

# Assessing Electronic Health Records Laws

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## Presentation Overview

- ❑ Background
- ❑ 50-state assessment of laws addressing electronic health information (EHI)
- ❑ Mapping the legal landscape
- ❑ Evaluating the impact of laws
- ❑ Next steps
- ❑ Questions and answers



## **BACKGROUND: LAW AND EHI**

# Legal Epidemiology and Impact Research

## □ Definition

- Systematic analysis of the characteristics, scope, implementation, and impact of public health laws

## □ Goals

- Increase the evidence base for laws' impact on systems, outcomes, and economics
- Identify and encourage use of current legal epidemiology research methods
- Create a national platform for the study of laws among public health practitioners at CDC and other organizations

## **Legal Epidemiology and Impact Research: Services**

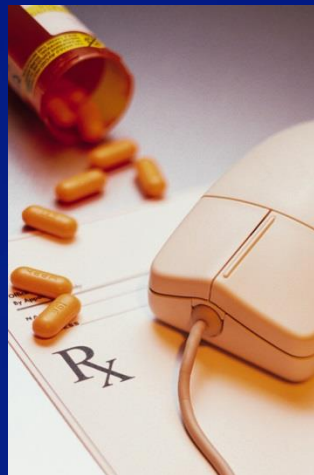
- ❑ **“Legal assessments”**—through legal research, collect, analyze, and code STL laws that impact public health
- ❑ **“Policy surveillance”** –longitudinal, scientific collection, coding, and analysis of laws important to health across jurisdictions
- ❑ **“Legal evaluations”**—link findings from legal research to public health data
  - Return on investment and economic data
  - Health statistics
  - Organizational behavior



# LEGAL ASSESSMENT OF EHI

## Objectives for Research

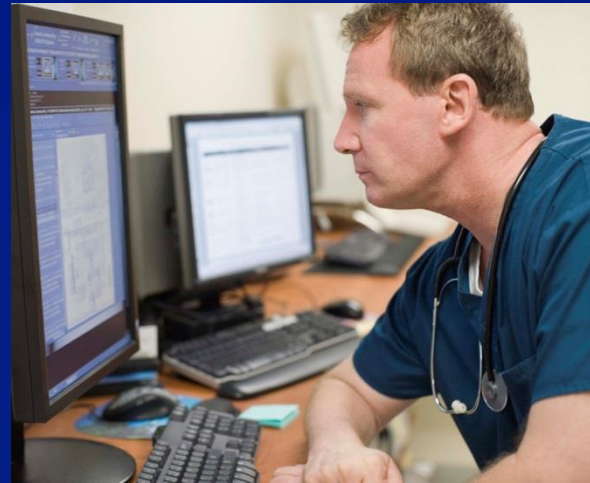
- ❑ Objective 1: Identify the EHI legal landscape
- ❑ Objective 2: Analyze laws pertaining to specific public health studies and existing data
- ❑ Objective 3: Provide foundation for future impact research in legal epidemiology





