The mission of public health as defined by the Institute of Medicine report, *The Future of Public Health*—“fulfilling society’s interest in assuring conditions in which people can be healthy”—is very broad. The conditions include many factors that might not normally be thought of as relevant to public health. For example, the factor most significant in determining the health of a community is its economic status: people with higher incomes tend to be healthier for a variety of reasons. This expansive view of public health is not new. Winslow’s 80-year-old definition specifically includes as part of public health’s role, “the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health.”
Indeed, the early history of U.S. public health was closely tied to social reform movements. In addition to sanitary science and public hygiene, 19th-century reformers campaigned for improved housing, trade unions, the abolition of child labor, maternal and child health, and temperance. Winslow thought of public health as a military-style campaign and wrote of “whole populations mobilized for the great war against preventable disease.”

Public health can be viewed as a broad social movement. Dan E. Beauchamp, a noted public health philosopher, has written that “public health should be a way of doing justice, a way of asserting the value and priority of all human life.” In an influential 1974 paper entitled, “Public Health as Social Justice,” Beauchamp calls on public health to challenge the ideology that prevails in the United States, an ideology that he calls “market justice.” Market justice, he writes, emphasizes individual responsibility, minimal obligation to the common good, and the “fundamental freedom to all individuals to be left alone.” Under market justice, powerful forces of environment, heredity, and social structure prevent a fair distribution of the burdens and benefits of society. Social justice, on the other hand, suggests that minimal levels of income, basic housing, employment, education, and health care should be seen as fundamental rights. According to Beauchamp, “The historic dream of public health that preventable death and disability ought to be minimized is a dream of social justice.”

Political conservatives have tended to resist this broad vision of public health. They would prefer to limit public health to a technical enterprise focused on controlling communicable disease or as a safety net that provides medical care to the indigent. This restricted view of public health was encouraged by physicians, concerned about government encroachment on their economic and professional independence; their political power helped to limit federal health funding in the 1930s and 1940s to programs, run by local health departments, which were narrowly focused on providing services for child health, venereal disease control, tuberculosis, and dental health.

Concerns about health threats from environmental pollution that arose in the 1960s were addressed independently of the traditional public health system, and separate agencies were set up to deal with them. Similarly, social problems such as homelessness, drug abuse, and violence were not thought of as public health problems, although they had adverse health consequences. It was this fragmentation of public health that led the Institute of Medicine committee to conclude in 1988 that public health was “in disarray” and to affirm the comprehensive view of public health expressed by Winslow and Beauchamp.

The broad view of public health’s scope generates considerable controversy in America’s individualistic, market-oriented society. The notion that government has an obligation to provide healthy conditions for citizens who are unwilling or unable to provide such conditions for themselves—and indeed to provide medical care for those who need it, as most other industrialized countries do—has often been attacked as socialist. Conservative politicians have won office by campaigning against taxes, starving governments of funds that could provide health
services for all. Many Americans reflexively oppose being told what to do and resist the idea of governmental restrictions on their behavior even when the intent is to protect their own health and that of others. Moreover, many health problems have their roots in unhealthy behaviors that are so personal and intimate that moralists oppose even discussing them. Three issues—economic, libertarian, and moral—tend to come up repeatedly in any debate over public health actions or activities.

**Economic Impact**

Most public health measures have a negative economic impact of some kind on some segment of the population or on some industry. Consequently, any new proposal for a public health regulation is likely to inspire opposition from some quarter, on the grounds that it might cost jobs, add to the price of a product, or require a tax increase. It might also cut into a company’s profits. Consequently, industries resist change: milk producers resisted pasteurization, landlords resisted building codes, automobile manufacturers resisted design changes to improve safety. There are several reasons why these conflicts are particularly difficult to resolve.

