

# EXPLORING POLICY SURVEILLANCE

## *Part 1: Policy Surveillance Methods and Standards*

January 15, 2019, 1:00-2:30 p.m. ET

Presented by

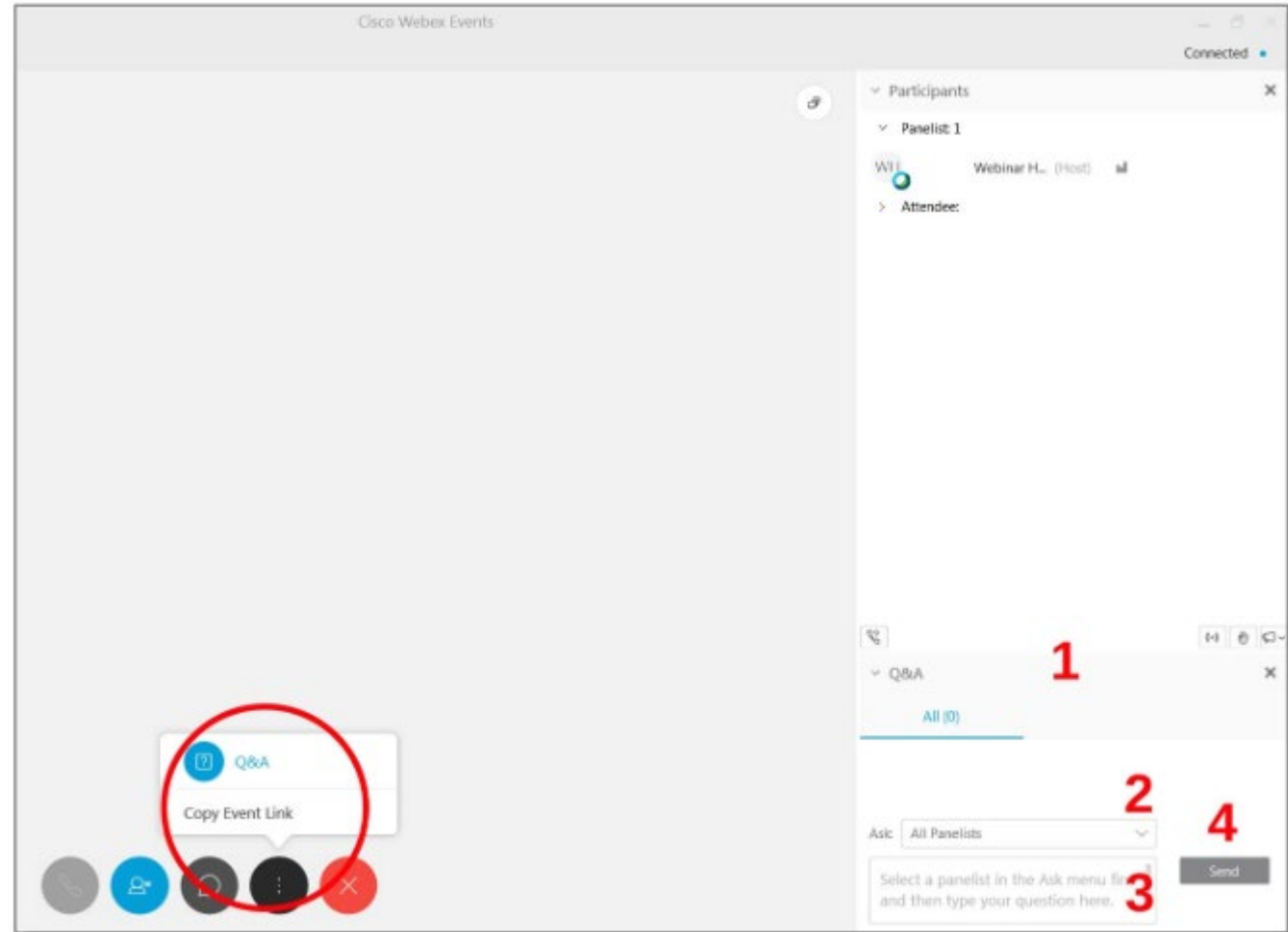
THE **POLICY**  
**SURVEILLANCE**  
**PROGRAM**

A LawAtlas Project



# How to use WebEx Q&A

1. Open the Q&A panel by clicking the “...” button on the bottom of the screen and selecting “Q&A”
2. Select “All Panelists”
3. Type your question
4. Click “Send”



# Moderator



**Scott Burris, JD**

*Director, Center for Public Health Law Research*

*Professor, Temple University Beasley School of Law*

# Presenters



Lindsay Cloud, JD  
*Director, Policy Surveillance Program at the  
Center for Public Health Law Research at Temple  
University*

# Presenters



**Lara Cartwright-Smith, JD, MPH**  
*Associate Professor, Department of Health Policy and Management, George Washington University*



**Jane Thorpe, JD**  
*Associate Professor, Director of the Healthcare Corporate Compliance Program, George Washington University*

# Presenters



Heidi Grunwald, PhD

*Co-Director, Center for Public Health Law Research  
at Temple University*

*Director, Institute for Survey Research at Temple  
University*

# You Should Know...

I am a founder and board member of Legal Science LLC, a private company that provides MonQcle<sup>sm</sup> software for collection and coding of legal data for policy surveillance.

# Law Is Essential to Public Health, but...

- How do we know the impact of law?
- How do we ensure the widespread adoption of laws that support health?
- How do we engage public health systems in public health law evaluation, implementation and diffusion?

---

THE  
MILBANK QUARTERLY  
A MULTIDISCIPLINARY JOURNAL OF POPULATION HEALTH AND HEALTH POLICY

Making the Case for Laws That Improve Health: A Framework for Public Health Law Research

SCOTT BURRIS, ALEXANDER C. WAGENAAR, JEFFREY SWANSON, JENNIFER K. IBRAHIM, JENNIFER WOOD, and MICHELLE M. MELLO

*Temple University; University of Florida; Duke University; Harvard University*



# But big challenges to effectively using law in public health...

- How do we know the impact of law?
- How do we ensure the widespread adoption of laws that support health?
- How do we engage public health systems in public health law evaluation, implementation and diffusion?

# It All Begins with Measuring Law

A project of the National Institute on Alcohol Abuse and Alcoholism

Search



## Welcome to the Alcohol Policy Information System

The Alcohol Policy Information System (APIS) provides detailed information on a wide variety of alcohol-related policies in the United States at both State and Federal levels. Detailed state-by-state information is available for the 35 policies listed below. APIS also provides a variety of informational resources of interest to alcohol policy researchers and others involved with alcohol policy issues.

Choose a topic below to see information on a specific policy area:

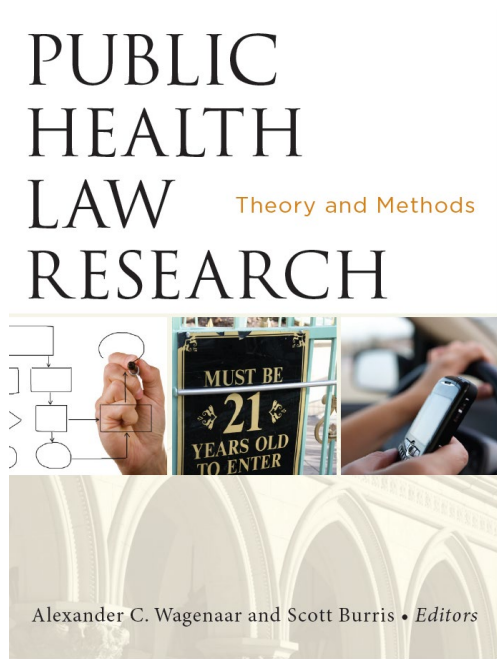
<b>Taxation</b> <ul style="list-style-type: none"><li><a href="#">Beer Taxes</a></li><li><a href="#">Wine Taxes</a></li><li><a href="#">Distilled Spirits Taxes</a></li></ul>	<b>Retail Sales</b> <ul style="list-style-type: none"><li><a href="#">Keg Registration</a></li><li><a href="#">Beverage Service Training</a></li><li><a href="#">Sunday Sales</a></li></ul>
<b>Underage Drinking</b> <ul style="list-style-type: none"><li><a href="#">Possession/Consumption/Internal Possession</a></li><li><a href="#">Purchase</a></li><li><a href="#">Furnishing</a></li><li><a href="#">Age of Server-On-Premises</a></li><li><a href="#">Age of Seller-Off-Premises</a></li><li><a href="#">Use/Lose: Driving Privileges</a></li><li><a href="#">Hosting Underage Drinking Parties</a></li><li><a href="#">False Identification</a></li></ul>	<b>Alcohol Control Systems</b> <ul style="list-style-type: none"><li><a href="#">Beer-Retail</a></li><li><a href="#">Beer-Wholesale</a></li><li><a href="#">Wine-Retail</a></li><li><a href="#">Wine-Wholesale</a></li><li><a href="#">Distilled Spirits-Retail</a></li><li><a href="#">Distilled Spirits-Wholesale</a></li></ul>
<b>Alcohol Beverages Pricing</b> <ul style="list-style-type: none"><li><a href="#">Drink Specials</a></li><li><a href="#">Wholesale Pricing Practices and Restrictions</a></li></ul>	<b>Pregnancy and Alcohol</b> <ul style="list-style-type: none"><li><a href="#">Warning Signs: Drinking During Pregnancy</a></li><li><a href="#">Criminal Prosecution</a></li><li><a href="#">Civil Commitment</a></li><li><a href="#">Priority Treatment</a></li><li><a href="#">Child Abuse/Neglect</a></li><li><a href="#">Reporting Requirements</a></li></ul>
<b>Blood Alcohol Concentration (BAC) Limits</b> <ul style="list-style-type: none"><li><a href="#">Adult Drivers</a></li><li><a href="#">Drivers Under 21</a></li><li><a href="#">Recreational Boaters</a></li></ul>	<b>Health Care Services and Financing</b> <ul style="list-style-type: none"><li><a href="#">Health Insurance: Losses due to Intoxication ("UPPL")</a></li><li><a href="#">Health Insurance Parity</a></li></ul>
<b>Transportation</b> <ul style="list-style-type: none"><li><a href="#">Open Container</a></li><li><a href="#">Vehicular Insurance: Losses due to Intoxication</a></li></ul>	



Referenced  
in > 100  
peer-  
reviewed  
studies and  
analyses

# Legal Epidemiology (Public Health Law Research)

“The scientific study of the relation of law and legal practices to population health.”



## A Transdisciplinary Approach to Public Health Law: The Emerging Practice of Legal Epidemiology

Scott Burris,<sup>1</sup> Marice Ashe,<sup>2</sup> Donna Levin,<sup>3</sup> Matthew Penn,<sup>4</sup> and Michelle Larkin<sup>5</sup>

<sup>1</sup>National Program Office, Public Health Law Research Program, Bentley School of Law, Temple University, Philadelphia, Pennsylvania 19122, email: scott.burris@temple.edu  
<sup>2</sup>ChangeLab Solutions, Oakland, California 94612, email: marice@change-labsolutions.org  
<sup>3</sup>Network for Public Health Law, St. Paul, Minnesota 55105, email: dlevin@networkphl.org  
<sup>4</sup>Centers for Disease Control and Prevention, Atlanta, Georgia 30333, email: mlpenn@cdc.gov  
<sup>5</sup>Barker Wood Johnson Foundation, Princeton, New Jersey 08541, email: michelle@wjb.org

Ann. Rev. Public Health 2016. 37:135-48  
First published online as a Review in Advance on November 30, 2015  
The Annual Review of Public Health is online at publichealth.annualreviews.org  
This article's doi: 10.1146/annurev-pubhealth-072315-021841  
Copyright © 2016 by Annual Reviews  
All rights reserved

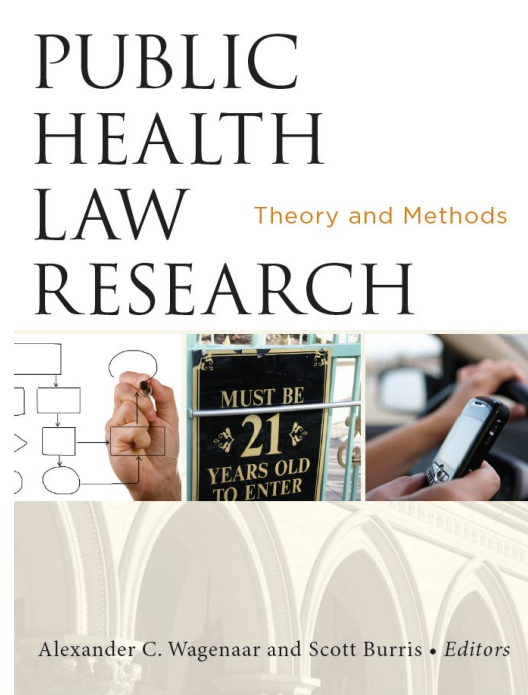
**Keywords**  
policy surveillance, legal epidemiology, public health practice, public health law, public health law research

**Abstract**

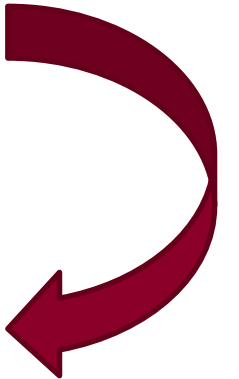
Public health law has roots in both law and science. For more than a century, lawyers have helped develop and implement health laws, over the past 50 years, scientific evaluation of the health effects of laws and legal practices has achieved high levels of rigor and influence. We describe an emerging model of public health law that unites these two traditions. This transdisciplinary model adds scientific practices to the lawyerly functions of normative and doctrinal research, counseling, and representation. These practices include policy surveillance and empirical public health law research on the efficacy of legal interventions and the impact of laws and legal practices on health and health system operation. A transdisciplinary model of public health law, melding its legal and scientific facets, can help break down enduring cultural, disciplinary, and resource barriers that have prevented the full recognition and optimal role of law in public health.

