
ARTICLE

FROM HEALTH CARE LAW TO THE SOCIAL DETERMINANTS OF HEALTH: A PUBLIC HEALTH LAW RESEARCH PERSPECTIVE

SCOTT BURRIS[†]

INTRODUCTION	1649
I. SOCIAL DETERMINANTS OF HEALTH	1652
II. FINDING LAW IN THE SOCIAL PRODUCTION OF HEALTH.....	1655
III. DEFINING A ROLE FOR PUBLIC HEALTH LAW RESEARCH	1662
CONCLUSION.....	1666

INTRODUCTION

Research over the past three decades has demonstrated that population health is shaped powerfully by “[t]he contexts in which people live, learn, work, and play”¹—also called “social determinants of health” or “fundamental social causes of disease.”² The World Health

[†] Professor of Law, Temple University Beasley School of Law, and Director of the National Program Office of the Public Health Law Research Program of the Robert Wood Johnson Foundation. The author thanks David Hoffman, Jennifer Ibrahim, Michelle Mello, Jeffrey Swanson, Alexander Wagenaar, and Jennifer Wood for their helpful comments on an earlier version of this Article. The author's work was supported by a grant from the Robert Wood Johnson Foundation. The opinions expressed in this Article are the responsibility of the author and do not necessarily represent the views of the Foundation.

¹ Paula A. Braveman et al., *Broadening the Focus: The Need to Address the Social Determinants of Health*, 40 AM. J. PREVENTIVE MED. S1, S5 (2011).

² See, e.g., COMM'N ON SOC. DETERMINANTS OF HEALTH, WORLD HEALTH ORG., CLOSING THE GAP IN A GENERATION: HEALTH EQUITY THROUGH ACTION ON THE SOCIAL DETERMINANTS OF HEALTH 26 (2008), available at http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf (urging global action to address the “social determinants of health” in order to achieve health equality worldwide); Patricia A. Baird, *The Role of Genetics in Population Health* (“[F]ew would seriously dispute the

Organization (WHO),³ the Centers for Disease Control and Prevention (CDC),⁴ and the Robert Wood Johnson Foundation (RWJF),⁵ have all launched major initiatives aimed at addressing the social influences on health. Neither the research nor the calls for action, however, have penetrated common knowledge, as a recent RWJF report recounts:

Americans, including opinion elites, do not spontaneously consider social influences on health. They tend to think about health and illness in medical terms, as something that starts at the doctor's office, the hospital, or the pharmacy. They recognize the impact of health care on health, and spontaneously recognize the importance of prevention, but they do not tend to think of social factors that impact health.

They do, however, recognize social factors and see their importance when primed. Raising awareness of social factors is not difficult, although people more readily recognize voluntary behaviors that cause illness (e.g., smoking, overeating) than arbitrary or social factors (e.g., race, ethnicity, income).⁶

In these tendencies, health lawyers may not differ from everyone else. Even health lawyers who are attuned to the social determinants of health—a phrase, by the way, that this RWJF report advises is just

fact that economic, social, and environmental factors are considerably more important determinants of health and disease worldwide [than genetic factors].”), in *WHY ARE SOME PEOPLE HEALTHY AND OTHERS NOT?: THE DETERMINANTS OF HEALTH OF POPULATIONS* 133, 158 (Robert G. Evans et al. eds., 1994); Bruce G. Link & Jo Phelan, *Social Conditions as Fundamental Causes of Disease*, 35 J. HEALTH & SOC. BEHAVIOR (EXTRA ISSUE) 80, 81 (1995) (arguing that “some social conditions may be ‘fundamental causes’ of disease”).

³ See COMM’N ON SOC. DETERMINANTS OF HEALTH, *supra* note 2, at 1 (describing the Commission’s mission to close the global health gap with an approach targeting the social determinants of health).

⁴ See CTRS. FOR DISEASE CONTROL & PREVENTION, U.S. DEP’T OF HEALTH AND HUMAN SERVS., *ESTABLISHING A HOLISTIC FRAMEWORK TO REDUCE INEQUITIES IN HIV, VIRAL HEPATITIS, STDs, AND TUBERCULOSIS IN THE UNITED STATES* 1 (2010), available at <http://www.cdc.gov/socialdeterminants/docs/SDH-White-Paper-2010.pdf> (outlining the “strategic vision” of the CDC to “reduc[e] health disparities and promot[e] health equity” by taking a holistic approach).

⁵ See Risa Lavizzo-Mourey & David R. Williams, *Strong Medicine for a Healthier America: Introduction*, 40 AM. J. PREVENTIVE MED. S1, S1 (2011) (describing the RWJF-established Commission to Build a Healthier America and its charge “to identify threats to health and practical solutions *outside* of the healthcare sector; timely strategies to produce positive changes . . . ; and actions to take now that would alter the trajectory of the health and wellbeing of our nation”).

⁶ VULNERABLE POPULATIONS PORTFOLIO, ROBERT WOOD JOHNSON FOUND., *A NEW WAY TO TALK ABOUT THE SOCIAL DETERMINANTS OF HEALTH* 35 (2010) (emphasis omitted), available at <http://www.rwjf.org/files/research/vpmessageguide20101029.pdf>.

too wonky for general public consumption⁷—often do not find themselves in a position to actively address them in their research. Yet even as health lawyers and health care policy experts celebrate the enactment of the Patient Protection and Affordable Care Act⁸—a landmark policy achievement, no matter its ultimate fate—we have at least two good reasons to keep social determinants in mind: first, the relatively dismal state of population health in the United States is not caused primarily by a lack of health care, and second, even universal health care access will not make us substantially healthier as a society. Health care is a huge part of the American economy and undeniably a public good, but the stakes are too high for the public—and health law scholars—to continue neglecting the robust social structures that are shaping America's well-being. Compared to other countries with our resources, and even some countries without them, we are doing poorly, and it is well past time we all got sick of it.