The difficulty in dealing with the economic impact of public health measures has been illustrated by conflicts with the tobacco industry. Tobacco is clearly harmful to health, causing thousands of deaths and millions of dollars in medical costs annually. Yet, until recently, only mild restrictions and regulations were instituted to discourage use of the product. Tobacco is a major industry in the South, supporting jobs and providing profits for tobacco companies. Cigarette sales also are a significant source of income for many small businesses. Owners of bars and restaurants have fought laws restricting smoking on their premises, fearing that they would lose the patronage of smokers. Politicians are not eager to institute strong public health measures that would have such a major economic impact. Only in the past 2 or 3 decades, with the shift of public opinion against the tobacco industry, together with the industry’s need to protect itself against a potentially bankrupting flood of lawsuits by injured smokers, have federal, state, and local governments begun to take serious measures to control smoking.

In many circumstances, controversy arises because those who pay for a public health measure are not the ones who benefit. Environmental regulations such as restrictions on timber harvesting in the Pacific Northwest are regularly under attack because they may cost jobs in the lumber industry, although they may preserve jobs in the fishing and tourist industries as well as contribute in the long term to a more stable climate. Regulations that protect the health and safety of workers may require expensive protective equipment, thus driving up the costs to consumers.

In times of economic difficulty, people are often unwilling to pay short-term costs in order to obtain a benefit in the long term. In both the fishing and lumber industries, stocks have been
dangerously depleted, and there is a risk of killing off all the fish and cutting down all the timber, thereby destroying the industries altogether. Yet few workers in the fishing or lumber industries are willing to voluntarily cut back on their own harvests. Companies resist tough pollution control laws even though less polluting technology may lead to a long-term benefit not only for the environment but also for a company’s competitiveness in international markets. This short-sightedness became apparent at a time of high gas prices, when U.S. automobile companies suddenly lost market share and profits because they invested so much of their production into formerly profitable gas-guzzling SUVs that Americans can now no longer afford to drive.

The costs of public health measures are usually much easier to calculate than the benefits. For example, experts may know the cost of reducing smog in Los Angeles to a level that reduces deaths from lung disease by 10 percent. But how do they calculate whether this benefit is worth the cost? It is very difficult to put a dollar value on life and health. Furthermore, it is often difficult to quantify what the risk really is and how to balance it against other risks. People are concerned, for example, about farmers’ use of pesticides, which may leave toxic residues on fruits and vegetables. Scientists can estimate the health risks the average person faces by consuming that residue. But fruits and vegetables are an important part of a healthy diet. If the use of pesticides were forbidden, the crops might be less abundant, and the price of the produce might rise, perhaps discouraging some people from eating these nutritious foods. Thus, an effort to protect health might have a negative impact on health overall.

**Individual Liberty**

One of the primary purposes of government is to “promote the general welfare,” as called for in the U.S. Constitution. Health and safety, together with economic well-being, are the major factors that contribute to the general welfare. While the government cannot guarantee health and safety for each individual, its role is to provide for maximum health and safety for the community as a whole. One of the central controversies in public health is the extent to which government can and should restrict individual freedom for the purpose of improving the community’s health.

There has long been general agreement that it is acceptable to restrict an individual’s freedom to behave in such a way as to cause direct harm to others. Laws against assault and murder are found in the Bible and even in the Babylonian Code of Hammurabi, which dates to the 18th century B.C. When the harm is less direct, however, the issues become more controversial. Most controversial are governmental restrictions on people’s freedom to harm themselves.

Government restrictions on behavior that causes indirect harm to others is the way to prevent what Garrett Hardin, in 1968, called the “tragedy of the commons.” Hardin describes a pasture open to all herdsmen in a community. The land can support a limited number of
grazing cattle. If each herdsman tries to maximize his gain by keeping as many cattle as possible on the pasture—the commons—the pasture will be overgrazed. The cattle will starve, and the herdsman will be ruined. The only way for the community to save the pasture is to agree to restrict the freedom of the herdsman, placing fair and equitable limits on the number of cattle each can keep there.

