Global Policy Surveillance: Creating and Using Comparative National Data on Health Law and Policy

Throughout the world, laws play an important role in shaping population health. Law making is an intervention with measurable effects yet often unfolds without evaluation or monitoring. Policy surveillance—the systematic, scientific collection and analysis of laws of public health significance—can help bridge this gap by capturing important features of law in numeric form in structured longitudinal data sets.

Currently deployed primarily in high-income countries, methods for cross-national policy surveillance hold significant promise, particularly given the growing quality and accessibility of global health data. Global policy surveillance can enable comparative research on the implementation and health impact of laws, their spread, and their political determinants. Greater transparency of status and trends in law supports health policy advocacy and promotes public accountability. Collecting, coding, and analyzing laws across countries presents numerous challenges—especially in low-resource settings.

With insights from comparative politics and law, we suggest methods to address those challenges. We describe how longitudinal legal data have been used in limited, but important, ways for cross-national analysis and propose incorporating global policy surveillance into core global public health practice. (*Am J Public Health*. 2020;110:1805–1810. https://doi.org/10.2105/AJPH.2020.305892)

Matthew M. Kavanagh, PhD, Benjamin Mason Meier, JD, LLM, PhD, Mara Pillinger, PhD, MPH, Hanna Huffstetler, BA, and Scott Burris, JD

See also Kaplan, p. 1726.

The law plays an important role in shaping the health of populations. Central to public health practice, law is used explicitly for health interventions in matters that include tobacco control, food safety, and pandemic response. Laws define the structure of health systems, setting the rules for such things as what authority the government has to prevent disease and how medical service providers are paid. The laws that structure economic activity, taxation, and public services directly influence social determinants of health such as education, income, and housing quality.[1] Identifying the public health consequences of specific laws, both good and ill, provides a foundation for the wide adoption of healthy public policies.

Rigorous research on the distribution and effects of health-related laws has a robust recent history in the United States and a handful of other countries.[2] Longitudinal comparative studies across US states have supported credible causal inferences and helped spread and improve interventions that have significantly reduced preventable morbidity and mortality.[3] Policy surveillance—the systematic, scientific collection and analysis of laws of public health significance[4]—has been a key element of this work. At the same time,

growing sophistication in global health data has enabled valid cross-national comparison in burden of disease, coverage of key interventions, and progress toward global health goals.[5] In this context, cross-national research on the impact of health laws is more feasible than ever, and consequently we suggest that the practice of global policy surveillance holds significant promise as a tool for advancing global health. It provides the necessary legal data for evaluation and can be published on Web sites and in other forms to increase accountability by giving financing and governance bodies, civil society groups, the media, and citizens greater access to the status and trends in laws that matter to health.

We review the theory and practice of global policy surveillance and identify opportunities and challenges posed by cross-national research. With insights from comparative politics and law, we suggest solutions to

address those challenges and propose widening the practice of global policy surveillance as a core part of the work of global health.

SYSTEMATICALLY MAPPING HEALTH LAWS

We use the term "law" to mean the authoritative rules that governments make, broadly defined. These include formal legislation and regulations, health policies, guidelines, and strategic documents made in ministries and government departments that, although less formal, constitute official rules. Although law must also be understood to manifest itself in implementation practices, the legal beliefs of people and, even as a form of culture, policy surveillance focuses tightly on the textual manifestation of law as official rules.[6]

ABOUT THE AUTHORS

Matthew M. Kavanagh is with the Department of International Health, Georgetown University, Washington, DC. Matthew M. Kavanagh and Mara Pillinger are with the Georgetown University O'Neill Institute for National and Global Health Law, Washington, DC. Benjamin Mason Meier and Hanna Huffstetler are with the Department of Public Policy, University of North Carolina at Chapel Hill. Scott Burris is with the Center for Public Health Law Research, Temple University Beasley School of Law, Philadelphia, PA.