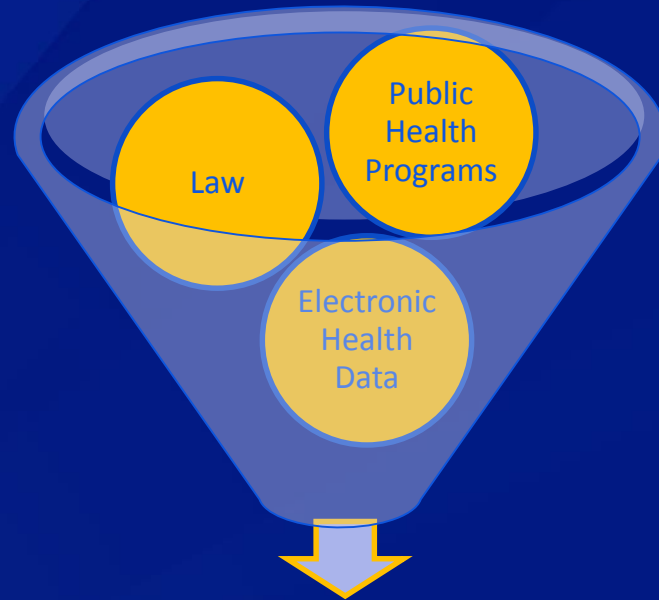
## Study Focus: EHI

- ❑ **EHI—not electronic health records (EHR) alone**
  - Legal assessment addressing EHI
    - Applicable to additional data uses
    - Useful to draw legal analogies for emerging EHI issues
    - Consistent with trend to harmonize public health and healthcare goals



# Electronic Health Information: Research Question

- Unique questions
- Differing perspectives
- Differing effects



Improvements to the Health System

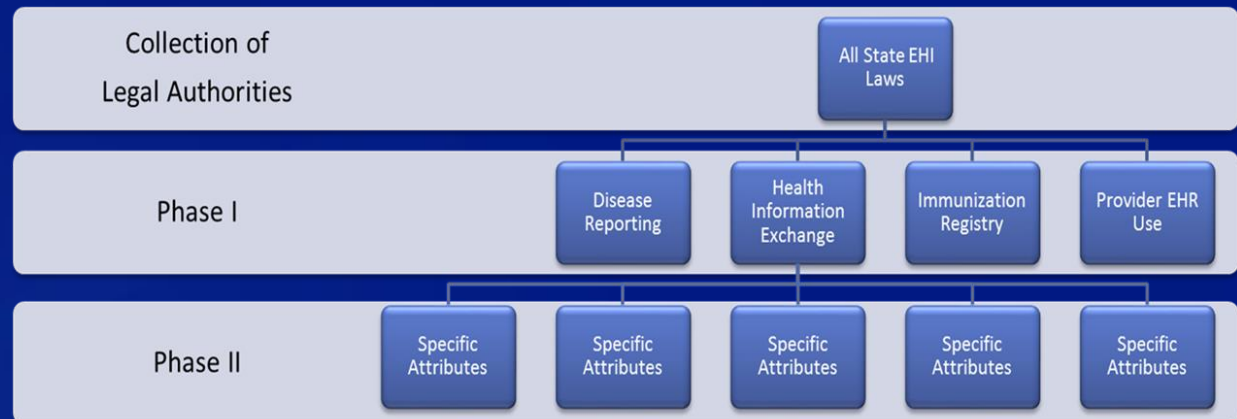
# Electronic Health Information: Methodology

## ❑ What we did:

- Created a 2-phase assessment with tiered analysis
- Includes policy surveillance to capture new provisions in real time

## ❑ How this helps:

- Reflects use categories with primary and secondary referencing
- Allows multi-functional or cross-sectional assessments
- Provides flexibility and reproducibility



## Preliminary Results

- ❑ **States have passed a significant number of EHI-related laws**
  - Approximately 2,000 statutes and regulations
- ❑ **State legal frameworks also vary qualitatively**
  - Content covered by statutes and regulations creates differing legal environments
- ❑ **Laws often relate to more than one area of public health importance**

# Preliminary Results—EHI Legal Landscape

## □ Definitional Provisions

- Legal definitions
- Related code sections
- Equivalence
- Health information technology (HIT) standards



## □ Data Control

- Storage and security
- Privacy and confidentiality
- Patient access
- Health department access
- Reporting and data collection
- Healthcare provider use
- Other data uses