In the industrialized world of today, the “commons” is the air, water, and other elements of the environment that all people share. Because no individual has the power to control the quality of his or her own personal environment independent of the behavior of his or her neighbors, government action is required to protect these common resources. While the general principle of protecting the “commons” is accepted by most citizens, there is plenty of room for controversy in defining what to include among the protected resources, as well as how extensive the protective measures should be.
The United States has made great progress over the past 40 years in cleaning up air and water through federal legislation. Now questions are being raised as to whether the laws have gone too far in restricting the “freedom” to pollute. Companies have been required to limit emissions from their smokestacks; automobile makers have been required to install emission control devices on every car they manufacture. These regulations may have driven up the costs of automobiles and other products, but they have not limited anybody’s freedom. However, California still has a serious air pollution problem. Proposed regulations for the state to meet the federal mandates for clean air have included a ban on gas-driven lawn mowers, elimination of drive-through windows in banks and fast-food restaurants (to cut the pollution that results from idling car engines), and a ban on charcoal lighting fluid. None of these activities on an individual basis—mowing a lawn, sitting in an idling car waiting for a hamburger, or lighting a few chunks of charcoal—contributes in any major way to the pollution of California’s air, but when done by thousands of residents each day, they add up to a significant problem. Are Americans willing to accept such significant limitations on their behavior in order to achieve the desirable goal of clean air to breathe?

Most controversial of public health measures are requirements that restrict people’s freedom for the purpose of protecting their own health and safety. Examples of such measures include requirements to wear seat belts when traveling in a car and helmets when riding a motorcycle. Such laws inspire allusions to “the tyranny of health” and “the health police,” although restrictions on many drugs, such as heroin, cocaine, marijuana, LSD, and—during Prohibition in the early 20th century—alcohol have been generally accepted.

Such restrictions on individual behavior are often criticized as “paternalism.” Libertarians, in the words of John Stuart Mill, argue that “the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others … In the part [of his conduct] which merely concerns himself, his independence is … absolute.” The one form of paternalism that is generally accepted is that children and young people can be restricted in their behavior on the basis that they are not yet mature enough to make considered judgments as to their own best interests. Thus, there are laws that prevent juveniles from buying tobacco and alcohol, that require them to wear bicycle helmets and seat belts (even where adults are not required to wear them), and that require parental permission to obtain birth control information or an abortion, or to go skydiving.

According to the libertarian view, which has a strong tradition in the United States, it is acceptable to outlaw drunk driving but not drunkenness itself. Similarly, smoking in indoor public places can be outlawed because the smoke bothers others (although there is still strong resistance in many places), while smoking itself cannot be regulated in adults.

Restrictions on individual liberty are sometimes justified on the basis that their purpose is really to protect others, even when the argument is a bit strained. For example, unhelmeted
motorcyclists could be a threat to others because of the possibility of their losing control if hit by flying debris. Unhelmed cyclists and unbelted motorists, severely injured in road accidents, drive up insurance rates for others and in extreme cases may become expensive wards of the state. Alcoholics and drug users bring harm to their families and are a nuisance to their neighbors.

Most public health advocates believe that there are more fundamental justifications for restrictions on individual behavior for the sake of the public health. Beauchamp, the philosopher, explores the reasons in his book, *The Health of the Republic*, arguing that such laws are needed most for behaviors that are common and carry small risks. Consistent use of seat belts, for example, prevents thousands of deaths and injuries in the population as a whole, although the risk people face on any one trip, when they must decide whether to buckle up, is quite small. While each individual’s choice to take the risk of driving unbuckled may be rational, society’s interest in preventing the thousands of deaths and injuries outweighs the minor inconvenience of obeying the seatbelt law.

Beauchamp’s argument in favor of limiting individual liberty for the common good is consistent with his view of public health as social justice. Death and disability are collective problems, he says, and collective action is needed to promote the common welfare. The U.S. tradition of supporting private liberty above all is wrong, as noted by that early critic of the American character, Alexis de Tocqueville, in that it “disposes [citizens] not to think of their fellows and turns indifference into a sort of public virtue.”

