Public Health Then and Now

Don Quixote, Machiavelli, and Robin Hood: Public Health Practice, Past and Present

Fitzhugh Mullan, MD

A B S T R A C T

Since the mid-19th century, when the first formal health departments were established in the United States, commissioners, directors, and secretaries of public health have functioned as senior members of the staffs of public executives, mayors, governors, and presidents. They have provided important political, managerial, and scientific leadership to agencies of government that have played increasingly important roles in national life, from the sanitary revolution of the 19th century to the prevention of HIV/AIDS and the control of tobacco use today. Although public health officials come from a variety of backgrounds and oversee agencies of varied size and composition, there are philosophical themes that describe and define the commonality of their work. These themes are captured metaphorically by 3 celebrated figures: Don Quixote, Machiavelli, and Robin Hood. By turns, the public health official functions as a determined idealist (Don Quixote), a cunning political strategist (Machiavelli), and an agent who redistributes resources from the wealthier sectors of society to the less well off (Robin Hood.) All 3 personae are important, but, it is argued, Robin Hood is the most endangered. (*Am J Public Health*. 2000; 90:702–706)

Science and politics come face to face in the practice of public health. Public health practitioners, whether commissioners of public health departments or program staff, are assigned the task of putting the products of scientific discovery to work for the population as a whole. This they do not in a laboratory but in the public arena—a domain governed by political forces and politicians whose agendas are larger and more variable than those of the public health worker. Edwin Chadwick himself, the principal architect of British public health in the 19th century, discovered this when his energetic work as a commissioner of the General Board of Health led to its dissolution by Parliament in 1854, a mere 6 years after it was inaugurated.[1] Although Chadwick's American contemporary, Lemuel Shattuck, published his *Report of the Sanitary Commission of Massachusetts* in 1850, it was 19 years later (and after Shattuck's death) that his proposal for a health department in the state of Massachusetts was enacted.[2]

These 19th-century leaders, and many who worked with and after them, succeeded in coupling the growing understanding of science—particularly bacteriology, or "sanitary science"—to the engine of government to create the public health movement. Although born of government, this movement sought to disencumber itself from patronage and the venality of politicians and the political process. Early leaders of state and municipal boards of health included social reformers, politicians, and physicians, and progress in sanitation was often offset by corruption and scandal. These boards focused on issues such as sewage and waste removal, vaccination, and the testing of milk to ensure child health.[3]

In April 1872, Drs Stephen Smith and Elisha Harris of New York convened a small group of their colleagues to explore the formation of an organization in what is the first documented professional meeting of health officers. At a larger meeting on September 12 of that year, the American Public Health Association was founded, a seminal moment in the establishment of public health as a domain of professional practice. From that point on, the American Public Health Association was a strong supporter of the formation of boards of health and the professionalization of public health leadership.[4]

Most of the early boards of health functioned as advisory bodies, with little power to make changes in the face of competing interests. However, revolutionary discoveries made during the latter years of the 19th century, by Pasteur, Koch, and others, led to innovations in areas such as the production of diphtheria antitoxin and the control of tuberculosis, giving health officials increasing credibility and authority. By the early years of the 20th century formal health departments had emerged as the agencies of public health, most headed by physicians and staffed by sanitary engineers, bacteriologists, chemists, and trained inspectors. Their enterprises multiplied rapidly, encompassing contagious disease control, food inspection, plumbing, school health, child health, the licensing of physicians and midwives, and campaigns against specific conditions such as "social evil" (prostitution).[5]

Public health in this epoch gained an element of police power and enforcement that represented a degree of independence for public health officials that had not existed previously. It is difficult to measure this degree of independence compared with that of the current epoch, but many important early leaders—such as George Whipple of Massachusetts, Charles Chapin of Rhode

The author is with Health Affairs, Bethesda, Md.

Requests for reprints should be sent to Fitzhugh Mullan, MD, Health Affairs, 7500 Old Georgetown Rd, Suite 600, Bethesda, MD 20814 (e-mail: fmullan@projhope.org).