## Preliminary Results—EHI Legal Landscape (Cont.)

### □ Implementation and Infrastructure

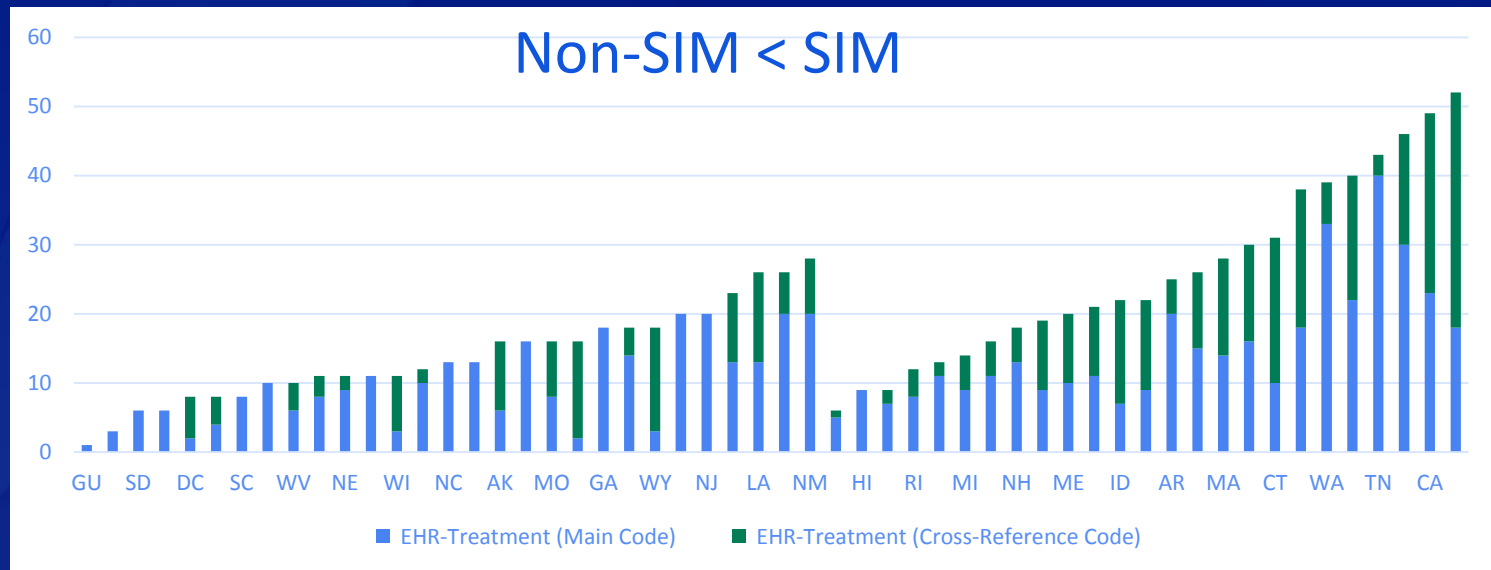
- Oversight
- Incentives
- Sustainability
- Enforcement and crimes
- Health Information Exchange (HIE)
- Opt-in/opt-out provisions

### □ Specific Contexts

- Research
- Immunization
- Laboratory testing
- Insurance enrollment and claims
- Workers' compensation
- Vital records
- Telemedicine
- Mental/behavioral health
- Developmental disability services
- Substance abuse
- Education
- Detention/corrections

## Preliminary Conclusions: SIM Example

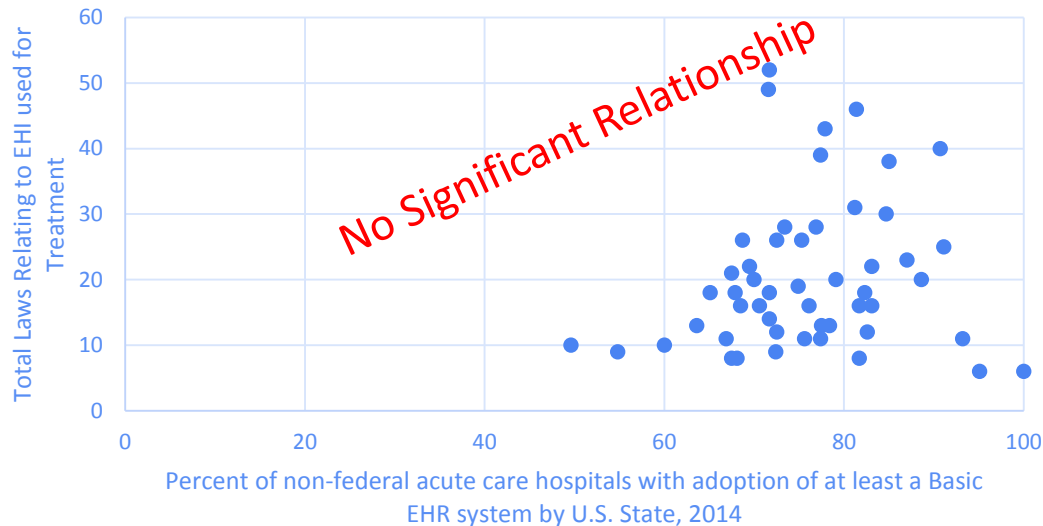
- CMS State Innovation Model Round 1 states have different legal landscapes than non-SIM states
  - Generally, SIM states have more laws related to certain EHI uses than non-SIM states



