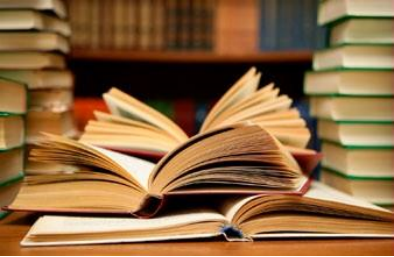


# **Better Health Faster: “Legal Epidemiology” and the Transdisciplinary Model of Public Health Law**

*Scott Burris*

SWISS PUBLIC HEALTH  
CONFERENCE 2018

Better Health Faster: The Social  
Sciences in the Service of Health



# Law is a Powerful Influence on Health

**CDC**  
CENTERS FOR DISEASE CONTROL  
AND PREVENTION

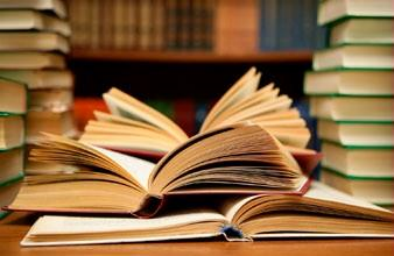
April 2, 1999 / Vol. 48 / No. 12

## **MMWR**<sup>TM</sup> MORBIDITY AND MORTALITY WEEKLY REPORT

- 241 Ten Great Public Health Achievements — United States, 1900–1999
- 243 Impact of Vaccines Universally Recommended for Children — United States, 1900–1998
- 248 Tobacco Use Among Middle and High School Students — Florida, 1998 and 1999
- 253 Transfusion-Transmitted Malaria — Missouri and Pennsylvania, 1996–1998
- 256 Notice to Readers

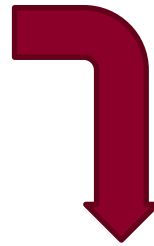
### Ten Great Public Health Achievements — United States, 1900–1999

- Vaccination
- Motor-vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard



# And in Many Ways

- **Interventional**
  - Safety belts
  - Clean indoor air (tobacco control)
- **Infrastructural**
  - Disease control and prevention (e.g. International Health Regulations)
  - Pharmaceutical regulation
- **Incidental**
  - Tax law
  - Drug control laws



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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

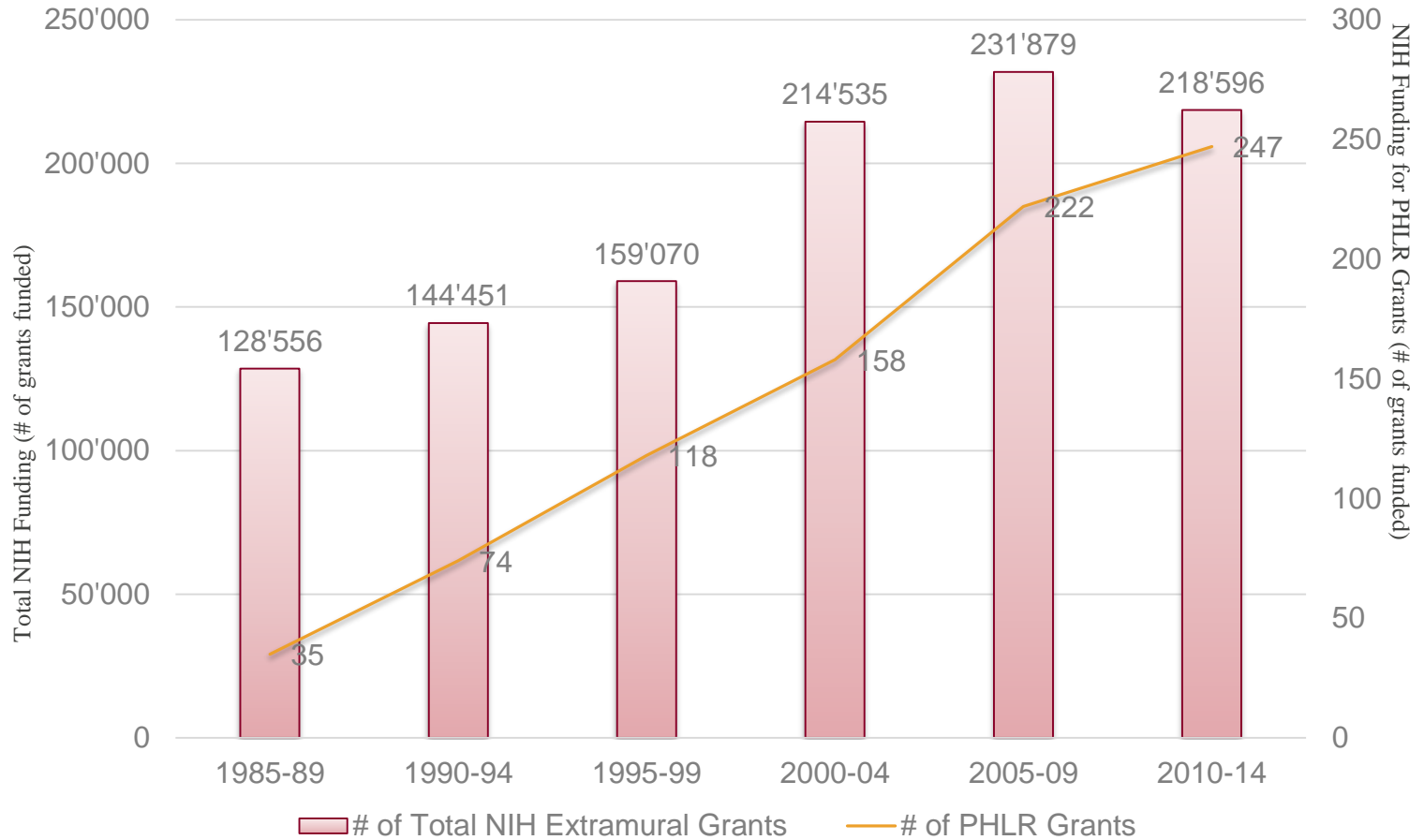
*Temple University; University of Florida; Duke University; Harvard  
University*