Correspondence should be sent to Matthew M. Kavanagh, PhD, Georgetown University, Department of International Health, 3700 Reservoir Rd NW, Washington, DC 20057-1107 (e-mail: matthew.kavanagh@georgetown.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

The COVID-19 pandemic offers a timely example of the importance of policy surveillance. Governments around the world have rapidly issued emergency rules and enacted new legislation. Although many governments have used similar approaches, there have been important (sometimes substantial) differences in the timing, order, and details of these laws.[7] Tracking national legal responses has already informed policy decisions and promoted public accountability and has provided data for modelers trying to predict the course of the pandemic. In the longer term, data that capture cross-jurisdictional variation in granular temporal and legal detail will be crucial to rigorous assessments of the efficacy, equity, and costs of the response to this unprecedented threat.[8]

Mapping law across jurisdictions and over time has been an evolving part of public health law monitoring and evaluation in the United States and, to some degree, globally.[9,10] Legal mapping is not to be confused with the creation of a library of primary legal documents. The most ambitious example of a global library of health law was the World Health Organization's (WHO's) *International Digest of Health Legislation*, which attempted to require countries to share their important health legislation in a legal information resource.[11] This effort essentially collapsed under the weight of trying to collect and update a library of global health law. Legal mapping projects, on the other hand, have been more effective when they have been more limited in scope and have aimed to measure the chief characteristics of particular pieces of the larger corpus of health law at a particular point in time. For example, the

Campaign for Tobacco-Free Kids has mapped national smoking policies,[12] the WORLD Policy Analysis Center has mapped dozens of important health law provisions,[13] and other organizations have mapped such issues as global health security, tuberculosis, and human rights.[14,15]

Building on these mapping efforts, policy surveillance is the use of scientific research methods to map key characteristics of specific laws in multiple jurisdictions as they change over time. As suggested by the name, policy surveillance draws on the same epistemic rationale as disease surveillance: consistent, ongoing, systematic collection and dissemination of data over time for planning, decision-making, and evaluation. The contribution of science to what in many respects is standard law and policy research lies in the use of transparent and reproducible methods to collect the relevant legal texts, to observe (rather than interpret) the key features of laws, and to convert these textual features into numeric measurements in structured data sets that capture change in legal provisions over time.[16] In the United States, such data have been used to study such things as the efficacy of alcohol policies[17] and the effect of minimum wage increases on infant mortality and birth weight.[18]

To expand these budding efforts and overcome the challenges of cross-national policy surveillance, we must increase the breadth of interdisciplinary methods for policy surveillance in global health. Global policy surveillance is comparative, generating data on the content of law at the national and subnational levels to enable comparison, evaluation, and accountability; it is distinct from studies of international law, in which the legal

instrument itself does not vary but its adoption, implementation, and impact do.[19] Both comparative and international approaches contribute to the study of global health law.[20–22]

CROSS-NATIONAL POLICY SURVEILLANCE CHALLENGES

Employing policy surveillance cross-nationally is a far more complex endeavor, with significantly more challenges than analysis within a country. For all their differences, US states mostly share language and common-law tradition, and they make law and policy texts widely available online. By contrast, comparative researchers at the global level must address variation across countries in the structure and day-to-day operation of legal systems, inaccessibility of legal texts, language differences, practical difficulties in collecting policies, and differences in legal culture.

Common law, civil law, religious law, and other systems exhibit different approaches to how laws and rules are made, categorized, codified, and implemented.[23] The same health law issue might be addressed in different national legal systems through formal legislation, executive decree, formal administrative regulation, or bureaucratic rules. For example, policy on when in the course of disease to start HIV treatment can be compared across countries; in the United States this policy is subject to guidance published by an expert committee convened through the executive branch of government, whereas in Rwanda it is formally approved by order of the full cabinet.[24,25] Indeed, the very understanding of what

policy and law are varies by national context, requiring a definition of "law" that embraces the full range of authoritative rules in a system.[6,26] Countries differ in the type and extent of powers devolved to provincial and local governments, so comparing national law may not capture the full set of legal treatments to which the population is exposed or may fail to capture significant differences in law within a country.

