THE UNIVERSITY of York

CENTRE FOR HEALTH ECONOMICS

STANDARD GAMBLE USER MANUAL :

PROPS AND SELF-COMPLETION METHODS

Manual edited by C. Gudex

April 1994

STANDARD GAMBLE

USER MANUAL:

PROPS AND SELF-COMPLETION METHODS

Procedures designed by:

Measurement and Valuation of Health Group
Centre for Health Economics
University of York
York, YO1 5DD

and

Social and Community Planning Research
35 Northampton Square
London EC1V 0AX

Manual edited by C. Gudex
April 1994

INTRODUCTION

In 1992, the Measurement and Valuation of Health (MVH) Group at the Centre for Health Economics conducted a study with Social and Community Planning Research (SCPR) comparing different methods of valuing health states (Dolan et al 1993). A random sample of 335 members of the general population were interviewed in their own homes by specially trained interviewers. Each respondent was asked to value a series of health states using two different valuation methods – Standard Gamble (SG) and Time Trade–Off (TTO).

Considerable time and energy went into the production of the protocols for the interviews. Standard methodology (derived primarily from research in Canada and the USA) for both the SG and TTO methods involves the use of specially designed boards and cards. The SG procedure typically uses a 'probability wheel' which allows different probabilities of health outcomes to be presented to the respondent, while the TTO typically uses a horizontal sliding scale which allows the length of time spent in a health state to be varied. SG and TTO boards based on the standard methodology were piloted as part of the MVH study and it was found that substantial modifications were required to simplify the material for both the interviewer and the respondent. In addition the standard boards were found to be too large and were difficult to operate. The substantive change made to the SG board during the course of the piloting was the use of a sliding scale rather than a wheel, and a new TTO board was designed so that both sides could be used – one for states considered better than death, and the other for states considered worse than death.

A fundamental question arising from the pilot work was the advantage of using props such as boards and cards in the interview. To address this issue, an alternative method of administering the SG and TTO tasks was developed representing a significant departure from the standard methodology. In these modified procedures, the respondent was able to take a much more active role and in fact completed much of the valuation task by him/herself without the use of a board.

All four methods performed very well in the main study, to the extent that no single method proved decisively superior to all others from an administrative point of view. Ultimately the choice of method was based on empirical grounds, with the result that the TTO 'Props' (with board and cards) was selected as the 'best' method for valuing health states in population surveys.

Although the MVH Group is now concentrating on the TTO 'Props' method in further work, there are certain to be other researchers who want to use the SG method or the TTO in its self-completion form. Thus we want to ensure that all our methods are available to other interested parties in the field of health status measurement. The health states used in this study were based on the EuroQol descriptive system (Kind et al, 1994), but these valuation procedures have a general application and can be used for any health state descriptive system. Being aware of the considerable work required in designing and piloting any new methods, we felt that it would be useful if other researchers were able to gain access to a detailed account of the procedures that we had developed.

In order to maximise the availability of these designs, we have decided to supplement the initial report describing the piloting and interview design (Thomas and Thomson 1992) with specific User Guides detailing the four valuation methods:

Standard Gamble: Props and Self–completion

Time Trade–Off: Props and Self–completion

Revisions to the TTO Props method as a result of more recent survey work have also been included.

We hope others will be able to pick up from where we have left off, either to make use of the methods in their current form or to modify them further as they wish. In either event we look forward with interest to hearing of the results.

For further information regarding the SG or TTO methods or the MVH study, please contact any member of the MVH Group: **Paul Dolan, Claire Gudex, Paul Kind, Alan Williams** or SCPR: **Roger Thomas, Katarina Thomson.**

The SG and TTO guides are available, at a price of £7.50 each (to cover the cost of publication, postage and packing), from:

The Publications Secretary
Centre for Health Economics
University of York
York YO1 5DD

Cheques should be made payable to the University of York.

CONTENTS

THE STANDARD GAMBLE

INTRODUCTION 1

INTERVIEWER TRAINING 4

THE STANDARD GAMBLE: PROPS METHOD 6

- Items Required 6
- Procedure 8
- Data Entry and Scoring 10
- Interviewer Script 12
- Response Sheets SG1 - SG3 24
- Figures 3 - 5 27

THE STANDARD GAMBLE: SELF-COMPLETION METHOD 30

- Items Required 30
- Procedure 32
- Data Entry and Scoring 35
- Interviewer Script 37
- Showcards 43
- Results Booklet
- Page SG1

THE STANDARD GAMBLE

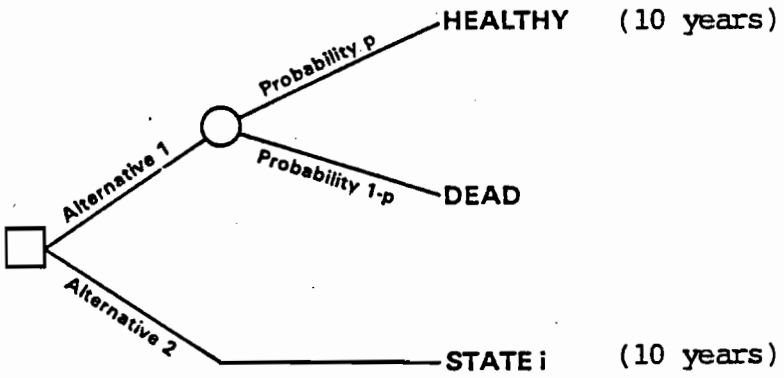
INTRODUCTION

The Standard Gamble has been considered the classical method of health state valuation as it is based on the fundamental axioms of von Neumann–Morgenstern expected utility theory. The respondent is required to choose between the certainty of an intermediate health state and the uncertainty of a treatment with two possible outcomes, one of which is better than the certain outcome and one of which is worse. The aim is to find the probability at which the respondent is indifferent between the certain intermediate health state and the risky treatment. This indifference point generates a health state value between 1.00 and –ve infinity, on a scale in which full health and death are assigned values of 1.00 and 0.00 respectively.

The basic SG procedure, for chronic states better than death, is shown in Figure 1. The respondent is offered two alternatives. Alternative 1 is a treatment with two possible outcomes: either the respondent is returned to full health and lives for a further 10 years (probability p), or the respondent dies immediately (probability $1-p$). Alternative 2 is the certain outcome of chronic state i for 10 years. Probability p is varied until the respondent is indifferent between the two alternatives, at which point the utility value for state i is given by:

$$U(i) = p$$

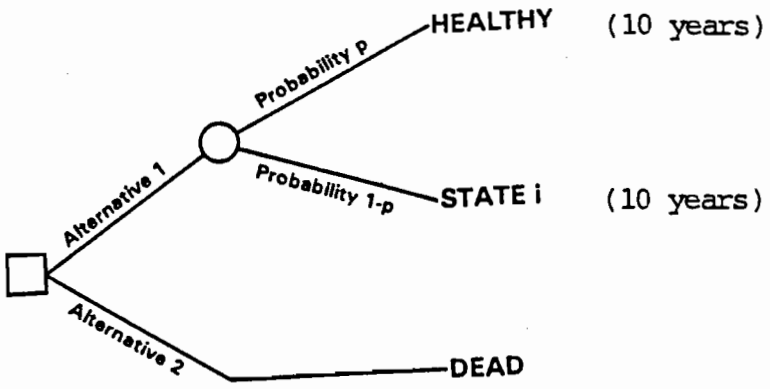
Figure 1: Standard Gamble for a Chronic State Considered Better than Death
(After Torrance, 1986)



The format for chronic states worse than death, is shown in Figure 2. The respondent is again offered two alternatives, but this time the two possible outcomes in Alternative 1 are either to be returned to full health and live for a further 10 years (probability p), or to be in chronic state i for 10 years (probability $1-p$). Alternative 2 is the certain outcome of immediate death. Probability p is again varied until the respondent is indifferent between the two alternatives, at which point the utility value for state i is given by:

$$U(i) = - p/(1-p)$$

Figure 2: Standard Gamble for a Chronic State Considered Worse than Death
(After Torrance, 1986)



Note that in all cases the state lasts for 10 years without any change, after which the respondent dies.

Note also that the health state descriptions used in this manual are based on the EuroQol classification system. This is for illustrative purposes only – any descriptive system can be used, as long as it provides a description of 'good' or 'full' health and of a series of dysfunctional health states.

INTERVIEWER TRAINING

Training was one of the key elements to the success of the MVH study and it is recommended that considerable effort be put into this. In the MVH study, professional interviewers registered with SCPR were specifically trained in the handling of these procedures. Although the interviewers were experienced in contacting and communicating with the general public, they were quite unused to manipulating boards and cards. The most productive method of training appeared to be a formal 1–day session with the following format:

- A short, general explanation of theory behind the procedures
- Demonstration of the procedure with a 'dummy' interview
- Practice sessions in which the new interviewer conducted the interview with someone familiar with the techniques acting as respondent
- Debriefing session to resolve any problems

New interviewers were then asked to practise the methods at home, and then to conduct 5 formal interviews. These were checked and remedial training was provided if necessary.

REFERENCES

Dolan P., Gudex C., Kind P. & Williams A. 'Valuing Health States: A Comparison of Methods', MVH Research Report, Centre for Health Economics, University of York, 1993.

