

Syllabus Module 208 Minor A. Evaluation of Public Health Programs

Module : 208	Evaluation of public health programs
UE coordinator	Martine Bellanger, PhD Professor and Director of the MPH program EHESP-USPC Martine.Bellanger@ehesp.fr
Dates	November 18 to Nov 22 2019
Credits/ECTS	3 (1 ECTS = 30 h student's work)
Duration	Number of days: 5
UE description	<p>This course is designed to introduce students to major issues related to assessment of public health strategies, interventions and their impact.</p> <p>The course is recommended for students who have an interest in better understanding how evaluation of public health programs may be used as a tool to set priorities when resources are scarce in both developed and developing countries. These may cover a range of cases from prevention of vector-borne diseases to the introduction of a new drug or a technology as well as influenza vaccination, or improvement of quality of life for senior practicing physical activity.</p> <p>The course will introduce students to some basic measures and sources of data used to study population-based programs or sample-based interventions. The course will also explore some economic and statistical methods that are commonly used to evaluate such strategies and programs.</p> <p>The social & behavioral sciences in public health address social and cultural factors related to individual and population health and health disparities over the life course. Research and practice in this area Contribute to the development, administration and evaluation of programs and policies in public health to promote and sustain healthy environments and healthy lives for individuals and populations</p>
Prerequisites	Core curriculum in Social and Behavioral sciences and in biostatistics of MPH1 and intermediate modules of SBSPH
Course learning objectives	<p>At the completion of the module, the students should be able to:</p> <ul style="list-style-type: none"> - Identify the basic concepts that are used to evaluate strategies and programs and valuing health and quality of life - Use appropriate statistical & qualitative techniques to answer empirical questions. - Be able to use and interpret basic measures, including, cost benefit ratio, Quality adjusted life year (QALY), incremental cost effectiveness ratio (ICER), Cost-Benefit rule. - Be able to use mix methods for assessing public health projects/programs - Develop an awareness of contemporary social and contextual issues as they are covered in the press and on the internet (e.g. vaccination, prevention, prevention of environmental exposures). - Make connections between evaluation, social consequences and policy implications.
UE Structure (details of sessions title/spaeker/date/duration)	<p>Session 1: Evaluation, concepts methods & purposes & decision analysis model, M. Bellanger, Public Health decisions related to health technologies: Martine Bellanger, Nov 18, 7H</p> <p>Session 2: Evaluation of PH programs in Low & Middle Income Countries (LMIC), & statistical methods for evaluation, Erin Shrumpf, Nov 19, & Nov 20 and 21, 12 hours</p> <p>Session 3: Decision analysis and Cost Effectiveness M Bellanger Nov 20, 3,5Hrs</p> <p>Session 4 : Cost Benefit Analysis , M Bellanger, Nov 21, 3H Hours</p> <p>Session 5: Mix Method for research and program evaluation, Jennifer Scott, Nov 22, 3 Hours</p>

