Yes, You Need a Lawyer: Integrating Legal Epidemiology Into Health Research

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Laws can act as both barriers to and facilitators of public health interventions, and the legal environment is a structural determinant of many health behaviors and activities.¹ It is therefore appropriate and sometimes necessary to include legal measures in health outcomes analyses. Although researchers have long studied the ways in which the legal environment affects health outcomes,² many fail not only to incorporate best practices in conducting scientific legal research but also to consult with an attorney at all. Failing to consult with an attorney has led to the publication of and reliance on scientific studies that are sometimes incomplete, inaccurate, or misleading. Including attorneys on projects that study the effect of law can improve the quality of that research, thereby improving lives and better targeting scarce public resources.

Best Practices in Public Health Law Research

During the past 10 years, legal epidemiology has emerged as a means of formalizing the assessment of law and its effects on health.³ This field seeks both advancements in methodology and the incorporation of sound legal methods into health research.⁴ It professionalizes and standardizes the measurement of legal data, with the goal of improving the quality, robustness, and reach of that research.

Legal epidemiology provides the means by which studies assessing or evaluating the effects of law on health and otherwise using laws in research can be collected using methods that are systematic, reproducible, and conducted by transdisciplinary research teams. It holds that legal data should be collected and used in the same rigorous manner as other data used in research, by people who are experts in both the substantive area of research and the laws and policies that may affect it. We believe studying legal data necessitates the inclusion of trained attorneys on the research team.

Public health law researchers and scholars established the need⁴ and the methods for conducting cross-jurisdictional

assessments of statutes, regulations, and other legal and policy measures that may affect public health.⁵ Researching public health laws involves several elements. At the outset, the research question must be well-defined and appropriate for the outcome(s) of interest. Where the dependent variable is a law or regulation, attorneys can be invaluable in formulating the research question. Nuances in statutes and regulations are not often clear to non-attorneys, and attorneys can sometimes spot potential research questions that are not obvious to non-attorneys. Attorneys can also assist subject matter experts in finding non-obvious legal mechanisms that might affect the outcome of interest, such as attorney general memoranda or agency policies. Likewise, subject matter experts are invaluable in ensuring that the appropriate outcomes are measured and the appropriate outcomes data are used.

Once the research question is defined, it is important that the data necessary to answer the question be gathered in a way that is valid and reproducible.⁶ Creating reproducible data includes outlining definitions, inclusion and exclusion criteria, search strings, search dates, and the databases that will be used.⁷ All these decisions should be recorded, including citations and search strings that may be too lengthy for the published article. This information can be published in an online supplement or other repository.

Unfortunately, using these research methodologies is not the norm. A 2015 study of 168 publicly available state law assessments found that most were of “uncertain provenance and reliability.”⁸ The study found that these assessments

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were not consistently updated and failed to provide the text of the relevant laws,⁸ which is a problem for several reasons. First, it is unlawful. Attorneys take definitions of terms and the importance of asking the right questions seriously in client intake, litigation, document drafting, and every other area of “traditional” legal practice. These norms should be translated into public health legal research as well. Second, as attorneys seek to be taken seriously as scholars, they need to ensure that nonlegal scholars view legal research as both including and deserving of the same rigor as nonlegal data, which necessarily includes bringing that rigor to academic legal research.

[Mis]Use of Law in Public Health Research

Peer-reviewed research regularly relies on legal data that have been collected without using best practices in legal epidemiology. Much of this research is opaque and provides little to no information on the methods used in its collection, which makes it difficult if not impossible for the researcher to understand what exactly is being measured.