Substantial logistical challenges also arise in the collection and coding of legal texts across countries and languages. Policies and laws are not equally accessible across countries; in some they may not be published online in full, or at all, by the government or legal publishers. In many countries, agencies have the power to make rules but may not be required or motivated to make them available to the public or even other parts of government. Language is a barrier in 2 ways: researchers must be able to understand the words as such, and they must be conversant in the meaning of technical legal vocabulary and colloquial use employed in a particular country. Official translations can address the first barrier and to a lesser degree the second, but official translations are often unavailable even for statutes and are rarely produced for regulations and other subsidiary rules. These logistical challenges raise particular concern for valid cross-national comparisons because some countries may have consistently missing information—particularly low- and middle-income countries and countries that do business outside dominant languages. Missing data from countries can have a substantial effect, skewing research about the effect of laws on health.[27]

These challenges of finding and analyzing the law are embedded in an equally serious cultural challenge. Societies may differ on what they regard as a legal matter, and even on what law is. These kinds of differences are important for figuring out the scope of any policy surveillance project, including what kinds of texts will be included. In many countries, expanding policy surveillance in global health law will challenge researchers to consider whether and how unwritten rules that are more common in some contexts might be captured and included in a rigorous and valid manner.

COMPARATIVE METHODS FOR POLICY SURVEILLANCE

These challenges must be addressed if cross-national policy surveillance data are to be integrated into empirical work and support causal claims about the drivers and effects of laws and policies. Looking beyond health law to comparative law and comparative politics can help. Comparativists have long developed methods for gathering and analyzing data on complex and intersecting variables across national legal and political institutions, addressing many of the challenges to global policy surveillance.[28] Political scientists have studied how democracy, electoral rules, federalism, and constitutional protections have influenced health outcomes, along the way collecting, categorizing, and coding countries' laws, policies, and institutions.[29–31]

Policy surveillance begins with gathering the contents of law—ideally by observing the actual text—and then coding its substantive characteristics for comparison. Texts of policy documents for comparative work are gradually becoming more available, including in some lower resource countries, in collections such as the US Library of Congress (https://bit.ly/3jw8353), GlobaLex (https://bit.ly/34m7C7m), and the World Legal Information Institute (https://bit.ly/2GCjWYV). Several international organizations have developed databases on specific domains of global health law, such as WHO's abortion law database, the World Organisation for Animal Health's Animal Health Reports, and the International Red Cross and Red Crescent Movement's disaster law collection. If policy surveillance researchers publish the legal texts they collect, the practice itself can become an important public access source.

Comparative researchers have developed strategies in data collection for addressing both linguistic and cross-cultural challenges, including the use of translators and collaboration with knowledgeable local experts. Some comparative social scientists have used extensive networks of researchers based in countries or regions of interest to help collect, translate, and code primary sources—either building networks from scratch or hiring firms such as the Economist Intelligence Unit with large networks at their disposal.[32] This work shows that it is possible to meet, rather than ignore, the need for local knowledge. Doing this well requires training larger, more diverse research teams and investing time to address challenges of reliability that may arise when multiple researchers are involved. It is a proper challenge for global health law and legal epidemiology to build such networks in the years to come.

In some global health contexts—particularly in low-income countries, which tend to have lower levels of state capacity—it may not be feasible to directly gather or code original texts. Because the goal of policy surveillance is to code the content of law in meaningful detail, not just the presence or absence of a law,[26] researchers will often have to go beyond formal legislation to more arcane and hard to find sources of law, such as guidelines, strategies, and parliamentary budget speeches.

It may prove challenging to gain confidence that the researcher has collected the full range of policy documents needed to understand the authoritative law in place. It may also be the case that the work requires review of legal texts from places whose legal system is not well known to the researcher and where lack of contextual and local knowledge can lead to errors in coding. These errors may be of more than one kind: general language and translation, special legal meanings and terms of art, or cultural or legal cultural misunderstandings. In such situations, major risks to validity leave policy surveillance researchers with 2 options: construct data sets with missing data that are biased toward high-income contexts or use alternative methods. It is important to focus on the content of law rather than on implementation or common practice; we can nonetheless use methods deployed in comparative social science to enrich policy surveillance data with information on this content.

