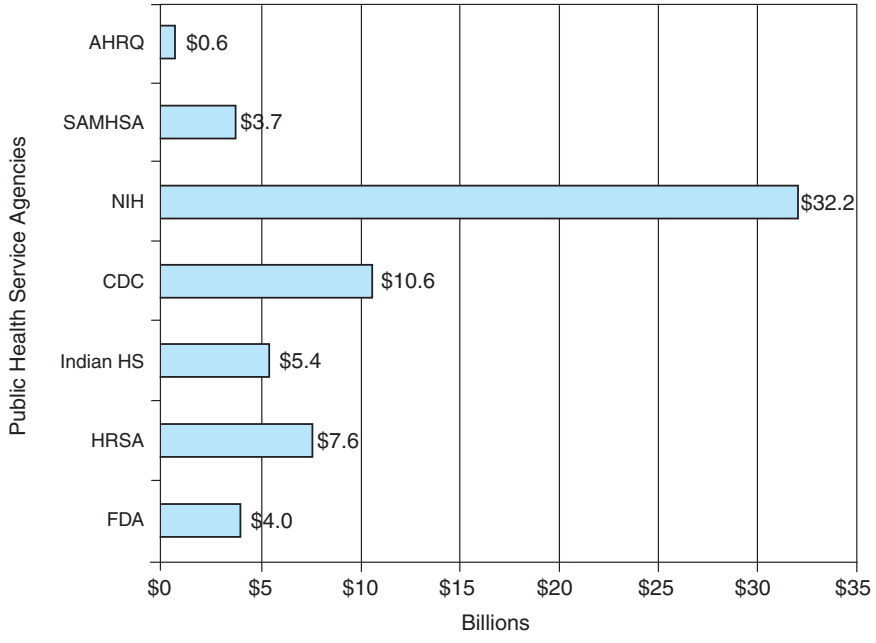
Source: Data from Centers for Disease Control and Prevention, National Center for Health Statistics. *Health, United States, 2009*. Hyattsville, MD: NCHS; 2009.

In addition to being a prime strategy to influence services at the state and local level, federal grants also serve to redistribute resources to compensate for differences in the ability of states to fund and operate basic health services. They have also served as a useful approach to promoting minimum standards for specific programs and services. For example, federal grants for maternal and child health promoted personnel standards in state and local agencies that fostered the growth of civil service systems across the country. Other effects on state and local health agencies will be apparent as these are examined in the following sections.

State Health Agencies

Several factors place states at center stage when it comes to health. The U.S. Constitution gives states primacy in safeguarding the health of their citizens. From the mid-19th century until the 1930s, states largely exercised that leadership role with little competition from the federal government and only occasional conflict with the larger cities. Federal funding turned the tables on states after 1935, reaching its peak influence in the 1960s and 1970s. At that time, numerous federal health and human service initiatives (such as model cities, community health centers, and community mental health services) were funded directly to local governments and even to community-based organizations. This practice greatly concerned state capitals and served to damage tenuous relationships among the three levels of government. The relative influence of states began to grow once again after 1980, with both increasing rhetoric and federal actions restoring some powers and resources to states and their state health agencies. Although states were finding it increasingly difficult to finance public health and medical service programs, they demanded more autonomy and control over the programs they managed, including those operated in partnership with the federal government. At the same time, local governments were making demands on state governments similar to those that states were making on the federal government. States have found themselves uncomfortably in the middle between the two other levels of government. At the same time, states are one step removed from both the resources needed to address the

FIGURE 4–4 Fiscal year 2011 U.S. Public Health Service Agency program level budgets.



Source: Data from the Fiscal Year 2011 Budget, U.S. Department of Health and Human Services, 2010.

needs of their citizens and the demands and expectations of the local citizenry. For health issues, especially those affecting oversight and regulation of health services and providers, states often appear unduly influenced by large, politically active lobbies representing various aspects of the health system.

States carry out their health responsibilities through many different state agencies, although the overall constellation of health programs and services within all of state government is similar across states. Table 4–2 outlines more than two dozen state agencies that carry out health responsibilities or activities in a typical state. Somewhere in the maze of state agencies is an identifiable lead agency for health. These official health agencies are often freestanding departments reporting to the governor of the state. In about two thirds of the states, the state health agency reports to a state board of health, although the prevalence of this reporting relationship is declining. Another approach to the organizational placement of state health agencies finds them within a multipurpose human service agency, often with the state's social services and substance abuse responsibilities. This approach has waxed and waned in popularity, although its popularity increased in the 1990s with the hopes of fostering better integration of commu-

TABLE 4–2 Typical State Agencies with Health Roles (Names Vary from State to State)

- Official State Health Agency (Department of Health/Public Health)
- Department of Aging
- Department of Agriculture
- Department of Alcoholism and Substance Abuse
- Asbestos Abatement Authority
- Department of Children and Family Services
- Department of Emergency and Disaster Services
- Department of Energy and Natural Resources
- Environmental Protection Agencies
- Guardianship and Advocacy Commissions
- Health and Fitness Council
- Health Care Cost Containment Council
- Health Facilities Authority
- Health Facilities Planning Board
- Department of Homeland Security
- Department of Mental Health and Developmental Disabilities
- Department of Mines and Minerals
- Department of Nuclear Safety
- Pollution Control Board
- Department of Professional Regulation
- Department of Public Aid
- Department of Rehabilitation Services
- Rural Affairs Council
- State Board of Education
- State Fire Marshall
- Department of Transportation
- State University System
- Department of Veterans Affairs

nity services across the spectrum of health and social services. State health agencies are freestanding agencies in about 28 states and are part of multipurpose health and/or human services agencies in the others.[8]

The public official with statutory authority to carry out public health laws and declare public health emergencies is generally the state health official who directs the state health department. In some states, however, this statutory authority resides with other public officials, such as the governor or director of the superagency in which the state health department is a component, or with the state board of health (Figure 4–5).

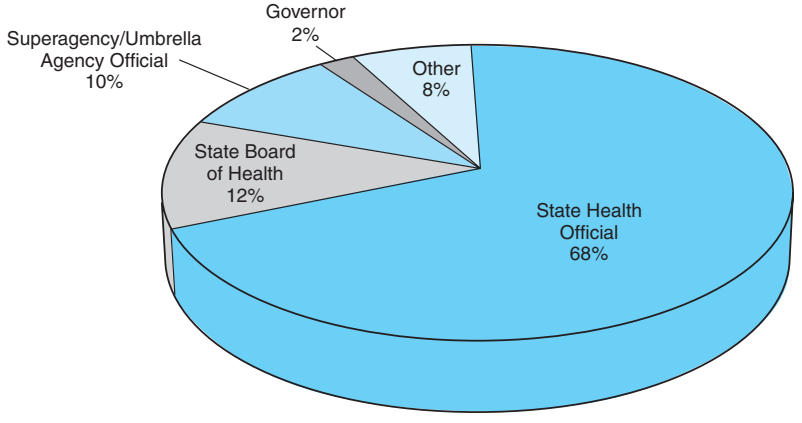
As identified in a recent profile of state public health agencies compiled by the Association of State and Territorial Health Officials (ASTHO), key activities performed by state public health agencies include[8]:

- Running efficient statewide prevention programs like tobacco quit lines, newborn screening programs, and disease surveillance.
- Ensuring a basic level of community public health services across the state, regardless of the level of resources or capacity of local health departments.
- Providing the services of professionals with specialized skills, such as disease outbreak specialists and restaurant and food service inspectors, who bring expertise that is otherwise hard to find, too expensive to employ at a local level, or involve overseeing local public health functions.
- Collecting and analyzing statewide vital statistics, health indicators, and morbidity data to target public health threats and diseases such as cancer.
- Providing statewide investigations of disease outbreaks, environmental hazards such as chemical spills and hurricanes, and other public health emergencies.
- Monitoring the use of funds and other resources to ensure they are used effectively and equitably throughout the state.
- Conducting statewide health planning, improvement, and evaluation.
- Licensing and regulating health care, food service, and other facilities.

