Advanced Legal Epidemiology Methods

Facilitator's Guide

ChangeLab Solutions

CDC
CENTERS FOR DISEASE
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Contents

Who Should Use Our Facilitator's Guides?

Our facilitator's guides are intended for anyone who needs to provide training to public health practitioners about our legal system and its role in improving population outcomes. Public health practitioners may include health department staff, public health lawyers, public health nurses, public health educators, public health advocates, and public health faculty and students in graduate and undergraduate programs. To access facilitator's guides for our other trainings, visit publichealthlawacademy.org.

Training Overview

About This Training

The third and final training in the Legal Epidemiology series, Advanced Legal Epidemiology Methods, combines the concepts from the first training, Introduction to Legal Epidemiology, and the second course, Introduction to Legal Mapping. Building on concepts from public health law research, this training walks through the process of how to use scientific methods to determine whether a law affects population health.

Target Audience

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 other experts who have a background or work experience in statistical or evaluation methods.

Learning Objectives

- 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
- Apply advanced legal epidemiology methods to study the impact of law on health outcomes

Materials

- Facilitator's Guide: This document can be adapted to provide a training that is customized for your audience.
- Slide Presentation & Script: The slides and script are separate files that can be modified to reflect your audience, training content, and speakers.
- Facilitator's Checklist: The checklist is a separate file that will help you prepare to deliver any training offered by the Public Health Law Academy.

Equipment

- Laptop computer
- Projector

Instructions for Facilitators

Before you start, we recommend that you download the Facilitator's Checklist, which is intended to help you prepare to deliver any training offered by the Public Health Law Academy. In this section, we have identified options for tailoring this training, Advanced Legal Epidemiology Methods, for your audience and venue.

Prepare for the Presentation

As the facilitator, you should first go through the materials to familiarize yourself with the content. We recommend that you watch the entire Advanced Legal Epidemiology Methods training. Once you are familiar with it, you can modify the content and length to suit your audience, available time, and venue.

Before Starting the Presentation

We suggest that you have participants complete the pre-training survey included in this guide on page 13. When paired with the post-training survey, the pre-training survey will provide information about the quality of the session. If you are not giving the presentation in person, you can distribute the surveys electronically.

During the Presentation

Depending on the length and format of your presentation, you should determine whether to allow the audience to ask questions during the training or save questions until the end. Our sample agenda suggests allowing 10 minutes at the end of the presentation for closing remarks and general questions. However, this time can be adjusted to suit the needs of the presentation setting and your audience.

After the Presentation

When the presentation is complete, participants should fill out the post-training survey on pages 14-15.

Finally, we are interested in your experience with using this curriculum. Please let us know if you have any questions or feedback on how to improve these materials at PHLAcademy@changelabsolutions.org.

Training Agenda

Pre-Training Survey   5 minutes*

Objective

- Have participants complete the pre-training survey

Resource

- Pre-training survey (p. 13 of this guide)

Introduction & Presentation Overview   10 minutes*

Objectives

- Introduce presentation topic and presenter(s)
- Provide any necessary disclaimers and introductory comments
- Describe the four competencies at a high level
- Provide a roadmap for the rest of the presentation

Resource

- Slide presentation (slides 1-10)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statements 1, 2, 3, & 4

Background: What Is Legal Epidemiology?   2 minutes*

Objectives

- Define legal epidemiology
- Introduce Wendy and provide background on where Wendy is with her legal epidemiology project

Resource

- Slide presentation (slides 11-13)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 1

6

Overview of Advanced Legal Epidemiology Studies   3 minutes*

Objectives

- Review Wendy's task of determining whether distracted driving laws have an effect on health
- Discuss the possible composition of a team for an advanced legal epidemiology study
- Introduce the initial study questions that Wendy and her team will work to answer
- Introduce the three phases of conducting an advanced legal epidemiology study

Resource

- Slide presentation (slides 14-17)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Overview of Phase 1: Planning   2 minutes*

Objectives

- Explain that each phase of a legal epidemiology study is iterative
- Introduce the six steps of the planning phase

Resource

- Slide presentation (slides 18-19)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Phase 1: Steps 1-3   3 minutes*

Objectives

- Explain the process for reviewing evidence and how to best identify background research and findings to date
- Discuss the process for drafting a specific research question that can be tested empirically
- Explain the process for selecting a specific law or feature of law for analysis