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Island, Victor Vaughn of Michigan, John Hurty of Indiana, and Oscar Dowling of Louisiana—held office for far longer than officials of today and provided significant public health leadership at the state and national levels.[6] Perhaps the most influential health official of this epoch was Hermann Biggs, who served as health commissioner of New York City and then New York State for almost 40 years. His tenure spanned the turn of the century, and he played a leadership role in tuberculosis control, use of diphtheria antitoxin, development of community health centers, and administrative reform.[7]

The Public Health Official in the 20th Century

The Progressive movement of the first years of the 20th century gave Biggs and his reformist colleagues an enormous boost. The movement focused attention on issues such as poverty, child labor, maternal and child health, and social insurance.[8] Political Progressivism melded scientific efficiency with moral compassion, creating an ideal environment for the growth of public health. Although a number of cities on the eastern seaboard had health boards beginning in the early 19th century, and Massachusetts established the first state health department in 1869, it was the final years of the 19th century and the first decades of the 20th that saw state and local health departments spread across the country and the role of the health official in public life become more important.

Two very important developments for the public health movement took place in the second decade of the 20th century. The first was the enactment of legislation in 1912 that changed the name of the Public Health and Marine Hospital Service to, simply, the Public Health Service. It also added to the mission of the newly named agency the investigation of "the diseases of man and propagation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams and lakes of the United States."[9] The mission of the Public Health Service, which had previously been limited to quarantine, medical research, and the care of merchant sailors, was dramatically expanded, creating a corps of federal public health officials who would serve as allies of state and local health officials working on local health, sanitation, and environmental problems. Indeed, in the years following the passage of this legislation Public Health Service personnel tackled multiple problems of rural sanitation and health, including hookworm, trachoma, and pellagra.[10]

The second portentous happening of this period for public health practice was the advent of county health departments—a development that would ultimately create the largest cadre of public health officials in the United States. The suburbanization of metropolitan areas provided the impetus for the formation of the first county health agencies, which occurred in 1908 in Jefferson County, Kentucky, where Louisville is located, and in 1911 in Guilford County, North Carolina, where Greensboro is located.[11] In 1911 a typhoid epidemic in Yakima, Washington, led the Public Health Service to dispatch Dr Leslie Lumsden, who, working with the state health department and local officials, performed a sanitary survey of the county. That survey led to the appointment of a full-time Yakima County health officer and established a pattern of Public Health Service locality surveys that catalyzed the formation of many county health departments.[12]

Federal grants-in-aid to state and local public health departments began, cautiously, with the Sheppard-Towner Act of 1921, which provided support to child health programs through state health departments.[13] Congress killed the program in 1929 by denying it funding, but the Sheppard-Towner Act proved to be a precursor to Title V of the Social Security Act of 1935, which has fueled the national Maternal and Child Health program through state and local health departments since that time. Title VI of the Social Security Act provided the first program of grants-in-aid to state health departments for general public health purposes. This funding, coupled with Depression-driven programs such as the Works Progress Administration and the Public Works Administration, built a financial base under health departments that supported health surveys, new construction, and hiring of new personnel.[14] These developments armed public health officials with increased resources and larger constituencies, but they also made the work more complex and more political.

World War II and its aftermath saw major changes in both health science and the role of public health agencies. Prewar sanitary successes against infectious diseases, combined with the advent of antibiotics and the polio vaccine after the war, decreased the focus of health agencies and the public on contagious illnesses. Mental, occupational, and environmental health became the domain of health departments in a world dominated by the rapid growth of hospitals financed by the Hill-Burton program, private health insurance, and medical research funded through the National Institutes of Health. The administration of public health functions at the state and local level varied considerably from area to area, but as mental, occupational, and environmental health issues were joined in the mid-1960s by Medicaid (in some states), the situation called for public health officials with an increasing range of management and political skills.