# Legal Epidemiology

**“The scientific study of the relation of law and legal practices to population health.”**



**POLICY  
SURVEILLANCE**  
The ongoing  
systematic  
collection and  
analysis of laws  
of public health  
significance



# Major Point 1

- Policy surveillance is rooted in observation of the apparent features of legal texts.
- We can accommodate a broad definition of legal texts, BUT
  - We are observing text, not implementation – that is an important part of legal epi but is not PS
  - Not observing policy as settled practice – must have a text
  - Not interpreting what the law means – reporting what it says

# Observation, Not Interpretation

- Policy surveillance is rooted in observation of the apparent features of legal texts.
- We can accommodate a broad definition of legal texts, BUT
  - We are observing text, not implementation – that is an important part of legal epi but is not PS
  - Not observing policy as settled practice – must have a text
  - Not interpreting what the law means – reporting what it says

# The Paradigm Shift: Transforming Text of Law into Numerical data

Syringe Distribution Laws\_Data (1) - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

H22 : X ✓ fx 0

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	jurisdictions	Effective Date	Valid Through	syringedis	syringedis	syringedis	syringedis	syringedis	syringedis	syringedis	syringedis	syringedis	syringedis	sd-iteratio	sederegyns
2	Alabama	2012-07-01	2017-07-01	1	0	0	0	0	0	0	0	0	0	1	1
3	Alaska	2012-07-01	2017-07-01	1	0	0	0	0	0	0	0	0	0	1	0
4	Arizona	2012-07-01	2017-07-01	1	0	0	0	0	0	0	0	0	0	1	1
5	Arkansas	2011-07-01	2011-07-26	1	0	0	0	0	0	0	0	0	0	1	1
6	Arkansas	2011-07-27	2017-07-01	1	0	0	0	0	0	0	0	0	0	2	1
7	California	2012-01-01	2014-12-31	0	1	0	0	0	0	0	0	0	0	1	1
8	California	2015-01-01	2017-07-01	0	0	0	0	0	1	0	0	0	0	2	1
9	Colorado	2012-07-01	2013-05-09	0	1	0	0	0	0	0	0	0	0	1	1
10	Colorado	2013-05-10	2015-06-30	0	1	0	0	0	0	0	0	0	0	2	1
11	Colorado	2015-07-01	2017-05-29	0	0	0	0	0	1	0	0	0	0	3	1
12	Colorado	2017-05-30	2017-07-01	0	0	0	0	0	1	0	0	0	0	4	1
13	Connecticut	2012-07-01	2015-06-30	0	1	0	0	0	0	0	0	0	0	1	1
14	Connecticut	2015-07-01	2016-09-30	0	0	0	0	0	1	0	0	0	0	2	1
15	Connecticut	2016-10-01	2017-06-30	0	0	0	0	0	1	0	0	0	0	3	1
16	Connecticut	2017-07-01	2017-07-01	0	0	0	0	0	0	0	0	1	0	4	1
17	Delaware	2012-07-01	2013-06-29	0	1	0	0	0	0	0	0	0	0	1	1
18	Delaware	2013-06-30	2014-04-10	1	0	0	0	0	0	0	0	0	0	2	1
19	Delaware	2014-04-11	2015-12-17	0	0	0	0	0	1	0	0	0	0	3	1
20	Delaware	2015-12-18	2016-08-10	0	0	0	0	0	1	0	0	0	0	4	1
21	Delaware	2016-08-11	2017-07-01	0	0	0	0	0	1	0	0	0	0	5	1

# Law as Data: Changing the Value Equation

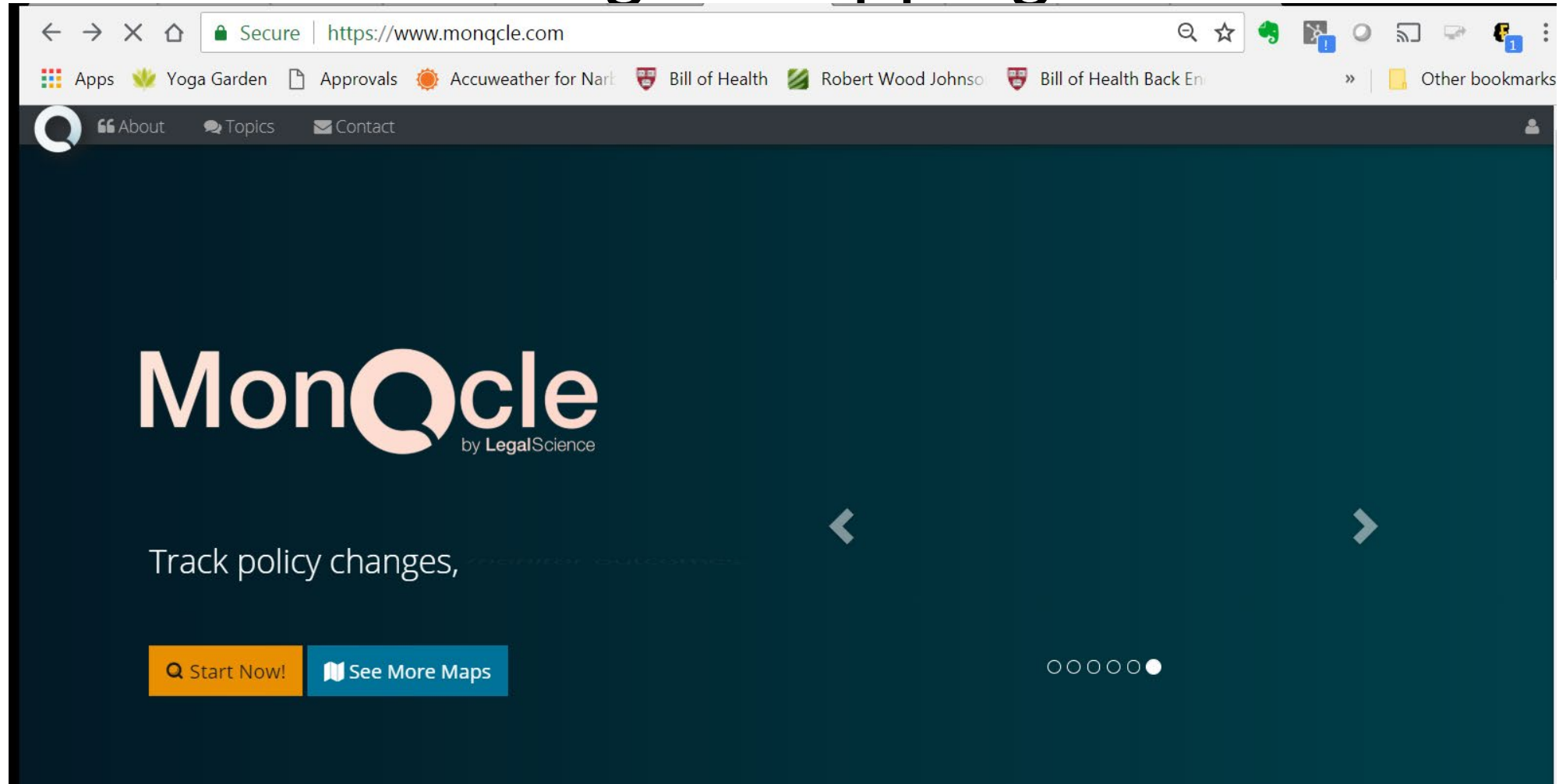
## Three Pillars of Greater Efficiency:

1. Use transparent, reproducible and credible methods to turn text of law into quantitative data
2. Reduce costs and increase productivity through technology
3. Produce data with multiple uses





# Technology: Software Designed for Legal Mapping



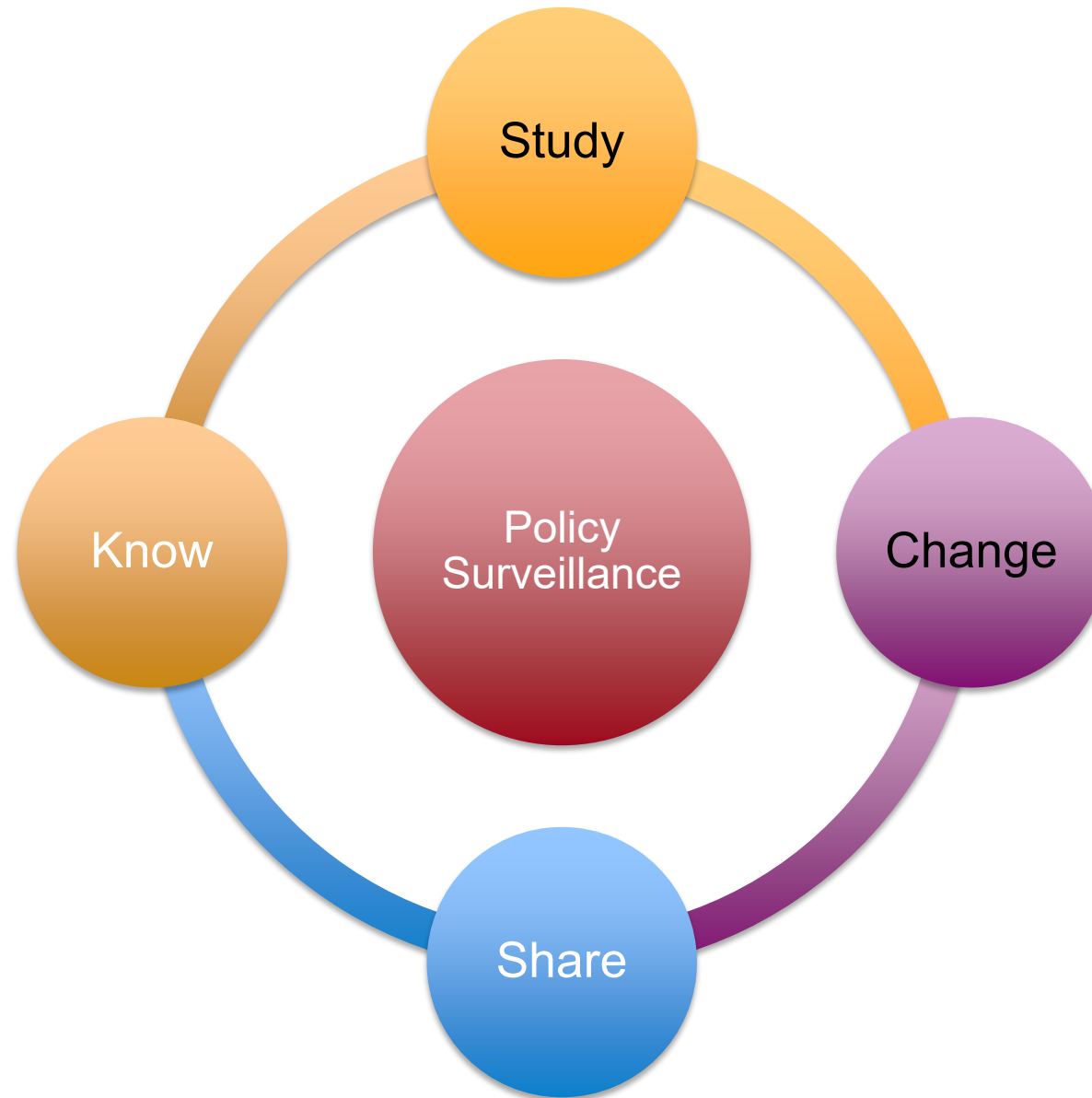
# Technology: Software Designed for Legal Mapping