One promising option is to use expert surveys in which well-informed judgments from multiple sources for a given country can help provide missing information. Although some US researchers have found this approach to be less reliable than firsthand legal research,[33] it may prove indispensable in settings where law cannot be collected. Particularly where local knowledge may be more valid than incomplete primary source documents or documents coded incorrectly, well-crafted surveys of experts, including local attorneys and policy professionals, have been shown to provide valid, consistent cross-national data on law and policy issues.[34] Even where text is available, such surveys might serve to validate coding results.

APPLICATION OF GLOBAL POLICY SURVEILLANCE

The data assembled through policy surveillance can be brought to bear on a wide range of questions at the core of global health. It enables 2 broad categories of empirical research (as shown in Figure 1) on the determinants and processes of health policy choice (political studies) and evaluation studies on the consequence of policies on health outcomes (legal epidemiology). Policy surveillance provides data on the content of policy, which can serve as either the dependent or independent variable in global health law research. Applied in practice, policy surveillance also enables accountability and advocacy for policy reforms that promote health—both by supporting analysis to inform effective diffusion strategies and policy choices and by making policy choices transparent for governments, funders, activists, and the media to consider.

Political Studies

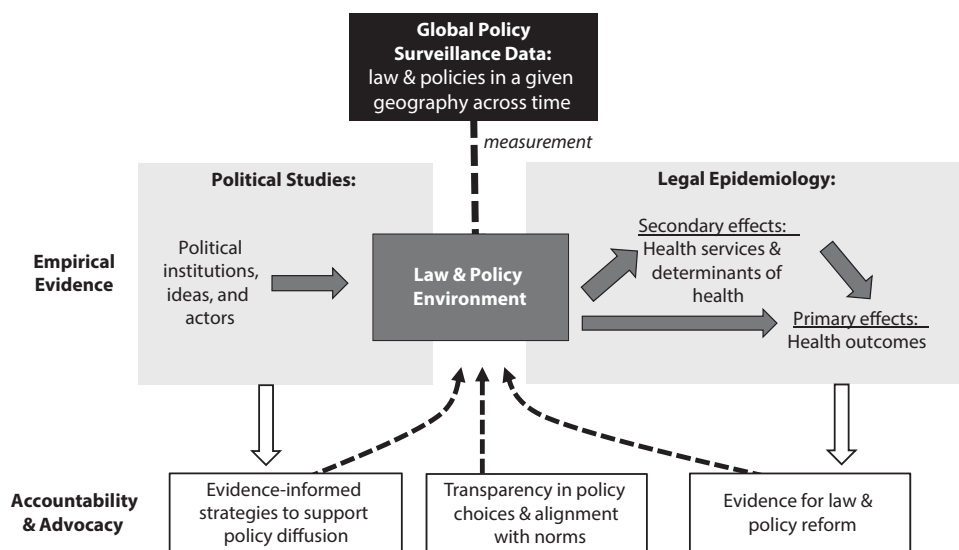With cross-national variation in policies empirically

FIGURE 1—Policy Surveillance in the Health Policy Cycle

established, it is possible to better understand which factors might influence a country to adopt specific health-related policies. This has long been a line of inquiry in comparative politics and international relations on issues not related to health, with common recognition that national institutions, ideas, and actors produce different policies and policy environments. Countries with many veto points, or checks on government power, are less likely to produce innovative climate polices.[35] International factors can be decisive; findings show that human rights policies are influenced by neighboring countries' behaviors.[36] Ideas matter; for example, Keynesian economic theories had profound effects on policy choices in the 1980s and beyond.[37] Such factors shift how quickly policy change happens and the dynamics by which it diffuses across borders. Policy surveillance provides the outcome data needed to understand the drivers of policy adoption and how political institutions

can support or hinder the translation of public health science and knowledge into policies to improve population health.