From the 1960s on, federal agencies funded augmented levels of state and local health department activity—often with state matching-fund requirements—in areas such as maternal and child health, nutrition, immunization, control of sexually transmitted diseases, and health planning. Prevention and health education were increasingly important themes in public health work in areas such as tobacco use, seat-belt use, injury prevention, and gun control. Perhaps the most unexpected aspect of the life of the public health official in recent years has been the resurgence of infectious disease. HIV/AIDS is the most prominent of the new infections, but the emergence of Legionnaire disease, hantavirus infections, toxic shock syndrome, viral hemorrhagic fevers, and multidrug-resistant tuberculosis in today's mobile and heavily populated world has recommissioned the contemporary health officer as a soldier in the war against infectious disease.

Throughout the late 1930s and 1940s, the idea of national health insurance was hotly debated. Public health officials often found themselves in difficult positions, caught between their desire to serve the sick and the poor and the American Medical Association's aggressive opposition to any national health insurance program.[15] The legislative campaign eventually faltered, but the national debate continued, resulting ultimately in the passage of the Medicare and Medicaid programs in 1965. Although a number of the programs enacted in the 1960s to provide health services to disadvantaged populations (e.g., the Community and Migrant Health Center program and the National Health Service Corps) bypassed public health agencies, with federal grants given directly to communities,[16] a devolutionary emphasis in Washington and the growing prominence of state governments have put state and local health agencies back in the middle of the debate about health care for the increasingly large population of uninsured Americans.

The Multiple Roles of the Public Health Official

In 1945 the great public health scholar and philosopher C.-E. A. Winslow assumed the editorship of the *American Journal of Public Health,* a position he would hold for a decade. He wrote:

> In the half of the century yet to come, the health officer must not be solely interested

> in syphilis, tuberculosis, or even heart disease and cancer. He must more and more concern himself with nutrition [and] housing. . . . He should lead in the elimination of substandard dwellings and participate actively in the planning for slum clearance, urban development and low-rent housing. He must concern himself with the living wage and the provision of a due measure of social security which is essential to both physiological and psychological health. In other words, public health which in its earliest days was an engineering science and has now become also a medical science must expand until it is, in addition, a social science.[17]

Winslow envisioned the health officer as someone who would take on not only the problems of ill health in the population but also the social circumstances that generate ill health. Undoubtedly, Winslow's vision will resonate with many individuals who took up the mantle of public health practice in the latter part of the 20th century. It is an ambitious and idealistic vision. Half a century later, how does life in public health practice comport with the challenge laid down by Winslow? What are the principles and challenges that face the public health official of today?

In the domain of public health at the outset of the 21st century, the stakes are very often high, and the life of a public health official is complex. He or she deals with some of society's toughest issues, including HIV/AIDS, environmental quality, abortion, addiction, and homelessness. Medicaid and Medicare, in particular, are big-ticket budget items, as are state-run institutions and government-sponsored community health and mental health centers. Even nonbudgetary health issues, such as tobacco policy and nursing home standards, involve large, politically organized industries. Needle exchange programs and physician-assisted suicide touch sensitive public nerves. Inevitably, public health practice becomes involved in the politics of the time and place, and public health practitioners are, perforce, political players.

These, of course, are issues that many others in our society engage as well. Public health officials, however, do not have the latitude of elected officials, who tackle these questions from their own political perspectives, mindful, presumably, of the preferences of their constituencies. Public health officials do not enjoy the certainty of business managers, whose approach to these issues is governed by market forces and technocratic imperatives. And public health officials, unlike clinicians, cannot base their decisions on biological science alone.

The public health official, in fact, must be politician, manager, and clinician in varying degrees at all times. Not only does this require a broad range of abilities and multiple databases, but the proportion of each of these skills that the public health leader exercises at any given time depends entirely on the circumstances. At the height of a legislative session, the public health official must be an adept politician, twisting arms and making pragmatic compromises with the best of them. Back at the office, he or she will be called on to make major management decisions about computer systems, labor relations, and risk management for departmental employees. Immunization strategies, HIV testing policy, and *Pfiesteria* outbreaks call on the public health official's clinical judgment and training. Although politics, management, and science make a heady brew and ensure that the job will never be dull, stepping regularly between these 3 walks of life can be awkward and hazardous—not to say fatiguing.