Kind P., Gudex C., Williams A. and Dolan P. Practical and Methodological Issues in the Developm\ent of the EuroQol: The York experience. In Advances in Medical Sociology, Vol 5: Quality of Life in Health Care. Edited by Albrecht G L and Fitzpatrick R. J.A.I. Press, 1994 (forthcoming).

Thomas R. & Thomson K. Health Related Quality of Life: Technical Report Joint Centre for Survey Methods, London, August 1992.

Torrance G. W. Measurement of Health State Utilities for Economic Appraisal: A Review. Journal of Health Economics 5: 1-30, 1986.

Von Neumann J and Morgenstern O. Theory of Games and Economic Behaviour, John Wiley, New York, 1953.

STANDARD GAMBLE: PROPS METHOD

This version of the SG uses a board and a set of health state cards. The respondent is guided through the exercise one state at a time, using the board to show the varying chances of success and failure of treatment.

When six states are valued the TTO Props method takes approximately 20 minutes.

ITEMS REQUIRED

1. A ***Chance board*** made of 3mm thick hardboard and incorporating a moveable sliding scale. Only one side of the board is used. The upper part of the board shows 'Choice A' and the lower part 'Choice B'. (See Figure 3).

   Choice A has two plastic envelopes, one below the other, size 110mm x 70mm. The scale is 215mm x 70mm and has a background divided diagonally into equivalent pink and blue areas. Numbers above the scale run from 100 to 0 and represent the chances of success (pink). Numbers below the scale run from 0 to 100 and represent the chances of failure (blue). The pointer, of black hard plastic, has a central aperture to allow the pink and blue areas to be seen, and white lines to indicate chances of success and failure.

   Choice B has one central plastic envelope, size 110mm x 70mm.

2. Envelope marked 'SG (A)' containing ***health state cards***, for use when a health state is rated as better than death:

1 *white example health state* card (not one of the health states to be valued in the course of the interview)

1 *pink 'full health'* card (labelled 'W')

1 *blue 'immediate death'* card

1 *green* card for each health state to be valued

Each card has an identifier e.g. Card 'X' describes one health state, Card 'S' describes another, see Figure 4.

3. Envelope marked 'SG (B)' containing ***health state cards*** for use when a health state is rated as worse than death:

1 *green 'immediate death'* card

1 *blue* card for each health state to be valued

The pink 'full health' card from envelope SG(A) is used again for states worse than death. The health state identifiers are also the same as those used as in envelope SG(A).

4. ***Page SG1*** for recording time taken and respondent's understanding of the task (see page 24).

5. ***Response sheets*** to record the respondent's answers. On Page SG2 (shown on page 25) there is provision for 6 health states to be valued, in this case identified by the letters X,S,B,H, Y and Z. There are two scales for each state. The upper scale is used for when the health state is rated as better than death, the lower scale for when the state is rated as worse than death. The resulting score is written in the boxes to the right of the scales, with a positive or negative sign at the start and with leading and trailing zeros.

   Page SG3 (see page 26) provides space for verbatim comments in the event of the respondent giving an unusual answer (e.g. that the 100% certainty of being in 'poor' health is better than the 100% certainty of being in full health).

It is convenient to have pages SG1 to SG3 stapled together.

PROCEDURE

The interviewer first explains the procedure to the respondent with an example health state. Then the respondent is taken through each of the health states to be valued, one at a time (in a pre-determined order if desired), with the interviewer moving the scale as appropriate. Initially, it is assumed that all states are considered better than death. If the respondent offers an answer which suggests that the state is in fact worse than death, a new series of questions are asked.

The full script is reproduced on pages 12-23.

1. The interviewer has the board, envelopes of cards, and response sheets ready and notes the start time. (S)he takes the respondent through paragraphs 1 to 4 of the script which shows the use of an example health state and explains the consequences of choosing a treatment with first a 90% chance of success and then a 50% chance of success. At the end of this time, the respondent should have a general understanding of what is required. In particular (s)he will be aware that the choice to be made is between 'Choice A' (involving two states) and 'Choice B' (involving one state only).

2. Envelope SG(A) is opened and the respondent is asked to read the pink and blue cards carefully. The pink (full health) card is then put in the upper pocket of Choice A and the blue (immediate death) card is put in the lower pocket of Choice A. The first (green) health state to be valued is put into the pocket for Choice B. The scale is initially set at 100/0 (i.e. 100% success) and then is moved to indicate chances of success in a 'ping-pong' fashion i.e. 10%, 90%, 20%, 80%, 30%, 70%, 40%, 60% and then 50%. The interviewer records the respondent's answers on the appropriate scale on page SG2, with a 'V' under the scale for an 'A' answer and a 'X' for a 'B' answer. The script indicates when the respondent's point of indifference has been reached and indicates the score to be recorded. The SG procedure is then repeated with the next health state.

3. If the respondent indicates at paragraph 7 that 100% chance of being in the green state is preferred to 100% chance of being in the pink (full health) state, a score of '+97.00' is recorded and the interviewer notes any comments of explanation on

page SG3. The SG procedure is then repeated with the next green state.

4. If the respondent indicates at paragraph 8 that 100% chance of being in the green state is worse than 100% chance of immediate death, the interviewer goes on to the script for states worse than death.

5. For states worse than death the same board is used but a different set of cards is required, found in envelope SG(B). The blue 'immediate death' card is replaced by a green 'immediate death' card, and this is now put into the pocket of Choice B. The green health state card is replaced by a blue health state card of the same description, and this is now put into the lower pocket for Choice A. The pink 'full health' card remains in the upper pocket of Choice A. Thus Choice A is still the risky treatment but the outcome is now either full health or the state to be valued, while 'Choice B' is 100% certainty of immediate death (see Figure 5).

The same process is followed as before, with the chances of success starting at 10% and then moving to 90%, 20%, 80%, 30%, 70%, 40%, 60% and 50% until the point of indifference is reached.

After all health states have been scored, the finish time is recorded on page SG1.

DATA ENTRY AND SCORING

In the MVH study, the SG procedure was preceded by several 'warm-up' exercises in

which the respondent first ranked and then rated the health states to be valued in the SG. The respondents were thus familiar with the health states, and hence the reference to "the same health states that you have seen before" at the beginning of the SG procedure.

This is also the explanation for the numbering of the card records for computer entry which start at 03:

Card 03 SG Props method: 6 health states were valued in the MVH study, and thus only columns 01 to 47 are used.

The verbatim comments on Page SG3 were useful to explain any unusual or unexpected answers, but were neither coded nor entered onto the computer file.

Scoring of health states is incorporated into the interviewer instructions. In resulting health state scores full health (represented by the 11111 state) is given a value of 1.00, death is given a value of 0.00 and the minimum score is -19.00. The code +97.00 is used for unusual answers, while 999.99 is recommended for missing answers.

INTERVIEWER SCRIPT

STANDARD GAMBLE: PROPS METHOD

HAVE RESPONSE SHEETS SG1 TO SG3 READY
HAVE CHANCE BOARD AND 2 ENVELOPES OF CARDS READY
NOTE START TIME OF STANDARD GAMBLE ON PAGE SG1.

1. **SHOW THE CHANCE BOARD TO THE RESPONDENT AND SAY:**

I am now going to ask you to make choices between these same health states that you have seen before. One choice will involve a risk and the other choice will be a certainty. The amount of risk will be changed until we find out how much risk you will take to avoid the certain choice. In order to make the task easier to understand we will use an aid similar to a game board.
There are no right or wrong answers, we just want to know what you think.

PLACE CHANCE BOARD ON TABLE, SET CHOICE A TO 90/10

---

2. We call this a chance board because it shows the chance or probability of an event occurring. As you can see the top part of the board is labelled Choice A.

POINT FINGER AT "CHOICE A"

The bottom part of the board is labelled Choice B.

POINT FINGER AT "CHOICE B"

---

3. You will be asked to pick either Choice A or Choice B. Choice B, at the bottom of the board, will describe a state of health. Choice B is fairly simple because it describes only one state of health which is certain to occur. If something is certain it is equal to a 100% chance or probability.

However, Choice A is a little more complicated because if it is chosen there are two possible results. The chances of each of these results occurring are shown by the numbers on the scale to the right of each result, and by the amount of pink and blue inside the scale.

Another way of explaining the chance aspect of Choice A is that for every 100 patients who choose A, 90 will experience the top health state following treatment,

---

POINT TO 90

---

but 10 will experience the bottom health state

POINT TO 10

---

and none will know before choosing whether they will be one of the 90 or one of the 10. That is the chance they take.

4. To make these ideas a little clearer let's run through an example. Let us assume that you have suffered an illness. When you see the doctor, she explains that you have two choices. Here are the descriptions for this example.

TAKE OUT CARDS FROM SG ENVELOPE A

PLACE THE PINK 'W' CARD IN THE TOP POCKET OF CHOICE A, THE BLUE 'DEATH' CARD IN THE BOTTOM POCKET OF CHOICE A AND THE WHITE EXAMPLE CARD IN THE POCKET OF CHOICE B

MAKE SURE CHANCES ARE SET TO 90/10

Choice A is a treatment and Choice B is to stay in the health state on the white card. Choice B is certain, but Choice A (the treatment) is risky. It doesn't always work. If the treatment does work, you will be in the health state shown on the pink card. If the treatment does not work, you will die immediately (shown on the blue card).