A thick green arrow pointing upwards and to the left, with the text 'Particularly important to social determinants' written inside it in white.

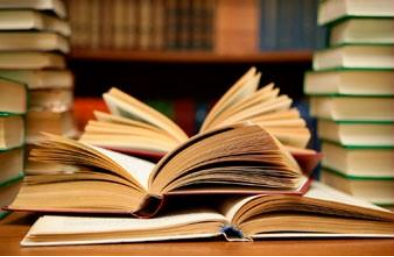
Particularly important  
to social determinants



# NIH Legal Evaluation Funding



NIH grants  
1985-2014

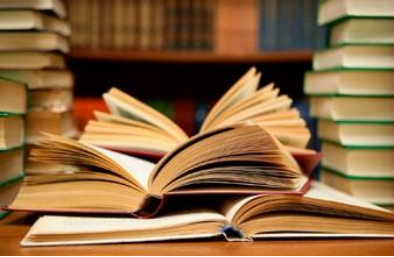


# A Translational Strategy

Use *health* language and concepts

Embody law in familiar health practice

Bring more health science back into law



# Defining a field: public health law research

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

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

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

Moving from Intersection to Integration: Public Health Law Research and Public Health Systems and Services Research

SCOTT BURRIS,<sup>1</sup> GLEN P. MAYS,<sup>2</sup> F. DOUGLAS SCUTCHFIELD,<sup>2</sup> AND JENNIFER K. IBRAHIM<sup>1</sup>



# PHLR as Normal Science

## PUBLIC HEALTH LAW Theory and Methods RESEARCH



Alexander C. Wagenaar and Scott Burris • *Editors*

## Contents

### PART ONE

**Framing Public Health Law Research**

---

### PART TWO

**Understanding How Law Influences Environments and Behavior**

---

### PART THREE

**Identifying and Measuring Legal Variables**

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### PART FOUR

**Designing Public Health Law Evaluations**

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# Consistent methods...

- Reduce research and coding time
- Produce reliable results with known error rate
- Reduce cost of updating
- Are trainable

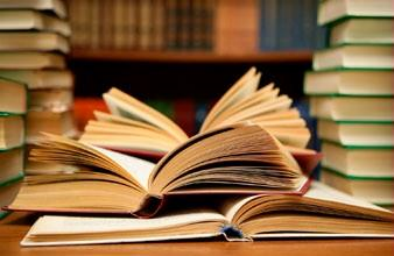


## Measuring Law for Evaluation Research

Charles Tremper<sup>1</sup>, Sue Thomas<sup>2</sup>, and Alexander C. Wagenaar<sup>3</sup>