### Moral and Religious Opposition

Public health often arouses controversy on moral grounds, most often when it confronts sexual and reproductive issues. AIDS, other sexually transmitted diseases, teenage pregnancy, and low birth-weight babies are major public health problems in the United States. The public health approach to these problems includes sex education in schools and the provision of contraceptive services, especially condoms. These measures are often vigorously opposed by members of certain religious groups who believe that they promote immoral behavior. Safe and legal abortion to terminate unwanted pregnancy is even more controversial. While there is no question that the safest and healthiest lifestyle is to abstain from sexual activity before marriage and then to be faithful to one’s spouse, experience has long shown that preaching morality has limited efficacy in preventing sexually transmitted diseases and unwanted pregnancy.

AIDS has been an especially divisive issue because so many people with AIDS contracted the disease through behavior that is widely regarded as immoral—homosexual acts and intravenous drug use. Consequently, AIDS-related policy has often been confounded by moral revulsion against the disease and its victims. While not supported by the evidence, it is commonly
believed that education on how to protect oneself against contracting the virus that causes AIDS may encourage homosexuality and promiscuous sexual behavior in general. Similarly, moralists frown on the practice of providing clean needles to drug addicts because, while it is effective in reducing the spread of the virus, they believe it condones the use of intravenous drugs.

Moralism also enters into discussions of alcohol and drug policy. Libertarians could argue against regulation of alcohol and bans on addictive drugs on the basis that consumption of drugs is private behavior that does not directly hurt others. In fact, however, most citizens accept the validity of such regulation. The power of government to limit drug and alcohol consumption is well established in the United States and corresponds with the tradition of limiting individual behavior for the common good.

While regulation for the common good is valid, trying to legislate morality has often proven to be ineffective, self-defeating, and a threat to liberty, in part because people differ in what they view as moral. When morality is the justification for banning certain behaviors, rational discussion is often impossible. Free speech is repressed, victims are demonized, practitioners of the behavior are driven underground, and the “epidemic”—whether AIDS, drug abuse, or teenage pregnancy—spreads more easily.4

Moral and religious concerns may interfere with scientists’ studying how to prevent the spread of the human immunodeficiency virus (HIV) and other diseases and conditions caused by unhealthy behavior. Up to half of the deaths in the United States are preventable, many of them caused by unhealthy behavior. Yet a small fraction of the research funded by the federal government is devoted to understanding why people behave in unhealthy ways and how to encourage them to change these behaviors. Such research tends to be highly controversial and is vulnerable to attacks by conservative groups. For example, in the fall of 2003, a group called the Traditional Values Coalition drew up a list of projects funded by the National Institutes of Health and requested that a congressional committee investigate why taxpayer money was being “wasted” on these studies, which involved HIV transmission and sexual behavior.9 Although the investigation did not lead to withdrawal of funding from any of these projects, such episodes do have the effect of discouraging scientists and funding agencies from conducting research on many important public health problems.

Political Interference with Science

While there are legitimate differences of opinion on how to weigh the competing interests in making policy that affects public health, these decisions should be informed by science to the extent possible. The George W. Bush administration was notorious for going beyond previous political practices in manipulating and distorting scientific evidence to fit its political agenda. In February 2004 the Union of Concerned Scientists (UCS), a nonprofit advocacy group, released
a report called “Scientific Integrity in Policymaking,” which was signed by more than 60 leading scientists, including 20 Nobel-Prize winners.\textsuperscript{10} The report documented many instances of the administration’s misrepresentation or suppression of scientific information and stacking of scientific advisory committees to obscure the fact that policy decisions were based on its political agenda, which usually favored right-wing constituencies and large corporations.

