Does the QALY include effects on significant others?

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Introduction



- Economic evaluations
  - focus on effects on patients alone
  - But patients' health affects others
- Developments
  - More attention on effects of ill-health on significant others (e.g. partner, children, family and friends)
  - E.g. burden on informal care givers (presentation Renske)
- Important questions
  - How to measure effects on significant others?
  - How to include such effects in decision making?

Types of outcomes



Types of outcomes



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Are significant others effects already included?



- QALYs: length of life * quality of life
- Quality of life e.g. measured with EQ-5D
- Corresponding (national) values for EQ-5D health states
  - Based on health state valuations (HSV) general public
  - E.g. time trade-off method (TTO)

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Valuation 1

Imagine being in health state 11222

- I have no problems in walking about
- I have no problems with self-care
- I have some problems with performing my usual activities
- I have moderate pain or discomfort
- I am moderately anxious or depressed

You will live another 10 years in this health state without your health improving or deteriorating. After this time you will die. However, you could choose to live less than 10 years, but in perfect health. Again, you will die after that period.

In your opinion, how much time in perfect health is equally good as 10 years in health state 11222?

…… years



The trade-off

- Assume you would say

10 years in the ill health state = 7 years in full health

→ Than you have traded off 3 of the 10 years

- *The idea is that the worse the health states the more years you are willing to trade to be in full health*
- *The more years you trade the lower the health state is valued*



Significant others in TTO

- Respondents to TTO exercises may consider effects of ill-health on significant others (Tilling et al. PE, 2012)

- *I do not want to trade-off (much) time, because my children will miss me*
- *I'm willing to trade of many years to be in full health*
  - *because I do not want to be a burden to my loved ones*
  - *because I'm afraid not to be able to be a good parent/partner when I am in ill-health*

- Such considerations might influence TTO values



Upwards or downwards bias?

- Concerned of not being able to a good husband, parent or friend
  - Trade off more years → lower values
- Concerned of being a burden
  - Trade off more years → lower values
- Concerned of being missed
  - Trade off less years → higher values

If included…..?

- Risk of double counting
- And what if some respondents to HSV include SO effects and some do not?
- How should we fix this?
  - Instruction necessary to include or exclude SO effects
- Effects of instructions?
  - Overemphasis?
  - Pink elephant effect?



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Objectives

Do respondents think of SO?



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Objectives

Do respondents think of SO?



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Objectives

Do respondents think of SO?



Or not?

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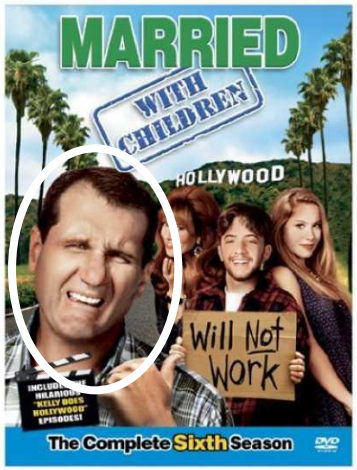


Objectives

Do respondents think of SO?



Or not?

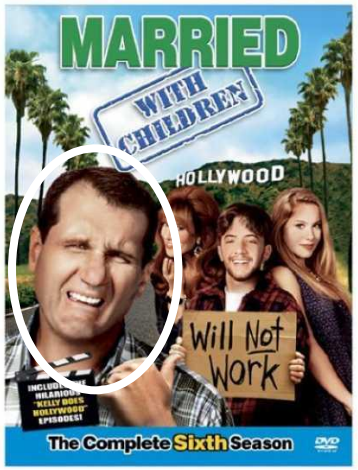


Objectives

Do respondents think of SO?



Or not?



How does this affect TTO values?

Methods



- Online survey
- Large sample Dutch general public
- 4 EQ-5D health states valued with TTO

- TTO format:

'Imagine being in health state X. You will live another 10 years in this health state without your health improving or declining. After this time you will die. However, you could choose to live less than 10 years, but in perfect health. Again, you will die after that period.'