## Preliminary Conclusions (Cont.)

### Quantity is not everything!

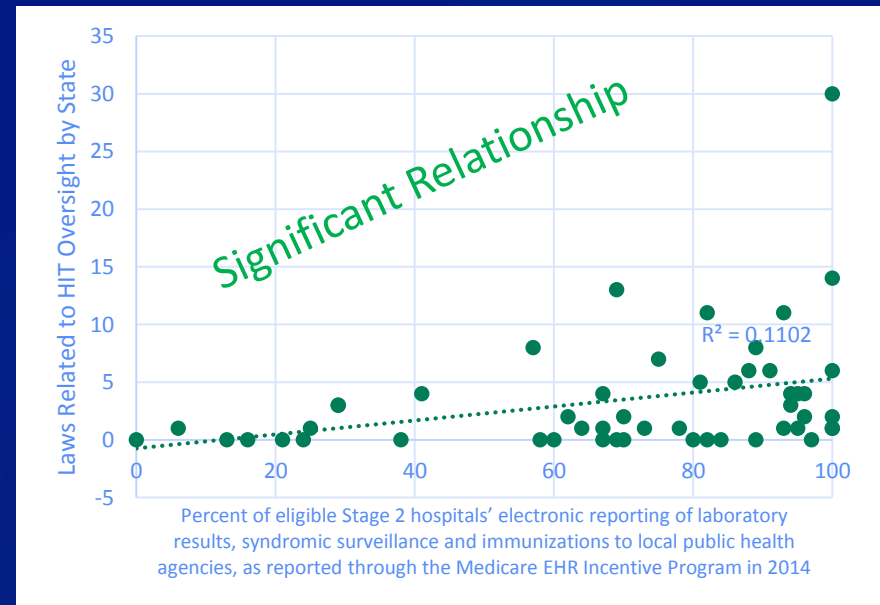
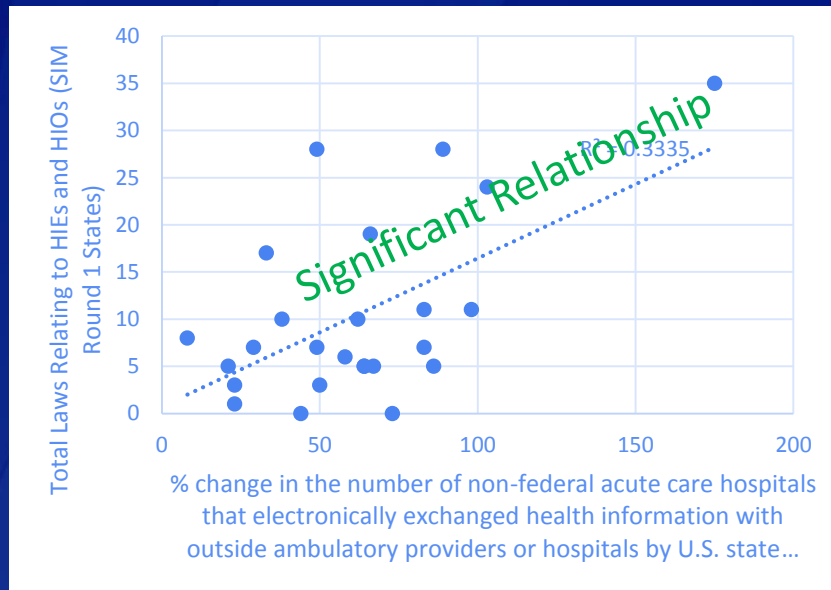
- The number of laws in a state by itself does not appear related to certain outcomes
  - Ex: EHR adoption rates
- What about the content of the laws???