The range of responsibilities for the official state health agency varies considerably in terms of specific programs and services. Staffing levels and patterns also show a wide range, reflecting the diversity in agency responsibilities. The data presented on state health agencies in this chapter are derived from recent surveys of state health officials conducted by the ASTHO in 2005 and 2007.[8–11] Figure 4–6 illustrates the variability in state health agencies' responsibilities for programs. In 2005, for example, 90% of the official state health agencies administered the Supplemental Food Program for Women, Infants, and Children, vital statistics systems, public health laboratories, and tobacco prevention and control programs. Less than one half of the state health agencies administered the state Medicaid Program, mental health and substance abuse services, and health professional licensing. Many state health agencies administered programs for environmental health services, most frequently involving food and drinking water safety; however, only 20% of the state health agencies served as the environmental regulatory agency within their state, which often includes responsibility for clean air, resource conservation, clean water, superfund sites, toxic substance control, and hazardous substances.

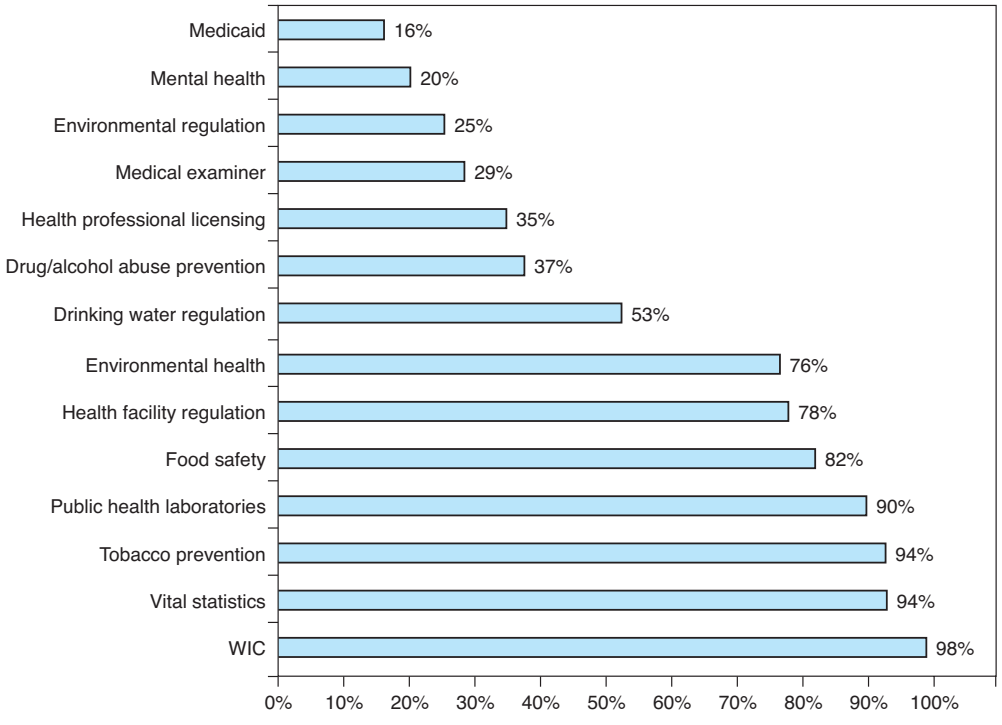
State health agency responsibilities are anything but fixed in stone; they change with the times. The 1990s witnessed several changes in the public health responsibilities of state health agencies. More state health agencies took on preparedness responsibilities and expanded their health planning and development roles during the decade. On the other hand, fewer state health agencies were carrying out environmental health and institutional licensing functions and some lost responsibility for natural disaster preparedness to state emergency management

FIGURE 4–5 Primary statutory public health authority in states.



Source: Data from Association of State and Territorial Health Officials (ASTHO). *Profile of State Public Health, Volume One*. Washington, DC: ASTHO; 2009.

FIGURE 4–6 Selected organizational responsibilities of state health agencies, 2005.



Source: Data from Association of State and Territorial Health Officials. Washington, DC: ASTHO; 2006.

agencies. Figure 4–7 catalogs new and emerging roles and responsibilities for state health agencies.[9] Notably, bioterrorism preparedness and response is the most prevalent of these emerging roles.

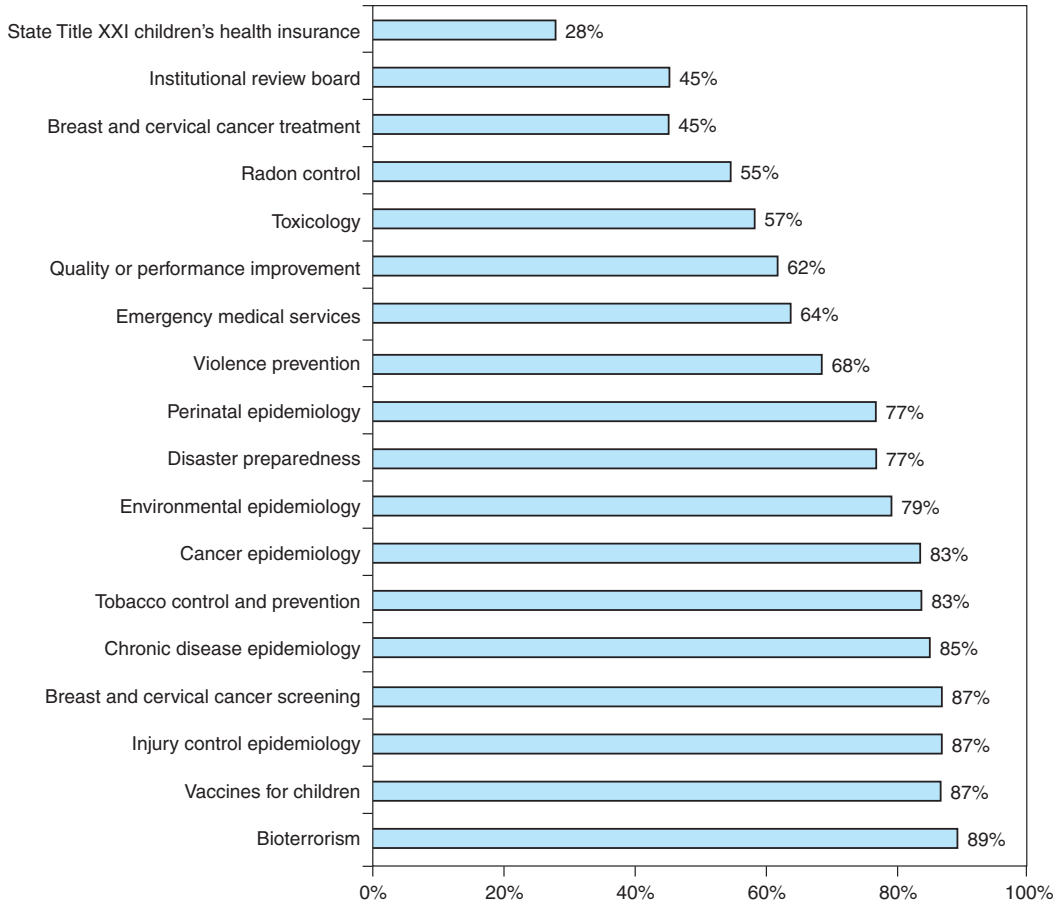
Nearly one in two states relies on regional or district offices to carry out state responsibilities and to assist local health departments (LHDs).[10] Staff assigned to district offices often provide consultation and technical assistance to local health agencies within that district especially for purposes of medical oversight, budgetary management, inspectional activities and code enforcement, provision of education and training, and general planning and coordination for activities such as emergency preparedness. More than 50% of the 100,000 full-time equivalent (FTE) employees of state health departments perform their duties from regional, district, or local sites.

