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Law and Public Health: Beyond Emergency Preparedness

Wendy K. Mariner

Law and Public Health: Beyond Emergency Preparedness[†]

Wendy K. Mariner*

ABSTRACT: This Article examines three questions: What is public health? What is public health law? What roles can lawyers play in public health? It first describes the breadth of public health, highlighting six trends shaping its future: social determinants of health; synergy between medicine and public health; shifts in focus from external (e.g., environmental and social) to internal (behavioral) risks to health; federalization of public health law; globalization of health risks and responses; and bioterrorism. Because the domains of law that apply to public health are equally broad, the Article next offers a conceptual framework for identifying the types of laws most suitable to different public health problems. Finally, the role of lawyers in the applied field of public health law is examined, first to encourage attention to law's effect on health, even laws having little apparent relationship to health; and second, to recognize that laws intended to achieve specific health outcomes may affect broader legal principles. Lawyers have a unique role to play in ensuring that the legal principles used to promote health also preserve justice.

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Marilyn Chase's history of the bubonic plague that struck San Francisco one hundred years ago recounts the different approaches taken by federal public health officers to stop a potential epidemic that could have killed thousands and cost millions of dollars in lost business.¹ When Dr. Joseph Kinyoun, a bacteriologist, suspected that plague caused the death of a man from the "Chinese quarter," he quarantined the area, where about ten thousand people of Chinese ancestry lived, ter-

[†] Parts of this Article are based on Wendy K. Mariner, *Public Health and Law: Past and Future Visions*, 28 J. HEALTH POL., POL'Y & L. 525 (2003).

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¹ MARILYN CHASE, *THE BARBARY PLAGUE: THE BLACK DEATH IN VICTORIAN SAN FRANCISCO* (2003).

rifying the residents.² The quarantine fence serpented around to exclude properties owned by Caucasians on the theory that the Chinese were genetically susceptible to plague.³ A federal court struck down the quarantine order as a violation of the equal protection clause of the Fourteenth Amendment.⁴ It also found that keeping healthy people fenced in with the few who had been exposed to plague increased, rather than decreased, the likelihood of an epidemic.⁵ When Dr. Kinyoun responded by ordering the entire city quarantined, the business and political community ran him out of town and persuaded President McKinley to lift the quarantine.⁶ Dr. Kinyoun's successor, Dr. Rupert Blue, engaged the community in an active effort to clean up old buildings and eradicate the rats that carried plague-infected fleas.⁷ The process was laborious, but effective.⁸ Dr. Blue later became Surgeon General of the United States.⁹

This story is a reminder of the many sources of risks to health, the different tools available to prevent or control disease, and the many factors that influence which tools are effective. Of course, much has changed in the past one hundred years.¹⁰

² In addition to fearing plague, those living in the Chinese quarter worried that if a fire broke out they would burn to death because they could not escape and no rescue personnel would enter, as had happened under similar circumstances in Hawaii. *Id.* at 18–19.

³ *Id.* at 62–63.

⁴ *Wong Wai v. Williamson*, 103 F. 1, 9–10 (C.C.D. Cal. 1900); *Jew Ho v. Williamson*, 103 F. 10, 24 (C.C.D. Cal. 1900).

⁵ *Jew Ho*, 103 F. at 22.

⁶ CHASE, *supra* note 1, at 71–72, 85–90.

⁷ Rats often had fleas infected with *yersinia pestis*, or bubonic plague. Fleas transmitted the plague by biting human beings. Rats were not discovered to be a host source of plague-carrying fleas until about 1900. *Id.* at 105–06. Dr. Blue first had to assure residents that he would not put them in quarantine, then convince them that rats, not people, were the source of disease and that it was even worth tearing down rat-infested buildings to destroy the rats. *Id.* at 108.

⁸ Plague did return to San Francisco and remains endemic in southwestern states today. See WILLIAM H. McNEILL, *PLAGUES AND PEOPLES* 154 (1976).

⁹ OFF. OF SURGEON GENERAL, DEP'T OF HEALTH & HUMAN SERVICES (HHS), RUPERT BLUE (1912–1919), at www.surgeongeneral.gov/library/history/bioblue.htm (last visited Mar. 26, 2005).

¹⁰ Wendy K. Mariner et al., *The Legacy of Jacobson v. Massachusetts: It's Not Your Great, Great Grandfather's Public Health Law*, 95 AM. J. PUB. HEALTH 581, 581–82 (2005).

Infectious diseases are no longer the leading cause of death in the United States.¹¹ Environmental changes have eliminated many sources of contagion.¹² Scientific advances have produced vaccines to prevent many infectious diseases and therapies to cure or manage other illnesses. A more educated population is better able to understand health risks and how to protect themselves.¹³ Modern public health programs are wide-ranging and complex. Yet, the lessons of the Barbary Plague remain relevant today, when popular perceptions of public health, and the laws needed to protect it, may be powerfully shaped by the fear of terrorism or possible natural pandemics like avian influenza.¹⁴

¹¹ Preliminary data for 2003 indicate that the leading causes of death in the United States were:

<u>Cause of Death</u>	<u>Total of Deaths</u>
All causes	2,443,930
1. Heart disease	684,462
2. Malignant neoplasms (cancers)	554,643
3. Cerebrovascular diseases (stroke etc.)	157,803
4. Chronic lower respiratory disease	126,128
5. Accidents (unintentional injuries)	105,695
6. Diabetes mellitus	73,965
7. Influenza and pneumonia	64,847
8. Alzheimer's disease	63,343
9. Nephritis, nephritic syndrome and nephrosis	42,536
10. Septicemia	34,243
11. Suicide	30,642
12. Chronic liver disease	27,201
13. Essential (primary) hypertension and hypertensive renal disease	21,841
14. Parkinson's disease	17,898
15. Pneumonitis due to solids and liquids	17,457

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Donna L. Hoyert et al., *Deaths: Preliminary Data for 2003*, 53 NAT. VITAL STAT. REP. 1, 4 table B (2005), available at www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_15.pdf (last visited Mar. 25, 2005). These causes are in the same order as in 2002, except that homicide deaths dropped from 17,638 to 17,096, placing homicide out of the first fifteen causes in 2003, and Parkinson's moved into 14th place. *Id.* at 3–4.

¹² See generally ANNE NADAKAVUKAREN, *OUR GLOBAL ENVIRONMENT: A HEALTH PERSPECTIVE*, 5th ed (2000).

¹³ Howard M. Leichter, "Evil Habits" and "Personal Choices": Assigning Responsibility for Health in the 20th Century, 81 MILBANK Q. 603, 611 (2003); see Wendy E. Parmet et al., *Individual Rights Versus the Public's Health—100 Years After Jacobson v. Massachusetts*, 352 NEW ENG. J. MED. 652, 654 (2005).

¹⁴ See Arnold S. Monto, *The Threat of Avian Influenza Pandemic*, 352 NEW ENG. J. MED. 323 (2005); Kumnuan Ungchusak et al., *Probable Person-to-Person Transmission of Avian Influenza A (H5N1)*, 352 NEW ENG. J. MED. 333 (2005); Klaus Stöhr, *Avian Influenza and Pandemics—Research Needs and Opportunities*, 352 NEW ENG. J. MED. 405 (2005).

This Article examines three questions: What is public health today? What is public health law? What roles can lawyers play in the field of public health? Part I summarizes the vast array of modern programs under the public health umbrella. It highlights six trends that will shape the future of public health: social determinants of health; synergy between medicine and public health; shifts in focus from external (*e.g.*, environmental and social) to internal (behavioral) risks to health; federalization of public health law; globalization of health risks and responses; and bioterrorism. Some of these factors work together; others pull in different directions. All affect the choice of law to achieve public health goals.

Part II describes the almost unlimited domains of law that apply to public health. It offers a conceptual choice of law framework, based on the International Bill of Human Rights, for identifying the types of law relevant to health issues.¹⁵ There is a striking correlation between the three duties of States Parties to the International Bill of Human Rights to “respect, protect and fulfill” the human right to health and the three major categories of national and state laws: those governing individual rights and duties; those setting safety and health standards; and those establishing service and benefit programs. Public health has all these tools at its disposal. Regardless of whether the International Bill of Rights is applied to American law, the above categories of law offer a useful framework for practitioners. The International Bill of Rights is also the lens through which most of the developed world examines public health and which scholars use to determine which legal strategies are justified to achieve specific public health goals.

Part III examines the role of law and lawyers in designing and carrying out public health activities. Like any applied field that uses many domains of law, public health law is difficult to cabin,

¹⁵ The International Bill of Human Rights is comprised of the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights. UNITED NATIONS (UN), UNIVERSAL DECLARATION OF HUMAN RIGHTS (1948), *available at* www.un.org/Overview/rights.html (last visited Mar. 25, 2005) [hereinafter UDHR]; OFF. HIGH COMM’R HUMAN RIGHTS (HCHR), UN, INTERNATIONAL COVENANT ON CIVIL AND POLITICAL RIGHTS (1966), *available at* www.unhchr.ch/html/menu3/b/a_ccpr.htm (last visited Mar. 25, 2005); HCHR, UN, INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS (ICESCR) (1966) [hereinafter ICESCR], *available at* www.unhchr.ch/html/menu3/b/a_cescr.htm (last visited Mar. 25, 2005). Related international human rights covenants, treaties, and other instruments are available from the UN *at* www.un.org/rights/# (last visited Mar. 25, 2005) and the UN HCHR *at* www.ohchr.org/english/ (last visited Mar. 25, 2005).

unless one concentrates in a subspecialty, like environmental law. Yet narrowing one's gaze too much runs two different risks: missing how law designed to solve one problem may adversely affect people's health; or distorting more general legal principles.

I conclude that all lawyers should be alert to the effect that laws of all kinds, especially those within their specialty, may have on health policy and the health of the public. The laws that affect health are too many and too complex to be covered in depth within a single specialty. It is equally important for lawyers specializing in an area of health law to recognize how laws intended to promote health may affect larger legal principles. Public health professionals are united by their goal to save lives and promote health. Law and lawyers have an important role to play in helping to achieve that goal. At the same time, lawyers have a unique role to play in ensuring that the legal principles used to promote health also preserve justice.

I. The Scope of Public Health

Public health has been both broadly and narrowly defined, usually as a function of its political influence.¹⁶ Broad definitions offer a more accurate description, as in the classic definition by C. E. A. Winslow:

Public Health is the science and art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community effort for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery to insure everyone a standard of living adequate for the maintenance

¹⁶ A short definition by the Institute of Medicine (IOM) is commonly used by public health professionals: "what we, as a society, do collectively to assure the conditions for people to be healthy." COMM. FOR THE STUDY OF FUTURE OF PUBLIC HEALTH, IOM, THE FUTURE OF PUBLIC HEALTH 19 (1988) [hereinafter THE FUTURE OF PUBLIC HEALTH], available at www.nap.edu/books/0309038308/html/index.html (last visited Mar. 31, 2005). Even more succinct is "Collective action for sustained population-wide health improvement." Robert Beaglehole et al., *Public Health in the New Era: Improving Health Through Collective Action*, 363 LANCET 2084, 2084 (2004). "Population health" is sometimes used as a synonym for public health, but is a distinct specialty that grew out of demography. See, e.g., David Mechanic, *Who Shall Lead: Is There a Future for Population Health?*, 28 J. HEALTH POL., POL'Y & L. 421 (2003).

of health, so organizing these benefits as to enable every citizen to realize his birthright of health and longevity.¹⁷

This broad description still accurately depicts the wide range of activities of people who work in the field of public health.¹⁸ It is also consistent with the broad range of laws enacted in the name of public health. Given such a broad scope, public health might be equated with any public policy that serves in any way to prevent physical or mental harm or to maintain or improve health.¹⁹ This may pose some definitional problems for those seeking a unifying vision of public health. But, the fact that different groups working within public health define their own territory more narrowly should not deter lawyers from recognizing the broad scope of issues relevant to health.

Six trends in public health demonstrate how the field of public health is changing today, in some ways going back to its roots, in others expanding well beyond them.

