

Law and the Public's Health

Mapping the Terrain

The theory and practice of public health raise questions that are not resolved solely through scientific inquiry; rather, law and ethics guide the public health enterprise alongside epidemiology and biostatistics. Despite the close interplay among public health science, law, and ethics, each has its own methods and terminology. Until recently, cross-fertilization was rare. Most scholars and practitioners in the fields of law and ethics who have engaged in sustained examination of issues in health have focused principally on the financing and delivery of medical care and the conduct of medical research. The distinct perspectives and practices of public health have received far less attention. Fortunately, a growing number of practitioners, scholars, and organizations are developing public health law and public health ethics into fully fledged fields that stand alongside the related fields of health care law and bioethics.

Before applying ethics or law to problems in public health, it is important first to understand what we mean by public health. In this chapter, we highlight the prevention orientation, population perspective, and commitment to social justice that distinguish public health from medicine. We describe evolving models of public health science and practice, culminating in the social-ecological model. We conclude by surveying an ongoing debate over the legitimate scope of public health law, triggered by increased attention to noncommunicable diseases (e.g., cancer, heart disease, diabetes), injuries (e.g., motor vehicle,

firearm, and overdose fatalities), and the social, economic, and environmental determinants of health in recent decades.

THE PREVENTION ORIENTATION AND THE POPULATION PERSPECTIVE

Public health inquiries and interventions are aimed at the prevention of injury, disease, and premature death at the population level. The Institute of Medicine (IOM) (1988, 19) in its landmark report *The Future of Public Health* proposed one of the most influential contemporary definitions of public health: “Public health is what we, as a society, do collectively to assure the conditions for people to be healthy.” The IOM’s emphasis on cooperative and mutually shared obligation (“we, as a society”) reinforces that collective entities (e.g., governments and communities) take responsibility for healthy populations. The definition also adopts a broad focus on social, environmental, cultural, and economic factors (“the conditions for people to be healthy”) that shape health-related behaviors and outcomes.

In the excerpt that follows, Rose offers a comparison between how medicine and public health approach questions of causation and methods for prevention. “Why did this patient get this disease at this time?” is a common question in medicine, underscoring a physician’s principle concern for individuals. By contrast, those interested in public health seek knowledge about why ill health occurs in the population and how it can be prevented through structural, rather than individual, interventions.

SICK INDIVIDUALS AND SICK POPULATIONS*

Geoffrey Rose

THE DETERMINANTS OF INDIVIDUAL CASES

In teaching epidemiology to medical students, I have often encouraged them to consider a question which I first heard enunciated by Roy Acheson: “Why did *this* patient get *this* disease at *this* time?” It is an excellent starting point, because students and doctors feel a natural concern for the problems of the individual. Indeed, the central ethos of medicine is seen as an acceptance of responsibility for sick individuals.

It is an integral part of good doctoring to ask not only, “What is the diagnosis, and what is the treatment?” but also, “Why did this happen, and could it have been pre-

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vented?" Such thinking shapes the approach to nearly all clinical and laboratory research into the causes and mechanisms of illness. Hypertension research, for example, is almost wholly preoccupied with the characteristics which distinguish individuals at the hypertensive and normotensive ends of the blood pressure distribution. Research into diabetes looks for genetic, nutritional and metabolic reasons to explain why some people get diabetes and others do not. The constant aim in such work is to answer Acheson's question, "Why did this patient get this disease at this time?"

The same concern has continued to shape the thinking of all of us who came to epidemiology from a background in clinical practice. The whole basis of the case-control method [(a retrospective study design in which researchers compare the history of individuals who have a condition ["cases"] to the history of individuals who do not ["controls"])] is to discover how sick and healthy individuals differ. Equally the basis of many cohort studies [(prospective studies in which researchers follow a group of similarly situated individuals over time to see which of them develops the condition of interest)] is the search for "risk factors," which identify certain individuals as being more susceptible to disease; and from this we proceed to test whether these risk factors are also causes, capable of explaining why some individuals get sick while others remain healthy, and applicable as a guide to prevention. . . .

Unfortunately this approach to the search for causes, and the measuring of their potency, has to assume a heterogeneity of exposure within the study population. If everyone smoked 20 cigarettes a day, then clinical, case-control and cohort studies alike would lead us to conclude that lung cancer was a genetic disease; and in one sense that would be true, since if everyone is exposed to the necessary agent, then the distribution of cases is wholly determined by individual susceptibility. Within Scotland and other mountainous parts there is no discernible relation between local cardiovascular death rates and the softness of the public water supply. The reason is apparent if one extends the enquiry to the whole of the UK. In Scotland, everyone's water is soft [meaning that it contains low levels of calcium and magnesium]; and the possibly adverse effect becomes recognizable only when study is extended to other regions which have a much wider range of exposure. . . . Even more clearly, a case-control study of this question within Scotland would have been futile. Everyone is exposed, and other factors operate to determine the varying risk. Epidemiology is often defined in terms of study of the determinants of the distribution of the disease; but we should not forget that the more widespread is a particular cause, the less it explains the distribution of cases. The hardest cause to identify is the one that is universally present, for then it has no influence on the distribution of disease.

THE DETERMINANTS OF POPULATION INCIDENCE RATE

I find it increasingly helpful to distinguish two kinds of etiological question. The first seeks the causes of cases, and the second seeks the causes of incidence. "Why do some individuals have hypertension?" is a quite different question from "Why do some populations have much hypertension, whilst in others it is rare?" The questions require different kinds of study, and they have different answers. . . .

To find the determinants of prevalence and incidence rates, we need to study characteristics of populations, not characteristics of individuals. . . . Within populations it has proved almost impossible to demonstrate any relation between an individual's diet

and his serum cholesterol level; and the same applies to the relation of individual diet to blood pressure and to overweight. But at the level of populations it is a different story: it has proved easy to show strong associations between population mean values for saturated fat intake *versus* serum cholesterol level and coronary heart disease incidence, sodium intake *versus* blood pressure, or energy intake *versus* overweight. The determinants of incidence are not necessarily the same as the causes of cases. . . .

PREVENTION

These two approaches to etiology—the individual and the population-based—have their counterparts in prevention. In the first, preventive strategy seeks to identify high-risk susceptible individuals and to offer them some individual protection. In contrast, the “population strategy” seeks to control the determinants of incidence in the population as a whole.

The “High-Risk” Strategy

This is the traditional and natural medical approach to prevention. If a doctor accepts that he is responsible for an individual who is sick today, then it is a short step to accept responsibility also for the individual who may well be sick tomorrow. Thus screening is used to detect certain individuals who hitherto thought they were well but who must now understand that they are in effect patients. . . .

What the “high-risk” strategy seeks to achieve is something like a truncation of the risk distribution. This general concept applies to all special preventive action in high-risk individuals—in at-risk pregnancies, in small babies, or in any other particularly susceptible group. It is a strategy with some clear and important advantages. . . .

The “high-risk” approach offers a more cost-effective use of limited resources. . . . [I]t is more effective to concentrate limited medical services and time where the need—and therefore also the benefit—is likely to be greatest. . . . If intervention must carry some adverse effects or costs, and if the risk and cost are much the same for everybody, then the ratio of the costs to the benefits will be more favorable where the benefits are larger.

Unfortunately the “high-risk” strategy of prevention also has some serious disadvantages and limitations. . . . [I]t is palliative and temporary, not radical. It does not seek to alter the underlying causes of the disease but to identify individuals who are particularly susceptible to those causes. Presumably in every generation there will be such susceptibles; and if prevention and control efforts were confined to these high-risk individuals, then that approach would need to be sustained year after year and generation after generation. It does not deal with the root of the problem, but seeks to protect those who are vulnerable to it; and they will always be around.

The potential for this approach is limited—sometimes more than we could have expected—both for the individual and for the population. There are two reasons for this. The first is that our power to predict future disease is usually very weak. Most individuals with risk factors will remain well, at least for some years; contrariwise, unexpected illness may happen to someone who has just received an “all clear” report from a screening examination. One of the limitations of the relative risk statistic is that it gives no idea of the absolute level of danger. . . .

This point came home to me only recently. I have long congratulated myself on my low levels of coronary risk factors, and I joked to my friends that if I were to die suddenly, I should be very surprised. I even speculated on what other disease—perhaps colon cancer—would be the commonest cause of death for a man in the lowest group of cardiovascular risk. The painful truth is that for such an individual in a Western population the commonest cause of death—by far—is coronary heart disease! Everyone, in fact, is a high-risk individual for this uniquely mass disease.

There is another, related reason why the predictive basis of the “high-risk” strategy of prevention is weak. It is well illustrated by . . . the [correlation of] occurrence of Down’s syndrome births to maternal age. Mothers under 30 years are individually at minimal risk; but because they are so numerous, they generate half the cases. High-risk individuals aged 40 and above generate only 13% of the cases. The lesson from this example is that *a large number of people at a small risk may give rise to more cases of disease than the small number who are at a high risk*. This situation seems to be common, and it limits the utility of the “high-risk” approach to prevention.

A further disadvantage of the “high-risk” strategy is that it is behaviorally inappropriate. Eating, smoking, exercise and all our other life-style characteristics are constrained by social norms. If we try to eat differently from our friends it will not only be inconvenient, but we risk being regarded as cranks or hypochondriacs. If a man’s work environment encourages heavy drinking, then advice that he is damaging his liver is unlikely to have any effect. No one who has attempted any sort of health education effort in individuals needs to be told that it is difficult for such people to step out of line with their peers. This is what the “high-risk” preventive strategy requires them to do.

The Population Strategy

This is the attempt to control the determinants of incidence, to lower the mean level of risk factors, to shift the whole distribution of exposure in a favorable direction. In its traditional “public health” form it has involved mass environmental control methods; in its modern form it is attempting (less successfully) to alter some of society’s norms of behavior.

The advantages are powerful. The first is that it is radical. It attempts to remove the underlying causes that make the disease common. It has a large potential—often larger than one would have expected—for the population as a whole. . . .

The approach is behaviorally appropriate. If non-smoking eventually becomes “normal,” then it will be much less necessary to keep on persuading individuals. Once a social norm of behavior has become accepted and (as in the case of diet) once the supply industries have adapted themselves to the new pattern, then the maintenance of that situation no longer requires effort from individuals. The health education phase aimed at changing individuals is, we hope, a temporary necessity, pending changes in the norms of what is socially acceptable.

Unfortunately the population strategy of prevention has also some weighty drawbacks. It offers only a small benefit to each individual, since most of them were going to be all right anyway, at least for many years. This leads to the Prevention Paradox (Rose 1981): “A preventive measure which brings much benefit to the population offers little to each participating individual.” This has been the history of public health—of immunization, the wearing of seat belts and now the attempt to change various

life-style characteristics. Of enormous potential importance to the population as a whole, these measures offer very little—particularly in the short term—to each individual; and thus there is poor motivation of the subject. We should not be surprised that health education tends to be relatively ineffective for individuals and in the short term. Mostly people act for substantial and immediate rewards, and the medical motivation for health education is inherently weak. Their health next year is not likely to be much better if they accept our advice or if they reject it. Much more powerful as motivators for health education are the social rewards of enhanced self-esteem and social approval. . . .

