Cost Effectiveness Analysis
HSMP 6609, Spring 2016

02/19/2016

Instructors:

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Course Title: Cost Effectiveness Analysis
Credit Hours: Two Credit Hours
Meeting Time: Wednesday, 9:00-10:50 a.m.
Meeting Place: Education 2 South, 2206 (Except 2/24 (Ed 2 S, 1307) & 3/9 (Ed 2 N, 2307))

HSMP Course Competencies:

1. Apply commonly used methods for evaluating health economic policy, including the use of cost-benefit and cost-effectiveness analysis.

Course Overview:

This course is intended to give students an overview of the theory and applications of economic evaluation of health interventions. The topics to be covered are:

- Comparison of the various forms of economic analysis
- Measurement of costs
- Measurement of outcomes including health status and health-related quality of life, assigning monetary values to outcomes, the value of a human life and of a quality-adjusted life years
- Discounting
- Cost-effectiveness analysis, cost-utility analysis, and cost-benefit analysis
- Sensitivity analysis
- Decision analysis and Markov models
- Critical assessment of economic evaluation studies
- Standardized reporting of results

The course occasionally uses basic microeconomic and statistical tools. While it is not required, it is recommended that students have taken a microeconomics and statistics course. Attendance is not mandatory.
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Learning Objectives

1. The student will be able to understand cost and effectiveness measures; to distinguish among cost-effectiveness, cost-benefit, and cost-utility analyses and know the advantages and disadvantages of each approach; and to understand the various perspectives that can be taken in an economic evaluation study.

2. The student will have an appreciation for some of the controversies in the field. For example, the costs of consumption in additional life years, productivity changes, discounting, prediction of health utilities, and the relevant analytic point of view.

3. The student will learn and be able to use Excel in a series of exercises, some of which will ask the student to replicate the analysis of existing studies from the literature.

4. The student will understand and be able to apply decision and Markov models.

5. The student will be familiar with the statistical issues of cost-effectiveness analysis and the different approaches for incorporating the uncertainty associated with point estimates of the incremental cost-effectiveness ratio.

6. The student will be able to assess the quality of an economic evaluation study.

7. The student will know the main recommendations of the Panel on Cost-Effectiveness Research

IV. Evaluation

Grades are based on performance on:

- Homework 35%
- Replication exercise 20%
- Special assignment 15%
- Final exam 30%

Homework: Homework assignments will be given in class and are due the following week.

Replication Exercise and Special Assignment: Details to be provided.

Final Exam: The final exam is scheduled for Wednesday, May 18 at 9:00 a.m.


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Additional Reading Material: Posted on Canvas. Starred articles are optional.

Expectations:
I. Class attendance & Participation
   A. Attendance is not required, but is highly recommended.

II. Policies:
   A. Academic Honesty: Refer to school guidelines.
   B. Students are responsible for being attentive to or observant of campus policies regarding academic honesty as stated in the University’s Student Conduct Code.
   C. Plagiarism is the use of another person’s words or ideas without crediting that person. Plagiarism and cheating will not be tolerated. Either plagiarism or cheating may lead to failure of an assignment, or the class, and/or dismissal from the University.
   D. You are responsible for being attentive to or observant of campus policies about academic honesty as stated in the University’s Student Conduct Code. (http://catalog.ucdenver.edu/content.php?catoid=6&navoid=530)

III. Access, Disability, Communication:
Students requesting accommodations for a disability must contact one of the following:
Sherry Holden | Coordinator
University of Colorado Anschutz Medical Campus Disability Resources & Services
| Bldg. 500, Room Q20-EG 305A
Phone: (303) 724-5640, Fax (303) 724-5641
Part-time: Monday, Tuesday and Thursday
sherry.holden@ucdenver.edu
Selim Özi | Assistive Technology Specialist, Accommodation Coordinator
University of Colorado Anschutz Medical Campus Disability Resources & Services
| Mail Stop A010, Building 500, Room Q20-EG 306
Phone: (303) 724 8428, Fax: (303) 724 5641
selim.ozi@ucdenver.edu
Be aware that the determination of accommodations can take a long period of time. No accommodations will be made for the course until written documentation is provided by the Disability resources and services office to the course directors. It is the student’s responsibility to coordinate approved accommodations with the Disability resources and services office in advance.
Further general Information regarding disability resources and services can be found at: http://www.ucdenver.edu/student-services/resources/disability-resources-services/accommodations/Pages/accommodations.aspx
Students can set up an appointment at: http://www.ucdenver.edu/student-services/resources/disability-resources-services/about-office/contact-us-CUAnschutz/Pages/form.aspx

IV. Civility:
   A. Adherence to the Student Conduct Code is expected. I am committed to creating a climate for learning, characterized by respect for each other and the contributions each person makes to class. I ask that you make a similar commitment.
   B. Please turn off beepers and cell phones during class.
Week 1 (1/27): Overview of Economic Evaluations

Drummond et al., Chapters 1 and 2


Week 2 (2/3): Critical Assessment of Economic Evaluation

Drummond et al., Chapter 3


Weeks 3 and 4 (2/10; 2/17): Measuring Costs and Cost-analysis

Drummond et al., Chapter 4


Week 5 (2/24; (Ed 2 South 1307)): Cost-effectiveness Analysis

Drummond et al., Chapter 5.


Weeks 6 and 7 (3/2; 3/9(Ed 2 North 2307)): Cost-utility Analysis

Drummond et al., Chapter 6.


*Perraillon, Marcelo Coca, Ya-Chen Tina Shih, and Ronald A. Thisted. “Predicting the EQ-5D-3L Preference Index from the SF-12 Health Survey in a National US Sample A Finite Mixture Approach.” *Medical Decision Making*, April 3, 2015, 0272989X15577362.


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**Weeks 8: (3/16): Cost-benefit Analysis, Return on Investment, Cost of Illness, and Budget Impact**

Drummond et al., Ch. 7


**Weeks 9, 10, and 11 (3/30; 4/6; 4/13): Decision Analysis and Markov Models**

Drummond et al., Chapter 9

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**Week 12: (4/20): Presenting Economic Analysis**

Drummond et al., Chapter 10

**Week 13 (4/27): Reflecting Uncertainty in Economic Evaluations**

Drummond et al, Chapter 8


**Weeks 14 (5/4): Economic evaluation and Policy**

Drummond et al., Chapter 11


**Week 15 (5/11): Group Project Presentations**

**Week 16 (5/18): Final Exam**