

Estimating the EQ-5D-5L Value Set for the Philippines

Final Report (as of April 11, 2018)

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SUMMARY SHEET

Title: Estimating the EQ-5D-5L Value Set for the Philippines

Project Leader: Hilton Lam, MHA, PhD

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Cooperating Agency: Institute of Health Policy and Development Studies

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1. Detailed Research Proposal following the Philippine Council for Health Research and Development (PCHRD) format, inclusive of conceptual framework which will serve as project inception report.
2. Progress report on Month 2.
3. Preliminary research report – draft report covering research objectives, methodology, preliminary result of collected and validated data.
4. Four (4) copies of the Final Report (format below), A4 size, hard-bound.
5. Four (4) CDs containing a PDF and editable document (.docx) format of the final report, including annexes
6. Final report

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Title	Estimating the EQ-5D-5L Value Set for the Philippines
Principal Investigator	Hilton Lam, MHA, PhD
Statement of the Problem	This study will establish the Philippine value set for the EQ-5D-5L health states. This valuation set will allow the measurement of Philippine QALYs. These QALYs can be used in a variety of studies in aid of decision-making including clinical trials and health technology assessments (HTA).
Objectives	<p>General Objective: To estimate utility values of the different health states of the general population in the Philippines</p> <p>Specific Objectives:</p> <ol style="list-style-type: none"> 1. Obtain utility values for 86 health states from the general population 2. Estimate utilities of 3,125 EQ-5D-5L health states with a mathematical model 3. Assess the equivalence of official EQ-5D-5L Filipino and Cebuano translations 4. Assess the face validity of the EQ-5D-5L as a health-related quality of life measurement among Filipinos
Methodology	One thousand participants performed time trade-off (TTO) and discrete choice experiment (DCE) tasks to value health states under the EQ-5D-5L. 3,125 health utility values were calculated using a hybrid regression employing both TTO and DCE data points. Effects of translation were explored by testing the DCE for Filipino and Cebuano. Focused group discussions were conducted to explore understanding of Filipinos with regards to measuring health-related quality of life.
Three (3) Key results of research	<ol style="list-style-type: none"> 1. Only the 8-parameter heteroskedastic hybrid model yielded utility values with consistent, logical results across the five dimensions of the EQ-5D-5L. 2. Relative weighting indicated by the coefficient for each dimension in order of decreasing value is: mobility, pain/discomfort, self-care, usual activity, anxiety/depression. 3. Translated tools yield slightly different valuation results particularly on levels 2 and 3 health states across all dimensions. This can be addressed by improving translation using colloquial language, numbering, and rearrangement of items.

Conclusion

The Philippine specific utility values for the EQ-5D-5L health states have been estimated. The 8-parameter heteroskedastic hybrid model was deemed the appropriate mathematical model to use because it provides regression coefficients without inconsistencies. In terms of assessing the equivalence of the official Filipino and Cebuano translations of EQ-5D-5L, both translations are acceptable in measuring health utility values, especially when respondents know both English and Filipino and/or are assisted in taking the test.

Three (3) key Implications for policy and recommendations

1. Cost-utility analyses using EQ-5D-5L to track QALY changes may now be conducted, focusing on the top causes of morbidity and mortality in the country.
2. A full validation of the tool, including face validity and construct validity studies, is recommended.
3. The establishment of a database of EQ-5D-5L health states studies is recommended to help future researchers in estimating sample size and mathematical modeling.

EXECUTIVE SUMMARY

Quality adjusted life year (QALY) was introduced in 1976 due to the need for a better way to describe the value of health outcomes between interventions for economic evaluation and health technology assessment. There are several ways to measure QALY changes given a disease state, such as using a multi-attribute utility (MAU) tool. However, for an MAU to be useful, there is a need to convert the score derived from an MAU to a valuation. EQ-5D-5L is a five-item MAU tool developed in the 1990s which measures the health-related quality of life using five domains with each domain having five levels of severity. EQ-5D-5L has been translated into 137 languages. As the Philippines moves into an era of evidence-based decision making, it is an opportune time to develop the country's valuation set to allow the use of QALYs in health technology assessments.

With this, the study aimed to estimate utility values of the different health states in the EQ-5D-5L tool, among general, healthy population in the Philippines. Specifically, the study sought to (1) obtain utility values for 86 health states, (2) develop a mathematical model based on observed data to estimate the remaining 3,039 EQ-5D-5L health state utilities, (3) assess the equivalence of official EQ-5D-5L Filipino and Cebuano translations, and (4) assess the face validity of the EQ-5D-5L as a health-related quality of life measurement among Filipinos.

A multiple methods design was used comprising of a nationwide cross-sectional main valuation study and focused group discussions. Prior to the main valuation study, the study first undertook a pre-testing of the tools and a translation exercise for 3 local languages. After the main valuation study was completed, the proponents conducted focused group discussions on health-related quality of life, focused group discussions on validated and non-validated translations of the EQ-5D-5L, and an exploratory analysis on the impact of language on valuation.

For the main valuation study, respondents were any literate non-institutionalized legal aged Filipino who can provide consent. Quotas for each of the 17 Regions were computed to be proportional to the size of the population relative to the national population census.

To estimate utility values of health states, time trade-off (TTO) and discrete choice experiment (DCE) methods using the proprietary software of EuroQoL were administered to the participants. Participants were given explanations regarding the

data collection processes. The interviewers also guided participants in answering the questions in their chosen language.

Other questions relating to participants' religious beliefs, health related practices, comments on definition and value of dimensions in evaluating health-related quality of life, we asked. Participants who are fluent in both Filipino and Cebuano were asked to answer the same DCE tasks in the other language.

Health states and participant responses from the both the TTO and DCE tasks were used to model utilities for the 3,125 health states. Eight-parameter (including five independent variables representing the level five disutilities for each dimension and three independent variables representing the different levels) model, and 20-parameter (including all dimensions' disutilities) models were used. Various regression techniques were used for either hybrid models, including conditional logistic model (CLM), heteroskedastic model, ordinary least square (OLS) combined with CLM, interval regression combined with CLM, and treating TTO as having logistic distribution and treating DCE as having probit distribution. The repeat DCE datasets were also analyzed for consistency and agreement of responses, as well as relative importance and relative utility decrement per level.

