

# Putting the Pieces Together: Public Health Law Research



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# Conduct Background Research

Be well-versed in the topic.

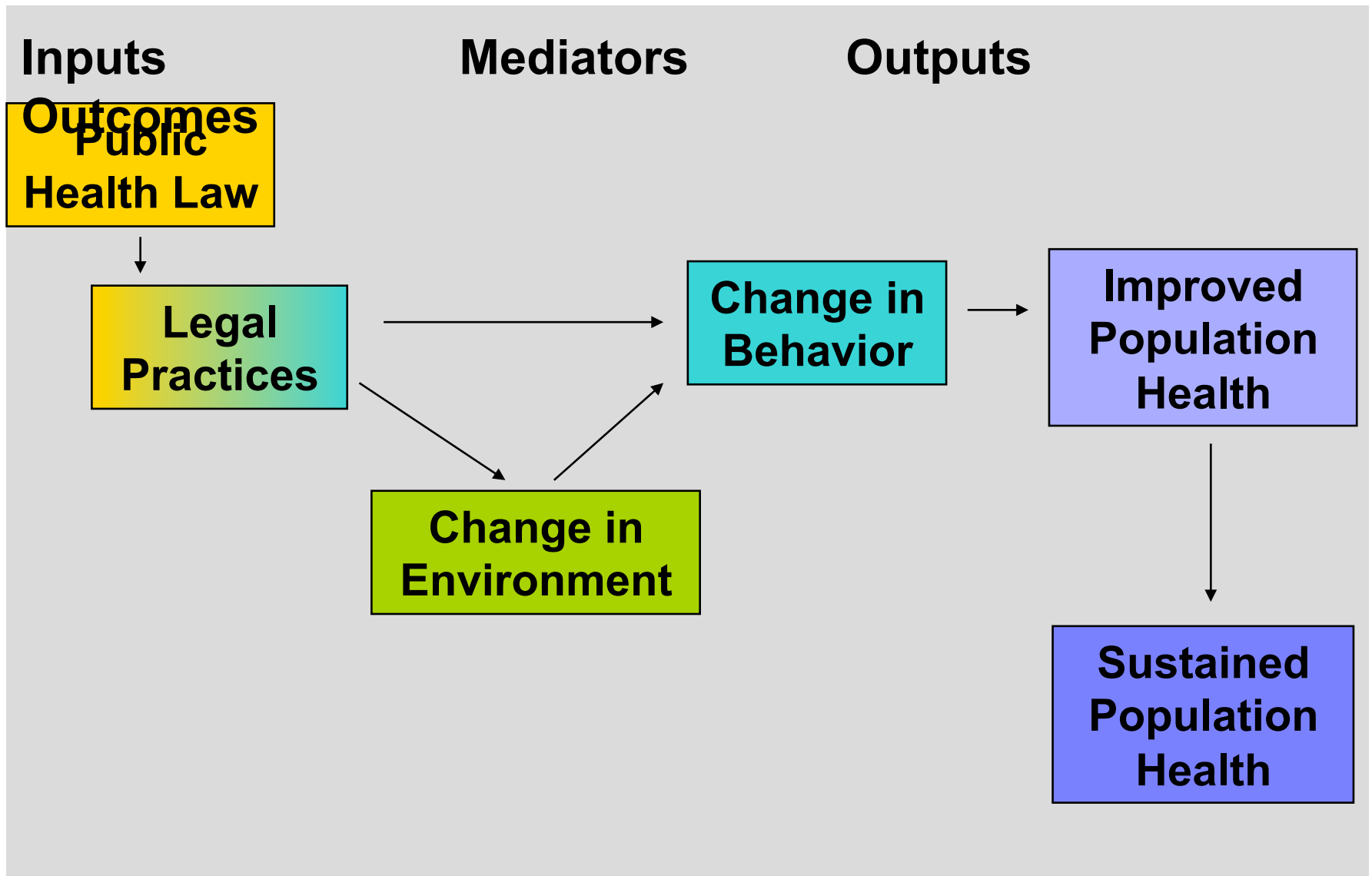
Innovation is good, but it must be grounded.

Think about drawing from lessons learned in other topic areas and other disciplines.

Indicate how the study can advance the field of public health law research, policy and/or practice.



# Understand the Logic



# Develop Research Questions

Public Health Law Research:  
Making the Case for Laws that Improve Health



What are important and interesting questions pertaining to your public health law topic?