CONCLUSIONS

The “high-risk” strategy of prevention is an interim expedient, needed in order to protect susceptible individuals, but only for so long as the underlying causes of incidence remain unknown or uncontrollable; if causes can be removed, susceptibility ceases to matter.

Realistically, many diseases will long continue to call for both approaches, and fortunately competition between them is usually unnecessary. Nevertheless, the priority of concern should always be the discovery and control of the causes of incidence.

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Michael J. McGinnis and William H. Foege noted in 1993 that the biomedical model of record keeping and the societal need to explain a cause of death in terms of a discrete medical condition can distract the public from the root causes of disease. Medical explanations of death, often in the form of code numbers from the International Classification of Disease (ICD) on death certificates, point to discrete pathophysiological conditions or events, such as heart attack, stroke, cancer, diabetes, pneumonia, or suicide. In contrast, from the population perspective, McGinnis and Foege focused on what they labeled the “actual causes of death”: tobacco, diet and activity patterns, alcohol, firearms, sexual behavior, motor vehicles, and illicit drug use. Ten years later, Ali H. Mokdad and his coauthors (2004) updated the statistics marshaled by McGinnis and Foege, noting trends in the leading modifiable causes of death over time. Sandro Galea and his coauthors (2011) built on this framework by assessing the impact of individual-level factors (e.g., educational attainment, household income, health insurance status, employment status, job stress, household conditions, level of social support, experience of racism or discrimination, housing conditions, and early childhood stressors) as well as community-level factors (e.g., area-level poverty, income inequality, deteriorating built environment, racial segregation, crime and violence, social capital, and availability of open or green spaces). They attributed approximately 245,000 premature

deaths in the United States each year to low education, 176,000 to racial segregation, 162,000 to low social support, 133,000 to individual-level poverty, 119,000 to income inequality, and 39,000 to area-level poverty (Galea et al. 2011, 1462). Similarly, Anne Case and Angus Deaton (2017) have found that increases in “deaths of despair” (e.g., drug overdoses, suicides, and deaths due to alcohol-related liver disease) are attributable to a “long-standing process of cumulative disadvantage for those with less than a college degree,” contributing to an overall increase in premature mortality among middle-aged non-Hispanic white people in recent years. Attributing deaths to economic despair, experiences of racism, early childhood stressors, and other social determinants of health may seem foreign to those accustomed to measuring mortality in terms of discrete medical causes such as cardiovascular disease or cancer. It is a powerful expression of the population perspective adopted by public health experts.

There are, of course, many things that individuals can do to protect their own health, particularly if they have the economic means to do so. They can purchase housing, clothing, food, and medical care. Each person can also behave in ways that promote health and safety by eating a balanced diet, being physically active, using safety equipment (e.g., seatbelts, motorcycle helmets, smoke detectors, and protective equipment at work), refraining from tobacco use and drug and alcohol abuse, using sunscreen, and getting recommended vaccinations and screening tests. But, as the work of Case, Deaton, Galea, Mokdad, McGinnis, Foege, and others shows, these individual behaviors are shaped by social determinants. Law itself acts as a social determinant of health, allocating resources, creating incentives and disincentives, and shaping the social environment, the information environment, and the built environment in which people make choices that affect their health.

Furthermore, there are some kinds of health protection that no individual, acting alone, can achieve fully. The classic example is community immunity. A vaccination may be highly effective—providing protection from a communicable disease to, for example, 95% of those who are immunized. Some individuals may be unable to get vaccinated because of medical conditions, such as leukemia, that make it medically inadvisable. Others may opt out of immunizations due to religious or philosophical objections. Others may get a vaccination, but have the misfortune of being among the 5% of those who are vaccinated but nonetheless are vulnerable to infection. Only community immunity (also known as herd immunity) can ensure eradication of an infectious disease by

protecting everyone—the vaccinated as well as the unvaccinated—from infection (see chapter 10). Acting alone, individuals cannot achieve control of infectious disease, clean air and surface water, uncontaminated food and drinking water, safe roads and products, and community norms and social structures that support safer, healthier lifestyles.

Protecting public health also requires actions that no individual is fully incentivized to take, even if it were within one's power to do so, because it is impossible to know which individuals will benefit. For example, policymakers know that reducing tobacco use saves lives. Statisticians can document how many fewer people are smoking today than were smoking in the 1960s before tobacco control measures were in place. Epidemiologists can measure the impact of cigarette taxes on smoking prevention. But it is impossible to point to any specific individual and say, "this person's life was saved because the cigarette tax was high enough to keep her from taking up smoking when she was fourteen." Similarly, it is well known that exposure to lead-contaminated water and soil and deteriorating lead paint causes intellectual impairment and behavioral disorders. Health agencies can document how many children have blood lead levels that are unsafe. At the population level, epidemiologists may even be able to estimate the amount of intellectual impairment and behavioral disorder attributable to lead paint exposure. But it is exceedingly difficult to prove that any given individual would not be experiencing an intellectual impairment or behavioral disorder but for his exposure to lead paint.

Indeed, the collective action problem in public health is the often at the root of its politicization. This is the prevention paradox that Rose describes above. Measures that have the greatest potential for improving health at the population level (e.g., reduction of sodium content in restaurant food) offer little traceable benefit to any identifiable individual. Measures that heroically save identifiable lives (e.g., heart transplants) make no significant contribution to the population's health. This tension between individual interests and collective needs can be seen in how success is quantified for health interventions. The answer to the question "Was this patient's health improved?" indicates success for the physician. For the public health professional, the key question is whether the disease and injury burden were reduced at the population level, with virtually no ability to tie names or faces to such an achievement. Although Rose acknowledges that medical interventions appear more heroic and are more likely to be welcomed by patients, he favors the broad and powerful impact of successful population-based campaigns.

Ongoing partisan disagreements over health care reform have focused the nation's attention on access to heroic medical interventions. In town halls across the country, individuals describe their dire need for subsidized health insurance coverage as they battle cancer, congestive heart failure, and other serious conditions. At the same time, sweeping changes in how health care is financed have led policymakers to view prevention as a key cost-control strategy. The Affordable Care Act included several measures to increase access to preventive health care and promote community-level prevention. In the following excerpt, Harry J. Heiman and Samantha Artiga place these trends in context and highlight the crucial importance of the social determinants of health.

BEYOND HEALTH CARE: THE ROLE OF SOCIAL DETERMINANTS IN PROMOTING HEALTH AND HEALTH EQUITY*

Harry J. Heiman and Samantha Artiga

Efforts to improve health in the United States have traditionally looked to the health care system as the key driver of health and health outcomes. The Affordable Care Act (ACA) increased opportunities to improve health by expanding access to health coverage and supporting reforms to the health care delivery system. While increasing access to health care and transforming the health care delivery system are important, research demonstrates that improving population health and achieving health equity also will require broader approaches that address social, economic, and environmental factors that influence health. . . .

DETERMINANTS OF HEALTH

Many factors combine to affect the health of individuals and communities. Despite annual health care expenditures projected to exceed \$3 trillion, health outcomes in the United States continue to fall behind other developed countries. Recent analysis shows that, although overall spending on social services and health care in the United States is comparable to other Western countries, the United States disproportionately spends less on social services and more on health care. Though health care is essential to health, research demonstrates that it is a relatively weak health determinant. Health behaviors, such as smoking and diet and exercise, are the most important determinants of premature death (figure [1.1]). Moreover, there is growing recognition that a broad range of social, economic, and environmental factors shape individuals' opportunities and barriers to engage in healthy behaviors.

Social determinants have a significant impact on health outcomes. Social determinants of health are "the structural determinants and conditions in which people are born, grow, live, work and age" (Marmot et al. 2008). They include factors like socioeconomic

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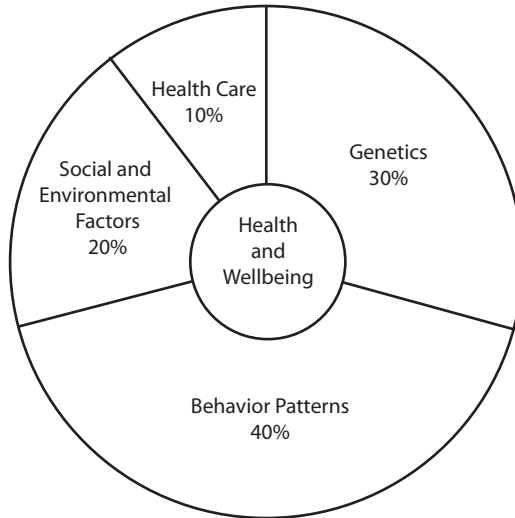


FIGURE 1.1. The determinants of premature death.

Adapted from Heiman, Harry J., and Samantha Artiga. 2015. “Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity.” *Kaiser Family Foundation*.

Source: McGinnis, J. Michael, Pamela Williams-Russo, and James R. Knickman. 2002. “The Case for More Active Policy Attention to Health Promotion.” *Health Affairs* 21 (2): 78–93.

status, education, the physical environment, employment, and social support networks, as well as access to health care ([see table 1.1]). Based on a meta-analysis of nearly 50 studies, researchers found that social factors, including education, racial segregation, social supports, and poverty accounted for over a third of total deaths in the United States in a year. In the United States, the likelihood of premature death increases as income goes down. Similarly, lower education levels are directly correlated with lower income, higher likelihood of smoking, and shorter life expectancy. Children born to parents who have not completed high school are more likely to live in an environment that poses barriers to health. Their neighborhoods are more likely to be unsafe, have exposed garbage or litter, and have poor or dilapidated housing and vandalism. They also are less likely to have sidewalks, parks or playgrounds, recreation centers, or a library. In addition, poor members of racial and ethnic minority communities are more likely to live in neighborhoods with concentrated poverty than their poor White counterparts. There is also growing evidence demonstrating that stress negatively impacts health for children and adults across the lifespan. Recent research showing that where a child grows up impacts his or her future economic opportunities as an adult also suggests that the environment in which an individual lives may have multi-generational impacts.

TABLE 1.1 SOCIAL DETERMINANTS OF HEALTH

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	
Medical bills	Playgrounds	Higher education			Quality of care
Support	Walkability				
Health Outcomes					
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations					

SOURCE: Reprinted from Heiman, Harry J., and Samantha Artiga. 2015. "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity." *Kaiser Family Foundation Issue Brief*.

Addressing social determinants of health is important for achieving greater health equity. The presence of health disparities is well established in the United States. Longstanding research has consistently identified disparities experienced by racial and ethnic minority, low-income, and other vulnerable communities. [In its ten-year plan for improving the nation's health, Healthy People 2020, t]he Department of Health and Human Services defines health disparities as "differences in health outcomes that are closely linked with social, economic, and environmental disadvantage." Healthy People 2020 goes on to state that "health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion." These definitions recognize that health disparities are rooted in the social, economic, and environmental context in which people live. Achieving health equity—defined by Healthy People 2020 as the highest level of health for all people—will require addressing these social and environmental determinants through both broad population-based approaches and targeted approaches focused on those communities experiencing the greatest disparities.