	<p>Session 6 : Revision, Last year final test, Martine Bellanger, 1,5 Hrs, Nov 22</p> <p>Paper reading, Database analysis/case studies are part of the sessions.</p>																				
Course requirement	<p>Students are expected to attend all lectures and make individual & by pair group works.. Students will be expected to prepare class, participate actively and discuss some issues related to methods studies and their application.</p>																				
Grading and assessment	<p>Individual in class assignment and homework: 40% of the final grade & Final test 60%</p> <p>Details assignments:</p> <table border="1"> <thead> <tr> <th>#</th> <th>Assignment topic</th> <th>%</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>First assignment Monday 18 /11/2019</td> <td>10%</td> <td>Individual or by pair</td> </tr> <tr> <td>2</td> <td>Second Assignment 20 /11/2019</td> <td>10%</td> <td>Individual or by pair</td> </tr> <tr> <td>3</td> <td>Impact Evaluation 22/11/2019</td> <td>20%</td> <td>Individual or by pair</td> </tr> <tr> <td>4</td> <td>Final test on November 29/11/ 2019: close book</td> <td>60%</td> <td>Individual</td> </tr> </tbody> </table>	#	Assignment topic	%	Type	1	First assignment Monday 18 /11/2019	10%	Individual or by pair	2	Second Assignment 20 /11/2019	10%	Individual or by pair	3	Impact Evaluation 22/11/2019	20%	Individual or by pair	4	Final test on November 29/11/ 2019: close book	60%	Individual
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Location	EHESP Building 20 Avenue George Sand, 93210 La PLaine Saint Denis (Greater Paris)																				
Course policy	<p>Attendance & punctuality Regular and punctual class attendance is a prerequisite for receiving credit in a course. Students are expected to attend each class. Attendance will be taken at each class. The obligations of attendance and punctuality cover every aspect of the course: - lectures, conferences, group projects, assessments, examinations, as described in EHESP Academic Regulations http://mph.ehesp.fr EHESP Academic Regulation Article. 3). If students are not able to make it to class, they are required to send an email to the instructor and to the MPH program coordinating team explaining their absence prior to the scheduled class date. All supporting documents are provided to the end-of-year panel.</p> <p>Students who miss class are responsible for content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts and assignments. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who have missed class.</p> <p>Lateness: Students who are more than 10 minutes late may be denied access to a class. Repeated late arrivals may be counted as absences (See http://mph.ehesp.fr EHESP Academic Regulation Article. 3 Attendance & Punctuality)</p> <p>Maximum absences authorized & penalty otherwise Above 20% of absences will be designated a fail for a given class. The students will be entitled to be reassessed in any failed component(s). If they undertake a reassessment or they retake a module this means that they cannot normally obtain more than the minimum pass mark (i.e. 10 out of 20)</p> <p>Exceptional circumstances Absence from any examination or test, or late submission of assignments due to illness, psychological problems, or exceptional personal reasons must be justified; otherwise, students will be penalized, as above mentioned. Students must directly notify their professor or the MPH academic secretariat before the exam or before the assignment deadline. Before accepting the student's justification, the professor or the MPH academic secretariat has the right to request either a certificate from the attending physician or from a psychologist, or from any other relevant person (See http://mph.ehesp.fr EHESP Academic Regulation Article 4 Examinations).</p>																				

	<p>Courtesy: <u>All cell phones/pages MUST be turned off during class time.</u> Students are required to conduct themselves according to professional standards, eating during class time is not permitted during class time, such as course or group work.</p>
Valuing diversity	<p>Diversity enriches learning. It requires an atmosphere of inclusion and tolerance, which oftentimes challenges our own closely-held ideas, as well as our personal comfort zones. The results, however, create a sense of community and promote excellence in the learning environment. This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity. Diversity includes consideration of: (1) life experiences, including type, variety, uniqueness, duration, personal values, political viewpoints, and intensity; and (2) factors related to "diversity of presence," including, among others, age, economic circumstances, ethnic identification, family educational attainment, disability, gender, geographic origin, maturity, race, religion, sexual orientation and social position.</p>
Course evaluation	<p>EHESP requests that you complete a course evaluation at the end of the school year. Your responses will be anonymous, with feedback provided in the aggregate. Open-ended comments will be shared with instructors, but not identified with individual students. Your participation in course evaluation is an expectation, since providing constructive feedback is a professional obligation. Feedback is critical, moreover, to improving the quality of our courses, as well as for instructor assessment.</p>

Sessions 1 & 3	Concepts, methods, purposes & Synthesis for decision analysis model
Speakers	<p>Dr. Martine M Bellanger Professor, Head of the MPH Programs, EHESP martine.bellanger@ehesp.fr</p>
Session Outline	<p>The session comprises two sub-sessions. The first is used for introducing students to basic principles of evaluation and complementary methods. The second sub-session is dedicated to use simple economic decision model as a tool for setting priority or choosing among health interventions/Strategies.</p> <p>Overview of the different types of program evaluation & applications Foundations of economic evaluation: classical welfarsim versus extra welfarism Well being & valuing quality of life Cost calculations Modeling decision via decision tree and applications Sen's capability approach for resource allocation All sessions include individual or 2 by 2 students in class application of methods learnt</p>
Learning Objectives	<p>At the end of the sessions, students will be able to:</p> <ul style="list-style-type: none"> - Identify the basic concepts used to evaluate strategies and programs and valuing health - Recapitulate economic evaluation in health care - Identify the nature of the incremental cost effectiveness ratio (ICER) - Apply ICER for decision making - Make simple model decision process related to economic evaluation and interpret findings
Duration	1 sessions of 7 hours & 1 sessions of 3,5 hours
Dates	Monday 18 and Wednesday 20, Thursday 21 9:00 -12:00 pm & 1:00-4:00 and 1 Sessions 9:00 to 12:00
Training methods	Lectures alternate with in class applications