As illustrated in Figure 4–2, state and local governments spent nearly $300 billion on health-related purposes in 2008. Health expenditures have comprised 13–15% of state and local government expenditures since 1990 (Figure 4–3). Before the advent of Medicaid and Medicare in 1965, state and local governments actually spent more for health purposes than did the federal government.

With public health responsibilities allocated differently across the various states, data on state health agency expenditures are both difficult to interpret and incomplete in several important respects. These data do not allow for meaningful comparison across states because of the variation in responsibilities assigned to the official state health agency and those assigned to other state agencies. More importantly, these data often fail to differentiate between population-based public health activities and personal health services. Also lacking is a composite picture of resource allocations for important public health purposes across all state and local agencies with health roles, including substance abuse, mental health, and environmental protection agencies. This limitation is especially apparent for environmental health and protection roles.

The organizational placement and specific responsibilities of state health agencies largely determine the size of their budgets and workforce. Just over 50% of the state health agen-

FIGURE 4–7 States with responsibilities in emerging areas of public health practice, United States, 2001.

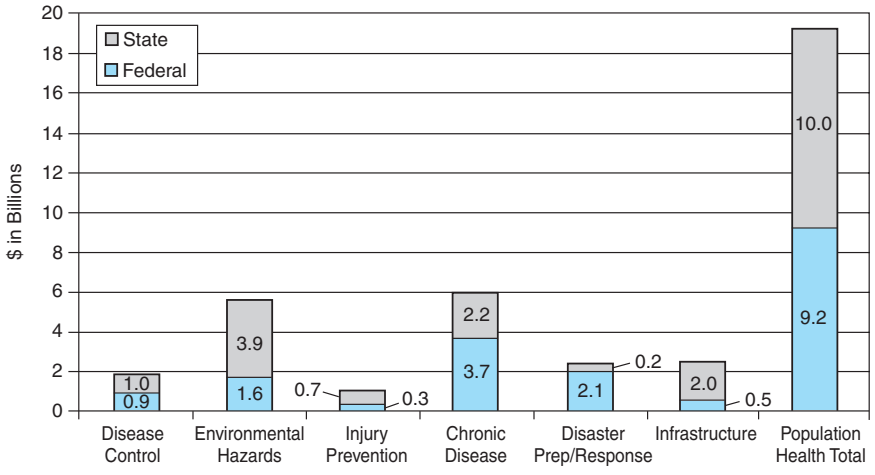


Source: Data from Beitsch LM, Brooks RG, Grigg M, Menachemi N. Structure and functions of state public health agencies. *Am J Public Health*. 2006;96:167–172.

cies have 1,500 or fewer employees; these agencies have budgets approximating $250 million. This group includes many freestanding agencies that have responsibility for traditional public health services but not for Medicaid, mental health, substance abuse, and environmental regulation. As these other responsibilities are added, the budgets and workforce of state health agencies increase substantially. Nine state health agencies have more than 4,500 employees and average expenditures of almost $6 billion.

In order to identify state government expenditures for public health activities, it is necessary to examine the budgets of multiple state agencies. The official state health agency is not the only unit of state government supporting population-based public health activities. Data on state health expenditures for fiscal year 2003 indicate that states spent about $10 billion from state sources on population-based public heath activities. This represents about 5.4% of all state health expenditures and 1.7% of the total state budget. In addition, states expended another $9 billion of federal funding to support population-based services. Breakdowns for different types of population-based public health activities are provided in Figure 4–8. A higher percentage of state funds supported environmental protection, injury prevention, and infrastructure activities, while a higher percentage of federal funds went for disaster preparedness and chronic disease prevention activities. State and federal funds equally supported prevention of epidemics and spread of disease. State health agency expenditures include grants and contracts to LHDs, although the current level of these inter-

FIGURE 4–8 State population-based public health expenditures for public health functions, United States, 2002–2003.



Source: Data from Milbank Memorial Fund, National Association of State Budget Officers, and the Reforming States Group. *2002–2003 State Health Expenditures Report*, June 2005. www.milbank.org/reports/05NSBO/index.html. Accessed June 15, 2010.

governmental transfers is not known. In 1991, an estimated $2 billion was transferred from states to LHDs.[12]

At the federal level, more than a dozen federal departments, agencies, and commissions (Transportation, Labor, Health and Human Services, Commerce, Energy, Defense, EPA, Homeland Security, Interior, Consumer Product Safety Commission, Agriculture, Nuclear Regulatory Commission, and Housing and Urban Development) have environmental health roles. State and local governments have largely replicated this web of environmental responsibility, creating a complex system often poorly understood by the private sector and general public. Federal statutes have driven the organization of state responsibilities. Key federal environmental statutes include

- Clean Air Act
- Clean Water Act
- Comprehensive Environmental Response, Competition, and Liability Act and Superfund Amendments and Reauthorization Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substance Control Act
- Food, Drug, and Cosmetic Act
- Federal Mine Safety and Health Act
- Occupational Safety and Health Act

States, however, have responded in no consistent manner in assigning implementation of federal statutes among various state agencies. The focus of federal statutes on specific environmental media (water, air, waste) has fostered the assignment of environmental responsibilities to state agencies other than official state health agencies, as demonstrated in Table 4–3. The implications of this diversification are important for public health agencies. State health agencies are becoming less involved in environmental health programs; only a handful of states utilize their state health agency as the state's lead agency for environmental concerns. This role has shifted to state environmental agencies, although many other state agencies are also involved. Still, the primary strategy has shifted from a health-oriented approach to a regulatory approach. Despite their diminished role in environmental concerns, state health agencies continue to address a very diverse set of environmental health issues and maintain epidemiologic and quantitative risk assessment capabilities not available in other state agencies. Linking this important expertise to the workings of other state agencies is a particularly challenging task, and there are other implications of this scenario, as well.

The shift toward regulatory strategies is clearly reflected in resource allocation at the state level. In the mid-1990s, about $6 billion was spent on environmental health and regulation by states, with only about $1 billion of that total for environmental health (as opposed to environmental regulation) activities.[13] Public health considerations often take a back seat to regulatory concerns when budget decisions are made. In addition, the fact that many environmental health specialists are working in nonhealth agencies poses special problems for both their training and their practice performance.