ADDRESSING SOCIAL DETERMINANTS OF HEALTH

Recently there has been increasing recognition of the importance of social determinants of health. A growing number of initiatives are emerging to address these broader determinants of health and develop integrated solutions within the context of the health care delivery system. . . .

Mapping and Place-Based Approaches

A number of initiatives are using geospatial analysis and community needs assessments to guide place-based approaches to address social and environmental factors impacting individual and community health. The importance of mapping and geospatial analysis for assessing and addressing health needs dates back to John Snow's work in 1854 to identify the source of the London cholera epidemic. Today, the importance of the relationship between neighborhoods and health continues to be recognized, with zip code understood to be a stronger predictor of a person's health than their genetic code. As described in the examples below, [a] number of initiatives in place today focus on neighborhoods with social, economic, and environmental barriers that lead to poor health outcomes and health disparities.

One example of these place-based approaches is an initiative in Camden, New Jersey, that focuses on high utilizers of hospital care. The population of Camden has a high poverty rate and historically poor access to care, with a high share of emergency department and hospital visits for preventable conditions that are treatable by a primary care provider. Individuals were having difficulty accessing primary care along with a number of behavioral, social, and medical issues. In response to these challenges, the Camden Coalition of Health Care Providers created a citywide care management system to help connect high utilizers of hospital emergency departments with primary care providers. The care management team includes providers and a social worker who connects with patients in the community to help identify and address both their medical and social needs. Results show that patients managed through the initiative have decreased emergency department and hospital utilization and improved management of health conditions. The initiative has also been successful in connecting patients to primary care following a hospital discharge.

The Harlem Children's Zone (HCZ) Project is a multi-dimensional, place-based approach to developing a healthy neighborhood and supporting the healthy development of children from birth to adulthood. The program focuses on children within a 100-block area in Central Harlem that had chronic disease and infant mortality rates that exceeded rates for many other sections of the city as well as high rates of poverty and unemployment. HCZ seeks to improve the educational, economic, and health outcomes of the community through a broad range of family, social service, and health programs. Programs include training and education of expectant parents, full-day pre-K, community centers that offer after-school and weekend programming, nutrition education, recreation options, and food services that provide healthy meals to students. HCZ tracks metrics across its initiatives and reports a 92% college acceptance rate across its programs.

In Colorado, the Colorado Health Foundation is leading an initiative called Healthy Places: Designing an Active Colorado. This initiative aims to reduce obesity by fostering a built environment that supports physical activity and connectivity within three com-

munities. Examples of projects implemented under this initiative include building new parks, playgrounds and walking trails; creating new family-based recreational opportunities; and increasing bicycle and pedestrian infrastructure.

The Healthy Food Financing Initiative is a public-private partnership that has leveraged over \$1 billion to support over 200 projects in over 30 states since 2011 to improve access to healthy foods in low-income communities. Pilot studies for the Philadelphia Healthy Corner Store Initiative, now bringing healthier products to over 600 corner stores, showed a 60% increase in the sales of fresh produce. In addition, they demonstrated increased local economic activity and jobs and generation of local tax revenue.

Health in All Policies

Since the early 2000s, there has been a growing movement in the public health community to adopt a “Health in All Policies” approach. This approach recognizes the need to address social determinants of health to improve population health and seeks to ensure that decision-makers across different sectors are informed about the health, equity, and sustainability consequences of policy decisions in non-health sectors. In much the same way that environmental impact assessments allow for evaluation of the environmental impact of policies, health impact assessments evaluate the health impact of policies and practices across sectors that have not traditionally considered their impact on health.

Policies and practices in areas as diverse as education and early child development, economic and community development, transportation, and agricultural and food policy all have impacts on health and health equity. For example, providing early childhood education programs to children in low-income and racial and ethnic minority communities helps to reduce achievement gaps, improve the health of low-income students, and promote health equity. The availability and accessibility of public transportation affects access to employment, affordable healthy foods, health care, and other important drivers of health and wellness. Policies and practices in food policy can also promote health by supporting healthier corner stores in low-income communities, farm to school programs and community and school gardens, as well as through broader efforts to support the production and consumption of healthy foods.

Health in All Policies approaches are being promoted and implemented at the federal level, by local and state governments, community organizations, and funders. The National Prevention Council, created by the ACA, for the first time brings together senior leadership from 20 federal departments, agencies, and offices around a shared health agenda. Under the leadership of the Surgeon General, the council developed the National Prevention Strategy, identifying collaborative opportunities through a public health lens to advance health and wellness across all federal agencies. Similar approaches are being adopted at the state level. The California Health in All Policies Task Force was established by executive order in 2010 with the goal of bringing together 22 state agencies, departments, and offices to support a healthier and more sustainable California. The task force has developed interagency initiatives focused on crime prevention, access to healthy food, and active transportation. In 2010, King County, Washington, adopted an ordinance that codified bringing a health and health equity lens—a “fair and just” principle—to the county’s new strategic plan. Through this prioritization of health equity across all policies, the county has focused on issues ranging from educational attainment and workforce development to affordable transit.

National and local funders are also shifting focus to support broader policies and practices that promote opportunities for health. For example, the Robert Wood Johnson Foundation underwent a major strategic reorientation aligned with its vision of building a national “Culture of Health.” This vision seeks to look beyond health care to improve population health and change the way the nation thinks about health by focusing on collective impact and cross sector collaboration in areas ranging from early childhood education to food access and community development.

THE SOCIAL JUSTICE COMMITMENT

Like medicine, public health is not a purely positivistic pursuit. It is fundamentally driven by its progressive aim: to prevent disease, injury, and premature death. Its aggregative approach to measuring success may at first glance appear to be utilitarian. But, as the preceding excerpt demonstrates, public health is deeply interested in the distribution of good and ill health within populations. Improving aggregate health status by further improving the health of the privileged few is not the aim of public health. Rather, the aim is to shift the whole distribution of disease and injury downward, as Rose describes.

Deep and enduring socioeconomic disparities in health form the backdrop to any public health policy, and these disparities help explain why social justice is a core value of public health. As Angus Deaton (2002, 13) explains, “Poorer people die younger and are sicker than richer people; indeed, mortality and morbidity rates are inversely related to many correlates of socioeconomic status [SES] such as income, wealth, education, or social class.” Scholars often use the term *health-wealth gradient* to refer the correlation between SES and health to reflect the frequently demonstrated trend whereby health improves more or less continuously as SES increases. British epidemiologist Sir Michael Marmot (2006) offers a powerful illustration of the SES gradient. For every mile traveled on the Metro’s Red Line in the District of Columbia from the impoverished northeast to the affluent northwest, average life expectancy increases by one and a half years. Marmot’s pioneering work on the social determinants of health has had enormous influence on the science, practice, ethics, and law of public health.

Social disparities in health outcomes are of interest for a number of reasons. An association between heart disease rates and household income indicates that modifiable factors are at work, highlighting the potential for disruption of causal pathways and prevention of unnecessary illness and premature death. A difference in cancer mortality between Black women and non-Hispanic white women could indicate a

genetic difference, but given the nature of race as a construct having more to do with social position than biological difference, it is at least as likely to indicate that social determinants are influencing outcomes. Even more importantly, these disparities are unconscionable because poor health limits the capabilities of individuals and communities to achieve their self-defined aims in life. Social, economic, and cultural disadvantages may compound health disparities and vice versa.

The excerpts that follow explore the commitment of public health practice, policy, and ethics to social justice, which has both a distributive (fairness in the distribution of benefits and burdens) and a participatory (fairness in the representation and recognition of diverse voices and interests in the identification and evaluation of priorities and interventions) dimension. The commitment to social justice is intertwined with public health's focus on communities both as the objects of its inquiries and interventions and as participatory subjects in democratic processes of identifying priorities, developing interventions, and evaluating both. Public health's commitment to social justice, augmented by the relatively new scientific methods of social epidemiology, has led to growing understanding of the social determinants of health over the last few decades. In turn, this understanding is shaping the boundaries of public health science, practice, and law.

We begin with Paula Braveman and her coauthors, who discuss the crucial and challenging task of defining health disparities and health equity as a foundation for social justice in public health. Building on this foundation, we then present an article by Dan Beauchamp, a pioneer in public health ethics. He analyzes the central tension between the need for collective action to achieve population-level improvements in health and the ethos of American individualism, which at times seems to require only that one refrain from harming others.

HEALTH DISPARITIES AND HEALTH EQUITY: THE ISSUE IS JUSTICE*

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Eliminating health disparities is a *Healthy People* goal. Given the diverse and sometimes broad definitions of health disparities commonly used, a subcommittee convened

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TABLE 1.2 HEALTH DISPARITIES AND HEALTH EQUITY

Health disparities are health differences that adversely affect socially disadvantaged groups.

Health disparities are systematic, plausibly avoidable health differences according to race/ethnicity, skin color, religion, or nationality; socioeconomic resources or position (reflected by, e.g., income, wealth, education, or occupation); gender, sexual orientation, gender identity; age, geography, disability, illness, political or other affiliation; or other characteristics associated with discrimination or marginalization. These categories reflect social advantage or disadvantage when they determine an individual's or group's position in a social hierarchy (see [Table 1.3]).

Health disparities do not refer generically to all health differences, or even to all health differences warranting focused attention. They are a specific subset of health differences of particular relevance to social justice because they may arise from intentional or unintentional discrimination or marginalization and, in any case, are likely to reinforce social disadvantage and vulnerability.

Disparities in health and its determinants are the metric for assessing health equity, the principle underlying a commitment to reducing disparities in health and its determinants; health equity is social justice in health.

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by the [Health and Human Services] Secretary's Advisory Committee for *Healthy People 2020* proposed an operational definition for use in developing objectives and targets, determining resource allocation priorities, and assessing progress.

Based on that subcommittee's work, we propose that health disparities are systematic, plausibly avoidable health differences adversely affecting socially disadvantaged groups; they may reflect social disadvantage, but causality need not be established. This definition, grounded in ethical and human rights principles, focuses on the subset of health differences reflecting social injustice, distinguishing health disparities from other health differences also warranting concerted attention, and from health differences in general.

We explain the definition, its underlying concepts, the challenges it addresses, and the rationale for applying it to United States public health policy.

[Federal agencies have identified achievement of health equity and elimination of health disparities (including differences in health outcomes and determinants based on gender, race, ethnicity, education, income, disability, residence in rural areas, and sexual orientation) as overarching goals.] However, the rationale for identifying disparities in relation to these particular population groups [has not always been clearly] articulated. . . . [T]he relatively nonspecific definitions of disparities used by federal agencies leave considerable room for ambiguity as to what other groups might also be relevant. . . .

[This] paper . . . elaborate[s] on the definitions [developed by a committee of experts for use in *Healthy People 2020* (see [table 1.2]) and explain[s] their ration-

ale. . . Clarifying these concepts will enable medical and public health practitioners and leaders to be more effective in reducing disparities in medical care and in advocating for social policies (e.g., in child care, education, housing, labor, and urban planning) that can have major impacts on population health. . . .