Session 2	Impact evaluation : Experimental & quasi-experimental studies on health-related topics in Low & Middle Income Countries (LMICs)
Speakers	Erin Strumpf , PhD, Associate Professor, McGill University erin.strumpf@mcgill.ca
Session Outline	Program evaluation: Framing your research question Choosing an appropriate method given the context, data, and research question Implementing program evaluation in practice: assumptions, challenges, and strategies
Learning Objectives	At the end of the sessions, students will be able to: <ul style="list-style-type: none"> - Identify the main steps of impact analysis and evaluation, including the assumptions that must be met in order to draw causal conclusions. - Identify the main challenges of impact evaluation - Critically read an impact analysis. - Use retrospective surveys for impact evaluation.
Duration	6 hours + Practice during group work, case studies, and computer lab sessions
Dates	19 November, 9:00 am – 12:00 pm & 1:00 pm to 4:00 pm
Training methods	Lectures alternate with in class applications/lab session
Reading	Gertler PJ, Martinez S, Premand, et al. Impact Evaluation in Practice, Interactive textbook 2010 available at http://www.worldbank.org/pdt Chapters 2, 3, 4, 6 Strumpf EC, Harper S, Kaufman JS, 2017. "Fixed Effects and Difference-in-Differences" chapter 14 in Methods in Social Epidemiology, 2nd Edition (Oakes and Kaufman, Editors), March, ISBN: 978-1-118-50559-5. Harper S and Strumpf EC, 2012. "Social Epidemiology: Questionable Answers and Answerable Questions" Epidemiology, invited editorial, 23(6): 795-798. Optional : <u>Blundell, Richard, and Monica Costa Dias.</u> 2009. "Alternative Approaches to Evaluation in Empirical Microeconomics." Journal of Human Resources 44(3): 565–640. <u>Enjeux, approches et contraintes de l'évaluation dans les pays à faible revenu.</u> M Audibert - Comptes Rendus Biologies, 2008.
Validation	Individual or by pair work during the lab session
Reading	Books: Morris, S., Devlin, N., Parkin, D. 2012 Economic Analysis in Health Care 2 nd Edition. John Wiley & Sons: Chichester Drummond, M.F., Sculpher, M.J., Torrance, G.W. O'Brien, B., Stoddart, G.L. 2005 Methods for the Economic Evaluation of Health Care Programmes. 3rd ed. Oxford University Press: Oxford Gray AM, Clarke PM, Wolstenholme JL & Wordsworth S. (2012) Applied Methods of Cost Effectiveness Analysis in Health Care, Oxford University Press (OUP) Briggs A, Claxton K & Sculpher (2012) M. Decision Modelling For Health Economic Evaluation. OUP Articles: Gertler PJ, Martinez S, Premand, et al. Impact Evaluation in Practice, Interactive textbook 2010 available at http://www.worldbank.org/pdt Valente, T. Evaluating Health Promotion Programs. 2002. Oxford University Press: New York. p.87-162.

Session 2- bis	Impact Evaluation : (continued)
Speakers	Erin Strumpf , PhD, Associate Professor, McGill University erin.strumpf@mcgill.ca
Session Outline	Overview of statistic methods used for evaluation
Learning Objectives	At the end of the session, students will be able to: <ul style="list-style-type: none"> - Identify the strengths and weaknesses of different appropriate statistical methods for impact evaluation - Implement the basic components of difference-in-differences analysis for measuring program impact
Duration	6:00 hours
Dates	19 November 1:00 pm – 4:00pm & 20 November 2:00 pm to 4:00 pm
Training methods	Lectures alternate within class applications & lab sessions,
Reading	McKinnon B, Harper S, Kaufman JS, Bergevin Y, 2015. "Removing user fees for facility-based delivery services: a difference-in-differences evaluation from ten sub-Saharan African countries" <i>Health Policy and Planning</i> 2015;30:432–441. doi:10.1093/heapol/czu027 Hutcheon JA, Strumpf EC, Harper S, Giesbrecht E, 2015 "Maternal and neonatal outcomes after implementation of a hospital policy to limit low-risk planned caesarean deliveries before 39 weeks of gestation: an interrupted time-series analysis," <i>BJOG: An International Journal of Obstetrics and Gynaecology</i> , 122(9):1200-6, Apr. DOI: 10.1111/1471-0528.13396
Validation	By pair work made during the lab session