Concepts of health-related quality of life among Filipinos were explored, through focused group discussions conducted with one discussion for each of the 6 major language groups: Filipino, Cebuano, Hiligaynon, Bicolano, Ilokano, and Waray. Participants were also asked if they agree with the dimensions and levels, and if they would suggest any modifications. Another FGD with experts in public health, clinical health, sociology, aging, pain, and medical anthropology was conducted to elicit responses to the study's initial findings as well as the 6 FGDs conducted. Opinions on the study methodology and comments on the use of EQ-5D-5L in valuing health-related quality of life were elicited. Suggestions on how to address study issues encountered were also elicited.

A total of 1,000 participants were obtained and analyzed. The mean age of respondents was 39.60 years (SD 14.19), with almost equal number of females (504) and males (496). More than half of the respondents were High School Graduates (55.3%) and were Employed or Self-Employed (57.3%) at the time of interview. The average monthly household income of 46% of the respondents ranged from Php5,000 to 16,000 pesos, and majority were not part of the National Household Targeting System (NHTS) of PhilHealth (77.4%). Majority of the

respondents resided in a rural area (60%) and were Roman Catholics (82%). Further, 343 answered the second DCE (DCE2) to assess consistency of responses between Filipino and Cebuano.

Of the various models used to obtain utility values for health states, the 8-parameter heteroskedastic hybrid model was the only model that yielded no inconsistency in the results, whereby disutilities for each health state were higher for more severe levels. Based on coefficients obtained, the dimensions vary and follow this order of decreasing weight: mobility, pain/discomfort, self-care, usual activities, and anxiety/depression.

Estimated regression coefficients indicate relative weighting of disutility per dimension: mobility (0.293), pain/discomfort (0.289), self-care (0.249), usual activity (0.231), anxiety/discomfort (0.175). The intercept was 0.019 and coefficient for Level 2, Level 3, and Level 4 disutilities was 0.228, 0.273, and 0.793 respectively. For example, a health state of 23411 indicating slight problem in walking about, moderate problems in self-care, severe problems in usual activities, no pain or discomfort, no anxiety or depression would have a utility value of $1 - [(0.228)*(0.293 + (0.273)*(0.249) + (0.792)*(0.231))] - 0.019 = 0.663$.

Consistency or simple agreement was observed in 71.6% of the 329 respondents of DCE 2. There was slight difference in relative decrements between level 2 and level 3 using coefficients from the DCE only model. However, the data from those who had repeat DCE suggest an effect of language.

The focused group discussions (FGD) show that health-related quality of life, while an abstract concept, is understandable to Filipinos. Most of this understanding emanates from the knowledge of factors affecting health related quality of life. Consensus was observed in all FGD groups that the domains and levels included in the tool are acceptable, with a few participants suggesting adding domains such as spirituality. The FGD groups also suggested various modifications to the translated official and non-official tools to minimize ambiguity and improve understandability. Use of colloquial language, rearrangement of some items, and numbering in the translated tools may be done to achieve this. The FGD with experts yielded opinions on the use of a customized tool to reflect culturally-appropriate dimensions to better capture health-related quality of life.

Limitations of the study include the use of a purposive sampling may have affected external validity and representativeness, and minor effects on valuation due

to language incompatibilities, since the valuation software was translated only to English, Filipino, and Cebuano.

In conclusion, the utility values for the EQ-5D-5L health states is now estimated. The 8-parameter heteroskedastic hybrid model was deemed the appropriate mathematical model to use because it provides regression coefficients without inconsistencies. The official Filipino and Cebuano translations of EQ-5D-5L are acceptable in measuring health utility values, especially when respondents know both languages and/or are assisted in taking the test. These efforts were noted to address valuation effects of using the translated versions of the tool.

The team has the following recommendations:

1. The Philippine values of the EQ-5D-5L health states is estimated, thus, cost-utility analyses may now be conducted to estimate QALY changes due to interventions. Since a common unit of comparison may now be calculated, comparing treatments and public health programs for specific diseases can be done by future studies, focusing on the top causes of morbidity and mortality in the country.
2. A full validation of the tool, including face validity and construct validity studies, is recommended with continued collaboration with EuroQoL in developing better translations.
3. To assist in the conduct of future cost-utility studies, the establishment of a database of EQ-5D-5L health states studies is recommended. This will help researchers particularly in estimating cost-effectiveness or cost-utility ratios modeling. Moreover, this will serve as a repository of studies estimating utility of interventions for diseases. Repositories such as this may be used by policy makers and future researchers to improve outcomes.

TECHNICAL ABSTRACT (500 Words)

Background: Quality adjusted life year was introduced in 1976 due to the need for a better way to describe the value of health outcomes between interventions for economic evaluation and health technology assessment. EQ-5D-5L is a multi-attribute utility (MAU) tool used to measure QALY changes. However, for an MAU to be useful, there is a need to convert the score derived from an MAU to a valuation.

Purpose of the Study: The study will establish the Philippine value set for the EQ-5D-5L health states. This valuation set will allow the measurement of QALY changes which can be used in a variety of studies in aid of decision-making including clinical trials and health technology assessments (HTA).

Methodology: 1,000 participants performed time trade-off (TTO) and discrete choice experiment (DCE) tasks to value health states under the EQ-5D-5L. A total of 3,125 health states were modeled and utility values were calculated using a hybrid technique employing both TTO and DCE data using a combination of regression techniques. Effects of translation were explored by retesting DCE between Filipino and Bisaya. Focus group discussions were conducted to explore understanding of measuring health-related quality of life.

Results: Only the 8-parameter heteroskedastic hybrid model combining TTO and DCE inputs yielded utility values with consistent, logical results across five dimensions of the EQ-5D-5L. Regression coefficients indicate relative weighting of disutility per dimension: mobility (0.293), pain/discomfort (0.289), self-care (0.249), usual activity (0.231), anxiety/discomfort (0.175). The intercept was 0.019 and coefficient for Level 2, Level 3, and Level 4 disutilities was 0.228, 0.273, and 0.793 respectively. For example, a health state of 23411 indicating slight problem in walking about, moderate problems in self-care, severe problems in usual activities, no pain or discomfort, no anxiety or depression would have a utility value of $1 - [(0.228)*(0.293 + (0.273)*(0.249) + (0.792)*(0.231))] - 0.019 = 0.663$. We have observed inconsistent results when DCE administered in one Philippine language (either Filipino or Cebuano) was retested by same participants using the other language, particularly in level 2 and level 3 progression of disutilities. Participants in focused group discussion suggest using colloquial language and numbering of levels to improve understandability of the tool. Included dimensions and levels are acceptable among the survey and FGD populations.