Evaluation Review  
34(3) 242-266  
© The Author(s) 2010  
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sagepub.com/journalsPermissions.nav  
DOI: 10.1177/0193841X10370018  
http://er.sagepub.com  
SAGE





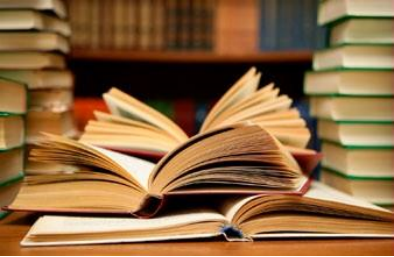
# The Paradigm Shift: Transforming Text of Law into Numerical data

Syringe Distribution Laws\_Data (1) - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

H22 : 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



# Access to the Law and Legal Status and Trends

May 2011      May 2012      Apr 2013

EXPLORE      FILTER

1. Does the state have a law authorizing adults to use medical marijuana?

- 1.1. Does the state law explicitly authorize local jurisdictions to enact laws related to medical marijuana?
- 1.2. What is the effective date of the first medical marijuana law?

2. What are the qualifying diseases that diagnose for medical marijuana use?

3. What are the qualifying symptoms that diagnose for medical marijuana use?

4. What are the state requirements for becoming a qualifying patient for medical marijuana use?

Colorado

2008      2017  
7/1/11      2/1/17

Sources in effect over 1/1/17 - 2/1/17

medical-marijuana-patient-related-laws.rows - 2017-01-01 05:00:00 - 2017-02-01 05:00:00 - Colorado -  
**Effective: 1/1/17 - Through: 2/1/17**

**Colo. Const. Art. XVIII, Section 14 Medical use of marijuana for persons suffering from debilitating medical conditions**

(1) As used in this section, these terms are defined as follows:

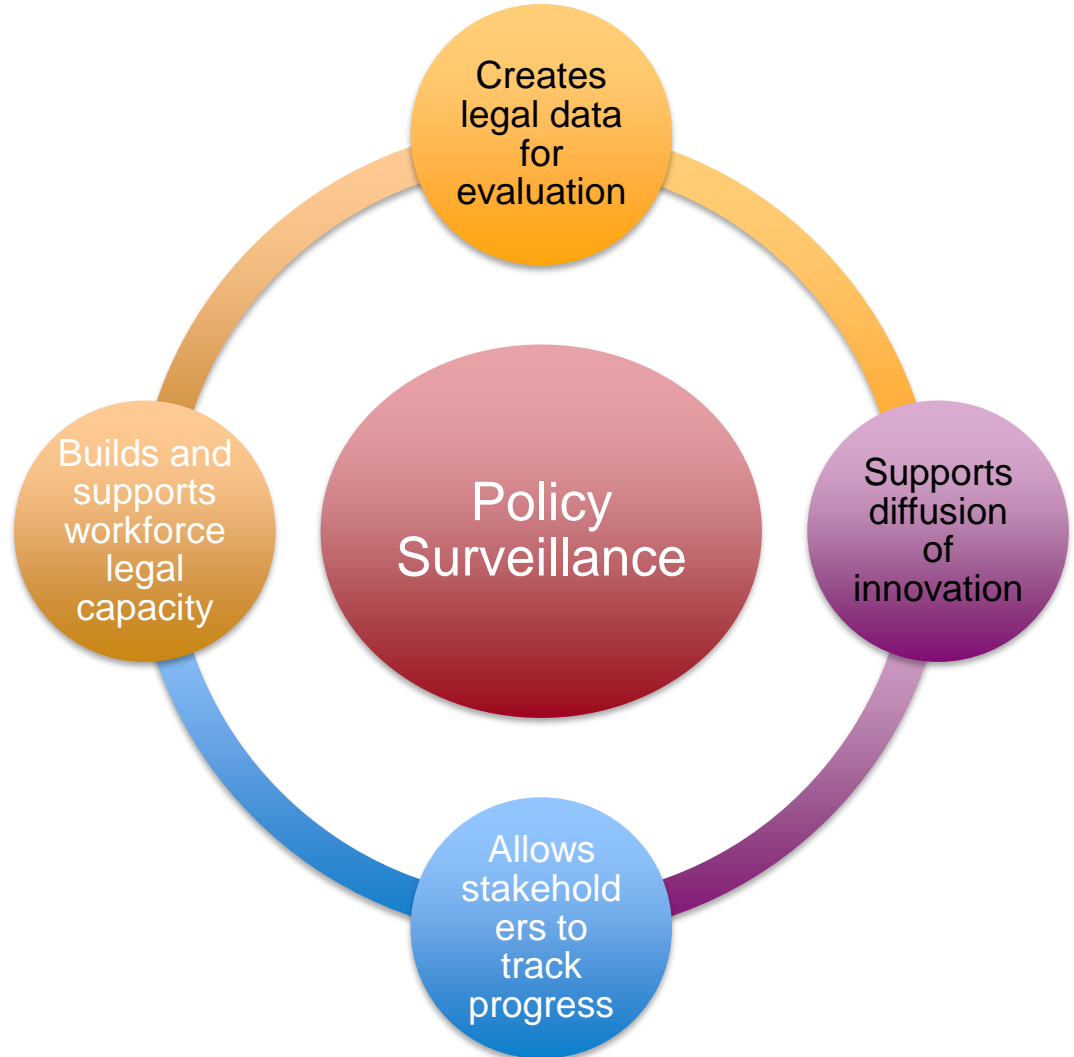
(a) "Debilitating medical condition" means:

- (I) Cancer, glaucoma, positive status for human immunodeficiency virus, or acquired immune deficiency syndrome, or treatment for such conditions;
- (II) A chronic or debilitating disease or medical condition, or treatment for such conditions, which produces, for a specific patient, one or more of the following, and for which, in the



# Policy Surveillance

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





# Data and documentation

RESEARCH PROTOCOL  
July 2017

## Youth Sports Traumatic Brain Injury Laws

THE POLICY  
SURVEILLANCE  
PROGRAM  
A LawAtlas Project

Home / Topics / Youth Sports Traumatic Brain In

### Youth Sports Traumatic Brain In

According to the Centers for Disease Control and Prevention, a concussion, more commonly known as a concussion, is a mild traumatic brain injury (TBI) that occurs when the head is struck or jolted, causing the brain to move rapidly back and forth. This can result in damage to the brain tissue and the release of chemicals that can affect the brain's normal function.

This map identifies and displays key features of such laws.

I. **Dates of protocol:** April 1, 2012; October 2013; April 2014; November 2014; May 2015; July 2017

II. **Scope:** Compile state laws designed to impact the incidence of traumatic brain injuries (TBIs) and/or concussions in youth sports; code their respective features. This is a longitudinal dataset, and captures laws in effect from January 1, 2009 through July 1, 2017. The jurisdictions selected for measurement are the 50 states and the District of Columbia.

### III. Primary data collection

- a. **Project timeline:** First published on April 1, 2012. Updated in October 2013, April 2014, November 2014, May 2015, and July 2017.
- b. **Dates covered in the dataset:** This is a longitudinal dataset covering relevant Youth Sports TBI Laws between January 1, 2009 and July 1, 2017.
- c. **Data collection methods:** The initial research team (the "team") building this dataset in April 2012 consisted of Professor Hosea Harvey, JD, the creator and curator of the dataset (the "subject matter expert"), and two law students (the "students").

The students compiled background information about laws that regulate youth sports searching "concussions and sports," "concussion state laws," "concussion

[Summary Report](#)



# Research papers in top journals using the data



Social Science & Medicine  
Volume 194, December 2017, Pages 67-75



Effects of state-level Earned Income Tax Credit laws in the U.S. on maternal health behaviors and infant health outcomes

Sara Markowitz <sup>a</sup>, Kelli A. Komro <sup>b</sup>, Melvin D. Livingston <sup>c</sup>, Otto Lenhart <sup>d</sup>, Alexander C. Wagenaar <sup>b</sup>

AJPH RESEARCH

## The Effect of an Increased Minimum Wage on Infant Mortality and Birth Weight

Kelli A. Komro, PhD, MPH, Melvin D. Livingston, PhD, Sara Markowitz, PhD, and Alexander C. Wagenaar, PhD

ADDICTION

SSA SOCIETY FOR THE STUDY OF ADDICTION

Explore this journal >

Research Report

### Mapping medical marijuana: state laws regulating patients, product safety, supply chains and dispensaries, 2017

Sarah B. Klieger, Abraham Gutman, Leslie Allen, Rosalie Liccardo Pacula, Jennifer K. Ibrahim, Scott Burris

WEB FIRST

By Stephen W. Patrick, Carrie E. Fry, Timothy F. Jones, and Melinda B. Buntin

## Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates

DOI: 10.1377/hlthaff.2015.1496  
HEALTH AFFAIRS 35, NO. 7 (2016) – ©2016 Project HOPE—The People-to-People Health Foundation, Inc.