Although such analysis has not yet been widely employed in global health, some work has been done. Lieberman, for example, examines how differences in "ethnic boundary institutions"—politically constructed, salient racial and ethnic lines—contribute to differential policy choices on HIV/AIDS,[38] and Kavanagh et al. show that WHO-recommended policies on HIV treatment are adopted more rapidly in countries where power is diffuse.[24] These understandings can be valuable in identifying different political strategies for supporting policy reform, suggesting, for example, that international institutions such as the Joint United Nations Programme on HIV and AIDS and WHO might focus strategies tailored to the national political environment rather than generalized dissemination of scientific evidence. Additional research

remains limited, however, because it depends on data sets not systematically produced for most global health issues. A wide variety of laws and policies, such as tobacco regulation and the adoption of essential medicines in clinical guidelines, could offer important areas for insight about the political dynamics that promote the development of health law and policy.

Legal Epidemiology Evaluation Research

Successfully using law as a tool to advance public health requires evidence on the health impact of particular laws and policies. Through legal epidemiology—studying law as a factor that explains the distribution of disease and injury in a population—researchers can evaluate which policies are associated with better health outcomes.[4,6] Drawing from the standards of evaluation for other forms of public health intervention, legal epidemiology thus provides an empirical basis for the development,

adoption, and enforcement of laws shown to promote public health. Policy surveillance provides the independent variables for analysis vis-à-vis the health outcomes of interest, such as disease prevalence and health system characteristics. In a comparative context, this also requires controlling for the wide variety of country characteristics (besides policies) that might drive health differences.

Many of the background variables that make policies hard to compare across countries have been measured. Wealth, ethnic divisions, relative democracy, government structure, state capacity, religion, and many other variables each have several available measures with wide international coverage, making rich statistical modeling possible. In this way, global policy surveillance can support a robust line of comparative research using quantitative data to evaluate the causal effects of laws on population health. Comparative politics also has a long history of valid causal inference about the impact of laws and institutions— calling for strong theorizing, observing causal processes, and testing multiple parts of theoretical relationships to avoid confusing correlation with causation.[28–30,39] Nesting in-depth qualitative studies of policy processes inside large-N studies has also been shown to be valuable in allowing causal attribution.[40]

A growing body of scholarship draws on a data set narrowly focused on specific facets of health law across multiple countries to try to understand its health consequences. For example, Reeves et al. show that countries where some aspects of sex work are legal have significantly lower HIV prevalence among sex workers than countries where all sex work is

criminalized, even when controlling for levels of economic development and injection drug use.[41] Such work often uses cross-sectional legal information from a single point in time, which limits analytic power.

Policy surveillance looks to show not just differences between countries but also variation over time within countries. Several studies have illustrated the potential for this. Stannah et al. use individual-level data to show a relationship between the severity of anti–lesbian, gay, bisexual, and transgender legislation between 2004 and 2016 and both HIV testing and status awareness among gay men and other men who have sex with men in 28 African countries.[42] Kavanagh shows that constitutional protection of the right to health between 1970 and 2010 is linked to improved health services performance, including higher vaccination rates and lower rates of mortality among those younger than 5 years, controlling for the most common economic and social factors that explain cross-national differences in health.[30]

Chai et al., using data from the WORLD Policy Analysis Center in a difference-in-differences approach, compared changes in childhood diarrhea between 1995 and 2013 among a set of low- and middle-income countries, some of which lengthened their paid maternity leave policy.[43] They found a significantly greater reduction in childhood diarrhea in countries with lengthened maternity leave. Stuckler et al.[44] and Ponce et al.[45] focused on economic policies—using levels of spending enshrined in law rather than binary or categorical legal coding —to show an effect of unemployment laws on suicide and of minimum wage laws on child

undernutrition, respectively. Comparative work on many more issues of health policy are possible given the vast amount of data available both on global health and for control variables in cross-national analysis, but limited policy surveillance data constrain what is possible.

Accountability and Advocacy

Political analysis from policy surveillance data can support international actors such as the WHO and the International AIDS Society to support pro-health policy reforms that address the barriers to the adoption of laws and policies that improve public health. Legal epidemiology can provide evidence to policymakers about what works and generate an evidence base that can be used to outline best practices and guidelines. Showing that the criminalization of sex work drives HIV infection rates might not change the debate for those morally opposed to sex work, but it might for those concerned about public health. Showing that travel bans do not prevent the spread of disease might not change the debate for nationalist governments, but it might for those concerned about global solidarity amid pandemic threats.