The chance of the treatment working is shown on the top of the scale and matches the proportion of pink colour inside the scale.

POINT TO '90' ON TOP OF SCALE, AND PINK COLOUR UNDERNEATH '90'

The chance of dying from the treatment is shown on the bottom of the scale and matches the proportion of blue colour inside the scale.

POINT TO '10' ON BOTTOM OF SCALE AND BLUE COLOUR ABOVE '10'

During the exercise, these chances will change and I will ask you to choose Choice A or Choice B each time I change the chances.

DEMONSTRATE BY MOVING MARKER ON CHANCE BOARD

THEN RETURN TO 90/10

Here, the chances of getting better after the treatment are 90% with a 10% chance of dying. The chances are that the treatment would work because there is a very large amount of pink, 90 per cent, showing inside the scale. There is still a chance that the treatment would not work, but it is a smaller chance, 10 per cent, because there is only a small amount of blue showing inside the scale. Another way to think of it is that, on average, for every 100 people who choose A, the treatment, 90 will get better afterwards but 10 will die from the treatment.

CHANGE CHANCES TO 50/50

Now I've changed the chances. If you had the treatment now, the chances of the treatment working and not working are equal. This is because there is an equal amount of pink and blue showing inside the scale. Do you understand how the Chance Board works?

YES - **RING ANSWER ON PAGE SG1, MOVE MARKER TO 100/0, AND GO TO PARAGRAPH 5.**

NO - **RING ANSWER ON PAGE SG1, RETURN TO PARAGRAPH 2 SAYING "Let's go through this again".**

---

5. Let's work carefully through the first question together. From now on, I want you to imagine that you yourself are in these states, and that they would last for 10 years without any change, and then you would die. In Choice A, the descriptions will stay the same each time and are described by this pink card and this blue card.

TAKE OUT PINK AND BLUE CARDS AND HAND THEM TO RESPONDENT REMOVE THE WHITE EXAMPLE CARD FROM THE CHOICE B POCKET AND PUT IT BACK INTO THE ENVELOPE

Please read over the descriptions and when you are finished I will put them in the pockets in Choice A.

WHEN RESPONDENT HAS FINISHED READING, PLACE PINK CARD IN TOP POCKET OF CHOICE A AND BLUE CARD IN BOTTOM POCKET OF CHOICE A

- HAVE PAGE SG2 READY FOR SCORING

---

6. HAND RESPONDENT FIRST (NEXT) GREEN CARD

The Health state of Choice B is one described by a green card.

Please read over the description and when you are finished I will put it in pocket B at the bottom of the board.

WHEN RESPONDENT HAS FINISHED READING, PLACE GREEN CARD IN POCKET B

- BE SURE MARKER IS SET TO 100 AT THE TOP AND 0 AT THE BOTTOM

---

7. We are now ready to begin. As you can see Choice A is a 100% chance of ten years in the health state described on the pink card, with zero chance of dying immediately. Choice B is a 100% chance of ten years in the health state described on the green card you have just finished reading. Would you prefer Choice A or Choice B now?

A - **MARK A √ UNDER 100, MOVE MARKER TO 10/90 AND GO TO PARAGRAPH 8**

B - **MARK A X UNDER 100, RECORD '+97.00' ON PAGE SG2, AND CHECK THE RESPONSE BY ASKING:**
"Why did you choose a 100% chance of ten years in the health state on the green card rather than a 100% chance of ten years in the health state on the pink card?"
RECORD VERBATIM RESPONSE ON PAGE SG3 (NOTING CARD LETTER).
THEN GO BACK TO Q.6 FOR THE NEXT HEALTH STATE

SAME - **RECORD RESPONSE (+1.00), STATE "Thank-you that ends this question", AND GO BACK TO Q.6 FOR THE NEXT HEALTH STATE**

---

8. Choice A is now a 10% chance of ten years in the health state described on the pink card, with a 90% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 10, MOVE MARKER TO 0/100 AND STATE:

Choice A is now a zero chance of the health state described on the pink card, with a 100% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - TURN TO THE PAGE HEADED "PROTOCOL FOR STATES RATED WORSE THAN DEATH"

B - RECORD RESPONSE (+0.05), STATE "Thank-you, that ends this question", AND GO TO 6

SAME - RECORD RESPONSE (0.00), STATE "Thank-you, that ends this question", AND GO TO 6

B - MARK A X UNDER 10, MOVE MARKER TO 90/10 AND GO TO 9

SAME - RECORD RESPONSE (+0.10), STATE "Thank-you, that ends this question", AND GO TO 6

---

9. Choice A is now a 90% chance of ten years in the health state described on the pink card, with a 10% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 90, MOVE MARKER TO 20/80 AND GO TO 10

B - MARK A X UNDER 90, RECORD RESPONSE (+0.95), STATE "Thank-you, that ends this question", AND GO TO 6

SAME - RECORD RESPONSE (+0.90), STATE "Thank-you, that ends this question", AND GO TO 6

---

10. Choice A is now a 20% chance of ten years in the health state described on the pink card, with an 80% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 20, RECORD RESPONSE (+0.15), STATE "Thank–you, that ends this question", AND GO TO 6**

B – **MARK A X UNDER 20, MOVE MARKER TO 80/20 AND GO TO 11**

SAME – **RECORD RESPONSE (+0.20), STATE "Thank–you, that ends this question", AND GO TO 6**

---

11. Choice A is now an 80% chance of ten years in the health state described on the pink card, with a 20% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 80, MOVE MARKER TO 30/70 AND GO TO 12**

B – **MARK A X UNDER 80, RECORD RESPONSE (+0.85), STATE "Thank–you, that ends this question", AND GO TO 6**

SAME – **RECORD RESPONSE (+0.80), STATE "Thank–you, that ends this question", AND GO TO 6**

---

12. Choice A is now a 30% chance of ten years in the health state described on the pink card, with a 70% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 30, RECORD RESPONSE (+0.25), STATE "Thank–you, that ends this question", AND GO TO 6**

B – **MARK A X UNDER 30, MOVE MARKER TO 70/30 AND GO TO 13**

SAME – **RECORD RESPONSE (+0.30), STATE "Thank–you, that ends this question", AND GO TO 6**

---

13. Choice A is now a 70% chance of ten years in the health state described on the pink card, with a 30% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 70, MOVE MARKER TO 40/60 AND GO TO 14

B - MARK A X UNDER 70, RECORD RESPONSE (+0.75), STATE "Thank-you, that ends this question", AND GO TO 6

SAME - RECORD RESPONSE (+0.70), STATE "Thank-you, that ends this question", AND GO TO 6

---

14. Choice A is now a 40% chance of ten years in the health state described on the pink card, with a 60% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 40, RECORD RESPONSE (+0.35), STATE "Thank-you, that ends this question", AND GO TO 6

B - MARK A X UNDER 40, MOVE MARKER TO 60/40 AND GO TO 15

SAME - RECORD RESPONSE (+0.40), STATE "Thank-you, that ends this question", AND GO TO 6

---

15. Choice A is now an 60% chance of ten years in the health state described on the pink card, with a 40% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 60, MOVE MARKER TO 50/50 AND GO TO 16

B - MARK A X UNDER 60, RECORD RESPONSE (+0.65), STATE "Thank-you, that ends this question", AND GO TO 6

SAME - RECORD RESPONSE (+0.60), STATE "Thank-you, that ends this question", AND GO TO 6

---

16. Choice A is now a 50% chance of ten years in the health state described on the pink card, with a 50% chance of dying immediately. Choice B is still a 100% chance of ten years in the health state described on the green card. Would you prefer Choice A or Choice B now?

A – MARK A √ UNDER 50, RECORD RESPONSE (+0.45), STATE "Thank–you, that ends this question", AND GO TO 6

B – MARK A X UNDER 50, RECORD RESPONSE (+0.55), STATE "Thank–you, that ends this question", AND GO TO 6

SAME – RECORD RESPONSE (+0.50), STATE "Thank–you, that ends this question", AND GO TO 6

---

17. NOTE FINISH TIME OF STANDARD GAMBLE ON PAGE SG1.
WHEN ALL HEALTH STATES HAVE BEEN VALUED, SAY:
"Thank you, that ends this set of questions", AND REPLACE ALL CARDS IN SG ENVELOPE A OR B

GO TO NEXT EXERCISE.