Health Economics

Explore this journal >

RESEARCH ARTICLE

### The effect of state laws designed to prevent nonmedical prescription opioid use on overdose deaths and treatment

Ioana Popovici, Johanna Catherine Maclean, Bushra Hijazi, Sharmini Radakrishnan

First published: 18 July 2017 Full publication history

SCIENCE AND PRACTICE

Journal of the American Pharmacists Association xxx (2017) 1–9



Contents lists available at ScienceDirect  
Journal of the American Pharmacists Association

journal homepage: www.japha.org



RESEARCH

Expanding state laws and a growing role for pharmacists in vaccination services

Cason D. Schmit, Matthew S. Penn





# Naming, Ranking ... Incentivizing



AN INITIATIVE OF

the de Beaumont Foundation + Kaiser Permanente

[HOME](#)

[FIND A CITY](#)

[OUR WORK](#)

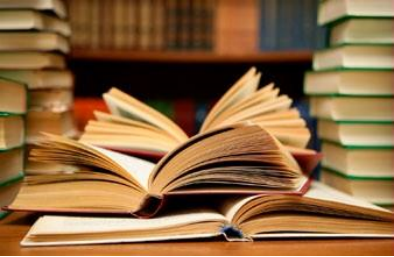
[NEWS AND EVENTS](#)

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WE BELIEVE

Every person, in every city,  
deserves to live the  
healthiest possible life

Policy is one of our most powerful tools to improve people's lives and make cities thrive.

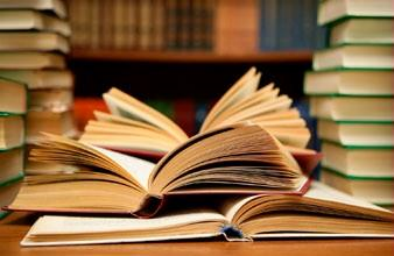


# Naming, Ranking ... Incentivizing

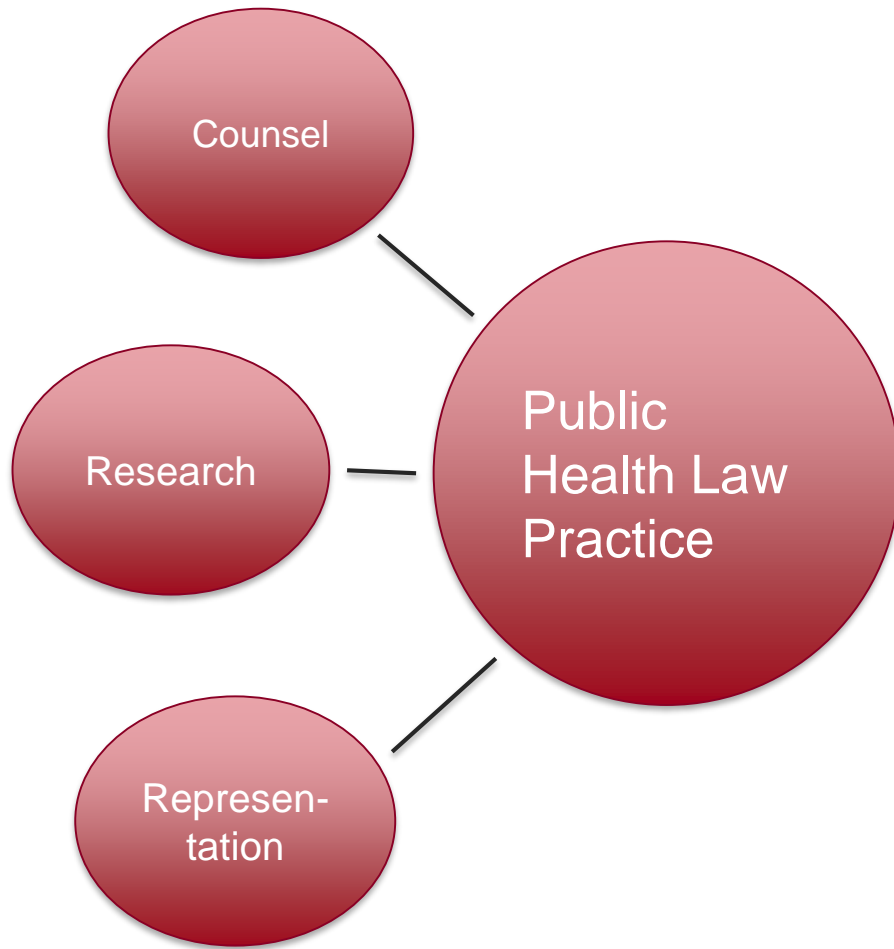
## How's Philadelphia, PA Doing?