UNDERLYING VALUES AND PRINCIPLES

Drawing on ethical and human rights concepts, key principles underlying the concepts of health disparities and health equity include the following:

All people should be valued equally. . . . Equal worth of all human beings is at the core of the human rights principle that all human beings equally possess certain rights.

Health has a particular value for individuals because it is essential to an individual's well-being and ability to participate fully in the workforce and a democratic society. Ill health means potential suffering, disability, and/or loss of life, threatens one's ability to earn a living, and is an obstacle to fully expressing one's views and engaging in the political process. The Nobel Laureate economist Amartya Sen (1999) viewed health as a fundamental capability required to function in society; similarly, ill health can be a barrier to fully realizing one's human rights. . . .

Nondiscrimination and equality. Every person should be able to achieve his/her optimal health status, without distinction based on race or ethnic group, skin color, religion, language, or nationality; socioeconomic resources or position; gender, sexual orientation, or gender identity; age; physical, mental, or emotional disability or illness; geography; political or other affiliation; or other characteristics that have been linked historically to discrimination or marginalization (exclusion from social, economic, or political opportunities). The groups represented by these characteristics substantively agree with those specified by the United Nations Committee on Economic, Social and Cultural Rights as vulnerable groups whose rights are at particular risk of being unrealized, due to historic discrimination. This directly reflects the human rights principles of nondiscrimination and equality; nondiscrimination includes not only intentional but also unintentional or *de facto* discrimination, meaning discriminatory treatment embedded in structures and institutions, regardless of whether there is conscious intent to discriminate. . . .

Health is also of special importance for society because a nation's prosperity depends on the entire population's health. Healthy workers are more productive and generate lower annual medical care costs. A healthier population has more workers available for the workforce. Health can facilitate political participation, which is essential for democracy.

Rights to health and to a standard of living adequate for health. International human rights agreements, to which virtually all countries are signatories, obligate governments to respect, protect, fulfill, and promote all human rights of all persons, including the "right to the highest attainable standard of health" and the right to a standard of living adequate for health and well-being. Governments must demonstrate good faith in progressively removing obstacles to realizing these rights. The United States signed but did not ratify the International Covenant on Economic, Social, and Cultural Rights, which articulated the right to health. Signing a treaty, however, is considered an endorsement of its principles and reflects acceptance of a good faith commitment to honor its contents. The "right to health" (i.e., "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health") is "not to be

understood as a right to be *healthy*," because too many factors beyond states' control influence health. Rather, it is "the right to a system of health protection which provides equality of opportunity to enjoy the highest attainable level of health." It includes the right to equal access to cost-effective medical care as well as to child care, education, housing, environmental protection, and other factors that are also crucial to health and well-being.

Health differences adversely affecting socially disadvantaged groups are particularly unacceptable because ill health can be an obstacle to overcoming social disadvantage. This consideration resonates with common sense notions of fairness, as well as with ethical concepts of justice, notably, the concept that need should be a key determinant of resource allocation for health, and [the late philosopher John Rawls's (1971)] notion of the obligation to maximize the well-being of those worst off. Sen (2002) noted as a "particularly serious . . . injustice . . . the lack of opportunity that some may have to achieve good health because of inadequate social arrangements. . . ." Sen argued that health is a prerequisite for the capability to function normally in society. It is therefore particularly unjust that those who are socially disadvantaged should also experience additional obstacles to opportunity based on having worse health. . . .

The resources needed to be healthy (i.e., the determinants of health, including living and working conditions necessary for health, as well as medical care) should be distributed fairly. To do so requires considering need (along with capacity to benefit and efficiency) rather than ability to pay or influence in society. This principle, along with principles cited previously, reflects the ethical notion of distributive justice (a just distribution of resources needed for health) and the human rights principles of nondiscrimination and equality, as well as the right to a standard of living adequate for health. Investments in medical care intended to reduce disparities must be weighed against other potentially more effective investments that address disparities in other health determinants.

Health equity is the value underlying a commitment to reduce and ultimately eliminate health disparities. . . . Health equity means social justice with respect to health and reflects the ethical and human rights concerns articulated previously. . . . In accord with the other ethical principles of beneficence (doing good) and nonmaleficence (doing no harm), equity requires concerted effort to achieve more rapid improvements among those who were worse off to start, within an overall strategy to improve everyone's health. Closing health gaps by worsening advantaged groups' health is not a way to achieve equity. Reductions in health disparities (by improving the health of the socially disadvantaged) are the metric by which progress toward health equity is measured. . . .

HEALTH DISPARITIES: DEFINITION AND RATIONALE

Health disparities are systematic, plausibly avoidable health differences adversely affecting socially disadvantaged groups. They may reflect social disadvantage, although a causal link need not be demonstrated. Differences among groups in their levels of social advantage or disadvantage, which can be thought of as where groups rank in social hierarchies, are indicated by measures reflecting the extent of wealth, political or economic influence, prestige, respect, or social acceptance of different population groups [(see table 1.3)].

TABLE 1.3 SOCIAL DISADVANTAGE

Health disparities and health equity cannot be defined without defining social disadvantage.

Social disadvantage refers to the unfavorable social, economic, or political conditions that some groups of people systematically experience based on their relative position in social hierarchies. It means restricted ability to participate fully in society and enjoy the benefits of progress. Social disadvantage is reflected, for example, by low levels of wealth, income, education, or occupational rank, or by less representation at high levels of political office. Criteria for social disadvantage can be absolute (e.g., the federal poverty threshold in the United States is based on an estimate of the income needed to obtain a defined set of basic necessities for a family of a given size) or relative (e.g., poverty levels in a number of European countries are defined in relation to the median income, e.g., less than 50% of the median income).

Not all members of a disadvantaged group will necessarily be (uniformly) disadvantaged, and not all socially disadvantaged groups will necessarily manifest measurable adverse health consequences. The extent (whether in a single or multiple domains), depth (severity), and duration (e.g., across multiple generations) of disadvantage matter. Social disadvantage is different from unavoidable physical disadvantage due to, for example, an unavoidable physical disability. However, when disabled persons are put at an unnecessary disadvantage in society due to lack of feasible supports (e.g., accessible public buildings and transportation) or to discrimination against them in hiring for work that they could perform, this would constitute social disadvantage, reflecting discriminatory treatment, whether intentional or unintentional.

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*Systematic but Not Necessarily Causal Links with
Social Disadvantage*

As noted by Starfield (2001), health disparities are systematic, that is, not isolated or exceptional findings. . . . Whether or not a causal link exists, health disparities adversely affect groups who are already disadvantaged socially, putting them at further disadvantage with respect to their health, thereby making it potentially more difficult to overcome social disadvantage. This reinforcement or compounding of social disadvantage is what makes health disparities relevant to social justice even when knowledge of their causation is lacking. . . . For example, the large Black-White disparity in low birth weight and premature birth strongly predicts disparities in infant mortality and child development, and likely in adult chronic disease. Although the causes of racial disparity in birth outcomes are not established, credible scientific sources have identified biological mechanisms that plausibly contribute to the disparities, which reflect phenomena shaped by social contexts and thus are, at least theoretically, avoidable.

*Plausibly Avoidable Differences in Health Given
Sufficient Political Will*

It must be plausible, but not necessarily proven, that policies could reduce the disparities, including not only policies affecting medical care but also social policies addressing important nonmedical determinants of health and health disparities, such as a decent standard of living; a level of schooling permitting full social participation, including participation in the workforce and political activities; health-promoting living and working conditions, including both social and physical environments; and respect and social acceptance. . . .

Avoidability can be highly subjective. For example, one person may believe that ill health caused by poverty is avoidable; another, however, may believe that both poverty and ill health among the poor are inevitable; hence, these disparities are unavoidable. According to the proposed definition, the criterion is whether the given condition is theoretically avoidable, based on current knowledge of plausible causal pathways and biological mechanisms, and assuming the existence of sufficient political will. . . .

*Disadvantaged Groups Are Not Necessarily
Uniformly Disadvantaged*

Although health disparities are systematic, a socially disadvantaged group will not necessarily fare worse on all health indicators, and might fare better on some. For example, non-Hispanic European American or White women over age 40 have higher incidence of breast cancer than non-Hispanic African American or Black women, and babies born to Hispanic immigrant women often have more favorable birth weights than those born to non-Hispanic Whites. Neither of these differences—although both deserve public health attention—would be a health disparity by the proposed definition. Regardless of this type of exception in relation to a health outcome, Whites as a group are more socially advantaged than Blacks and Hispanics, as data on income, wealth, education, occupations, and political office have documented. Furthermore, on most health indicators, including breast cancer mortality, White women are healthier than Black women. . . .

The fact that not all members of a disadvantaged group (e.g., Blacks) appear to be severely disadvantaged (e.g., we have a Black United States President, and some Blacks are highly educated, in high professional positions, and/or wealthy) does not contradict considering that group as generally disadvantaged. The issue is whether the group has been on the whole more disadvantaged than Whites. Ample evidence has documented a longstanding pattern of less wealth, lower incomes, lower educational attainment, and under-representation in positions of high occupational rank and financial and political power among Blacks as a group compared with Whites. Despite an end to legal racial segregation decades ago, racial residential segregation persists and with it, de facto educational segregation, condemning many Black children to poor quality schools. This reduces their chances of obtaining good jobs with adequate income as adults, perpetuating social disadvantage across generations.

Similarly, although many United States women are affluent and some now hold high professional and political offices, as a group, they are more likely than men to be poor, to earn less at a given educational level, and to be underrepresented in high political office. Human rights documents on nondiscrimination explicitly name women as a vul-

nerable group warranting special protection from discrimination. Patterns suggesting clinically unjustified underreceipt of certain cardiac treatments by women compared with men would reflect a gender disparity in a determinant of health (medical care, in this instance). Shorter life expectancy among men in general, if likely avoidable, would clearly be an issue of public health importance based on the magnitude of potential population impact. However, men as a group have more wealth, influence, and prestige, so this difference would not be a social injustice and, therefore, not a health disparity or equity issue. . . . [Other e]xamples of health differences that would not be considered health disparities according to our definitions . . . include: elderly adults generally having worse health than nonelderly adults; skiers being at higher risk of long-bone fractures than nonskiers; and men not having obstetric problems, whereas women do. . . .

The Issue Is Justice

Previous official approaches to defining health disparities in the United States have avoided being explicit about values and principles, perhaps for fear of stirring political opposition, because of genuine differences in values or because of the prevailing ethos that enjoins researchers to avoid the realm of values that might compromise the integrity of their science. Scientists, like all others, should be guided by ethical and human rights values. The first decade of the 21st century has ended with little if any evidence of progress toward eliminating health disparities by race or socioeconomic status. It is time to be explicit that the heart of a commitment to addressing health disparities is a commitment to achieving a more just society.

COMMUNITY: THE NEGLECTED TRADITION OF PUBLIC HEALTH*

Dan E. Beauchamp

What are the limits of government in protecting the health and safety of the public? As more and more states regulate personal behavior to protect the public health and safety, this question again becomes central. Can there be good reasons for public health paternalism in a democracy? Are health and safety individual interests, or also common and shared ends? . . . [Proposals to influence lifestyle choices have] reopened an old theme in democratic theory—paternalism and the meaning of the common good.