This Article, invited to help provide a public health context to this Symposium, begins with a brief summary of key points from social epidemiology—the study of the social determinants of health. It then discusses how law fits into the picture and, more particularly, how public health law research (PHLR) can contribute to identifying and

⁷ Aiming for something more accessible, this RWJF report offers this example of how to present the idea of social determinants:

America leads the world in medical research and medical care, and for all we spend on health care, we should be the healthiest people on Earth. Yet on some of the most important indicators, like how long we live, we're not even in the top 25, behind countries like Bosnia and Jordan. It's time for America to lead again on health, and that means taking three steps. The first is to ensure that everyone can afford to see a doctor when they're sick. The second is to build preventive care like screening for cancer and heart disease into every health care plan and make it available to people who otherwise won't or can't go in for it, in malls and other public places, where it's easy to stop for a test. The third is to stop thinking of health as something we get at the doctor's office but instead as something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink. The more you see the problem of health this way, the more opportunities you have to improve it. Scientists have found that the conditions in which we live and work have an enormous impact on our health, long before we ever see a doctor. It's time we expand the way we think about health to include how to keep it, not just how to get it back.

Id. at 6.

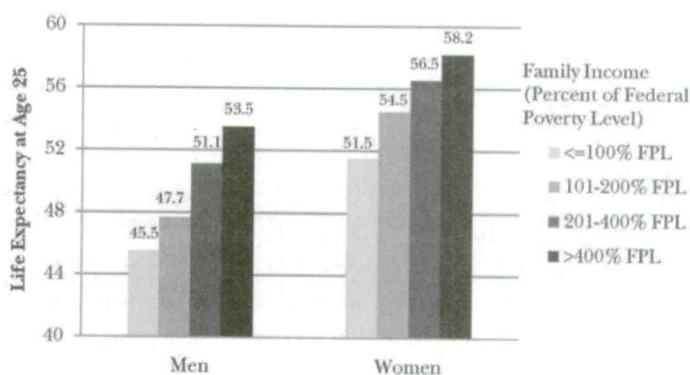
⁸ Pub. L. No. 111-148, 124 Stat. 119 (2010) (to be codified as amended in scattered sections of 21, 25, 26, 29, and 42 U.S.C.).

ameliorating social causes of the country's relatively poor level and distribution of health.

I. SOCIAL DETERMINANTS OF HEALTH

For the visual learner, the workings of the social determinants of health are neatly expressed in Figure 1,⁹ which depicts the relationship between family income and life expectancy.

Figure 1: The Gradient¹⁰



The relationship is simple: the greater the family income, the longer the life, creating a stepwise climb towards the healthier, wealthier side of the picture. This is what social epidemiologists usually refer to as “the gradient”—the tendency of health outcomes to line up on a steady slope from the have-leasts to the have-mosts. First identified in a famous study of the health of British civil servants,¹¹ the gradient turns up reliably at the intersection of social status (whether

⁹ For those who learn better via text, I recommend RICHARD WILKINSON & KATE PICKETT, *THE SPIRIT LEVEL: WHY GREATER EQUALITY MAKES SOCIETIES STRONGER* (Bloomsbury Press 2009), a highly readable summary of the theories and evidence by people who have been in the thick of the science for their entire careers. See also *SOCIAL EPIDEMIOLOGY* (Lisa F. Berkman & Ichiro Kawachi eds., 2000) (compiling an exhaustive selection of articles examining various social determinants of health).

¹⁰ *Higher Income, Longer Life*, ROBERT WOOD JOHNSON FOUND. COMM’N TO BUILD A BETTER AM. (June 25, 2009), <http://www.rwjf.org/pr/product.jsp?id=44889> (search “Higher Income, Longer Life”).

¹¹ M. G. Marmot et al., *Employment Grade and Coronary Heart Disease in British Civil Servants*, 32 J. EPIDEMIOLOGY & COMMUNITY HEALTH 244, 244 (1978) (finding higher mortality in “working class men and women”); see also M. G. Marmot et al., *Health Inequalities Among British Civil Servants: The Whitehall II Study*, 337 LANCET 1387, 1387 (1991) (“[T]he lower the social class, the higher the mortality rates.”).

measured by wealth, income, education, or other common proxies) and virtually any health or social pathology you could name.¹² In the United States, discussion of inequitable health outcomes has largely focused on racial disparities.¹³ These widespread differences in health outcomes by race are an instance of health inequality, but only that. Because we so rarely collect statistics or conduct analysis by class in this country, we have largely treated the health inequality problem as solely one of race for policy purposes. It is not. Race and class both are at work here.¹⁴

The gradient also appears in population-level analyses of the relationship between social inequality and a wide range of health and social outcomes (crime rates, educational performance, etc.). It turns out that both U.S. states and the countries of the world line up along the gradient when their levels of social inequality are plotted against their respective health and social problems; as inequality within a state or country increases, so too does the severity of a country's or state's health and social problems.¹⁵ A rising tide may lift all boats, but the choppy waters of inequality make the sailing tougher for everyone: even the best-off in an unequal society tend to be worse off than the average person in a more equal one. Thus, the richest Americans do not live as long as the richest Swedes and Japanese. This can help explain the fundamental health care policy anomaly in the U.S. system: why we are number one in health care spending and number thirty in health outcomes. Inequality evidently pulls everyone down.