Even without this further analysis, however, publicly accessible global policy surveillance can ensure the transparency of laws and policies adopted by a country and how they compare with those of their neighbors or with international norms. These data can facilitate advocacy for the adoption of beneficial policies. Work in this area could also measure compliance with international norms. For example, data from the HIV Policy Lab, an academic–United Nations

collaboration, recently showed that more than a third of national HIV treatment policies do not match WHO standards and still require people living with HIV to go to a clinic every month to pick up drugs—a serious problem during the COVID-19 pandemic.[46] Similar analyses can make comparisons with human rights, health and safety, and other global norms.

CONCLUSIONS

Policy surveillance in global health law remains challenging, and it is not surprising that few scholars have conducted quality global policy surveillance until recently; however, more information on health laws and policies is available today than ever before. The COVID-19 pandemic has highlighted the imperative of understanding how different legal approaches are being deployed throughout the world to respond to a common public health threat. Differences in the content, timing, and deployment of lockdown orders, social protection policies, criminal laws, and other legal responses to the pandemic have contributed to differences in public health outcomes. There is much work to be done to understand which responses are proving the most effective, how timing affects the consequences of laws, and how different aspects of law interact with each other.

Disentangling these questions requires robust quantitative and qualitative information to capture details of policy variation as it unfolds at a time scale measured by the day. No less important are temporarily lower profile issues in global health law; including the regulation of food and beverages in the context of obesity, the enactment or abolition of user fees

for health care access, changes in legal access to abortion care, legalization of sex work, and many more legal interventions can have as much effect on population health as other types of global health intervention and should be the subject of surveillance.

It is now possible to better understand what drives policy choice, to better evaluate the impact of policy choices on public health, and to explore how to realize global health with justice. Ensuring this improved understanding of global health law will necessitate harmonized methodologies to ensure comparable results. These policy surveillance methods will require an interdisciplinary approach that brings together lawyers, political scientists, health professionals, and others to track, evaluate, and ultimately improve the policy environment for public health. AJPH

REFERENCES
1. Gostin LO, Monahan JT, Kaldor J, et al. The legal determinants of health: harnessing the power of law for global health and sustainable development. *Lancet.* 2019;393(10183):1857–1910. https://doi.org/10.1016/S0140-6736(19)30233-8

2. Burris S, Anderson E. Legal regulation of health-related behavior: a half century of public health law research. *Annu Rev Law Soc Sci.* 2013;9:95–117. https://doi.org/10.1146/annurev-lawsocsci-102612-134011

3. Wagenaar AC, Komro KA. Natural experiments: research design elements for optimal causal inference without randomization. In: Wagenaar AC, Burris S, eds. *Public Health Law Research: Theory and Methods.* Hoboken, NJ: Wiley; 2013: 307–324.

4. Burris S, Hitchcock L, Ibrahim J, Penn M, Ramanathan T. Policy surveillance: a vital public health practice comes of age. *J Health Polit Policy Law*. 2016;41(6):1151–1173. https://doi.org/10.1215/03616878-3665931

5. James SL, Abate D, Abate KH, et al. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018;392(10159):1789–1858. https://doi.org/10.1016/S0140-6736(18)32279-7

6. Burris S, Wagenaar AC, Swanson J, Ibrahim JK, Wood J, Mello MM. Making the case for laws that improve health: a framework for public health law research. *Milbank Q*. 2010;88(2):169–210. https://doi.org/10.1111/j.1468-0009.2010.00595.x

7. United Nations Development Programme; Joint United Nations Programme on HIV and AIDS; World Health Organization; O'Neill Institute; Georgetown University. COVID-19 Law Lab. Available at: https://covidlawlab.org. Accessed July 13, 2020.

8. Hale T, Petherick A, Phillips T, Webster S. Variation in government responses to COVID-19. 2020. Available at: https://www.bsg.ox.ac.uk/sites/default/files/2020-04/BSG-WP-2020-031-v4.0_0.pdf. Accessed April 22, 2020.

