

EPID 806: Applied Research Methods for Program Planning and Evaluation

Course Overview

This course introduces students to the foundational skills for public health program/service planning and evaluation. Students will gain a basic understanding of how to plan and implement public health programs and how to design evaluations to determine if those programs are effective, based on the “evidence to action” program planning and evaluation cycle. This course is an opportunity for students to enhance critical thinking as it relates to a variety of applied research approaches.

Learning Outcomes

By the end of this course, students will be able to:

- Identify steps in the “evidence to action” cycle
- Identify key steps for program design
- Organize program outcome and activities to create a logic model of a public health program
- Understand the relationship between a program logic model and the development of an evaluation plan
- Recognize different approaches for gathering information to inform program design and evaluation (quantitative, qualitative, mixed-methods)
- Describe the 5 broad areas of program evaluation
- Choose an appropriate methodology(ies) to satisfy evaluation needs
- Create an evaluation plan
- Understand approaches to disseminating the results of an evaluation

Course Format

The course is divided into 12 sessions. In general, each session will include a mix of lecture components and interactive discussions or break-out exercises related to the session’s theme. In some sessions, there may be opportunities for protected time to work on the course deliverables.

Text and Materials

OnQ is the teaching platform for EPID 806. All lecture slides, required readings, and assignments will be available through OnQ. There is no required textbook for this course.

Lecture slides will be posted to OnQ prior to the start of each lecture. Please note that the slides are a starting point for the content that will be covered during the class session.

Course Schedule

Week	Topic	Readings	Milestone
1	Introduction and course overview	No assigned readings	
2	Evidence-based public health; searching for evidence	<p>National Collaborating Centre for Methods and Tools. 6S Pyramid: a tool that helps you find evidence quickly and efficiently (video). https://www.nccmt.ca/capacity-development/videos?v=125#ure1</p> <p>Yost J, Dobbins M, Traynor R, DeCorby K, Workentine S, Greco L. Tools to support evidence-informed public health decision making. <i>BMC Public Health</i> 2014; 14: 728. doi:10.1186/1471-2458-14-728</p> <p>DiCenso A, Bayley L, Haynes RB. Accessing pre-appraised evidence: fine-tuning the 5S model into a 6S model. <i>Evidence-Based Nursing</i> 2009; 12: 99-101. http://dx.doi.org/10.1136/ebn.12.4.99-b</p> <p>Robeson P, Dobbins M, DeCorby K, Tirilis D. Facilitating access to pre-processed research evidence in public health. <i>BMC Public Health</i> 2010; 10(95). http://www.biomedcentral.com/1471-2458/10/95</p>	
3	Situational assessment	<p>Ontario Agency for Health Protection and Promotion (Public Health Ontario), Meserve A, Bergeron, K. Focus on: Six strategic steps for situational assessment. Toronto, ON: Queen's Printer for Ontario; 2015.</p> <p>Wilburn A, Vanderpool RC, Knight JR. Environmental Scanning as a Public Health Tool: Kentucky's Human Papillomavirus Vaccination Project. <i>Prev Chronic Dis</i> 2016;13:160165. http://dx.doi.org/10.5888/pcd13.160165</p> <p>Skinner K, Hanning RM, Sutherland C, Edwards-Wheesk R, Tsuji LJ. Using a SWOT analysis to inform healthy eating and physical activity strategies for a remote First Nations community in Canada. <i>Am J Health Promot</i> 2012; 26(6): e159-70. https://doi.org/10.4278/ajhp.061019136</p>	
4	Program theory and logic models	<p>National Cancer Institute. Theory at a glance: a guide for health promotion practice. 2nd edition. U.S. Department of Health and Human Services, National Institutes of Health; 2005. https://cancercontrol.cancer.gov/brp/research/theories_project/theory.pdf</p>	Assignment 1