The social production of health is sufficiently complex to preclude simple causal attributions. No one is arguing that inequality directly causes ill health or other pathological social outcomes. Yet consistent correlations across populations between health and various forms of social and economic inequality leave little room for doubt that social arrangements account for an important fraction of population health. Efforts to find the mechanisms of these effects are ongoing. A recent book by sociologists Richard Wilkinson and Kate Pickett

¹² For charts depicting this gradient, see *Robert Wood Johnson Foundation Commission to Build a Healthier America Slideshow*, ROBERT WOOD JOHNSON FOUND. (June 25, 2009), <http://www.rwjf.org/pr/product.jsp?id=44889>.

¹³ See Braveman et al., *supra* note 1, at S7 (attributing the greater awareness of racial and ethnic health disparities to the greater frequency with which racial and ethnic public health data is reported).

¹⁴ See *id.* ("[B]oth socioeconomic advantage and race, independently and in combination, contribute to health inequalities in the U.S.").

¹⁵ See WILKINSON & PICKETT, *supra* note 9, at 14-29.

provides many examples of more or less well-founded causal hypotheses. For example, they suggest that the relationship between inequality and homicide (which appears both between countries and among U.S. states) can be explained at least in part by the imperative among young men to gain social status in environments that offer few other means of doing so.¹⁶ Social epidemiologists have studied the effect of social position over the life course, pointing to the powerful effects of early childhood deprivation on lifetime health.¹⁷ Bruce Link and Jo Phelan have conceived of the process in terms of access to the basic resources people need to thrive,¹⁸ while others, more biologically inclined, have documented the powerful role of stress across the life course in connecting social position to health outcomes.¹⁹ The WHO Commission on the Social Determinants of Health sums up social determinants and their workings in holistic terms:

The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of peoples [sic] lives—their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities—and their chances of leading a flourishing life. This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon but is the result of a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics. Together, the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries.²⁰

Responding to the findings of this social epidemiology is perhaps the true "grand challenge" of our time in public health. Whether or not it is grand, it is certainly difficult, in terms of both research and implementation. I turn next to a public health law research perspec-

¹⁶ *Id.* at 132-36.

¹⁷ See, e.g., John Lynch & George Davey Smith, *A Life Course Approach to Chronic Disease Epidemiology*, 26 ANN. REV. PUB. HEALTH 1, 5 (2005) (listing early-childhood factors that increase the risk of adult pathologies).

¹⁸ See Link & Phelan, *supra* note 2, at 87 ("[T]he essential feature of fundamental social causes[] is that they involve access to resources that can be used to avoid risks or to minimize the consequences of disease once it occurs.").

¹⁹ See Carol M. Worthman & E. Jane Costello, *Tracking Biocultural Pathways in Population Health: The Value of Biomarkers*, 36 ANNALS HUM. BIOLOGY 281, 286-87 (2009) (recognizing the effects of psychosocial stress on future pathology).

²⁰ COMM'N ON SOC. DETERMINANTS OF HEALTH, *supra* note 2, at 1.

tive on practical efforts to address the social determinants of health and how law and legal research can best support the effort. I distinguish two relationships between law and social determinants and suggest—via a quick tour through the work of the epidemiologist Geoffrey Rose—the important role of public health law research in raising awareness of social factors and showing how law transforms social structures into levels and distributions of health. Of course, this is epidemiology coming from a lawyer, so caveat emptor!

II. FINDING LAW IN THE SOCIAL PRODUCTION OF HEALTH

*"The law is all over."*²¹ I take this phrase from a classic work of socio-legal research, which in turn is quoting a man's description of navigating the welfare system: wherever he goes, rules and officials shape his entire experience with the system.²² Law for this man—and for all of us—is not just a distant set of "laws on the books" in Washington, D.C., but the institutions and practices that implement the law every day "on the streets."²³ It is not just the formal rules of the welfare system, but how these rules are enacted every day in welfare offices by case workers—and clients—who have their own understandings of what the law is, how it relates to other sets of rules, and how it can advance or hinder their own goals. Those of us trained as lawyers probably know this in our bones, but in my experience, health researchers do not widely share a sense of law *as a field of social practice*. This is important to keep in mind in looking at a depiction of the levels of policy intervention in health that frequently appears in the health literature (Figure 2). It is easy to see how the laws on the books play an important role in setting the structure of the fields in the two outer bands and therefore indirectly influencing the inner ones, but it is just as easy to lose sight of the implementation of law as a direct and daily influence on how people believe, behave, and interact. Keeping one eye fixed on law in everyday life helps us distinguish two important ways that law interacts with social determinants: 1) law helps structure and perpetuate the social conditions that we describe as "social determinants," and (2) law acts as a mechanism or mediator through which social structures are transformed