A. Six Trends Shaping the Future

1. Social Determinants of Health

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When this country began, protecting the public against contagious diseases fell within the general responsibilities of most town officials. The field of “social hygiene” began with the nineteenth century recognition that environmental hazards, as well as poor personal hygiene, could cause illness.²⁰ Sanitary engineers, perhaps the first real public health workers, eliminated

¹⁷ Charles E. A. Winslow, *The Untilled Fields of Public Health*, 51 SCIENCE 23, 30 (1920).

¹⁸ See Abdelmonem A. Afifi & Lester Breslow, *The Maturing Paradigm of Public Health*, 15 ANN. REV. PUB. HEALTH 223, 232 (1994). “Public health practice embraces all those actions that are directed to the assessment of health and disease problems in the population; the formulation of policies dealing with such problems; and the assurance of environmental, behavioral, and medical services designed to accelerate favorable health trends and reduce the unfavorable.” *Id.*; see also OXFORD TEXTBOOK OF PUBLIC HEALTH (Roger Detels et al. eds., 4th ed. 2002); BERNARD J. TURNOCK, PUBLIC HEALTH: WHAT IT IS AND HOW IT WORKS (3d ed. 2003).

¹⁹ See NEW ETHICS FOR THE PUBLIC’S HEALTH (Dan Beauchamp & Bonnie Steinbock eds., 1999) (noting that public health is, in part, “a species of public policy”); Wendy E. Parmet, *From Slaughter-House to Lochner: The Rise and Fall of the Constitutionalization of Public Health*, 40 AM. J. LEGAL HIST. 476, 477 (1996).

²⁰ For an excellent concise history of the field of public health, see Elizabeth Fee, *The Origins and Development of Public Health in the United States*, in Roger Detels et al., 1 OXFORD TEXTBOOK OF PUBLIC HEALTH 3, 3-34 (Walter W. Holland et al. eds., 2d ed. 1991).

cholera and other water-borne diseases by creating systems for sewerage and purifying the water supply; other infectious diseases by regulating waste at animal slaughter houses and dockyards and pasteurizing milk; and dramatically reduced tuberculosis by cleaning up slum housing.²¹ The increase in life expectancy from forty-seven years in 1900 to seventy years in 1960 can be attributed largely to these public health programs.²² Many public health pioneers were social reformers, who sought to reduce the hazardous living and working conditions in nineteenth century cities and factories. Their motives varied, from genuine concern for the disadvantaged, to the economic benefits of hiring healthier workers, to forestalling class rebellion by the poorer classes.²³

The field of public health continues to expand as more is learned about what affects health. Today, empirical research offers growing evidence that socioeconomic factors, such as the distribution of wealth and income, political inequality, education, employment, and housing, can affect health.²⁴ Known as the “social determinants of health,” these factors recall the concerns of early public health reformers and remind us that contagious disease is not the sole threat to health in the United States. Attention to the social determinants of health poses a challenge to defining public health as a unified or recognizable field. On one hand, scholars in public health have made significant contributions to research identifying social and environmental factors affecting the health of populations. As a practical matter, it may be difficult, if not impossible, to improve health significantly in

²¹ See JOHN DUFFY, *THE SANITARIANS: A HISTORY OF AMERICAN PUBLIC HEALTH* (1990); BARBARA ROSENKRANTZ, *PUBLIC HEALTH AND THE STATE: CHANGING VIEWS IN MASSACHUSETTS, 1842–1936*, at 69–71 (1972).

²² Elizabeth Arias, *United States Life Tables, 2002*, 56 NAT'L VITAL STAT. REP. 1, 33–34 tbl. 12, available at www.cdc.gov/nchs/data/nvsr/nvsr53/nvsr53_06.pdf (last visited Mar. 25, 2005). See GEORGE ROSEN, *A HISTORY OF PUBLIC HEALTH* (expanded ed., 1993) (1958).

²³ See generally, EDWIN O. JORDAN ET AL., *A PIONEER OF PUBLIC HEALTH: WILLIAM THOMPSON SEDGWICK* (1924). This period also saw the rise of movements for women's suffrage, birth control, temperance, and the abolition of child labor. JAMES A. MORONE, *HELLFIRE NATION: THE POLITICS OF SIN IN AMERICAN HISTORY* (2003).

²⁴ See, e.g., *SOCIAL DETERMINANTS OF HEALTH* (Michael Marmot & Richard G. Wilkinson eds., 1996); *SOCIAL EPIDEMIOLOGY* (Lisa F. Berkman & Ichiro Kawachi eds., 2000); *THE SOCIETY AND POPULATION HEALTH READER: INCOME INEQUALITY AND HEALTH 1* (Ichiro Kawachi et al. eds., 1999); *WHY ARE SOME PEOPLE HEALTHY AND OTHERS NOT? THE DETERMINANTS OF HEALTH OF POPULATIONS* (Robert G. Evans et al. eds., 1994); RICHARD G. WILKINSON, *UNHEALTHY SOCIETIES: THE AFFLICTIONS OF INEQUALITY* (1996); Nancy E. Adler et al., *Socioeconomic Status and Health: The Challenge of the Gradient*, 49 AM. PSYCHOLOGIST 15 (1994); Adam Wagstaff & Eddy van Doorslaer, *Income Inequality and Health: What Does the Literature Tell Us?*, 21 ANN. REV. PUB. HEALTH 543 (2000).

the future without addressing the social factors. For example, the rise of tuberculosis in New York City in the mid-1980s was exacerbated by the rise of unemployment and a decline in affordable housing, which left more people homeless, on the street, or in shelters where the disease could be easily transmitted.²⁵ On the other hand, including housing, employment, and political inequality may spread the health sphere so thin that it ceases to have any discernible limits. Some critics argue that research on wealth as it affects health is still too crude to produce useful information for making policy,²⁶ and there are dangers in medicalizing so many social issues.²⁷ Nonetheless, it is increasingly difficult to avoid recognizing how broad social policies, such as those concerning drug abuse and homelessness, affect health. It should be possible to study and identify the effect of factors external to individuals without necessarily making it the responsibility of health professionals to devise or implement solutions. Only if such factors are investigated can their effects be accurately understood.

2. Medicine and Public Health

People in public health have traditionally distinguished their field from medicine by emphasizing that physicians treat individual patients while public health practitioners “treat” entire populations. This distinction, however, is rapidly blurring. It is

²⁵ COMM. ON ELIMINATION OF TUBERCULOSIS IN THE U.S., IOM, ENDING NEGLECT: THE ELIMINATION OF TUBERCULOSIS IN THE UNITED STATES (Lawrence Geiter ed., 2000) available at www.nap.edu/books/0309070287/html (last visited Mar. 25, 2005); FRANK RYAN, THE FORGOTTEN PLAGUE: HOW THE BATTLE AGAINST TUBERCULOSIS WAS WON—AND LOST 397 (1992). The rising prison population also contributed to transmission. Andrew A. Skolnick, *Some Experts Suggest the Nation's 'War on Drugs' is Helping Tuberculosis Stage a Deadly Comeback*, 268 JAMA 3177 (1992).

²⁶ See, e.g., Hugh Gravelle, *How Much of the Relation Between Population Mortality and Unequal Distribution of Income is a Statistical Artifact?*, 316 BRIT. MED. J. 382 (1998). Social conservatives are the most critical of research addressing the social determinants of health, probably because the remedies would require some income redistribution, such as taxation, increased public spending, and regulation of business and property. SAMUEL W. BLOOM, THE WORD AS SCALPEL: A HISTORY OF MEDICAL SOCIOLOGY 104 (2002) (recounting objections to terms like social determinants because they could be construed as socialism). However, many public health officials also embrace the view that public health does not include social policies not directly involving individuals at risk of disease. In particular, advocates of certification of a profession of public health seek to narrow the boundaries in order to be able to prescribe specific skills or “competencies,” which would be almost impossible were all the factors that affect health included. See COUNCIL ON EDUC. FOR PUB. HEALTH (CEPH), ABOUT CEPH, at www.ceph.org/i4a/pages/index.cfm?pageid=3274 (last visited Apr. 11, 2005).

²⁷ ARTHUR J. BARSKY, WORRIED: SICK OUR TROUBLED QUEST FOR WELLNESS (1988); D. LUPTON, THE IMPERATIVE OF HEALTH: PUBLIC HEALTH AND THE REGULATED BODY (1995).

true that the population-based approach had as much or more success than physicians did with their patients until shortly after World War II, when federal support for hospital construction and medical research fueled the development of modern medical science.²⁸ The growth of medical technology, beginning with new vaccines and drugs, enabled physicians to save patients' lives, and medicine was rewarded with the mantle of scientific and political superiority.²⁹

Nonetheless, medicine and public health have often worked in synergistic ways, both to identify opportunities for research and to translate new technologies into practice. Discovery of bacteria and the germ theory by researchers gave public health its first scientific credibility, as laboratories began to identify specific causes of disease. Medical research also produced the vaccines that enabled public health immunization programs to eradicate or control many infectious diseases, and physicians and nurses, in private practice as well as public clinics, administered the vaccines.³⁰ Public health research on the distribution of HIV infection in the early 1980s helped academic scientists target their research to identify the virus and also helped practicing physicians counsel their patients about how to prevent transmission of the infection. Public health screening programs, like those for cholesterol or diabetes, are intended to encourage people to get medical care to control their condition. These are only a few examples of essential and productive links between medicine and public health.

Artificial separation of public health and medicine may have more to do with economics and political influence than substance. Until very recently, physicians have been the dominant professionals in health policy, and medicine (and medical research) has received the vast majority of public and private

²⁸ See PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* 338–351 (1982); see also VICTOR R. FUCHS, *WHO SHALL LIVE? HEALTH, ECONOMICS, AND SOCIAL CHOICE* 144 (1974) (arguing that genetic, environmental, and behavioral factors had more influence on health than costly medical care). *But see* David M. Cutler, *Declining Disability Among the Elderly*, 20 *HEALTH AFFS.* 11, 11 (Nov.–Dec. 2001) (arguing that physicians and medical researchers played a greater role in increasing life expectancy than is generally acknowledged).

²⁹ See Fee, *supra* note 20, at 14–16 (describing how the medical profession gained professional hegemony over public health workers); Mark A. Peterson, *From Trust to Political Power: Interest Groups, Public Choice, and Health Care*, 26 *J. HEALTH POL'Y, POL. & L.* 1145, 1146 (2001).

³⁰ COMM. ON EMERGING MICROBIAL THREATS TO HEALTH, IOM, *EMERGING INFECTIONS: MICROBIAL THREATS TO HEALTH IN THE UNITED STATES* 151–53 (Joshua Lederberg et al. eds., 1992), available at www.nap.edu/books/0309047412/html/index.html (last visited Mar. 31, 2005).

funding. Physicians still play most primary leadership roles in public health.³¹ Public attention to public health has waxed and waned, usually rising in response to a crisis, such as, recently, the September 11 attacks, the anthrax letters, severe acute respiratory syndrome (SARS), the recall of Vioxx, and possible avian influenza.³² Historically, public health has received only a tiny fraction of national expenditures for health, and its share has not risen substantially even with additional post-September 11 funding.³³

Public health tends to be defined by its general goal, improving health, not by the methods it employs, which are legion. Physicians also pursue health as a goal, but the medical profession is defined by a universal method of training for physicians. Similarly, the legal profession is defined by a universal method of training for lawyers. Professions typically are identified by a common (if complex) methodology and knowledge base.³⁴ These skills can be used to achieve many different goals. In contrast, people who work in public health are trained in many different

³¹ In the mid-twentieth century, physicians advocated for more attention to public health concerns. See, e.g., THOMAS MCKEOWN, *MEDICINE IN MODERN SOCIETY: MEDICAL PLANNING BASED ON EVALUATION OF MEDICAL ACHIEVEMENT* (1965); Walsh McDermott, *Absence of Indicators of the Influence of its Physicians on a Society's Health: Impact of Physician Care on Society*, 70 AM. J. MED. 833 (1981); Walsh McDermott, *Medicine: The Public Good and One's Own*, 21 PERSP. BIOLOGY & MED. 167 (1978). Physicians have traditionally held most public health leadership positions in federal government agencies and state health departments, as well as in many private organizations, such as the American Public Health Association. Public health professionals often look to the IOM to define their field and its future. See, e.g., *THE FUTURE OF PUBLIC HEALTH*, *supra* note 16. There is no comparable national institute of public health.