FIGURE 1—Picasso's depiction of Don Quixote de la Mancha, the naive but tenacious idealist, who was the creation of the Spanish writer Miguel Cervantes (1547–1616). Quixote's name lives on in the term "quixotic," meaning impractical but principled in the pursuit of ideals.

FIGURE 2—Niccolo Machiavelli (1469–1527), Italian statesman and author, is best known for *The Prince*, a classic text on the practice of cunning and calculation in politics and public life. The designation "Machiavellian" is synonymous with deceit, expediency, and cunning.

Don Quixote, Machiavelli, and Robin Hood

On a philosophical level, the challenge runs deeper. Many people enter the field of public health because it is a discipline that promises to give substance to their sense of altruism. As Winslow suggested, it is work that puts principle into action, that struggles toward the ideal even as it deals with some of society's most intransigent problems and most entrenched interests. For people coming of age in the post-Sputnik era, a career in public health blends science, the civil rights movement, and the Peace Corps experience. While solid waste and substandard nursing homes are more likely than windmills to be public health workers' targets, there needs to be a little Don Quixote in all public health practitioners—Don Quixote, the unabashed, unapologetic, unflappable idealist, locked in on his mission, undaunted by the doubters and the halfhearted.

But Don Quixote alone is not sufficient. The stakes are high, and the adversaries of public health have never heard of Don Quixote. Altruism does not motivate landlords to conduct lead paint abatement programs or restaurateurs to designate no-smoking areas in their establishments. Those who want to protect the quality of air and water invite altercations with some of society's largest and best-organized commercial interests. Battling—let alone besting—such interests requires cunning, daring, and doggedness in variable measures. Although issues such as these are sometimes joined in the courtroom, they are never matters for judicial review until laws have been passed proscrib-

FIGURE 3—Robin Hood, the legendary hero of 12th-century England, made his reputation robbing the rich to help the poor.

ing certain behaviors as threats to the public health. Therefore, the first rounds of public health advocacy are always fought in the legislative chambers, meaning that the public health official must be adept at generating the alliances of political interests and support that will put public health statutes on the books. The proverbial horse trades and smoke-filled rooms must be part of the beat of the successful public health official.

In his 16th-century treatise *The Prince,* Machiavelli laid out for all time the rules of cunning and intrigue in the conduct of palace politics. Public health leaders who are ambitious for their programs would do well to read *The Prince* and carry a modicum of Machiavelli's pragmatic cynicism with them as they put their ideals to work for the public good.

Public health work spans the geographic, social, and economic breadth of our society. Rich and poor, uptown and downtown, rural and urban, commercial and residential—all rely on the purity of the drinking water that is monitored by public health programs. Every citizen is affected by the quality of laboratories and nursing homes, as well as by the investigation of disease outbreaks. Historically, however, public health departments have maintained a special relationship with society's poor and less fortunate citizens, serving as an instrument to carry out programs of social equity that provide the poor with services that other citizens are able to purchase on the open market. Much of the work of public health departments today involves the provision of services to the vulnerable and the disadvantaged, for example, maternal and child health services, sexually transmitted disease programs, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

The public health department is, therefore, an instrument of economic redistribution—a public agency that uses revenues generated by that part of the population that pays taxes to provide services to citizens who very often do not. The public health official is, perforce, an agent of and often a spokesperson for distributional justice. If public health programs are to be successful, they must draw funds from the public treasury and spend them on individuals who may be perceived by many as undeserving, troublesome, or even criminal. These programs will treat addicts, alcoholics, homeless persons, children born out of wedlock, and AIDS patients. These people are the clientele of the public health official, and to serve them well he or she must be prepared to assault the public purse on their behalf. Part of the public health official's professional identity must be that of Robin Hood, taking from the rich and giving to the poor, ambushing the public conscience and budget whenever possible to provide better and more humane services to the poor. Without such a sense of mission, a public health official runs the risk of becoming a warden and providing leadership impoverished of both finance and spirit.