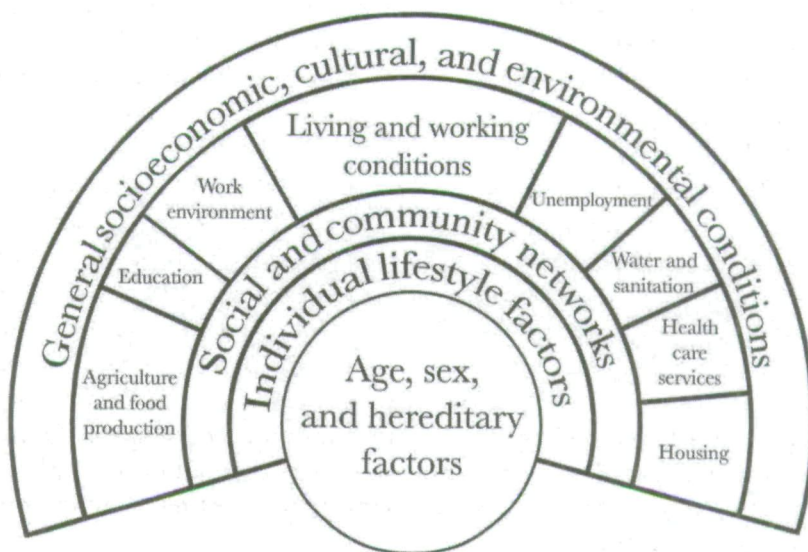
²¹ Austin Sarat, ". . . the Law Is All Over": *Power, Resistance and the Legal Consciousness of the Welfare Poor*, 2 YALE J.L. & HUMAN. 343 (1990).

²² See *id.* at 344.

²³ *Id.* at 345.

into levels and distributions of health.²⁴ Health theory and health research too often overlook this latter role, which tends to play itself out in the law on the streets rather than the law on the books.

Figure 2: The Main Determinants of Health²⁵



Drug policy provides a sad, simple illustration of how law is woven into the structure and events of everyday life. The federal Controlled Substances Act²⁶ and its state equivalents make no distinctions based on race. Given that blacks and whites use illegal drugs at just about the same rate,²⁷ one would expect that they would be incarcerated for drug crimes at about the same rate. Given that blacks and whites inject he-

²⁴ See Scott Burris et al., *Integrating Law and Social Epidemiology*, 30 J.L. MED. & ETHICS 510, 510 (2002) (establishing a dual framework for analyzing the relationship between law and social determinants of health, as law both creates social conditions and acts as a pathway along which such conditions operate).

²⁵ Göran Dahlgren & Margaret Whitehead, *Policies and Strategies to Promote Social Equity in Health* 11 fig.1 (Inst. for Future Studies, Working Paper No. 2007:14, 1991).

²⁶ Pub. L. No. 91-513, tit. II, 84 Stat. 1242 (1970) (codified as amended in scattered sections of 21 U.S.C.).

²⁷ 1 OFFICE OF APPLIED STUDIES, SUBSTANCE ABUSE AND MENTAL HEALTH SERVS. ADMIN., NATIONAL SURVEY ON DRUG USE AND HEALTH 24 fig. 2, 10 (2009), available at <http://www.oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf> (displaying that 8.8% of whites, compared to 9.6% of blacks, reported using an illicit drug within the past month).

roin at about the same rate,²⁸ one would expect rates of injection-related HIV to be about the same. We are all aware, however, that rates of both incarceration and injection-related HIV differ dramatically by race. Of course, some of this may have to do with different rates of offending, as well as different community demands for police action, but the fact remains that the way the neutral law is enforced—who is targeted for surveillance and arrest, how people are sorted to jail or treatment, and how all that plays out in individual behavior, communities, and social networks—turns out to be a substantial driver of the law's differential impact.²⁹

PHLR, defined as “the scientific study of the relation of law and legal practices to population health,”³⁰ contributes to the effort to address social determinants by empirically studying both of the ways in which law interacts with social conditions. Or hopes to. Progress on studying and addressing social determinants has been real, but I suspect we are still somewhere near the end of the beginning. To get this far in our collective thinking has been quite an effort, yet all sorts of questions, large and small, normative and methodological, remain to be untangled. Here I will focus on what PHLR can do to explicate the workings of social determinants and help raise their amelioration on the policy agenda.

I start with the article that began my education in public health. Geoffrey Rose's landmark paper, *Sick Individuals and Sick Populations*,³¹ was a Road-to-Damascus epiphany for me. He made a distinction between the causes of cases (the immediate, personal risk factors that explain why a particular person suffers a particular disease or injury) and the causes of incidence (why there is a given frequency or proportion of that disease or injury in that population). He illustrated the point with

²⁸ See OFFICE OF APPLIED STUDIES, SUBSTANCE ABUSE AND MENTAL HEALTH SERVS. ADMIN., THE NSDUH REPORT: INJECTION DRUG USE AND RELATED RISK BEHAVIOR, at fig.2 (2009), available at http://www.oas.samhsa.gov/2k9/139/139IDU_HTML.pdf (displaying that .18% of whites, compared to .14% percent of blacks, reported using injection drugs within the past year).

²⁹ For a discussion of these issues, see Scott Burris et al., *Addressing the “Risk Environment” for Injection Drug Users: The Mysterious Case of the Missing Cop*, 82 MILBANK Q. 125, 131-34 (2004), and Scott Burris et al., *Racial Disparities in Injection-Related HIV: A Case Study of Toxic Law*, 84 TEMP. L. REV. (forthcoming 2011), available at <http://ssrn.com/abstract=1702469>.