Resource

- Slide presentation (slides 20-22)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Phase 1: Step 4 - Develop a Logic Model   30 minutes*

Objectives

- Describe how logic models facilitate advanced legal epidemiology analyses
- Explain each step of the logic model and its purpose
- Practice identifying which features of a law to study by analyzing state laws on distracted driving
- Review definitions
- Explain the causal pathways in the logic model to understand what happens on the ground between a law being passed and a health outcome

Resource

- Slide presentation (slides 23-54)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Socio-Legal Theories   15 minutes*

Objectives

- Discuss three of the most important socio-legal theories that help explain why and how law changes – or does not change – behaviors (deterrence theory, procedural justice theory, and the theory of planned behavior), defining each and providing brief examples
- Provide additional examples of the application of these theories
- Practice using logic models to examine current public health problems, their proximate causes, and potential mediators

Resource

- Slide presentation (slides 55-68)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 2

Phase 1: Step 5 - Check Data Sources   2 minutes*

Objectives

- Define cross-sectional and longitudinal data
- Explain what it means to identify the unit of analysis
- Discuss the optimal conditions for studying the law

Resource

- Slide presentation (slides 69-71)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Questions & Recap   10 minutes*

Objectives

- Provide a moment of reflection and opportunity to discuss any questions
- Take a break, if needed
- Provide a recap and articulate what will be discussed in the second half of the conversation

Resource

- Slide presentation (slides 72-73)

Phase 1: Step 6 - Select a Research Design   30 minutes*

Objectives

- Discuss randomization and how to best design experimental research
- Describe quasi-experimental design and the tools that can be used to produce strong evidence of how a law causes an effect
- Define endogeneity and use an example to illustrate what it might look like in practice
- Test knowledge with a question about quasi-experimental design

Resource

- Slide presentation (slides 74-103)

Legal Epidemiology Competencies for Public Health Practitioners Addressed

- The Legal Epidemiology Competency Model, Competency Statement 3

Overview of Phase 2: Operationalizing Research Design   10 minutes*

Objectives
- Articulate the goal of the operationalizing phase
- List and review the four steps of the operationalizing phase

Resource
- Slide presentation (slides 104-114)

Legal Epidemiology Competencies for Public Health Practitioners Addressed
- The Legal Epidemiology Competency Model, Competency Statement 3

Overview of Phase 3: Analyzing Data   8 minutes*

Objectives
- Discuss the types of analysis to run
- Walk through the six steps of analyzing data
- Describe the process of analyzing plots and bivariate tables between each input and mediator and the outcome

Resource
- Slide presentation (slides 115-123)

Legal Epidemiology Competencies for Public Health Practitioners Addressed
- The Legal Epidemiology Competency Model, Competency Statement 3

Wrap-up & Discussion   10 minutes*

Objectives
- Summarize the topics discussed in this presentation and provide concluding remarks
- Allow participants to ask general questions
- Have participants complete the post-training survey

Resources
- Slide presentation (slides 124-126)
- Post-training survey (pp. 14-15 of this guide)

All times are approximate; total training time is about 2 hours, 20 minutes.

Additional Resources

As you prepare to tailor content from Advanced Legal Epidemiology Methods, we recommend familiarizing yourself with the resources listed in this section. These resources informed the development of the content found in this training and can provide background information as you prepare to tailor the content of your presentation. Finally, as questions from audience members arise during and after the training, you can refer them to these resources for additional information.

Organizations

CDC, Public Health Law Program

cdc.gov/phlp

The Public Health Law Program – part of the CDC's Center for State, Tribal, Local, and Territorial Support – works to improve the health of the public by developing law-related tools and providing legal technical assistance to public health practitioners and policymakers.

ChangeLab Solutions

changelabsolutions.org

ChangeLab Solutions is a national organization whose mission is to create healthier communities for all through equitable laws and policies. Our multidisciplinary team of public health lawyers, policy analysts, planners, and other professionals works with state, tribal, local, and territorial health departments, other government agencies, public health organizations, and anchor institutions to create thriving communities.

Policy Surveillance Program

LawAtlas.org and phlr.org

The Policy Surveillance Program of the Center for Public Health Law Research at Temple University uses a scientific method known as *policy surveillance* to conduct legal mapping. The Policy Surveillance Program's Learning Library contains eight training modules that teach skills and competencies needed to complete policy surveillance and legal mapping projects.