	<p>Ontario Agency for Health Protection and Promotion (Public Health Ontario), Abdi S, Mensah G. Focus On: Logic models – a planning and evaluation tool. Toronto, ON: Queen’s Printer for Ontario; 2016.</p> <p>Rush B, Ogborne A. Program logic models: expanding their role and structure for program planning evaluation. <i>Canadian Journal of Program Evaluation</i> 1991; 6(2): 95-106. https://evaluationcanada.ca/system/files/cjpe-entries/06-2-095.pdf</p> <p>Rowan MS. Logic models in primary care reform: navigating the evaluation. <i>Canadian Journal of Program Evaluation</i> 2000; 15(2): 81-92. https://evaluationcanada.ca/system/files/cjpe-entries/15-2-081.pdf</p>	
<p>5</p> <p>Program evaluation, stages and designs</p>	<p>Levin-Rozalis M. Evaluation and research: differences and similarities. <i>The Canadian Journal of Program Evaluation</i> 2003; 18(2): 1-31. https://evaluationcanada.ca/system/files/cjpe-entries/18-2-001.pdf</p> <p>Community Engagement & Behaviour Change Evaluation Toolbox. A short guide to monitoring and evaluation. 2011. Available from: www.evaluationtoolbox.net.au.</p> <p>Sridharan S, Nakaima A. Ten steps to making evaluation matter. <i>Evaluation and Program Planning</i> 2011; 34: 135-146. https://doi.org/10.1016/j.evalprogplan.2010.09.003</p> <p>Parrott A, Carman JG. Scaling up programs: reflections on the importance of process evaluation. <i>Canadian Journal of Program Evaluation</i> 2018; 34(1) 131-38 https://doi.org/10.3138/cjpe.43216</p>	
<p>6</p> <p>Questionnaire design & survey methods</p>	<p>Hageman K, Kim A, Sanchez T, Bertolli J. Survey design and implementation. In: Guest G, Namey EE. <i>Public Health Research Methods</i>. 2015. Sage Publications Inc: Thousand Oaks, CA. Available through Queen’s library</p> <p>Guest G, Meyers LS, McClain Burke H, Guarino AJ. Scale development and validation. In: Guest G, Namey EE. <i>Public Health Research Methods</i>. 2015. Sage Publications Inc: Thousand Oaks, CA. Available through Queen’s library</p> <p>Program on Survey Research, Harvard University. Tip sheet on question wording. Available from: https://psr.iq.harvard.edu/files/psr/files/PSRQuestionnaireTipSheet_0.pdf.</p> <p>Program on Survey Research, Harvard University. Tip sheet on survey sampling, coverage and nonresponse. Available from : https://psr.iq.harvard.edu/files/psr/files/PSRTipSheetSamplingCoverageNonresponse_1_0.pdf</p>	<p>Group project: logic model</p>

7	Quantitative methods	<p>Ogilvie D, Adams J, Bauman A, Gregg EW, Panter J, Siegel KR, Wareham NJ, White M. Using natural experimental studies to guide public health action: turning the evidence-based medicine paradigm on its head. <i>Journal of Epidemiology and Community Health</i> 2019; 0:1-6. http://dx.doi.org/10.1136/jech-2019-213085</p> <p>Handley MA, Lyles CR, McCulloch CM, Cattamanchi A. Selecting and improving quasi-experimental designs in effectiveness and implementation research. <i>Annual Review of Public Health</i> 2018; 39: 5-25. https://doi.org/10.1146/annurev-publhealth-040617-014128</p>	
8	Qualitative methods	<p>Isaacs AN. An overview of qualitative research methodology for public health researchers. <i>International Journal of Medicine and Public Health</i> 2014; 4(4): 318-323. https://www.ijmedph.org/article/253</p> <p>Namey EE, Trotter RT. Qualitative research methods. In: Guest G, Namey EE. <i>Public Health Research Methods</i>. 2015. Sage Publications Inc: Thousand Oaks, CA. Available through Queen's library</p> <p>Hammarberg K, Kirkman M, de Lacey S. Qualitative research methods: when to use them and how to judge them. <i>Human Reproduction</i> 2016; 31(3): 498-501. https://doi.org/10.1093/humrep/dev334</p> <p>Jafar AJN. What is positionality and should it be expressed in quantitative studies? <i>Emerg Med J</i> 2018; 35: 323-324. http://dx.doi.org/10.1136/emered-2017-207158</p>	
9	Economic efficiency; creating an evaluation plan; knowledge translation	<p>Rabarison KM, Bish CL, Massoudi MS, Giles WH. Economic evaluation enhances public health decision making. <i>Front Public Health</i> 2015; 3: 164. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4478374/pdf/fpubh-03-00164.pdf</p> <p>Reeves P, Edmunds K, Searles A, Wiggers J. Economic evaluations of public health implementation-interventions: a systematic review and guideline for practice. <i>Public Health</i> 2019; 169: 101-113. https://doi.org/10.1016/j.puhe.2019.01.012</p> <p>Public Health Agency of Canada. Knowledge translation (KT) planning primer. 2012. Ottawa, ON. http://publications.gc.ca/collections/collection_2013/aspc-phac/HP35-37-2012-eng.pdf</p> <p>Johnson J, Hall J, Greene JC et al. Exploring alternative approaches for presenting evaluation results. <i>American Journal of Evaluation</i>. 2013; 34(3): 468-503. https://doi.org/10.1177/1098214013492995</p>	Assignment 2