The wide variation in organization and structure of state health responsibilities suggests that there is no standard or consistent pattern to public health practice among the various states. An examination of enabling statutes and state public agency mission statements provides further support for this

TABLE 4–3 Number and Type of State Agencies Responsible for Implementation of Federal Environmental Statutes

Statute	Agriculture	Environment	Health	Labor	Total
Clean Air Act	0	41	10	1	52
Clean Water Act	1	41	11	1	54
CERCLA (Superfund) Act	3	38	25	1	67
Federal Insecticide, Fungicide, and Rodenticide Act	0	41	11	2	54
Resource Conservation and Recovery Act	0	36	33	3	72
Safe Drinking Water Act	0	12	23	3	38
Toxic Substance Control Act	37	4	5	0	46
Food, Drug, and Cosmetic Act	1	1	15	39	56
Federal Mine Safety and Health Act	0	0	0	12	12
Occupational Safety and Health Act	15	1	13	0	29

Source: From Health Resources and Services Administration. *Environmental Web: Impact of Federal Statutes on State Environmental Health and Protection—Services, Structure and Funding*. Rockville, MD: HRSA; 1995.

conclusion. Only 11 of 43 state agency mission statements address the majority of the concepts related to public health purpose and mission in the Public Health in America document.[14,15] When state public health enabling statutes are examined for references to the essential public health services (also found in the Public Health in America document), the majority of the essential public health services can be identified in only one fifth of the states. The most frequently identified essential public health services reflect traditional public health activities, such as enforcement of laws, monitoring of health status, diagnosing and investigating health hazards, and informing and educating the public. The essential public health services least frequently referenced in these enabling statutes reflect more modern concepts of public health practice, including mobilizing community partnerships, evaluating the effects of health services, and research for innovative solutions. Only three states had both enabling statutes and state health agency mission statements highly congruent with the concepts advanced in the Public Health in America document.[14]

State-based public health systems blend the roles of the state health agency and the LHDs in that state. In more than 40 states, all areas of the state are served by an LHD. Where there is no LHD to provide public health services, the state health agency generally provides basic public health coverage. Increasingly, states are using regional or district structures to provide oversight and support for LHDs. In more than two thirds of states, local boards of health also provide direction and oversight of local public health activities.

In sum, state health agencies face many challenges related to the fragmentation of public health roles and responsibilities among various state agencies. Central to these are two related challenges: how to coordinate public health's core functions and essential services effectively and how to leverage changes within the health system to instill greater emphasis on clinical prevention and population-based services. As the various chapters of this text suggest, these are related aims.

Local Health Departments

In the overall structuring of governmental public health responsibilities, LHDs are where the "rubber meets the road." These agencies are established to carry out the critical public health responsibilities embodied in state laws and local ordinances and to meet other needs and expectations of their communities. Although some cities had local public health boards and agencies prior to 1900, the first county health department was not established until 1911. At that time, Yakima County, Washington, created a permanent county health unit, based on the success of a county sanitation campaign to control a serious typhoid epidemic. The Rockefeller Sanitary Commission, through its support for county hookworm eradication efforts, also stimulated the development of county-based LHDs. The number of LHDs grew rapidly during the 20th century, although in recent decades, expansion has been tempered by closures and consolidations.

LHDs should not be considered separately from the state network in which they operate. It is important to remember that states, through their state legislative and executive branches,

establish the types and powers of local governmental units that can exist in that state. In this arrangement, the state and its local subunits, however defined, share responsibilities for health and other state functions. How health duties are shared in any given state depends on a complex set of factors that include state and local statutes, history, need, and expectations.

Local health agencies relate to their state public health systems in one of three general patterns.[4] In most states, LHDs are formed and managed by local government, reporting directly to some office of local government, such as a local Board of Health, county commission, or city or county executive officer. In this decentralized arrangement, LHDs often have considerable autonomy although they may be required to carry out specific state public health statutes. Also, there are some states that share oversight of LHDs with local government through the power to appoint local health officers or to approve an annual budget. In some states with decentralized LHDs, some areas of the state lack coverage because the local government chooses not to form a local health agency and the state must provide services in those uncovered areas. This mixed arrangement occurs in about 20% of the states. Another 30% of the states use a more centralized approach, in which local health agencies are directly operated by the state or there are no LHDs and the state provides all local health services. Classifying these arrangements as decentralized, centralized, or mixed is useful from the perspective of the state-local public health system. From the perspective of the LHD and the population it serves, however, the LHD is either a unit of local government or a unit of state government.

LHDs are established by governmental units, including counties, cities, towns, townships, and special districts, by one of two general methods. The legislative body may create an LHD through enactment of a local ordinance or a resolution, or the citizens of the jurisdiction may create a local board and agency through a referendum. Both patterns are common. Resolution health agencies are often funded from the general funds of the jurisdiction, whereas referendum health agencies often have a specific tax levy available to them. There are advantages and disadvantages to either approach. Resolution health agencies are simpler to establish and may develop close working relationships with the local legislative bodies that create them. Referendum agencies reflect the support of the local electorate and may have access to specific tax levies that preclude the need to compete with other local government funding sources.

Counties represent the most common form of subdividing states. In general, counties are geopolitical subunits of states that carry out various state responsibilities, such as law enforcement (sheriffs and state's attorneys) and public health. Counties largely function as agents of the state and carry out responsibilities delegated or assigned to them. In contrast, cities are generally not established as agents of the state. Instead, they have considerable discretion through home rule powers to take on functions that are not prohibited to them by state law. Cities can choose to have a health department or to rely on the state or their county for public health services. City health departments often have a wider array of programs and services because of this autonomy. As described previously, the earliest public health agencies developed in large urban centers, prior to the development of either state health agencies or county-based LHDs. This status also contributes to their sense of autonomy. These considerations, as well as the increased demands and expectations to meet the needs of those who lack adequate health insurance, have made many city-based, especially big city-based, LHDs qualitatively different from other LHDs.

Both cities and counties have resource and political bases. Both rely heavily on property and sales taxes to finance health and other services, and both are struggling with the limitations of these funding sources. Political resistance to increasing taxes is the major limitation for both. Relatively few counties and cities have imposed income taxes, the form of taxation relied upon by federal and state governments. However, both generally have strong political bases, although cities are generally more likely than counties to be at odds with state government on key issues.

Counties play a critical role in the public sector, the extent and importance of which is often overlooked. Three fourths of all LHDs are organized at the county level, serving a single county, a city-county, or several counties. As a result, counties provide a substantial portion of the community prevention and clinical preventive services offered in the United States. Counties provide care for about 40 million persons who access LHDs and other facilities; they spend more than $30 billion of their local tax revenues on health and hospital services annually through some 4,500 sites that include hospitals, nursing homes, clinics, health departments, and mental health facilities. Counties play an explicit role in treatment, are legally responsible for indigent health care in over 30 states, and pay a portion of the nonfederal share of Medicaid in about 20 states. In addition, counties purchase health care for more than 2 million employees.[16]

The National Association of County and City Health Officials (NACCHO) tracks public health activities of LHDs; the most recent survey of LHDs took place in 2008.[17] Data provided in this chapter are derived from this 2008 survey, as well as from several earlier surveys.[16–19]

One limitation of information on LHDs is that there is neither a clear nor a functional definition of what constitutes an LHD. The most widely used definitions call for an admin-

istrative and service unit of local government, concerned with health, employing at least one full-time person, and carrying responsibility for health of a jurisdiction smaller than the state. By this definition, more than 3,200 local health agencies operate in 3,042 U.S. counties.[18] The number of LHDs varies widely from state to state; Rhode Island has none, whereas neighboring Connecticut and Massachusetts report more than 100 LHDs.

Nearly 60% of LHDs are single-county health agencies, and over 80% operate out of a county base (single county, multicounty, or city-county).[17] Other LHDs function at the city, town, or township levels; some state-operated units also serve local jurisdictions. Although the precise number is uncertain, it appears that the total number of LHDs has been increasing, from about 1,300 in 1947 to about 2,000 in the mid-1970s to somewhere over 3,000 today.

Several reports going back more than 50 years have proposed extensive consolidation of small LHDs because of perceived lack of efficiency and coordination of services, inconsistent administration of public health laws, and inability of small LHDs to raise adequate resources to carry out their prime functions effectively. Consolidations at the county level would appear to be the most rational approach, but only limited progress has been achieved in recent decades.

