Assigning Costs to Health Service Use: Options and Consequences

Health Care Costing Workshop

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Costing Methodology?

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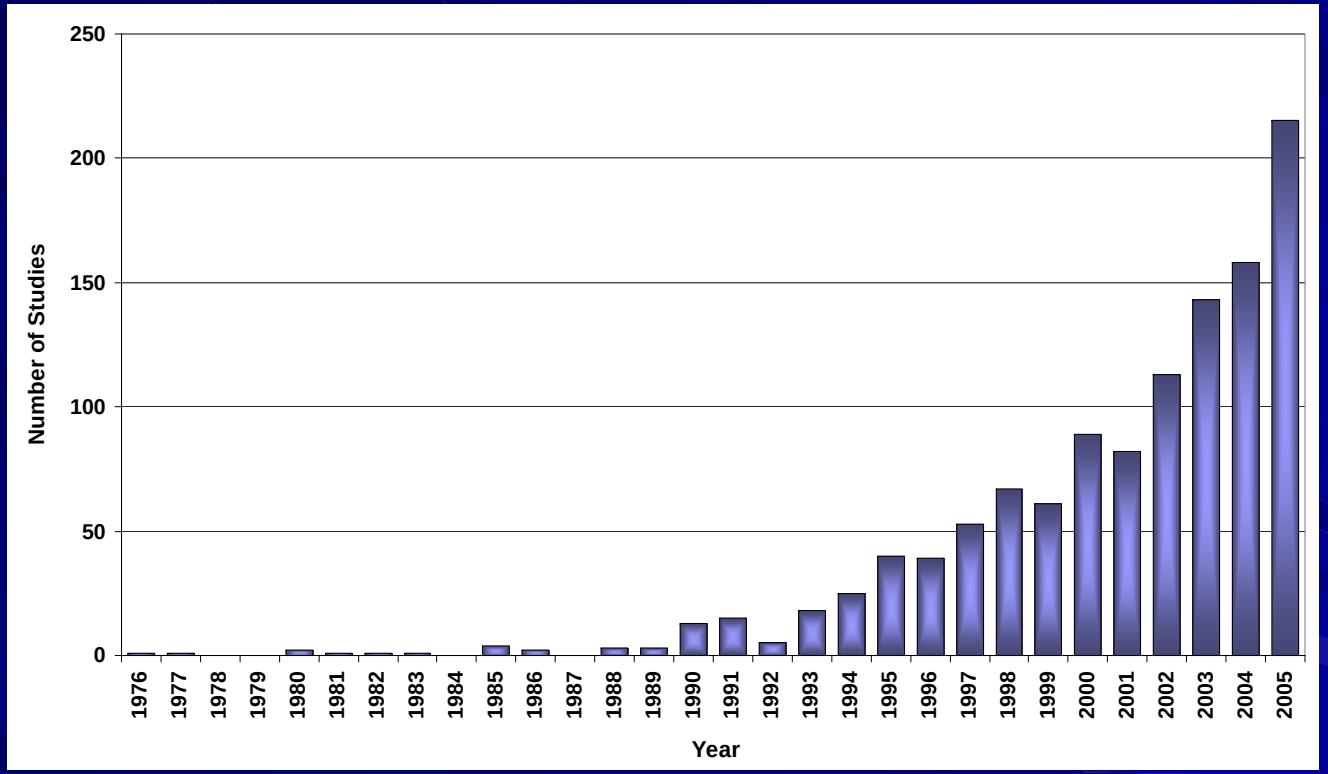
Overview

- State of cost estimation in published cost-effectiveness analyses
- Thoughts on Fishman/Hornbrook
- A research agenda

State of Cost Estimation in Published Cost-Effectiveness Analyses

Growth in Published Cost-Utility Analyses



Source: Tufts-NEMC CEA Registry, 2007

Cost Components Included in Published CUAs (through 1997)

Direct Healthcare costs	226 (99.1%)
Direct non-healthcare costs	38 (16.7%)
Patient time	22 (9.6%)
Productivity costs	19 (8.3%)
Transportation	11 (4.8%)
Family/caregiver time	13 (5.7%)
Social Services	6 (2.6%)

Stone PW, Chapman RH, Sandberg EA, Liljas B, Neumann PJ. Measuring Costs in Cost-Utility Analyses. *International Journal of Technology Assessment in Health Care*. 2000; 16(1):111-124.

Other issues in Cost Estimation

	n (%)
Resource utilization data	
Resource utilization data collected in conjunction with RCTs	24 (10%)
Year of currency was stated	156 (68%)
Sensitivity analysis on costs	151 (66%)
Future costs discounted	
Yes	166 (73%)
No	36 (16%)
Not needed	26 (11%)

Stone PW, Chapman RH, Sandberg EA, Liljas B, Neumann PJ. Measuring Costs in Cost-Utility Analyses. *International Journal of Technology Assessment in Health Care.* 2000; 16(1):111-124.