THE MEANING OF THE COMMON GOOD

In one version of democratic theory, the state has no legitimate role in restricting personal conduct that is substantially voluntary and that has little or no direct consequence for anyone other than the individual. This strong antipaternalist position is associated with John Stuart Mill. In his essay, "On Liberty," which has deeply influenced American and British thought, Mill wrote: "[t]he only purpose for which power can be rightfully exercised over any member of a civilized community, against his will,

* Reprinted from 1985. *Hastings Center Report* 15 (6): 28-36.

is to prevent harms to others." Mill restricts paternalism to children and minors. In his view the common good consists in maximizing the freedom of each individual to pursue his or her own interests, subject to a like freedom for every other individual. In the words of Blackstone, "The public good is in nothing more essentially interested than the protection of every individual's private rights."

In a second version, health and safety remain private interests but some paternalism is accepted, albeit reluctantly. . . . [C]ommonsense makes us reject a thoroughgoing antipaternalism. Many restrictions on liberty are relatively minor and the savings in life and limb extremely great. Further, often voluntary choices are not completely so; many choices are impaired in some sense. But . . . even where choices are not impaired, as in the choice not to wear seatbelts or to take up smoking, paternalism might still be accepted, because the alternative would be a great loss of life and a society in which each citizen was, for many important decisions, left alone with the consequences of his or her choice. . . . Another alternative is to redefine voluntary risks to an individual as risks to others. Indeed, many argue that all such risks have serious consequences for others, and that the state may therefore limit such activities on the basis of the harm principle. Others challenge the category of voluntariness head on, arguing that most such risks, like cigarettes and alcohol use, have powerful social determinants.

The constitutional basis for the protection of the public health and safety has largely been ignored in this debate. This tradition, and particularly the regulatory power (often called the police power), flows from a view of democracy that sees the essential task of government as protecting and promoting *both* private and group interests. Government is supposed to defend both sets of interests through an evolving set of practices and institutions, and it is left to the legislatures to determine which set of interests predominate when conflicts arise.

In the constitutional tradition, the common good refers to the welfare of individuals considered as a group, the public or the people generally, the "body politic" or the "commonwealth" as it was termed in the early days of the American Republic. The public or the people were presumed to have an interest, held in common, in self-protection or preservation from threats of all kinds to their welfare. . . .

The central principles underlying the police or regulatory power were the treatment of health and safety as a shared purpose and need of the community and (aside from basic constitutional rights such as due process) the subordination of the market, property, and individual liberty to protect compelling community interests.

This republican image of democracy was a blending of social contract and republican thought, as well as Judeo-Christian notions of covenant. In the republican vision of society, the individual has a dual status. On the one hand, individuals have private interests and private rights; political association serves to protect these rights. On the other hand, individuals are members of a political community—a body politic.

This common citizenship, despite diversity and divergence of interests, presumes an underlying shared set of loyalties and obligations to support the ends of the political community, among which public health and safety are central. In this scheme, public health and safety are not simply the aggregate of each private individual's interest in health and safety, interests which can be pursued more effectively through collective action. Public health and safety are community or group interests (often referred to as "state interests" in the law), interests that can transcend and take priority over private interests if the legislature so chooses.

The idea of democracy as promoting the common or group interest is captured in Joseph Tussman's classic work (1960, 27-28) on political obligation: "[T]he government's concern for the individual is not to be understood as special concern for this or that individual but rather as concern for all individuals. Government, that is to say, serves the welfare of the community." This emphasis on the *public's* health has never meant that the state's power to protect health and safety is unlimited. It has meant that individual liberty and the institutions of the market and private property, operating in the public world, are subject to a developing set of practices designed to defend the common life and the community. . . .

THE LANGUAGE OF PUBLIC HEALTH

The constitutional tradition for public health constitutes one of those "second languages" of republicanism that Robert Bellah and his coauthors speak of in . . . *Habits of the Heart*. In their book, the first language (or tradition of moral discourse) of American politics is political individualism. But there are "second languages" of community rooted in the republican and biblical tradition that limit and qualify the scope and consequences of political individualism.

Public health as a second language reminds us that we are not only individuals, we are also a community and a body politic, and that we have shared commitments to one another and promises to keep. . . .

The danger is that we can come to discuss public health exclusively within the dominant discourse of political individualism, relying either on the harm principle or a narrow paternalism justified on grounds of self-protection alone. By ignoring the communitarian language of public health, we risk shrinking its claims. We also risk undermining the sense in which health and safety are a signal commitment of the common life—a central practice by which the body-politic defines itself and affirms its values. . . .

Public health belongs to the realm of the political and the ethical. Public health belongs to the ethical because it is concerned not only with explaining the occurrence of illness and disease in society, but also with ameliorating them. Beyond instrumental goals, public health is concerned with integrative goals—expressing the commitment of the whole people to face the threat of death and disease in solidarity. . . .

To Mill [(1882, 135-36)], all paternalism was wrong because the individual is best placed to know his own good: "He is the person most interested in his own well-being: the interest which any other person, except in cases of strong personal attachment, can have in it, is trifling. . . ." But precisely because public health paternalism is aimed at the group and its practices, and not the specific individual, Mill's point is wrong. The good of the particular person is not the aim of health policy in a democracy which defends both the community and the individual. In fact, Mill is wrong twice, because particular individuals are often very poorly placed to judge the effects that market arrangements and practices have on the population as a whole. This is the task for legislatures, for organized groups of citizens, and for other agents of the public, including the citizen as voter.

Mill's dichotomy of either the harm principle or self-protection is too limited; the world of harms is not exhausted by self-imposed and other-imposed injuries. There is a third and very large set of problems that afflicts the community as a whole and that results primarily from inadequate safeguards over the practices of the common life. . . .

Creating, extending, or strengthening the practices of public health—and the collective goods principle that underlies it—ought to be the primary justification for our



PHOTO 1.2. Residents share their concerns about local environmental issues at a town hall meeting. Town hall meetings convened by the Agency for Toxic Substances and Disease Registry, part of the U.S. Centers for Disease Control, allow residents to express concerns and ask questions. Photograph by Cade Martin for the Centers for Disease Control and Prevention, 2009.

health and safety policy. Instead we usually base these regulations on the harm principle. We usually justify regulating the steel or coal industry on the grounds that workers and the general public have the risks of pollution or black lung visited on them, but consumers are not obliged to drink alcohol or smoke cigarettes. While this may be true, in the communitarian language and categories of public health, fixing blame is not the main point. We regulate the steel or coal industry because market competition undervalues collective goods like a clean environment or workers' safety. Using social organization to secure collective goods like public health, not preventing harms to others, is the proper rationale for health and safety regulations imposed on the steel or coal industry, or the alcohol or cigarette industry.

In an interesting passage in "On Liberty,"¹ Mill touched on the issue in the case of the alcohol industry. Mill conceded that the alcohol industry had an interest in intemperance: "The interest, however, of these dealers in promoting intemperance is a real evil, and justifies the State in imposing restrictions and requiring guarantees which but for that justification would be infringements of real liberty." Actually, industry has far more than an "interest in intemperance." The alcohol industry and business generally have a strong interest in unsafety and lower levels of public health, resisting vigorously public health measures to regulate either pollution or smoking and drinking.

The main lesson to learn from public health paternalism as it has developed in the constitutional tradition may well be that the second language of community and the

virtues of cooperation and beneficence still exist, albeit precariously, alongside a tradition of political individualism. Strengthening the public health includes not only the practical task of improving aggregate welfare, it also involves the task of reacquainting the American public with its republican and communitarian heritage, and encouraging citizens to share in reasonable and practical group schemes to promote a wider welfare, of which their own welfare is only a part.

EVOLVING MODELS OF PUBLIC HEALTH

The population perspective, prevention orientation, and social justice commitment of public health have been relatively constant influences on public health science and practice (though the public health community has not always faithfully adhered to the principle of social justice, as we discuss in chapter 2). Over the last 200-plus years, however, the models that have guided public health problem solving have evolved considerably in response to changing disease trends and scientific discoveries. An understanding of this history informs our exploration of current approaches to public health intervention throughout this reader and is particularly relevant to the debate over the legitimate scope of public health law, to which we turn in the next section of this chapter.

We begin with a survey of the three basic models or paradigms that guided public health problem solving prior to the emergence of the now-dominant social-ecological model. The first model, developed in the nineteenth century by sanitarian campaigners, is widely referred to as the *miasma* model. The second, which emerged during the late nineteenth century in response to germ theory, is referred to interchangeably as the *agent, microbial, or germ* model. The third, which is now widely referred to as the *behavioral* model, emerged during the mid- to late twentieth century, when Mervyn and Ezra Susser termed it the *black box* paradigm. By the late 1990s, the Sussers lent their voices to a growing call for a new approach, which would eventually emerge as the *social-ecological* model.

CHOOSING A FUTURE FOR EPIDEMIOLOGY:

I. ERAS AND PARADIGMS*

Mervyn Susser and Ezra Susser

[O]ne can discern at least three eras in epidemiology, each with its own dominant paradigm: (1) the era of sanitary statistics with its paradigm, *miasma*; (2) the era of

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infectious disease epidemiology with its paradigm, the germ theory; and (3) the era of chronic disease epidemiology with its paradigm, the black box.

SANITARY STATISTICS AND MIASMA

Miasma was the prevailing theory of the Sanitarians for the greater part of the 19th century. Sanitary statistics made plain the toll of sickness and death in the city slums of England, France, Germany, Scandinavia, and the United States. . . . For the conditions in these slums, the Sanitarian hypothesis of miasma impugned poisoning by foul emanations from the soil, water, and environing air. . . . Closed drainage and sewage systems, supplemented by garbage collection, public baths, and housing, were the remedies that would disperse miasma, reduce mortality and morbidity (as indeed they did), and dispel the poverty of the new urban poor (as indeed they did not). A foremost proponent—and in some cases, the originator—of these innovations was Edwin Chadwick. Chadwick was a reformist who argued that disease engendered by the physical environment caused poverty. Friedrich Engels, his contemporary, was a revolutionary who, in documenting the ills of Manchester factory workers, understood poverty to be the cause rather than the consequence of their ills. But both agreed that the issues were societal and that the appropriate measures thus had to be applied across society. . . .

Unmodified, the miasma paradigm could not survive advances in microbiology, and its demise brought an end to the Sanitary Era. . . . An irony of the history of public health is that, while the sanitarians were mistaken in their causal theory of foul emanations, they nonetheless demonstrated how and where to conduct the search for causes in terms of the clustering of morbidity and mortality. The reforms they helped to achieve in drainage, sewage, water supplies, and sanitation generally brought major improvements in health. Their mistake lay in the specifics of biology rather than in the broad attribution of cause to environment. . . .

