**A new approach for creating personal and social EQ-5D-5L value sets: provisional results from development and pilot-testing in New Zealand**

Trudy Sullivan1, Josh Ward1, Paul Hansen2, Nancy Devlin3, Franz Omlber4, Sarah Derrett1

1Department of Preventive and Social Medicine, University of Otago, Dunedin, New Zealand 2Department of Economics and 1000minds, University of Otago, Dunedin, New Zealand 3Office of Health Economics, London, United Kingdom 41000minds, Wellington, New Zealand

**OBJECTIVES**
The EQ-5D has been expanded to include a version with five levels of severity on the dimensions. We describe here a new approach for creating EQ-5D-5L value sets based on the PAPRIKA method1 and two methods for valuing dead, implemented using 1000minds software.2 A social value set, and personal value sets for each participant were produced.

**METHODS**
An online survey with four parts was developed, mostly implemented using 1000minds software. The main part comprised a discrete choice experiment (DCE) based on the PAPRIKA method where participants were presented with a series of pairwise comparisons based on two dimensions of the EQ-5D described on two levels involving a trade-off (Fig. 1). The first, third and fifth levels of each dimension were presented in the DCE; the weights for the second and fourth levels were calculated using Bézier interpolation. To test the reliability of each participant’s responses, two questions were repeated at the end of the DCE. Participants were also asked questions to identify health states worse than dead, using two methods (Figs. 2-3). Finally, participants were asked about their demographic characteristics and for feedback on the survey, including the DCE and dead-valuation methods.

To test the feasibility and acceptability of the DCE and dead-valuation methods, and to explore the factors people consider when making their choices, a ‘think aloud’ approach was used. A convenience sample of 12 participants individually attended a one-hour session where, in the presence of two interviewers, they completed the survey and verbalised their thoughts as they did so. The interviewers then clarified any issues raised, and asked follow-up questions.

To pilot-test the survey, emails were sent to a non-representative sample of participants with an invitation to complete the survey and forward the survey link to others.

**PARTICIPANT FEEDBACK FROM THINK-ALoud SESSIONS**

1. Comparing health states / PAPRIKA
   - Easily understood layout / instructions
   - Repetition, not noticing change of question
   - Implausible health states
   - When making decisions, considered possible treatments to alleviate condition, e.g. pain relief

2. Using VAS to find the value for dead
   - Very challenging for some participants to understand
   - Some responses contradicted verbally-stated preferences
   - Confronting / difficult to think about

3. Locating dead in the descriptive system
   - Easily understood
   - Confronting / difficult to think about

**SNOWBALL SAMPLE**

| Total responses | 330 |

**VALUE SET RESULTS FROM THE PILOT STUDY**

![Equation image]

**PROVISIONAL FINDINGS**
Feedback from the think-aloud sessions (1-3 above) related to the survey process rather than content, though most participants found the task of valuing dead confronting. As a result of the feedback, aspects of the survey (i.e. instructions, numbering, etc.) were refined and a warning added about the sensitive nature of some of the questions, in particular valuing dead.

Of the 270 participants who completed the online pilot survey (Fig. 4 and Table 1), 200 answered the two repeated questions identically (consistently). The average number of trade-off questions answered was 22, with an average completion time for the entire survey of 14 mins (median 12 mins). Anxiety/depression was the most important dimension to participants on average, with mobility the least important dimension (Fig. 5). The unadjusted mean value for dead was 0.404 (median 0.465), with a mean adjusted value for 55555 of −0.903 (median –0.869) (Figs. 5 & 6).

More than 75% of participants found the survey instructions and design easy or very easy to follow, with 56% finding the choice questions difficult. More than 85% reported that the ranking obtained from the weighted dimensions was as they expected (Table 2).

**NEXT STEPS**
A representative sample of the New Zealand general public is currently being surveyed. In addition to creating EQ-5D-5L value sets (personal and social), the preferences of sub-groups will be explored, e.g. weights will be analysed according to characteristics such as age, gender, ethnicity, and health status.