The screenshot displays a software interface for legal mapping. On the left, a panel titled "International Tobacco Control Laws" shows a timeline from Dec 2008 to Mar 2016 for New Zealand. Below the timeline are buttons for "Dataset Home", "Edit Record", and "Save Record". A "Questions" section shows a progress bar at 3/3 and a list of categories: Long-term healthcare facilities (checked), Restaurants, Bars, and Other. A citation box at the bottom of this panel reads "Smoke-free Environments Act 1990,". The main central panel displays the "Smoke-free Environments Act 1990" with a metadata bar (12/1/2008 - 3/1/2016, Version 1, Managed by: sterling) and a rich text editor toolbar. The text content includes: "(c) since last giving the employer notice to that effect, none of the employees and volunteers who use it regularly or from time to time has given the employer written notice that he or she— (i) no longer wishes the employer to permit smoking in it; or (ii) now objects to other employees and volunteers smoking in it. 6 Dedicated smoking rooms in hospital care institutions, residential disability care institutions, and rest homes (1) An employer may permit smoking by patients or residents of a workplace that is, or is part of, a hospital care institution, a residential disability care institution, or a rest home if — (a) the smoking takes place only in 1 or more dedicated smoking rooms; and (b) each dedicated smoking room is equipped with or connected to a mechanical ventilation system to which subsection (2) applies; and (c) the employer has taken all reasonably practicable steps to minimise the escape of smoke from the dedicated smoking rooms into any part of the workplace that is not a dedicated smoking room; and (d) for each dedicated smoking room, there is available for patients or residents who wish to". A right-hand panel titled "Contents" lists: "Smoke-free Environments Act 1990", "Smoke free law", "Smoking prohibition", and "long term healthcare". Two red arrows point from the "Long-term healthcare facilities" checkbox to the text "(1) An employer may permit smoking by patients or residents of a workplace that is, or is part of, a hospital care institution, a residential disability care institution, or a rest home if —" and from the "Smoke-free Environments Act 1990," citation to the text "(d) for each dedicated smoking room, there is available for patients or residents who wish to".



# Global Abortion Policies Database

The Global Abortion Policies Database is designed to strengthen global efforts to eliminate unsafe abortion by producing an interactive open-access database and repository of current abortion laws, policies, and national standards and guidelines. This tool builds upon the UNPD's previous work in this area, resulting in a more comprehensive information resource on abortion policies in the 21st century. The database will facilitate analyses of countries' abortion laws and policies when they are placed in the context of WHO guidelines and human rights norms and standards. It is intended to help states identify and eliminate the barriers that women encounter in accessing safe abortion services. It is also intended to increase both the transparency of abortion laws and policies and to ensure accountability for the protection of women's health and their human rights. Please cite the GAPD as - Global Abortion Policies Database [online database]. Geneva: World Health Organization; 2018 (<https://srhr.org/abortion-policies/>, access date [day/month/year]).



THE

POLICY

SURVEILLANCE

PROGRAM

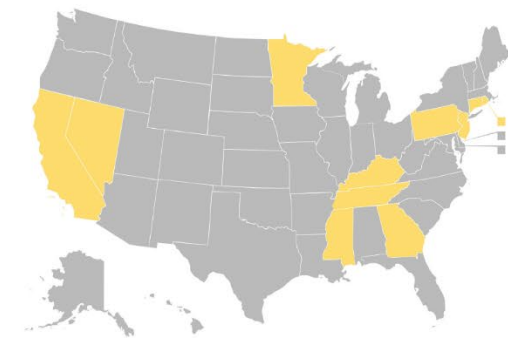
A LawAtlas Project



Center for Public Health  
Law Research

# Policy Surveillance Methods and Standards

Lindsay K. Cloud, JD  
Center for Public Health Law Research  
Temple University Beasley School of Law



# Legal Mapping Methods...

*get lost in the right  
direction*



# Legal Mapping

**LEGAL EPIDEMIOLOGY**

The scientific study and deployment of law as a factor in the cause, distribution, and prevention of disease and injury in a population.



**PUBLIC HEALTH LAW PRACTICE**

The application of professional legal skills in the development of health policy and the practice of public health.



# Three Pillars of Greater Efficiency

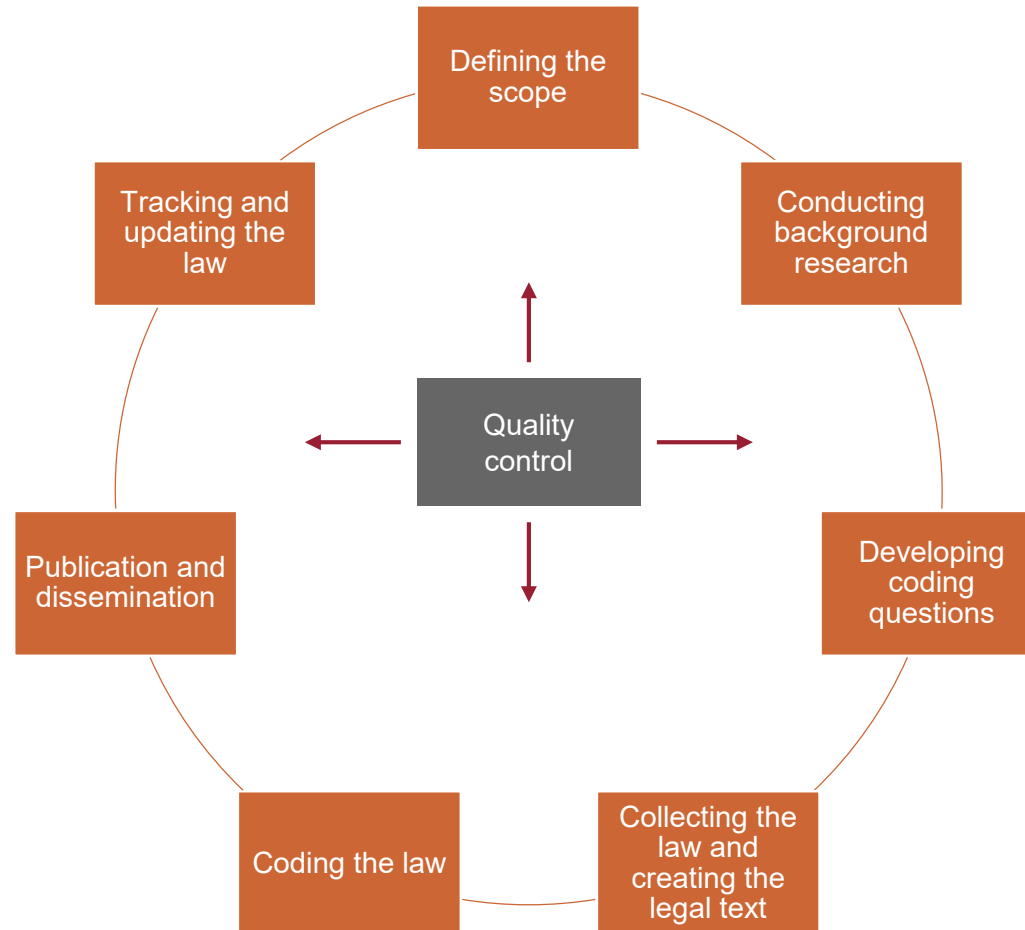
Use transparent, reproducible and credible methods to turn text of law into quantitative data

Reduce costs and increase productivity through technology

Produce data with multiple uses



# The Policy Surveillance Process

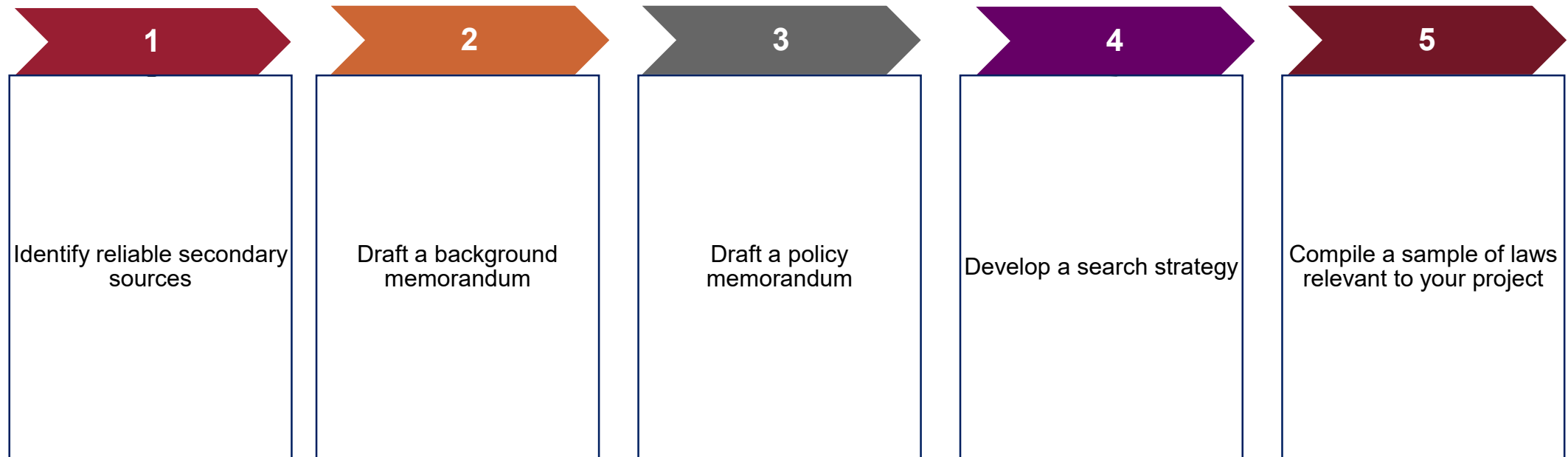


# Scoping

Identifying the topic and parameters for your project



# Background Research



Keep your methods flexible enough in order to **refine the scope** throughout

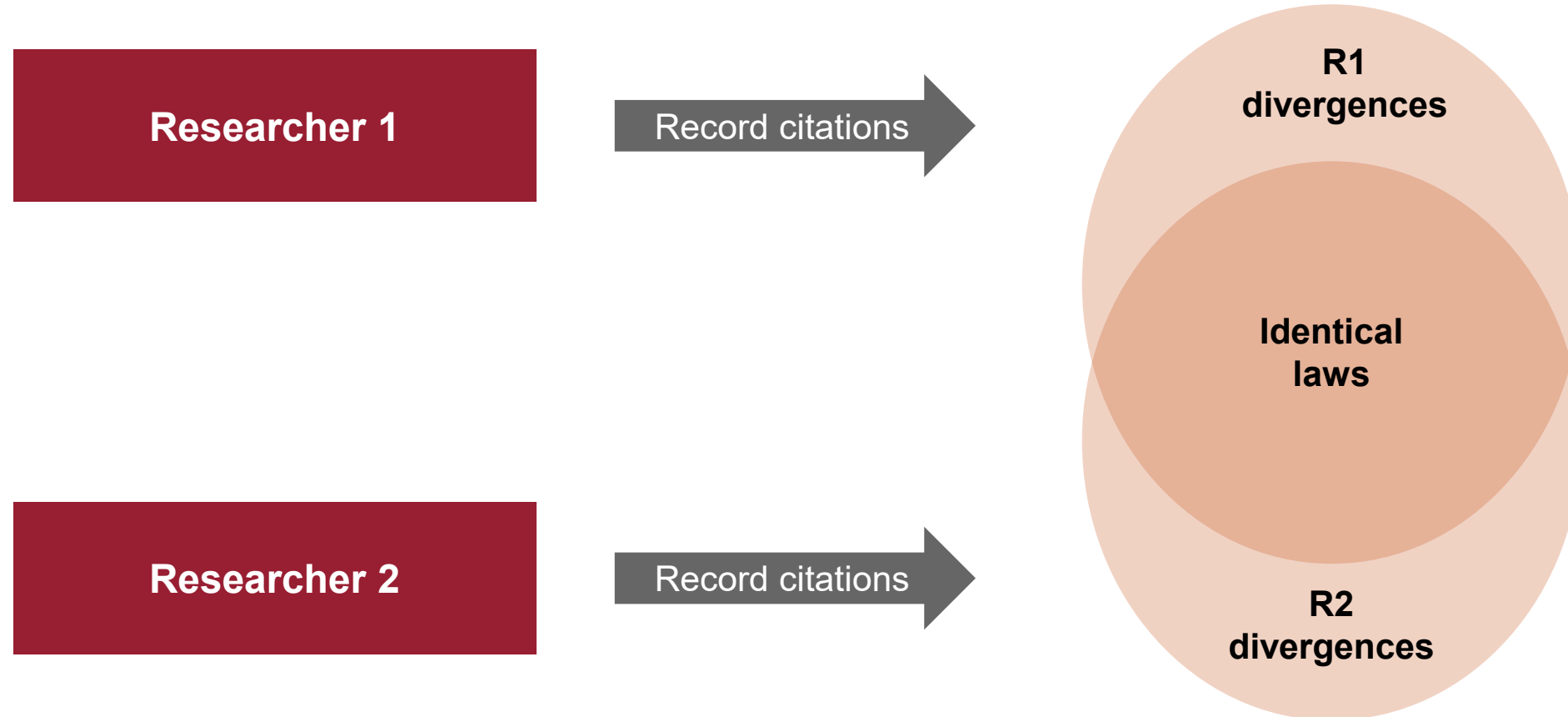
# Utilize your networks and consult a subject matter expert