One example cited by the UCS report was pressure on the Centers for Disease Control and Prevention (CDC) to promote abstinence-only programs for preventing teen pregnancy. The CDC was required to remove from its Web site information on “Programs that Work,” five sex education programs for teenagers that had been found effective in scientific studies. Similarly, the CDC replaced information on the effectiveness of condoms in preventing the spread of HIV/AIDS with a document that emphasizes condom failure rates and the effectiveness of abstinence. While there is no dispute that abstinence is the most effective way to prevent pregnancy and HIV transmission, scientific studies have found abstinence-only programs to be ineffective. In 2003, \textit{The New York Times} reported that the National Cancer Institute’s Web site contained information suggesting that having an abortion increased a woman’s risk of breast cancer. This issue had long been discredited by a number of epidemiologic studies, and the publicity forced the Institute to remove the inaccurate information.\textsuperscript{11}

Since the publication of the UCS report, the organization has maintained an ongoing “Integrity in Science Watch,” documenting instances of political interference with government scientists as well as conflicts of interest by scientists and organizations with ties to industry.

Global warming was an issue on which the Bush administration especially sought to suppress information and to discredit scientific evidence. According to the UCS, the political environment over this issue was so hostile that the Environmental Protection Agency decided to omit an entire climate change section from a major report on the environment rather than compromise its credibility by misrepresenting the scientific consensus. A scientist from the National Oceanic and Atmospheric Administration reported that, when he organized a conference on carbon dioxide, he was told that the words “climate change” could not be used in the title of any presentation.

Another way the administration sought to distort scientific information, according to the UCS report, was by packing scientific advisory committees with ideologues and industry representatives. For example, the President’s Council on Bioethics was created to consider research on embryonic stem cells, which offers the hope of curing many degenerative diseases, but has been strongly opposed by abortion opponents. In early 2004, President Bush dismissed two of the members, scientists who were supporters of such research. “It seems like an act of desperation to keep the bioethics commission from coming up with advice [the president] doesn’t want to hear,” said a Nobel-prize winning geneticist.\textsuperscript{12} An advisory committee on childhood lead poisoning prevention was about to recommend that the CDC issue
a stricter federal standard for exposure to lead, which damages children’s brains and nervous systems, when the Secretary of Health and Human Services replaced highly qualified scientists on the committee with members who had financial ties to the industry. “The Bush administration has the right to implement the policies it chooses,” said one of the signers of the UCS statement. “We object to the administration pretending the science supports these policies, when in fact it doesn’t.”

President Barack Obama has promised to restore scientific integrity to federal policy making. His science advisor, physicist John Holdren, was one of the original signers of the UCS’s report. President Obama issued a scientific integrity directive in 2010, which was praised by the UCS, but the organization continues to monitor federal policymaking, tracking the Obama administration’s progress—and missteps—toward restoring scientific integrity. Although the Obama administration appears to be more inclined to make policy decisions based on honest science, it is still susceptible to pressure from Congress and business interests to eliminate “unnecessary regulation” and weaken safety protections for economic reasons.

Conclusion

Public health is controversial because, depending upon how it is defined, it may challenge people’s values and demand sacrifices. The battle between an expansive and a restrictive view of public health is ongoing. The expansive view asks people to give up a degree of personal liberty for the common good.

At its most idealistic, public health is a broad social movement, a campaign to maximize health for everyone in the population through distributing benefits and responsibilities in an equitable way. Health is therefore “a political endeavor as much as, or at times even more than, a medical one.”

Public health measures are often controversial because they have an economic impact. The people or industries that must pay the price may not be the ones that will benefit from the new protections. Costs are usually more concrete than benefits. Moreover, the price may need to be paid sooner while the benefit may not be achieved until later.

Public health may be affected by personal and intimate behaviors, which are often embarrassing and even offensive to discuss. Thus some public health measures are controversial because they arouse moral or religious objections.

Although there are legitimate differences of opinion on how to weigh competing interests in making public health policy, concerns were raised that the Bush II administration misused and distorted scientific evidence to pretend that its policies were based on science when they really were not.
References