	1976-97	1998-01
Clearly presented study perspective	52%	73%
Calculated + reported incremental ratios	46%	69%
Discounted costs + QALYs	73%	82%
Stated year of currency	68%	82%

Tufts-NEMC CEA Registry
www.cearegistry.net

Sources of Valuation of Costs

	Published	Charges	Institutional-based accounting	Expert Opinion	General costs NOS	Could not be determined	Total studies including cost component
Health care	166 (73%)	66 (29%)	57 (25%)	56 (25%)	80 (35%)	18 (8%)	226
Non-health care and time	17 (45%)	1 (3%)	0	10 (26%)	7 (18%)	7 (18%)	38
Productivity costs	13 (68%)	0	0	5 (26%)	3 (16%)	1 (5%)	19
Other	3 (60%)	0	0	0	0	2 (40%)	5

Stone PW, Chapman RH, Sandberg EA, Liljas B, Neumann PJ. Measuring Costs in Cost-Utility Analyses. *International Journal of Technology Assessment in Health Care.* 2000; 16(1):111-124.

Thoughts on Hornbrook/Fishman

Thoughts on Fishman/Hornbrook

- Excellent overview of costing options and strengths and weaknesses
- Options/problems are not new
- Appropriate focus on key questions
  - How to choose a costing model for a particular study? (Importance of audience/perspective, data availability, etc.)
  - How much does the method matter?

HEALTH ECONOMICS
Health Econ. 13: 429–436 (2004)
Published online 4 March 2004 in Wiley InterScience (www.interscience.wiley.com). DOI:10.1002/hec.853

ECONOMIC EVALUATION

When does quality-adjusting life-years matter in cost-effectiveness analysis?†

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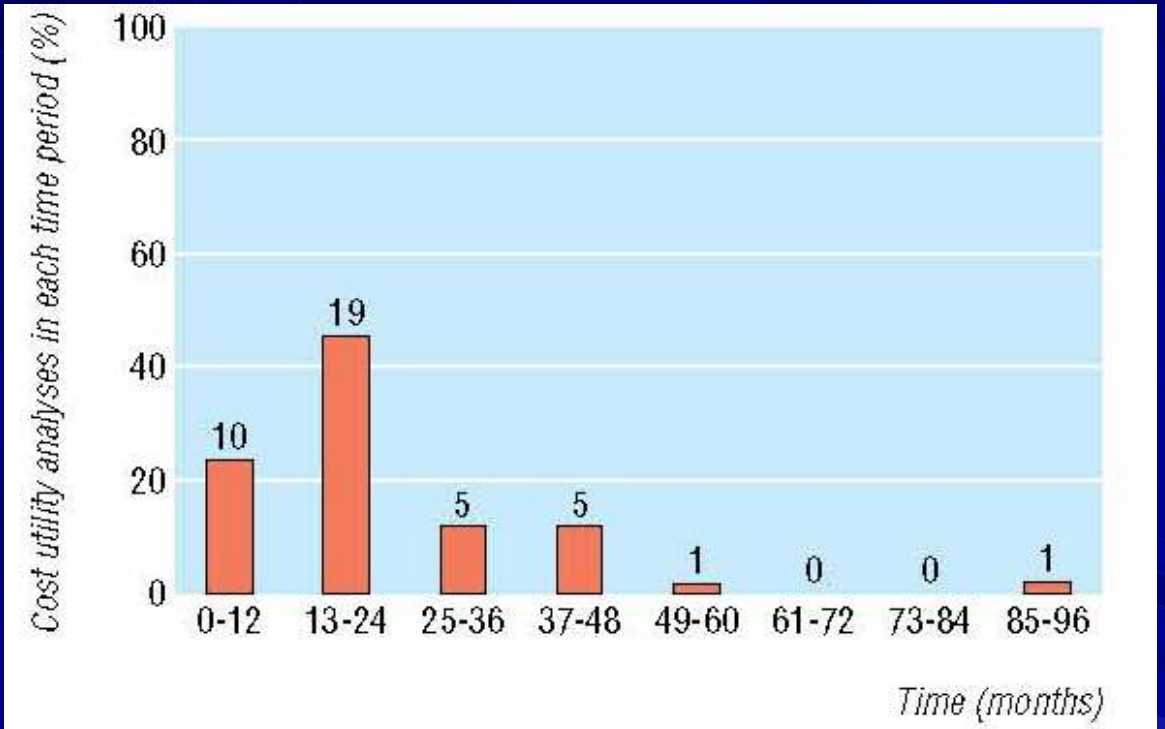
Delay in Time from RCT to CEA



Time from publication of trial's clinical results to publication of economic results (n=41), showing number in each time period. More than 75% of cost utility analyses were published one year or more after publication of the trial's clinical results

Greenberg D, Rosen AB, Olchanski NV, Stone PW, Nadai J, Neumann PJ. Delays in Publication of Cost Utility Analyses Conducted Alongside Clinical Trials: Registry Analysis. BMJ. 2004;328:1536-1537.

A Research Agenda