Session 4	Cost –Benefit Analysis Application to reduction of environmental exposures
Speakers	Dr. Martine M Bellanger Professor, Head of the MPH Programs, EHESP martine.bellanger@ehesp.fr
Session Outline	The session introduces students with cost calculations, including direct, indirect and intangibles costs, as well the definition of benefits under the Cost-Benefit approaches. Relationship with cost –effectiveness willingness to pay and incremental net benefit will be considered as well.
Learning Objectives	At the end of the sessions, students will be able to: <ul style="list-style-type: none"> - Identify context in which Cost Benefit Analysis CBA (or BCA) can be implemented - Characterize the main steps of CBA for environmental health effects - Illustrate some relationships between toxicological, epidemiological measure (e.g.dose-response)to population exposed and economic estimated - Apply CBA for prevention program such as reducing children environmental exposure such as lead or mercury or EDCs - Analyze the impacts in terms of decision making in environmental health field
Duration	1 sessions of 3 hours
Dates	Thursday 21 November 9:00 -12:00 pm

Training methods	Lectures alternate with in class applications/reading
Reading	Books: Morris, S., Devlin, N., Parkin, D. 2012 Economic Analysis in Health Care 2 nd Edition. John Wiley & Sons: Chichester Drummond, M.F., Sculpher, M.J., Torrance, G.W. O'Brien, B., Stoddart, G.L. 2015 Methods for the Economic Evaluation of Health Care Programmes. 4th ed. Oxford University Press: Oxford Paper: Pichery C, Bellanger M, Zmirou-Navier D, Gloennec P, Hartemann P, Grandjean P. Childhood lead exposure in France: Benefit estimation and partial cost-benefit analysis of lead hazard control Environmental Health 2011 10-44. Http://www.ehjournal.net/content/10/1/44
Validation	None, this will be part of the final test on November 29 2019

Session 5	Mixed-Method (MM) Evaluations
Speakers	Dr. Jennifer Scott, MD MPH Faculty, Department of Obstetrics and Gynecology, Beth Israel Deaconess Medical Center Associate Scientist, Division of Women's Health, Brigham and Women's Hospital Instructor, Harvard Medical School Physician Scientist, Women and Health Alliance International, Paris, France jscott3@bidmc.harvard.edu
Session Outline	Quantitative and qualitative methods have different strengths and there is an intuitive appeal to evaluation designs that combine what each have to offer. This session aims to familiarize students with the use of mixed methodology in research and in program evaluation. Mixed methods can be used to propose an evaluation design for a complex program.
Learning Objectives	At the end of the case study, students will be able to: - Identify the main conditions for using mixed methods within evaluations: i.e. recognize the appropriateness of the "fit" between the nature of the problem being assessed and the particular method - Illustrate how a mixed method approach can be used and both qualitative & quantitative data collected
	- Recognize the stages of the evaluation at which mixed methods are used - Use NVivo software to analyze qualitative findings - Discuss its application in a given case: strengths and challenges
Duration	3 hours
Dates	Friday 22 November 9:00 To 12:00 pm
Training methods	Lectures & vignettes along with in class applications: design a program evaluation
Reading	Articles: Bamberger M, Rao V & Woolcock M. Using Mixed Methods in Monitoring and Evaluation: Experiences from International Development, The World Bank Development Research Group Poverty and Inequality Team, March 2010. Tashakkori A, Creswell JW. Mixed methodology across disciplines. Journal of Mixed Methods Research 2008;2(1):3-6.

Reading	<p><u>Books:</u> Creswell, J. W. & Plano Clark, V. L. (2011). Designing and conducting mixed methods research. (2 ed.) Thousand Oaks: SAGE Publications. Tashakkori, A. & Teddlie, C. (2011). Current developments and emerging trends in integrated research methodology. In A.Tashakkori & C. Teddlie (Eds.), SAGE Handbook of mixed methods in social & behavioral research (2 ed., pp. 803-826). Thousand Oaks: SAGE Publications.</p>
Validation	None, this will be part of the final test on November 29 2019

Session 6	Revision, Last year final test , Q&A
Speakers	Dr. Martine M Bellanger Professor, Head of the MPH Programs, EHESP martine.bellanger@ehesp.fr
Duration	2 hours
Dates	Friday 22 November 1:00 To 3:00 pm
Session Outline	The session will provide students with an overall recap of all concepts learnt and methods used over the week module. Answer keys from the last year final test will be provided along with answers students might have at the end of the week.