Limitations: Limitations of the study include the use of a purposive sampling design which may affect external validity and representativeness, and minor effects on valuation due to language incompatibilities since the valuation software was translated only to English, Filipino, and Cebuano.

Conclusion: The Philippine value set for the EQ-5D-5L health states is now estimated. The 8-parameter heteroskedastic hybrid model is the most parsimonious mathematical model to use because it provides regression coefficients without inconsistencies. In terms of assessing the equivalence of the official Filipino and Cebuano translations of EQ-5D-5L, both translations are acceptable in measuring health utility values, especially when respondents know both languages and/or are assisted in taking the test.

Recommendations:

1. Cost-utility analyses using EQ-5D-5L to track QALY changes due to interventions may now be conducted, focusing on the top causes of morbidity and mortality in the country.
2. A full validation of the tool, including face validity and construct validity studies, is recommended.
3. The establishment of a database of EQ-5D-5L studies is recommended to help future researchers in modeling the conduct of cost-effectiveness and cost-utility studies in the Philippines.

Policy Note

Estimating the EQ-5D-5L Value Set for the Philippines

Introduction

EQ-5D-5L is a multi-attribute utility (MAU) tool developed in the 1990s to measure quality adjusted life year (QALY) change. It measures health-related quality of life using five domains, with each domain having five levels of severity. Currently, EQ-5D-5L has been translated into 137 languages and valuation sets for the EQ-5D-5L have been developed in at least six countries.

However, for an MAU to be useful, there is a need for a means to convert the score derived from an MAU to a valuation. As the Philippines moves into an era of evidence-based decision making, it is an opportune time to develop the country's valuation set to allow the use of QALYs in health technology assessments (HTA).

The policy note presents the highlights of the study entitled, "Estimating the EQ-5D-5L Value Set for the Philippines." The study aimed to estimate utility values of the different health states of the general population in the Philippines.

The research team used a multi-method design comprising of a main valuation study and focused group discussions (FGD). Prior to the main valuation study, pre-testing of the tools was conducted

Key Results of Research

Of the various models and regression techniques used, only the 8-parameter heteroskedastic hybrid model yielded logical, consistent results in estimating utility values for any given health state.

Parameters	Estimate	Std Error
INTERCEPT	0.0189147	0.004145
Mobility	0.2928072	0.006475
Self-care	0.2485457	0.006049
Usual activity	0.2305456	0.005873
Pain/discomfort	0.2887432	0.007047
Anxiety/Depression	0.175455	0.005832
L2	0.2281298	0.010383
L3	0.2728374	0.009402
L4	0.7929942	0.011726

All estimate coefficients have p-values less than 0.05.

The table above shows the coefficients of each dimension and level used to calculate utility values for a particular health state. For example, a health state of 23411 indicating slight problem in walking about, moderate problems in self-care, severe problems in usual activities, no pain or discomfort, no anxiety or depression would have a utility value of $1 - [(0.228)*(0.293 + (0.273)*(0.249) + (0.792)*(0.231))] - 0.019 = 0.663$

Study results also show that for Filipinos the dimensions are weighted unequally, and dimensions of health-related quality of life in order of decreasing importance are: mobility, pain/discomfort, self-care, usual activity, and anxiety/depression. This implies that mobility contributes more to the Filipinos self-assessment of health-related quality of life than do other dimensions. The study also found out that translation slightly affects how respondents answer the tool, such that understanding of levels of severity, particularly between slight and moderate, when translated in one of local languages, may vary from one ethnolinguistic group to another. This is best shown in the repeat DCE test wherein respondents who are able to understand both Cebuano and Filipino were allowed to take the DCE tool in

Cebuano language first, and then in Filipino. The progression from level 2 to level 3 (slight to moderate) was not logical in the responses.

These findings demonstrate that improving the translated tools will also improve valuation results obtained. Nevertheless, results of the FGDs involving healthy individuals in 6 major language groups show that the dimensions and levels in the EQ-5D-5L tool are understandable and acceptable.

Conclusion

The Philippine utility values for the EQ-5D-5L is now estimated. The 8-parameter heteroskedastic hybrid model was deemed the appropriate mathematical model to use because it provides regression coefficients without inconsistencies. In terms of assessing the equivalence of the official Filipino and Cebuano translations of EQ-5D-5L, both translations are acceptable in measuring health utility values, especially when respondents know both languages and/or are assisted in taking the test.

Policy Options and Recommendations

We can now conduct cost-utility analysis studies using the EQ-5D-5L tool to measure changes in quality of life (QALY). Priority studies are those that will include the top 10 causes of morbidity and mortality in the country. While the tool seems acceptable, a full validation study may be warranted, particularly on face validity and construct validity. We recommend that a database of studies using EQ-5D-5L be established to assist future researchers in the conduct of cost-effectiveness and cost-utility studies.

ACRONYMS USED

CLM	Conditional Logistic Model
DCE	Discrete Choice Experiment
FGD	Focused Group Discussion
HTA	Health Technology Assessment
MAU	Multi-attribute Utility
OLS	Ordinary Least Square
QALY	Quality Adjusted Life Year
TTO	Time Trade-Off

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DEFINITION OF TERMS

Cost-effectiveness analysis

A cost-effectiveness analysis is an economic evaluation in which the costs are expressed in monetary units and the results in non-monetary, natural units (e.g.: years of life gained per amount of pesos).

Cost-utility analysis

A cost-utility analysis is an economic evaluation in which costs are expressed in monetary units and the benefit is in utility-adjusted outcome, for example, the quality adjusted life year (QALY) (Walter and Zehetmayr, 2006).

Discrete Choice Experiment

Discrete Choice Experiment (DCE) is a health valuation technique used to provide information on relative preference of one health state over another (Bansback et al, 2012).

Economic evaluation

The systematic appraisal of costs and benefits of projects, normally undertaken to determine the relative economic efficiency of programs (Rabarison et al, 2015).

Health state

Health state is defined as the level of functioning of individuals across a set of pre-defined health dimensions (mobility, self care, usual activities, pain or discomfort, anxiety or depression) (WHO, 2007).

Health-related Quality of Life

Health-related quality of life (HRQoL) is the value assigned to duration of life as modified by the impairments, functional states, perceptions, and social opportunities that are influenced by disease, injury, treatment, or policy (Patrick and Erickson, 1993).