# Drafting Coding Questions

	Definition	Example
<b>Observation</b>	Things we measure (facts)	What is the initial duration of involuntary outpatient commitment?
<b>Interpretation</b>	Conclusions we derive from those observations (opinions)	Is the initial duration of involuntary outpatient commitment long?

# Redundant research



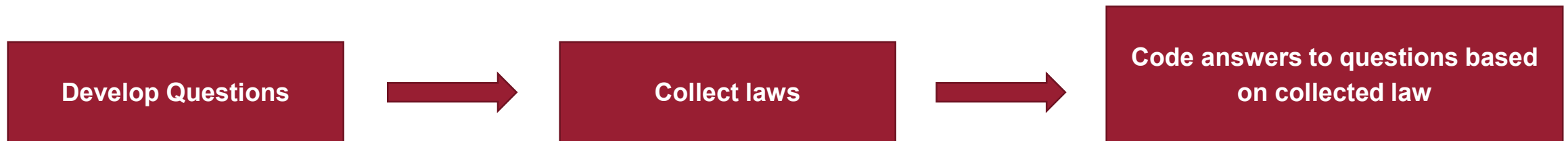
# Collecting the law

Find and collect important information about laws relevant to the topic being studied in each jurisdiction



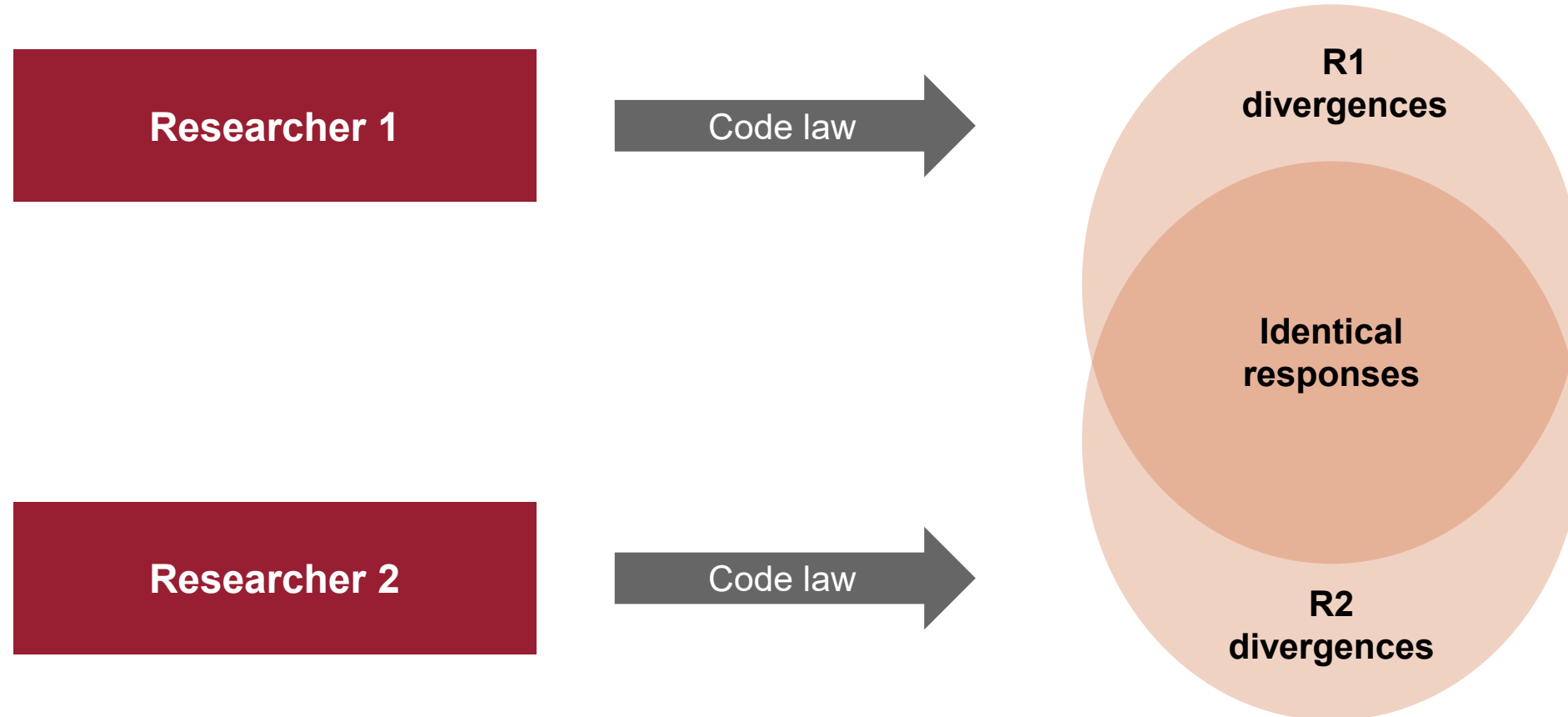
# Coding the law

The goal is to read, observe, and record the law, rather than reading and interpreting the law!

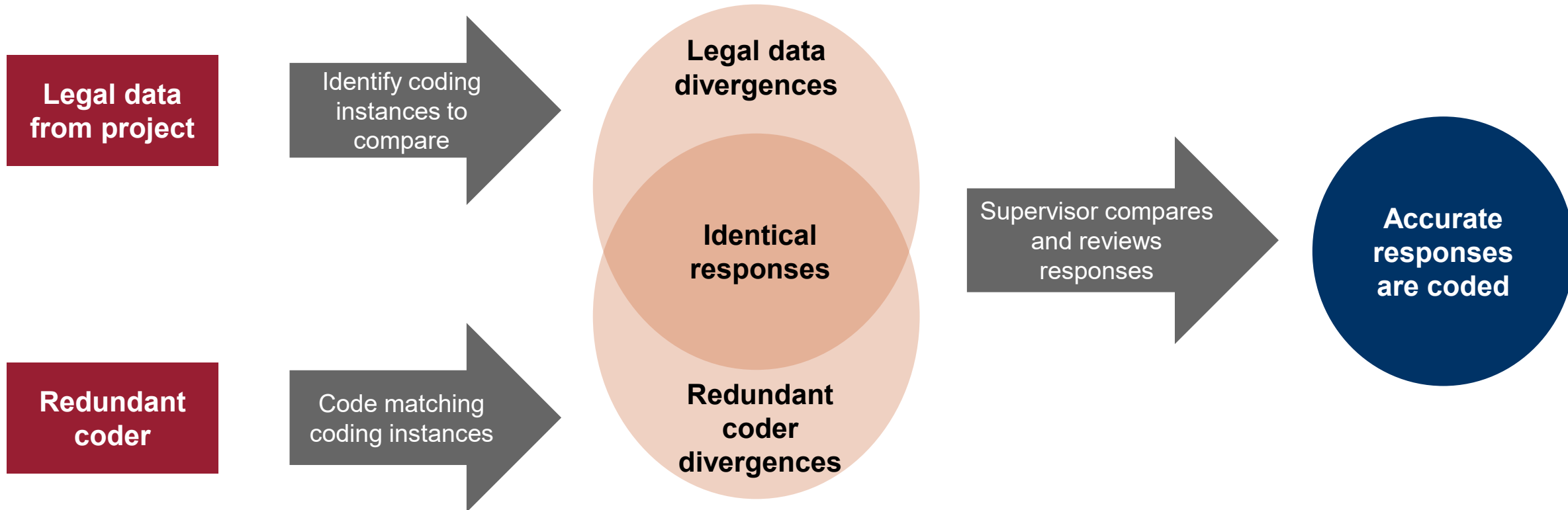




# Redundant coding



# Statistical Quality Control



# Coding turns TEXT to DATA...

*allowing for rigorous evaluation research!*

## Tex. Health & Safety Code § 171.002. Definitions.

In this chapter:

- (1) "Abortion" means the use of any means to terminate the pregnancy of a female known by the attending physician to be pregnant with the intention that the termination of the pregnancy by those means will, with reasonable likelihood, cause the death of the fetus.
- (2) "Abortion provider" means a facility where an abortion is performed, including the office of a physician and a facility licensed under Chapter 245.
- (3) "Medical emergency" means a life-threatening physical condition aggravated by, caused by, or arising from a pregnancy that, as certified by a physician, places the woman in danger of death or a serious risk of substantial impairment of a major bodily function unless an abortion is performed.
- (4) "Sonogram" means the use of ultrasonic waves for diagnostic or therapeutic purposes, specifically to monitor an unborn child.

## Tex. Health & Safety Code § 171.0031. Requirements of Physician; Offense

(a) A physician performing or inducing an abortion:

(1) must, on the date the abortion is performed or induced, have active admitting privileges at a hospital that:

(A) is located not further than 30 miles from the location at which the abortion is performed or induced; and

(B) provides obstetrical or gynecological health care services; and

(2) shall provide the pregnant woman with:

(A) a telephone number by which the pregnant woman may reach the physician, or other health care personnel employed by the physician or by the facility at which the abortion was performed or induced with access to the woman's relevant medical records, 24 hours a day to request assistance for any complications that arise from the performance or induction of the abortion or ask health-related questions regarding the abortion; and

(B) the name and telephone number of the nearest hospital to the home of the pregnant woman at which an emergency arising from the abortion would be treated.

(b) A physician who violates Subsection (a) commits an offense. An offense under this section is a Class A misdemeanor punishable by a fine only, not to exceed \$4,000.



