

ISGlobal-University of Barcelona
Master of Global Health
2015-16

Subject:	Health Economics
Core or elective:	Core
Credits:	3
Hours:	<ol style="list-style-type: none"> Hours of tutored projects and work (not face to face): 6 hours Hours of independent study (not face to face and not tutored): Reading and preparing for classes and case study exam: 41 hours Hour of face to face study: 28 hours Total = 75 hours
Coordinator:	Dr Elisa Sicuri & Joan Tallada
Affiliation:	ISGlobal
Professors and affiliations:	<p>Dr Elisa Sicuri Barcelona Institute for Global Health (ES)</p> <p>Joan Tallada Barcelona Institute for Global Health (JT)</p>
Language of instruction:	100% of regular lectures in English
Classroom requirements:	<p>Classroom: TBD</p> <p>Lecture hall with screen, projector, audio capacity and Internet access.</p>
Schedule:	<p>First day of class: Monday, 11 January, 2016</p> <p>Last day of class: Wednesday, 20 January, 2016</p> <p>Time: 09:00 - 13:30 h</p>
Description:	<p>This module is structured around a case study to learn the role and use of economic analysis and associated tools in healthcare decision-making in 3 steps: In the first step, through the case study students will be introduced to basic concepts of economics and its application to health and to healthcare, they will then acquire economic skills to analyse how health markets work and how they can be intervened to correct deficiencies, and finally will use equity approaches from an economic point of view in decision-making related to health and healthcare interventions. In the second step, students will use the case study to critically appraise health interventions from a cost-effectiveness perspective. In the third step, students will assess the relevance and limitations of economic analysis and tools in healthcare decision-making based on the case study.</p>
Learning objectives:	<ol style="list-style-type: none"> Apply the key economic concepts that affect health and healthcare interventions.

	<p>2. Critically assess and apply economic tools to decision-making in health markets, and economic evaluation methods to healthcare interventions</p>
Sessions:	<p>Date 11/01/2016 Session 1: Introduction to the Economics of Health: Key concepts I (ES/JT)</p> <p>Taking the case study as reference, the first session will provide explanations and further examples of the following basic concepts used in health economics: opportunity cost and production possibilities frontier.</p> <p><u>Essential reading:</u> Web: https://www.boundless.com/economics Chapters 1 and 2.</p> <p><u>Recommended reading:</u> Folland S, Goodman A. Stano M. The Economics of Health and Health Care. Prentice Hall, 7th Edition, 2013. Chapters 1-2.</p> <p>Stiglitz JE and Walsh CE. Economics. Fourth edition. W.W. Norton, 2006.</p> <p>Session 2: Key Concepts II (JT)</p> <p>In the second session we will learn and apply the concepts of marginal cost and marginal utility, and effectiveness and efficiency. Students will be asked to apply the concepts learnt from sessions I and II to an exercise to be developed at home.</p> <p><u>Essential reading:</u> Web: https://www.boundless.com/economics Chapter 5.</p> <p><u>Recommended reading:</u> Folland S, Goodman A. Stano M. The Economics of Health and Health Care. Prentice Hall, 7th Edition, 2013. Chapters 1-2.</p> <p>Stiglitz JE and Walsh CE. Economics. Fourth edition. W.W. Norton, 2006.</p> <p>Date: 12/01/2016 Session 3: Key concepts III (JT)</p> <p>The first part of the third session will be devoted to correct the homework exercise from sessions I and II. In the second part we will learn and apply the concepts of supply and demand, and elasticity.</p> <p><u>Essential reading:</u> Web: https://www.boundless.com/economics Chapters 3, 4, and 6.</p> <p><u>Recommended reading:</u> Folland S, Goodman A. Stano M. The Economics of Health and Health Care. Prentice Hall, 7th Edition, 2013. Chapters 1-2.</p> <p>Stiglitz JE and Walsh CE. Economics. Fourth edition. W.W. Norton, 2006.</p> <p>Sessions 4: Market forms (JT)</p> <p>In the fourth session we will analyse market forms, the necessary conditions for perfect competition and its failures.</p>

Essential reading:

Web: <https://www.boundless.com/economics> Chapters 2, 7, 8 and 10.

Recommended reading:

Folland S, Goodman A, Stano M. The Economics of Health and Health Care. Prentice Hall, 7th Edition, 2013. Chapters 1-2.