STANDARD GAMBLE PROTOCOL FOR STATES RATED AS WORSE THAN DEATH: PROPS METHOD

REMOVE BLUE CARD ("IMMEDIATE DEATH") FROM BOTTOM POCKET OF CHOICE A
REMOVE GREEN CARD (HEALTH STATE DESCRIPTION) FROM POCKET OF CHOICE B
TAKE OUT CARDS FROM SG ENVELOPE B
CHOOSE BLUE CARD WITH HEALTH STATE DESCRIPTION THAT HAS BEEN RATED AS WORSE THAN DEATH AND PLACE IT IN BOTTOM POCKET OF CHOICE A
PLACE GREEN CARD ("IMMEDIATE DEATH") IN POCKET OF CHOICE B
MOVE MARKER TO 10/90

---

1. Now I've changed the choices. As you can see Choice A is now a 10% chance of ten years in the health state described on the pink card with a 90% chance of ten years in the health state described on the blue card. Choice B is now a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A - **MARK A √ UNDER 90, RECORD RESPONSE (-0.05), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

B - **MARK A X UNDER 90, MOVE MARKER TO 90/10 AND GO TO 2.**

SAME - **RECORD RESPONSE (-0.11), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

---

2. Choice A is now a 90% chance of ten years in the health state described on the pink card, with a 10% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A - **MARK A √ UNDER 10, MOVE MARKER TO 20/80 AND GO TO 3.**

B - **MARK A X UNDER 10, RECORD RESPONSE (-19.00), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

SAME - **RECORD RESPONSE (-9.00), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

---

3. Choice A is now a 20% chance of ten years in the health state described on the pink card, with an 80% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 80, RECORD RESPONSE (–0.18), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

B – **MARK A X UNDER 80, MOVE MARKER TO 80/20 AND GO TO 4**

SAME – **RECORD RESPONSE (–0.25), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

---

4. Choice A is now an 80% chance of ten years in the health state described on the pink card, with a 20% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 20, MOVE MARKER TO 30/70 AND GO TO 5**

B – **MARK A X UNDER 20, RECORD RESPONSE (–5.67), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

SAME – **RECORD RESPONSE (–4.00), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

---

5. Choice A is now a 30% chance of ten years in the health state described on the pink card, with a 70% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 70, RECORD RESPONSE (–0.33), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

B – **MARK A X UNDER 70, MOVE MARKER TO 70/30 AND GO TO 6**

SAME – **RECORD RESPONSE (–0.43), STATE "Thank–you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

---

6. Choice A is now a 70% chance of ten years in the health state described on the pink card, with a 30% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 30, MOVE MARKER TO 40/60 AND GO TO 7

B - MARK A X UNDER 30, RECORD RESPONSE (-3.00), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

SAME - RECORD RESPONSE (-2.33), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

---

7. Choice A is now a 40% chance of ten years in the health state described on the pink card, with a 60% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 60, RECORD RESPONSE (-0.54), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

B - MARK A X UNDER 60, MOVE MARKER TO 60/40 AND GO TO 8

SAME - RECORD RESPONSE (-0.67), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

---

8. Choice A is now a 60% chance of ten years in the health state described on the pink card, with a 40% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A - MARK A √ UNDER 40, MOVE MARKER TO 50/50 AND GO TO 9

B - MARK A X UNDER 40, RECORD RESPONSE (-1.86), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

SAME - RECORD RESPONSE (-1.50), STATE "Thank-you, that ends this question", AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL

---

9. Choice A is now a 50% chance of ten years in the health state described on the pink card, with a 50% chance of ten years in the health state described on the blue card. Choice B is still a 100% chance of immediate death. Would you prefer Choice A or Choice B now?

A – **MARK A √ UNDER 50, MARK RESPONSE (–0.82), STATE "Thank–you, that ends this question" AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

B – **MARK A X UNDER 50, MARK RESPONSE (–1.22), STATE "Thank–you, that ends this question" AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

SAME – **MARK RESPONSE (–1.00), STATE "Thank–you, that ends this question" AND GO TO PARAGRAPH 6 OF MAIN SG PROTOCOL**

Respondent Serial Number | | | | |

Ser No
301–4

Card 03
305–6

TIME RECORD SHEET FOR STANDARD GAMBLE: PROPS METHOD

1. Time at start of Standard Gamble exercise | | | | |

24 hour clock

2. Time at end of Standard Gamble exercise | | | | |

24 hour clock

3. Time taken for Standard Gamble questions | | | |

307–9

minutes

---

4. Did the respondent understand the exercise the first time?

Yes — 1 continue exercise
No — 2 repeat script

310

5. Did the respondent understand the exercise the second time?

Yes — 1
No — 2

continue exercise

311

HEALTH STATE		SCORE	
X BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	312-17
X WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		
S BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	318-23
S WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		
B BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	324-9
B WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		
H BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	330-5
H WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		
Y BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	336-41
Y WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		
Z BETTER THAN DEATH	0 10 20 30 40 50 60 70 80 90 100	±/− ☐☐☐•☐☐	342-47
Z WORSE THAN DEATH	0 10 20 30 40 50 60 70 80 90 100		

Columns 348-80 are spare

Respondent Serial Number ☐☐☐☐

STANDARD GAMBLE (PROPS): VERBATIM RESPONSES

CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

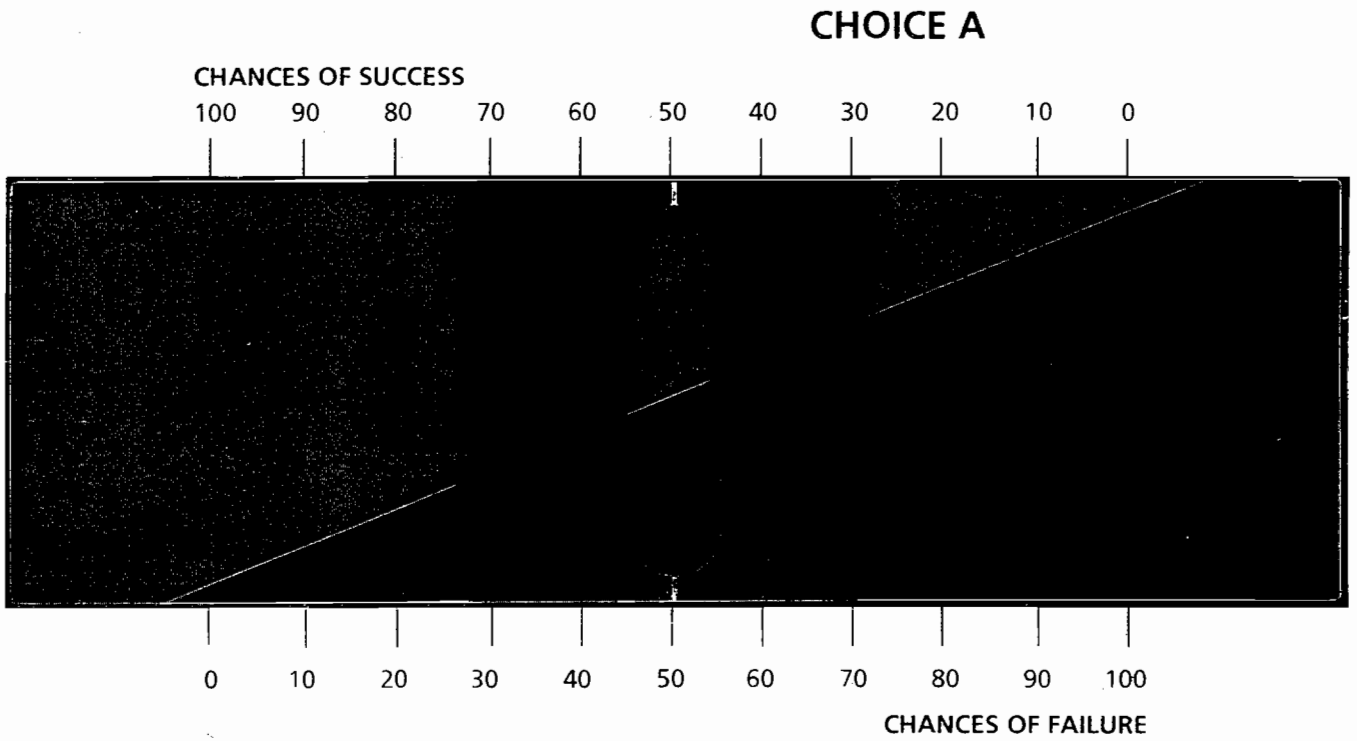
CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