## Preliminary Conclusions (Cont.)

- The law is related to important healthcare objectives
  - Positive relationships were found between
    - Number of HIE laws and an increase in HIE activity among SIM Round 1 states
    - Number of HIT Oversight laws and reporting public health data



\*Correlational relationships are statistically significant ( $p < 0.05$ ).

## Next Steps: Assessment of Single Domains

- Laws in a particular domain may include reference to electronic health information
- For example, ealthcare-associated infection reporting may include electronic reporting mechanisms between facilities, states, and public payers

CODE	REPORTING TO ...								
STATES	Facility -> State Mandatory?	Facility -> State Permissive?	Facility -> NHSN Mandatory?	Facility -> NHSN Permissive?	Facility -> CMS Mandatory?	Facility -> CMS Permissive?	State -> Public Mandatory?	State -> Public Permissive?	If Pub. Rept'g. require plain language?
STAT	Column6	Column7	Column8	Column1	Column83	Column82	Column10	Column11	Column12
NE	0	0	0	0	0	0	1	0	0
NY	1	0	1	1	0	0	1	0	1
NH	1	0	1	1	0	0	1	0	0
NJ	1	0	1	0	0	0	1	0	0
NM	1	1	1	0	0	0	1	0	0
NY	1	0	0	1	0	0	1	0	0
NC	1	0	1	0	1	0	1	0	0
ND	0	0	0	0	0	0	0	0	0
OH	1	0	0	0	0	0	1	0	0
OK	1	0	0	0	0	0	0	0	0
OR	1	1	1	0	1	0	1	0	1
PA	1	0	1	0	0	0	0	0	0
RI	1	0	0	0	0	0	1	0	1
SC	1	0	0	1	0	0	1	0	1
SD	0	0	0	0	0	0	0	0	0
TN	1	0	1	0	0	0	1	0	0
TX	1	0	1	1	0	0	1	0	1
UT	1	0	1	0	0	0	1	0	0
VT	1	0	0	0	0	0	1	0	0
VA	1	0	1	0	0	0	0	1	0
WA	1	0	1	0	0	0	1	0	0



# Making Data Available

- ❑ Open data provides expanded utility
- ❑ [Data.cdc.gov](https://data.cdc.gov)
  - A publicly available repository of CDC public health data sets
    - Data available through Application Programming Interface (API)
      - Allows users to use data for other applications



The screenshot shows the Data.CDC.gov website interface. At the top, the CDC logo and name are visible, along with navigation links for 'Contact Us', 'Data.CT', 'Sign Up', and 'Sign In'. Below the header, the page title is 'Data.CDC.gov' and the main heading is 'BRFSS Prevalence And Trends Data: Health Care Ac...'. A sub-heading states 'Percentages are weighted to population characteristics. Data are not'. Below the heading, there are several interactive buttons: 'Manage', 'More Views', 'Filter', 'Visualize', 'Export', 'Discuss', 'Embed', and 'About'. The main content is a table with columns for 'Year', 'State', 'Yes', 'No', and 'Category'. The table displays data for the year 2010 for seven states: Alabama, Alaska, Arizona, Arkansas, California, Colorado, and Connecticut. Each row includes a progress bar for the 'Yes' percentage and a bar for the 'No' percentage.

