JOHNS HOPKINS
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Putting It All Together

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Section A

Putting Cost-Effectiveness in Context

Cost-Effectiveness and Policy

Cost-effectiveness is rarely the only criterion for policy

Must consider objective of policy maker

In some policy contexts, cost-effectiveness is explicitly not considered

Appears to be used more widely in cases in which resources are more constrained

Cost-Effectiveness and Practice

Practice decisions should ultimately be left to the provider and patient considering what is best for the patient

Continued

Cost-Effectiveness and Practice

Elements of cost-effectiveness may play a role

- ★ *CEA could affect what services covered*
- ★ *Costs may be a consideration for the patient, in particular the distribution of costs may be a consideration*

Continued

Cost-Effectiveness and Practice

Elements of cost-effectiveness may play a role

- ★ *Outcomes are definitely of interest*
- ★ *Should not be making individual treatment decisions based on what is most cost-effective for society unless insurer has chosen to cover only the service that is most cost-effective for society*

Cost-Effectiveness and the Patient

Patient may be interested in cost-effectiveness from their own perspective

The patient may consider only effects

Patients may not understand that “expected” costs and “expected” effects are used in the analysis

Repeating an idea, an individual patient’s treatment should not be based on general cost-effectiveness results

Disability Adjusted Life Years

QALYs are one of several measures that summarize morbidity and mortality

Disability adjusted life years give higher scores for time spent with disability and lower scores for time spent without disability

- ★ *Refer to DALYs averted instead of QALYs gained*

Continued

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Disability Adjusted Life Years

Scores based on person-tradeoff methodology

Used in global calculations more than QALYs

Supposed to be independent of cultural context

Person Tradeoff

Ask how a respondent feels about treating others or preventing a condition for others rather than how he feels a condition would affect himself

Ask about the number needed to be cured of a disability to be of equal value to saving healthy individuals from death

Continued

Person Tradeoff

Ask about the number of individuals who would need to live an extra year with a disability to be of equal value to having a healthy individual alive for another year

Person Tradeoff and Consistency

The two methods described should yield logically consistent, although not identical, responses

An early exercise using the PTO method

- ★ *People responded to both methods*
- ★ *People were given data on what each answer would imply the other should be*

Continued

Person Tradeoff and Consistency

An early exercise using the PTO method

- ★ *Individuals reconcile their two responses*
- ★ *Meet in small groups to come to consensus*

Has shown great consistency across groups

- ★ *Is it due to PTO being better or the rigorous process of consensus building?*

Handicap Adjusted Life Years

Base weights on handicap rather than disability or quality of life

Handicap is at the end of a continuum

- ★ *Disease*
- ★ *Impairment*
- ★ *Disability*
- ★ *Handicap*

Used in only one or two studies

Reaching a Unified Outcome

There is no unified outcome for cost-effectiveness studies at present

- ★ *Different societies and decision makers within the societies care about different aspects of health outcomes*

Both DALYs and QALYs are used frequently

Continued

Reaching a Unified Outcome

Difficulty linking outcomes to QOL

- ★ *Nursing home residents with severe cognitive impairments are an example*
- ★ *Could stick with clinical outcomes*
- ★ *Could do CBA from health system perspective without trying to link to a clinical or quality of life outcome*

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Section B

Understanding Limitations

What Is a QALY Really Worth?

Is there a maximum amount that society is willing to pay for a QALY?

- ★ *Should there be?*
- ★ *Should programs be compared to this maximum?*
- ★ *How often should the maximum be updated?*

Continued

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What Is a QALY Really Worth?

Could we use a dollar value of QALYs to convert results to cost-benefit?

Should the value be the same for everyone?

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Should the value be the same for everyone?