CARD LETTER: ☐
RECORD VERBATIM RESPONSE
_____
_____
_____

CHANCE BOARD

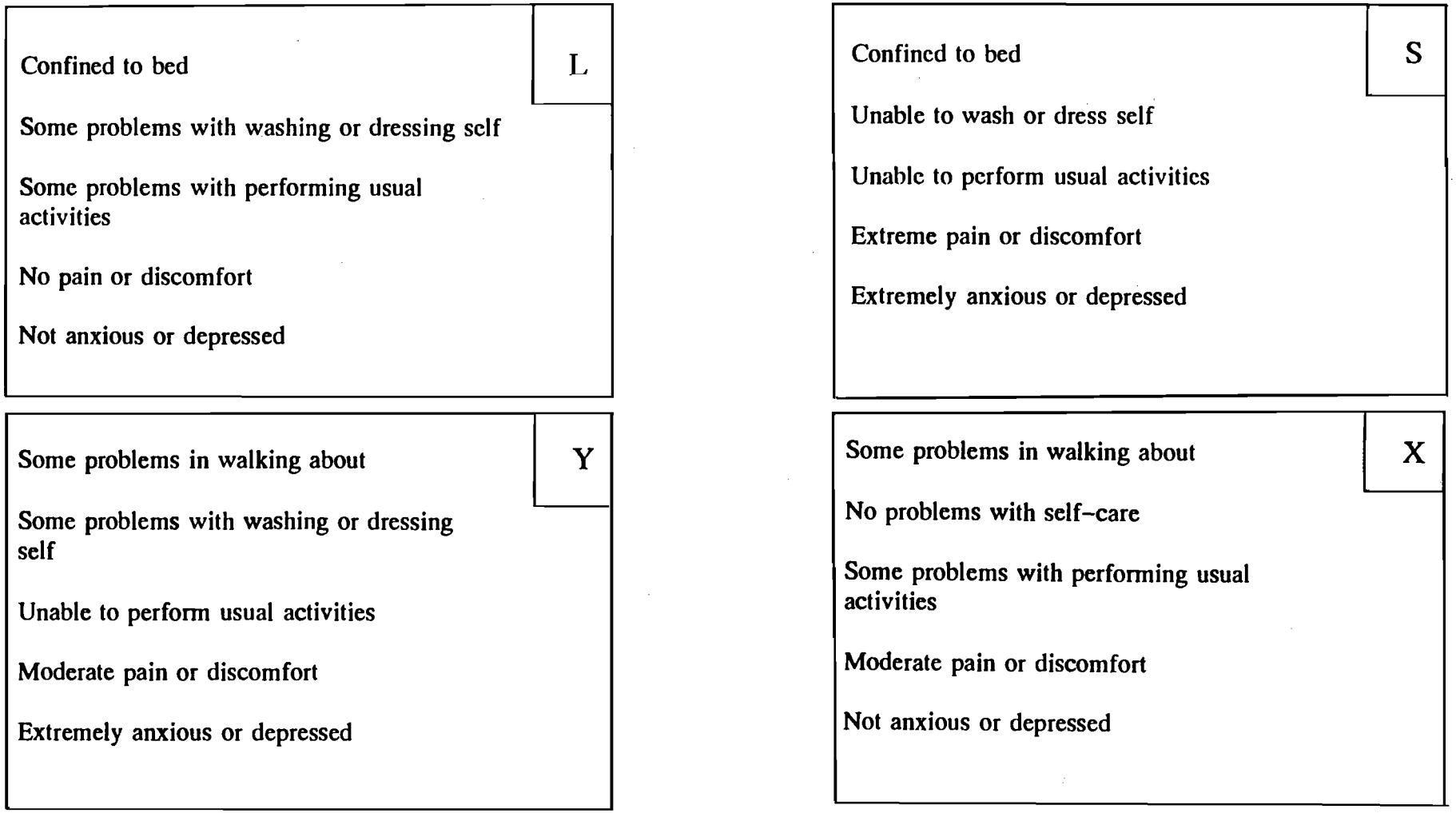


CHOICE B

100% CHANCE

Figure 3

Figure 4: Examples of (EuroQol) health state cards



CHANCE BOARD

W

No problems in walking about

No problems with self-care

No problems with performing usual activities

No pain or discomfort

Not anxious or depressed

X

Some problems in walking about

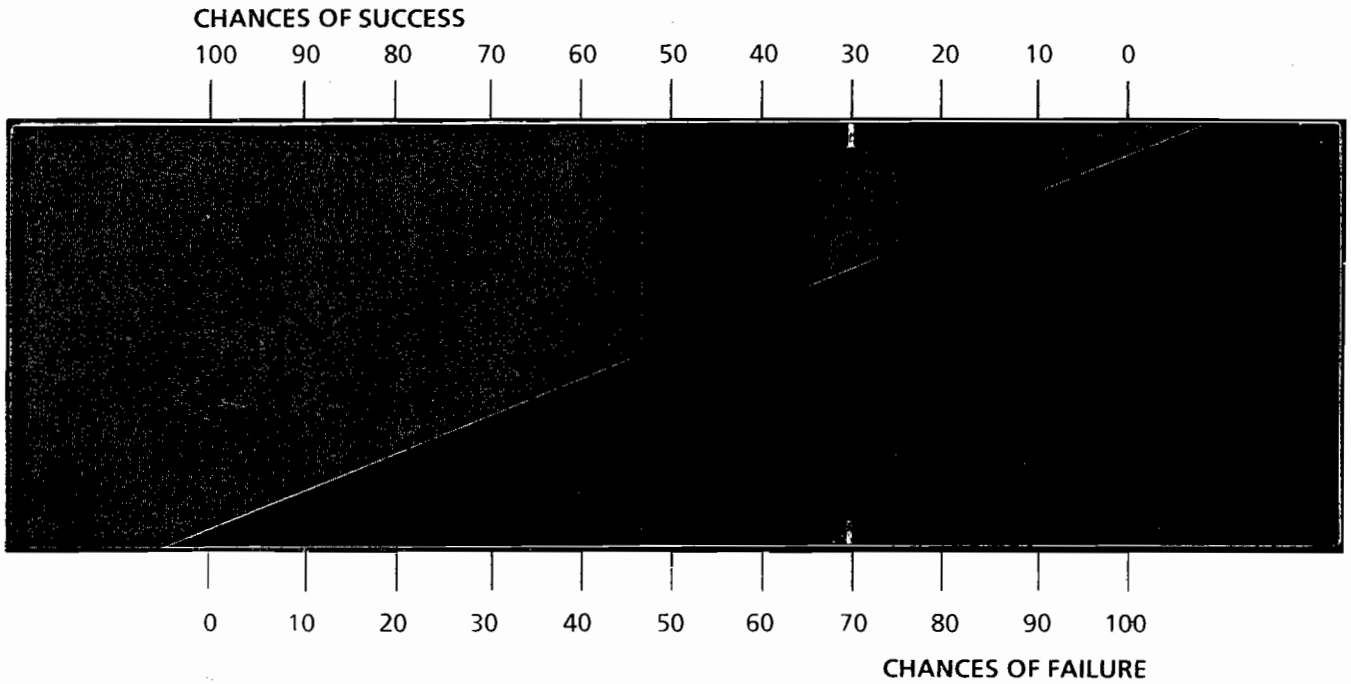
No problems with self-care

Some problems with performing usual activities

Moderate pain or discomfort

Not anxious or depressed

CHOICE A



CHOICE B

100% CHANCE

J

Immediate death

Figure 5

STANDARD GAMBLE: SELF-COMPLETION METHOD

This is a version of the SG that does not require a board. Instead, showcards are used to explain the task to the respondent who then completes a series of response booklets.

When six states are valued the SG self-completion method takes approximately 15 minutes.

ITEMS REQUIRED

1. ***Four Showcards made of hard cardboard***:

Showcard 1 (see Page 43) indicates 'Choice A' and 'Choice B' boxes

Showcard 2 (see Page 44) describes a hypothetical scenario where the respondent is faced with a choice: either to choose a risky treatment with two possible outcomes, one of which is full health and the other immediate death ('Choice A') or to choose to stay for certain in a poor health state ('Choice B'). The health state used in this example should not be one of those to be valued in the course of the interview.

Showcard 3 (see Page 45) shows the varying chances of being in full health (and of dying immediately) after treatment for the illness, with an example answer where a respondent has chosen to risk treatment when there is a 10% chance of dying immediately.

Showcard 4 (see Page 46) is another example answer, where a respondent has chosen to

risk treatment when there is a 50% chance of dying immediately.

2. A *Response booklet* is required for each state to be valued.

The front cover of the booklet identifies the state to be valued and records the respondent's serial number.

Pages 2 and 3 are used where the state is rated better than death.

Page 2 presents the choices: 'Choice A' with an outcome of either full health (left hand box) or of immediate death (right hand box), or 'Choice B', the certainty of being in the state to be valued.

Page 3 shows the varying chances of being in full health (and of dying immediately) for 'Choice A' as compared to 100% certainty of being in the 'Choice B' state. The respondent answers in the middle blank column. A reminder of when to place a tick, cross or equals sign is provided for the respondent at the bottom of the page. Scores for data entry are in the far right hand column.

Pages 4 and 5 are used where the state is rated worse than death.

Page 4 presents the choices: 'Choice A' with an outcome of either full health (left hand box) or of the state to be valued (right hand box), or 'Choice B', the certainty of dying immediately.

Page 5 shows the varying chances of being in full health (and of being in the state to be valued) for 'Choice A' as compared to 100% certainty of dying immediately ('Choice B').

The respondent answers in the middle blank column. A reminder of when to place a tick, cross or equals sign is provided for the respondent at the bottom of the page. Scores for data entry are in the far right hand column.

Page 6 is for verbatim comments if the respondent gives an unusual answer (e.g. that the 100% certainty of being in a 'less than full' health is better than the 100% certainty of being in full health).

3. *Page SG1* for recording time taken and respondent's understanding of the task.

PROCEDURE

The interviewer first explains the procedure to the respondent using a series of example health states and response sheets. The respondent then completes the procedure him or herself, by working through the states one by one and filling in the appropriate response booklet.

Initially, it is assumed that all states are considered better than death. If the respondent offers an answer which suggests that the state is in fact worse than death, a new series of questions are asked.

The full script is reproduced here on pages 37–42.

1. The interviewer has the showcards and response booklets ready, notes the start time, and then takes the respondent through paragraphs 1 to 7 of the script. At the end of this time, the respondent should have a general understanding of what is required. In particular (s)he will be aware that the choice to be made is between 'Choice A' (involving two states) and 'Choice B' (involving one state only). Also, (s)he will be aware that answers can be ticks, crosses, or equals signs, and that where (s)he is unsure, a 'best guess' can be made.

2. The response booklets are given to the respondent one by one (in a pre–determined order if desired), open at pages 2–3. For each state the respondent fills in ticks, crosses or equals signs on page 3 to indicate at what chance of success (s)he would choose the treatment rather than remain in the health state.