³² See Mechanic, *supra* note 16, at 422. "Interest in population health emerges in cycles, reflecting emergent scientific interest and issues and the politics and ideologies of those exercising power." *Id.* (emphasis added). Merck's recent decision to remove Vioxx from the market prompted a reevaluation of the FDA's ability to identify safety problems with drugs, and the FDA has proposed creating an advisory panel to review drug safety. Marc Kaufman, *FDA Plans New Board to Monitor Drug Safety, Independent Panel to be More Open to the Public*, WASH. POST, Feb. 16, 2005, at A1. September 11 and the anthrax letters sparked new legislation and funding for bioterrorism and emergency preparedness. See *infra* notes 75-83 and accompanying text.

³³ Expenditures for public health are notoriously difficult to estimate because they are spread among so many different public and private programs and depend on what is counted as "public health." See SARA ALLIN ET AL., *MAKING DECISIONS ON PUBLIC HEALTH: A REVIEW OF EIGHT COUNTRIES* 23 (2004); Christopher Atchison et al., *The Quest for an Accurate Accounting of Public Health Expenditures*, 6 J. PUB. HEALTH MGMT. PRAC. 93 (2000). About 1.6% of the federal health budget is estimated to be spent on population-based prevention, the traditional definition of public health programs. Fitzhugh Mullan, *Interview: David Satcher Takes Stock*, HEALTH AFFAIRS, Nov.-Dec. 2002, at 154, 157.

³⁴ Wendy K. Mariner, *The Search for Public Health Ethics*, 5 LEADERSHIP PUB. HEALTH 3 (2000).

skills that use very different methodologies.³⁵ They are united only by the goal they use their skills to achieve—health.

A related distinction between public health and medicine lies in the difference between defining health goals in terms of an entire population (whether defined by geography, sex, or race, for example) as opposed to an individual patient. Success in public health depends on improving the health of the entire population, which can only be measured in aggregate statistics, such as life expectancy and rates of mortality, disease, and disability. Physicians deal with one patient at a time and measure success patient by patient. Although physicians want to save lives and prevent or cure disease, they have an obligation to do what the individual believes to be in her own best interest. Thus, physicians are also successful when their patients succeed in making their own decisions. This kind of individual “success” does not necessarily count as success in public health terms. Patients who refuse life-saving therapy because they find it too burdensome may adversely affect population mortality rates. Public health programs that focus on aggregate outcomes for a population cannot account for individual values in the same manner as medicine.

Nevertheless, some occupational groups within medicine and public health have greater affinity with each other than with other specialists in their own field. For example, academic researchers have similar research methods and values, whether they conduct laboratory experiments with cells or epidemiological studies using large databases. They may have more in common with each other than with practitioners who provide clinical services to patients. Physicians who treat patients in private practice and public health workers who offer substance

³⁵ The Council on Education in Public Health, which accredits schools of public health, attempts to establish a common knowledge base for students in Master of Public Health (M.P.H.) degree programs. See CEPH, ABOUT CEPH, at www.ceph.org/i4a/pages/index.cfm?pageid=3274 (last visited Apr. 11, 2005). It also supports “credentialing” public health practitioners, presumably as a means of establishing public health as an identifiable profession. *Id.* The curriculum for schools of public health demonstrates the interdisciplinary nature of the M.P.H. by requiring the following: courses in epidemiology, biostatistics, health services, behavioral sciences, and environmental health; and elective courses in maternal and child health, international health, management, economics, and health law. Boston University School of Public Health requires a health law course for its M.P.H. graduates. See CEPH, ACCREDITATION CRITERION V.A, at www.ceph.org/i4a/pages/Index.cfm?pageid=3320#Instructional_Programs (last visited Apr. 11, 2005). Most of the “core” and elective subjects are themselves applied fields.

abuse treatment use similar methods to help individuals, just as physicians and public health workers who offer preventive services share similar methods and concerns. Indeed, a substantial proportion of public health expenditures are for individual healthcare services.³⁶

It is difficult to disentangle these professions from one another simply by looking at what people do.³⁷ This suggests that, whether they acknowledge it or not, public health and medicine are already integrated to a remarkable degree, primarily by the methodology they use, and that it would be both disingenuous and counterproductive to insist on separation.

3. Health Promotion: External and Internal Risks to Health

Public health successes in eradicating or controlling contagious diseases in the nineteenth and mid-twentieth centuries, coupled with research on the causes of disease may have combined to produce another trend—health promotion.³⁸ In the past, public health programs were most successful at preventing or controlling infectious diseases. The goal was to protect the population from external sources of disease. Relatively straightforward measures, like purifying the water supply, creating sewage systems, monitoring the food supply, and encouraging immunization, dramatically reduced the threat of immediately life-threatening diseases. Ironically, perhaps, these important successes left public health programs with less to do and less public support and funding.

³⁶ Expenditures include publicly funded programs for family planning, mental health facilities, substance abuse treatment, and community health clinics. See *THE FUTURE OF PUBLIC HEALTH*, *supra* note 16, at 182.

³⁷ The role of public health practitioners who offer personal health services is sometimes wrongly ignored when they provide services to low-income patients in publicly funded programs. See Atchison et al., *supra* note 33, at 99 (estimating state spending on personal health services as between 53 and 77% of total state public health expenditures).

³⁸ The shift to health promotion may date from 1974, when Canada published the landmark Lalonde Report. MARC LALONDE, MINISTER OF NAT'L HEALTH & WELFARE, *A NEW PERSPECTIVE ON THE HEALTH OF CANADIANS: A WORKING DOCUMENT* (1974). United States Surgeon General Julius Richmond published the first United States version, *Healthy People*, in 1979, which inspired the ongoing periodic review of Americans' overall health status and goal setting for improvement (analogous to five- and ten-year plans), currently in the *Healthy People 2020* stage. See OFF. OF DISEASE PREVENTION & HEALTH PROMOTION, HHS, *HEALTHY PEOPLE 2010* (2d ed. 2000), available at www.health.gov/healthypeople/document/ (last visited Mar. 25, 2005).

The top four leading causes of death today in the United States are heart disease, cancers, stroke, and chronic respiratory diseases, with accidental injuries in fifth place.³⁹ Unlike infectious diseases, these problems lack a single viral or bacterial cause. Rather, they may result from multiple factors, including genetic predisposition, diet, personal behaviors, exposure to environmental or occupational hazards and dangerous products, as well as social, economic, and political factors. In addition, chronic diseases develop over a long period, often decades. There are few single interventions that completely prevent or cure a chronic disease comparable to those for an infectious disease. Prevention is multifaceted and success uncertain.⁴⁰ The public is likely to think first of medicine, not public health, as the profession with the most expertise in chronic diseases and the most to offer, primarily in the form of curative medical therapies. At the same time, however, the many factors contributing to chronic disease, coupled with their increasing prevalence, may have encouraged the field of public health to characterize such diseases as public health problems.

As the types of diseases affecting Americans changed, the public health field shifted its attention to health promotion, encouraging public education about the causes of chronic diseases, as well as regulations that reduce environmental risks.⁴¹ Given the complex causes of many chronic diseases, one might expect public health programs to focus renewed attention on the full range of social determinants of health. There have been some attempts to educate the public about hazardous working conditions or housing.⁴² The mapping of the humane genome increased awareness of genetic predispositions to certain diseases.⁴³ So far, however,

³⁹ See Hoyert et al., *supra* note 11, at 3–4.

⁴⁰ See generally LOUISE B. RUSSELL, *IS PREVENTION BETTER THAN CURE?* (1986); see also ALLIN ET AL., *supra* note 33, at 14 (finding little empirical evidence of the effectiveness and costs of prevention programs).

⁴¹ See Roger Detels & Lester Breslow, *Current Scope and Concerns in Public Health*, in OXFORD TEXTBOOK OF PUBLIC HEALTH, *supra* note 18, at 49; J. Michael McGinnis, *The Case for More Active Policy Attention to Health Promotion*, 21 HEALTH AFFS. 78, 78-93 (Mar.–Apr. 2002). The Robert Wood Johnson Foundation, which funds a substantial proportion of health-related research, emphasizes behavioral factors, citing an HHS study of the ten leading causes of death as concluding that 52% of premature deaths were attributable to personal risk behaviors, 20% to environmental risks, 18% to human biology, and 10% to inadequate access to medical care. Paul Brodeur, *The Turning Point Initiative*, in 8 TO IMPROVE HEALTH AND HEALTH CARE 103–04 (Steve L. Isaacs & James R. Knickman eds., 2005).

⁴² For example, the “right to know” movement was an effort to inform employees about hazardous chemicals or working conditions. Emergency Planning and Community Right-to-Know, 42 U.S.C. §§ 11001–11050 (2005).

⁴³ See generally NATIONAL HUMAN GENOME RESEARCH INSTITUTE, NATIONAL INSTITUTES OF HEALTH, *at* www.genome.gov (last visited Mar. 25, 2005).

most public health campaigns, from education to advocacy for new laws, have focused on the risks to health that arise from personal behaviors, such as a high fat diet, lack of physical exercise, smoking cigarettes, and violence.⁴⁴ This emphasis on personal risk behaviors lends support to those who wish to characterize the primary problems in public health as the personal responsibility of individuals themselves, rather than as problems that require societal solutions. Rather than making the world safer for people, it seeks to have people protect themselves from risks in the world as it exists.⁴⁵

The trend toward changing personal behavior coincides with renewed concern about the rising cost of healthcare and a political climate that emphasizes personal responsibility and discourages reliance on public benefit programs.⁴⁶ If people change their behavior in ways that improve their health, they are less likely to need expensive medical care. Employers have adopted policies forbidding their employees from smoking or drinking at home as well as on the job.⁴⁷ While such policies can be justified as encouraging healthy behavior, they are often initiated primarily to reduce health insurance costs.

⁴⁴ Programs to discourage smoking have had some success, as evidenced by the declining rates of smoking the United States. See Ronald M. Davis, *Healthy People 2010: Objectives for the United States—Impressive, But Unwieldy*, 320 BRIT. MED. J. 818 (2000), available at www.bmj.bmjournals.com/cgi/reprint/320/7238/818 (last visited Mar. 31, 2005).

⁴⁵ Wendy K. Mariner, *The Merger Between Public Health and Health Law—The US Situation*, 2001 EUROPEAN HEALTH FORUM GASTEIN CONGRESS REP. 173, 175–76 (“Public health efforts succeeded primarily by making the world safer for people—by cleaning up the water, food, sewage, and housing in the nineteenth century and also the workplace and environment in the twentieth century . . . Promoting health [today] means making people safer for the world.”). See SMOKING POLICY: LAW, POLICY & CULTURE 3-21 (Robert L. Rabin, Stephen D. Sugarman, eds., 1993) (describing how policy approaches to risks vary with public perceptions of personal responsibility for risk creation).

⁴⁶ See SYLVIA N. TESH, HIDDEN ARGUMENTS: POLITICAL IDEOLOGY AND DISEASE PREVENTION POLICY 46 (1988) (arguing that state laws increasingly targeted individual conduct to reduce healthcare costs or population mortality rates); Lawrence W. Green, *Health Education’s Contributions to Public Health in the Twentieth Century: A Glimpse Through Health Promotion’s Rear-View Mirror*, 20 ANN. REV. PUB. HEALTH 67, 69 (1999) (arguing that health promotion replaced traditional health education when public policy and funding for research began seeking ways to reduce healthcare expenditures).

⁴⁷ Eileen Gunn, *No Ifs, Ands or Butts: Smokers Need Not Apply*, CAREER J., Dec. 14, 2004, www.careerjournal.com/hrcenter/articles/20041214-gunn.html?hrcenter_whatsnew (last visited May 25, 2005); Marc Kaufman, *Surgeon General Favors Tobacco Ban*, WASH. POST, June 4, 2003, at A1; Jeremy W.