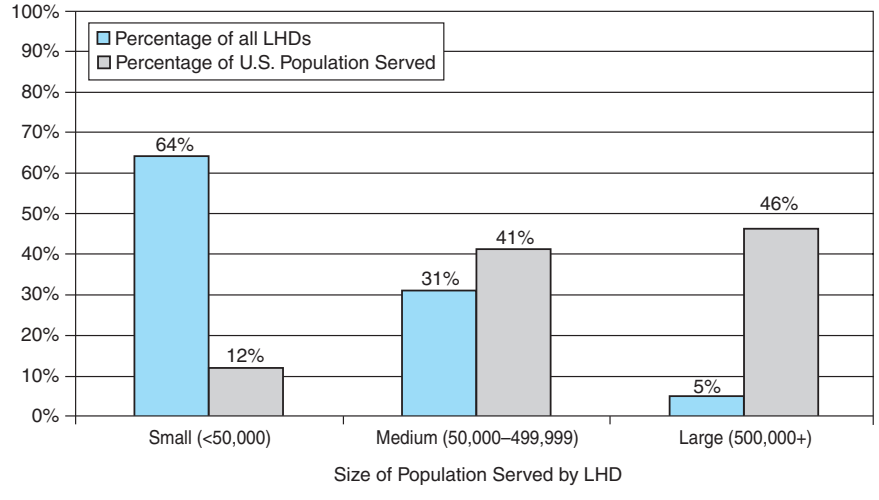
Most LHDs are relatively small organizations; as illustrated in Figure 4–9, 64% serve populations of 50,000 or fewer while 31% of LHDs serve populations of 50,000–499,999. Only 5% of LHDs serve populations of 500,000 or more residents.[17] Nearly 90% of the U.S. population is served by an LHD in the medium and large population categories.

Some states set qualifications for local health officers or require medical supervision when the administrator is not a physician. About four fifths of LHDs employ a full-time health officer. Health officers have a mean tenure of about 8 years and a median tenure of about 9 years. Approximately 15% are physicians. Fewer than one fourth of LHD directors have graduate degrees in public health. LHDs serving larger populations are more likely to have full-time health officers than are smaller LHDs.

Local boards of health are associated with most LHDs; in 2008, 80% of LHDs reported working with a local board of health. There are an estimated 3,200 local boards of health; about 85% reported an affiliation with an LHD. However, 15% exist independently of any LHD; this pattern is most common in Massachusetts, Pennsylvania, New Hampshire, Iowa, and New Jersey. The pattern for size of population, type of jurisdiction, and budget mirrors that for LHDs. Virtually all local boards of health establish local health policies, fees, ordinances, and regulations. Most also recommend and/or approve budgets, establish community health priorities, and hire the director of the local health agency. Although four fifths of LHDs relate to a board of health, only 56% report only to that board rather than some other office of local government. In recent decades, the roles of local boards of health have shifted away from policy making to more advisory duties as local governments have become more directly involved with oversight of their LHDs.

Similar to the situation with state health agencies, data on LHD expenditures lack currency and completeness. Annual LHD expenditures in 2008 ranged from less than $10,000 to over $1 billion. One half of LHDs had budgets of $1 million or less, and 29% had budgets over $5 million. Total expenditures increase with size of population. LHDs located in metropolitan areas had substantially higher expenditures than their nonmetropolitan area counterparts. The median per capita LHD

FIGURE 4–9 Small, medium, and large LHDs; percentage of all LHDs and percentage of population served, United States, 2008.



Source: Data from National Association of County and City Health Officials. *2008 National Profile of Local Health Departments*. Washington, DC: NACCHO; 2009.

expenditure level in 2008 was $28 excluding clinical services. Despite concerns as to shrinking public health agencies, 75% of LHDs reported increased budgets in 2005 as compared with the previous year.

In 2008, LHDs derived their funding from the following sources: local funds (26%), the state (37%, including 17% that were federal funds passing through the state), direct federal funds (2%), Medicaid and Medicare reimbursements (15%), fees (12%), and other sources (8%). Metropolitan LHDs and those serving smaller populations are more dependent on local sources of funding, while LHDs in nonmetropolitan areas and those serving larger populations depend more on state sources. Revenue from virtually all sources for LHDs has been increasing in recent years, including that from regulatory fees, private foundation funding, city and county funding, federal sources, and patient-generated revenue from Medicaid, Medicare, private health insurance, and direct patient fees. Direct state funding is the sole revenue source showing a downward trend.

The number of FTE employees also increases with the size of the population served. Only 11% of LHDs employ 125 or more persons, and 68% have 24 or fewer employees. The number of employees and the number of different disciplines and professions are related to LHD population size. Clerical

TABLE 4–4 Vital Statistics for Local Health Departments (LHDs)

Definition	• An administrative and service unit of state or local government, concerned with health, employing at least one full-time person, and carrying responsibility for health of a jurisdiction smaller than the state	
Number	• Approximately 3,200 using the above definition; 2,800 in NACCHO sampling frame • Functional definition would reduce number considerably • Varies from zero in Rhode Island and Hawaii to more than 100 in seven states	
Jurisdiction Type	• 60%—single county • 9%—multicounty • 11%—city-county	• 11%—town/township • 7%—city • 2%—other
Jurisdiction Population	• 64%—<50,000 • 31%—50,000–499,999 • 5%—500,000 and greater	
Services Most Frequently Provided in LHD Jurisdictions	• 88%—adult immunizations • 88%—communicable disease surveillance • 86%—childhood immunizations • 81%—tuberculosis screening • 77%—food service establishment inspection	• 75%—environmental health surveillance • 74%—food safety education • 72%—tuberculosis testament • 70%—tobacco use prevention • 68%—schools and day care center inspection
Expenditures	• Median—$1,120,000 • 25%—<$500,000 • 17%—>$5,000,000 • Median per capita expenditures: $28 (excluding clinical revenue); $36 (all sources)	
Source of Funds	• 25%—local • 20%—state • 17%—federal funds passed through state • 2%—federal direct to local agency • 10%—Medicaid reimbursement	• 5%—Medicare reimbursement • 11%—fees • 7%—other • 2%—not specified

Employees	• Median Number of Employees = 18
	• Median Full-Time Equivalent (FTE) Employees = 15
	  • 63% of LHDs with <25 FTEs
	  • 12% of LHDs with >100 FTEs
	• Median FTEs in Selected Occupational Categories Employed by LHDs	

TABLE 4–4 Vital Statistics for Local Health Departments (LHDs) (*continued*)

	Population Served					
	<10,000	10,000–24,999	25,000–49,999	50,000–99,999	100,000–499,999	500,000+
All LHD Staff	3	8	15	31	81	359
Manager	1	1	1	1	5	13
Nurse	1	3	5	8	17	57
Physician	0	0	0	0	1	3
Environmental Health Specialist	0	1	2	3	9	21
Other Environmental Health Scientist	0	0	0	0	0	3
Epidemiologist	0	0	0	0	1	2
Health Educator	0	0	0	1	2	6
Nutritionist	0	0	0	1	3	10
Information Systems Specialist	0	0	0	0	1	3
Public Information Specialist	0	0	0	0	0	1
Emergency Preparedness Coordinator	0	0	0	1	1	1
Behavioral Health Professional	0	0	0	0	1	8
Administrative/Clerical	1	2	2	7	18	79

Governance	• 80% of LHDs relate and/or report to a local board of health • For 66% of local boards of health, members of the board are appointed to their positions
Leadership	• More than one half of local health officers are women • One fifth of all local health officers have doctoral level degrees • Mean tenure = 8.7 years

Source: Data from National Association of County and City Health Officials, 2008 National Profile of Local Health Departments. Washington, DC: NACCHO; 2009.

staff, nurses, sanitarians, physicians, and nutritionists are the most common disciplines (in that order) and are all found in more than one half of all LHDs.