When the respondent has completed page 3 the interviewer proceeds as follows:

(a) if the respondent has answered with an '=' not in the bottom line, the interviewer rings the appropriate score in the right hand column and gives the respondent the booklet for the next state to be valued.

(b) if an '=' is placed in the bottom line, the interviewer needs to check whether the respondent thinks this state is equal to, or worse than immediate death. Depending on the answer to this question, the interviewer either rings '0.00' and continues to the next state, or goes on to the script for states worse than death. (If the respondent thinks that the state is actually better than being

dead, (s)he has made an error and is asked to think again about the choices in the bottom few rows on page 3).

(c) if the respondent answers with ticks all the way down page 3, this indicates that the states is considered worse than death, and the interviewer therefore goes on to the script for this.

(d) if the respondent answers with crosses all the way down page 3, the interviewer needs to check whether the respondent thinks this state is equal to, or better than full health. Depending on the answer to this question, the interviewer rings either '+1.00' or '+97.00' respectively, writes any comments of explanation on page 6 of the booklet, and then continues to the next state. (If the respondent thinks that the state is actually worse than full health, (s)he has made an error and is asked to think again about the choices in the top few rows on page 3).

3. If a state is considered worse than death, the interviewer presents pages 4–5 of the booklet to the respondent and explains that the choices are now changed. 'Choice A' is still the risky treatment but the outcome is now either full health or the state to be valued, while 'Choice B' is 100% certainty of immediate death. Page 5 is otherwise completed in just the same way as page 3.

When the respondent has completed page 5 the interviewer proceeds as follows:

(a) if the respondent has answered with an '=' not in the bottom line, the interviewer rings the appropriate score in the right hand column and gives the respondent the booklet for the next state to be valued.

(b) if an '=' is placed in the bottom line, the interviewer rings '–0.05'.

(c) if the respondent answers with either all ticks or all crosses on page 5, the interviewer rings '+97.00' on page 3 of the booklet.

When all states have been scored, the finish time is recorded on page SG1.

DATA ENTRY AND SCORING

In the MVH study, the SG procedure was preceded by several 'warm–up' exercises in which the respondent first ranked and then rated the health states to be valued in the SG. The respondents were thus familiar with the health states, and hence the reference to "the same health states that you have seen before" at the beginning of the SG procedure.

This is also the explanation for the numbering of card records for computer entry which start at 05:

Cards 05 and 06–11 SG Self–completion method: Card 05 was used to record the information from Page SG1 regarding time taken and understanding of the task. Six states were valued in the MVH health study and the scoring for each one was entered onto a

different record such that the score for the first state was entered onto Card 06, that for the second state onto card 07 etc. Columns 07 to 12 were used if the state was rated as better than death, and columns 13 to 18 if the state was rated as worse than death. Thus columns 19 to 80 were spare on all these cards. There is no necessity for each state to have a separate record, and if desired, all scores can be entered onto the same record.

Only the booklet for state 'X' (card 06) is reproduced here.

Scoring of health states is incorporated into the interviewer instructions. In resulting health state scores full health (represented by the 11111 state) is given a value of 1.00, death is given a value of 0.00 and the minimum score is -19.00. The code +97.00 is used for unusual answers, while 999.99 is recommended for missing answers.

NOTE FOR RINGING SCORES IN BOOKLET

IF THE RESPONDENT HAS MORE THAN ONE '=', THEN RING THE MIDDLE VALUE

IF THERE ARE AN EVEN NUMBER OF '=', THEN RING THE LOWER MIDDLE VALUE

IF THE RESPONDENT HAS NO '=', THEN RING THE HIGHEST 'X' VALUE

FOR VERBATIM ANSWERS, EITHER '+97.00' OR '+1.00' WILL ALREADY BE RINGED

INTERVIEWER SCRIPT
STANDARD GAMBLE: SELF-COMPLETION METHOD

HAVE RESPONSE SHEET FOR SG (PAGE SG1) READY
HAVE SHOWCARDS 1-4 READY
NOTE START TIME OF STANDARD GAMBLE EXERCISE ON PAGE SG1

1. **SAY TO RESPONDENT:**

   "I am now going to ask you to make choices between these same health states that you have seen before. One choice will involve a risk and the other will be a certainty. The amount of risk will be changed until we find out how much risk you would take to avoid the certain choice. There are no right or wrong answers, we just want to know what you think."

   PLACE SG SHOWCARD 1 ON TABLE

---

2. "You will be asked to pick either Choice A **(POINT TO "CHOICE A")** or Choice B **(POINT TO "CHOICE B")**."

---

3. "Choice B, at the bottom, will describe a state of health. Choice B is fairly simple because it describes only one state of health which is certain to occur. If something is certain it is equal to 100% chance or probability.

   However, Choice A is a little more complicated because if it is chosen there are two possible results. The chances of each of these results occurring will be shown to you, and I will ask you to make a choice between the different answers."

---

4. **TAKE BACK SG SHOWCARD 1 AND PLACE SG SHOWCARD 2 ON THE TABLE**

   "To make these ideas a little clearer, let's run through a quick example. Let us assume that you have suffered an illness. When you see the doctor, she explains that you have two choices. These are shown on this example card."

---

5. "Choice A is a treatment and Choice B is to stay in the health state shown in the bottom box. Choice B is certain, but Choice A (the treatment) is risky. It doesn't always work. If the treatment does work, you will be in the health state shown in the left hand box in Choice A. But if the treatment does not work, you will die immediately shown in the right hand box in Choice A".

---

6. **PLACE SG SHOWCARD 3 ON THE TABLE NEXT TO SG SHOWCARD 2**

"The chances of getting better after the treatment are shown on this card.

The chances in Choice A are shown on the left hand side. The chance of getting better after the treatment is shown here **(POINT TO '90 IN 100' IN FAR LEFT COLUMN)**. The chance of dying from the treatment is shown here **(POINT TO '10 in 100' IN NEAR LEFT COLUMN)**.

The chance in Choice B is shown on the right hand side. As you can see there is always a 100% certainty that you will be in this one health state if you choose Choice B.

As it says at the bottom of the page, a tick is put against the cases where you are confident that you would CHOOSE the risky treatment in choice A.

A cross is put against the cases where you are confident that you would REJECT the treatment and accept the health state in choice B.

An equals sign is put against the case where you think it would be most difficult to choose between having the risky treatment, choice A, and not having the treatment, choice B.

This example answer shows that Choice A and Choice B are equal when the chances in Choice A are a 90% chance of success and a 10% chance of failure. This would mean that you could not decide between Choice B which is 100% certainty of this state **(POINT TO BOTTOM CARD ON SHOWCARD 2)**, and Choice A which is the risky treatment **(POINT TO TOP CARDS ON SHOWCARD 2)** where for every 100 patients who choose A, 90 will get better after the treatment **(POINT TO LEFT HAND CARD IN CHOICE A)**, but 10 will die from the treatment **(POINT TO RIGHT HAND CARD IN CHOICE A)**, and they would not know before choosing whether they would be one of the 90 or one of the 10. That is the chance they would take".

---

7. **TAKE SG SHOWCARD 3 FROM THE RESPONDENT AND PLACE SG SHOWCARD 4 ON THE TABLE NEXT TO SG SHOWCARD 2.**

"This is another example. This one shows that Choice A and Choice B are equal when the chances in Choice A are a 50% chance of success and 50% chance of failure. This would mean that you could not decide between Choice B which is a 100% certainty of this state **(POINT TO BOTTOM CARD ON SG SHOWCARD 2)**, and Choice A which is the risky treatment where there is a 50% chance of getting better after the treatment **(POINT TO LEFT HAND CARD IN CHOICE A ON SG SHOWCARD 2)** but a 50% chance of dying from the treatment **(POINT TO RIGHT HAND CARD IN CHOICE A ON SG SHOWCARD 2)**.

You will notice that in this example not all the boxes have been filled in. This is because it is sometimes hard to say whether you would definitely accept or definitely reject the treatment. When this happens, you will have a number of boxes where you find it difficult to choose between the two choices. In these cases, please place an equals sign in the one box which shows your 'best guess', for example at 50/50 as shown here."

"This is the kind of choice that I will ask you to make. Do you understand what I want you to do?"

IF YES: **RING ANSWER ON PAGE SG1, TAKE AWAY SHOWCARDS 2 AND 4, GO TO 8**

IF NO: **RING ANSWER ON PAGE SG1, TAKE AWAY SHOWCARDS 2 AND 4. GO BACK TO 1 AND SAY: "Let's go through this again".**

---

8. **PUT SG SHOWCARDS 1-4 AWAY**

HAND RESPONDENT THE ANSWER BOOKLET FOR STATE X (OPENED ON THE FIRST DOUBLE PAGE i.e. pages 2 and 3):

"This is the first choice that I want you to make. Choice A is the same as in the example. The risk involves this state **(POINT TO LEFT HAND CARD IN CHOICE A)** and immediate death **(POINT TO RIGHT HAND CARD IN CHOICE A)**. These states will stay the same each time.

Choice B will now be one of the health states you have already seen, and will still be a 100% certainty.

The chances work in the same way as in the example, so I want you to choose between Choice B which is a 100% chance of one health state, and Choice A which is the risky treatment.

From now on I want you to imagine that you yourself are in these states, and that they would last for 10 years without any change and then you would die.