Level Sum Score or Misery Index

The level sum score or misery index is a proxy measure for severity of health state calculated by the addition of five digits of each state profile (Augustosvski et al, 2016).

Quality Adjusted Life Years

Quality adjusted life years (QALY) is a measure used in economic evaluation that combines quality and quantity of life lived calculated by multiplying the utility by the amount of time spent in a particular health state (Kotovos et al, 2017).

Quality of Life

An individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (WHOWOL Group, 1996).

Time-Trade-Off

Time-Trade-Off (TTO) is a method of eliciting preferences for health states by letting a person imagine living a defined number of years in an imperfect health state and allowing him to indicate the number of remaining life years in full health at which he or she is indifferent (Attema, et al., 2013).

Preference values

Preference values measure the strength of individuals' preferences for different health states and is usually measured on a scale where full health is valued as 1 and death as 0 (University of York, 2016).

Valuation

Valuation is the process of ascribing value to a health state (Rupel and Ogorevc, 2012).

Value Set

Value set is the associated value for each health state on the basis of preferences of the general population (Mulhern, 2016).

1. INTRODUCTION

A key component of economic evaluation and health technology assessment (HTA) is the measurement of the effectiveness of the intervention. Early on, the science of HTA would measure impact through the decrease in number of cases or number of deaths. However, as more diseases are evaluated, relying on change in cases or life years alone led to difficulties. Furthermore, these two simple measures do not account for the impact of quality of life. In the context of cancer patients for example, treatment might lead to survival, but the quality of life suffers.

The concept of the quality adjusted life year (QALY) was first introduced in 1976 by Zeckhauser and Shepard (Zeckhauser & Shepard, 1976). It arose due to the need for a better way to describe the value different of health outcomes. The main idea behind the QALY is that time spent in a diseased state should not be valued the same as time spent in a healthy state. In terms of QALY, one healthy life year is valued at 1 and death or a state equivalent to death is valued at 0.

The QALY is now a mainstay in HTA and is being used to track changes in quality of life of patients especially in clinical trials. It is considered by the US Panel on Cost-Effectiveness in Health and Medicine and the National Institute for Health and Care Excellence as the “a standardized methodological approach to promote comparability in cost-effectiveness analyses of different health-care interventions” (Weinstein et al., 2009). Several ways can be used to measure QALY changes given a disease state. The ideal methods are direct valuation techniques using standard gamble and time trade-off. However, these two methods are difficult to use requiring much time and resources. Due to this, an indirect method of measuring QALY using multi-attribute utility (MAU) tools was developed. For an MAU to be useful, however, there is a need for a means to convert the score derived from an MAU to a valuation (Weinstein et al., 2009).

One type of MAU is the EQ-5D-5L tool. This was initially developed in 1990 as the EQ-5D-3L (Dolan, Gudex, Kind, & Williams, 1995). The EQ-5D-3L measures health-related quality of life using five domains: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. Each domain has three levels of severity: none, some, and severe. The tool and the valuation set for it was developed and has been successfully used for quality of life and impact studies that fed into economic evaluations.

The EQ-5D-5L is a recent upgrade of the 3L version with the same five domains but has now five valuations: none, slight, moderate, severe, and unable to carry out the task/extremely debilitated (B. Janssen, 2015). This has been translated into 137 languages and valuation sets for the EQ-5D-5L have been developed in at least six countries.

As the Philippines move into an era of evidence-based decision making, there is a need for the Philippines to be able to utilize an MAU to quantify QALY changes. Currently, the Philippines still does not have its own valuation set, which hinders utilization of the QALY in health technology assessments. It is now therefore an opportune time to develop the country's valuation set.

2. SIGNIFICANCE OF THE STUDY

This study will establish the Philippine value set using the EQ-5D-5L health states. This valuation set will allow the measurement of Philippine QALYs. The QALYs can be used in a variety of studies in aid of decision-making including clinical trials and health technology assessments.

3. OBJECTIVES

General Objective: To estimate utility values of the different health states of the general population in the Philippines

Specific Objectives:

1. Obtain utility values for 86 health states from the general population
2. To estimate the 3,125 EQ-5D-5L health state utilities with a mathematical model
3. Assess the equivalence of official EQ-5D-5L Filipino and Cebuano translations
4. Assess the face validity of the EQ-5D-5L as a health-related quality of life measure among Filipinos

4. METHODOLOGY

The methodology subsection is divided into the following parts: study design, study population, validation of the translated versions, face validity of the EQ-5D-5L, pilot testing of valuation, and data collection for the main valuation study.

4.1. STUDY DESIGN

This was a multiple methods study. The main valuation study was a nationwide cross-sectional study using two valuation methods: time trade-off (TTO) and discrete choice experiment (DCE). Prior to the main valuation study, the study first undertook a pre-testing of the tool and a translation exercise for 3 local languages. After the main valuation study was completed; the proponents conducted the following activities: focused group discussions on health-related quality of life, focused group discussions on validated and non- validated translations of the EQ-5D-5L, and an exploratory study on the impact of language on valuation. These activities allowed for documenting the effect of impact of language on the perception of health-related quality of life. Together, these methods sought to answer the four (4) specific objectives of the study (Table 1).

Table 1. Study Design

Specific Objective	Variable	Method
1. Obtain utility values for 86 health states from the general population	TTO valuation DCE valuation	Pilot test Cross-sectional survey
2. Estimate the utilities of 3,125 EQ-5D-5L health states with a mathematical model	Valuation/Tariff	Modeling
3. Assess the equivalence of official EQ-5D-5L Filipino and Cebuano translations	DCE valuation	Additional Survey DCE Module for bilingual speakers (Filipino vs Cebuano)
4. Assess the face validity of the EQ-5D-5L as a health-related quality of life measure among Filipinos	Concept of health-related quality of life	Qualitative methods

4.2. STUDY POPULATION

Respondents of this study were any literate non-institutionalized legal aged (18 years or older) Filipino who can provide consent and participate in the data collection activities. Healthy individuals are defined as individuals without disabilities, known or acute disease at the time of the survey. Participants assessed to have difficulty in using the program or grasping the concept of the valuation exercise was excluded. For the face validity and validity of translations, recruitment of bilingual speakers in the University of the Philippines Manila, Philippine General Hospital, and surrounding areas were conducted. Recruitment posters were used, and snowball recruitment was also done.

