

P8541

Cost Benefit Analysis and Health

INSTRUCTOR: Joshua Graff Zivin, Ph.D.

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COURSE DESCRIPTION:

Prerequisite: Public Health P6503 or permission of the instructor. The course reviews issues and methods of assessing health care technologies and related programs. It emphasizes methods to perform economic evaluations, such as cost-effectiveness and cost-benefit analysis; methods to assess efficacy, effectiveness, and safety of health care technologies; effectiveness research; and applications to clinical and public policy.

COURSE REQUIREMENTS:

The course grade will be based on homework (20%), a midterm (20%) a critical appraisal (20%), and a term paper (40%),.

READING LISTS / ASSIGNED TEXTS

Required Text: Drummond, M, B O'Brien, G Stoddart and G Torrance. *Methods for the Evaluation of Health Care Programmes*. Oxford University Press, 2nd Edition, 1997.

Required Readings: Packet vendor TBA

COURSE OUTLINE:

I. Introduction and Overview

Drummond et al., Chapter 1

Ganiats, T. Cost-Effectiveness Analysis. *Medical Decision Making*. 1995; 22(2): 307-318.

II. What is economic evaluation and why do we do it?

Drummond et al., Chapter 2 and 3

Weinstein, M. Economic Assessments of Medical Practices and Technologies. *Medical Decision Making*. 1981; 4(1): 309-330.

Weinstein, M and W Stason. Foundations of Cost-Effectiveness Analysis for Health and Medical Practices. *The New England Journal of Medicine*. March 31, 1977: 716-721.

III. Cost-analysis

Drummond et al., Chapter 4

Luce, B, and A Elixhauser. Estimating Costs in the Economic Evaluation of Medical Technologies. *International Journal of Technology Assessment in Health Care*. 1990; 6: 57-75.

Meltzer, D. Accounting for Future Costs in Medical Cost-Effectiveness Analysis. *Journal of Health Economics*. 1997; 16: 33-64.

Finkler, S. The Distinction Between Cost and Charges. *Annals of Internal Medicine*. 1982; 96(1): 102-109.

IV. Efficacy, Effectiveness, and Safety and Cost-Effectiveness Analysis

Drummond et al., Chapter 5

Iezzoni, L. The Risks of Risk Adjustment. *Journal of the American Medical Association*. 1997; 278(19): 1600-1607.

Green, J and N Wintfield. Report Cards on Cardiac Surgeons: Assessing New York State's Approach. *Journal of the American Medical Association*. 1995; 332:1229-1232.

Echt, D, P Liebson, L Mitchell, R Peters, et al. Mortality and Morbidity in Patients Receiving Encainide, Flecainide, or Placebo: The Cardiac Arrhythmia Suppression Trial. *New England Journal of Medicine*. 1991; 324: 781-788.

V. Patient Preferences and Quality of Life

Drummond et al., Chapter 6

Torrance, G. Measurement of Health State Utilities for Economic Appraisal. *Journal of Health Economics*. 1986; 5: 1-30.

The EuroQol Group. EuroQol – A New Facility for the Measurement of Health-Related Quality of Life. *Health Policy*. 1990; 16: 199-208.

Bennett, K and G Torrance. Measuring Health State Preferences and Utilities: Rating Scale, Time Trade-Off, and Standard Gamble Techniques. *Quality of Life and Pharmacoeconomics in Clinical Trials*, 2nd Edition. B Spilker (Ed.): Lippencott-Raven Publishers, Philadelphia, 1996.

Guyatt, G, D Feeney and D Patrick. Measuring Health-Related Quality of Life. *Annals of Internal Medicine*. 1993; 118: 622-629.

Brazier, J. The SF-36 Health Survey Questionnaire – A Tool for Economists. *Health Economics*. 1993; 2(3): 213-215.

VI. Is it worth it? Assigning values to QALYs

Drummond et al., Chapter 7

Laupacis, A D Feeny, A Detsky and P Tugwell. How Attractive Does a New Technology Have to be to Warrant Adoption and Utilization? Tentative Guidelines for Using Clinical and Economic Evaluations. Canadian Medical Association Journal. 1992; 146(4): 473-481.

Gafni, A and S Birch. Guidelines for the Adoption of New Technologies: A Prescription for Uncontrolled Growth in Expenditures and How to Avoid the Problem. Canadian Medical Association Journal. 1993; 148(6): 913-917.

O'Brien, B and A Gafni. When Do the Dollars Make Sense? Medical Decision Making. 1996; 16: 288-299.

VII. Collection and Analysis of Data

Drummond et al., Chapter 8

O'Brien, B, M Drummond, R Labelle and A Willan. In Search of Power and Significance: Issues in the Design and Analysis of Stochastic Cost-Effectiveness Studies in Health Care. Medical Care. 1994; 32(2): 150-163.

Sonnenberg, F and J Beck. Markov Models in Medical Decision Making: A Practical Guide. Medical Decision Making. 1993; 13: 322-338.

VIII. Uncertainty and Heterogeneity

Briggs, A, M Sculpher and M Buxton. Uncertainty in the Economic Evaluation of Health Care Technologies: The Role of Sensitivity Analysis. Health Economics. 1994; 3: 95-104.

O'Brien, B. and M. Sculpher, Building Uncertainty into Cost-Effectiveness Rankings: Portfolio Risk-Return Trade-Offs and Implications for Decision Rules. Medical Care. 2000; 38: 460-468.

Graff Zivin, J. Cost-Effectiveness Analysis with Risk Aversion. Health Economics. 2001 ; 10 : 499-508.

IX. Application and Implementation of CEA results

Drummond et al., Chapter 9

Tengs, T, et al. Five-Hundred Life-Saving Interventions and Their Cost-Effectiveness. Risk Analysis. 1995; 15(3): 369-390.

Muennig, P, D Pallin, R Sell, and M Chan. The Cost Effectiveness of Strategies for the Treatment of Intestinal Parasites in Immigrants. The New England Journal of Medicine. 1999; 340(10): 773-779.

Muennig, P and K Khan/ Cost-Effectiveness of Vaccination versus Treatment of Influenza in Healthy Adolescents and Adults. Clinical Infectious Diseases. 2001 ; 33 : 1879-1885.

X. Guidelines for CEA

Siegel, J, et al. Recommendations for Reporting Cost-Effectiveness Analyses: Panel on

Cost-Effectiveness in Health and Medicine. *Journal of the American Medical Association*. 1996; 276(16): 1339-1341.

Weinstein, M, et al. Recommendations of the Panel on Cost-Effectiveness in Health and Medicine. *Journal of the American Medical Association*. 1996; 276(15): 1253-1258.

Russell, L, et al. The Role of Cost-Effectiveness Analysis in Health and Medicine: Panel on Cost-Effectiveness in Health and Medicine. *Journal of the American Medical Association*. 1996; 276(14): 1172-1177.