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Overview of Presentation

1. What is a logic model?

2. How can I create a logic model?

3. What is the utility of a logic model in conducting public health law research?
Overview of Presentation

1. What is a logic model?

2. How can I create a logic model?

3. What is the utility of a logic model in conducting public health law research?
What is a Logic Model?

- Visual depiction of the process and mechanisms

Inputs → Mediators → Outputs → Short-term Outcomes → Intermediate Outcomes → Long-term Outcomes
What is a Logic Model?

- Visual depiction of the process and mechanisms

**Inputs** → **Mediators** → **Outputs** → **Short-term Outcomes** → **Intermediate Outcomes** → **Long-term Outcomes**
A Logic Model for Public Health Law Research

**Inputs**
- Legal Practices

**Mediators**
- Change in Environment
- Change in Behavior

**Outputs**
- Improved Population Health
- Sustained Population Health

**Outcomes**
- Public Health Law
A Logic Model for Public Health Law Research

Inputs: Public Health Law

Legal Practices

Mediators: Change in Behavior

Change in Environment

Outputs: Improved Population Health

Sustained Population Health

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1. Collect the relevant information

2. Describe the behavior to be addressed by the law

3. Define the outcomes

4. Describe the mechanisms

5. Draw the logic model

6. Verify the model
How to Create a Logic Model

1. Collect the relevant information
2. Describe the behavior to be addressed by the law
3. Define the outcomes
4. Describe the mechanisms
5. Draw the logic model
6. Verify the model
## Seat Belt Laws – Basic

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<tr>
<th>Inputs</th>
<th>Mediators</th>
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<tr>
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- **Seat Belt Law**
Seat Belt Laws – Basic

Inputs
Seat Belt Law

Outcomes

Mediators
Threat of Being Fined for Not Wearing Seat Belt

Outputs
Seat Belt Laws – Basic

Inputs
Seat Belt Law

Mediators
Threat of Being Fined for Not Wearing Seat Belt

Outputs
Increased Awareness of Benefit of Seat Belt Use
Seat Belt Laws – Basic

- **Inputs**
  - Seat Belt Law

- **Outputs**
  - Increased Use of Seat Belts

- **Mediators**
  - Threat of Being Fined for Not Wearing Seat Belt
  - Increased Awareness of Benefit of Seat Belt Use
Seat Belt Laws – Basic

Inputs
Outcomes

Seat Belt Law

Mediators

Threat of Being Fined for Not Wearing Seat Belt
Increased Awareness of Benefit of Seat Belt Use

Outputs

Increased Use of Seat Belts
Reduced Auto-Related Morbidity and Mortality

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Seat Belt Laws – Basic

Inputs
- Seat Belt Law

Outcomes
- Increased Use of Seat Belts
- Reduced Auto-Related Morbidity and Mortality

Mediators
- Threat of Being Fined for Not Wearing Seat Belt
- Increased Awareness of Benefit of Seat Belt Use

Outputs
- Increased Use of Seat Belts
Seat Belt Laws – Complex

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<tr>
<td></td>
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<td>Secondary Enforcement</td>
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</table>
Seat Belt Laws – Complex

**Inputs**
- Seat Belt Law

**Outcomes**
- Increased Awareness of Benefit of Seat Belt Use
- Threat of Being Fined for Not Wearing Seat Belt

**Mediators**
- Law Enforcement
  - Primary Enforcement
  - Secondary Enforcement
Seat Belt Laws – Complex

Inputs

Seat Belt Law

Outcomes

Law Enforcement

Mediators

Primary Enforcement

Secondary Enforcement

Threat of Being Fined for Not Wearing Seat Belt

Outputs

Increased Use of Seat Belts

Increased Awareness of Benefit of Seat Belt Use

Reduced Auto-Related Morbidity and Mortality

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Seat Belt Laws – Complex

Inputs

Seat Belt Law

Outcomes

Mediators

Law Enforcement

Outputs

Threat of Being Fined for Not Wearing Seat Belt

Increased Use of Seat Belts

Increased Awareness of Benefit of Seat Belt Use

Reduced Auto-Related Morbidity and Mortality

Primary Enforcement

Secondary Enforcement

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What is the utility of logic models?

- Reviewing and revising research questions
- Moving from constructs to measures
- Considering the mechanisms
- Developing hypotheses
What is the utility of logic models?

- Reviewing and revising research questions
- Moving from constructs to measures
- Considering the mechanisms
- Developing hypotheses
Logic Model Using the Theory of Planned Behavior

**Inputs**
- Laws
- Law Enforcement

**Mediators**
- Perceived or Actual Control
- Subjective Norms
- Attitudes
- Behavioral Intention

**Outputs**
- Behavior
- Improved Health Outcomes

**Outcomes**
- Improved Health Outcomes
Logic Model Using the Theory of Planned Behavior

Laws

- Attitudes
  - Subjective Norms
  - Behavioral Intention
- Perceived or Actual Control
- Law Enforcement

Outputs

- Behavior
- Improved Health Outcomes

Inputs

Mediators

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Logic Model for Cell Phone Laws

Hypotheses
1. Fear - Laws & law enforcement practices influence perceived or actual behavioral control.
2. Guilt – Laws & law enforcement practices influence attitudes towards cell phone use while driving
3. Shame - Laws and law enforcement practices influence subjective norms towards cell phone use
Hypotheses
1. Fear - Laws & law enforcement practices influence perceived or actual behavioral control.
2. Guilt – Laws & law enforcement practices influence attitudes towards cell phone use while driving.

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Final Thoughts

Inputs
- Law Making
- Legal Practices

Outputs
- Improved Population Health
- Sustained Population Health

Mediators
- Public Health Law
  - Change in Environment
  - Change in Behavior

Outputs

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Final Thoughts

Inputs
- Law Making
- Legal Practices

Mediators
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- Change in Environment

Outputs
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Final Thoughts

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- Legal Practices

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Mediators
- Public Health Law
- Change in Environment
- Change in Behavior

Outcomes
- Change in Behavior
- Improved Population Health
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Final Thoughts

Inputs

Law Making

Outputs

Improved Population Health

Mediators

Public Health Law

Change in Behavior

Sustained Population Health

Outcomes

Legal Practices

Change in Environment

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For additional information on research methods for public health law research, please be sure to check the Methods Modules and Commissioned Papers sections of our website at:

www.publichealthlawresearch.org