Stiglitz JE and Walsh CE. Economics. Fourth edition. W.W. Norton, 2006.

Date: 13/01/2016

Session 5 & 6: Market interventions (JT)

In the fifth session we will address interventions to correct market distortions and failures, taking drug price regulation and its alternatives as example. Students will be asked to present a previously prepared mini-essay on solutions to market failure in the drug market.

Essential reading:

Sean Flynn, Aidan Hollis, and Mike Palmedo. An Economic Justification for Open Access to Essential Medicine Patents in Developing Countries. Available at: <https://www.wcl.american.edu/pijip/go/fhp2009>

Report of the Consultative Expert Working Group on Research and Development: Financing and Coordination. Research and Development to Meet Health Needs in Developing Countries: Strengthening Global Financing and Coordination. Chapter 2. <http://www.who.int/phi/cewg/en/>

Recommended reading:

Tuan Anh Nguyen, et al. Policy options for pharmaceutical pricing and purchasing: issues for low- and middle-income countries. *Health Policy and Planning* 2014;1–14.

WHO Guidelines on Country Pharmaceutical Pricing Policies. 2015.

http://www.who.int/medicines/publications/pharm_guide_country_price_policy/en/

Report of the Consultative Expert Working Group on Research and Development: Financing and Coordination. Research and Development to Meet Health Needs in Developing Countries: Strengthening Global Financing and Coordination. Full Report. <http://www.who.int/phi/cewg/en/>

Date: 14/01/2016

Session 7: Economic evaluation of interventions in global health: rational, methods and tools I (JT)

- a. Rational: the need of the economic evaluation of health and healthcare interventions and its foundations in economic theory.
- b. Methods: description and discussion of cost-effectiveness, cost-utility, cost-minimization and cost-benefit:

Based on the case study and on other selected examples, this session will focus on the importance of the economic evaluation of health and healthcare interventions to complement clinical and epidemiological

evidence. The main approaches used in economic evaluation will be presented and strengths and limits of every approach will be highlighted and discussed. Students will learn about the relevance of economic evaluation in health and healthcare and will be able to choose the best methods to be used across different contexts.

Essential reading:

WHO guide for standardization of economic evaluations of immunization programmes (chapters 1, 2 and 3). Available at:
http://whqlibdoc.who.int/hq/2008/WHO_IVB_08.14_eng.pdf

Session 8: Economic evaluation of interventions in global health: rational, methods and tools II (JT)

- c. Tools: description and discussion of cost models and outcome measures.
- d. Measure of health evolution: DALYs and QALYs

Based on the case study and on further relevant examples, this session will present methods for data collection and for the estimate of health intervention costs both from the health system and the household perspectives. The most common indicators used to represent the health and the economic impacts of health interventions will be also presented and discussed. Students will learn which approaches to use and which are the challenges in the estimate of cost and outcome measures when using primary or secondary data sources.

Essential reading:

Weinstein MC, Torrance G, McGuire A. *QALYs: the basics*. Value Health 2009, 12 Suppl 1:S5-9. Available at:
<http://onlinelibrary.wiley.com/doi/10.1111/j.1524-4733.2009.00515.x/pdf>

Grosse SD, Lollar DJ, Campbell VA, Chamie M. *Disability and Disability-Adjusted Life Years: Not the Same*. Public Health Reports. 2009;124(2): 197-202.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2646475/>

Prinja S, Bahuguna P, Pinto AD, Sharma A, Bharaj G, Kumar V, Tripathy JP, Kaur M, Kumar R. *The cost of universal health care in India: a model based estimate*. PLoS One, 7(1):e30362. Available at:
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0030362>

Recommended reading:

Murray CJ, Acharya AK. *Understanding DALYs (disability-adjusted life years)*. J Health Econ 1997, 16(6):703-730. Available at:
<http://www.sciencedirect.com/science/article/pii/S0167629697000040>

Sicuri E, Davy C, Marinelli M, Oa O, Ome M, Siba P, Conteh L, Mueller I. *The economic cost to households of childhood malaria in Papua New Guinea: a focus on intra-country variation*. Health Policy Plan, 27(4):339-347. Available at:
<http://heapol.oxfordjournals.org/content/27/4/339.full.pdf+html>