Philadelphia receives a silver in earned sick leave.

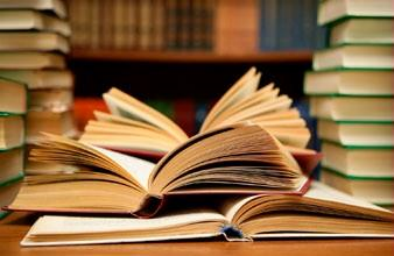
	Bronze	Silver	Gold
City has an earned sick leave law		✓	
Employee can use earned sick leave to care for family members		✓	
Employee can use earned sick leave for domestic violence recovery		✓	
Minimum amount of earned sick leave time employee can earn		✓ ≥ 40 hours	≥ 48 hours
Smallest business size covered under earned sick leave law			1 employee



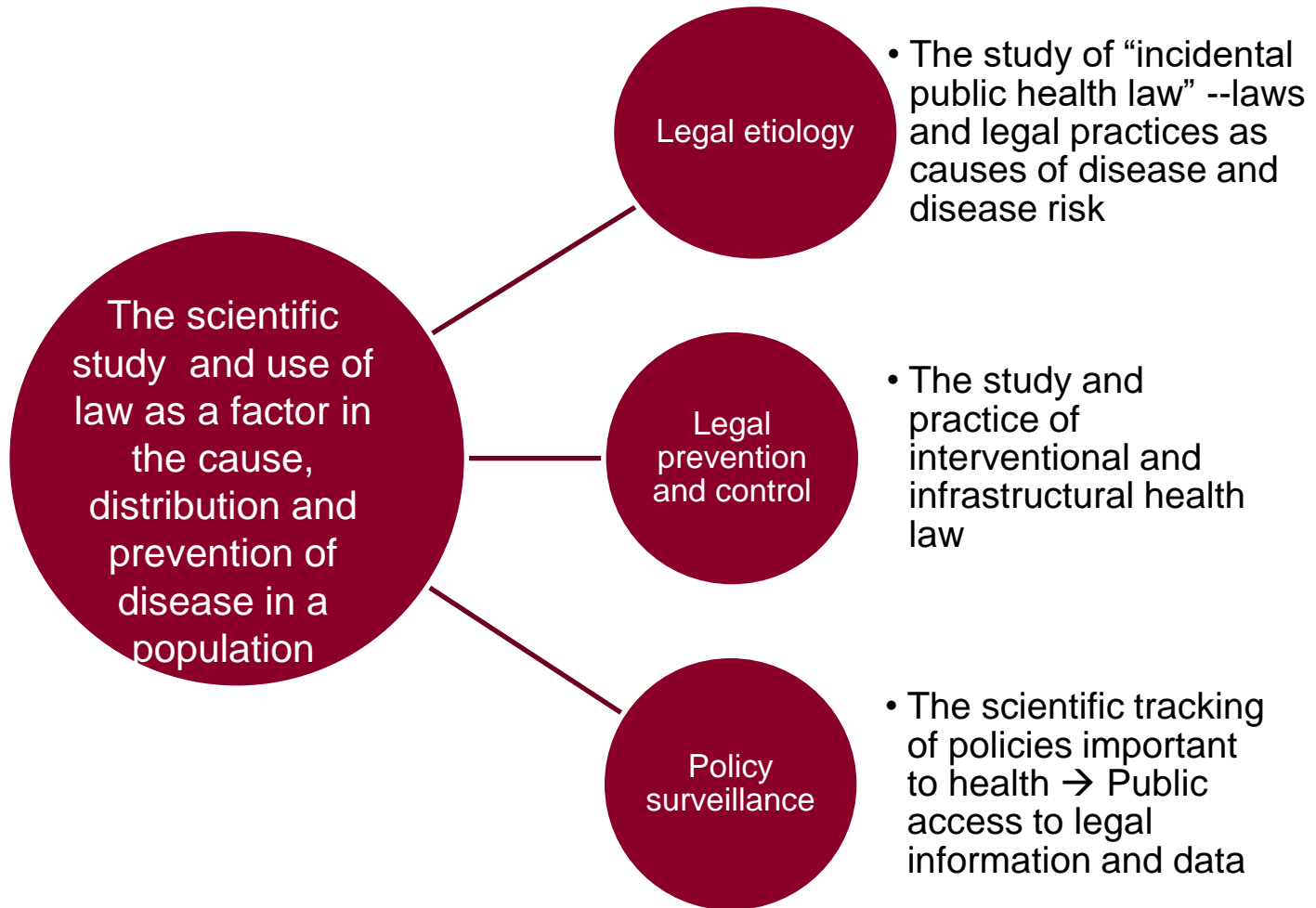
# “Public Health Law Practice”