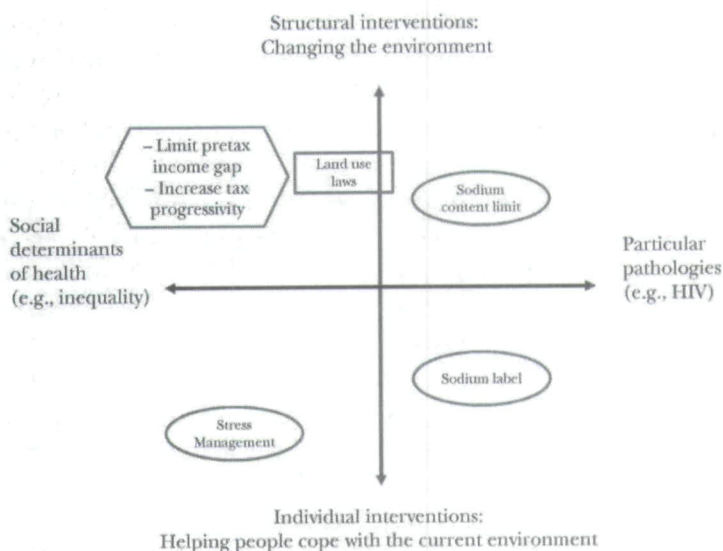
³⁰ Scott Burris et al., *Making the Case for Laws That Improve Health: A Framework for Public Health Law Research*, 88 MILBANK Q. 169, 171 (2010).

³¹ Geoffrey Rose, *Sick Individuals and Sick Populations*, 14 INT'L J. EPIDEMIOLOGY 32 (1985).

a graph depicting the distribution of systolic blood pressure in two populations: London civil servants and Kenyan nomads.³² The distribution of individual risk was the same in the two groups, but the bell curve for the London civil servants was shifted several notches in the pathological direction. There were evidently conditions in Kenya that were helping the nomads or conditions in England that were hurting the civil servants. The question this posed to me was whether law might be one of those conditions. The horizontal axis in Figure 3, rephrased in contemporary terms, depicts the spectrum of causation from social determinants of health on the left (causes of incidence) to the causes of particular cases of specific diseases on the right (causes of cases).³³

³² *Id.* at 33.

³³ In his contribution to this Symposium, Larry Gostin relies on epidemiological analyses that attribute common proximate causes of death to prior "actual" causes. Lawrence O. Gostin et al., *Restoring Health to Health Reform: Integrating Medicine and Public Health to Advance the Population's Wellbeing*, 159 U. PA. L. REV. 1761, 1793-94 (2011). For example, many car accident deaths can be reclassified as drug or alcohol deaths because they are actually the result of intoxication rather than some intrinsic risk of driving. See, e.g., J. Michael McGinnis & William H. Foege, *Actual Causes of Death in the United States*, 270 JAMA 2207, 2210 (1993) (discussing the incidence of illicit drug use in motor vehicle fatalities). This sort of work is extremely useful in identifying promising points of population-level intervention. Although the framework I present here does not undertake to attribute mortality to social determinants, it can be seen as moving the analysis of mortality away from the rightmost end of the spectrum toward a paradigm that recognizes factors that can produce death via multiple mechanisms.

Figure 3: Dimensions of Causation and Intervention

Rose was not primarily interested in explaining how we get sick, either individually or collectively. Rather, his main point was that these two ways of thinking about health are linked to different strategies of intervention. Once again rephrasing, I depict on Figure 3's vertical axis the range of interventions, from individual (or agentic) interventions on the bottom, which help people cope with a given environment, to "structural interventions" which aim to create an environment that exposes people to fewer risks and more healthy options.³⁴ The notion of agentic interventions helps avoid one of the confusions about structural interventions.³⁵ The vertical axis is not

³⁴ See K. M. Blankenship et al., *Structural Interventions: Concepts, Challenges and Opportunities for Research*, 83 J. URBAN HEALTH 59, 68 (2006) (arguing that structural interventions offer a complement to individual-based solutions in preventing HIV and may achieve more widespread benefits); Kim M. Blankenship et al., *Structural Interventions in Public Health*, 14 AIDS S11, S11-12 (2000) (defining structural interventions as working to change the context of health care production, locating the broader source of the problem, and classifying such interventions based on their focus on availability, acceptability, and accessibility of health services).

³⁵ See Lindsay McLaren et al., *Rose's Population Strategy of Prevention Need Not Increase Social Inequalities in Health*, 39 INT'L J. EPIDEMIOLOGY 372, 373-75 (2010) (proposing to define intervention strategies on an agentic/structural continuum as a solution to the

precisely a spectrum of individual- to population-level interventions—and therefore legal interventions should not automatically be treated as structural simply because they apply to everyone. Risk-reduction education, for example, is a classic tool of public health designed to help people avoid particular pathologies within a stable environment. A law requiring sodium warnings on labels may reach tens of millions. Such mandatory disclosure, however, is essentially agentic, in that it depends upon the individual's response for its effect, and it deals with risk factors that are generally proximal to a small number of specific outcomes. It belongs in the lower right section of Figure 3.³⁶ By contrast, a law that caps the amount of sodium allowed in a portion of prepared food would change the environment so that the agent is presented with healthier options.

In theory, concern for social determinants should take us toward the left side of Figure 3. For example, an intervention to help people manage stress could be seen as an intervention aimed at blunting a major mechanism of structural inequality, forestalling a wide range of negative individual health outcomes. It takes on social determinants, but in an agentic manner. The “sweet spot” is the upper left quadrant. Actions that actually change pathological social conditions have enormous potential to improve both the level and the distribution of health because they address fundamental causes expressed in a wide range of ultimate health states that can be reached via a plethora of pathways across the life course.³⁷ Measures that will do that have already been identified. Wilkinson and Pickett, for example, suggest two tried-and-true ways to address income inequality: limit pre-tax wage disparities or compensate with post-tax redistribution.³⁸ In this country, we can take perverse encouragement from the fact that the contrary policies of the past thirty years (e.g., reducing capital gains and increasing payroll taxes) have certainly been effective in making inequality worse.³⁹

critique that population-wide health interventions inadvertently exaggerate, rather than ameliorate, social inequalities in health).