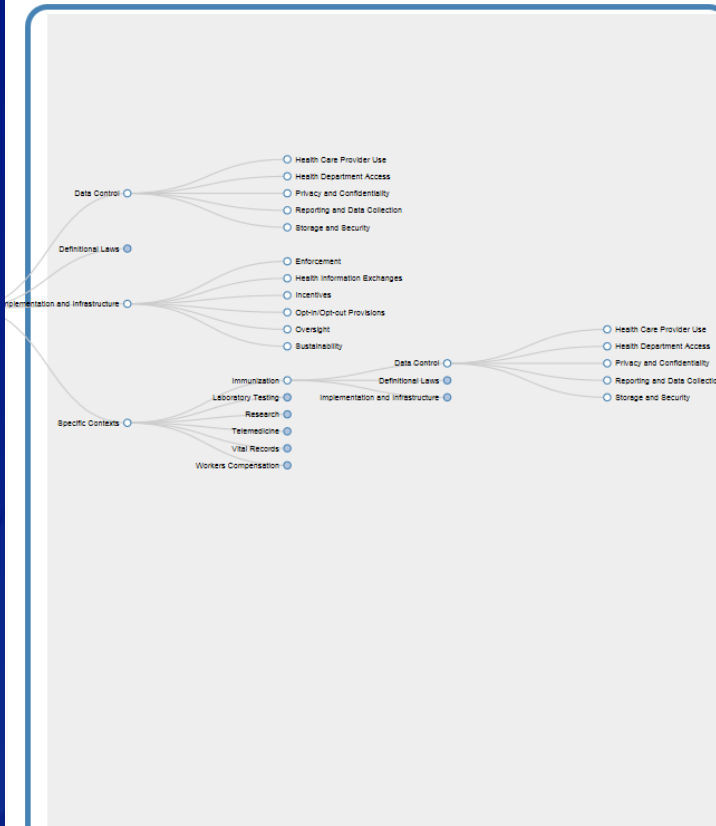
Year	State	Yes	No	Category
1	2010 Alabama	83.8%	16.2%	Health Care Access/Coverage
2	2010 Alaska	82.4%	17.6%	Health Care Access/Coverage
3	2010 Arizona	86.7%	13.3%	Health Care Access/Coverage
4	2010 Arkansas	78.7%	21.3%	Health Care Access/Coverage
5	2010 California	82.2%	17.8%	Health Care Access/Coverage
6	2010 Colorado	83.6%	16.4%	Health Care Access/Coverage
7	2010 Connecticut	90.2%	9.8%	Health Care Access/Coverage

## Utility of an EHI Legal Map

- ❑ **Organizes complex data**
  - Includes 2,000 provisions and dozens of legal subject matters of public health concern (in effect as of January 2014)
- ❑ **Orients users to the big picture**
  - Depicts relationships to other relevant material
- ❑ **Allows users to explore details**
  - Identifies specific provisions that relate to evidence-based subjects
- ❑ **Helps identify legal authorities**
  - For public health law research
  - For public health law practice

## Legal Map Prototype

Featuring the Preliminary (Unvalidated) Results of a 50 State Assessment of State Laws Addressing Electronic Health Information



### Law Detail

Jurisdiction: Ohio Type: Statutes

Citation: OH ADC 5101:3-57-02 | 5101 Job and Family Services Department (Refs & Annos)

Law Title: 5101:3-57-02 Medicaid provider incentive program (MPIP): certified electronic health record technology requirements, adopt, implement, or upgrade and meaningful use stage