Research from the National Conference of State Legislatures (NCSL) provides an instructive example. NCSL is a nonprofit organization that supports state legislators and their staff members in policymaking and communications.⁹ It provides support, in part, by tracking legislation and creating databases on topics such as vaccination laws,¹⁰ cannabis,¹¹ and prescription drugs,¹² among numerous others. The resulting databases have been relied on for various studies.¹³ NCSL summaries are generally focused on legislation introduction and enactment¹⁴ but sometimes include references to state regulatory action that may affect health outcomes.¹⁴

Although this information is undoubtedly valuable, it is generally inappropriate for use in research. NCSL does not provide information on the search methods it uses, the source of the laws gathered, or the decisions made in including or excluding laws.¹⁵ It also fails to include the dates that searches were conducted, listing instead the date the information was last updated, making it impossible to use these data in longitudinal analyses.¹⁵

A 2018 working paper outlined how such questions are important. In that paper, trained legal researchers compared 2 publicly available state law data sets of prescription drug monitoring program characteristics.¹⁶ They found large differences between these data sets and between the data sets and their own independently created database of relevant laws. They also demonstrated that these differences were sufficient to change outcomes—sometimes by an order of magnitude.

As that article demonstrates, even legal questions that seem common sense, such as the date a law became effective, can be complicated. In addition, different groups can come to different answers to those questions, and those answers can substantially change the results of research. Finally, if researchers fail to explain their methods in detail,

it is impossible not only to replicate their work but to determine what exactly they are measuring.

Yes, You Need a Lawyer

Lawyers—and the legal competencies they bring—are vitally important to scientific research on the implementation and effects of law. In our view, lawyers are necessary for providing expertise on the characterization of law, defining the scope and variables of a law-related study, and understanding the implementation of law.

First, law is nuanced and complicated in ways that are not always clear. Lawyers are trained to recognize those nuances and deal with them appropriately. Even the same term may mean different things in one state than in another, and even in different laws from the same state. Lawyers can often spot these complexities in ways that non-lawyers cannot. Lawyers also have an understanding of the doctrines that govern the interpretation of statutory language and understand how to make these determinations in the face of uncertainty.¹⁷ For example, that a law or regulation is silent on a particular issue can be both important and misinterpreted.

Second, lawyers by training and practice are able to understand what elements of law are important and why; as such, they are indispensable for defining the scope of research and selecting variables to observe. A researcher who understands how to generate results in the database being used, understands the legal importance of nuances in the law, and is able to articulate the legal and practical importance of these differences can then translate this information into variables for study.

Third, researchers are increasingly interested in the effects of changes in law over time. Studying these effects requires the building of longitudinal legal data sets, which necessitates the use of legal databases such as LexisNexis and WestlawNext and training on the collection of laws that are no longer in effect. In the context of regulations, studying the effects of changes in law over time can be particularly challenging. Lawyers have the skills to conduct this kind of research.

Finally, lawyers by training and practice have insights into the relationship between law and its implementation and enforcement. This insight is helpful for designing evaluations and avoiding mistakes.¹⁶ Misinterpretations and omissions of relevant laws are not harmless errors. They can produce faulty data, which may be directly relied on by the public, government, and industry, and may lead to the drawing of incorrect conclusions that may waste resources and, in some cases, be harmful to public health.

Many public health attorneys are trained and experienced in conducting public health research as part of interdisciplinary teams. Several organizations, including the Network for Public Health Law, the Public Health Law Program at the Centers for Disease Control and Prevention, and the Center for Public Health Law Research at Temple University, may be able to assist researchers in finding the appropriate lawyer with both

legal research training and subject matter expertise to add value to the research being planned or conducted. In addition, many health law faculty members, through education and training, have expertise in both legal research and public health that make them natural partners for public health studies.

Conclusion

When public health researchers conduct a study that requires substantial statistical analysis, it is understood that a statistician or other person with extensive training and experience is needed on the research team. This understanding is true not only because that person is necessary to conduct the analyses but also because their expertise is needed in such roles as determining whether the data set is sufficient to answer the research question and selecting the type of analysis appropriate to answer it.

Likewise, every team working with legal data would benefit from having a lawyer trained in the systematic collection of laws.³ If something is worth doing, it is worth doing right. Doing legal epidemiology studies right means having people who know what they are doing, thinking seriously about what they are trying to accomplish alongside other partners. Including lawyers on interdisciplinary research teams is a small but necessary step toward making advancements in the quality of public health law research.

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