- 3 versions of the questionnaire

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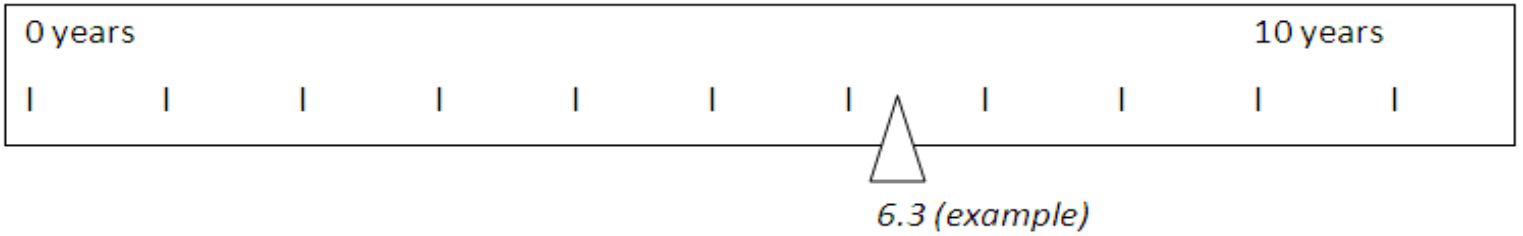
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Version 1. No instructions
Example EQ-5D health state 11222

health state X
- No problems in walking,
- No problems with self-care
- Some problems performing usual activities
- Moderate pain or discomfort
- Moderately anxious or depressed

In your opinion, how much time in perfect health is equally good as 10 years in health state X?'



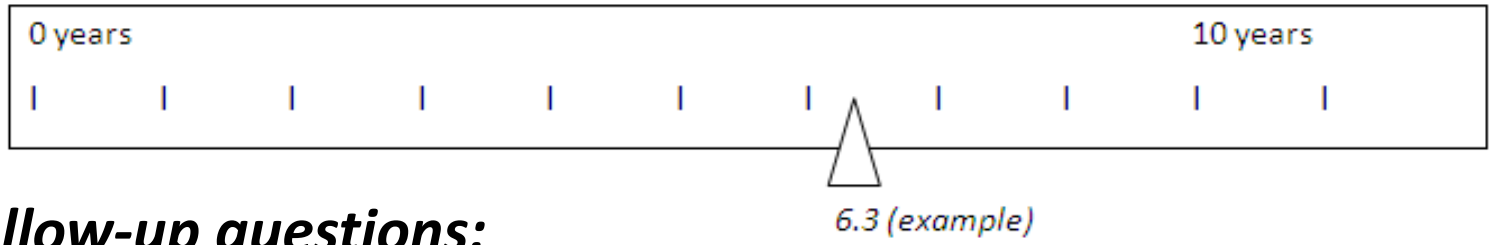
Follow-up questions:
Did you think of SO? And if so, how?

Version 2. Explicitly instructed to include SO



health state X
- No problems in walking,
- No problems with self-care
- Some problems performing usual activities
- Moderate pain or discomfort
- Moderately anxious or depressed

'In your opinion, how much time in perfect health is equally good as 10 years in health state X (taking into account that you being in this health state could affect your significant others)?'



Follow-up questions:
How did you think of SO?