³⁶ Education may have a secondary environmental impact through changes in norms, and so mandated education can creep up the axis toward structural intervention.

³⁷ Link & Phelan, *supra* note 2, at 87-88 (summarizing research on fundamental causes to illustrate that such causes, including socioeconomic status, influence multiple risk factors and multiple disease outcomes).

³⁸ See WILKINSON & PICKETT, *supra* note 9.

³⁹ See, e.g., PAUL PIERSON & JACOB S. HACKER, WINNER-TAKE-ALL POLITICS 3 (2010) (“From 1979 until the eve of the Great Recession, the top one percent received 36

For all we have learned, our conception of social determinants and how they work remains a work in progress. The link between health and economic inequality, for example, is complicated and non-linear, a gross explanation for exquisitely fine relationships and processes.⁴⁰ Depictions like Figure 2 and metaphors like “upstream factors” can convey the impression that social causes of disease are “out there” far away and obscure the fact that inequalities are reproduced every day in the minds, lives, and immediate environments of everyone. Social life works constantly as a sorting machine; as Braveman and colleagues put it, “People are not randomly distributed into healthy and unhealthy circumstances.”⁴¹ Rose’s wise conclusion was, to put words in his mouth, that all the quadrants matter.⁴² We lack enough knowledge to choose to work only in one or the other, and it would be just as wrong to put all our bets on the upper left as the lower right. This is the view of the WHO Commission on the Social Determinants of Health, whose final report calls not only for taking aim at social determinants directly, but also for working to improve the circumstances of daily life and to continue to expand our knowledge base through research and evaluation.⁴³ The same approach informs the continuing work of RWJF’s Commission to Build a Healthier America, which is just one expression of the Foundation’s

percent of all gains in household income—even after taking into account the value of employer-sponsored health insurance, all federal taxes, and all government benefits.”); Gopal K. Singh & Mohammad Siahpush, *Widening Socioeconomic Inequalities in U.S. Life Expectancy, 1980–2000*, 35 INT’L J. EPIDEMIOLOGY 969, 975 (2006) (presenting data that show “substantial and increasing disparities in U.S. life expectancy over time, with the gap between the least-deprived and most-deprived groups widening from 2.8 years in 1980–82 to 4.5 years in 1998–2000”).

⁴⁰ See, e.g., John Lynch et al., *Is Income Inequality a Determinant of Population Health? Part 1. A Systematic Review*, 82 MILBANK Q. 5, 81–82 (2004) (recognizing the strong correlation between income inequality and population health in the United States as “exceptional,” but suggesting that this link may be “confounded” by confusion with other causal mechanisms, such as regional composition differences); Alvin R. Tarlov, *Public Policy Frameworks for Improving Population Health*, 896 ANNALS N.Y. ACAD. SCI. 281, 283–84 (1999) (acknowledging that modeling has so far failed to fully explain the dynamics of population health but nonetheless offering recommendations based on several broad categories of interventions).

⁴¹ Braveman et al., *supra* note 1, at S10.

⁴² See generally Rose, *supra* note 31, at 38 (noting that effective health promotion requires both individual and population strategies).

⁴³ See COMM’N ON SOC. DETERMINANTS OF HEALTH, *supra* note 2, at 26 (setting a new “global agenda” and discussing “three principles of action to achieve health equity”).

commitment to advancing research and action to address the impact of social factors on health.⁴⁴

III. DEFINING A ROLE FOR PUBLIC HEALTH LAW RESEARCH

Empirical research in health law and policy has been “blossoming” over the past thirty years.⁴⁵ Recognizing this, and responding to the emergence of public health law as a distinct field, the RWJF created the PHLR Program to increase the quantity and the quality of empirical research on the law’s impact on population well-being.⁴⁶ Empirical health law research can test the population health effects of law as a shaper of social structure and a macrosocial factor in its own right, and it can explore how the operation of law influences the level and distribution of health. The PHLR Program supports this sort of work through research funding (over \$6 million in our first two years), methodological work, and dissemination of PHLR evidence.

It is generally important to know whether policies intended to improve our health are working. The PHLR Program has funded and will continue to fund evaluations of such “interventional” health laws. For example, our grantees have examined whether our current intellectual property system may actually be promoting antibiotic resistance,⁴⁷ whether policies aimed at reducing childhood obesity are working,⁴⁸ and how vaccination exemptions influence rates of dis-

⁴⁴ See *supra* note 5 and accompanying text.

⁴⁵ Michelle M. Mello & Kathryn Zeiler, *Empirical Health Law Scholarship: The State of the Field*, 96 GEO. L.J. 649, 649 (2008).

⁴⁶ See Scott C. Burris & Evan D. Anderson, *Making the Case for Laws that Improve Health: The Work of the Public Health Law Research National Program Office*, 39 J.L. MED. & ETHICS (SPECIAL SUPPLEMENT S1) 15, 15-16 (2011).