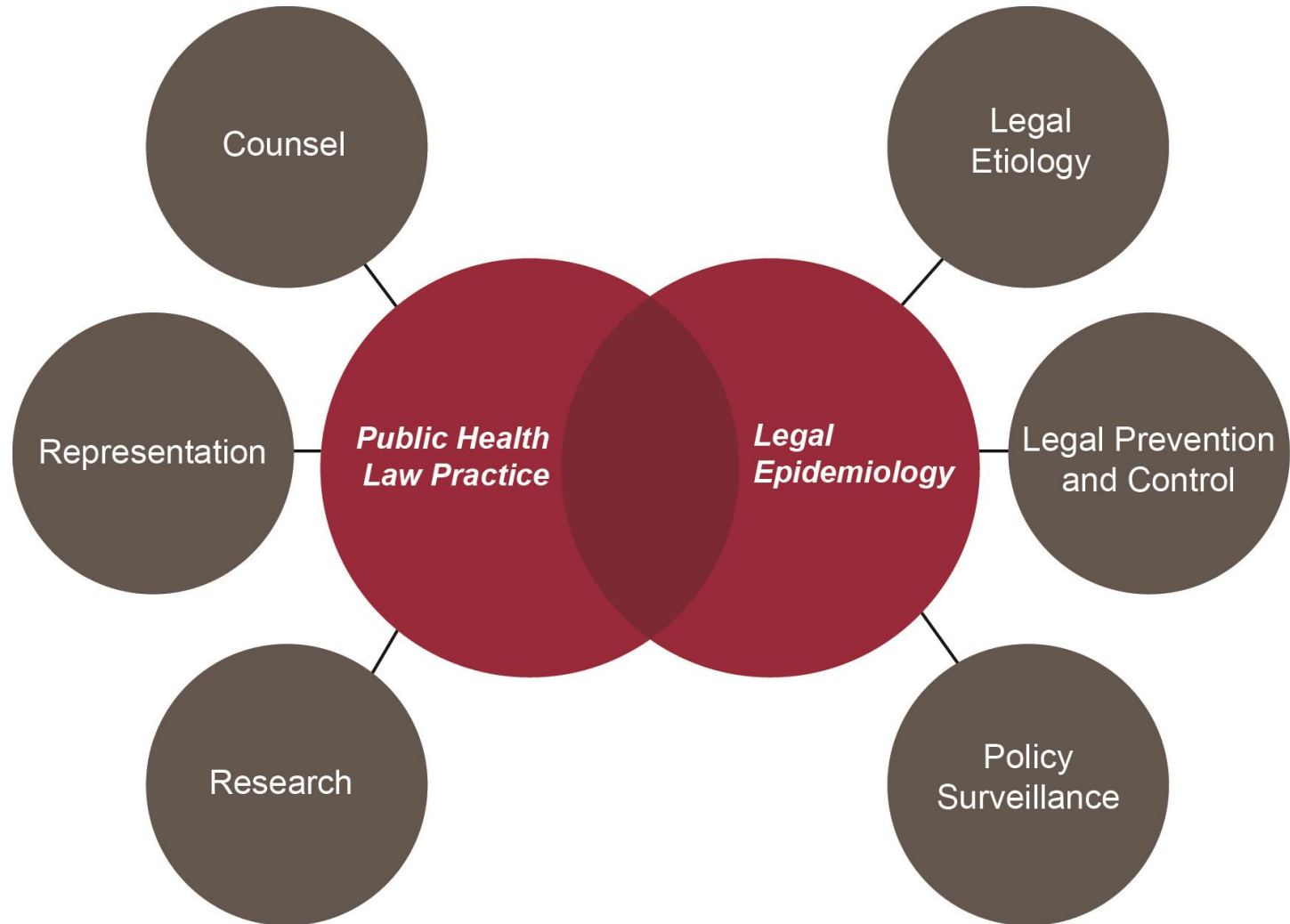


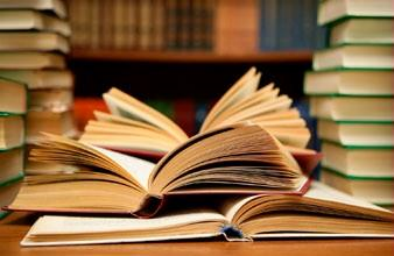
# Plus “Legal Epidemiology”





# A Transdisciplinary Model





# The Five Essential Public Health Law Services





# PUBLIC HEALTH LAW RESEARCH

Theory and Methods



Alexander C. Wagenaar and Scott Burris • Editors



Center for Public Health Law Research

About News Contact

Topics Evidence Theory & Methods

## THEORY & METHODS

INTRODUCTION

FRAMING PUBLIC HEALTH LAW RESEARCH

UNDERSTANDING HOW LAW

The resources in this section explain the scientific methods used to conduct research on the impact laws of laws and legal practices on public health, what we call public health law research or legal epidemiology.

The resources are designed to be useful both to experienced empirical researchers and to others who want to understand basic scientific concepts and methods. The four categories follow the stages of a project from the



# Resources for legal evaluation

← → ↻ 🏠 🔒 <https://www.changelabsolutions.org/phla/advanced-legal-epidemiology> ☆ 🌐 📄 🗨️ 📧



- Introduction to Public Health Law
- Hot Topics in Public Health Law
- Legal Epidemiology
  - Introduction to Legal Epidemiology
  - Introduction to Legal Mapping
  - Advanced Legal Epidemiology Methods
- For Practitioners in Health Departments
- For Researchers
- For Educators
- For Students

## Advanced Legal Epidemiology Methods

This third and final training in the Legal Epidemiology series combines the concepts from the first [Introduction to Legal Epidemiology](#) training and the second [Introduction to Legal Mapping](#) course. Building on concepts from public health law research, this training spells out how to use scientific methods to determine whether a law affects population health.

This course will introduce concepts that are more advanced than those covered in other Public Health Law Academy trainings. It is intended for people with a background or graduate degree in public health, psychology, economics, or a related field; researchers and practitioners with experience in quantitative or qualitative analysis; and others who have a background or work experience in statistical or evaluation methods.

