



Clinical Economic Research at AHRQ

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AHRQ Mission Statement

To improve the quality, safety, efficiency, and effectiveness of health care for all Americans



Clinical Economics

Clinical Economics

A Guide to the Economic Analysis of Clinical Practices

John M. Eisenberg, MD, MBA

The tools of economics can be applied to the analysis of Medical practice to improve physicians' choices of ways to Use social and individual resources for clinical Interventions in the hope of improved health.

JAMA 1989;262:2879.



Clinical Economics

- Economic evaluation examining *costs* and *outcomes* of interventions to inform resource allocation decisions
- Typical types of CE evaluations
 - Cost-minimization analysis
 - Cost-effectiveness analysis
 - Includes Cost-utility analysis
 - Cost-benefit analysis



Fundamental Premise

- The goal of cost-effectiveness analysis and related evaluations is to inform decision makers about one aspect of a decision (i.e. the balance of costs and outcomes between an intervention and alternatives within the population of interest).



AHRQ and Clinical Economics

- Focus today on CE rather than full spectrum of health economics research
- Primary focus has been on methods and resources for clinical economics
- Organizing this talk around *costs* and *outcomes*

$$\text{ICER} = \frac{\text{Cost}(a) - \text{Cost}(b)}{\text{Outcome}(a) - \text{Outcome}(b)}$$

Costs

■ Methods

- AHRQ/NCI/VA sponsored conference and journal supplement: “Health Care Costing: Data, Methods, and Future Directions” (Medical Care, July 2009)
 - Examine arenas of application, data and analytic methods, challenges and future research for cost data



Costs - Resources

- Medical Expenditure Panel Survey (MEPS)
 - Nationally representative survey of health care utilization and expenditures
 - Started 1996
 - Successor to National Medical Care Expenditure Survey and National Medical Expenditure Survey
 - Design
 - Two year overlapping cohort panel survey
 - Uses NHIS as a sampling frame



Outcomes - What is Health?

- 2-Dimensional Concept of Health
 - Longevity
 - Health-related quality of life (HRQL)
- Consistent with outcomes for CEA
 - “Health-adjusted life expectancy”
 - Function of Longevity, HRQL
 - $QALYs = LY * u$



Outcomes - Methods

- US Valuation of EuroQoL EQ-5D utility survey
 - Shaw JS, et al. Med Care 2005;43:203.
 - Nationally representative utility weights for the EQ-5D survey
 - Foundation for “Catalogs” of utilities including:
 - Nyman JA, et. al. Med Care 2007;45:618.
 - Sullivan PW, et. al. Med Decis Making 2006;26:410.
 - Hanmer J, et al. Med Decis Making 2006;26:391.



Outcomes - Resources

- MEPS – Self-Administered Questionnaire (SAQ)
 - Administered to adults in the MEPS
 - EQ-5D (2000-2003)
 - SF-12 Health Survey (2000-)



Outcomes - Effectiveness

- And now, for a brief word on Comparative Effectiveness. . .



Effectiveness

*If something is not worth doing,
It is not worth doing well!*

- M. Drummond et al.



Program Infrastructure

Translate evidence into information
useful for stakeholders



**Review / compare
existing evidence**

**Accelerate
practical studies**



Effectiveness

- Effective Health Care Program
 - Research Synthesis – EPC Program
 - New Research – DEcIDE/CERTs Programs
- Understand what is known and generate new knowledge on effectiveness
- Effectivehealthcare.ahrq.gov
- Essential to the outcomes side of the ICER measure



Evidence-Based Practice (EPC) Program

- Systematic reviews of the medical literature
- Primary focus on efficacy, effectiveness, and comparative effectiveness of health care interventions
- 20 reports on dietary supplements since 2003

Evidence Report/Technology Assessment
Number 183

Vitamin D and Calcium: A Systematic Review of Health Outcomes

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Upcoming EPC Methods Projects

- Framework for Economic Evaluation alongside Systematic Review
- Decision and Simulation Modeling alongside Systematic Review
- Value of Information for Research



Thank You