⁴⁷ See Aaron S. Kesselheim & Kevin Outterson, *Fighting Antibiotic Resistance: Marrying New Financial Incentives to Meeting Public Health Goals*, 29 HEALTH AFF. 1689, 1691-92 (2010) (discussing potential solutions to underinvestment in antibiotic development, including extending patent terms, creating “wildcard patents,” and increasing federal subsidies); see also Aaron S. Kesselheim, *Using Market-Exclusivity Incentives to Promote Pharmaceutical Innovation*, 363 NEW ENG. J. MED. 1855, 1856 tbl.1 (2010) (examining the intended and collateral effects of various legal incentives on the availability of beneficial medicines).

⁴⁸ See *What Public Health Law Approaches Help Prevent Obesity?*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/public-health-topics/18-months/project-brief/what-public-health-law-approaches-help-prevent-obesity> (last visited Mar. 15, 2011) (describing a PHLR Program-sponsored project assessing the efficacy of state and local laws targeting childhood obesity).

ease.⁴⁹ We also support studies of “infrastructural health law,” which examine how the legal characteristics of health agencies—their powers, duties, and restraints—influence their performance and the health of the communities they serve. For example, we have funded the Minnesota Department of Health to assess whether and to what extent the legal authority for infectious disease surveillance affects states’ ability to respond to emerging microbial threats.⁵⁰

As we think about law’s relationship to social determinants, however, it is crucial to engage the broader set of what we call “incidental” public health laws—policies that do not primarily focus on health but may nonetheless create health benefits or harms. The studies our program has funded on land use are good examples of how PHLR can potentially help us move up and to the left in Figure 3.⁵¹ Land use laws structure how communities are laid out and thus how people behave within them. These laws have implications for physical activity, exposure to toxins, and physical security. These outcomes mediate a significant range of health endpoints, from hypertension to depression and anxiety. By showing these effects, PHLR can help direct policy attention from agentic to structural interventions and from single pathologies to drivers of the level and distribution of overall health. Similarly, RWJF, in partnership with the Pew Charitable Trusts, has been encouraging broader use of health impact assessments, which “consider potential health effects of policies or projects in sectors that do not traditionally focus on health outcomes.”⁵² PHLR is an essential facet of a “health in all policies” approach, in which “all parts of gov-

⁴⁹ See *Has the HPV Vaccination Mandate in D.C. Improved Public Health?*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/grantee-project/has-hpv-vaccination-mandate-dc-improved-public-health> (last visited Mar. 15, 2011) (describing a PHLR study analyzing health outcome effects of the District of Columbia’s HPV vaccination mandate).

⁵⁰ See *How Does the Legal Authority for Infectious Disease Surveillance Affect States’ Ability to Respond to Emerging Threats?*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/duration/18-months/grantee-project/legal-authority-infectious-disease-surveillance-and-states-ability> (last visited Mar. 15, 2011) (describing a PHLR Program study exploring the effects of state vaccination-reporting laws on public health issues related to the H1N1 outbreak).

⁵¹ See *How Does Land-Use Regulation Affect the Built Environment and Crime?*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/duration/30-months/grantee-project/how-does-land-use-regulation-affect-built-environment-and-crime> (last visited Mar. 15, 2011) (describing a PHLR Program study examining six Los Angeles neighborhoods to assess the effect of land use regulation on crime).

⁵² See Lavizzo-Mourey & Williams, *supra* note 5, at S2.

ernment work toward common goals to achieve improved health for all and reduce health inequities.”⁵³

Empirical legal research that tries to answer Rose’s basic question—What are the differences between two environments that explain variations in their relative levels and distributions of health?—depends in part on the availability of health data that detail the key environmental, behavioral, and health outcomes in different jurisdictions and in equal part on legal data sets that can define the independent or mediating legal variables. Suitable health data sets are available for this research. For example, RWJF’s County Health Rankings include, for every U.S. county, such key measures as “smoking, obesity, binge drinking, access to primary care providers, rates of high school graduation, rates of violent crime, air pollution levels, liquor store density, unemployment rates, and number of children living in poverty.”⁵⁴ By contrast, the necessary detailed, longitudinal legal data sets are generally not publicly available. The PHLR Program has addressed this in several ways. We have commissioned methodological work to define and disseminate basic standards for multijurisdictional data sets.⁵⁵ We have created and funded the creation of data sets on a variety of topics that we will make publicly available,⁵⁶ and we will complete a project to catalog existing legal data sets in early 2011.

PHLR also includes “implementation studies” that investigate how law is put into practice and “mechanism studies” that focus on the processes through which law affects environments, behaviors, and health outcomes. These kinds of studies are ideal for investigating the hypothesis that implementing laws is one way that social structures are transformed into health outcomes. For example, research on Virginia’s new mental health laws could find important racial or class differences of a sort that have been detected before in mental health systems.⁵⁷ Recognizing that “effective policies will need to address the

⁵³ CTRS. FOR DISEASE CONTROL & PREVENTION, *supra* note 4, at 4.

⁵⁴ See Lavizzo-Mourey & Williams, *supra* note 5, at S2.

⁵⁵ See Charles Tremper et al., *Measuring Law for Evaluation Research*, 34 EVALUATION REV. 242, 245 fig.1 (2010) (mapping a step-by-step process for creating practical, methodological legal data sets).

⁵⁶ See, e.g., Jennifer K. Ibrahim et al., *State Laws Restricting Driver Use of Mobile Communications Devices: “Distracted Driving” Provisions from 1992 to 2010*, 40 AM. J. PREVENTIVE MED. (forthcoming 2011) (on file with author) (describing a complete data set of laws related to distracted driving).