Sometimes indirect costs focus on the entire opportunity cost of time regardless of what the person would have been doing

Some people want to reflect only goods and services that are not produced

- ★ *Friction cost*

Continued

Always include cost of advertising, interviewing, hiring, and training

- ★ *Start of study and at intervals throughout*

Difference in concept in what should be included in the economic cost of being ill and missing work

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Societal Values vs. Local Values

Recommendation is to use utilities for conditions or instruments with algorithms that are based on societal preferences

- ★ *Local values may differ*
- ★ *Values may differ among demographic groups*
- ★ *Individual values may differ*
- ★ *General population may not understand the condition and its implications*

Methods of Ascertaining Health Care Costs

Costs calculations can use a variety of methods

- ★ *Value of resources*
- ★ *Contractually allowed amount*
- ★ *Charges adjusted by the cost to charge ratio*
- ★ *Allowed amount for general case of condition rather than specific case under study*

Results are not necessarily identical

Multiple studies on different health utility instruments

- *Different absolute values*
- *Different magnitudes of impact for a given condition*
- *Different rank ordering*

Continued

Consistency in person tradeoff exercise for DALY measurement may suggest ways to obtain values that are more consistent

No two instruments ask about the same characteristics of an individual

Differences in Cost-Effectiveness

Results for Subpopulations

A cost-effectiveness analysis may have one implication for society as a whole and different implications for demographic subgroups that face different risks

Making policy from a single result may be difficult

Making policy from different results may suggest discrimination

What if There Are "Winners" and "Losers?"

Economic principles suggest that if there are winners and losers, the winners may be able to compensate the losers

- ★ *Potential Pareto Improvement*

Health cannot be transferred among individuals

Can a program be supported politically if there are winners and losers?

Section C

Future of Cost-Effectiveness Analysis

The recommendations of the Panel on Cost-Effectiveness in Health and Medicine were based on pragmatism and theory

Continued

Really Think

Some recent methodological work has focused on trying to get cost-effectiveness analysis to resemble how people think

- ★ *Less grounded in theory*
- ★ *Make tradeoffs between trying to stay true to theory and what theory suggests about decision making and trying to make analyses appear to reflect the way the population actually thinks about decision making*

Alternatives to QALYs

Different metrics

- ★ *Have discussed DALYs and HALYs*

Attempt to get results that reflect the distribution of gains

- ★ *Fair innings*
  - Weight QALYs gained more heavily for those who have experienced fewer QALYs before the intervention

Continued

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Cost-Effectiveness Analyses in Developed Economies

Most focus on changes that could occur but assume that the status quo will remain unless it has been shown to be detrimental

Continued

Generalized Cost-Effectiveness Analysis

Generalized cost-effectiveness analysis asks what would happen if the status quo were taken away

- ★ *Suggested by a policy evaluation team at the World Health Organization*
- ★ *Good question for system reform*
- ★ *Need to have expectation that the status quo could be dropped*

For Individuals Outside the Target Population

Most studies focus on valuing results for the target population of the intervention

- ★ *In spite of the fact that externalities are a major motivation for public activities*
- ★ *Should we look at only monetary effects for those outside the target population?*

Continued

For Individuals Outside the Target Population

Most studies focus on valuing results for the target population of the intervention

- ★ *Should we also consider the quality of life effects for those outside the target population?*
- ★ *Do we need different quality of life instruments for those outside the target population?*

Long-Term Cost-Effectiveness

Cost-effectiveness studies are often based on data over a relatively short period of time

Draw on combination of primary data from a study like a randomized trial and secondary data from other randomized trials or other epidemiological studies

Often involve significant modeling

- ★ *Requires many assumptions*

What Can Be Compared?

Different ways of treating a particular disease or preventing a particular condition

- ★ *Cost-benefit, cost-utility, cost-effectiveness*

Different ways of treating a particular population affected by different diseases

- ★ *Cost-benefit, cost-utility, cost-effectiveness focusing on life-years only*

Continued

What Can Be Compared?

Treating different populations

- ★ *Cost-benefit, cost-utility*

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