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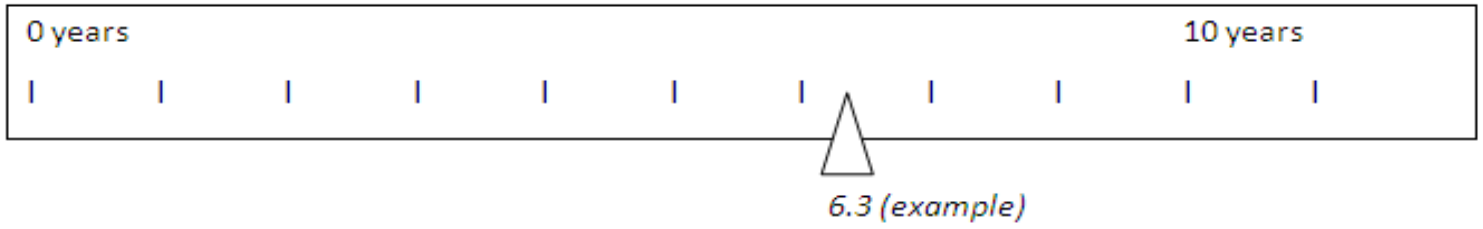
Version 3: Instructed to exclude SO



health state X

- No problems in walking,
- No problems with self-care
- Some problems performing usual activities
- Moderate pain or discomfort
- Moderately anxious or depressed

'In your opinion, how much time in perfect health is equally good as 10 years in health state X (not taking into account that you being in this health state could affect your significant others)?'



Results

- 1198 respondents
  - 742 version 1
  - 235 version 2
  - 221 version 3



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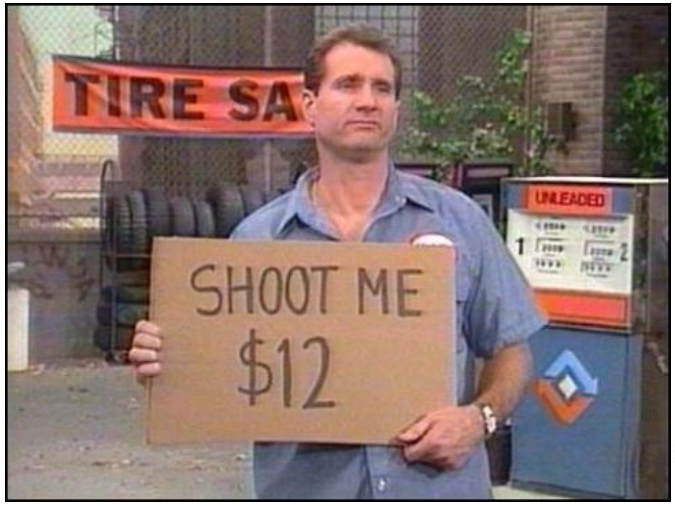
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Spontaneous inclusion of significant others?

54% =



46% =



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When thought of SO……
21% Concerned of social role functioning



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When thought of SO…..

45% concerned of being a burden



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When thought of SO…..

34% concerned of ~~being~~ missed





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TTO values



Spontaneous inclusion vs. exclusion

Inclusion: equal or less time traded



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Instructed inclusion vs. exclusion

Inclusion: more time traded



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Including/excluding had only little effect on TTO values

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Disentangling effects



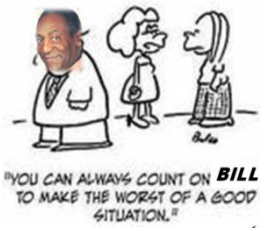
Concerned of social role
→ Equal years traded off



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Concerned of being a burden
→ More years traded off



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Concerned of being missed
→ Less years traded off



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Differences significant for all 4 EQ-5D health states (all p-values < 0.01)