4.3. VALIDATION OF THE TRANSLATED VERSIONS

The translated tools for Filipino, Cebuano and Hiligaynon have undergone validation by the EuroQol group and it is deemed unnecessary to repeat the translation. This team developed translations of the tool in Waray, Bicolano, and Ilokano. Using the process described by Sousa & Rojjanasrirat, 2011, the following steps were carried out for these three translations:

- (1) Forward-translation by two independent translators
- (2) Synthesis by a third translator with guidance from research team
- (3) Blind back-translation by two other independent translators
- (4) Synthesis by a committee (translators and research team) and development of consolidated version
- (5) Finalization of translations

Due to the timeline of the study, which was pushed back due to the ethics review process, and the delays in the initial and back-translations, one step was excluded. In this step, local speakers were to be invited to help verify the translation. However, due to the date of the training, the start of data collection, and the delays earlier mentioned the proponents waived this process in order to meet the deadline of the overall study.

4.4 PRETESTING OF VALUATION

A pretest was conducted to standardize methodologies and was conducted in Metro Manila, National Capital Region. Specifically, this was done in Marikina City on October 6 and 8, 2018. Twelve (12) data collectors, who underwent a 1-day pre-training, and 5-day training module were deployed and were asked to utilize the EuroQol Valuation Technology (EQVT) software on the members of the community who met the inclusion criteria of the study. The EQVT software was developed as a digital aid to the EuroQol valuation protocol, wherein the flow of personal interview is guided by the software and responses are digitally recorded, to reduce the “probability of interviewer bias” and “eliminate data entry and coding errors” (Oppe et al. 2014).

All interviewers were instructed to electronically upload the data collected for the day. Thereafter the members of the EuroQol group and the proponents of the study analyzed the collected data. The data collectors were then contacted individually through phone and their results were explained to them indicating points for improvement. On-site monitoring was further done for this phase and supervisors were tasked to observe the data collectors in the conduct of the interviews. At least ten interviews per interviewer were conducted during the pretesting.

Throughout this phase of the study and the main valuation study, the interviewers’ performance was reviewed using the EuroQol Quality Control Tool. The Quality Control Tool is an excel program, which allowed the proponents to quantify the quality of the interviews conducted as they are uploaded. This included information such as number of steps taken by the respondents to reach the final answer, the logical inconsistency responses, interview times, illogical sequence of answers in both DCE and TTO, and other similar information. With this, the proponents of the study are able to notice errors committed by the data collectors early, hence are able to correct these errors. No data collector was allowed to proceed to deployment for the main valuation study unless he or she has satisfied the minimum requirement of a flag rate of less than 40% of the interviews during the pretest.

4.5 DATA COLLECTION FOR THE MAIN VALUATION STUDY

Sampling Size and Design for the Main Valuation Study

Older studies (Gudex, Dolan, Kind, Thomas, & Williams, 1997; Shaw, Johnson, & Coons, 2005) have used the formula for comparing two means to determine the sample size. The updated EQ-5D-5L valuation methodology requires a minimum of 100 respondents per health state. The design stated a need to value 86 health states with 6 being fixed health states comprising of the five mildest and the worst health state with the remaining 80 being randomly selected from the remaining 3,119 health states. The 80 will then be divided into ten (10) blocks. One mild health state and the worst health state will then be added to each block.

Given these parameters the study needed 1,000 respondents nationwide. In order to achieve this sample size 3 teams, composed of 3 Interviewers and 1 Area Supervisor, were deployed throughout the country. Because quota sampling was done to obtain a sample that is similar to the national distribution, the 3 teams were organized to cover all of the 17 Regions in the Philippines except for the urban area of Autonomous Region in Muslim Mindanao (ARMM). The proponents of the study decided to set proxy areas for urban ARMM (i.e. Zamboanga City) that share similar characteristics (religion and language), due to the perceived risk to the safety of the data collectors in the area brought about by the then war in Marawi City and the consequent declaration of Martial Law in that area that stretched to the period of data collection (Nawal et al 2017).

From each administrative region, one province was randomly selected and in that province, one urban (city) and one rural area (municipality) were randomly selected to serve as recruitment sites. This gave rise to 34 study sites. The group started recruitment within a barangay surrounding the main government health center (e.g. Rural Health Units or City Health Offices). Additional barangays were included as needed for some areas. The total quota for each region was computed to be proportional to the size of the population relative to the national population. Barangay members, city health officers, and barangay health workers, were asked to identify potential respondents. Snowball method was also used in certain conditions by asking respondents if there were people they may know that fit the criteria (Table 2).

Quota sampling was done to obtain a sample that is similar to the national population based on age (18 to 30 vs 31 to 50 vs 50 and above), sex (male vs female), administrative region (regions), type of residence (urban vs rural), education (completed high school vs did not complete high school), and income (NHTS vs non-NHTS). In addition, the proponents also set out to achieve a sample that reflects the 6 predominant ethno-linguistic groups. The data collectors and the supervisors were tasked to therefore look for respondents meeting the quota that reflect the distribution of Tagalog, Cebuano, Ilokano, Hiligaynon, Waray, and Bicolano speakers in the country.

Table 2. Study Sites

Team	Region	Province	Urban	Barangay(s)	Rural	Barangay(s)
1	I Ilocos Region	Ilocos Sur	Candon	Parioc Segundo	San Esteban	Poblacion, San Nicolas, Apatot
	II Cagayan Valley	Cagayan	Tugeugarao	Linao East, Balzain East, Balzain West, Libag Norte	Solana	Centro Southwest
	III Central Luzon	Bataan	Bolanga	Ibayo, Tenejero	Morong	Binaritan, Sabang, Mabayo, Poblacion
	IV-A CALABARZON	Cavite	Kawit	Tabon 1,2 & 3, Binakayan	Bacoor	Niog 1, 2 & 3
	CAR Cordillera Administrative Region	Kalinga	Tabuk	Dagupan Centro (Poblacion)	Tinglayan	Poblacion
2	IV-B MIMAROPA	Oriental Mindoro	Calapan	Ilaya	Bongabong	Poblacio
	V Bicol Region	Camarines Sur	Naga	Concepcion Pequena	Bombon	San Jose
	VI Western Visayas	Capiz	Roxas City	Inzo Arnaldo	Dumarao	Bungsuan
	VIII Eastern Visayas	Samar (Western)	Calbayog	Matobato	Tarangnan	Tigdaranao
	NCR National Capital Region	NCR	Marikina	Tanyong	Pateros	San Pedro
3	VII Central Visayas	Bohol	Tagbilaran	Poblacion 1	President Carlos P. Garcia	Poblacion (Pitogo)
	IX Zamboanga Peninsula	Zamboanga Del Norte	Dapitan	Poblacion (Sta. Cruz)	Katipunan	Dos
	X Northern Mindanao	Bukidnon	Valencia	Bagon Taas	Malitbog	Sta. Ines
	XI Davao Region	Davao del Norte	Tagum	La Filipina	Santo Tomas	Tibal-Og
	XII SOCCSKSARGEN	North Cotobato	Kidapawan	Poblacion	Antipas	Poblacion
	XIII Caraga	Surigao del Sur	Bislig	Maharlika	Cantilan	Poblacion
	ARMM	<i>Proxy areas selected for this area</i>	Zamboanga City	Victoria	Bongao, Tawi-Tawi	Poblacion, Bongao