The Public Health Official and the Executive

Keeping Don Quixote, Machiavelli, and Robin Hood in mind will help steer the public health official through the difficult and fascinating course that he or she must travel. A fourth person who must be kept in mind is the elected executive (president, governor, mayor, or county executive) for whom the health official works. The elected public official is as close as America comes to royalty. Public executives are potentates pro tem, and although not all of them act that way, most have the authority to command not only political loyalty but personal fealty. Elected executives (in contrast to elected legislators) have the apparatus of government as their responsibility and at their disposal, and the public health official is a beneficiary as well as a captive of that authority. A public health official who is of one mind with the executive will enjoy significant derivative power, but one whose person or program is out of favor with the executive will find that power greatly diminished, and most likely will be out of a job before long.

Being in league and in step with the executive is more than a matter of palace protocol. It is a requirement for professional effectiveness. It is also an arena in which the public health official enjoys a potential advantage over other public administrators, because a smart executive will recognize the technical nature of many of the issues in the health portfolio and will defer to the judgment of the public health official in a way that he or she might not with appointees who are less clearly professionally grounded.

The public health official will be called on to tangle with other members of the executive's cabinet on issues of economic or social contention in which the health perspective differs from that of other interests—when to shut down a convention because of Legionnaire disease, how to promote safe sex, when to declare a water source unsafe because of chemical or infectious contaminants. These circumstances raise issues for public health officials that do, indeed, invite the counsel of Machiavelli. The need to remain faithful to scientific and objective criteria for action must coexist with the necessary deference to elected political power. A public health official rarely succeeds in publicly stepping over his chief executive in pursuit of a public health issue, as Surgeon General C. Everett Koop did with President Reagan in the case of AIDS. The more common task of the public health official, and it is a crucial one, is to educate and persuade the executive at every opportunity. At stake are issues of style as well as substance, and the effective official will compromise far more often on issues of style than on those of substance.

Robin Hood at Risk

Although Don Quixote and Machiavelli are alive and well in the ranks of public health officials, there is reason to be concerned that Robin Hood is at risk. The role of health departments in the redistribution of wealth

has always been open to some debate in the ranks of public health practitioners. There have always been public health leaders who have argued that the provision of medical care diverts public health from its real purpose and takes money from its coffers. Individuals holding this philosophy argued against public health involvement in early efforts to pass a national health insurance plan and prevented the formation of a medical care section in the American Public Health Association until 1949.[18] The same sentiments were extant in the ranks of the US Public Health Service and were responsible for creating an environment in which Medicare and Medicaid, when enacted in 1965, were never candidates for inclusion in the Public Health Service. Those sentiments in the public health community, coupled with what is often an activist interest in medical care in the welfare community, are responsible for the fact that Medicaid was linked legislatively to public assistance from the outset and for the fact that the vast majority of Medicaid programs have always been run by state agencies other than the health department. Medicaid is the largest redistributional program in the health sphere, and, unhappily, in many instances the public health community has allowed the role of Robin Hood to be played by others.

The Institute of Medicine's landmark 1988 publication *The Future of Public Health* dealt judiciously with this issue.[19] That report declares that one of the 3 major functions of public health is "assurance," meaning that health departments should concern themselves with making sure that services get delivered to disadvantaged citizens. While this is a statesmanlike accommodation to the varied reality of attitudes about the delivery of medical services by health agencies, it does allow a fair amount of latitude to those who are disinclined to see health services delivery as an essential public health function.