INFECTIOUS DISEASE EPIDEMIOLOGY AND THE GERM THEORY

[Germ theory] led in the end to the narrow laboratory perspective of a specific cause model—namely, single agents relating one to one to specific diseases. The germ theory and its attendant view of specific cause dominated medical and public health sciences from the last quarter of the 19th century through at least the mid-20th century. Single agents of disease were sought by the isolation and culture of microorganisms from disease sites, the experimental transmission of these microorganisms, and the reproduction of lesions. The appropriate responses were to limit transmission by vaccines, to isolate those affected, and, ultimately, to cure with chemotherapy and antibiotics. . . . The search for other than microbiological causes of disease in the environment stumbled if it did not altogether cease. . . .

The irony of the Sanitary Era was here reversed. While, within their limited frame of reference, the germ theorists were accurate in their causal attributions for many diseases, their narrow focus retarded the creative use of bacterial discoveries to advance the science of epidemiology. . . .

Whatever the causes, the great scourges of communicable disease did come under control in the developed countries. Once the major infectious agents seemed all to have been identified and communicable disease no longer overwhelmed all other mortal disorders, the force of the germ theory paradigm faded. . . . [F]ew anticipated



PHOTO 1.3. A Red Cross worker lights a cigarette for a wounded soldier, 1918. During World War I, cigarette companies promoted smoking as a way for soldiers to relax and charitable organizations distributed free cigarettes to troops. By the mid-twentieth century, lung cancer rates were soaring among middle-aged American men. Observational studies linked lung cancer to smoking, prompting the rise of the behavioral, or “black box,” model of public health. Photograph by unidentified photographer for the U.S. Army Signal Corps.

the recrudescence of communicable disease or new global epidemics. With the emerging predominance of chronic disease of unknown cause, under any credible causal paradigm the social and physical environment had now to be reckoned with once more.

CHRONIC DISEASE EPIDEMIOLOGY AND THE BLACK BOX

World War II serves as a convenient watershed for the beginning of the Chronic Disease Era and the black box paradigm. Shortly after the war ended in 1945, it was clear that, in the developed world, rising chronic disease mortality had overtaken mortality from infectious disease. The rise was not owed to the aging of populations alone. In middle-aged men specifically, the rises in peptic ulcer disease, coronary heart disease, and lung cancer were in each case fast and frightening enough to earn place and title as epidemics. . . .

The case-control and cohort studies on smoking and lung cancer, and the early cohort studies on coronary heart disease that established serum cholesterol and smoking as risk factors, demonstrated the power of the observational method and established its credentials. These studies carried the invisible imprimatur of the black box paradigm (“black box” being the general metaphor for a self-contained unit whose inner processes are hidden from the viewer). This paradigm related exposure to outcome without any necessary obligation to interpolate either intervening factors or

even pathogenesis. . . . Epidemiologists were faced once more, as in the Sanitary Era, with major mortal diseases of completely unknown origin. . . . [They] were obliged to depart from the specific-cause model of the germ theory. The metaphor of a “web of causation” characterized the multicausal nature of public health problems, particularly those of chronic disease. . . .

MOMENTUM FOR A NEW ERA

The climax and, in all likelihood, the culmination of the black box as dominant paradigm is already upon us. [Among the forces] blunting the black box paradigm [is] a transformation in global health patterns [exemplified by] the human immunodeficiency virus (HIV) epidemic [which] has demonstrated that both developing and developed countries remain vulnerable to devastation by infectious disease. . . . No vaccine now in prospect seems likely to achieve the efficacy level that could also achieve epidemic control. Absent such efficacy, the failure to control the disease resides in our lack of understanding of transmission and illness in the social context. We know which social behaviors need to change, but we know little about how to change them, even when entire societies are at stake.

In retrospect, our confidence during the Chronic Disease Era about the control of infectious diseases seems naive and also blind to the less developed world. For the majority of the world's population, chronic infections—tuberculosis, syphilis, malaria, and many others—were never under control. As with HIV infection, the immediate causes and the risk factors were known, but this knowledge could not be translated into protection of the public health.

Similarly, our confidence in our ability to control chronic noncommunicable diseases themselves by modifying behavior that carries risk has been shaken. Again, knowledge of risk factors and interventions directed solely at changing the behavior of individuals . . . have proven insufficient.

Health problems driven by societal problems point to the location of the underlying difficulties. The black box paradigm alone does not elucidate societal forces or their relation to health. The focus on populations is generally directed at the individuals within them. . . .

In the evolution of modern epidemiology, dominant paradigms have been displaced by new ones as health patterns and technologies have shifted. As happened with previous paradigms, the black box, strained beyond its limits, is soon likely to be subsumed if not superseded entirely by another paradigm. This paradigm reflects a particular era in our development as a discipline. In our view, we stand at the verge of a new era.

. . .

Susser and Susser were not alone in their call for a new model for public health. The black box paradigm—which public health experts now refer to as the *behavioral* model of public health—was criticized by many as descriptively inadequate and normatively problematic. Robert Crawford argued that the behavioral model supported an individualistic, victim-blaming “masquerade”:

The complexities of social causation are only beginning to be explored. The ideology of individual responsibility, however, inhibits that understanding and substitutes instead an unrealistic behavioral model. It both ignores what is known about human behavior and minimizes the importance of evidence about the environmental assault on health. It instructs people to be individually responsible at a time when they are becoming less capable as individuals of controlling their total health environment. Although environmental factors are often recognized as “also relevant,” the implication is that little can be done about an ineluctable, technological, and industrial society. . . . What must be questioned is both the effectiveness and the political uses of a focus on life-styles and on changing individual behavior without changing social structure and processes. (Crawford 1979, 256)

Sylvia Tesh criticized the behavioral model on similar grounds: “[It] approaches disease as though ill health is the result of personal failure. It dismisses with a wave of a hand most environmental toxins and it ignores the crucial connection between individual behavior and social norms and rewards. It is, in fact, a victim-blaming approach to disease” (Tesh 1981, 379).

Amid these criticisms, a new model began to emerge, which Kenneth R. McLeroy and his colleagues described as an *ecological* model for health promotion. They began by noting that “the language we use, and the models we adopt for health promotion programming, may inadvertently serve to direct our attention toward certain types of interventions and away from others. Specifically, the use of terms such as ‘life-style,’ and ‘health behavior’ may focus attention on changing individuals, rather than changing the social and physical environment which serves to maintain and reinforce unhealthy behaviors” (McLeroy et al. 1988, 353). They emphasized that behavior patterns are determined by

1. intrapersonal factors—characteristics of the individual such as knowledge, attitudes, behavior, self-concept, skills, etc. This includes the developmental history of the individual.
2. interpersonal processes and primary groups—formal and informal social network and social support systems, including the family, work group, and friendship networks.
3. institutional factors—social institutions with organizational characteristics, and formal (and informal) rules and regulations for operation.
4. community factors—relationships among organizations, institutions, and informal networks within defined boundaries.
5. public policy—local, state, and national laws and policies. (355)

From its beginning, the social-ecological model represented a return to the social justice roots of the sanitarian movement, with a focus on reaching “groups in society who are at greatest risk for behaviorally related health care problems, such as the poor, intravenous drug users, delinquent adolescents, and the socially isolated” (354). McLeroy and his colleagues cautioned, however, that the shift from the behavioral model to the social-ecological model would involve new ethical trade-offs:

While strategies based on an ecological model tend to minimize the likelihood of victim blaming, they can result in charges of coercion. Policy approaches, such as raising the taxes on cigarettes, or banning smoking in public spaces, may be viewed as restricting individual rights and freedoms . . . Social support interventions may . . . be coercive when interpersonal social influences are used to achieve behavioral changes. Even mass media approaches may be coercive when they are based on appeals to emotions, or manipulate information. Such approaches can also be viewed as a form of paternalism and are considered by some to be an invasion of privacy. (368–69)

McLeroy and his colleagues proposed that engagement with affected populations would minimize problems of coercion and paternalism. Noting that “[t]he process of using ecological strategies . . . is one of consensus building,” they argued for “active involvement of the target population in problem definition, the selection of targets of change and appropriate interventions, implementation, and evaluation” (369).

WHAT IS THE LEGITIMATE SCOPE OF PUBLIC HEALTH LAW?

As we have just seen, answering the question “What is public health?” is more difficult than it first appears. With this preliminary overview of the population perspective, prevention orientation, social justice commitment, and problem-solving models of public health science and practice as our foundation, we now turn our attention to defining public health law. In chapter 2 we will turn our attention to a similar examination of public health ethics.

We define public health law as follows (Gostin and Wiley 2016, 4):

Public health law is the study of the legal powers and duties of the state to assure the conditions for people to be healthy (to identify, prevent, and ameliorate risks to health in the population) and the limitations on the power of the state to constrain the autonomy, privacy, liberty, proprietary, or other legally protected interests of individuals for the common good. The prime objective of

public health law is to pursue the highest possible level of physical and mental health in the population, consistent with the values of social justice.

This definition, which first appeared in the 2000 edition of *Public Health Law: Power, Duty, Restraint*, is not without controversy. As public health law comes into its own as a field, the project of defining its identity and scope has benefited from diverse viewpoints, which we present in the excerpts and discussion that follow.

In our view, the fields of public health science and practice, public health law, and public health ethics are inextricably intertwined. It is undeniable that law and ethics should govern the conduct of scientific inquiry and the practice of public health. More controversially, developments in public health science and practice are expanding the scope of public health law and ethics beyond a narrow focus on communicable disease control. Our expansive definition of public health law is influenced by the social-ecological model of public health science and practice. Indeed, our conception of law as offering a toolkit for public health intervention (including direct regulation, indirect regulation through tort liability, taxation, and spending, and deregulation to remove legal barriers to good public health practice, each of which are explored in Part Three of this reader) implicitly adopts an understanding of law itself as a crucial social determinant of population health.

Law and policy strategies influenced by the social-ecological model of public health generate controversy on multiple levels. Media pundits serve up scathing condemnations of what they view as overreaching public health interventions. In Congress, state legislatures, and city council meetings, representatives debate the extent to which health is a matter of personal or collective responsibility. In the courts, litigants argue about which health and safety concerns are legitimately viewed as public in nature, such that doctrines privileging the role of the state should be brought into play. And in the academic literature, a handful of scholars have put forward a critique of the expanding scope of public health law. In the excerpts and discussion that follow, Mark Hall and Richard Epstein argue that the scope of public health law should be limited, even as the scope of public health science and practice expands in response to changing disease trends (the growing importance of non-communicable diseases and injuries in the United States and globally) and to evidence that social, environmental, and economic determinants play a powerful role in shaping population health.

THE SCOPE AND LIMITS OF PUBLIC HEALTH LAW*

Mark A. Hall

This essay explores the proper scope of public health legal authority in response to compelling scientific evidence about the social determinants of health. It does so using four stories from my own experience.