Is there sufficient research with consistent findings?  
Are there contradictions or do gaps exist?

What are the important questions for policymakers or practitioners?

Research questions should focus on a specific aspect of the topic of interest and be answerable through systematic data collection and analysis.



# Engage Your Audience

Get to know the audiences:

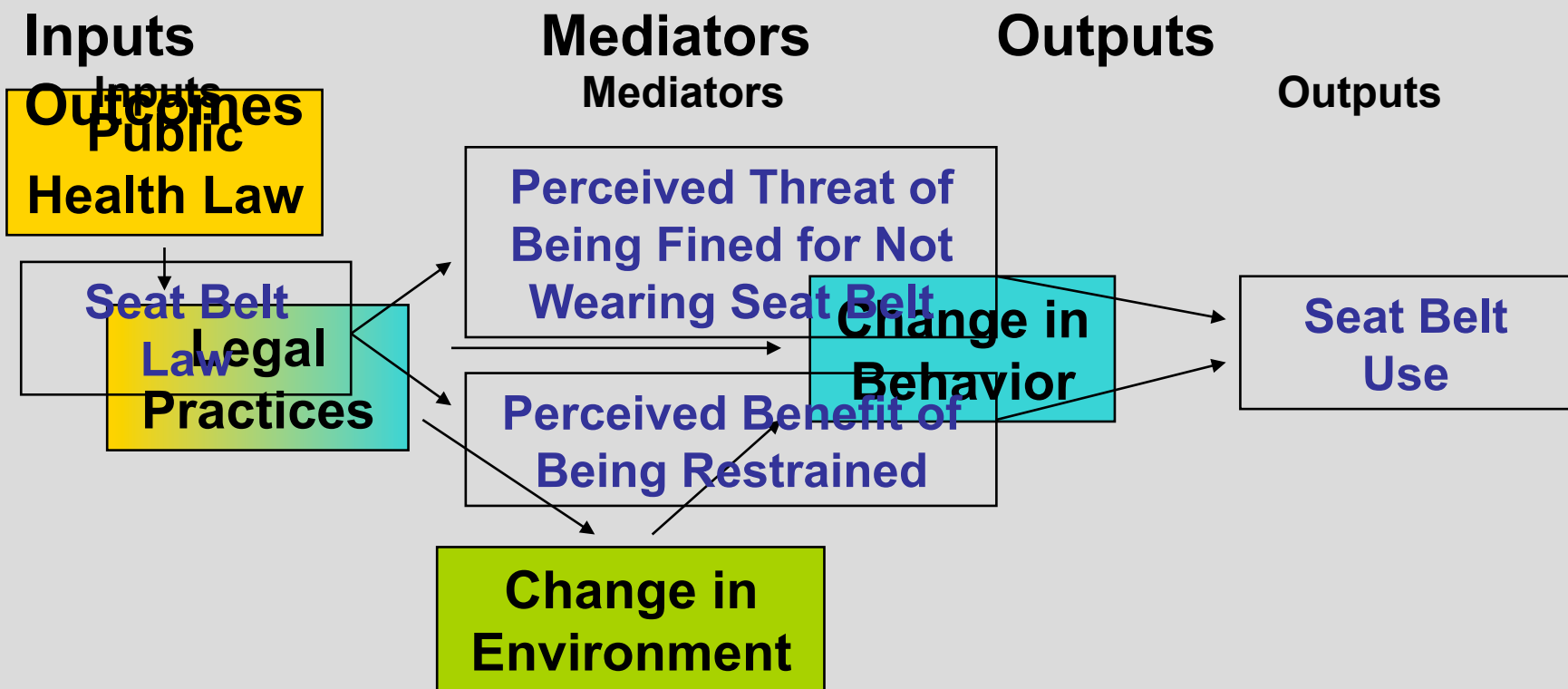
- Policymakers
- Practitioners
- Advocates
- General Public

Engage these groups to help:

- formulate relevant research questions
- understand and disseminate findings

# Develop Hypotheses

How do existing theories guide the hypotheses and variables of interest needed to answer the research question(s)?



# Use the Logic Model

Use logic models or other means of graphic illustration to think through the relationship between the dependent and independent variables.

Describe *what* you will measure and *how* at each stage of the logic model.

Research Question: Do hands-free laws reduce likelihood of car-crash injuries / fatalities?



# Design the Study

State the study design and justify the selection

- Is it experimental or quasi-experimental?
- Is it observational or a mapping study?
- Is it mixed-methods?