		<p>Otten JJ, Cheng K, Drewnowski A. Infographics and public policy: using data visualization to convey complex information. <i>Health Affairs</i> 2015; 34(11): 1901-1907. https://doi.org/10.1377/hlthaff.2015.0642</p>	
10	Social context of evaluation; ethics	<p>Chandna K, Vine MM, Snelling SJ, Harris R, Smylie J, Manson H. Principles, approaches and methods for evaluation in Indigenous contexts: a grey literature scoping review. <i>Canadian Journal of Program Evaluation</i>. 2019 34(1);21-47. https://doi.org/10.3138/cjpe.43050</p> <p>Ontario Agency for Health Protection and Promotion (Public Health Ontario). A framework for the ethical conduct of public health initiatives. Toronto, ON: Queen's Printer for Ontario; 2012. https://www.publichealthontario.ca/-/media/documents/framework-ethical-conduct.pdf</p>	
11	Class presentations	No assigned readings	
12	Class presentations	No assigned readings	Group project: final report and self/peer assessment

Assessments

The course will include both individual and group assessments as follows:

Assessment type		Weight
Individual	Assignment 1	20%
	Assignment 2	20%
	Participation	10%
Group	Assignment 3	50%

1. Assignment 1: Describe a public health need and potential interventions (20%)

You work as a health promoter for a local public health agency in Ontario. You have been asked to identify a current public health issue and suggest two potential evidence-based interventions that the agency could consider for implementation. Note: you do not need to show that the interventions are feasible for this assignment. Your assignment should be five (5) pages, double-spaced, not including a title page, references, or any appendices and include:

- A description of the public health issue, including some data on the burden of the issue
- A brief discussion of the search strategy you used to locate potential interventions
- A brief synopsis of the potential interventions, including evidence that supports their use

2. Assignment 2: Critique of a published program evaluation (20%)

Locate a published paper that describes a program evaluation. Using the concepts from this course, your goal is to critique the program evaluation. Your assignment should be five (5) pages, double-spaced, excluding the title page, references and any appendices. It should include:

- A brief summary of the program evaluated, the type of evaluation, study design and findings
- An assessment of the quality of evidence, including the quality assessment tool used, including a discussion of any potential biases associated with the study design and how they may affect the validity of the results

3. Group Project: Development of an evaluation framework (50%)

You work as part of an evaluation consultancy team (a group of ~ 5) and have been asked to develop an evaluation plan as part of a Request for Proposal (RFP) process for a new contract. Groups will be determined based on the selection of a program to evaluate; details on this process will be discussed in class.

This assignment involves both a written component along with a presentation of your evaluation plan.

- a. Logic model (5%): You will submit a draft of your logic model of the program you are evaluating. This will enable you to receive feedback on the components of your logic model that will be used to shape the final evaluation plan and ensure you are successful.
- b. Final report (20%): Your report should be 10-12 pages in length, double-spaced, not including the title page, references or any appendices. The report should describe the: the program being evaluated; a logic model of the program to inform your evaluation plan; the stakeholders you will consult; the type of evaluation, evaluation question and related objectives of the evaluation; study design, including sampling method, units of analysis and other details; the data collection plan including the specific indicators you will measure; and analysis plan. If you propose to collect data

through a survey, design three different types of questions, along with appropriate response categories.

- c. Class presentation (15%): Your presentations will be 15 minutes long, with 5 minutes for questions. The goal is to describe your evaluation to your peers. You will be assessed on how effectively you convey the information in the allotted time.
- d. Self/peer assessment of contribution (10%)

4. Participation (10%)

Participation will be assessed throughout the course, including participation in group activities during class.