WHO guide for standardization of economic evaluations of immunization programmes (chapter 4). Available at:
http://whqlibdoc.who.int/hq/2008/WHO_IVB_08.14_eng.pdf

Date 18/01/2016

Sessions 9 & 10: Cost-Effectiveness: Practical exercises (ES)

This session will be devoted to discuss, assess, compare and evaluate cost-effectiveness analysis of health interventions. Students will learn to identify which are the main factors affecting the cost-effectiveness of interventions across several scenarios: preventative vs. treatment interventions; communicable vs non-communicable disease interventions; low vs. high income countries interventions; interventions in the context of low and high prevalent diseases. Some exercises will be assigned as homework previous to the sessions.

Readings: See Sessions 7 & 8

Date 19/01/2016

Session 11: Identification, assessment and critical synthesis of economic evaluations of global health interventions (ES)

This session will discuss the relevance, the approaches, the strengths and limitations and the challenges associated with economic evaluations of global health interventions. Students will learn how to read critically research articles focused on economic evaluations of global health interventions.

Essential reading:

Disease Control Priorities in Developing Countries (2nd Edition), Chapter 15, Cost-Effectiveness Analysis for Priority Setting. Available at:

<http://files.dcp2.org/pdf/DCP/DCP15.pdf>

Recommended reading:

Morel CM, Lauer JA, Evans DB: Cost effectiveness analysis of strategies to combat malaria in developing countries. *BMJ* 2005, 331(7528):1299.

<http://www.bmj.com/content/331/7528/1299>

Note: the second session on 19/01/2016 has been replaced by the Global Health Lecture on Avoidable Mortality in India, by Prabhat Jha. Details:

http://www.isglobal.org/es/web/quest/new/-/asset_publisher/JZ9fGjXnWpl/content/global-health-lecture-avoidable-mortality-in-india

Date 20/01/2016

Session 12: Relevance and the limitations of economic evaluations for decision-making in health interventions (ES/JT).

This session will illustrate the impact economic evaluations have or may have on health policy decision making as reflected in the case study. Additional examples will be presented and the main issues for economic evaluations to be useful for decision policy making will be highlighted. Students will learn how to identify strengths and limitations of economic evaluations to be critical for health interventions, including evidence-informed policies.

Essential reading:

Drummond, M: Economic evaluation in health care: Is it really useful or are we just kidding ourselves? *The Australian Economic Review* 2004, 37:13-11.

Available at:

	<p>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8462.2004.00304.x/pdf</p> <p>Chalkidou K, Culyer A, Naidoo B, Littlejohns P: Cost-effective public health guidance: asking questions from the decision-maker's viewpoint. <i>Health Econ</i> 2008, 17(3):441-448. Available at: http://onlinelibrary.wiley.com/doi/10.1002/hec.1277/pdf</p> <p><u>Recommended reading:</u> To be announced</p> <p>Session 13: Exam.</p>
Methodology:	Class sessions combine theoretical explanations with practical cases that illustrate each theme and encourage students to consider different approaches to the same question.
Evaluation:	<p><i>Students are required to attend a minimum of 80% of sessions in order to be evaluated.</i></p> <ul style="list-style-type: none"> • Exam: A case study similar to the one used for the learning sessions will be distributed for pre-reading days before the exam day. The exam will consist on questions related to session contents applied to the new the case study. <u>50% of the grade.</u> • Exercises: Students will be asked to individually complete 6 exercises as homework along the sessions. Successfully completion of each exercise will represent 5% of the grade. In total, this section represents <u>30% of the grade.</u> • Participation: Students are expected to be proactive in the classroom, raising and answering questions, expressing opinions, giving examples and engaging in debates: this will represent up to <u>20% of the grade.</u> <p>Level of student participation in classroom exercises: 6 minimum, disruptive, or no participation; 8 responds constructively to questions; 10 perceptive questions, active constructive and educational interaction with colleagues and instructor (40%)</p> <p>Evaluation grades will be communicated within 15 days after the exam day.</p>
Re-evaluation	<p>Students who fail to pass the exam and/or to complete the exercises, resulting, together with the participation score, in a grade <5, will be required to repeat the exam with new questions and/or complete new exercises.</p> <p>Dates of the re-evaluation to be announced as needed.</p>
Recommendations:	
Bibliography:	See "Sessions"