TRAP_AFL_FacReqLic	TRAP_AFL_FacReqAcc	TRAP_AFL_Penalties_ Fines	TRAP_AFL_Penalties_ Criminal penalties	TRAP_AFL_Penalties_ Licensing sanctions against a facility
1	0	0	1	1
.	.	.	.	.
1	0	1	0	1
1	0	1	0	1
.	.	.	.	.
.	.	.	.	.
1	0	0	0	1
.	.	.	.	.
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.
.	.	.	.	.
1	0	1	0	1
1	0	1	1	1
.	.	.	.	.
1	0	1	1	1
1	0	1	0	1
1	0	1	1	1
.	.	.	.	.
1	0	1	0	1
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

# A Codebook...

*increases usability and feasibility!*

- A complete list of all the questions coded in a legal dataset
- Question types
- Variable names, values and labels

Questions	
Question 1:	Does state law specifically address youth sports TBIs?
Question Type:	Categorical - mutually exclusive
Variable Name:	SCAnyLaw
Variable Values:	1, 2
Value Label:	1 = Yes
Value Label:	2 = No
Question 2:	Does the law require a student athlete with a suspected TBI to be removed from play?
Question Type:	Categorical - mutually exclusive
Variable Name:	SCRemoval
Variable Values:	1, 2
Value Label:	1 = Yes
Value Label:	2 = No
Question 3:	Must the parent or guardian be notified of the suspected or diagnosed TBI?
Question Type:	Categorical - mutually exclusive
Variable Name:	SCParNotf
Variable Values:	1, 2
Value Label:	1 = Yes
Value Label:	2 = No

# A Research Protocol...

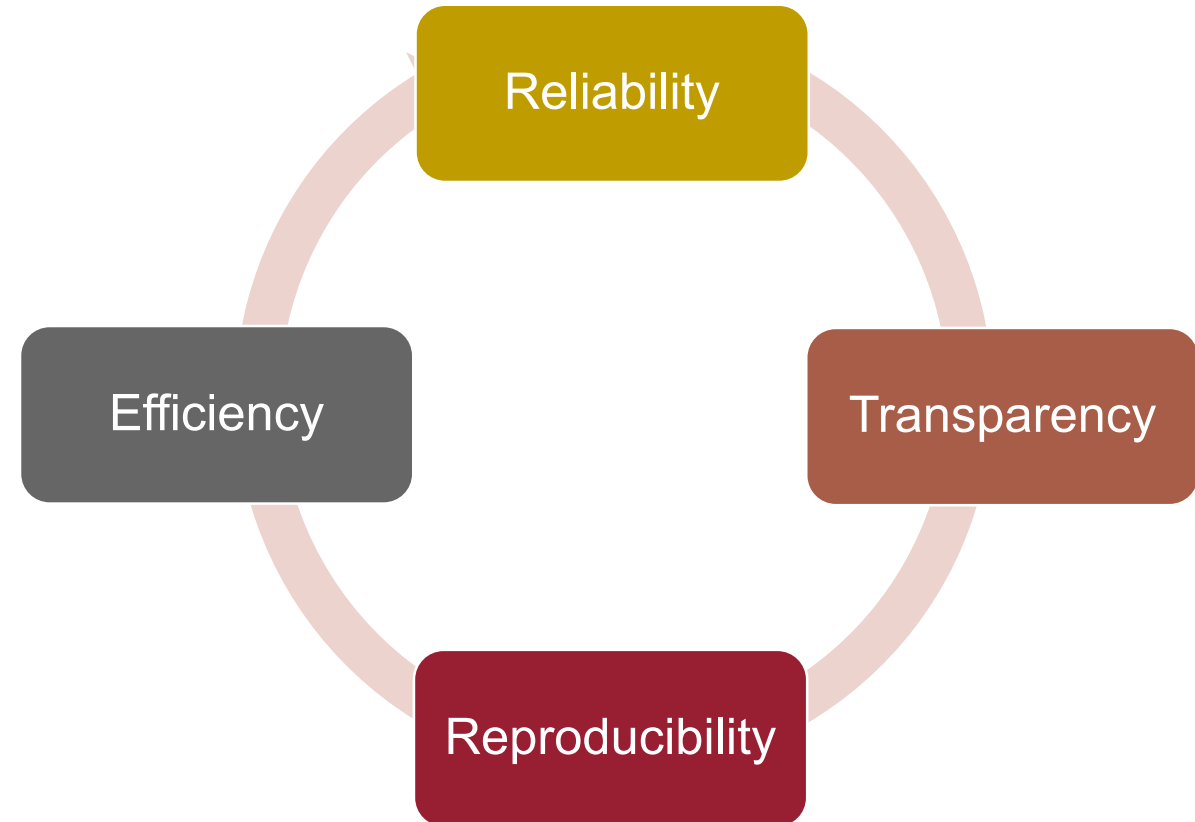
*ensures your project is replicable and transparent!*

Outlines the entire methodology and process of the project, including:

Scope of the Project	Data Collection Methods	Coding Methods	Quality Control
<ul style="list-style-type: none"><li>• Dates of the project</li><li>• Team involved</li><li>• Jurisdictions</li><li>• Purpose of the project</li><li>• Variables</li></ul>	<ul style="list-style-type: none"><li>• Search strategy</li><li>• Databases used</li></ul>	<ul style="list-style-type: none"><li>• Coding scheme</li><li>• Definitions of terms of art</li></ul>	<ul style="list-style-type: none"><li>• Description of methods or processes used</li></ul>

# Key Takeaways

- ✓ Choose a credible method
- ✓ Apply it systematically
- ✓ Incorporate quality control



THE

POLICY

SURVEILLANCE

PROGRAM

A LawAtlas Project



TEMPLE  
UNIVERSITY

Center for Public Health  
Law Research

# THANK YOU!

## KEEP IN TOUCH

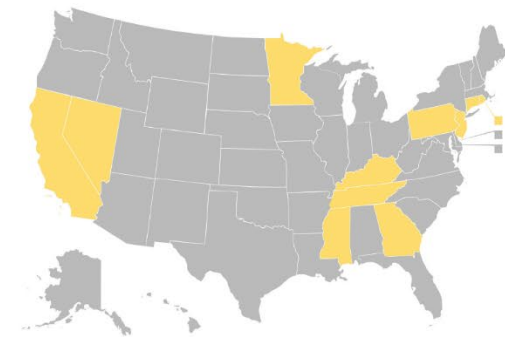
Email: [Lindsay.cloud@temple.edu](mailto:Lindsay.cloud@temple.edu)

Call: 215.204.9504

Visit: <http://LawAtlas.org>

Twitter: @LawAtlas

Youtube: [YouTube.com/LawAtlasorgTemple](https://www.youtube.com/LawAtlasorgTemple)



# Policy Surveillance: Focus on State Law

Jane Hyatt Thorpe, JD

Lara Cartwright-Smith, JD, MPH

January 15, 2019





# Overview

- Getting Started
- Research Methodology
- Role of the Taxonomy
- Role of Audience/User
- Quality Assurance
- Points of Interest
- Examples

# Getting Started

- Goal: Analysis and categorization of legal texts based on pre-selected categories and/or topics
- Selecting an area of focus
- Scoping
  - Narrow vs. broad
  - Longitudinal vs. point in time
  - Comparative vs. descriptive
- Developing a taxonomy

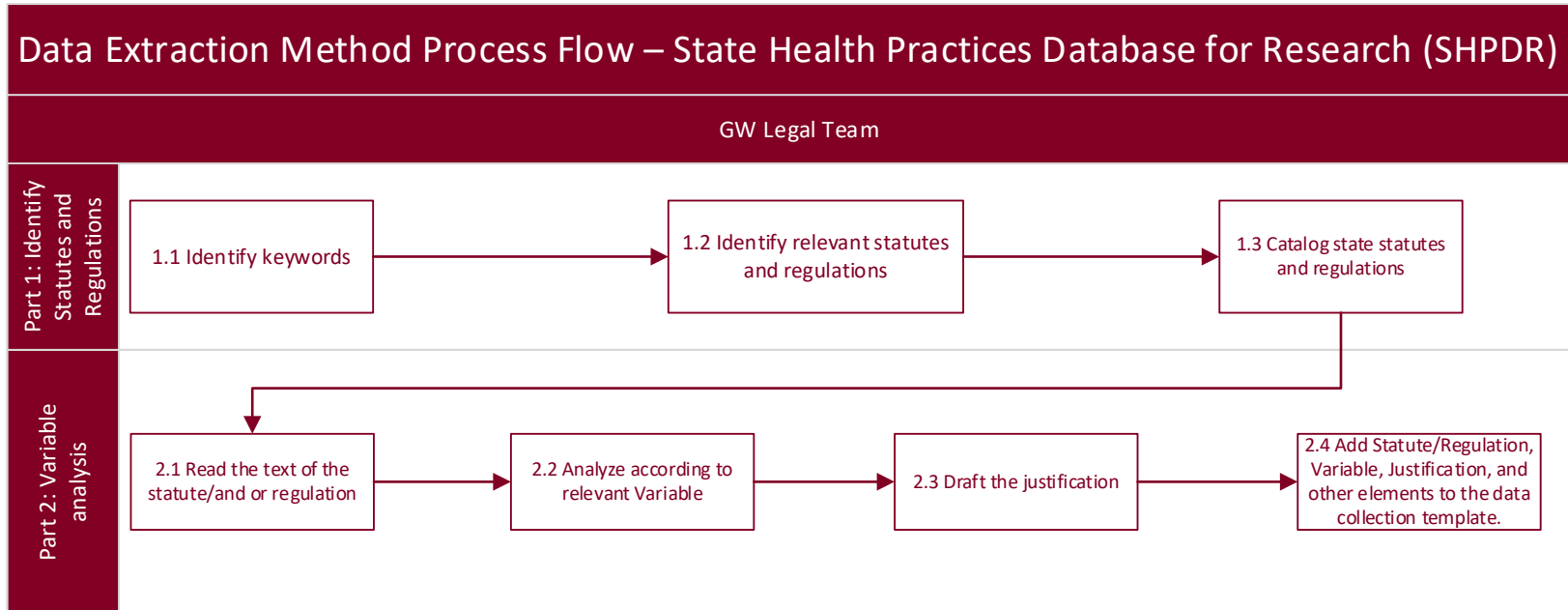
# Role of Taxonomy

- Define research parameters
- Define terminology/variants
- Define categories/topics
- Define variables, if any
- Guide research
- Inform audience/user

# General Research Methodology

- Based on taxonomy, identify keywords for topic(s) and subtopic(s) if any
- Use keywords to search legal texts for topic specific statutes and regulations using specific state sample (pilot testing); Refine and revise keywords as needed
- Document methodology for keyword selection and state statute/regulation identification
- Scale out to other topics and states
  - Identify keywords
  - Using keywords, identify topic-specific statutes and regulations within time parameters
  - Remove or explain outliers
- Extract identified statutes and regulations from primary source
- Define variables (if any) and apply to statutes and regulations
- Draft summaries and/or additional explanatory texts or graphics
- Populate research template/database with key elements of identified statutes and regulations, including variable analysis (if any), additional analysis (if any), and link to primary text

# Example: SHPDR Research Methodology



SHPDR Project Funded by NIH.

# Output

- Database of state statutes and regulations organized by topics and subtopics defined in the taxonomy
- May also include:
  - Federal law
  - Summaries of legal texts
  - Analyses of legal texts
  - Links directly to relevant federal and state law
  - Additional tools and resources

# Example from SHPDR: Licensing laws, nurse practitioner prescriptive authority

[Home](#) [About SHPDR](#) [User Guide](#) [Taxonomy](#) [Data](#) [Contact Us](#)

[By State](#) [By Year](#) [By Domain](#) [By Topic](#) [By Subtopic](#) [By Variable](#) [Custom Filter](#)

[Data](#) > [Subtopic](#) > [Scope of Practice](#)

User Note: Subvariables were derived from the narrative text of the justifications and are state-specific. Users should review the legal source material associated with the primary variable to ensure accuracy and completeness. Variable values of "not identified" mean that the review of statutes and regulations based on the keywords in the User Guide did not return any information. Subvariable values of "not identified" mean that the parent variable's justification did not have material pertinent to the subvariable.

[Download](#)

Show  entries

Search:

Year	State	Variable	Variable Value	Justification
2010	AR	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Establishes authority of the Arkansas State Board of Nursing and Prescriptive Authority Advisory Committee to implement regulations relating to prescriptive authority of nurses.
2010	DC	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Education and certification requirements for certified nurse-anesthetists; Scope of practice of nurse-anesthetists; Standards of conduct; Prescriptive authority. Note: Scope of practice set out specifically in CDCR 17-5708.
2010	DC	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Education and licensure requirements for certified nurse-midwives; Scope of practice of certified nurse-midwives; Standards of conduct; Prescriptive authority. Note: Scope of practice set out specifically in CDCR 17-5808.
2010	DC	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Education and certification requirements for nurse-practitioners; Scope of practice of nurse-practitioners; Standards of conduct; Prescriptive authority.
2010	DC	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Education and certification requirements for clinical nurse specialists; Scope of practice of clinical nurse specialists; Standards of conduct; Prescriptive authority. Note: Scope of practice set out specifically in CDCR 17-6008.
2010	AK	Parent Variable: State regulates scope of practice for nurse professionals	Yes	Prescriptive authority for advanced nurse practitioners.
2010	DC	Parent Variable: State regulates scope of practice for physician assistants	Yes	Definitions for all health occupations; "Practice by physician assistants" means the performance, in collaboration with a licensed physician or osteopath, of acts of medical diagnosis and treatment,

# Example from Healthinfoweb: Comparative Map

## Who Owns Medical Records: 50 State Comparison



This map and table show laws that confer ownership of a medical record to a health care provider, hospital, or patient. We did not include laws that only apply to specific providers other than physicians (such as chiropractors and optometrists) or facilities other than hospitals (such as ambulatory surgery centers, birth centers, abortion clinics, nursing homes, prisons, and schools). Note that there may be court decisions regarding record ownership that apply to providers in a particular state under common law even where there is no statute or regulation (e.g., *McGarry v. J.A. Mercier Co.*, 272 Mich. 501, 262 N.W. 296 (1935) (Michigan case holding that x-ray negatives were the property of the physician who made them, not the patient); *Holtkamp Trucking Co. v. David J. Fletcher, M.D., L.L.C.*, 402 Ill. App. 3d 1109, 932 N.E.2d 34 (2010) (Illinois case holding that medical records were physician's property)). Many states have specific laws addressing how providers must maintain, protect, and dispose of records, as well as laws giving patients, providers, and others access to medical records, regardless of ownership status. In addition, patients in all states have many rights with respect to their medical records under the HIPAA Privacy and Security Rules.