Please read over the health state descriptions carefully and tell me when you have finished."

WHEN THE RESPONDENT HAS FINISHED READING, SAY:

"Now mark your answer in the booklet. You may change your answer at any time by using the rubber provided.
When you have finished will you please return the booklet to me.

Remember to place a tick if you prefer choice A and a cross if you prefer choice B. An equals sign is placed where it is most difficult for you to choose between having the treatment or not."

---

9. **WHEN RESPONDENT HAS COMPLETED FILLING IN THE BOOKLET, TAKE BACK THE BOOKLET AND PROCEED AS BELOW:**

--- **IF RESPONDENT HAS PLACED AN '=' WHICH IS NOT IN THE BOTTOM LINE, RING APPROPRIATE SCORE, THEN GO TO 10**

--- **IF AN '=' IS PLACED ON THE BOTTOM LINE, SAY TO RESPONDENT:**

"I see that you have placed an equals sign on the bottom line. Do you think this state (POINT TO STATE IN CHOICE B) is equal to immediate death or do you think it is worse than immediate death?"

IF EQUAL: LEAVE ANSWER AS IT IS, i.e. AS AN "=", RING '0.00' AND GO TO 10
IF WORSE: WRITE BESIDE THE BOTTOM LINE: 'WORSE THAN DEATH', THEN GO TO 'SG PROTOCOL FOR STATES WORSE THAN DEATH'
IF BETTER: ASK RESPONDENT TO THINK AGAIN ABOUT THE CHOICES IN THE BOTTOM FEW ROWS.

--- **IF RESPONDENT HAS PLACED TICKS FOR ALL CHOICES, GO TO 'STANDARD GAMBLE PROTOCOL FOR STATES WORSE THAN DEATH'.**

--- IF RESPONDENT HAS PLACED CROSSES FOR ALL CHOICES, SAY:

"I see you have put a cross for all the choices. Do you think this state (POINT TO STATE IN CHOICE B) is better or worse or the same as this state?" (POINT TO LEFT HAND STATE IN CHOICE A)

IF BETTER: ASK "Why" AND RECORD THE ANSWER VERBATIM ON THE LAST PAGE OF THE BOOKLET. RING '+97.00' ON PAGE 3 IN THE BOOKLET. THEN GO TO 10.

IF WORSE: ASK RESPONDENT TO THINK AGAIN ABOUT THE CHOICES IN THE TOP FEW ROWS

IF SAME: ASK "Why" AND RECORD THE ANSWER VERBATIM ON THE LAST PAGE OF THE BOOKLET. RING '+1.00' ON PAGE 3 IN THE BOOKLET. THEN GO TO 10.

---

10. TAKE BACK THE COMPLETED BOOKLET

GIVE THE RESPONDENT THE BOOKLET FOR THE NEXT STATE.

---

11. WHEN RESPONDENT HAS FINISHED ALL HEALTH STATES:
NOTE FINISH TIME OF SG ON PAGE SG1

STANDARD GAMBLE PROTOCOL FOR STATES RATED AS WORSE THAN DEATH: SELF-COMPLETION METHOD

1. **SAY TO RESPONDENT:**
"I need to ask you another question about this state."

TURN TO SECOND DOUBLE PAGE IN BOOKLET (i.e. PAGES 4 AND 5) AND THEN GIVE BOOKLET BACK TO RESPONDENT. SAY:
"As you can see the choices have now changed. Choice B, **(POINT TO CHOICE B)** at the bottom, now describes the certainty of death.

Choice A **(POINT TO CHOICE A)** is again the risky treatment. This time the state on the left is in the same place as before but the state on the right is the one that was in Choice B before.

The chances work in the same way as before so you still choose between Choice B which is now a 100% chance of death, and Choice A which is the risky treatment. Please fill in the answer sheet as before, and tell me when you have finished."

---

2. **WHEN RESPONDENT HAS FINISHED GO TO NEXT STATE.**

NOTE FOR CODING RESPONSES (STATES WORSE THAN DEATH)

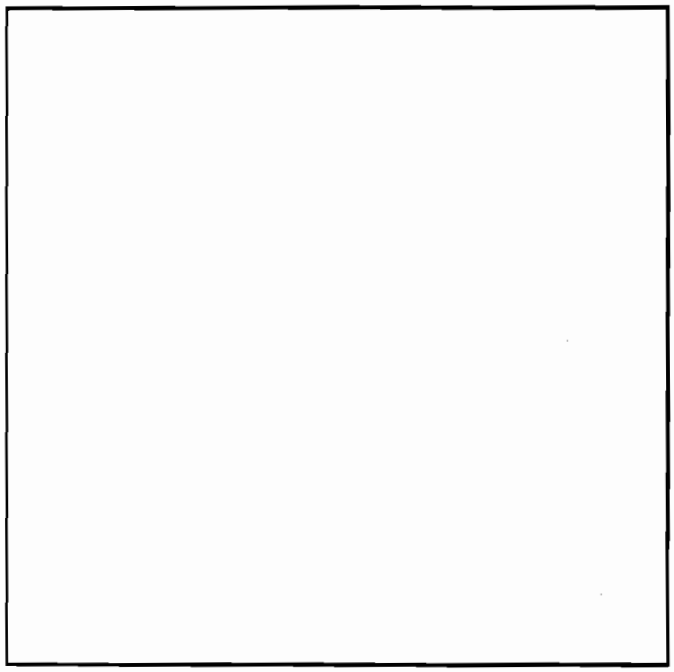
IF AN '=' IS PLACE ON THE BOTTOM LINE, RING '-0.05' ON PAGE 5 OF THE BOOKLET

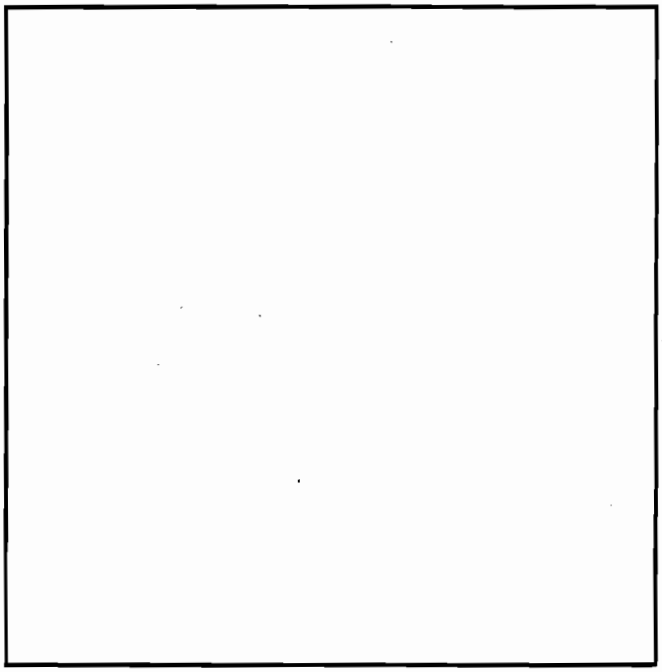
IF THE RESPONDENT HAS PLACED TICKS FOR ALL CHOICES, RING '+97.00' ON PAGE 3 OF THE BOOKLET

IF THE RESPONDENT HAS PLACED CROSSES FOR ALL CHOICES, RING '+97.00' ON PAGE 3 OF THE BOOKLET

SG SHOWCARD 1: EXAMPLE

CHOICE "A"

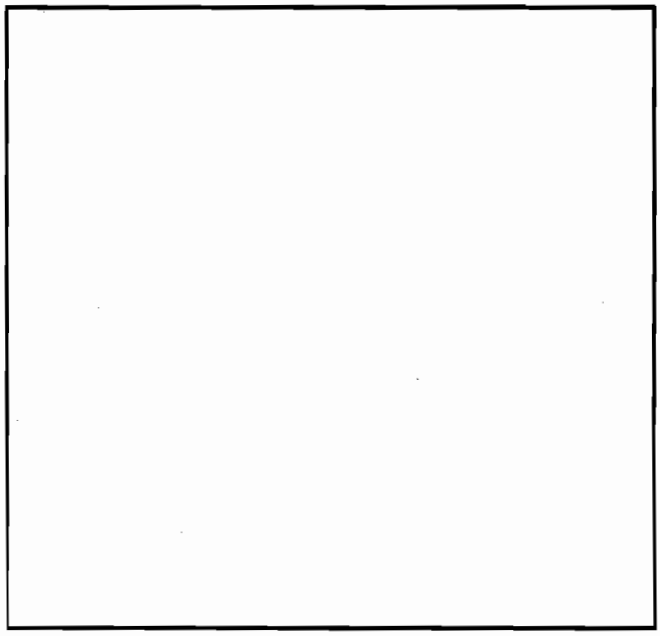




==========

CHOICE "B"

100% CHANCE



SG SHOWCARD 2: EXAMPLE

CHOICE "A"

EXAMPLE CARD	EXAMPLE CARD
NO PROBLEMS IN WALKING ABOUT NO PROBLEMS WITH SELF-CARE NO PROBLEMS WITH PERFORMING USUAL ACTIVITIES NO PAIN OR DISCOMFORT NOT ANXIOUS OR DEPRESSED	IMMEDIATE DEATH

==========

CHOICE "B"