It is important to be both *rigorous* and *innovative* in your approach and be certain that it is the best way to answer your research question.

## Describe key elements of the research design.

### – Quantitative

- sampling plan, power analysis, define the dependent and independent variables, covariates, potential confounding factors and indicate the measures and data sources.

### – Qualitative

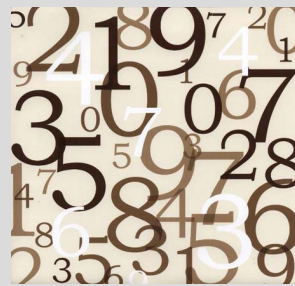
- identify approach (e.g. grounded theory, ethnography, phenomenology, case-study, narratives). Be sure to describe the protocol to recruit participants, describe dependent and independent variables, include the interview questions and indicate whether interview or focus group.

# Select Measures and Collect Data

Use measures that capture the intended constructs.

Describe the process for collecting or assembling data.

- Primary data collection
- Using secondary data



	V1	V2	V3	V4
S1	2	1	1	2.5
S2	7	0	3	3.2
S3	1	.	2	6
S4	3	1	2	1.1

# Analyze the Data

## Quantitative

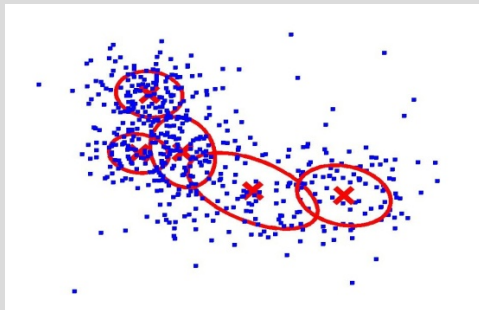
- appropriate statistical tests

## Qualitative

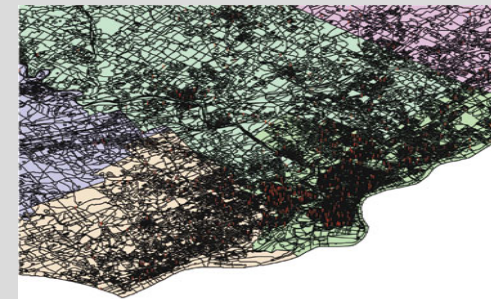
- describe systematic coding schema

## Mixed-Methods

- describe both above plus data triangulation techniques



$$\frac{\partial}{\partial \theta} \text{MT}(\xi) = \frac{\partial}{\partial \theta} \int_{x_a}^x T(x) f(x, \theta) dx = \int_{x_a}^x \frac{\partial}{\partial \theta} T(x) f(x, \theta) dx$$
$$\frac{\partial}{\partial a} \ln f_{a, \sigma^2}(\xi_1) = \frac{(\xi_1 - a)}{\sigma^2} f_{a, \sigma^2}(\xi_1) - \frac{1}{2\sigma^2} \ln \left\{ \frac{\xi_1 - a}{\sigma^2} \right\}$$
$$\int_{x_a}^x T(x) \cdot \frac{\partial}{\partial \theta} f(x, \theta) dx = M \left( T(\xi) \cdot \frac{\partial}{\partial \theta} \ln L(\xi, \theta) \right) \int_{x_a}^x T(x) f(x, \theta) dx$$
$$\int_{x_a}^x T(x) \cdot \left( \frac{\partial}{\partial \theta} \ln L(x, \theta) \right) \cdot f(x, \theta) dx = \int_{x_a}^x T(x) \left( \frac{\partial}{\partial \theta} \frac{f(x, \theta)}{f(x, \theta)} \right) f(x, \theta) dx$$
$$\frac{\partial}{\partial \theta} \text{MT}(\xi) = \frac{\partial}{\partial \theta} \int_{x_a}^x T(x) f(x, \theta) dx = \int_{x_a}^x \frac{\partial}{\partial \theta} T(x) f(x, \theta) dx$$
$$1 - \exp \left\{ - \frac{(\xi_1 - a)^2}{2\sigma^2} \right\} \frac{\partial}{\partial \theta} \ln f_{a, \sigma^2}(\xi_1) \cdot \frac{\partial}{\partial \theta} \ln f_{a, \sigma^2}(\xi_1)$$



# Additional Considerations

## Team Composition

- experience and expertise

## Audience

- involved in the issue
- using the information produced



For additional information on research methods for public health law research, please be sure to check out our website at:

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

