Quality Adjusted Life Years

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Section A

Quality Adjusted Life Years: Graphical Representation
Combine morbidity and mortality into a single measure

- Makes it possible to summarize the effects of an intervention that affects both morbidity and mortality
- Makes it possible to compare interventions with much different effects
Consider a graph like the one on the following slide

- *Time lived is weighted by a health related quality of life score*
QALY Graph (1)

Health Utility

QALY Area

Time
QALYs Example 1

Health Utility

Time

0.5

1

0.5

1

Continued
QALYs Example I

Health Utility

0.5

1

Time

0.5

1

Continued
QALYs Example I

All three represent 0.5 QALYs
QALYs Example II

Health Utility

Time

Continued
QALYs Example II
Who Gets QALYs?

Everyone gets QALYs

The QALYs are worth the same no matter who experiences them

Societal decision making assumes we should just count QALYs for everyone
Where do Data for QALYs Come From?

Modeling exercise with past responses to questions about health related quality of life from an observations of RCT population

Data gathered in the course of an RCT
Section B

QALY Instruments
EuroQol

Quality of Well Being

Health Utility Index

SF-6D
Simplest instrument

- *Five questions*—self-care, mobility, usual activities, pain, anxiety/depression
- *Scoring system developed in U.K.*
- *Will have U.S. scoring system by the end of 2003*
- *Also includes a visual analog scale*
- *Pain has largest impact for scores based on previously developed algorithm*
Simplest instrument

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Quality of Well Being

Longer instrument

Asks about past six days rather than just today

Symptoms, role function, social function

Symptoms are a mixture of symptoms and other characteristics

Odd scoring for wearing glasses

Continued
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Health Utility Index

More attuned to some problems

Fairly short instrument

Allows for interesting interaction between health domains
Based on SF-36 instrument that has a long history of being used but was unable to generate QALY scores until recently

Paper came out in 2002 in Journal of Health Economics

Allows use of an instrument that is more familiar to many researchers
Section C
Questions for Preference Elicitation
Types of Questions People Asked to Get the HRQOL

- Standard instruments
- Standard gamble
- Time tradeoff
- Visual analog scale
- Others
Standard Gamble

Ask respondent to indicate what risk of dying he would be willing to accept in order to obtain a treatment that would either cure or kill

Not realistic medical decision making

People are so afraid of death this often leads to an overestimate of the utility of a health state or an underestimate of the utility of disease elimination.
**Standard Gamble**

Ask respondent to indicate what risk of dying he would be willing to accept in order to obtain a treatment that would either cure or kill.

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People are so afraid of death this often leads to an overestimate of the utility of a health state or an underestimate of the utility of disease elimination.
Different type of question in comparison with the questions for the standard gamble

Given a lifetime with a medical condition, how many years are you willing to give up in order to have optimal health
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Given a lifetime with a medical condition, how many years are you willing to give up in order to have optimal health
Visual Analog Scale

Very much like asking a respondent to rate his/her health on a scale of 0-100

- *0 is worst imaginable*
- *100 is optimal health*

Tends to be lower than other measures as not making as explicit a tradeoff
Cost-value analysis

Try to combine TTO with some other rating method in order to reflect what individuals feel about their state of health

Then a different tradeoff to try to get at how individuals think about making these tradeoffs in populations
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