Once the respondent needed was identified, an informed consent was obtained. The supervisor would then assess the respondent if the respondent fits the criteria, was literate, and could comply with instructions. The respondent would go through the registration process with the interviewer, and will select a language for the interface. Depending on what they select during the registration step, the respondent's software and instructions would either be presented in Filipino, Cebuano, or English. Switching of language projected on the screen during the interview was not allowed. Once the interviewer and the respondent registered the interview, they will now move on to four (4) tasks, as follows:

1. Time Trade Off (TTO)

The study collected valuation of 86 (80 variable plus 6 fixed) health states of TTO. Each respondent was randomly assigned to value one of ten TTO blocks.

After being registered as a respondent, the respondents would receive an explanation from the interviewer of the whole process of the EuroQol Valuation Software. Before beginning the TTO tasks, the respondents are informed of the importance of the study, the process of data collection, and the sections of the software interface. After this, the interviewer then guided the respondent in answering the EQ-5D-5L and the visual analog scale in their chosen language (Appendix A).

The second phase of the software was the TTO tasks. This commenced with two (2) wheelchair examples utilized to explain the TTO task, followed by three (3) pretest questions, and last was the ten (10) main TTO tasks. The wheelchair tasks were two examples illustrating the main TTO tasks, and the pretest were 3 examples of the TTO task with mild, moderate, and severe health states being presented for each example (Figure 1).

Throughout the wheelchair tasks, the pretest, and the main TTO tasks, the respondents would be shown an example of two life states and the respondents were asked to imagine both these life states. For the better than death health states that would appear randomly on the screen, the two alternative health states that would appear would be Life A (displaying a varying number of years in full health), and Life B (a fixed length of 10 years in the valued health states). The EQVT would then reduce or increase the number of years in Life A until the respondent is

indifferent between Life A and Life B (Figure 2, 4). For the worse than death health state the software would employ a lead-time approach. Herein, the respondent would still be faced with two alternative life states. However, in the worse than death health states, Life B would have a fixed 10 years in full health and another fixed 10 years in the valued health state. Life A on the other hand would have a spread of 20 years and accordingly it was the task of the respondents to find the point of indifference between Life A and Life B by reducing or increasing the length of Life A (Figure 3, 4).

