Legal Epidemiology in Practice: The Example of Healthcare-Associated Infections

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Introduction

Healthcare-associated infections (HAIs) occur during the course of healthcare delivery, affecting 1 in 20 patients in U.S. hospitals. Widespread recognition that HAIs are preventable has led states to exercise legal authorities in the last decade to stop HAIs from occurring. These "state HAI laws" create prevention programs, incentivize public and private engagement in prevention activities, and allow public health entities to collect and analyze HAI data from healthcare facilities. The Centers for Disease Control and Prevention (CDC) and its partners in the field have studied state HAI laws and their impacts on state health departments, healthcare facilities and providers, and the public since 2010. CDC's research on state HAI laws serves as an example of legal epidemiology in practice.

Legal epidemiology is the study of law as a factor in the cause, distribution, and prevention of disease and injury..

Project Description

Objective: to study the impacts of law on HAI prevention activities among state health departments, healthcare facilities and providers, and the public.

In an effort to support the creation of reliable data within CDC and among its partners, CDC's Public Health Law Program (PHLP) has helped to develop a framework for legal epidemiology and translate best practices into public health policy analysis, practice, and development. PHLP actively promotes the use of the legal epidemiology framework, competencies, and methodologies when planning and conducting research on laws and policies. PHLP, in partnership with CDC's Division for Healthcare Quality Promotion (DHQP), the Association for State and Territorial Health Officials (ASTHO), and the Keystone Center, uses the following types of legal epidemiology studies to investigate state HAI laws and their effects.

- *Legal Assessment*: the cross-sectional, scientific collection and analysis of codified legal provisions across jurisdictions.
- *Policy Surveillance:* the ongoing, systematic collection, analysis, interpretation, and dissemination of information about a body of public health law and policy.
- *Qualitative Evaluation:* the investigation of the relationship between legal data and governmental functions, health outcomes, or cost outcomes through qualitative interviews.

Legal Epidemiology Studies on State HAI Laws

HAI Legal Assessment:
PHLP analyzes variations in state HAI laws across statutes and regulations and compares their attributes, such requirements for facility reporting, HAI data collection and analysis, and health department program functions. This research uses Westlaw to search for legal provisions across states using terms such as health, facility, and infection.

HAI Policy Surveillance:
PHLP tracks the adoption, amendment, and expiration of legal provisions related to HAIs over the course of 5 years. This research primarily uses CQ StateTrack to follow statutory and regulatory changes across states using terms such as health, facility, and infection.

Qualitative Evaluation of HAI Policies:
CDC, ASTHO, and the Keystone Center, along with Public Health Law Research, funded researchers at the Columbia University School of Nursing to examine the impacts of state HAI laws on health department functions and prevention activities. The study was conducted through qualitative interviews with health department personnel in states on the effects of legal authorities, responsibilities, and consequences on HAI prevention activities.

These legal epidemiology studies highlight unique attributes of state HAI laws that allow further study of their effects.

Selected Attributes of State HAI Laws:

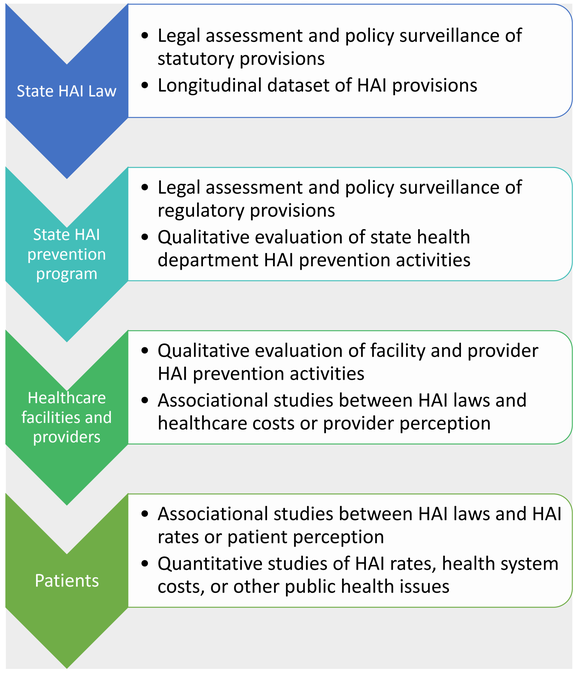
Authorities
- Establishment of an HAI program
- Health department ability to promulgate regulations or enforce provisions
- Authority to issue public reports on infections by facility

Responsibilities
- Reporting of infections (HAIs, drug resistant organisms, or other)
- Data quality, including validation and auditing
- Regulation of facilities related to data reporting and sharing

Consequences
- Enforcement of civil monetary or licensure penalties
- Patient or provider protections, including confidentiality
- Financial or legal protections, such as immunity from lawsuit

The use of legal epidemiology to study HAI laws and their effects allows research to connect data in a unique way.

Connecting HAI Legal Epidemiology Studies



As shown above, linking the attributes of state statutes and regulations to qualitative evaluation data provides information about the functioning and impact of HAI prevention programs. For example, attributes studied in a legal assessment of the state statute or administrative regulations related to HAI prevention can be compared with qualitative evaluation findings of behavioral or organizational outcomes, such as interest from stakeholders or focus by facility leadership. Finally, these findings can be linked to further downstream effects, including HAI rates. Legal epidemiology therefore shows how a law can create an intervention, such as an HAI prevention program, and thereby reduce the burden of disease in a patient population. In this way, legal epidemiology creates a holistic picture of the effect of law on public health.

Findings and Discussion

HAI prevention activities in states are supported by state laws, including those that: confer authorities to establish an HAI program; set up reporting pathways for information to reach stakeholders, including facilities, providers, and the public; and provide incentives and disincentives for compliance, such as civil penalties, protection of patient or provider information, and legal protections from litigation. State HAI laws can be linked to downstream effects on public health program outcomes, including prevention activities, collaborations across sectors or levels of government, and ability to gather information. Laws also incentivize certain behavioral or organizational outcomes or create discrete effects on costs to patients, facilities, and the healthcare system overall.

Next Steps for Legal Epidemiology Studies on HAIs
Some of the studies that could further connect the legal epidemiology studies on HAIs to show the link between law and health include:

- *Longitudinal Datasets:* the scientific study of legal provisions important to health over time. Specifically, variations in state HAI laws can be tracked across statutes and regulations historically, in order to determine what legal provisions changed over time in states.
- *Associational Studies:* the scientific study of the relationship between legal data and public health data. For this research, reported data on HAI rates by state can be associated with changes to state HAI laws prospectively or retrospectively.

Contact Information

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