(Note Continued)

Public awareness of how to improve one's health is usually a good thing.⁴⁸ If health policy targets personal behavior to the exclusion of more influential causes of ill health, however, it may prove ineffective. Public education programs require a long-term commitment to public education. Moreover, programs that depend on individuals to change their behavior are typically less effective than programs that remove risks from the external environment.⁴⁹ Health promotion programs increasingly target conditions that, unlike contagious diseases, affect only the individual. Both diabetes and obesity have been declared "epidemics," giving a new meaning to the term.⁵⁰ It also moves the field of public health farther from any concentration on preventing the spread of disease (from one place or person to another person), and places it squarely beside medicine in the effort to improve the health of an individual for his own sake.⁵¹

4. Federalization of Public Health

Public health practitioners often think of public health as primarily a local and state endeavor. The Institute of Medicine perpetu-

(Note 47 Continued)

Peters, *Company's Smoking Ban Means Off-Hours Too*, N.Y. TIMES, Feb. 8, 2005, at C5. Maryland state legislators introduced legislation requiring employees to take a Breathalyzer test and possibly be fired if their blood-alcohol level was 0.02% or more; laws prohibiting driving while intoxicated typically use 0.08%. David E. Leiva, *Bill Would Let Your Boss Test Your Breath*, CAPITAL, Feb. 18, 2005, available at www.hometownannapolis.com/vault/cgi-bin/trial/search (last visited Mar. 25, 2005).

⁴⁸ But see John H. Knowles, *Doing Better and Feeling Worse: Health in the United States*, 106 DAEDALUS XX (1977) (classic issue devoted to the paradox that as population health improves, public opinion focuses more fixedly on health problems); BARKSKY, WORRIED SICK, *supra* note 27.

⁴⁹ Compare the effect on highway injuries and deaths of building banked turns on curving roads and requiring air bags with the impact of laws limiting speed limits. The lower the speed, the lower the death rate, but not everyone abides by maximum speed laws. See, e.g., D. Shinar, *Speed and Crashes. A Controversial Topic and an Elusive Relationship*, in MANAGING SPEED: REVIEW OF CURRENT PRACTICE FOR SETTING AND ENFORCING SPEED LIMITS 221-276. (National Academy of Sciences 1998); TRANSPORTATION RESEARCH BOARD, SPECIAL REPORT NO. 204, 55: A DECADE OF EXPERIENCE (1984).

⁵⁰ Alison A. Hedley et al., *Prevalence of Overweight and Obesity Among US Children, Adolescents, and Adults, 1999-2000*, 291 JAMA 2847 (2004). But see Katherine M. Flegal et al. *Excess Deaths Associated with Underweight, Overweight, and Obesity*, 293 JAMA 1861 (2005) (finding overweight not associated with excess mortality). Moreover, as pointed out by one commentator, "[T]he mere fact that a disease affects numerous people, and is thus a major social concern, does not mean that it is a public health threat." Lori B. Andrews, *A Conceptual Framework for Genetic Policy: Comparing the Medical, Public Health, and Fundamental Rights Models*, 79 WASH. U. L.Q. 221, 271 (2001).

⁵¹ Mariner, *supra* note 45.

ated this view in its influential 1988 report by defining public health activities as by and for the community and confining the community to the state, city, or town level, barely mentioning national or international activities.⁵² It is true that, when the country began, most governmental efforts to prevent disease were carried out by local officials, but the federal government was never entirely absent from the field.⁵³ After all, it was the federal government that sent federal public health officials to try to control the spread of plague in San Francisco at the turn of the twentieth century.⁵⁴ By the late twentieth century, the federal government had moved decisively into public health and medicine, with legislation such as Medicare and Medicaid,⁵⁵ the Occupational Safety and Health Act of 1970,⁵⁶ and the Clean Air and Clean Water Acts.⁵⁷ Indeed, many of the most important public health achievements have come from federal legislation.⁵⁸

Today, countless public health programs are influenced, if not controlled, by a federal government agency. Despite recent

⁵² THE FUTURE OF PUBLIC HEALTH, *supra* note 16.

⁵³ The federal government established quarantine laws for its ports to prevent passengers and goods from entering the United States until they were found to be free from contagious diseases. See 42 U.S.C. §§ 264–272 (2005). The military instituted programs to protect soldiers from disease, which often took more lives than warfare, and to protect workers building the Panama Canal from yellow fever and malaria. Fee, *supra* note 20, at 10–12. Until the mid-twentieth century, however, federal legislation affecting public health was often enacted in response to a crisis or a scandal. See FITZHUGH MULLAN, PLAGUES AND POLITICS: THE STORY OF THE UNITED STATES PUBLIC HEALTH SERVICE (1989); Wendy E. Parmet, *After September 11: Rethinking Public Health Federalism*, 30 J.L. MED. & ETHICS 201 (2002). For example, the Food and Drug Act can be seen as a response to Upton Sinclair's exposé of the meatpacking industry, *The Jungle*, while Rachel Carson's *Silent Spring* encouraged the creation of the Environmental Protection Agency (EPA). See Rogan Kersh & James Morone, *The Politics of Obesity: Seven Steps to Government Action*, 21 HEALTH AFFS., 142, 143–48 (Nov.–Dec. 2002). The article found historical support for seven “triggers” for legal regulation of private behavior: social disapproval; medical science recognizing health effects; rise of self-help movements; demonization of those who behave “badly”; demonization of the industry that supplies the product; interest group organization; interest group pressure for new law. *Id.*

⁵⁴ See CHASE, *supra* note 1, at 25–26.

⁵⁵ Health Insurance for the Aged and Disabled (Medicare) 42 U.S.C. § 1395 (2005); Grants to States for Medical Assistance Programs (Medicaid) 42 U.S.C. § 1396 (2005).

⁵⁶ Occupational Safety and Health Act (OSHA), 29 U.S.C. § 651 (2005). See generally NICHOLAS A. ASHFORD & CHARLES C. CALDART, TECHNOLOGY, LAW AND THE WORKING ENVIRONMENT (2d ed., 1996) (1991).

⁵⁷ Clean Air Act, 42 U.S.C. § 7401 (2005); Water Pollution Prevention and Control, 33 U.S.C. § 1251 (2005). See generally ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY (3d ed. 2000).

⁵⁸ ROZ D. LASKER, COMM. ON MED. & PUBLIC HEALTH, MEDICINE AND PUBLIC HEALTH: THE POWER OF COLLABORATION 9 (1997).

Supreme Court decisions limiting the scope of congressional authority under the Commerce Clause, the federal government retains ample power.⁵⁹ Even with block grants and decentralization, the federal government controls the shape and direction of many state and local public health programs through the power of its purse. Most states enacted laws requiring drivers to wear seatbelts when having those laws in place became a prerequisite for the state to receive certain federal highway funds.⁶⁰ Similarly, most states enacted laws raising the minimum age for drinking alcoholic beverages to twenty-one years in order to qualify for federal highway funding.⁶¹ Title X funding for family planning programs is subject to specific requirements for how funds are spent.⁶² Many state disease-reporting systems might not exist without federal funding from the Centers for Disease Control and Prevention (CDC), and such funding is increasingly tied to legislative requirements.⁶³ As states face declines in tax revenues and pressure for more services, they may have to rely on federal financial assistance to carry out many of their basic programs.⁶⁴ Thus, today, it is often difficult to disentangle federal from state control over even, ostensibly, state public health programs.

After September 11, 2001, as part of the war on terror, the federal government has asserted even greater influence in matters that affect public health—as a matter of national security subject to federal jurisdiction.⁶⁵ Even if the states remain primarily responsible for carrying out public health activities, they will often take their cue from Washington, D.C.

⁵⁹ Compare *United States v. Lopez*, 514 U.S. 549 (1995) and *United States v. Morrison*, 529 U.S. 598 (2000) with *Gonzales v. Raich*, 2005 WL 1321358 (June 6, 2005).

⁶⁰ See, e.g., National Highway Traffic Safety Administration, United States Dep't of Transportation, Buckle Up America Report, Incentive Grants for Increasing Seat Belt Use, www.nhtsa.dot.gov/people/injury/airbags/bua4threport/toc.html (last visited May 24, 2005).

⁶¹ See *South Dakota v. Dole*, 483 U.S. 203 (1987).

⁶² See *Rust v. Sullivan*, 500 U.S. 173 (1991) (upholding HHS regulations forbidding Title X fund recipients from “counseling or referring for abortion as a method of family planning”); Wendy K. Mariner, *Mum's the Word: The Supreme Court and Family Planning*, 82 AM. J. PUB. HEALTH 296 (1992) (criticizing the decision's effect on public health).

⁶³ See, e.g., COMM. ON THE RYAN WHITE CARE ACT, IOM, MEASURING WHAT MATTERS: ALLOCATION, PLANNING, AND QUALITY ASSESSMENT FOR THE RYAN WHITE CARE ACT 76 (2004); Cancer Registries Amendment Act, 42 U.S.C. § 280e (2005).

⁶⁴ See generally THE NEW POLITICS OF STATE HEALTH POLICY (Robert B. Hackey & David A. Rochefort eds., 2001) (essays describing the challenges faced by states in implementing effective health policy, including uneven capacity, varying commitment, and federal influence, especially in public health).

⁶⁵ George J. Annas, *Bioterrorism, Public Health and Civil Liberties*, 346 NEW ENG. J. MED. 1337 (2002); Bill Frist, *Public Health and National Security: The Critical Role of Increased Federal Support*, 21 HEALTH AFFS., 117, 120 (Nov.–Dec. 2002).

5. Globalization of Health

Increasing interdependence among global economies is pushing the public health field more firmly into the international sphere.⁶⁶ As companies expand their operations around the world, they are beginning to recognize the need for consistent international standards in product safety, environmental controls, and occupational hazards.⁶⁷ Sales of goods over the Internet raise questions about which product safety standards and marketing rules should apply. Climate change and natural disasters require a coordinated global response from many countries. Disasters like the December 2004 tsunami create financial and logistical challenges, from identifying the dead to housing and feeding the displaced, that no single country can meet alone. Even war is increasingly recognized as an international public health concern, which requires multinational efforts to provide for the health and safety of civilians, who are often targets of military or terrorist violence.⁶⁸ Here, especially, the international human rights movement has brought attention to the positive relationship between human health and respect for human rights.⁶⁹

People in public health are rightly paying more attention to these global issues.⁷⁰ Research itself is increasingly international, with scientists in different countries sharing insights and techniques to study everything from genetic diseases to management. As in the United States, affinities tend to follow the subject matter rather than the professional category.

⁶⁶ BOARD ON INTERNATIONAL HEALTH, IOM, AMERICA'S VITAL INTEREST IN GLOBAL HEALTH: PROTECTING OUR PEOPLE, ENHANCING OUR ECONOMY, AND ADVANCING OUR INTERNATIONAL INTERESTS 11 (1997), available at www.nap.edu/openbook/0309058341/html/index.html (last visited Mar. 25, 2005); George J. Annas, *Bioterrorism, Public Health and Human Rights*, 21 HEALTH AFFS., 94, 94 (Nov.–Dec. 2002); Beaglehole et al., *supra* note 16 (arguing for a definition of public health that includes attention to major global health challenges); Phillip Lee & Dalton Paxman, *Reinventing Public Health*, 18 ANN. REV. PUB. HEALTH 1, 2 (1997) (noting globalization as growing factor).

⁶⁷ See generally KENICHI OHMAE, THE NEXT GLOBAL STAGE: THE CHALLENGES AND OPPORTUNITIES IN OUR BORDERLESS WORLD (2005).

⁶⁸ WAR AND PUBLIC HEALTH: UPDATED ED. (Barry S. Levy, Victor W. Sidel, eds., 2000).

⁶⁹ HEALTH AND HUMAN RIGHTS: A READER 14 (Jonathan Mann et al. eds., 1999); Sofia Gruskin & Daniel Tarantola, *Health and Human Rights*, in OXFORD TEXTBOOK OF PUBLIC HEALTH, *supra* note 18, at 311.

⁷⁰ Beaglehole et al., *supra* note 16, at 2085 (noting that “global health challenges require a workforce with a broad view of public health”); Paul Farmer, Nicole Gastineau, *Rethinking Health and Human Rights—Time for a Paradigm Shift*, in PERSPECTIVES ON HEALTH AND HUMAN RIGHTS 73-92 (Sofia Gruskin et al., eds., 2005) (arguing for a new level of cooperation between medicine, public health, and human rights in both academic scholarship and service programs).