100% CHANCE

EXAMPLE CARD
SOME PROBLEMS IN WALKING ABOUT SOME PROBLEMS IN WASHING OR DRESSING SELF SOME PROBLEMS WITH PERFORMING USUAL ACTIVITIES (e.g, work, study, housework, family or leisure activities) MODERATE PAIN OR DISCOMFORT MODERATELY ANXIOUS OR DEPRESSED

SG SHOWCARD 3: EXAMPLE ANSWER SHEET (1)

THE CHANCES IN CHOICE A:

Chances of Success	Chances of Failure		**CHOICE B:**
100 in 100	0 in 100	√	100 in 100
95 in 100	5 in 100	√	100 in 100
90 in 100	10 in 100	=	100 in 100
85 in 100	15 in 100	x	100 in 100
80 in 100	20 in 100	x	100 in 100
75 in 100	25 in 100	x	100 in 100
70 in 100	30 in 100	x	100 in 100
65 in 100	35 in 100	x	100 in 100
60 in 100	40 in 100	x	100 in 100
55 in 100	45 in 100	x	100 in 100
50 in 100	50 in 100	x	100 in 100
45 in 100	55 in 100	x	100 in 100
40 in 100	60 in 100	x	100 in 100
35 in 100	65 in 100	x	100 in 100
30 in 100	70 in 100	x	100 in 100
25 in 100	75 in 100	x	100 in 100
20 in 100	80 in 100	x	100 in 100
15 in 100	85 in 100	x	100 in 100
10 in 100	90 in 100	x	100 in 100
5 in 100	95 in 100	x	100 in 100
0 in 100	100 in 100	x	100 in 100

Please put a √ against all cases where you are CONFIDENT that you would choose the risky treatment in Choice A.
Please put a X agtainst all cases where you are CONFIDENT that you would REJECT the treatment and accept the health state in Choice B.
Please put a = against the case where you think it would be most difficult to choose between having the risky treatment (Choice A) and not having the treatment (Choice B).

SG SHOWCARD 4: EXAMPLE ANSWER SHEET (2)

THE CHANCES IN CHOICE A:

Chances of Success	Chances of Failure		**CHOICE B:**
100 in 100	0 in 100	√	100 in 100
95 in 100	5 in 100	√	100 in 100
90 in 100	10 in 100	√	100 in 100
85 in 100	15 in 100	√	100 in 100
80 in 100	20 in 100	√	100 in 100
75 in 100	25 in 100	√	100 in 100
70 in 100	30 in 100	√	100 in 100
65 in 100	35 in 100	√	100 in 100
60 in 100	40 in 100		100 in 100
55 in 100	45 in 100		100 in 100
50 in 100	50 in 100	=	100 in 100
45 in 100	55 in 100		100 in 100
40 in 100	60 in 100		100 in 100
35 in 100	65 in 100		100 in 100
30 in 100	70 in 100	x	100 in 100
25 in 100	75 in 100	x	100 in 100
20 in 100	80 in 100	x	100 in 100
15 in 100	85 in 100	x	100 in 100
10 in 100	90 in 100	x	100 in 100
5 in 100	95 in 100	x	100 in 100
0 in 100	100 in 100	x	100 in 100

Please put a √ against all cases where you are CONFIDENT that you would choose the risky treatment in Choice A.
Please put a X agtainst all cases where you are CONFIDENT that you would REJECT the treatment and accept the health state in Choice B.
Please put a = against the case where you think it would be most difficult to choose between having the risky treatment (Choice A) and not having the treatment (Choice B).

Respondent Serial Number ☐☐☐☐

Ser No
601–4

Card 06
605–6

STANDARD GAMBLE: SELF-COMPLETION METHOD

RESPONSE BOOKLET FOR STATE

[X]

HEALTH STATE: **X RATED BETTER THAN DEATH**

CHOICE "A"

NO PROBLEMS IN WALKING ABOUT NO PROBLEMS WITH SELF-CARE NO PROBLEMS WITH PERFORMING USUAL ACTIVITIES NO PAIN OR DISCOMFORT NOT ANXIOUS OR DEPRESSED	IMMEDIATE DEATH

==========

CHOICE "B"

100% CHANCE	SOME PROBLEMS IN WALKING ABOUT NO PROBLEMS WITH SELF-CARE SOME PROBLEMS WITH PERFORMING USUAL ACTIVITIES MODERATE PAIN OR DISCOMFORT NOT ANXIOUS OR DEPRESSED

HEALTH STATE: **X RATED BETTER THAN DEATH**

607-12

THE CHANCES IN CHOICE A: Chances of Success	Chances of Failure		CHOICE "B"	FOR INTER-VIEWER USE
100 in 100	0 in 100		100 in 100	+01.00
95 in 100	5 in 100		100 in 100	+00.95
90 in 100	10 in 100		100 in 100	+00.90
85 in 100	15 in 100		100 in 100	+00.85
80 in 100	20 in 100		100 in 100	+00.80
75 in 100	25 in 100		100 in 100	+00.75
70 in 100	30 in 100		100 in 100	+00.70
65 in 100	35 in 100		100 in 100	+00.65
60 in 100	40 in 100		100 in 100	+00.60
55 in 100	45 in 100		100 in 100	+00.55
50 in 100	50 in 100		100 in 100	+00.50
45 in 100	55 in 100		100 in 100	+00.45
40 in 100	60 in 100		100 in 100	+00.40
35 in 100	65 in 100		100 in 100	+00.35
30 in 100	70 in 100		100 in 100	+00.30
25 in 100	75 in 100		100 in 100	+00.25
20 in 100	80 in 100		100 in 100	+00.20
15 in 100	85 in 100		100 in 100	+00.15
10 in 100	90 in 100		100 in 100	+00.10
5 in 100	95 in 100		100 in 100	+00.05
0 in 100	100 in 100		100 in 100	00.00
				+97.00

Please put a √ against all cases where you are CONFIDENT that you would choose the risky treatment in Choice A.
Please put a X against all cases where you are CONFIDENT that you would REJECT the treatment and accept the health state in Choice B.
Please put a = against the case where you think it would be most difficult to choose between having the risky treatment (Choice A) and not having the treatment (Choice B).

HEALTH STATE: **X RATED WORSE THAN DEATH**

CHOICE "A"

NO PROBLEMS IN WALKING ABOUT

NO PROBLEMS WITH SELF-CARE

NO PROBLEMS WITH PERFORMING USUAL ACTIVITIES

NO PAIN OR DISCOMFORT

NOT ANXIOUS OR DEPRESSED

SOME PROBLEMS IN WALKING ABOUT

NO PROBLEMS WITH SELF-CARE

SOME PROBLEMS WITH PERFORMING USUAL ACTIVITIES

MODERATE PAIN OR DISCOMFORT

NOT ANXIOUS OR DEPRESSED

==========

CHOICE "B"

100% CHANCE

IMMEDIATE DEATH

HEALTH STATE: **X RATED WORSE THAN DEATH**

THE CHANCES IN CHOICE A: Chances of Success	Chances of Failure		CHOICE "B"	FOR INTER-VIEWER USE	
95 in 100	5 in 100		100 in 100	-19.00	613-8
90 in 100	10 in 100		100 in 100	-09.00	
85 in 100	15 in 100		100 in 100	-05.67	
80 in 100	20 in 100		100 in 100	-04.00	
75 in 100	25 in 100		100 in 100	-03.00	
70 in 100	30 in 100		100 in 100	-02.33	
65 in 100	35 in 100		100 in 100	-01.86	
60 in 100	40 in 100		100 in 100	-01.50	
55 in 100	45 in 100		100 in 100	-01.22	
50 in 100	50 in 100		100 in 100	-01.00	
45 in 100	55 in 100		100 in 100	-00.82	
40 in 100	60 in 100		100 in 100	-00.67	
35 in 100	65 in 100		100 in 100	-00.54	
30 in 100	70 in 100		100 in 100	-00.43	
25 in 100	75 in 100		100 in 100	-00.33	
20 in 100	80 in 100		100 in 100	-00.25	
15 in 100	85 in 100		100 in 100	-00.18	
10 in 100	90 in 100		100 in 100	-00.11	
05 in 100	95 in 100		100 in 100	-00.05	
					Columns 419-80 are spare

Please put a √ against all cases where you are CONFIDENT that you would choose the risky treatment in Choice A.
Please put a X against all cases where you are CONFIDENT that you would REJECT the treatment and accept the health state in Choice B.
Please put a = against the case where you think it would be most difficult to choose between having the risky treatment (Choice A) and not having the treatment (Choice B).

Respondent Serial Number

STANDARD GAMBLE: SELF-COMPLETION METHOD

HEALTH STATE X

VERBATIM RESPONSE

Ser No
501–4

Respondent Serial Number | | | | |

Card 05
505–6

TIME RECORD SHEET FOR STANDARD GAMBLE SELF-COMPLETION METHOD

1. Time at start of Standard Gamble exercise | | | | |

24 hour clock

2. Time at end of Standard Gamble exercise | | | | |

24 hour clock

3. Time taken for Standard Gamble exercise | | | | 507–9

minutes

---

4. Did the respondent understand the exercise the first time?

Yes — 1 continue exercise

No — 2 repeat script

510

5. Did the respondent understand the exercise the second time?

Yes — 1

No — 2

continue exercise

511

Columns 512–80 are spare