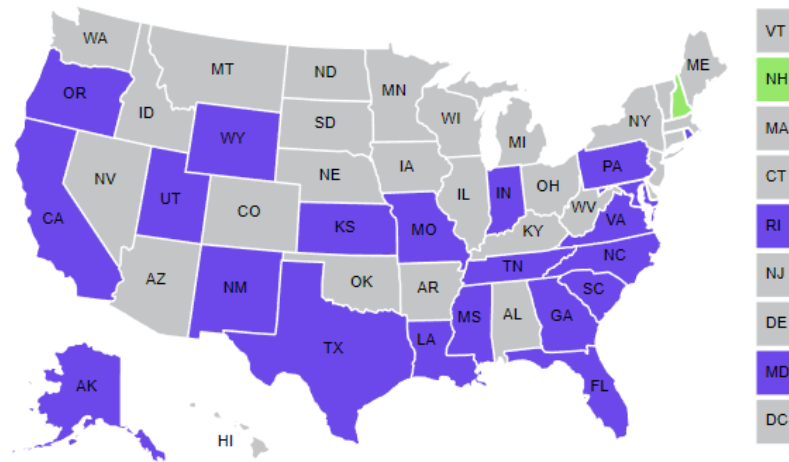
Notes:

\* Provider ownership of medical record is referenced in language of law

± Ownership is of the physical conveyance for the medical information

‡ Ownership is of the information contained in the record

[Last Updated 08/20/15]



Click on a state to see more information on **Medical Records Collection, Retention, and Access** in that state

### Medical Record Ownership Laws

- Hospital and/or physician owns medical record
- Patient owns information in medical record
- No law identified conferring specific ownership or property right to medical record

Hide All ▲

State	Medical Record Ownership Laws	Details
Alabama	No law identified conferring specific ownership or property right to medical record	
Alaska	Hospital and/or physician owns medical record	<b>Alaska Admin. Code tit. 7, § 12.770:</b> The medical records, including x-ray films, are the property of the facility (applies to hospitals and other specified health care facilities).
Arizona	No law identified conferring specific ownership or property right to medical record	
Arkansas	No law identified conferring specific ownership or property right to medical record	
California	Hospital and/or physician owns medical record	<b>Cal. Code Regs. tit. 22, § 70751:</b> Medical records are the property of the hospital.
Colorado	No law identified conferring specific ownership or property right to medical record	
Connecticut	No law identified conferring specific ownership or property right to medical record	
Delaware	No law identified conferring specific ownership or property right to medical record	
District of Columbia	No law identified conferring specific ownership or property right to medical record	
Florida	Hospital and/or physician owns medical record	<b>Fla. Stat. § 456.057:</b> Defines "records owner" as any health care practitioner who generates a medical record after treating patient, any health care practitioner to whom records are transferred by a previous owner, or any health care practitioner's employer.
Georgia	Hospital and/or physician owns medical record	<b>Ga. Code Ann. § 31-33-3:</b> All records are owned by and are property of provider.
Hawaii	No law identified conferring specific ownership or property right to medical record	
Idaho	No law identified conferring specific ownership or property right to medical record	



# Role of Audience/User

- Who is your audience(s)?
- What data/information do they need?
- For what purpose(s) will the data be used?
- Disclaimers
- Role of the User Guide

# Quality Assurance

- Pre-defined QA methodology
  - Must be understandable, replicable, and scalable
  - Role of primary researchers and secondary reviewers
  - Full oversight review for accuracy and consistency post data extraction
  - Final review of entire dataset prior to launch
- User confidence - Accuracy and accountability
- Describe in User Guide

# Points of Interest

- Variation in state statutes and regulations
  - Terminology
  - Organization, including state code changes over time
- Interpretation/communication of data
- Limitations:
  - Other sources of law (e.g., executive orders, case law, Federal)
  - Law in practice
  - Funding
- Statutes/regulations may not reflect policy and neither may reflect practice
- Working with other disciplines

# Examples

- State Health Practice Database for Research: Broad, Comparative and Descriptive, Longitudinal (funded by NIH, formerly available at [shpdr.org](http://shpdr.org))
- Healthinfolaw.org: Narrow, Comparative and Descriptive, Point in time (initial funding from RWJF)

# Contact Information

Jane Hyatt Thorpe, JD  
Associate Professor and Interim Chair  
Department of Health Policy and  
Management  
202/994-4183  
[jthorpe@gwu.edu](mailto:jthorpe@gwu.edu)

Lara Cartwright-Smith, JD, MPH  
Associate Professor and MPH  
Program Director  
Department of Health Policy and  
Management  
202/994-8641  
[laracs@gwu.edu](mailto:laracs@gwu.edu)

---

**THE GEORGE  
WASHINGTON  
UNIVERSITY**

---

WASHINGTON, DC

A decorative graphic at the bottom of the slide consisting of several overlapping, parallel, slanted rectangular bars in various shades of blue, creating a sense of motion and depth.

THE

POLICY

SURVEILLANCE

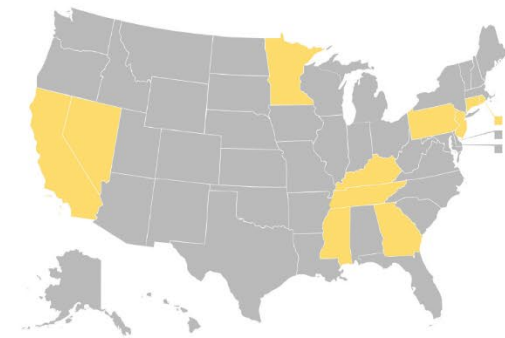
PROGRAM

A LawAtlas Project

# Going a Step Further with Data

Center for Public Health Law Research

Presented by: Heidi E. Grunwald, PhD



# Agenda

- Data, codebooks, protocols
- A brief note about statistical quality control
- Types of data
- What more can be done with empirical legal (EL) data besides mapping and comparative analyses?
  - Evaluation of legal interventions
  - Policy ratings/rankings
  - Interactive data systems



# Coding turns legal TEXT into DATA

## Texas legal text

Effective: 8/1/16 - Through: 8/31/17

### Tex. Health & Safety Code § 171.002. Definitions.

In this chapter:

- (1) "Abortion" means the use of any means to terminate the pregnancy of a female known by the attending physician to be pregnant with the intention that the termination of the pregnancy by those means will, with reasonable likelihood, cause the death of the fetus.
- (2) "Abortion provider" means a facility where an abortion is performed, including the office of a physician and a facility licensed under Chapter 245.
- (3) "Medical emergency" means a life-threatening physical condition aggravated by, caused by, or arising from a pregnancy that, as certified by a physician, places the woman in danger of death or a serious risk of substantial impairment of a major bodily function unless an abortion is performed.
- (4) "Sonogram" means the use of ultrasonic waves for diagnostic or therapeutic purposes, specifically to monitor an unborn child.

### Tex. Health & Safety Code § 171.0031. Requirements of Physician; Offense

(a) A physician performing or inducing an abortion:

(1) must, on the date the abortion is performed or induced, have active admitting privileges at a hospital that:

(A) is located not further than 30 miles from the location at which the abortion is performed or induced; and

(B) provides obstetrical or gynecological health care services; and

(2) shall provide the pregnant woman with:

(A) a telephone number by which the pregnant woman may reach the physician, or other health care personnel employed by the physician or by the facility at which the abortion was performed or induced with access to the woman's relevant medical records, 24 hours a day to request assistance for any complications that arise from the performance or induction of the abortion or ask health-related questions regarding the abortion; and

(B) the name and telephone number of the nearest hospital to the home of the pregnant woman at which an emergency arising from the abortion would be treated.

(b) A physician who violates Subsection (a) commits an offense. An offense under this section is a Class A misdemeanor punishable by a fine only, not to exceed \$4,000.



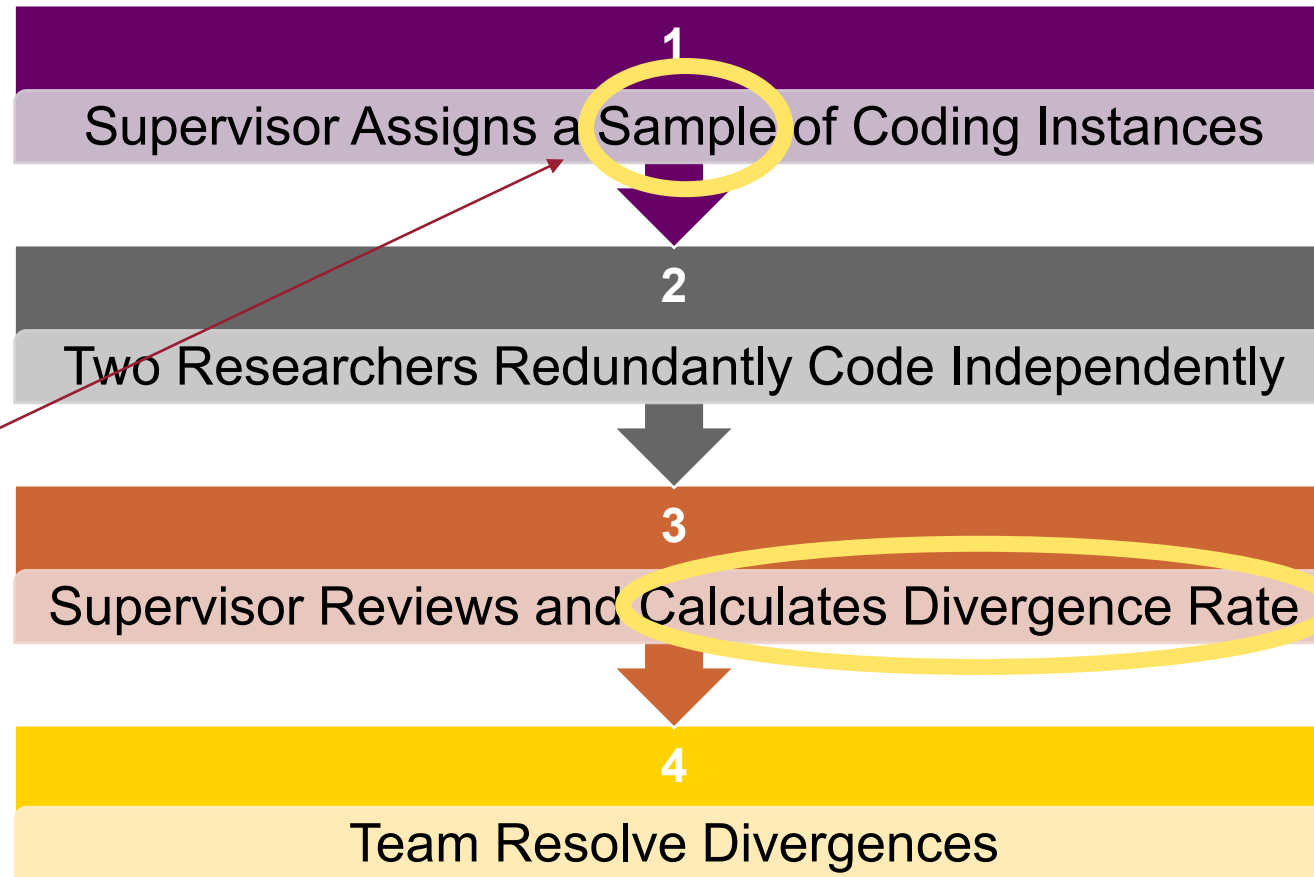
TRAP_AFL_FacReqLic	TRAP_AFL_FacReqAcc	TRAP_AFL_Penalties_ Fines	TRAP_AFL_Penalties_ Criminal penalties	TRAP_AFL_Penalties_ Licensing sanctions against a facility
1	0	0	1	1
.	.	.	.	.
1	0	1	0	1
1	0	1	0	1
.	.	.	.	.
1	0	0	0	1
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.
1	0	1	0	1
1	0	1	1	1
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.
1	0	1	0	1
.	.	.	.	.
1	0	1	1	1
.	.	.	.	.