9. Gostin LO, Lazzarini Z, Neslund VS, Osterholm MT. The public health information infrastructure: a national review of the law on health information privacy. *JAMA*. 1996;275(24):1921–1927. https://doi.org/10.1001/jama.1996.03530480063042

10. World Health Organization. Global status report on road safety 2018. 2018. Available at: https://www.who.int/violence_injury_prevention/road_safety_status/2018/en. Accessed September 7, 2020.

11. Curran WJ, Clark ME, Gostin L. AIDS: legal and policy implications of the application of traditional disease control measures. *Law Med Health Care*. 1987;15(1–2):27–35. doi: https://doi.org/10.1111/j.1748-720x.1987.tb01005.x

12. Campaign for Tobacco-Free Kids. Tobacco control laws. Available at: https://www.tobaccocontrollaws.org. Accessed August 26, 2019.

13. WORLD Policy Analysis Center. 2020. Available at: https://www.worldpolicycenter.org. Accessed April 22, 2020.

14. Meier BM, Tureski K, Bockh E, et al. Examining national public health law to realize the global health security agenda. *Med Law Rev*. 2017;25(2):240–269. https://doi.org/10.1093/medlaw/fwx020

15. Kavanagh MM, Gostin LO, Stephens JD. Tuberculosis and law reform: human rights and insufficient progress in the TB Response. *PLoS Med*. In press.

16. Anderson ED, Tremper C, Thomas S, Wagenaar AC. Measuring statutory law and regulations for empirical research. In: Burris S, Wagenaar AC, eds. *Public Health Law Research: Theory and Methods*. Hoboken, NJ: Wiley; 2013:237–260.

17. Hilton M. APIS: the NIAAA alcohol policy information system. *Alcohol Res*. 2014;35(2):184–185.

18. Komro KA, Livingston MD, Markowitz S, Wagenaar AC. The effect of an increased minimum wage on infant mortality and birth weight. *Am J Public Health*. 2016;106(8):1514–1516. https://doi.org/10.2105/AJPH.2016.303268

19. Hoffman SJ, Poirier MJ, Van Katwyk SR, Baral P, Sritharan L. Impact of the WHO framework convention on tobacco control on global cigarette consumption: quasi-experimental evaluations using interrupted time series analysis and in-sample forecast event modelling. *BMJ*. 2019;365:l2287. https://doi.org/10.1136/bmj.l2287

20. Gostin LO. *Global Health Law*. Cambridge, MA: Harvard University Press; 2014. https://doi.org/10.4159/9780674369870

21. Gostin LO, Meier BM. Introducing global health law. *J Law Med Ethics*. 2019;47(4):788–793. https://doi.org/10.1177/1073110519897794

22. Hawkes S, Buse K. Socially constructed determinants of health: the case for synergies to arrive at gendered global health law. *Public Health Ethics*. 2020;13(1):16–28. https://doi.org/10.1093/phe/phaa013

23. Merryman JH. On the convergence (and divergence) of the civil law and the common law. *Stanford J Int Law*. 1981;17:357–369.

24. Kavanagh MM, Gupta S, Parish K. A political economy of HIV treatment policy: drivers of health policy diffusion. Paper presented at: 22nd International AIDS Conference; July 23–27; Amsterdam, The Netherlands.

25. Panel on Antiretroviral Guidelines for Adults and Adolescents. *Use of Antiretroviral Agents in Adults and Adolescents with HIV*. 2020. Available at: https://files.aidsinfo.nih.gov/contentfiles/lvguidelines/AdultandAdolescentGL.pdf. Accessed September 7, 2020.