There is considerable variety in the services provided by LHDs. Top priority areas for LHDs overall are communicable disease control, environmental health, and child health. LHDs serving both large and small populations report similar priorities, although community outreach replaces environmental health as a top priority for the largest local health jurisdictions (those over 500,000 population). Slight differences in priorities are also apparent between metropolitan and nonmetropolitan area LHDs. LHDs in metropolitan areas often include inspections as a high priority, while nonmetropolitan LHDs are more likely to include family planning and home healthcare services as priorities.

Many LHDs provide a common core battery of services that generally includes adult and childhood immunizations, communicable disease control, community assessment, community outreach and education, environmental health services, epidemiology and surveillance programs, food safety and restaurant inspections, health education, and tuberculosis testing. Less commonly, LHDs provide services related to primary care and chronic disease, including cardiovascular disease, diabetes, and glaucoma screening; behavioral and mental health services; programs for the homeless; substance abuse services; and veterinary public health.[17]

LHDs do not always provide these services themselves; increasingly, they contract for these services or contribute resources to other agencies or organizations in the community. Community partners for LHDs include state health agencies, other LHDs, hospitals, other units of government, nonprofit and voluntary organizations, academic institutions, community health centers, the faith community, and insurance companies. LHDs increasingly interact with managed care organizations, although most do not have either formal or informal agreements governing these interactions.[18] Where

agreements existed, they were more likely to be formal, to cover clinical and case management services, and to involve the provision (rather than the purchase) of services. More than one fourth of LHDs had formal agreements for clinical services for Medicaid clients in 1996.

INTERGOVERNMENTAL RELATIONSHIPS

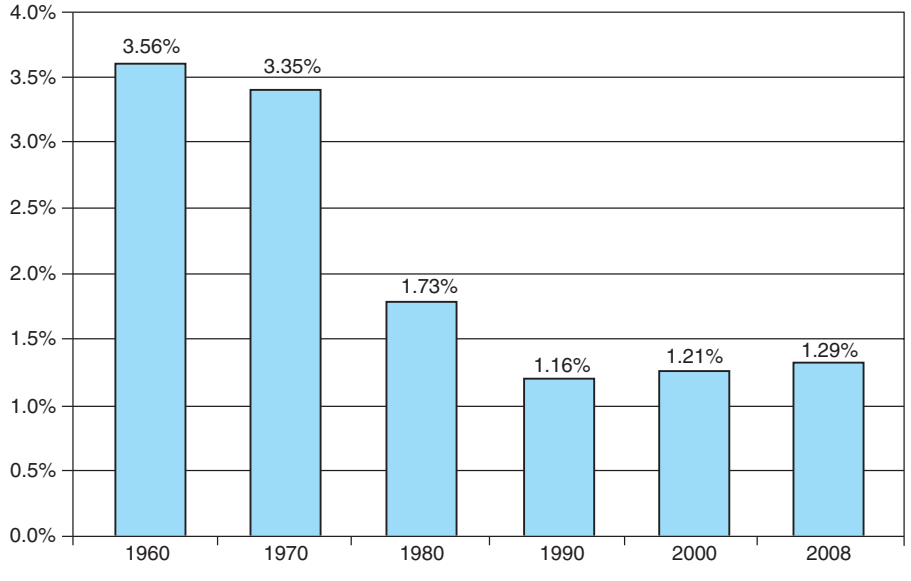
In terms of public health roles, no level of government has complete authority and autonomy. Optimal outcomes result from collaborative and complementary efforts. The case study that appears at the end of this chapter tells the story of improved motor vehicle safety in the United States during the 20th century; this achievement relied heavily on effective laws and their enforcement by all levels of government.

The relationships between and among the three levels of government have changed considerably over time in terms of their relative importance and influence in the health sector. This is especially true for the federal and local roles. The federal government had little authority and little ability to influence health priorities and interventions until after 1930. Since that time, it has exercised its influence primarily through financial leverage on both state and local government, as well as on the private medical care system. The massive financing role of the federal government has moved it to a position of preeminence among the various levels of government in actual ability to influence health affairs. This is evident in the federal share of total national health expenditures and the federal government's substantial support of prevention activities. However federal public health spending represents only about 1.3% of total federal health spending, one fourth less than in 1980 (Figure 4–10). This suggests that the federal commitment to public health has declined over recent decades. The federal proportion of total public health activity spending shows a similar pattern (Figure 4–11), declining from 44% in 1970 to 15% in 2008. Although federal bioterrorism preparedness funds beginning in 2002 may modify this trend, the financial influence of the federal government on public health activities nationally was lower in 2008 than it had been throughout most of the second half of the 20th century. Figure 4–12 traces public health activity spending from 1980 to 2008.

In recent decades, political initiatives have sought to diminish the powerful federal role and return some of its influence back to the states. However, little in the form of true transfer of authority or resource control has taken place through 2010. It is likely that the federal government's fiscal muscle will enable it to continue its current dominant role in its relationships with state and local government.

Local government has experienced the greatest and most disconcerting change in relative influence over the 20th century. Prior to 1900, local government was the primary locus of action, with the development of both population-based interventions for communicable disease control and environmental sanitation and locally provided charity care for the poor. However, the massive problems related to simultaneous urbanization and povertization of the big cities spawned needs that could not be met with local resources alone. Outside the large cities, local government responses generally took the form of LPHAs organized at the county level at the behest of state governments. This was viewed by states as the most efficient man-

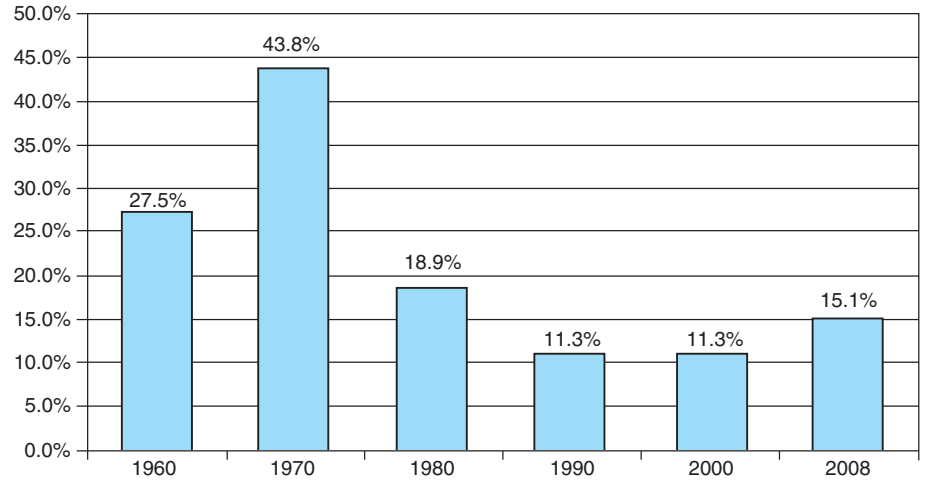
FIGURE 4–10 Federal public health activity spending as a percent of total federal health spending, United States, 1960–2008.



Source: Data from Centers for Medicare and Medicaid Services, National Health Accounts (NHA), selected years, 1960–2008.

ner of executing their broad health powers. States often viewed local governments in general and LPHAs in particular as their delivery system for important programs and services. In any event, the power of states and the growing influence of financial incentives through grant programs of both federal and state government acted to influence local priorities greatly. Priorities were being established by higher levels of government more often than through local determinations of needs. Although the demands and expectations were being directed at local governments, key decisions were being made in state capitals and in Washington, DC. Unfortunately there are signs that local governments across the country are looking for opportunities to reduce their health roles for both clinical services and population-based interventions where they can. The perception is that the responsibility for clinical services lies with federal and state government or the private sector and that even traditional public health services can be effectively outsourced. How these actions will comport with the widespread belief that services are best provided at the local level raises serious questions regarding new roles of oversight and accountability that are not easily answered. Local governments have lost control over priorities and policies; they bridle under the regulations and grant conditions imposed by state and federal funding sources. As costs increase, grant awards fail to keep pace; however, growing numbers of wholly or partly uninsured individuals now look to local government for services. These rising expectations and increasing costs are occurring at a time when local governments are unable and unwilling to seek additional tax revenues. The complexities of organizing and coordinating community-wide responses to modern public health problems and risks also push local government to look elsewhere for solutions.