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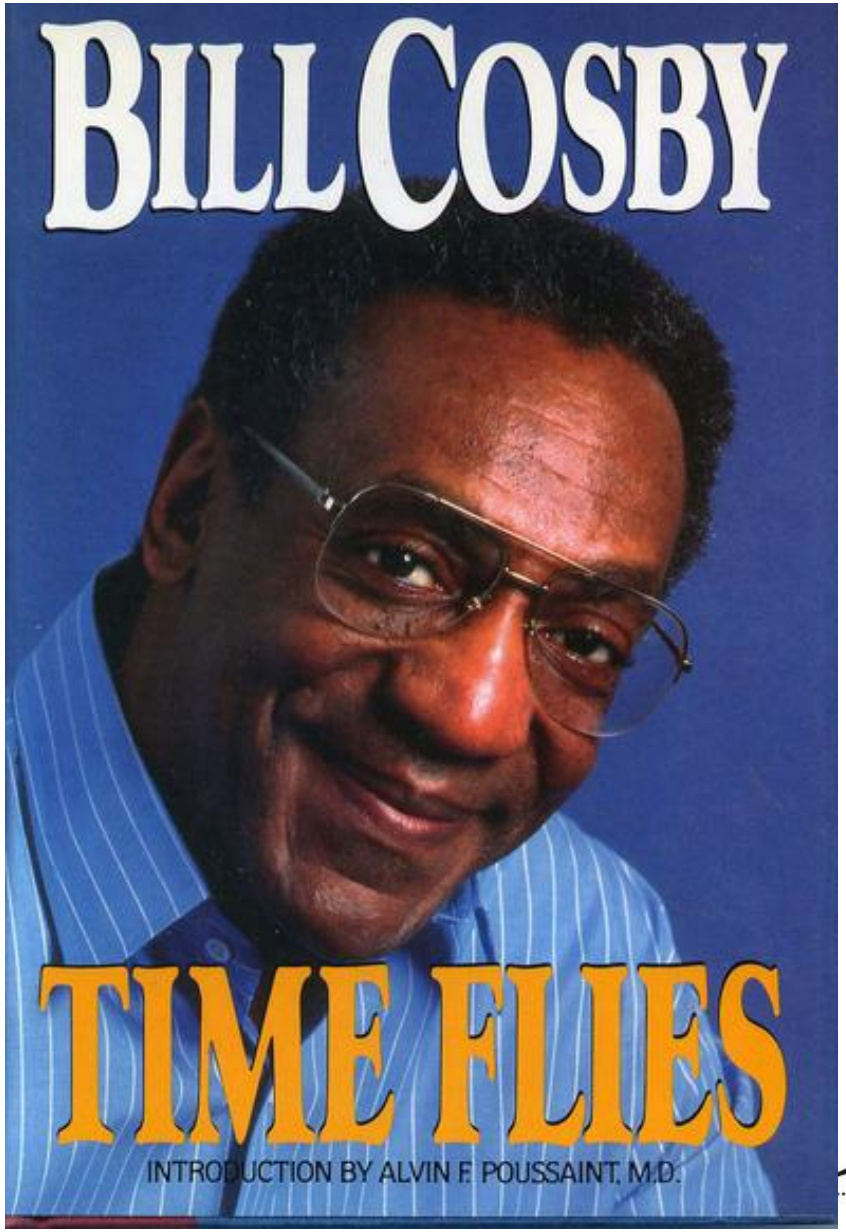


Discussion and conclusion

- More than 50% include SO effects
- Upwards and downwards bias TTO values
  - Some want to live longer for their loved ones, so they won't be missed
  - Some want to die sooner, so they won't be a burden
  - These effects almost equal out
- Implications for future research
  - Since small net effect, other ways of inclusion possible with some risk of double counting






BILL COSBY
TIME FLIES
INTRODUCTION BY ALVIN F. POUSSAINT, M.D.





Research questions

- Do respondents spontaneously consider income in HSV through TTO?



Including income?



Excluding income?

- What are the effects of explicit instructions?

Results



64% =



36% =



No significant differences in valuations

Effects of income on health state values



=



Conclusion

- Income is often included
- QALY measure insensitive to income
- Productivity costs best measured in monetary terms
  - E.g. with iPCQ (available on USB stick)

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Research questions

- Do respondents automatically include leisure-time in HSV through TTO?



Including leisure-time?



Excluding leisure-time?

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Results

88% =



12% =



Effects of leisure time on health state values



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(for 1 health state only)

Conclusion

- Most include leisure
- Effect on valuations unclear

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