# We produce data products for epidemiologists / statisticians

- Protocol - step-by-step methods used to create dataset
- Codebook - variable names, types, values & labels
- Downloadable Excel or csv data files easily uploaded to various statistical programs

# Statistical Quality Control: Recall the Initial Build Process

Currently a simple random sample of state/time instances?



# divergent records / total records coded

# How is the SQC process done?

- Once a dataset is completed, a simple random sample is selected from all state / time instances in a dataset. This can be a very large number, some of our longitudinal datasets have more than 11,000,000 records.
- We calculate the needed sample size

$$n = \frac{(Z^2 p*(1-p))}{E^2}$$

Where:

Z = Z value (1.96 for 95% confidence level)  
p = probability that we detect an error (.1 used)  
E = Margin of Error (.05 = ±5)

# Final set of redundant coding

- A set of two coders redundantly code the sampled units and a divergence rate is calculated. If the divergence rate is below 5%, then we have reach our acceptable level of scientific validity and reliability

# Types of Data

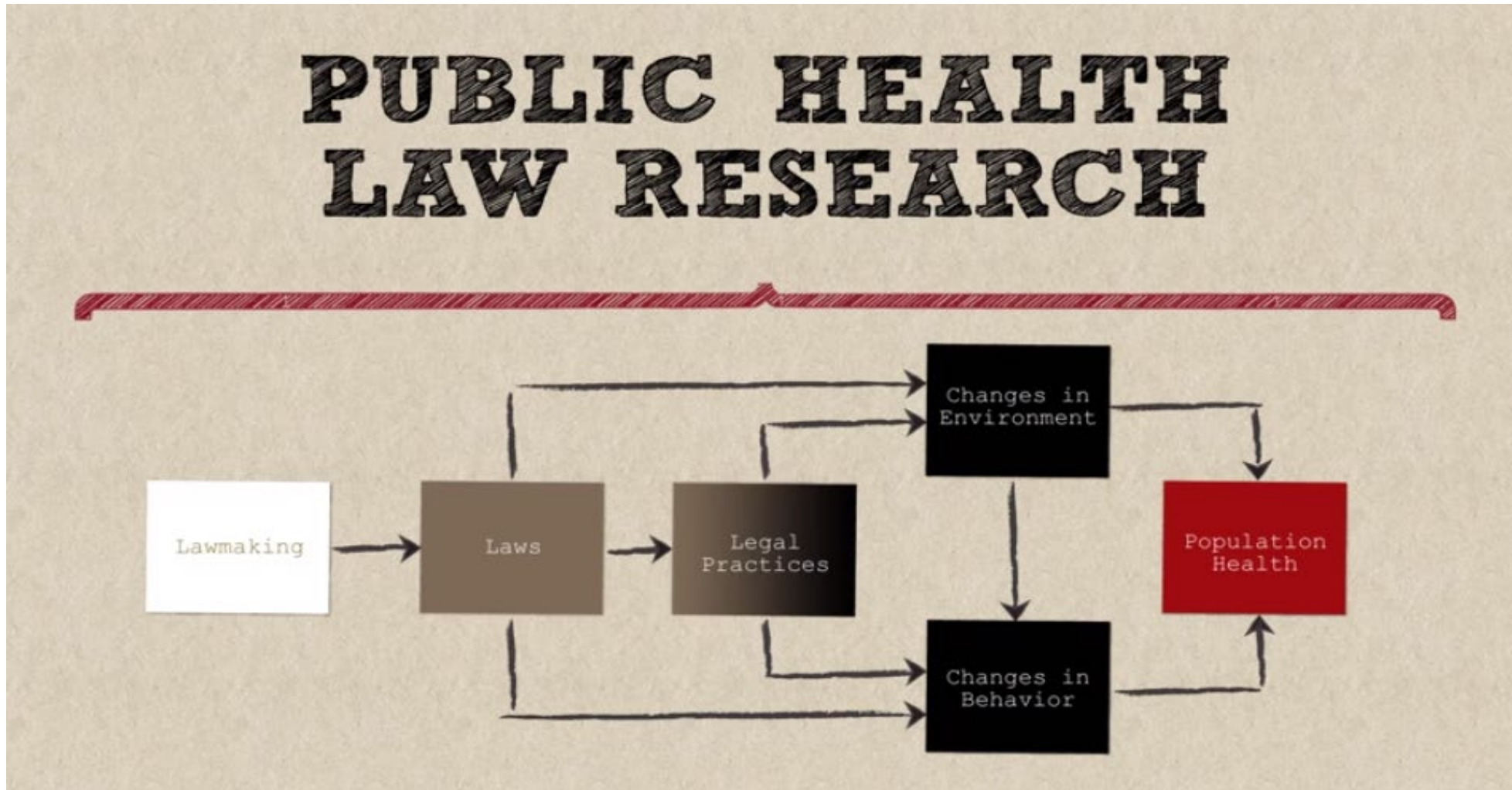
## Cross Sectional

state	Begin	End	anylaw	removal	rtp
AK	5/30/2012	5/1/2015	1	1	1
AL	5/10/2012	5/1/2015	1	1	1
AR	8/16/2014	5/1/2015	1	1	1

## Longitudinal

state	ID	Begin	End	year	anylaw	removal	rtp
AK	1	1/1/2009	8/24/2011	2009	0.	.	.
AK	1	1/1/2009	8/24/2011	2010	0.	.	.
AK	2	8/25/2011	5/29/2012	2011	1	1	1
AK	3	5/30/2012	5/1/2015	2012	1	1	1
AK	3	5/30/2012	5/1/2015	2013	1	1	1
AK	3	5/30/2012	5/1/2015	2014	1	1	1
AK	3	5/30/2012	5/1/2015	2015	1	1	1
AL	1	1/1/2009	6/8/2011	2009	0.	.	.
AL	1	1/1/2009	6/8/2011	2010	0.	.	.
AL	2	6/9/2011	5/9/2012	2011	1	1	1
AL	3	5/10/2012	5/1/2015	2012	1	1	1
AL	3	5/10/2012	5/1/2015	2013	1	1	1
AL	3	5/10/2012	5/1/2015	2014	1	1	1
AL	3	5/10/2012	5/1/2015	2015	1	1	1
AR	1	1/1/2009	4/21/2013	2009	0.	.	.
AR	1	1/1/2009	4/21/2013	2010	0.	.	.
AR	1	1/1/2009	4/21/2013	2011	0.	.	.
AR	1	1/1/2009	4/21/2013	2012	0.	.	.
AR	2	4/22/2013	8/15/2014	2013	1	1	1
AR	3	8/16/2014	5/1/2015	2014	1	1	1
AR	3	8/16/2014	5/1/2015	2015	1	1	1

# The end game: Legal Evaluation



# Research Questions Can Span the Spectrum of the Logic Model

## Legal Drivers

- Legal Provision
- Administrative Law
- Administrative Structure
- Appropriations

## Implementation

- Authority
- Responsibilities
- Incentivize Behavior
- Organizational Capacity
- Budgeting

## Mediators

- Enforcement
- Moral Force of Law
- Resource Distribution
- Process Capacity

## Causal

- Program Changes
- Behavior Changes
- Organizational Changes
- Costs

## Outcomes

- Health Outcomes
- Organizational Outcomes

Culture, Values, and Socio-Historical Context



# Legal Evaluation Analysis

- Legal Evaluation is no different than evaluating any other intervention
- Basic courses on quantitative analysis or statistics would provide the guidance for first two steps (descriptive and bivariate analyses)
- Team with an epidemiologist or quantitative methodologist to carry-out the causal analyses, interpretations

# Intervention study

- For an intervention study we need:
  - A clear intervention (a law)
  - Outcome data (what changed)
  - Variation in time (law wasn't always there)
  - Variation in space (law isn't everywhere)
- Statistically control for socio-political differences in treatment and comparison states

# Review Designs for Evaluating law

- Research design elements can produce strong evidence of whether a law *caused* an effect and the *magnitude* of effect:
  - Incorporate many repeated observations before and after a law is implemented
  - Use highest time resolution possible to examine expected pattern of effects
  - Include multiple comparisons (multiple jurisdictions, groups, or outcomes)
  - Include different types, and (nested) levels of comparisons
  - Replicate the study (across jurisdictions, over time)
  - Examine whether the dose of the law is related to the size of the effect

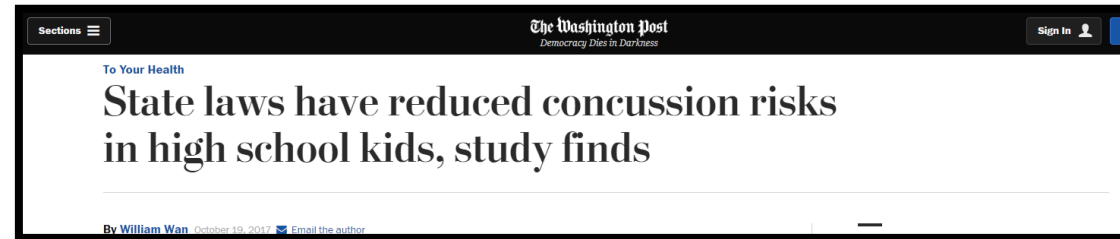
# Analytics for Causal Models

- Causal Analyses (not exhaustive):
  - Random Coefficient Models
  - Difference-in Difference
  - Interrupted Time Series
  - Regression Discontinuity
  - Hierarchical Linear Modelling
  - (M)ANCOVA

# Legal Evaluations Makes Headlines



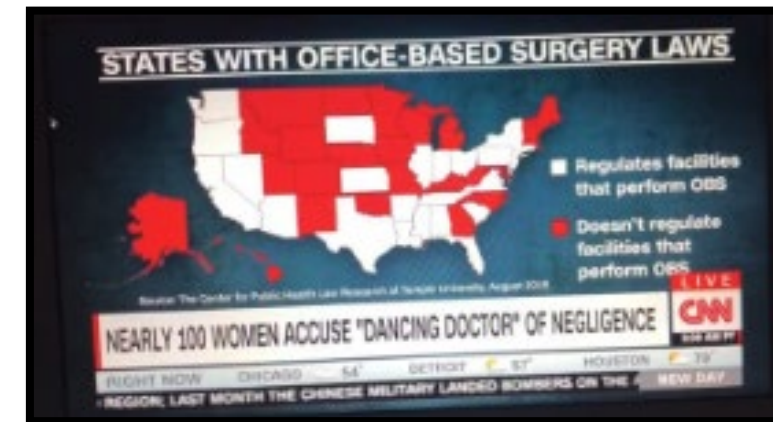
**Why a Study on Opioids Ignited a Twitter Firestorm**  
A paper on overdose-reversal drugs reached a conclusion no one liked. The pushback raised questions about sexism and scientific methods.