Background Reading & References

Legal Epidemiology Resource Center

changelabsolutions.org/good-governance/phla/legal-epidemiology-resources

The Legal Epidemiology Resource Center provides trainings and materials for those who are building new skills and competencies in the field of legal epidemiology. These resources are intended to supplement ChangeLab Solutions' free online Public Health Law Academy training series **Legal Epidemiology.** Resources have been curated for researchers, educators, students, and practitioners in health departments.

For additional information on the concepts discussed in this training, see the following resources:

- Burris S, Ashe M, Blanke D, et al. Better health faster: the 5 essential public health law services. *Public Health Rep.* 2016;131(6):747-753. doi:10.1177/0033354916667496. journals.sagepub.com/doi/full/10.1177/0033354916667496.
- Burris S, Ashe M, Levin D, Penn M, Larkin M. A transdisciplinary approach to public health law: the emerging practice of legal epidemiology. *Annu Rev Public Health.* 2016;37:135-148. doi:10.1146/annurev-publhealth-032315-021841. ncbi.nlm.nih.gov/pmc/articles/PMC5703193/#:~:text=A%20transdisciplinary%20model%20of%20public,of%20law%20in%20public%20health.
- Burris S, Hitchcock L, Ibrahim J, Penn M, Ramanathan T. Policy surveillance: a vital public health practice comes of age. *J Health Polit Policy Law.* 2016;41(6):1151-1173. doi:10.1215/03616878-3665931.
- Centers for Disease Control and Prevention. The Legal Epidemiology Competency Model Version 1.0. 2018. cdc.gov/phlp/publications/topic/resources/legalepimodel/index.html#appendix.
- Ramanathan T, Hulkower R, Holbrook J, Penn M. Legal epidemiology: the science of law. *J Law Med Ethics.* 2017;45(1_suppl):69-72. doi:10.1177/1073110517703329. ncbi.nlm.nih.gov/pmc/articles/PMC5690565/.
- Tremper C, Thomas S, Wagenaar AC. Measuring law for evaluation research. *Eval Rev.* 2010;34(3):242-266. doi:10.1177/0193841X10370018.

Pre- and Post-Training Surveys

Instructions for Facilitators

- Pages 13-15 contain two sample surveys (pre- and post-training evaluation tools) that you can use to gather feedback on the content and quality of your presentation.*

- Depending on the format of your presentation (in person or online), you may provide hard copies of the surveys at the presentation or make the survey available electronically.

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* Before asking participants to complete the pre- and post-training surveys, please note that the Paperwork Reduction Act has specific requirements for federal agencies in regard to collection and housing of data. You may need permission from the Office of Management and Budget if you are collecting information from 10 or more members of the public.

Advanced Legal Epidemiology Methods:
Pre-Training Survey

Thank you for completing the following survey!

Learning Objectives

Please indicate your current confidence level for each of the following learning objectives:

1. I can define the steps in planning an advanced legal epidemiology study.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

2. I can develop logic models and understand socio-legal theories.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

3. I can explain the advantages and limitations of various research designs.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

4. I can apply advanced legal epidemiology methods to study the impact of law on health outcomes.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

Additional Feedback

5. What questions do you have about advanced legal epidemiology methods?

Thank you for your feedback!

Advanced Legal Epidemiology Methods: Post-Training Survey

Thank you for completing the following survey!

Learning Objectives

As a result of attending the session **Advanced Legal Epidemiology Methods**, please indicate your current confidence level for each of the following learning objectives of the course:

1. I can define the steps in planning an advanced legal epidemiology study.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

2. I can develop logic models and understand socio-legal theories.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

3. I can explain the advantages and limitations of various research designs.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

4. I can apply advanced legal epidemiology methods to study the impact of law on health outcomes.
   a. Not confident
   b. Somewhat confident
   c. Confident
   d. Very confident

Overall Impression

5. How would you rate the overall session?
   a. Poor
   b. Fair
   c. Good
   d. Very good
   e. Excellent

6. I would recommend this session to others.

    a. Disagree

    b. Somewhat disagree

    c. Neither agree nor disagree

    d. Somewhat agree

    e. Agree

Additional Feedback

7. What was the most valuable part of the session?

8. How could this session have been improved?

9. What topics would you like to see addressed in future sessions on public health law?

Thank you for your feedback!