Infectious diseases that cross national borders no longer exhaust the subject matter of global health concerns, but they remain firmly on the radar. Global travel and migration make it relatively easy for viruses and parasites to become world travelers, as SARS' leap from Hong Kong to Toronto demonstrated.⁷¹ Although SARS proved to be less hardy than feared, with most deaths in Canada occurring among people infected before the disease was recognized and most infections occurring in the hospital,⁷² a new virus might be more lethal, especially if the population has no natural immunity and no vaccine or treatment is available. For example, if the avian influenza virus (H5N1), which has ravaged poultry stocks in Southeast Asia and killed forty-six people, became efficiently transmissible to humans and from person to person, it might cause a global pandemic affecting millions.⁷³

Although no one knows whether such a viral shift will occur, it would be prudent to pursue not simply an early warning system, but public education about contact with animals, research on possible vaccines, and organizing services to care for people who become ill.⁷⁴ Perhaps the most effective preventive measure would be to create new job opportunities that make it unnecessary for people to rely on raising chickens and ducks to survive.

6. Bioterrorism

An image of the world as an incubator of dreadful diseases that can cause epidemics gained currency with the spread of HIV infection in the 1980's, reinforced by popular books like "The Hot Zone"

⁷¹ See David P. Fidler, *The Globalization of Public Health: Emerging Infectious Diseases and International Relations*, 5 IND. J. GLOBAL LEGAL STUD. 11, 21–22 (1997).

⁷² See STACEY KNOBLER ET AL., LEARNING FROM SARS: PREPARING FOR THE NEXT DISEASE OUTBREAK, WORKSHOP SUMMARY 63 (2004), available at www.books.nap.edu/html/SARS/0309091543.pdf. See also Institute for Bioethics, Health Policy and Law, University of Louisville School of Medicine, Mark A. Rothstein, Director, *Quarantine and Isolation: Lessons Learned from SARS: A Report to the Centers for Disease Control and Prevention* (Nov. 2003), available at www.louisville.edu/medschool/ibhpl/publications/SARS%20REPORT.pdf; Clifford Krauss, *Bacteria That Strike Elderly Spread in Canadian Hospitals*, N.Y. TIMES, Aug. 9, 2004, at A2.

⁷³ Michael Spector, *Nature's Bioterrorist*, THE NEW YORKER 50 (Feb. 28, 2005).

⁷⁴ The World Health Organization, which offers guidance to most countries in the world, encourages all these measures, but has only a fraction of the funding it would need to develop an adequate mechanism for coordinating information and responses to major disasters. LAURIE GARRETT, BETRAYAL OF TRUST: THE COLLAPSE OF GLOBAL PUBLIC HEALTH 6 (2000); Julio Frenk & Octavio Gómez-Dantés, *Globalization and the Challenges to Health Systems*, 21 HEALTH AFFS. 160, 162 (May–June 2002).

and movies like “Outbreak.”⁷⁵ When letters containing (noncontagious) anthrax killed five people soon after September 11, 2001, federal officials warned that terrorists might bring smallpox into the country next.⁷⁶ Concern for infectious diseases “imported” from abroad transmogrified from a manageable medical problem into a terrifying worldwide conspiracy against Americans.⁷⁷ Not only might viruses and parasites accidentally board a ship or airplane and fall out in America, but a terrorist might deliberately attack the country with biological weapons.⁷⁸ The combination of terrorism and disease has simultaneously focused much needed attention on public health and perversely narrowed public appreciation of public health largely to bioterrorism.⁷⁹

The most positive response has been new federal funding to shore up the perennially neglected “public health infrastructure,” the collection of public and private programs that study, prevent, and

⁷⁵ See, e.g., LAURIE GARRETT, *THE COMING PLAGUE: NEWLY EMERGING DISEASES IN A WORLD OUT OF BALANCE* 620 (1994); RICHARD PRESTON, *THE HOT ZONE* (1994); JOSE SARAMAGO, *BLINDNESS* (1997).

⁷⁶ Scott Shane, *Anthrax Scare is Attributed to a Testing Error*, N.Y. TIMES, Mar. 16, 2005, at A16 (stating that five people died from inhalation anthrax); see George James, *Homeland Security; Disaster Plan Less Disastrous*, N.Y. TIMES, Nov. 3, 2002, at 14NJ; Gina Kolata, *A Nation Challenged: The Response; Many Lessons to be Learned With Anthrax*, N.Y. TIMES, Oct. 28, 2001, at B1 (stating the Secretary of Health and Human Services, Tommy Thompson, opined that the first victim might have become infected while hunting in Florida and commenting that the CDC was not aware that anthrax could be aerosolized small enough to escape through envelopes, thereby leaving postal employees at risk, while the better known letter recipients received special attention).

⁷⁷ See George J. Annas, *Puppy Love: Bioterrorism, Civil Rights, and Public Health*, 55 FLA. L. REV. 1171, 1173 (2003).

⁷⁸ See, e.g., Jacalyn L. Bryan & Helen F. Fields, *An Ounce of Prevention is Worth a Pound of Cure—Shoring Up the Public Health Infrastructure to Respond to Bioterrorist Attacks*, 27 AM. J. INFECTION CONTROL 465–67 (1999) (noting the need for resources to improve public health programs to respond to attacks if they occur); Barry Kellman, *Biological Terrorism: Legal Measures for Preventing Catastrophe*, 24 HARV. J.L. & PUB. POL’Y 417, 449–67 (2001) (outlining regulatory measures to restrict the availability of pathogens, materials, and equipment that can be used to make biological agents and to restrict access to weaponization technology). Kellman also argues in favor of better counterterrorism intelligence and against the need to invade liberty or privacy rights and notes that non-legal measures, such as better planning and communication among officials, are also necessary. *Id.* at 463–65. See generally KEN ALIBEK, *BIOHAZARD* (1999) (telling the story of the largest covert biological weapons program in the world).

⁷⁹ See David P. Fidler, *Caught Between Paradise and Power: Public Health, Pathogenic Threats, and the Axis of Illness*, 35 MCGEORGE L. REV. 45 (2004) (arguing that international diplomacy has shifted between considering contagious disease as a threat to national power and as an opportunity for global cooperation).

treat health problems that affect communities large and small.⁸⁰ Less positive has been the emphasis on emergency preparedness to the detriment—some would say exclusion—of the less glamorous, ordinary tasks of public health practitioners, which may offer better protection against illness and death.⁸¹

The country already has some experience with what today would be called bioterrorists—from United States residents who used viruses or bacteria to frighten and make people sick.⁸² Only five deaths resulted, all from the anthrax letters mailed in 2001, while each year influenza kills twenty to thirty thousand Americans.⁸³ The federal government is spending millions of dollars to prepare for a terrorist attack using smallpox or other biological weapons, but still has not developed a plan to assure an adequate annual supply of influenza vaccine.

⁸⁰ Congress appropriated funds to help states pay for “emergency preparedness.” 42 U.S.C. § 5195 (2005); see also 42 U.S.C. § 5196b (2005).

⁸¹ The federal government has given about \$1 billion in grants to state and local health departments for bioterrorism or emergency preparedness. There are mixed reviews about whether this funding has helped build infrastructure or diverted resources from necessary public programs. Stephen Smith, *Anthrax vs. The Flu as State Governments Slash Their Public Health Budgets, Federal Money is Pouring in for Bioterror Preparedness*, BOSTON GLOBE, July 29, 2003, at C1. The article quoted the American Public Health Association Executive Director as worried that the focus on bioterrorism, anthrax, and SARS has crowded out concern for problems that kill many more people and left public health programs without funding to maintain basic services. *Id.*

⁸² JUDITH MILLER ET AL., GERMS: BIOLOGICAL WEAPONS AND AMERICA’S SECRET WAR (2001) (describing 1984 salmonella contamination of salad bars in Oregon); W.S. Carus, *The Rajneeshees*, in TOXIC TERROR: ASSESSING TERRORIST USE OF CHEMICAL AND BIOLOGICAL WEAPONS (J.B. Tucker, ed. 2000) (same; the fact that the contamination was part of a deliberate attempt to keep people from voting in a local election was not accepted by public health officials until the perpetrators colleagues revealed the incident a year later).

⁸³ From 1990 to 1999, approximately 36,000 people died from influenza related deaths each year. The elderly and people with chronic diseases are the most at risk of influenza related death. Scott A. Harper et al., *Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices*, 53 MORBIDITY & MORTALITY WKLY. REP., RECOMMENDATIONS & REP. 1, 3 (2004), available at www.cdc.gov/mmwr/PDF/rr/rr5306.pdf (last visited Apr. 1, 2005). The U.S. had a shortage of flu vaccines in the fall of 2004 when Britain discovered contamination at a Chiron plant and suspended its license. Diedtra Henderson, *U.S. Flu Vaccine’s Shortage Ends in an Oversupply*, BOSTON GLOBE, Feb. 9, 2005, at A1. Chiron was to supply about half the U.S. supply of vaccines. *Id.* The shortage exposed the absence of an effective plan for assuring an adequate supply of vaccines. *Id.* After the CDC and most states recommended limiting the short supply to the elderly and some other groups supposedly at high risk, the shortage turned into an oversupply. *Id.* Some critics then questioned whether the right groups were targeted for priority vaccination. Lone Simonsen et al., *The Impact of Influenza Vaccination on Seasonal Mortality in the US Elderly Population*, 165 ARCH. INT. MED. 265 (2005).

B. Summary

These six trends suggest that, despite current public attention to bioterrorism, the field of public health is in fact wide-ranging and even expanding. It reaches around the world because both risks to health and ways to protect health are increasingly global, requiring more coordinated international attention. This global reach, coupled with concerns about bioterrorism and renewed constraints on state budgets, places the federal government in the forefront of public health today. A national view of public health may encourage recognition of its importance and the many social determinants of health. Indeed, as public health is increasingly tied to medicine, with internal specialties crossing professional boundaries and public health professionals increasingly seeking individual health promotion instead of removing external threats to populations, it may be time to change our terminology. Instead of medicine and public health, the world sees a field of Health, writ large, with shared components of research, prevention, treatment, and care throughout.

II. Public Health and Law

The law that applies to public health matters is as wide ranging as public health or health itself. Public health issues arise in antidiscrimination law, administrative law, antitrust law, constitutional law, criminal law, employment law, evidence, environmental law, family law, insurance law, mental health law, municipal law, patent law, property law, and tort law.⁸⁴ Like lawyers in any applied field of law, health lawyers use whatever laws are relevant to the subject matter in a given context.

The laws affecting health can be sorted into three categories familiar to most lawyers: (1) laws that target individual conduct—requiring or prohibiting specific actions; (2) laws that set health and safety standards—regulating products or companies that affect health by reducing health risks arising from products or the social or working environment; and (3) laws that affirmatively create benefit programs—offering healthcare, services, or information that individuals are free to accept or refuse.

⁸⁴ Others may think of additional domains, even bankruptcy, civil procedure, conflict of laws, contracts, and criminal procedure. As Clark Havighurst noted, there is no “discrete body of legal doctrine” for health law. See Clark C. Havighurst, *Health Care as a Laboratory for the Study of Law and Policy*, 38 J. LEGAL EDUC. 499–500 (1988). The same can be said of what is called public health law. See Mariner, *supra* note †, at 542.

The first category includes criminal laws, such as those prohibiting the sale or possession of illicit drugs (*e.g.*, heroin and cocaine), or prohibiting smoking, as well as the more obvious crimes such as homicide and assault. It also includes civil laws, such as those that require immunization against certain contagious diseases and authorize the involuntary detention of people who are likely to transmit contagious diseases to others and people who are likely to harm others because of mental illness. At the same time, it includes laws that protect civil rights, such as informed consent, privacy, and nondiscrimination.

The second category includes laws that prevent the conduct of business in ways that could harm customers, workers, or the general public, such as safety standards for workplaces.⁸⁵ Sanitary standards for conducting businesses that can harbor and spread disease have existed since colonial times, applying to animal slaughtering operations and mortuaries, for example.⁸⁶ More modern examples include standards for the preparation of food in restaurants and sterile equipment in tattoo parlors. Laws requiring licensure of health professionals, hospitals, and other medical facilities are intended to ensure that those who are granted the privilege of providing care have at least a minimal level of competence and skill. Other laws set standards for manufacturing pharmaceuticals, biologics, food, and cosmetics, require safeguards for potentially dangerous products, and measures to limit pollution emission. To administer such laws, legislation has created numerous national, state, and local agencies, from the FDA to the local septic-system inspection office.⁸⁷ This category also includes both statutory and common-law liability for causing injury, such as products liability and professional liability or medical malpractice.