FOUR STORIES ABOUT PUBLIC HEALTH LAW

My Daughter's New Puppy

Last year, we got a new puppy. One day, when it was two months old, it playfully bit my daughter, barely breaking her skin, but my daughter has germ-phobic tendencies that are aggravated by the constant warnings she receives in her school's mandatory health education courses, including warnings about rabies. To ease her anxiety, my wife called the vet to reassure her that a brand-new puppy could not have rabies, but the vet, following standard health department orders, notified the authorities. They called our home (having somehow traced our phone number) to ask whether the puppy had gotten a rabies shot. We pointed out that the health department's own rules don't allow rabies shots until a puppy is three months old, but the health department nevertheless demanded we turn over our public menace for quarantine. When we initially demurred, they threatened to send out the authorities to seize the puppy and arrest us for resisting, so the puppy had to spend three weeks in lock-up. This forever damaged its psyche and that of my daughter, who feels responsible for the hysterical overreaction.

The Strategy of Anti-Tobacco Activists

A few months ago at a wedding reception, I was chatting with a person who happened to be a public health official in charge of tobacco control in another state. I remarked on the tremendous success the public health community has had in creating a strong social stigma against cigarette smoking, even in Winston-Salem where I live, by forcing smokers to huddle in designated spots outside of public spaces and most larger workplaces. She gleefully explained that this was exactly the activist public health strategy all along: to publicize the dangers of secondhand smoke in order to enlist the public's support against smokers' rights and to shift social norms so that smoking is seen as deviant and smokers are visibly ostracized.

Childhood Obesity and Parental Abuse

The following story is compiled from newspaper articles, as recounted recently in the *Boston University Law Review* (Arani 2002):

On August 25, 2000, New Mexico state officials removed three-year-old Anamarie from the custody of her parents, Miguel and Adela. "We heard her screaming all the way down the hall," recalled Adela. "We sat there in shock that they actually took her away from us." . . . New Mexico officials charged Anamarie's parents with failing to

* Reprinted from 2003. *Perspectives in Biology and Medicine* 46 (3): S199-S209.

follow a doctor's instructions to treat their daughter's obesity. . . . At the age of three, Anamarie stood almost four feet tall and weighed 131 pounds. She was admitted to the University of New Mexico Hospital for three weeks and placed on a liquid diet limited to 550 calories per day. After losing ten pounds, Anamarie was sent home with instructions from the treating physicians to maintain the liquid diet. Nevertheless, . . . by August 16, 2000, Anamarie's weight had risen, and she was once again hospitalized for a fever and irregular breathing. She remained hospitalized until her weight dropped to 117 pounds. Alarmed by the child's continuing condition, the family's physician brought his concern to the attention of the [child protective authorities, who] agreed that . . . her parents' . . . failure to keep Anamarie on a liquid diet was endangering her life. . . . After spending more than two months in state custody, the court allowed Anamarie to return home.

Correcting the Socioeconomic Gradient of Health

Finally, this is a quote from an article about the role that public health authorities should play in changing the social conditions that contribute to poor health. The article is by three authors now on the Harvard faculty, two of whom are leading voices in the public health community:

Research on the social determinants of health warns us that antipoverty policies do not go far enough in reducing unjust health disparities. . . . Addressing the social gradient in health requires action above and beyond the elimination of poverty. To address comprehensively the problem of health inequalities, governments must begin to address the issue of economic inequalities per se. . . . Most importantly, economic disparities seem to influence the degree of equality in political participation, in the form of voting, donating to campaigns, contacting elected officials, and other forms of activity. . . . Who participates matters for political out-comes, and the resulting policies have an important impact on the opportunities for the poor to lead a healthy life. For both of the foregoing reasons—that it yields a higher level of health achievement as well as greater political participation—the reduction of income disparity ought to be a priority of government concerned about addressing social inequalities in health. (Daniels, Kennedy, and Kawachi 1999)

WHEN EPIDEMIOLOGISTS BECOME LAWMAKERS

These four insights into the mindset of the public health community give us a lot to think about. I want to stress one core thought: that public health law needs to more clearly differentiate between public health analysis and public health authority, or, if you will, between public health diagnosis and public health treatment. Public health officials are charged with two broad responsibilities: (1) advancing understanding and knowledge of the causes and patterns of health conditions in society; and (2) eliminating threats to public health. The first is the domain of public health as a scientific

discipline. The second is the domain of public health law. The central point of this essay is that public health law is much more limited than public health science.

These definitional boundaries matter a great deal because the law operates through categories, and classification has huge effects on how legal issues are analyzed. The same events will have profoundly different legal consequences depending on whether they are classified under the distinct legal domains of contract, tort, property, or criminal law. Likewise, health care law and public health law operate from fundamentally different sets of assumptions and heuristics. Take childhood immunizations for polio as an example. Viewed under health care law, the starting premise is the individual's (or parent's) right to be informed of options and their consequences, and to decide whether or not to be vaccinated. Polio vaccinations should be offered, but refusals should be readily honored, and patients should be told which forms of the vaccine are safest for them. Health care law is about maximizing patients' options, protecting their individual best interests, and enforcing obligations that arise from the fiduciary characteristics of the treatment relationship. Courts protect patients' rights and options, sometimes with constitutional fervor (as, for example, with respect to abortion and the refusal of life support), and limitations on these rights occur only as exceptions, such as in emergencies, situations of limited competence, or acute threats of injury to third parties.

Public health law is about enforcing government efforts to promote health. It starts with the assumption that public authority is plenary and sets restraints on this authority only if it invades fundamental interests or is demonstrably unbalanced or excessive. Under public health law, the presumptions are all in favor of intervention, whereas under health care law, the presumptions are all in favor of privacy. Public health law is not troubled by making vaccinations mandatory, despite possible harm from side effects that may greatly outweigh the benefits of vaccination to any one individual (due to an individual's ability to free ride on the "herd immunity" of the community), nor is public health law troubled by requiring that more potent and riskier forms of a vaccine be used, even though the enhanced benefits accrue to people other than those who take on the risk.

These two perspectives are not ends of a spectrum; instead, they function as polar and mutually exclusive categories. This, then, is what makes the definitional game worth all the marbles. The public health perspective has transformative power to radically reframe society's attitudes about social issues. This explains why some public health advocates, like the one in my conversation about tobacco control policy, seek to colonize other social arenas, such as seat belts, firearms, and alcohol consumption. Viewed from one perspective, these are issues of individual choice. Viewed from another perspective, however, each of these is a public health problem, one that justifies coercive government intervention to prevent individuals' choices from harming themselves or others. At this juncture, my point is not that one perspective or the other is right or wrong. Rather, it is simply that government agencies would not have pushed nearly as far as they have in these arenas, and society would not have been nearly as receptive as it has been, if these had not been classified as public health issues.

This analysis helps to explain the strong inclination to apply the public health paradigm to new problems, such as obesity. Viewing excess weight as a public health concern rather than simply as a matter of individual health behavior leads to a whole new way of thinking about such issues as parental abuse and neglect, consumer product safety, regulation of the fast food industry, health insurance rating and underwriting practices, and countless others.

Classifying problems as public health problems tends to invoke public health legal principles, because public health officials are bathed in public health law. They are taught its principles in school and in professional meetings; they live it and breathe it. Accordingly, the public health law outlook has a pervasive effect on public health officials' sense of what they are entitled to do and of the tools that are available to address a public health problem. The uncompromising authoritarian and utilitarian public health perspective demonstrated by my puppy story is intensely ends-oriented, which tends to ingrain the following habit of thought: once having identified a causal connection to a widespread health problem, action is necessary to eradicate the cause and eliminate the problem at its source, and it falls within the authority of public health or other government officials to take the necessary actions. The necessary actions are those that produce the desired results. Public health officials may start with less intrusive, more innocuous measures, such as information, education, or taxation, but if these fail, then the case is even stronger for pursuing a panoply of more aggressive and coercive strategies, including mandates and bans, closures and seizures, quarantine, and criminal sanctions. The metaphors of public health strategy are war-like. Its rhetoric is to attack, conquer, and eradicate, rather than to exercise prudence, balance, and restraint.

Public health officials are aware that individual rights need to be weighed against public health objectives, and modern statutes such as the Model State Emergency Health Powers Act seek to carefully delineate when more coercive powers can legitimately be used. However, my point is not that any particular enactment goes overboard, or that any particular set of regulators have excessive powers. Instead, I wish to focus on the general attitude that advocates take when a problem area is identified as being an issue of public health. They use existing authority to eliminate the problem as thoroughly as they can, and if they lack sufficient authority, they seek additional powers to deal with the threat. These powers can be conferred on traditional health department regulators or they can be given to other agencies of government that pursue public health policies. This leads to dangerous conditions in which public health officials can overstep the proper bounds of public health law, even though they arguably are continuing to exercise proper analytical tools for understanding public health problems.

LET THE SHOEMAKER STICK TO HIS LAST: A DEFENSE OF THE "OLD" PUBLIC HEALTH*

Richard Allen Epstein

This paper investigates the proper understanding of the discipline of public health. How far does it run and what does it encompass? Dealing with this question requires moving back and forth between the conception of public health that is internal to the public health discipline, and the conception of public health as it has been understood outside the public health field by historians and lawyers who are interested in defining the appropriate use and limitations of the state power of coercion. The old public health established the principle that epidemics offer strong reason for decisive public intervention, whether by quarantine, vaccination, or the creation of public sewers and waste disposal systems. Today, the new public health uses the term "epidemic" to

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justify state regulation to limit tobacco consumption or control obesity, even though these activities do not pose risks of communicable disease or any other form of recognizable externalities (*pace* secondhand smoke) to other individuals.

For its part, the old public health tracks the idea of public goods in economics, namely, those non-excludable goods that cannot be supplied to one unless they are also given to another. . . . It thus invokes an analogous concept for “public bads”: those harms inflicted on others without their consent, as, for example, both communicable diseases and pollution. In contrast, the new public health covers matters of general public importance, including obesity, smoking, and genetic diseases.

My broad thesis is that the “old” public health is superior to the new, whose broad (and meddlesome) definitions of public health help spur state actions—including the regulation of product and labor markets—that in all likelihood jeopardize the health of the very individuals the new public health seeks to protect. The new public health extends regulation into inappropriate areas, and thus saps the social resources and focus to deal with public health matters more narrowly construed. . . .

TWO RIVAL CONCEPTIONS OF PUBLIC HEALTH

One narrow account of the police power was offered by Justice Harlan in *Jacobson v. Massachusetts* (1905), the bellwether public health case that upheld a compulsory vaccination law:

Although this court has refrained from any attempt to define the limits of that power, yet it has distinctly recognized the authority of a State to enact quarantine laws and “health laws of every description”; indeed, all laws that relate to matters completely within its territory and which do not by their necessary operation affect the people of other States. According to settled principles the police power of a State must be held to embrace, at least, such reasonable regulations, established directly by legislative enactment as will protect the public health and the public safety.

Even this definition of public health gives rise to the well-known tension between individual liberty and the common good, which Justice Harlan articulated as follows:

But the liberty secured by the Constitution of the United States to every person within its jurisdiction does not import an absolute right in each person to be, at all times and in all circumstances, wholly freed from restraint. There are manifold restraints to which every person is necessarily subject for the common good. On any other basis, organized society could not exist with safety to its members. Society based on the rule that each one is a law unto himself would soon be confronted with disorder and anarchy. Real liberty for all could not exist under the operation of a principle which recognizes the right of each individual to use his own, whether in respect to his person or his property, regardless of the injury that may be done to others.