### Relevant Law

- Jurisdiction: Florida**  
381.003. Communicable disease and AIDS prevention and control  
Title XXIX. Public Health (Chapters 381-408)  
Chapter 381. Public Health: General Provisions
- Jurisdiction: Kentucky**  
216.267 Duties and responsibilities of Kentucky e-Health Network Board; permitted functions of the board; elements of fully implemented Kentucky e-Health Network  
Title XVIII. Public Health  
Chapter 216. Health Facilities and Services  
Kentucky E-Health Network
- Jurisdiction: Ohio**  
5101:3-57-02 Medicaid provider incentive program (MPIP): certified electronic health record technology requirements, adopt, implement, or upgrade and meaningful use stage one  
5101 Job and Family Services Department (Refs & Annos)  
5101:3 Job and Family Services Department—Medical Assistance Division (Refs & Annos)  
Chapter 5101:3-57. Medicaid Provider Incentive Program
- Jurisdiction: South Carolina**

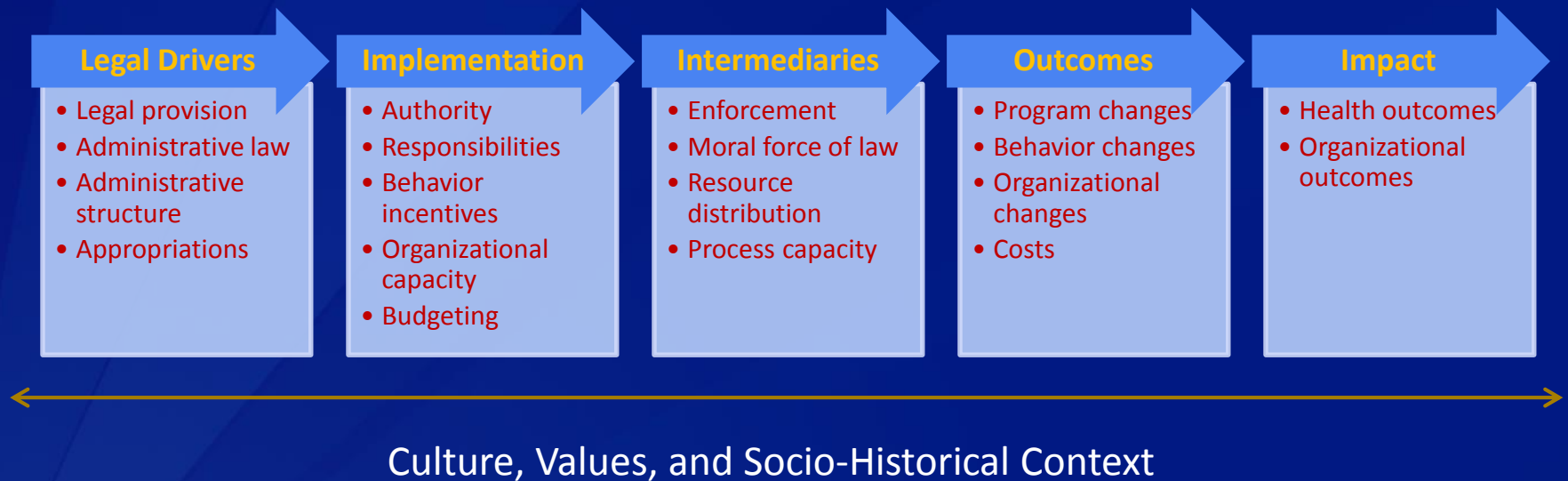
# PHLP EHI MAP PROTOTYPE



# LEGAL EVALUATION OF EHI

# Legal Epidemiology and Impact Research: Logic Model

- The impact of public health law can be seen as a continuum with drivers, outside influences, and effects





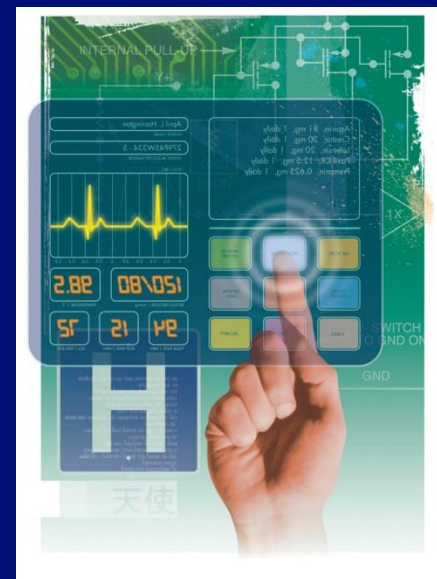
# Legal Epidemiology and Impact Research: Legal Evaluation Case Study