The third category includes laws that create the multitude of federal and state programs to purify the water supply, organize

⁸⁵ OSHA and the common-law duties of employers generally govern safety standards in the workplace. See Occupational Safety and Health Act, 29 U.S.C. § 651 (2005); *Failure to Provide a Safe Place to Work*, 2 AM. JUR. 2D, § 517 (1974). The EPA also plays a role. EPA, OCCUPATIONAL HEALTH, at www.epa.gov/ebtpages/humaoccupationalhealth.html (last visited Apr. 1, 2005).

⁸⁶ WILLIAM J. NOVAK, *THE PEOPLE'S WELFARE: LAW AND REGULATION IN NINETEENTH-CENTURY AMERICA* 14–15 (1996); Parmet, *supra* note 19, at 483.

⁸⁷ See, *e.g.*, KENNETH R. WING, *THE LAW AND THE PUBLIC'S HEALTH* 175–77 (6th ed., Health Administration Press 2003) (1946) (describing and analyzing the types of laws governing public health matters).

disaster relief, and provide medical care, like Medicare and Medicaid. It also includes state programs for those without health insurance, and funding for public and private health programs like family planning clinics, child nutrition programs, diabetes screening services, substance abuse treatment centers, and refugee care facilities. Finally, it includes public support for biomedical and epidemiologic research and public information programs.

This categorization scheme is admittedly somewhat crude. Some laws, like professional licensure, overlap categories. The framework is more consistent with the source of law than with its ultimate purpose. For example, in the third category, most federal programs are based on the spending power. Some programs, like public immunization programs, are intended to prevent disease, while others, like Medicare, offer treatment. Thus, it is not possible to distinguish prevention from treatment solely on the basis of the type of law. (Nor is it useful to limit one's legal tools to prevent disease to one type of law.) This contrasts with public health's characterization of programs, which often relies on intent and ultimate goal, not the type of law used to achieve the goal. Many laws in the first category are based on the state's police power, although some federal crimes are included as well.⁸⁸ The second and third categories include laws at both the state and federal level. Again, the law's intent—to prevent or treat disease—need not determine which level of government enacts the law.

III. The Human Right to Health

The above three categories of law parallel the obligations of nations (States Parties) to “respect, protect, and fulfill” the right to health pursuant to the Universal Declaration of Human Rights (UDHR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR).⁸⁹ The most comprehensive statement of the human right to health is found in Article 12 of the ICESCR:

⁸⁸ See, e.g., Controlled Substances Act, 21 U.S.C. §§ 801-904 (2005); Federal Kidnapping Act, 18 U.S.C. § 1201 (2005); Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (2002).

⁸⁹ UDHR, *supra* note 15;

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

(Note Continued)

1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.⁹⁰

This admittedly aspirational language captures the breadth of factors that affect health. The Committee on Economic, Social and Cultural Rights of the United Nations Economic and Social Council (ECOSOC) recognized that the “right to health is not understood as a right to be healthy,” something no one can guarantee.⁹¹

But, it does establish expectations for steps that the signatory States Parties, including the United States, should take as a matter of international law, including official conduct and national legislation.⁹² This framework is less one of rights, in the sense

(Note 89 Continued)

Id. at art. 25(1). Other articles specify related rights and the universality of all the rights described in the Declaration. For example, Article 1 states: “All human beings are born free and equal in dignity and rights.” *Id.* at art. 1. Article 2 states: “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” *Id.* at art. 2. Article 5 states: “No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.” *Id.* at art. 5. Article 9 states: “No one shall be subjected to arbitrary arrest, detention or exile.” *Id.* at art. 9. Article 12 states “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation.” *Id.* at art. 12. See Eleanor D. Kinney, *The International Human Right to Health: What Does This Mean for Our Nation and World?*, 34 *IND. L. REV.* 1457, 1469 (2001).

⁹⁰ ICESCR, *supra* note 15.

⁹¹ COMM. ON ECON., SOC. & CULTURAL RIGHTS, UN, GENERAL COMMENT NO. 14, THE RIGHT TO THE HIGHEST ATTAINABLE STANDARD OF HEALTH (ARTICLE 12) § 33 (2000), available at [www.unhchr.ch/tbs/doc.nsf/\(symbol\)/E.C.12.2000.4.En?OpenDocument](http://www.unhchr.ch/tbs/doc.nsf/(symbol)/E.C.12.2000.4.En?OpenDocument) (last visited Apr. 2, 2005) [hereinafter GENERAL COMMENT]. The most authoritative interpretation of the right to health is *General Comment No. 14* of the Committee on Economic, Social and Cultural Rights of the United Nations Economic and Social Council (ECOSOC), which summarizes the generally accepted principles embodied in ICESCR Article 12. ICESCR, *supra* note 15. The ICESCR did not adopt the World Health Organization’s (WHO) broader definition of health: “Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” WHO, CONST. OF THE WHO, pmbi., available at w3.who.sea.org/aboutsear/pdf/const.pdf (last visited Mar. 24, 2005). The ICESCR imposes duties on States Parties, but limits the duties according to what is feasible. ICESCR, *supra* note 15, at art. 2.

⁹² The precise contours of the States Parties’ obligations remain subject to some interpretation, of course, and are implemented to varying degrees in different countries. See Kinney, *supra* note 89, at 1470.

typically used in American law, than of social obligation. It describes the social obligations of government to achieve the human right to health for its population.⁹³

General Comment No. 14 makes clear that, like all human rights, “[t]he right to health contains both freedoms and entitlements.”⁹⁴ States Parties must not interfere with personal freedoms, and they must provide, to the extent feasible, the care and protection necessary to ensure the health of everyone in their populations. The ICESCR imposes three types of duties on States Parties, “the obligations to respect, protect, and fulfill” the right to health.⁹⁵ More specifically, the obligations are to (1) *respect* personal freedoms, (2) *protect* people from harm from external sources or third parties, and (3) *fulfill* the health needs of the population.⁹⁶

The duty to *respect* personal freedoms requires the State to “refrain from interfering directly or indirectly with the enjoyment of the right to health.”⁹⁷ This means that the State may not deny equal access to health services or health information, or initiate or enforce discriminatory practices. It also means that States must respect individuals’ freedom to choose the type of care they obtain and to refuse care they do not want.

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The obligation to *protect* requires affirmative action, by legislation or other means, to ensure that health professionals meet appropriate quality and competence standards, that food, medicines, and health-related products are manufactured and marketed safely, and that industry does not pollute the water, air, or soil.⁹⁸ It also requires legislation or other action to prevent third parties from limiting access to care, such as family planning and pre- and post-natal care, and accurate health information.

The obligation to *fulfill* requires the States to ensure that adequate healthcare is provided to the entire population, whether by pub-

⁹³ An excellent concise description of the development of international human rights and their application to health is Sofia Gruskin and Daniel Tarantola, *Health and Human Rights*, in PERSPECTIVES ON HEALTH AND HUMAN RIGHTS, *supra* note 70, at 3-57.

⁹⁴ GENERAL COMMENT, *supra* note 91, § 8.

⁹⁵ *Id.* § 33

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.* §§ 35, 51. *General Comment No. 14* also mentions the obligation to refrain from marketing unsafe drugs and polluting the environment as part of the duty to respect. *Id.* § 34.

lic or private programs, or a mixture of the two.⁹⁹ Recognizing the social determinants of health, it also requires that everyone have equal access to safe food and water, basic sanitation, and adequate housing and living conditions. Ensuring care includes providing for appropriate training for medical professionals and ensuring a sufficient supply of hospitals and other health facilities accessible to everyone in the country. Assisting individuals to enjoy the right to health includes fostering research and disseminating information to the public. Satisfying these duties entails enacting legislation, adopting regulatory measures, or providing funding to develop affirmative programs.¹⁰⁰

These three obligations parallel the three categories of laws affecting health in the United States, as illustrated on the following page.

The vast majority of public health activities and expenditures in the United States falls into categories 2 (Protection) and 3 (Fulfillment). Protection laws creating safety and health standards, such as occupational and business licensure, as well as standards for manufacturing and marketing products and operating businesses were the first and by far largest collection of public health laws in this country.¹⁰¹ They also spawned the vast majority of early legal disputes over the state's police power to regulate business.¹⁰² The number and type of laws creating government programs in the Fulfillment category has risen dramatically since the mid-twentieth century. During the same period, environmental measures and medical advances that prevented contagious diseases eliminated much of the need for category 1 measures to control individuals, such as isolation and quarantine, in order to control the spread of disease.

Therefore, it is somewhat surprising that, today, public debate about public health laws centers primarily on the first category—Respect. These include laws prohibiting discrimination in access

⁹⁹ *Id.* § 36.

¹⁰⁰ *Id.* § 37.

¹⁰¹ See ROSEN, *supra* note 22, at 69–72, 171–72.

¹⁰² Early controversies typically involved whether the state was encroaching on federal power under the Commerce Clause. *See, e.g.,* *Compagnie Française de Navigation à Vapeur v. State Bd. of Health*, 186 U.S. 380 (1902); *Louisiana v. Texas*, 176 U.S. 1 (1900); *Lawton v. Steele*, 152 U.S. 133 (1894); *New Orleans Gas-Light Co. v. La. Light & Heat Producing & Mfg. Co.*, 115 U.S. 650 (1885); *Beer Co. v. Massachusetts*, 97 U.S. 25 (1877); *Henderson v. Mayor of New York*, 92 U.S. 259 (1875); *Butchers' Benevolent Ass'n v. Crescent City Live-Stock Landing & Slaughter-House Co.*, 83 U.S. 36 (1872).

Parallels in Human Rights and United States Laws

Human Right to Health	U.S. Health Laws
1. Respect personal freedoms e.g., liberty, privacy – Equal access to care – Equal access to information – Nondiscrimination	– Individual rights, duties e.g., liberty, privacy confidentiality, nondiscrimination – Criminal and civil prohibitions, e.g., illicit drug laws, quarantine
2. Protect from harm by third parties – Safety and quality standards for food, medical products, health professionals, and facilities – Pollution controls – Equal access to care – Equal access to information	– Safety and health standards, e.g., for workplace, environment, products, professional services – Marketing standards, e.g., antitrust, antifraud and disclosure laws
3. Fulfill health needs – Ensure provision of care – Ensure health living conditions	– Service benefit programs, e.g., medical benefits, insurance, direct service programs; environmental protection; professional and public information; research

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to care, authorizing isolation and quarantine, mandatory testing or treatment, access to personal medical information, and prohibitions on smoking cigarettes and using marijuana and other illicit drugs. The controversy typically centers on a perceived conflict between the common good and individual autonomy, although instances of meaningful conflict are remarkably rare.

No one argues that limitations on liberty are never justified. Rather, controversy centers on why, when, and how—the substance of the justification and its compatibility with preserving

the core freedoms protected by both the Constitution and the International Bill of Rights. The ICESCR recognizes, in Article 4, that in order to protect people in the enjoyment of the right to health, some limits may be required, but in the same sentence prohibits overreaching: “[T]he State may subject such rights only to such limitations as are determined by law only in so far as this may be compatible with the nature of these rights and solely for the purpose of promoting the general welfare in a democratic society.”¹⁰³ This is intended to warn countries against using the right to health as a pretext for depriving people of other human rights. In General Comment No. 14, the ECOSOC Committee stated:

Issues of public health are sometimes used by States as grounds for limiting the exercise of other fundamental rights. The Committee wishes to emphasize that the Covenant’s limitation clause, article 4, is primarily intended to protect the rights of individuals rather than to permit the imposition of limitations by States. Consequently, a State party which, for example, restricts the movement of, or incarcerates, persons with transmissible diseases . . . has the burden of justifying such serious measures in relation to each of the elements identified in article 4. Such restrictions must be in accordance with the law, including international human rights standards, compatible with the nature of the rights protected by the Covenant [ICESCR], in the interest of legitimate aims pursued, and strictly necessary for the promotion of the general welfare in a democratic society.¹⁰⁴

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Any limitations on freedom must be justified by its genuine contribution to preserving other freedoms and entitlements.