In contrast, the more modern account of public health is best described in the language of its defenders:

The broad pole of public health defines a very wide scope of organized activities, concerned not only with the provision of all types of health services, preventive and therapeutic, but also with the many other components relevant to the operation of a national health system. These involve questions of health behavior and the environment as well as the production of resources (personnel and facilities), the organization of programs, the development of economic support, and the many strategies required to ensure equity and quality in the distribution of health services. (Tulchinsky and Varavikova 2000, xix)

In similar fashion, Lawrence Gostin (2000) quite consciously entwines old functions (which are, rightly, not abandoned), with new ones in his account of the scope of public health:

The mission of public health is broad, encompassing systematic efforts to promote physical and mental health and to prevent disease, injury and disability. The core functions of public health agencies are to prevent epidemics, protect against environmental hazards, promote healthy behaviors, respond to disasters and assist communities in recovery, and assure the quality and accessibility of health care services.

On both these issues, we can see a powerful transformation from the old to the newer view. On the question of public health or common good, the original definition was confined (not perfectly, but by and large) to those goods, or bads, that raised serious issues of market failure. It included dealing directly with risks of communicable disease and, of course, pollution, but only to the extent that these were directly linked to particular pathogens or substances. As such, it applied only to situations where competitive markets based on strong individual rights of private property could not be relied on to achieve anything close to the social optimum. The modern view simply invokes the idea of the common good (or the public interest) to allow state regulation on any matter of business or social life that affects a substantial fraction of the community, where the allocative outcomes of the competitive marketplace no longer supply a normative baseline against which to measure the efficacy and validity of state regulation. The broader view allows for extensive regulation of competitive markets that the narrower view limits. . . . [T]hese may be goals that are worth achieving, but they should not be transformed into public health goals as such. . . .

CONCLUSION

In one sense, the debate over the proper response to public health offers but one arena in which to test the relative power of the classical liberal as opposed to the modern social welfare model of the state. Here, too, I think that the classical model outperforms its rival. By stressing the importance of private wealth creation through private property and voluntary exchange, the classical model gives individuals the resources that allow them to take effective individual measures to ensure and promote their own health. By offering focused intervention in matters of communicable disease, it seeks

to control externalities that private forces cannot resist. The two efforts are not unrelated. The increase in private wealth will result in greater public revenues, at lower tax rates, to create the social infrastructure and environmental control systems needed to contain these public health risks in the first place. . . . The modern public health makes every social change relevant to health issues. But once it opens up the field to examine the gains from more infrastructure and greater income equality, it must take into account the public health losses, now broadly defined, from the failure to create new wealth and maintain higher standards of living. At this point, the new public health is scarcely distinguishable from a general social welfarist position whose benefits it shares, and whose fatal deficiencies it cannot escape.

. . .

In addition to the civil libertarian and economic critiques put forth by Hall and Epstein above, Mark Rothstein (2002) has advanced a distinctly progressive critique of our expansive definition of public health law. He begins by noting that “[t]here is a growing trend to include within the sphere of public health all the societal factors that affect health. . . . including war, violence, poverty, economic development, income distribution, natural resources, diet and lifestyle, health-care infrastructure, overpopulation, and civil rights.” He acknowledges that

There is much to recommend viewing the sources of health broadly. . . . Yet the conceptual value of considering the health of a population in light of a wide array of factors does not necessarily translate into a practical framework for implementing policy. . . . It is understandable why knowledgeable and caring health professionals would want to improve the health of individuals and communities by focusing on the root causes of illness and disease. Analyzing political, economic, and social issues in a scientific manner is appealing by providing essential data and more rigorous methodology. It also seems to help make the concerns more objective and their remediation more achievable. Unfortunately, labeling so many activities as public health does little if anything to eliminate the problem of poor health.

Rothstein warns against the “public healthification” of social problems, arguing that “public health provides too narrow a perspective to be effective [because] public health research questions as currently conceptualized are less complex than the social and political issues (conflicting interest groups, conflicting value systems, power relationships) that need to be resolved for interventions to be successfully applied.” He poses intuitively appealing rhetorical questions:

What curriculum could possibly train public health professionals on all the various root causes of poor health? What political system or public health budget will support far-ranging interventions by those charged with protecting public health? What effect will such seemingly quixotic activities have on the

ability of public health professionals to combat traditional public health problems, such as infectious diseases and poor sanitation, as well as new threats, such as bioterrorism? Individuals trained in public health should not give up the noble struggle to ensure that every person has a minimum standard of living to support a healthy life. But this battle must be fought together with people from all disciplines and all walks of life and without using the self-defeating strategy of annexing human rights into the public health domain.

Rothstein ends with caution that harkens back to Hall's and Epstein's libertarian concerns:

It is incongruous to embrace the broadest meaning of public health at the same time that our legal system and public health infrastructure are based on a narrow definition of public health jurisdiction, authority, and remedies. Moreover, the boundless conception of public health now gaining in popularity not only may fail to achieve its goal of alleviating the economic and social roots of ill health, but it may actually impede the ability of public health officials to provide traditional public health services. The moral and political power of governments to act in the realm of public health devolves from the existence of a serious threat to the public. Coercive public health measures are justified by the natural law principle of self-preservation applied on a societal basis. Indeed, modern public health traces its philosophical roots to nineteenth century utilitarianism. The broad power of government to protect public health includes the authority to supersede individual liberty and property interests in the name of preserving the greater public good. It is an awesome responsibility, and therefore it cannot and must not be used indiscriminately.

Criticism of the new public health law was to some extent inevitable. As Roger Magnusson (2007, 572) has explained, “[t]he use of law as a policy tool to respond comprehensively to environmental exposures, unhealthy lifestyles, and accidental injuries threatens to impinge on the interests of a wide variety of industries, and to significantly expand sites for state intervention.” By exploring (and ultimately seeking to disrupt) causal connections between ill-health and such powerful institutions as tobacco companies, industrial polluters, firearm manufacturers, and fast-food chains, modern public health provokes backlash.

Certainly, the critical response to new public health is motivated in part by material interests. But it also arises out of deep-seated philosophical and cultural views about whether the degree of government intrusion long-supported by the Supreme Court in canonical decisions like *Jacobson v. Massachusetts* (1905), which upheld compulsory vaccination (discussed in chapter 4), is justified when applied to noncommunicable diseases, injuries, and the social determinants of health.

On a philosophical level, the debate over new public health law arises out of a tension between public health's communitarian foundations and the liberal foundations of American law and policy. Thaddeus Pope (2011), another critic of the expansive vision of public health law, has articulated the tension in terms of core values: “[l]iberalism demands that liberty limitation be carefully, narrowly, and thoroughly justified. Communitarianism, in contrast, holds that individual rights and social responsibilities are equivalent, and that liberty and the common good have equal standing.”

On a cultural level, the expansion of public health law highlights a central tension between the behavioral model and the social-ecological model. Characterizing the chief task of public health as the control of risky behavior (e.g., unsafe sexual practices, unhealthy eating, or tobacco use) “can quickly become, for cultural and political reasons, a warrant for treating health entirely as a matter of personal responsibility” (Gostin, Burris, and Lazzarini 1999, 72). The behavioral model's notion of health as a matter of personal responsibility has been so influential that critics of the new public health law have adopted it implicitly in their critique of the social-ecological model's emphasis on collective responsibility for public health. Critics of the “revolution” in public health have wrongly posited a shift from the “old” agent model to the “new” social-ecological model. Ironically, this oversimplified story both omits and tacitly adopts the behavioral model's view that law has little relevance to modern public health problems. It also ignores the extent to which the social-ecological model represents a return to the nineteenth-century sanitarians' focus on societal causes and structural solutions.

Hall and Epstein begin from the proposition that regardless of the validity of social epidemiology as a scientific matter, it does not necessarily follow that state authority to intervene “under the banner of public health” should be expanded. In a subtle but fundamental way, the division between science and law they champion would disconnect public health from the explicitly progressive mission that has been integral to its disciplinary identity for centuries. It is not possible for the science of public health (the activity of “[a]dvancing understanding and knowledge of the causes and patterns of health conditions in society” in Hall's words) to exist in a vacuum. The questions it seeks to answer (and the answers it eventually provides) are informed by practice, policy, and law. The scientific identification of causal pathways is intimately tied to the policy work of developing and evaluating potential interventions to disrupt them. The practice of public health (by which we mean the

activity of implementing interventions to protect and promote health, only some of which make use of legal tools) is useless unless it is informed by science and guided by policy. And public health policy (by which we mean the body of defined objectives of public health science and practice) easily blends into the law, in which it is expressed.

Defenders of an expansive scope for public health law argue that the liberal framework tends to discount social, economic, and environmental influences on individual choice. This position is no longer fully tenable in the public health context, in light of the findings of social epidemiologists. Do Epstein's, Hall's, and Rothstein's arguments for a division between the science and the law of public health present a viable solution to this conundrum? We believe not. Rather, our response is to root new public health law more deeply in the science of social epidemiology. The defenders of new public health law must continually strive to convey the power of scientific insights about the social, economic, and environmental determinants of health in ways that judges, policymakers, and the public find compelling. These insights ultimately provide the strongest source of support for understanding an expanding range of health threats as legitimately public in nature and amenable to structural solutions. Individual choice is of course a cherished value. But individuals do not exist in a vacuum; they are embedded in families, neighborhoods, and social networks (e.g., friends, schools, and faith communities). They are also heavily influenced by the economic and physical conditions in which they live, the information to which they are exposed (e.g., media and marketing), and so forth. What the evidence tells us is that the conditions in which people live, learn, and work affect their individual choices in powerful ways. As Daniel Goldberg argued in his defense of a broad model of public health,

either the social epidemiologists' contention that socioeconomic disparities are a primary factor in causing good public health is accurate, or it is not. . . . [I]f socioeconomic disparities are truly productive of public health, policies consistent with the narrow model [of old public health], which by definition do nothing to ameliorate social conditions, will do little to actually improve health in the aggregate. . . . If public health practice is not intended to facilitate the public's health, it is unclear what use such a practice has and why public monies should be forthcoming to support it. (Goldberg 2009, 73-75)

After having heard the arguments on all sides, what is the appropriate balance between unfettered personal choice and altering the conditions under which those choices are made? What is the appropriate role for

the government in protecting and promoting the public's health? What is the appropriate scope of inquiry and action for public health science and public health law?

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PHOTO 2.1. President Carter's motorcade departs the Three Mile Island Nuclear Generating Station, 1979. The president visited Three Mile Island a few days after one of the plant's reactors partially melted down in an effort to calm the public's fears. The accident was the most serious commercial nuclear accident in U.S. history. Regulatory agencies maintain that the incident did not result in any detectable health effects for plant workers or residents, a claim that antinuclear advocacy groups dispute. Media coverage of the incident played a significant role in solidifying public opposition to nuclear power, which many environmental health experts argue is out of proportion to the risks involved. Unknown photographer, President's Commission on the Accident at Three Mile Island.