After this training, you will be able to

- define the steps in planning an advanced legal epidemiology study;
- develop logic models and understand socio-legal theories;
- explain the advantages and limitations of various research designs; and
- apply advanced legal epidemiology methods to study the impact of law on health outcomes.



# Legal Mapping Training:

## Learning Library

The Learning Library contains eight training modules that teach skills and competencies needed to complete policy surveillance and legal mapping projects.

The modules include detailed instructions, as well as slide decks and links to tools and resources.

We recommend beginning with Module 1 and working through the modules sequentially. The modules are:

- **Module 1:** Introduction to the Policy Surveillance Program, Policy Surveillance and Legal Mapping Techniques
- **Module 2:** Defining the Scope of the Project and Conducting Background Research
- **Module 3:** Question Development
- **Module 4:** Collecting and Building the Law
- **Module 5:** Coding the Law
- **Module 6:** Quality Control
- **Module 7:** Publication and Dissemination
- **Module 8:** Tracking and Updating the Law

### Monthly Webinars

Join a monthly webinar to learn introductory and advanced policy surveillance methods. [Learn more >>](#)

### Policy Surveillance Summer Institute 2018

Save the date for June 7-8, 2018, for the 3rd Policy Surveillance Summer Institute where attendees will learn introductory and advanced policy surveillance methods. [Learn more >>](#)

*The Learning Library was developed using funding from the Robert Wood Johnson Foundation, with modules supported in part by the Centers for Disease Control and Prevention and ChangeLab Solutions under Cooperative Agreement Number NU38OT000141. The views expressed in written materials or publications and by the speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.*

[Go to Module 1](#)



[www.LawAtlas.org](http://www.LawAtlas.org)

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