**State laws have reduced concussion risks in high school kids, study finds**  
By William Wan



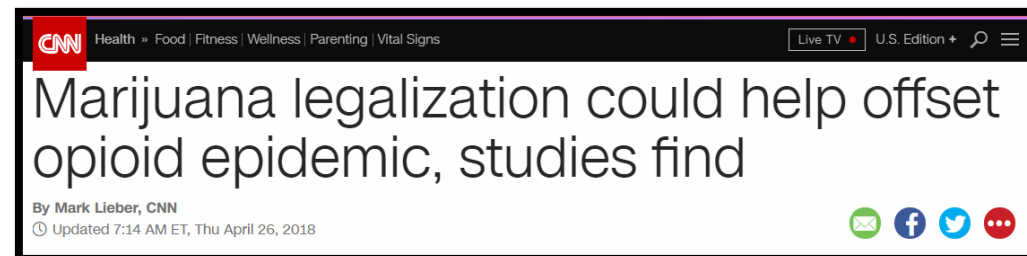
**The Stricter a State's Gun Laws, the Fewer Children Die From Guns, Study Finds**  
Ed Cara



**How Increasing The Minimum Wage Could Lead To Healthier Babies**  
Jackie Fortier



**TRAP Laws Have Ensured 'Separate and Unequal Treatment' for Abortion Care**  
Feb 22, 2018, 4:08pm



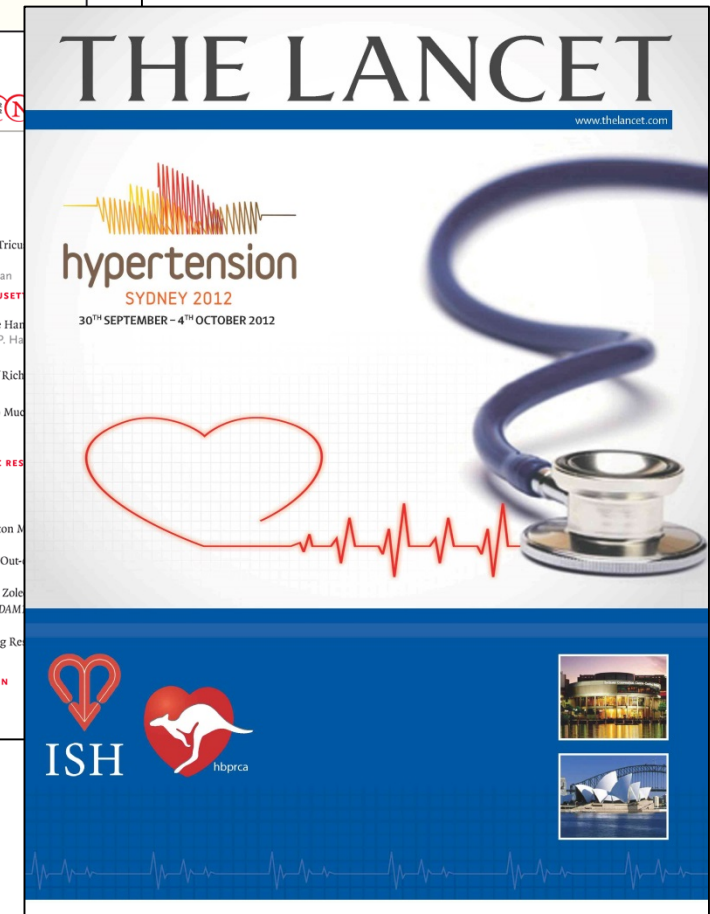
**Marijuana legalization could help offset opioid epidemic, studies find**  
By Mark Lieber, CNN

# Goals of Policy Ratings

1. Provide a systematic, replicable and transparent method for evaluating policies
2. Characterize, summarize and synthesize policy landscapes across multiple contexts
3. Highlight progress and show policy makers where more work is needed to improve public health impacts

# Review the Evidence Base

- Review evidence related to your policy's impact:
  - Empirical studies
  - Meta-analyses
  - Systematic reviews
  - Expert consensus & Model Policies



# Computational Indices (Ratings)

- Ways to compute ratings/rankings from the empirical legal data that the policy surveillance program builds
  - Summative index
  - Weighted summative index
  - Regression coefficients
  - Factor scores resulting from principal components analysis or principal axis factoring

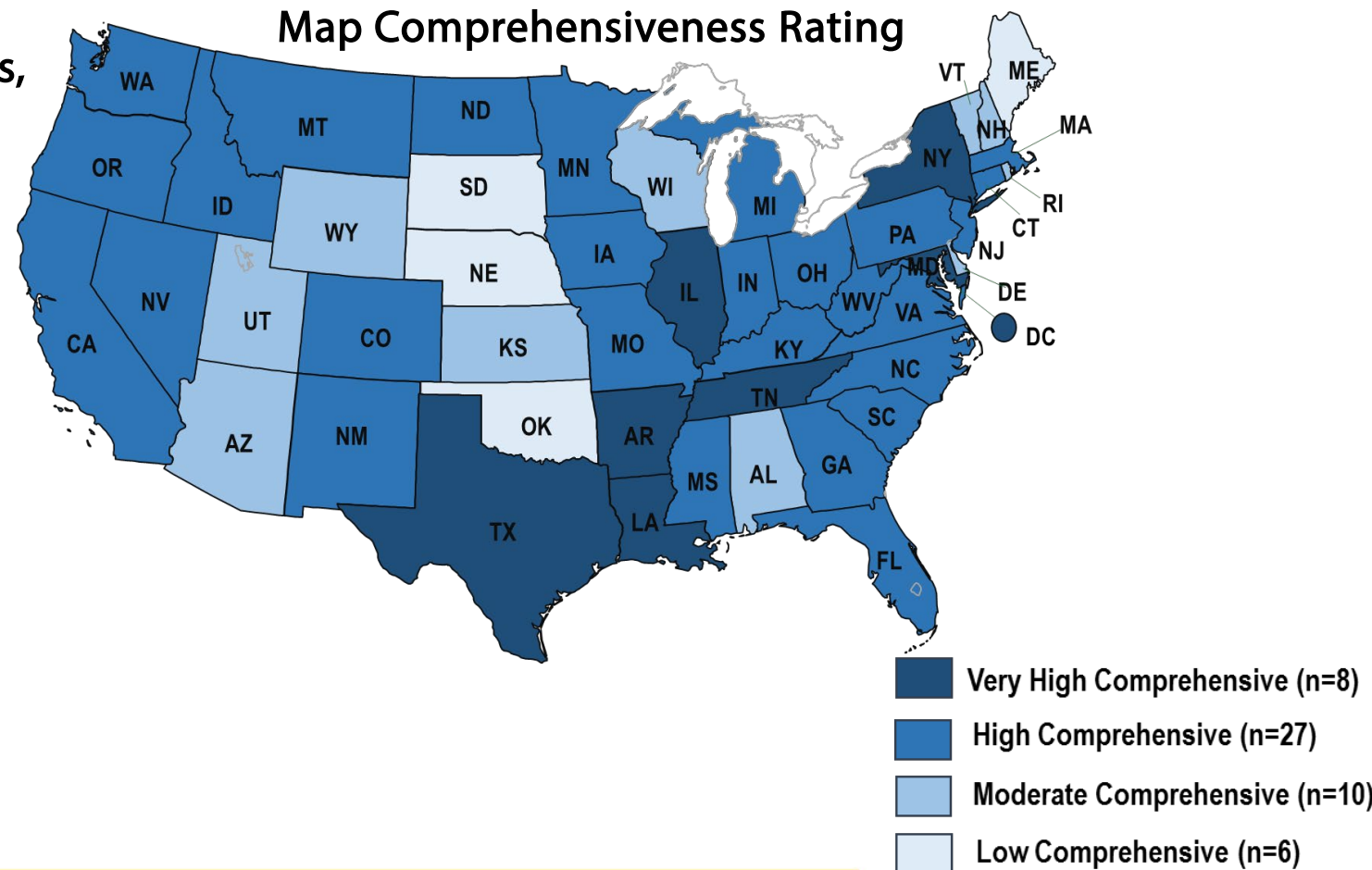


# Policy Ratings

- Systematically measures and evaluates a policy based on its observable features and/or impacts on health

Comprehensiveness PAD Law Rating Overall Scores,

Comprehensiveness Rating Classifications of State PAD Law	
Total Score	Classification
22-28	Very High
15-21	High
8-14	Moderate
1-7	Low



# Data through APIs

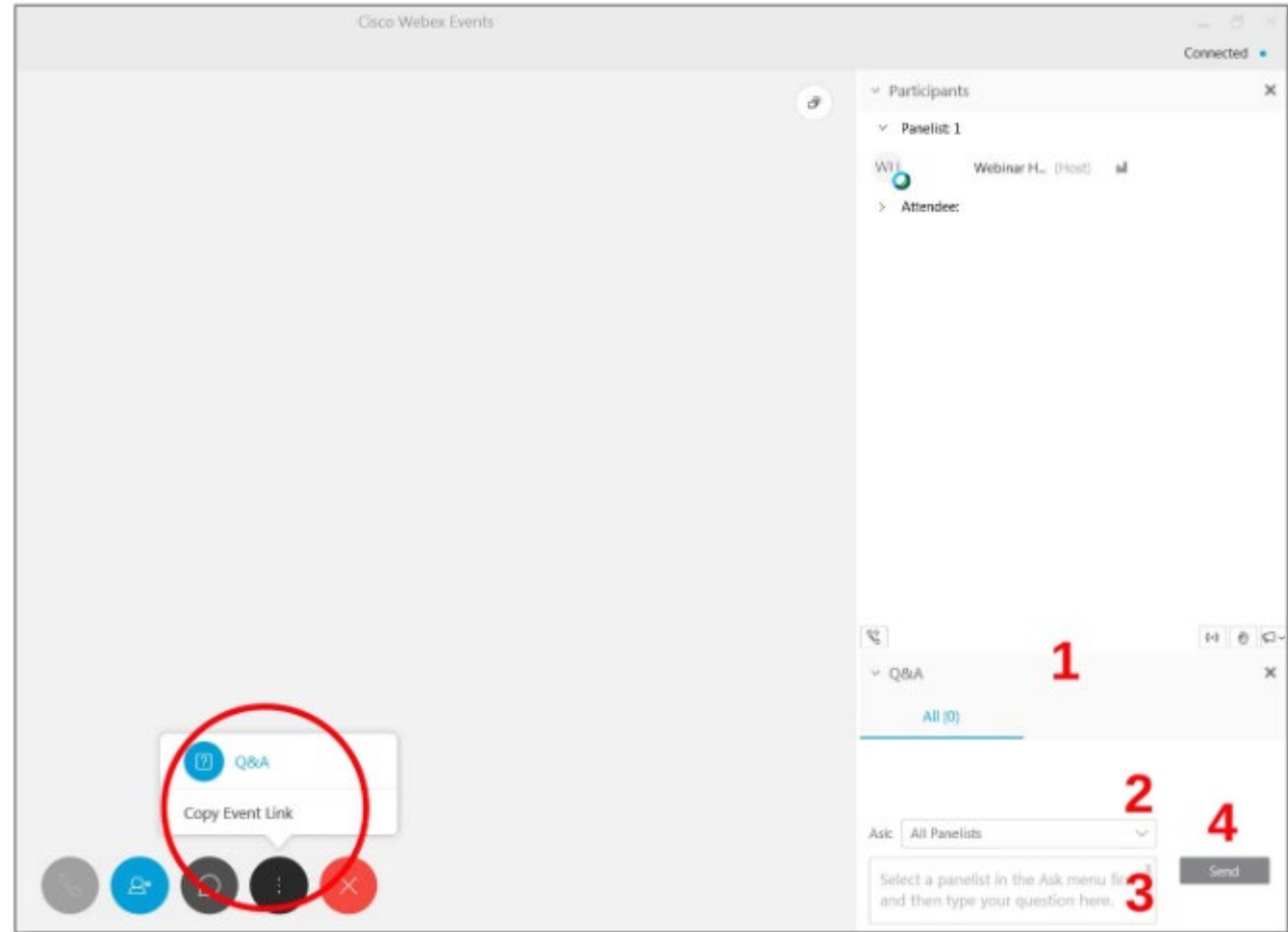
- [Cityhealth.org](https://www.cityhealth.org)
- [Pdaps.org](https://pdaps.org)
- Data to other modern data science systems that mesh data

# Learning Resources

- Policy Surveillance Program's Learning Library
  - <http://LawAtlas.org/Learn>
- PHLR.org Theory & Methods Section
  - <http://phlr.org/theory-methods>
- Public Health Law Academy (ChangeLab Solutions and CDC)
  - <https://www.changelabsolutions.org/public-health-law-academy>

# How to use WebEx Q&A

1. Open the Q&A panel by clicking the “...” button on the bottom of the screen and selecting “Q&A”
2. Select “All Panelists”
3. Type your question
4. Click “Send”



# Thank You!

Join us February 11 at 11:00 a.m. ET for our next webinar:

## **Global Policy Surveillance: Challenges and Opportunities**

Register at [bit.ly/ExplorePS19](https://bit.ly/ExplorePS19)