Much of the controversy over sacrificing individual liberty to achieve the common good of public health has ignored human rights of entitlement—programs that provide the protections

¹⁰³ ICESCR, *supra* note 15, at art. 4.

¹⁰⁴ GENERAL COMMENT, *supra* note 91, § 28.

and services that make controlling individuals unnecessary. From the perspective of public health practitioners, law is one of many tools available to protect or promote health. Because there are many kinds of law, there are many legal tools. The human right to health framework lays out the entire spectrum of legal tools at our disposal. It not only parallels the types of health laws in the United States, but also reminds us that human rights include both freedoms and entitlements. For this reason, it offers a valuable conceptual framework for the entire field of health law. Indeed, I would argue that it describes the current paradigm of the field of health law in most of the world and the future, if not the current, paradigm in the United States. Moreover, it gives American lawyers a common language to communicate with the growing number of health lawyers all over the world.

IV. The Role of Lawyers

A. Recognizing Public Health Issues Throughout Law

The sheer number and kinds of laws affecting health presents a challenge to defining public health law as a cohesive legal specialty.¹⁰⁵ No single lawyer or scholar could command expertise in all relevant domains of law. As a result, there is no universally accepted definition of public health law.¹⁰⁶ This is probably all to the good. Narrowing the field to manageable proportions for a single lawyer risks ignoring important issues.

The solution to this problem, if indeed it is a problem, has been practical. Just as physicians specialize in areas like neurology or pediatric oncology, and health lawyers specialize in areas like healthcare financing or physician-patient relationships, lawyers in public health may specialize in laws applicable to contagious diseases, chronic diseases, genetics, occupational health, environmental health, urban planning, air quality and pollution control, products liability, healthcare facilities, housing, patents, privacy, intellectual property, agriculture, pharmaceuticals, or medical devices. Not surprisingly, one's view of public health

¹⁰⁵ There are, of course, some legal issues that are governed primarily, if not exclusively, by a unified statutory framework, like Medicare or OSHA. See WING, *supra* note 87, at 4–5, 175.

¹⁰⁶ A few commentators focus primarily on state laws governing infectious or contagious diseases. See, e.g., LAWRENCE O. GOSTIN, *PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT* 176 (2000); Richard A. Epstein, *Let the Shoemaker Stick to His Last: A Defense of the "Old" Public Health*, 46 *PERSP. BIOLOGY & MED.* S138, S138–39 (2003). Others argue that public health law should be limited to programs that depend on legal obligations or requirements. Mark A. Rothstein, *Rethinking the Meaning of Public Health*, 30 *J.L. MED. & ETHICS* 144, 146 (2002).

law often corresponds to the specialty within public health in which one works. But that does not mean that the specialty defines the field, any more than medical malpractice defines the legal profession or even the field of health law.

The disadvantage of specialization, of course, is that it is often difficult to keep up with other specialty domains, even when they are critically important. This drawback is particularly severe in public health because so many different types of laws affect health. The human rights framework alleviates this problem by drawing attention to the relevance of other legal issues, even though, by itself, it does not supply the substance of each relevant law in detail.

There has been some debate among law professors over whether and how to incorporate public health issues into the law school curriculum. Some public health advocates prefer a single course dedicated to public health. Most law professors prefer to include recognition of health issues by including them in regular courses, such as constitutional law and criminal law.¹⁰⁷ The latter approach appears to be the more realistic, practical, and effective because it ensures that law students understand the implications of applying basic legal principles in the health context. Segregating public health into a single course risks keeping it isolated and unnoticed, especially given that only some students are likely to take the course and that a single course cannot cover the entire subject matter. Moreover, law students can rarely predict with accuracy whether they will confront public health issues in the course of their careers. Many lawyers in seemingly unrelated positions occasionally handle matters that will affect public health. For example, counsel for towns and cities do not typically concentrate on health matters, but may need to address health issues, even when advising on zoning questions.

Recognition of public health issues in core courses in the legal curriculum may prove to be relatively easy. Such courses already often take interdisciplinary research and perspectives into account when analyzing fundamental principles.¹⁰⁸

¹⁰⁷ Wendy E. Parmet & Anthony Robbins, *Public Health Literacy for Lawyers*, 31 J.L., MED. & ETHICS 701, 702 (2003).

¹⁰⁸ Perspectives from scholars in law and society, critical race theory, narrative theory, feminism, and law and economics, as well as empirical research, have enhanced the analysis of doctrine in many domains, including constitutional and tort law.

For example, key decisions in the U.S. Supreme Court's federalism jurisprudence are also decisions about public health concerns. *United States v. Lopez* can raise questions about how to prevent gun injuries and death as well as how to interpret the scope of the Commerce Clause.¹⁰⁹ More recent Commerce Clause cases before the Court involve state statutes authorizing physicians to prescribe controlled substances for different medical uses.¹¹⁰ These cases also raise questions about whether the federal government should regulate medical practice or medical licensure. The Partial Birth Abortion Ban Act of 2003 and the legal challenges brought against it have been discussed primarily in terms of reproductive rights.¹¹¹ Yet the act applies only to "physicians engaged in interstate commerce."¹¹² If physicians who perform surgical procedures on their patients are engaged in interstate commerce, it is hard to think of a medical practice that is not part of interstate commerce. What would this mean for jurisdiction over medical and hospital licensure, or disputes over patient injuries?

Lawyers should recognize health concerns in all areas of law, even those ostensibly far afield. For example, recent changes in the federal bankruptcy law that would preclude bankruptcy protection for certain debtors may leave thousands of people without essential healthcare.¹¹³ Proponents of such changes

¹⁰⁹ 514 U.S. 549, 551 (1995). See *United States v. Morrison*, 529 U.S. 598, 598 (2000).

¹¹⁰ *Gonzales v. Raich*, 2005 WL 1321358 (June 6, 2005) (upholding the application of the Controlled Substances Act of 1970, 21 U.S.C. §§801 *et seq.*) to prohibit the medical use of marijuana pursuant to California's Compassionate Use Act of 1996, CAL. HEALTH & SAFETY CODE §11362.5); *Oregon v. Ashcroft*, 368 F.3d 1118 (9th Cir. 2004), *cert. granted*, *Gonzales v. Oregon*, 2005 U.S. LEXIS 1453 (addressing whether the U.S. Attorney General's effort to prohibit physicians from prescribing drugs for suicide pursuant to Oregon's Death with Dignity Act, OR. REV. STAT. §§127.800-127.995 (2001), is consistent with the Controlled Substances Act).

¹¹¹ Partial Birth Abortion Ban Act of 2003, 18 U.S.C. § 1531 (2005); see, e.g., *Nat'l Abortion Federation v. Ashcroft*, 330 F. Supp. 2d 436, 442 & 451 (2004).

¹¹² 18 U.S.C. § 1531(a) (2005).

¹¹³ Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, Pub. L. No. 109-8, 119 Stat. 23, § 1101 (2005). See also Bankruptcy Abuse Prevention and Consumer Protection Act: Hearing on S.256 Before the Senate Judiciary Committee, 109th Cong. (2005) (statement of Richard Durbin, Senator from Illinois), available at www.tinyurl.com/8exsz (last visited June 6, 2005); David U. Himmelstein, et al., *Market Watch: Illness and Injury as Contributors to Bankruptcy*, HEALTH AFFAIRS-WEB EXCLUSIVE, Feb. 2, 2005, at 63, 70, at www.content.healthaffairs.org/cgi/reprint/hlthaff.w5.63v1 (a significant proportion of people filing for bankruptcy protection were unable to pay their medical bills or lost their jobs and health coverage); Elizabeth Warren, *Sick and Broke*, WASH. POST, Feb. 9, 2005, at A23.

appear to be concerned about debtors who abuse the system to escape payment of legitimate debt. Yet, if the cost of healthcare imposes an unbearable debt burden, more is at stake than the efficient administration of credit. The entire system of healthcare financing must be taken into account. Similarly, those who specialize in employee benefits should recognize the ways in which the Employee Retirement Income Security Act may be ill suited to govern the evolving relationships among employers, employees, and health plans. Those who work in intellectual property should recognize how patents may either facilitate or obstruct the global sharing of technologies and the availability of essential therapies for those in need. In short, laws affecting public health are not limited to those that expressly target healthcare issues.

B. Recognizing Broader Legal Principles in Public Health

While all lawyers should at least recognize the health effects of laws in their own specialties, lawyers specializing in an area of public health should stay alert to the ways in which laws intended to solve a specific health problem affect other legal matters.

General legal principles serve values that transcend their effect on health, so that altering them to ensure improvements in health may adversely affect the overall principle.

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Public health efforts to restrict advertising for tobacco products, for example, are based on the concern that advertising encourages people, especially young people, to smoke. Restrictions on advertising, however, must take free speech protections into account. No matter how much one might wish to ban tobacco advertising entirely, it is difficult to do so without creating a principle that would permit similar restrictions on other products or services that an influential lobby disliked.¹¹⁴ Thus, lawyers advocating restrictions on advertising must remain sensitive to the principle they may be altering in order to achieve health goals.

¹¹⁴ Historically, bans on advertising have been used to prohibit advertising contraceptives and abortion, as well as alcohol and prescription drug prices, on the ground that such products cause harm. Such broad bans, however, have been struck down by the U.S. Supreme Court. 44 *Liquormart, Inc. v. R.I.*, 517 U.S. 484, 516 (1996); *Va. Bd. of Pharmacy v. Va. Citizens Consumer Council*, 425 U.S. 748, 773 (1976); *Bigelow v. Virginia*, 421 U.S. 809, 825 (1975). Of course, this does not preclude reasonable regulation of the time, place, and manner of advertising. *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000).

Disease reporting, or public health surveillance as it is now called in the public health field, presents a challenging example. First adopted over one hundred years ago, such laws were intended to permit public health officials to investigate a possible outbreak of contagious disease and take action to prevent an epidemic, including (if necessary) isolating an infected person who was likely to infect others and contacting anyone with whom she had contact.¹¹⁵ Today, many new laws require reporting up to fifty-eight infectious diseases and medical conditions,¹¹⁶ and even extend to the reporting of cancer patients¹¹⁷ and newborns with genetic conditions;¹¹⁸ indeed, there are efforts to include reporting for patients with chronic conditions possibly caused by environmental factors. Reporting requirements typically include detailed personally identifiable information, such as name, address, date of birth, gender, race, and Social Security Number.¹¹⁹

Surveillance systems offer great benefit when one must respond to the outbreak of a contagious disease that has no effective treatment or when immediate treatment is needed to prevent severe disability in newborns. Today, however, the information collected in most systems is used primarily for statistical analysis, identification of trends in diseases for different populations, budget setting, allocation of funding, and outcome evaluation.¹²⁰ The results provide important information for developing future public policy, but these uses are difficult to distinguish from research using personally identifiable information.¹²¹ Some

¹¹⁵ Stephen B. Thacker, *Historical Development*, in *PRINCIPLES AND PRACTICE OF PUBLIC HEALTH SURVEILLANCE* 4 (Steven M. Teutsch & R. Elliott Churchill, eds., 2d ed. 2000). “Until 1950, the term *surveillance* was restricted in public health practice to monitoring contacts of persons with serious communicable diseases such as smallpox, in order to detect early symptoms so that prompt isolation could be instituted.” *Id.* at 4.

¹¹⁶ Sandra Roush et al., *Mandatory Reporting of Diseases and Conditions by Health Care Professionals and Laboratories*, 281 *JAMA* 164, 166 (1999).

¹¹⁷ Cancer Registries Amendment Act, 42 U.S.C. § 280e (2005); NAT’L PROGRAM OF CANCER REGISTRIES (NPCR), CDC, NPCR-CANCER SURVEILLANCE SYSTEM: RATIONALE AND APPROACH VI (1999) [hereinafter *CANCER SURVEILLANCE SYSTEM*], available at www.cdc.gov/cancer/npcr/css.htm (last visited Mar. 25, 2005).