FIGURE 4–11 Federal public health activity spending as a percent of total public health activity spending, United States, 1960–2008.

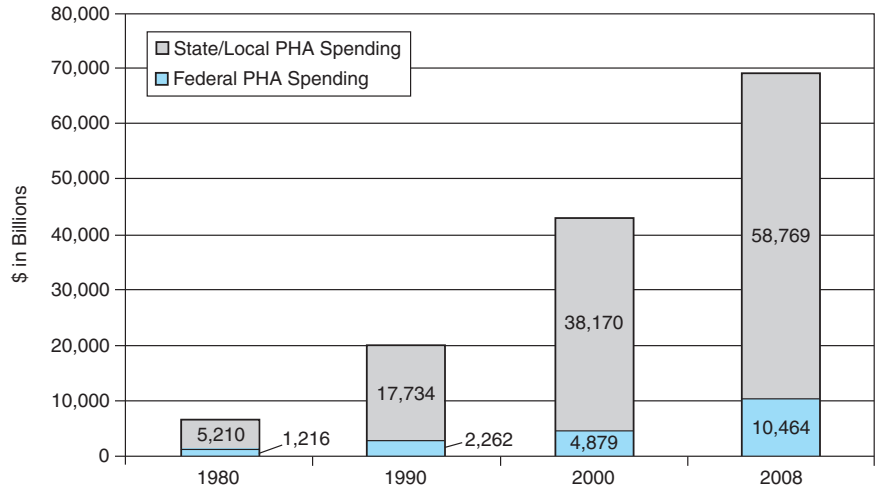


Source: Data from Centers for Medicare and Medicaid Services, National Health Accounts (NHA), selected years, 1960–2008.

States were slow to assume their extensive powers in the health sector but have been major players since the latter half of the 19th century. Although the growing influence of the federal government since 1930 displaced states as the most important level of government, their relative role has strengthened since about 1980. Still, states have become secondary players in the health sector. Most states lack the means, political as well as statutory, to intervene effectively in the portion of the health sector located within their jurisdictional boundaries. This is further complicated by their tradition of imitating the federal health bureaucracy whenever possible through the decentralization of health roles and responsibilities throughout dozens of administrative agencies. Coordination of programs, policies, and priorities has become exceedingly difficult within state government. Outside of state government, it has become virtually impossible. Still, the widely disparate circumstances from state to state make for laboratories of opportunity in which innovative approaches can be developed and evaluated.

The relationship between state and local government in public health has traditionally been tenuous and difficult. Just as the federal government views the states, states themselves have come to view local governments as just another way to get things done. As a result, states have turned to other parties, such as community-based organizations, and have begun to deal directly with them, leaving local government on the sidelines. This undervaluing of LHDs, when coupled with the declining appreciation among local governments for their health agencies, presents major challenges for the future of public health services in the United States. Instead of becoming stronger allies, these forces are working to pull apart the fabric of the national public health network.

FIGURE 4–12 Federal and state/local public health activity spending, United States, 1980–2008.



Source: Data from Centers for Medicare and Medicaid Services, National Health Accounts (NHA), selected years, 1980–2008.

These ever-changing and evolving relationships call into question whether the governmental public health network can be strengthened through a more centralized approach involving greater federal leadership and direction.[20] In decentralized approaches, some states may truly be laboratories of innovation and provide better services than can be achieved through a centralized approach. There are many examples of creative policies and programs at the state level, but there are also many examples of state creativity being stifled by the federal government. The history of state requests for waivers of Medicaid requirements is a case in point. Many states waited 2 or more years for federal approval of the waivers necessary to begin innovative programs, and some of the more creative proposals were actually rejected. Still, it can be argued that state political processes are more reflective of the different political values that must be reconciled for progressive policies to develop.

CONCLUSION

The structural framework for public health in the United States includes a network of state and local public health agencies working in partnership with the federal government. This framework is precariously balanced on a legal foundation that gives primacy for health concerns to states, a financial foundation that allows the federal government to promote consistency and minimum standards across 50 diverse states, and a practical foundation of LPHAs serving as the point of contact between communities and their three-tiered government. Over time, the relative influence of these partners has shifted dramatically because of changes in needs, resources, and public expectations. The challenges to this organizational structure are many. Those related to the public health emergency preparedness and response are addressed in the next chapter, and those emerging from the rapid changes within the health system and in the expansion of community public health practice are addressed in Chapters 3 and 6 of this text. There are increasing calls for government to turn over many public programs to private interests and growing concern over the role of government, in general. These developments make it easy to forget that many of the public health achievements of the past century would not have been possible without a serious commitment of resources and leadership by those in the public sector. In any event, it is clear that the organizational structure of public health—its form—intimately reflects the structure of government in the United States. As a result, the success or failure of these public health organizations will be determined by our success in governing ourselves.

Discussion Questions and Exercises

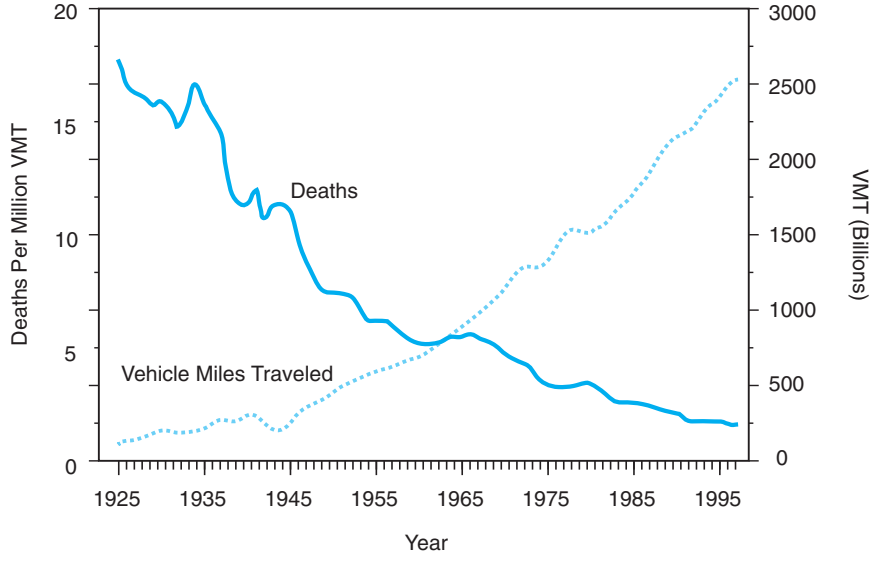
1. What is the legal basis for public health in the United States, and what impact has that had on the public health powers of federal, state, and local governments?
2. How can the enforcement of nuisance control regulations work for as well as against public health agencies?
3. What is meant by a state's police power, and how is that used in public health?
4. What is the basis for the historic tension between the powers of the federal government and the powers of states in public health matters?
5. How extensive is administrative law in public health, and how does it work? Cite a recent example of important public health rules or regulations in the news media.
6. Describe the basic structure of a typical local health department (LHD) in the United States in terms of type and size of jurisdiction served, budget, staff, and agency head. (The NACCHO Web site may be useful here!) How does this compare with the typical LPHA in your own state?
7. For the prevention of motor vehicle injuries (see the case study for this chapter), how are responsibilities assigned or delegated among the three levels of government (federal, state, local) and among various agencies of those levels of government? Who is responsible for what?
8. What are the primary federal roles and responsibilities for public health in the United States? How do those roles and responsibilities comport with Public Health Service (PHS) agency budget requests for federal fiscal year 2007 (see Figure 4–4)?
9. Has the evolution of both local and federal public health agencies taken parallel pathways? How has their development differed in terms of roles and responsibilities? What are the implications of these similarities and differences for public health problems that require more than one level of government?
10. Access the Web sites of any two U.S. state health departments and compare and contrast the two organizations in terms of their structure, general functions, specific services, resources, and other important features. (The ASTHO link to state health agency Web sites may be useful here.)