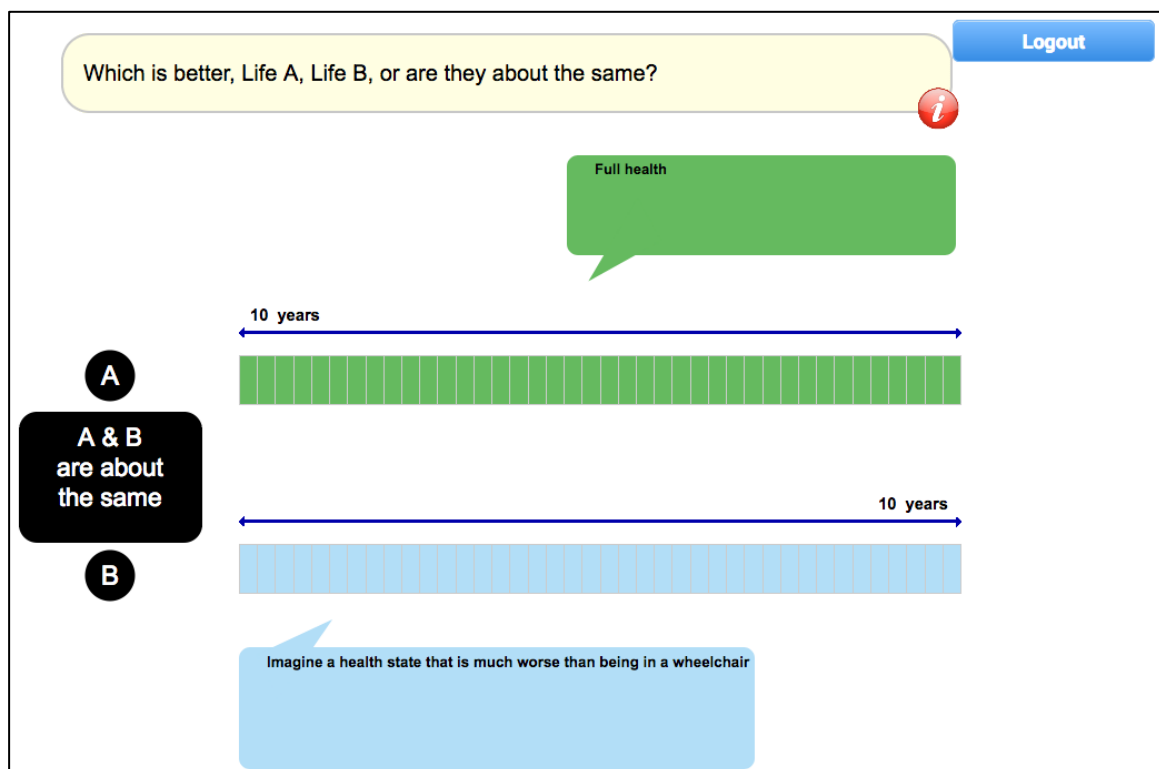


Figure 1. Wheelchair 1 example

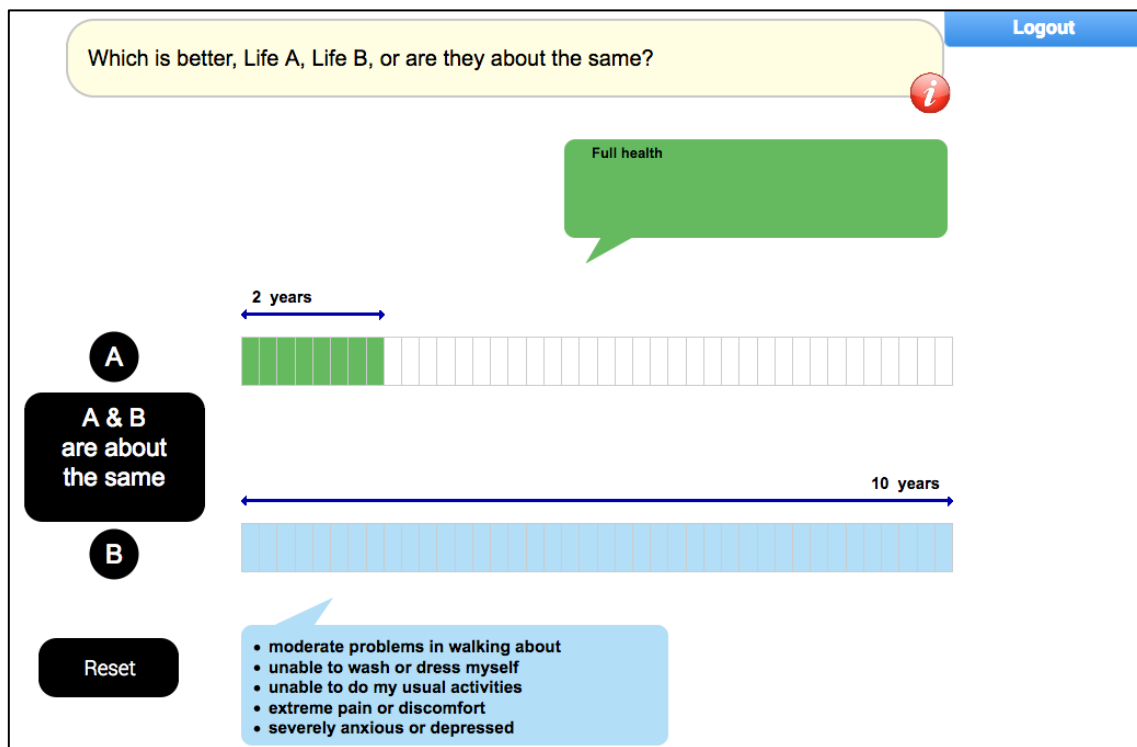


Figure 2. TTO screen for better than death

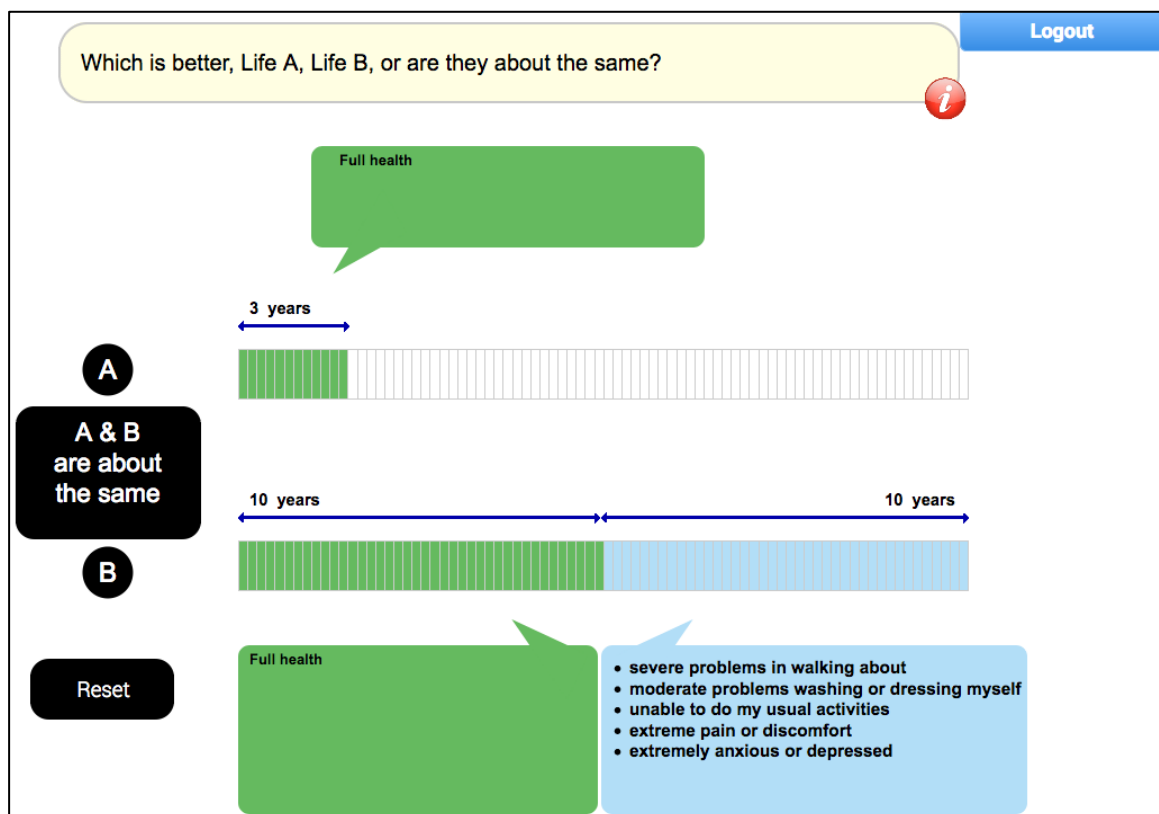


Figure 3. Lead time TTO screen for worse than death

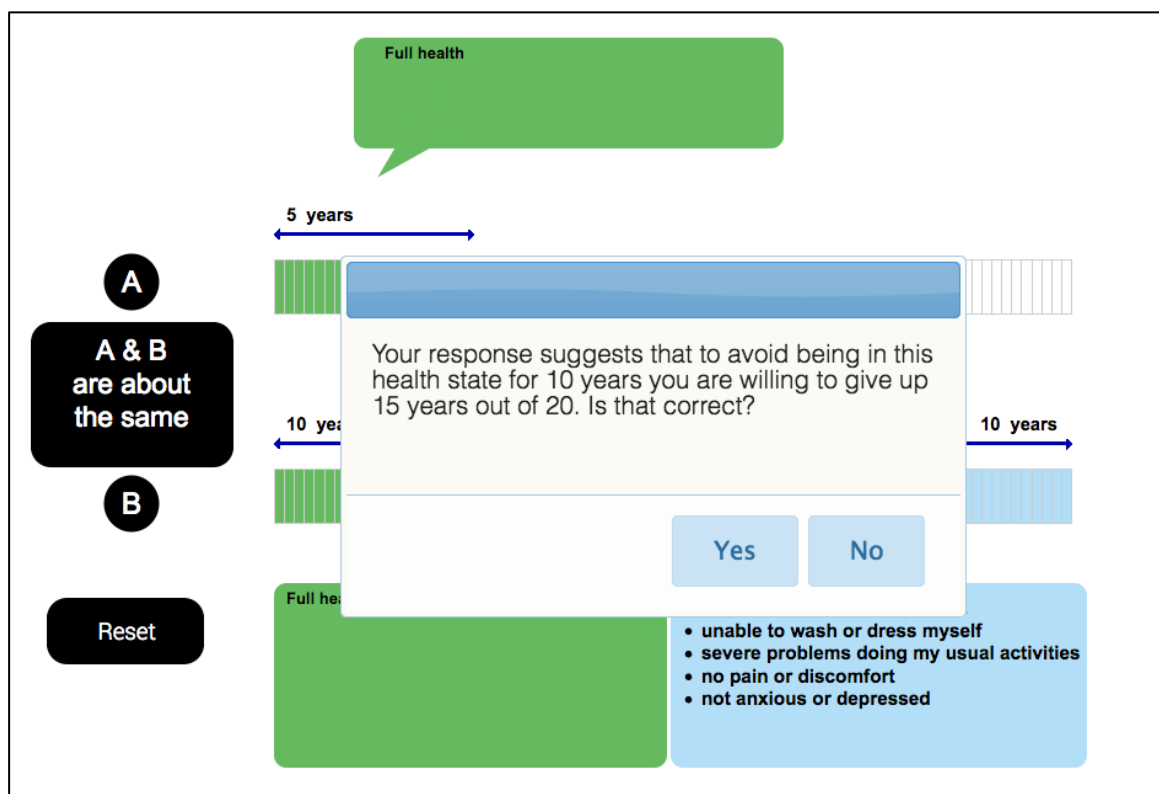


Figure 4. Example of a prompt when both health states are deemed indifferent

After completing the TTO valuations, the respondents were thereafter asked to respond to questions asking them on the difficulty or ease of understanding the questions (Figure 5). Once this Likert scale where 1 = agree and 5 = disagree was completed, the values from the 10 TTO tasks were then presented to respondents in order of how severe they deemed the health state (Figure 6). The respondent would then have the option to flag specific health states if they felt that the order was incorrect. Flagged health states were excluded in the valuation computation.

Please tell us what you thought about the questions you just answered, where you were comparing two different 'lives'.

Agree Disagree

It was **easy** to understand the questions I was asked. ☐ ☐ ☐ ☐ ☐

I found it **easy** to tell the difference between the lives I was asked to think about. ☐ ☐ ☐ ☐ ☐

I found it **difficult to decide** on the exact points where Life A and Life B were about the same. ☐ ☐ ☐ ☐ ☐

Logout

English
(Philippines)

Study Hotline
+1 (866) 338-4894

Logged in as:
INV_PHIL_TEST

Group ID:
Philippine
Valuation
Study -
Test(ned)

Next

Figure 5. Respondent's reaction to the TTO tasks

Best health states at top

<ul style="list-style-type: none"> no problems in walking about moderate problems washing or dressing myself slight problems doing my usual activities slight pain or discomfort severely anxious or depressed 	<ul style="list-style-type: none"> moderate problems in walking about severe problems washing or dressing myself slight problems doing my usual activities moderate pain or discomfort slightly anxious or depressed 	<ul style="list-style-type: none"> no problems in walking about slight problems washing or dressing myself no problems doing my usual activities no pain or discomfort not anxious or depressed