Most recently there was President Clinton's failed health care reform initiative, which would have ensured that all Americans had a primary care provider available to deliver the full complement of preventive and curative services. Had such legislation been enacted, the need for health departments to play a role in health services delivery would have been greatly diminished. But this did not happen. Although Medicaid managed care requires the provision of full preventive and primary care services, it covers only a minority of poor and uninsured Americans—meaning that the role of public health agencies in the health care safety net will remain essential for the foreseeable future.

These historical trends, along with the impact of the welfare reform law, immigration policy, and the declining levels of free care provided by hospitals, mean that Robin Hood is embattled. Machiavelli and Don Quixote can provide Robin Hood with some assistance, but public health officials need to continue to speak out on behalf of their poor and disadvantaged clients, for whom the celebrated "marketplace" provides little and for whom publicly sponsored programs are increasingly the only option. It is easy to look beyond the health care needs of the moment to a time in the future when universal coverage will finally come to the United States—when health departments will be able to focus on assessment, policy development, and assurance. But that time is not now.

It is hard to be certain, of course, but it seems likely that our forebears in public health—the strategists Edwin Chadwick and Lemuel Shattuck, the quintessential practitioner Hermann Biggs, the scholar and historian C.-E. A. Winslow, and the founder of the American Public Health Association, Stephen Smith—would share these apprehensions about the state of our system as we enter the 21st century, and that they would call on the Robin Hood in today's public health leaders to be active and vigilant. □

Acknowledgment

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Endnotes

1. George Rosen, *A History of Public Health* (New York, NY: MD Publications Inc, 1958), 197–228.
2. Lemuel Shattuck, *Report of the Sanitary Commission of Massachusetts* (1850; reprint, Cambridge, Mass: Harvard University Press, 1948).
3. The following review of the history of public health departments in the United States draws from Rosen, 294–496; John Duffy, *The Sanitarians: A History of Public Health* (Urbana and Chicago: University of Illinois Press, 1990), 126–316; and Paul Starr, *The Social Transformation of American Medicine* (New York, NY: Basic Books, 1982), 180–197.
4. Duffy, 130, 148.
5. Starr, 184–189; Duffy, 143, 205–206.
6. Duffy, 222.
7. Charles-Edward Avery Winslow, *The Life of Hermann Biggs* (Philadelphia, Pa: Lea & Febiger, 1929).
8. Commentaries by 3 important public health practitioners from the first quarter of the 20th century—B. S. Warren and Edgar Sydenstricker, "The Relation of Wages to the Public Health," and C.-E. A. Winslow, "Public Health at the Crossroads"—have been reprinted in the *American Journal of Public Health* 89 (1999): 1641–1648.
9. Bess Furman, *A Profile of the United States Public Health Service, 1789–1948* (Washington, DC: US Department of Health, Education, and Welfare, 1973), 286–287.
10. Fitzhugh Mullan, *Plagues and Politics: The Story of the United States Public Health Service* (New York, NY: Basic Books, 1989), 58–70.
11. Duffy, 232.
12. Ralph C. Williams, *The United States Public Health Service, 1798–1950* (Washington, DC: The Commissioned Officer Association of the United States Public Health Service, 1951), 141, 337–339.
13. Rosen, 363–364.
14. Duffy, 258–261.
15. Starr, 280–286; Duffy, 275–277.
16. Fitzhugh Mullan, "The National Health Service Corps and Health Personnel Innovations: Beyond Poorhouse Medicine," in *Reforming Medicine: Lessons of the Last Quarter Century,* ed. Victor Sidel and Ruth Sidel (New York, NY: Pantheon, 1984), 176–200.
17. C.-E. A. Winslow, quoted by Milton Terris in the introduction to the reprint edition of Winslow, *The Evolution and Significance of the Modern Public Health Campaign* (1923; reprint, New Haven, Conn: Yale University Press, 1984), x.
18. A. Viseltear, "Emergence of the Medical Care Section of the American Public Health Association, 1926–1948," *American Journal of Public Health* 63 (1972): 986–1007.
19. Institute of Medicine, *The Future of Public Health* (Washington, DC: National Academy Press, 1988).