- ❑ **Studying the impact of laws granting health departments access to electronic health information on outbreak response**
  - Background: 2012 fungal meningitis outbreak
  - Issues presented: remote access, query capability, data validation, home rule, what data?
  - Study partners: CDC (National Center for Emerging and Zoonotic Infectious Diseases/Division of Healthcare Quality Promotion, Center for Surveillance, Epidemiology and Laboratory Services/Division of Health Informatics and Surveillance), Association of State and Territorial Health Officials

# Present and Future Data Utility

## □ Potential applicability of EHI to CDC data sources

- Demonstration pilots using Behavioral Risk Factor Surveillance System data for automated detection and reporting of disease and monitoring population health through patient surveys<sup>1</sup>
- Use of administrative data for surveillance<sup>2</sup>
- Advanced molecular detection and surveillance<sup>3</sup>



<sup>1</sup> CDC. Feasibility Testing: Using a Survey Participant's Responses and Electronic Health Record [website]. Updated Aug 21, 2013. Available at [www.cdc.gov/brfss/rd/enhancing/connect\\_with\\_medicine.html](http://www.cdc.gov/brfss/rd/enhancing/connect_with_medicine.html).

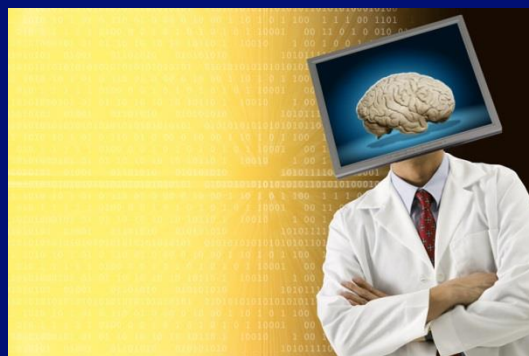
<sup>2</sup> Amanda Elliott et al. Use of electronic health records and administrative data for public health surveillance of eye health and vision-related conditions in the United States. *American Journal of Ophthalmology* 2012;154(6):S63–70.

<sup>3</sup> CDC. Public Health Grand Rounds: Advanced Molecular Detection for Improving Public's Health. Dec 3, 2013. Available at [www.cdc.gov/about/grand-rounds/archives/2013/pdfs/GR\\_AMD\\_Dec3.pdf](http://www.cdc.gov/about/grand-rounds/archives/2013/pdfs/GR_AMD_Dec3.pdf).

## Present and Future Data Utility (Cont.)

### □ Potential big data applications

- Big data will have a role in 21st century public health practice<sup>4</sup>
- National Health Care Surveys: use of blended data,<sup>5</sup> among many other examples
- EHI legal scan can support future state and local programmatic activity by identifying applicable authorities and functions



<sup>4</sup>Nathaniel Schenker. Big Data: Uses and Limitations. CDC; Sep 19, 2013. Available at [www.cdc.gov/nchs/data/bsc/bscpres\\_schenker\\_091913.pdf](http://www.cdc.gov/nchs/data/bsc/bscpres_schenker_091913.pdf).

<sup>5</sup>CDC. National Health Care Surveys [website]. Updated Dec 12, 2013. Available at [www.cdc.gov/nchs/dhcs.htm](http://www.cdc.gov/nchs/dhcs.htm).

## Next Steps

- ❑ **Launch legal mapping tool**
- ❑ **Legal evaluation of EHI**
  - Specific uses of EHI
    - EHR access during outbreaks: qualitative interviews with stakeholders from 15 states
  - Literature review for other uses of EHI
    - Survey data analysis in collaboration with study partners
  - Select issue briefs
- ❑ **Match legal data sets to existing or proposed public health data sources**

# Thank you!

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