¹¹⁸ Gina Kolata, *Panel to Advise Tests on Babies for 29 Diseases*, *N.Y. TIMES*, Feb. 21, 2005, at A1.

¹¹⁹ Personally identifiable information is collected primarily, if not solely, to ensure that the same person is not counted more than once. Patient consent is not required for most systems, but personal information is kept confidential by state agencies. See, e.g., *CANCER SURVEILLANCE SYSTEM*, *supra* note 117, at VII.

¹²⁰ Thacker, *supra* note 115, at 6 (“Public health surveillance information is used to assess public health status, define public health priorities, evaluate programs, and conduct research.”).

¹²¹ See Amy Fairchild, *Dealing With Humpty Dumpty: Research, Practice, and the Ethics of Public Health Surveillance*, 31 *J.L., MED. & ETHICS* 615, 618 (2003); Ian Goldberg, *Trust, Ethics and Privacy*, 81 *B.U. L. REV.* 407, 419 (2001).

epidemiologists and others who work in public health surveillance believe that their analysis of such information should not be considered research.¹²² Yet it is difficult to reconcile the use of such information with the general principle of self-determination protecting individuals' right to refuse to participate in research.¹²³ If, in practice, modern public health surveillance has expanded beyond the original reasons for adopting disease reporting laws, then perhaps either the practice should change or the law protecting the right to refuse to participate in research should change. If the state's general interest in preventing and controlling disease is sufficient to override an individual's refusal to participate in research, then the doctrine of informed consent to medical research in general, and possibly to medical treatment itself, may collapse. Alternatively, if states cannot require the use of personal information without consent in order to conduct research, then different methods must be used to collect useful data that informs public policy, which may make such research more costly and less efficient.

What is important in this and other examples is that lawyers recognize the larger principles that can be affected in well-intentioned efforts to promote public health. It is important to distinguish between instances in which it is worth altering legal principles in order to achieve public health goals and instances in which the legal principle protects an equally important value that should not be sacrificed. Sometimes, it may be worth changing professional practices in order to preserve an important value, as happened when the doctrine of informed consent changed customary medical practice. Other times, it may be worth modifying a principle in order to protect the public's health.

This is especially important with respect to laws intended to combat terror. The war on terror has encouraged expanding the scope of surveillance systems and integrating databases in

¹²² See, e.g., JAMES G. HODGE & LAWRENCE O. GOSTIN, COUNCIL OF STATE AND TERRITORIAL EPIDEMIOLOGISTS, PUBLIC HEALTH PRACTICE VS. RESEARCH, A REPORT FOR PUBLIC HEALTH PRACTITIONERS INCLUDING CASES AND GUIDANCE FOR MAKING DISTINCTIONS 15 (May 24, 2004), available at www.cste.org/pdffiles/newpdffiles/CSTEPHResRptHodgeFinal.5.24.04.pdf (last visited Mar. 25, 2005); John P. Middaugh et al., Editorial, *The Ethics Of Public Health Surveillance*, 304 SCIENCE 681, 681–82 (2004).

¹²³ JAY KATZ, EXPERIMENTATION WITH HUMAN BEINGS (1972); NATIONAL COMMISSION FOR THE PROTECTION OF HUMAN SUBJECTS OF BIOMEDICAL RESEARCH AND BEHAVIORAL RESEARCH, THE BELMONT REPORT: ETHICAL PRINCIPLES AND GUIDELINES FOR THE PROTECTION OF HUMAN SUBJECTS OF RESEARCH. DHEW Pub. No. (OS) 78-0012 (1978).

order to detect terrorists.¹²⁴ Such systems hold both promise and peril.¹²⁵ Linking databases can provide valuable information but may pose threats to privacy.¹²⁶ Moreover, because it is impossible

¹²⁴ Recent disease outbreaks, like SARS, have not been discovered through surveillance systems, but by alert physicians. New syndromic surveillance systems, which do not report personally identifiable information, may improve the capacity to identify outbreaks immediately. See William J. Broad & Judith Miller, *Threats and Responses: The Bioterror Threat; Health Data Monitored for Bioterror Warning*, N.Y. TIMES, Jan. 27, 2003, at A1 (discussing the value of syndromic surveillance systems and quoting a CDC official in January 2003 as saying: "Whether this is going to detect terrorism is unclear. But as a safety net and for tracking an event once it's going on, it's very promising"); Richard Pérez-Peña, *An Early Warning System for Diseases in New York*, N.Y. TIMES, Apr. 4, 2003, available at www.nytimes.com/2003/04/04/nyregion/04WARN.htm (last visited Apr. 1, 2005). Dr. Farzad Mostashari, assistant commissioner for epidemiology services for the New York City Health Department, was reported to find the system useful for ordinary natural disease outbreaks but not man-made attacks, saying "[t]here is no guarantee that it will detect even a modest-sized bioterror attack, or that it will detect that attack before an astute clinician would." *Id.*

¹²⁵ Arthur Reingold, *If Surveillance Is the Answer, What Is the Question?*, 1 BIOSECURITY & BIOTERRORISM 77 (2003) (evaluating the realistic probability that syndromic surveillance will achieve various goals); Michael A. Stoto et al., *Syndromic Surveillance: Is It Worth the Effort?*, 17 CHANCE 19 (2004) (concluding that syndromic surveillance systems remain immature and face trade-offs between timely detection and false positives, because bioterrorist events are so rare).

¹²⁶ U.S. GENERAL ACCOUNTING OFFICE, RECORD LINKAGE AND PRIVACY: ISSUES IN CREATING NEW FEDERAL RESEARCH AND STATISTICAL INFORMATION 1 (2001), available at www.gao.gov/new.items/d01126sp.pdf (last visited Apr. 1, 2005). Although most agencies have a good record of data protection, errors do occur, and they may increase as more information is computerized and linked. In February 2005, the Bank of America reported that, in December 2003, it "lost" tapes containing "personal information, including Social Security numbers, addresses, and account numbers" for 1.2 million federal employees, including some Senators and 900,000 Department of Defense employees, opening the possibility of identity theft. The bank believed the loss occurred when the tapes were being shipped by commercial airline to a backup center. Sasha Talcott, *Financial Data Lost by Bank of America: Error Affects 1.2M Accounts of Federal Workers*, BOSTON GLOBE, Feb. 26, 2005 at A1. ChoicePoint Inc., a Georgia company that serves as a data warehouse, reported that it released the personal information of as many as 140,000 people to fictitious companies that successfully pretended to have authorization to obtain the information. Evan Perez, *Identity Theft Puts Pressure on Data Sellers*, WALL ST. J., Feb. 18, 2005, at B1; *ChoicePoint Data Theft Affected Thousands*, WALL ST. J., Feb. 22, 2005, at B6; see Associated Press, *A List of AIDS Names is E-Mailed in Error*, N.Y. TIMES, Feb. 21, 2005, at A16 (noting a local Florida health department employee accidentally sent 800 county health workers an e-mail containing a list of names and addresses of 4,500 people with AIDS and 2,000 people with HIV).

at the outset to determine whether a disease outbreak was caused by a terrorist, a natural epidemic, or even a laboratory accident, laws enacted to combat terrorism cannot be confined to terrorist threats, but will apply indefinitely to all diseases. The legal authority required for an emergency differs little from what might be needed and exercised in response to isolated disease outbreaks or increased levels of infection by endemic diseases. For this reason, expanding the state's power to take coercive measures in an emergency is barely distinguishable from expanding its power to take the same measures in the absence of any emergency.

Although public health is known for its emphasis on preventing disease, it cannot prevent the first introduction of an infectious disease into the population. Public health actions are limited to damage control. Prevention of a bioterrorist attack requires stopping the attack before it happens. This would mean either precluding terrorists from obtaining the materials and technology necessary to produce a biological agent or identifying or stopping terrorists from entering the country or using such agents as weapons.¹²⁷ The same is true for preventing an epidemic. Even immunization works only to prevent infection by an existing disease, not prevent its arrival. And, while the possibility of laboratory accidents can be reduced by safe work and infection control practices, accidents can happen. Public health programs operate not to prevent, but to limit and reduce the damage caused by infectious diseases when they extend beyond their initial source. This is sufficiently valuable; it should not be necessary to expect more in order to gain support for such programs.

It is not clear whether or how long today's welcome attention to public health will last. If history is any guide, support for public health may dwindle unless a major attack or epidemic occurs.¹²⁸ It may be difficult to entice lawyers into a field defined largely by such threats, especially when few jobs, most in the public sector, are dedicated primarily to public health matters. Yet lawyers in many other specialties will continue to face public health issues. Thus, introducing all lawyers to public health in their core law school curriculum is most likely to produce a profession able to understand legal issues in the context of public health.

¹²⁷ Kellman, *supra* note 78, at 421 (noting that the goal of bioterrorism prevention is to "[d]eny access to biological weapons capabilities, and—if capabilities are obtained—apprehend the terrorist before attack.").

¹²⁸ Elizabeth Fee & Theodore M. Brown, *The Unfulfilled Promise of Public Health: Déjà Vu All Over Again*, 21 HEALTH AFFS. 31, 31–35 (Nov.–Dec. 2002) (describing the history of mobilizing episodically in response to a public health crisis and then lapsing support as crisis subsides).

In most areas of health law, different perspectives on an issue are forced into the open because key stakeholders, and their lawyers, present testimony in legislative or judicial hearings. Some lawyers represent hospitals; others represent patients. Some represent industry; others represent a regulatory agency. In public health, there are lawyers for government agencies and industries, and sometimes lawyers for consumer groups and advocacy organizations. But there is no lawyer for the public in public health matters. Government agencies may believe that they represent the public, but their vision may be limited by their mission, jurisdiction, or politics. Lawyers who consistently represent one type of client may develop views of law that conform to the interests of their client, like plaintiffs' lawyers and defense lawyers in personal injury matters, for example. Few practicing lawyers have an opportunity to take the larger societal view of justice for all. Who will speak for the public *and* for health?

Public health threats today have complex origins. This means that almost all lawyers should be alert to the possibility that the law in their specialty may affect public health matters. It also means that almost all sectors of public policy and law—entitlements and freedoms—can and should be brought to bear on public health problems.¹²⁹ The human rights framework can help lawyers recognize and respond thoughtfully to today's public health concerns.

V. Conclusion

Public health is evolving in significant ways, increasingly connected to medicine and personal health outcomes and taking part in a global health system. The range of laws affecting public health matters is increasing, with the federal government assuming more responsibility. The war on terror has both garnered renewed support for public health programs and distracted attention from the more fundamental tasks of public health workers. Despite academic recognition of the social determinants of disease, public health has recently been unfairly confined to dealing with contagious disease. These trends may have intensified public health's focus on individual behaviors as a primary target for legal regulation and brought public health

¹²⁹ ALLIN ET AL., *supra* note 33, at 11. "Historically, public health has achieved a great deal, initially by means of its traditional roles in ensuring water purity, clean air and effective sanitation." *Id.* "[I]t is not possible to speak of an explicit, all-embracing national public health policy in any country It is, however, possible for governments . . . to develop policies that lead directly to actions by the state . . . , as well as facilitating actions by others that promote public health." *Id.* at 12.

and medicine closer to a more integrated field of health. At the same time, the different historical perspectives of public health and medicine on the relative value of individual liberty and health outcomes pose challenges for the law. The human right to health framework in international law offers a reminder that health often depends on positive government actions and that individual human rights must not and need not be violated in order to safeguard an entire population.¹³⁰

Because public health law is an applied field of law, lawyers should be familiar with public health issues. Lawyers should welcome the skills that public health practitioners bring to identifying risks to health and ways to improve health. It is equally important for public health practitioners to appreciate the role of law in the wider society. Just as physicians do not dictate the laws that apply to medicine, so public health practitioners do not dictate the laws that apply to public health. Law may be an essential tool of public health, but public health is not the only goal of law. The legal principles that apply to health matters may also apply in other circumstances. Law can serve public health without being distorted by it. The human right to health framework recognizes that laws can and should seek health through justice.

¹³⁰ Annas, *supra* note 66, at 96 (noting that “human rights and health are not inherently conflicting goals”); Jonathan M. Mann, *Medicine and Public Health, Ethics and Human Rights*, HASTINGS CTR. REP. 6–13 (May–June 1997).