26. Burris S. Theory and methods in comparative drug and alcohol policy research: response to a review of the literature. *Int J Drug Policy*. 2017;41:126–131. https://doi.org/10.1016/j.drugpo.2016.11.011

27. Ross M. Is democracy good for the poor? *Am J Pol Sci*. 2006;50(4):860–874. https://doi.org/10.1111/j.1540-5907.2006.00220.x

28. Lijphart A. Comparative politics and the comparative method. *Am Polit Sci Rev*.1971;65(3):682–693. https://doi.org/10.2307/1955513

29. Gerring J, Thacker SC, Alfaro R. Democracy and human development. *J Polit*. 2012;74(1):1–17. https://doi.org/10.1017/S0022381611001113

30. Kavanagh MM. The right to health: institutional effects of constitutional provisions on health outcomes. *Stud Comp Int Dev*. 2016;51(3):328–364. https://doi.org/10.1007/s12116-015-9189-z

31. Greer SL, Elliott H. *Federalism and Social Policy: Patterns of Redistribution in 11 Democracies*. Ann Arbor, MI: University of Michigan Press; 2019. https://doi.org/10.3998/mpub.9993201

32. Coppedge M, Gerring J, Lindberg SI, Teorell J. Varieties of democracy methodology. Available at: https://www.v-dem.net. Accessed August 25, 2019.

33. Lafond C, Toomey TL, Rothstein C, Manning W, Wagenaar AC. Policy evaluation research: measuring the independent variables. *Eval Rev*. 2000;24(1):92–101. https://doi.org/10.1177/0193841X0002400104

34. Maestas C. Expert surveys as a measurement tool: challenges and new frontiers. In: Atkaeson LR, Alvarez RM, eds. *The Oxford Handbook of Polling and Survey Methods*. Cambridge, UK: Cambridge University Press; 2018:583–607. https://doi.org/10.1093/oxfordhb/9780190213299.013.13

35. Stadelmann-Steffen I. Citizens as veto players: climate change policy and the constraints of direct democracy. *Env Polit*. 2011;20(4):485–507. https://doi.org/10.1080/09644016.2011.589577

36. Simmons BA. *Mobilizing for Human Rights: International Law in Domestic Politics*. Cambridge, UK: Cambridge University Press; 2009. https://doi.org/10.1017/CBO9780511811340

37. Hall PA. *The Political Power of Economic Ideas: Keynesianism Across Nations*. Princeton, NJ: Princeton University Press; 1989. https://doi.org/10.2307/2233687

38. Lieberman ES. *Boundaries of Contagion: How Ethnic Politics Have Shaped Government Responses to AIDS*. Princeton, NJ: Princeton University Press; 2009. https://doi.org/10.1515/9781400830459

39. Brady HE, Collier D. *Rethinking Social Inquiry: Diverse Tools, Shared Standards*. Lanham, MD: Rowman & Littlefield; 2010.

40. Lieberman ES. Nested analysis as a mixed-method strategy for comparative research. *Am Polit Sci Rev*. 2005;99(3):435–452. https://doi.org/10.1017/S0003055405051762

41. Reeves A, Steele S, Stuckler D, McKee M, Amato-Gauci A, Semenza JC. National sex work policy and HIV prevalence among sex workers: an ecological regression analysis of 27 European countries. *Lancet HIV*. 2017;4(3):e134–e140. https://doi.org/10.1016/S2352-3018(16)30217-X

42. Stannah J, Dale E, Elmes J, et al. HIV testing and engagement with the HIV treatment cascade among men who have sex with men in Africa: a systematic review and meta-analysis. *Lancet HIV*. 2019;6(11):e769–e787. https://doi.org/10.1016/S2352-3018(19)30239-5

43. Chai Y, Nandi A, Heymann J. Does extending the duration of legislated paid maternity leave improve breastfeeding practices? Evidence from 38 low-income and middle-income countries. *BMJ Glob Health*. 2018;3(5):e001032. https://doi.org/10.1136/bmjgh-2018-001032

44. Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *Lancet*. 2009;374(9686):315–323. https://doi.org/10.1016/S0140-6736(09)61124-7

45. Ponce N, Shimkhada R, Raub A, et al. The association of minimum wage change on child nutritional status in LMICs: a quasi-experimental multi-country study. *Glob Public Health*. 2018;13(9):1307–1321. https://doi.org/10.1080/17441692.2017.1359327

46. Kavanagh MM, Graeden E, Pillinger M, et al. Understanding and comparing HIV-related law and policy environments: cross-national data and accountability for the global AIDS response. *BMJ Glob Health*. 2020;5(9):e003695. https://doi.org/10.1136/bmjgh-2020-003695