CASE STUDY

Motor Vehicle Safety

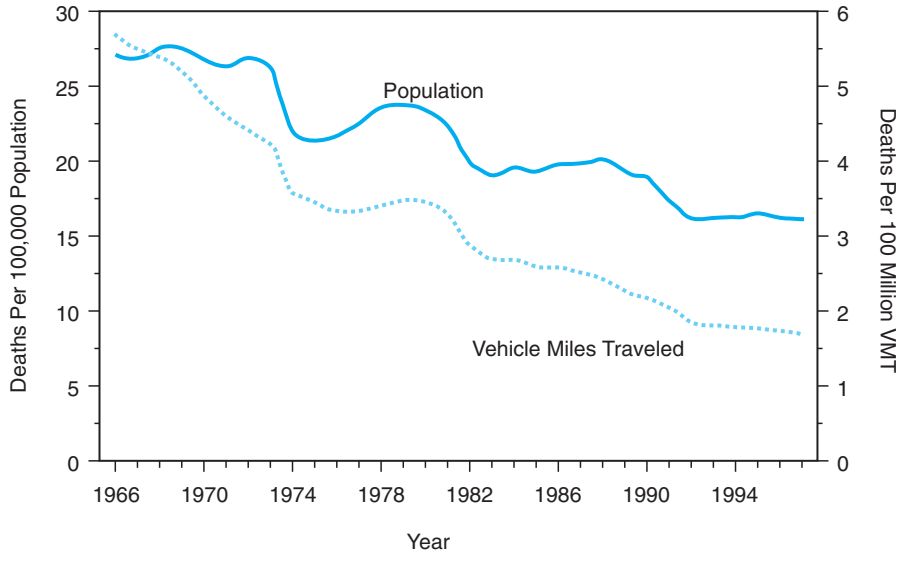
State and local health agencies are not the only governmental organizations working to reduce the burden of disease and ill health in society. Motor vehicle-related injuries are a prime example. Federal, state, and local government all play important roles through agencies that are better known for other responsibilities, such as law enforcement and transportation. The complexities of government and its various agencies add an important, but not necessarily the most important, dimension to public health practice. Highlights of this achievement are apparent in Figures 4–13 and 4–14. Figure 4–15 illustrates recent trends for a variety of injuries, and Figure 4–16 demonstrates progress toward achieving year 2010 targets for motor vehicle deaths and homicides. The changing face of injury threats in the United States is apparent.

FIGURE 4–13 Motor vehicle-related death rates per million vehicle miles traveled (VMT) and annual VMT, by year—United States, 1925–1997.



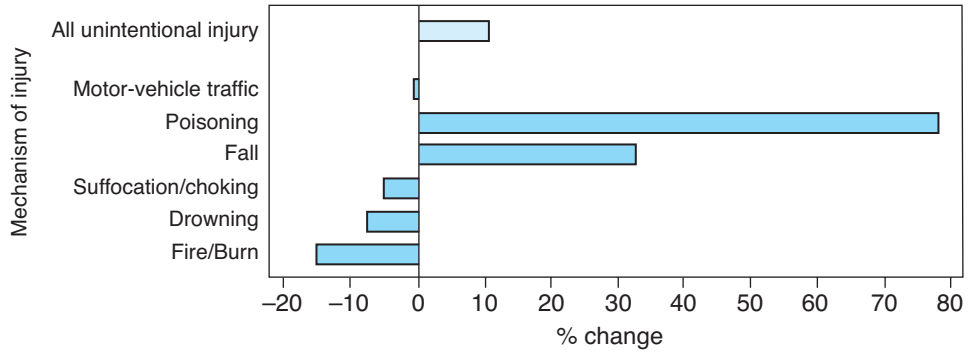
Source: From Centers for Disease Control and Prevention. Achievements in public health, United States, 1900–1999: motor vehicle safety. *MMWR*. 1999;48:369–374.

FIGURE 4–14 Motor vehicle-related death rates per 100,000 population and per 100 million vehicle miles traveled (VMT), by year—United States, 1966–1997.



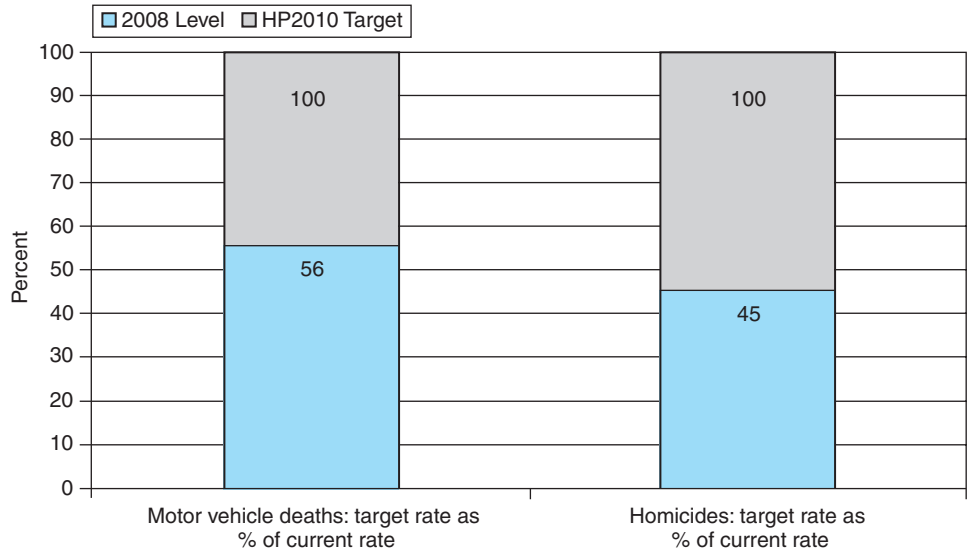
Source: From Centers for Disease Control and Prevention. Achievements in public health, United States, 1900–1999: motor vehicle safety. *MMWR*. 1999;48:369–374.

FIGURE 4–15 Percentage change in death rates for leading causes of unintentional injury, by mechanism of injury, United States, 1999–2005.



Source: From Centers for Disease Control and Prevention. Percentage change in death rates for leading causes of unintentional injury, by mechanism of injury, United States, 1999 to 2005. *MMWR*. 2008;57(25):701. Data from National Vital Statistics System (NVSS), 1999–2005. NVSS injury mortality data are available from CDC's Web-Based Injury Statistics Query and Reporting System (WISQARS) at http://www.cdc.gov/ncipc/wisqars/index.html.

FIGURE 4–16 Scorecard for selected *Healthy People 2010* leading indicators for injury comparing 2008 levels with 2010 targets.



Source: Data from Data 2010, *Healthy People 2010* database. http://wonder.cdc.gov/data2010/ftpselec.htm. Accessed May 31, 2010.

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