⁵⁷ See, e.g., Jeffrey Swanson et al., *Racial Disparities in Involuntary Outpatient Commitment: Are They Real?*, 28 HEALTH AFF. 816, 824-25 (2009) (finding disparate rates of

differences in underlying resources and opportunities that are the root causes of health inequalities across social groups,”⁵⁸ PHLR research on the implementation of law can reveal how arcane rules actually shape the distribution of significant resources. Not-for-profit hospitals are required to engage in substantial “community benefit” activities to justify their tax breaks.⁵⁹ PHLR grantees at Saint Louis University are examining how this resource is actually used.⁶⁰

Another important insight emerging from the work of the RWJF Commission to Build a Healthier America is that “efforts to change the conditions of daily life require coordination among clinical, educational, business, civic, and governmental partners within communities,”⁶¹ including “community-focused initiatives that can lead to healthier communities by attracting additional resources and by building on and developing community strengths.”⁶² This goes not just to the *what*, but also to the *how* of research. Participatory research that enlists community members as full partners promises to ground research in local knowledge while at the same time unleashing community capacity to “prevent undesirable events or bring about good things.”⁶³ The project we have funded at Appalachian Law School is mobilizing local knowledge and capacity in central Appalachia to build an evidence base—and community support—for policies that will improve oral health by reducing exposure to sugar-sweetened beverages.⁶⁴

outpatient commitment for the mentally ill between blacks and whites, although finding no evidence of racial bias).

⁵⁸ Braveman et al., *supra* note 1, at S13.

⁵⁹ See Rev. Rul. 69-545, 1969-2 C.B. 117 (recognizing the “community benefit” standard for hospitals to qualify for nonprofit status under I.R.C. § 501(c)(3)).

⁶⁰ See *Do Hospital Community Benefit Requirements Help Public Health Activities?*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/public-health-topics/injury-prevention-evidence-briefs/grantee-project/do-hospital-community-benefit> (last visited Mar. 15, 2011) (using data acquired from IRS reporting requirements to analyze how nonprofit hospitals actually allocate community benefit funds).

⁶¹ Steven H. Woolf et al., *Citizen-Centered Health Promotion: Building Collaborations to Facilitate Healthy Living*, 40 AM. J. PREVENTIVE MED. S38, S39 (2011).

⁶² Braveman et al., *supra* note 1, at S13.

⁶³ Wilhelmine D. Miller et al., *Healthy Homes and Communities: Putting the Pieces Together*, 40 AM. J. PREVENTIVE MED. S48, S52 (2011).

⁶⁴ See *What Is the Impact of Laws Addressing Consumption and Purchase of Sugar-Sweetened and Citric-Acid Drinks on Oral Health*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/duration/18-months/grantee-project/addressing-consumption-and-purchase-patterns-sugar-sweetened-beve> (last visited Mar. 15, 2011) (announcing the investigation of what law and legal practices affect the consumption and purchase of beverages that adversely affect oral health in central Appalachia).

As challenging as it is to build the evidence base for a "Health in All Policies" approach to social determinants of health, it may be even harder to draw the attention of the public and policymakers. In this, the PHLR Program gets a boost from working within a larger, comprehensive RWJF effort. In addition to the Commission to Build a Healthier America and its many other initiatives, in 2010 the Foundation created the Public Health Law Network. The Network is a group of public health lawyers and other policy experts that "connects and serves individuals and organizations committed to applying the law to improve public health."⁶⁵ The Network will be a pipeline for PHLR results to go directly to health officials and other stakeholders looking for evidence. The PHLR website now has over fifty evidence briefs digesting the results of systematic reviews of various laws and their impact on health.⁶⁶ The program also commissions experts to describe the state of the evidence on important issues not yet subjected to a substantial amount of research. Topics in this "Theory, Practice and Evidence" series include the role of state attorneys general in public health, the effect of intellectual property incentives on pharmaceutical innovation, and the effectiveness of current public health approaches to mental illness.⁶⁷

CONCLUSION

The social factors shaping the level and distribution of health in this country are too important to ignore. Indeed, leaving them out of the health agenda undermines the cause because they are so powerful that they swamp purely palliative efforts. In the same way, law is too big an influence to be left out of public health. In this Article, I have briefly sketched law's important roles as a shaper of social determinants and as a mechanism through which social structures and processes result in inequitable distributions and suboptimal levels of health.

Successfully tackling law in a social determinants framework requires different things of different people. Health researchers are in-

⁶⁵ PUB. HEALTH L. NETWORK, <http://www.publichealthlawnetwork.org> (last visited Mar. 15, 2011).

⁶⁶ *All Public Health Topics*, PUB. HEALTH L. RES., <http://publichealthlawresearch.org/hub/all-public-health-topics> (last visited Mar. 15, 2011).

⁶⁷ See *Theory, Practice and Evidence*, PUB. HEALTH L. RES., <http://www.publichealthlawresearch.org/theory-practice-evidence> (last visited Mar. 15, 2011) (describing commissioned papers assessing the available evidence regarding the link between law and public health).

vited to accept that law influences environments and behaviors in ways that they cannot, from a scientific standpoint, credibly ignore. They are challenged to acquire the skills—or build the collaborations—they need to include law as a variable in rigorous research. Legal scholars (including, but not limited to, health law scholars) are encouraged to appreciate that health is actually one of the most important things law can influence and that empirical research on law's impact on health makes an important contribution to legal scholarship. Ideally, health and legal researchers will work together more often, in interdisciplinary teams that combine scientific, legal, and practical expertise, to identify and answer the most pressing PHLR questions.

Copyright of University of Pennsylvania Law Review is the property of University of Pennsylvania Law Review and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.