<ul style="list-style-type: none"> moderate problems in walking about unable to wash or dress myself moderate problems doing my usual activities no pain or discomfort not anxious or depressed 	<ul style="list-style-type: none"> unable to walk about slight problems washing or dressing myself moderate problems doing my usual activities moderate pain or discomfort extremely anxious or depressed 	<ul style="list-style-type: none"> unable to walk about unable to wash or dress myself unable to do my usual activities extreme pain or discomfort extremely anxious or depressed
<ul style="list-style-type: none"> slight problems in walking about severe problems washing or dressing myself severe problems doing my usual activities severe pain or discomfort extremely anxious or depressed 		
<ul style="list-style-type: none"> severe problems in walking about moderate problems washing or dressing myself unable to do my usual activities extreme pain or discomfort extremely anxious or depressed 		

Worst health states at bottom

Next

Figure 6. Feedback Module

Better health states are situated higher than more severe health states

2. Discrete Choice Experiment (DCE)

After the TTO tasks and feedback module, the respondents then moved on to the second assignment, DCE. The study collected valuation of 196 pairs of states for DCE. The 196 pairs were selected using a Bayesian algorithm. The 196 pairs were grouped into 28 blocks of 7 pairs each. Each respondent was randomly assigned one of 28 DCE blocks. In the DCE, the respondents were shown two health states. Each of the randomly presented health states was of different levels of severity. The respondent was asked to imagine both life A and B described on screen. He or she was then asked to make a forced choice from the two alternative health states of which they would prefer to have. (Figure 7)

The screenshot shows a web interface for a Discrete Choice Experiment (DCE). At the top right is a blue 'Logout' button. Below it is a yellow rounded rectangle containing the question 'Which is better, state A or state B?' and a red information icon. Below the question are two blue rounded rectangles representing health states A and B. State A lists: severe problems in walking about, unable to wash or dress myself, no problems doing my usual activities, extreme pain or discomfort, and moderately anxious or depressed. State B lists: unable to walk about, no problems washing or dressing myself, slight problems doing my usual activities, no pain or discomfort, and severely anxious or depressed. Each state is labeled with a black circle containing a white letter (A or B) at the bottom.

State A	State B
● severe problems in walking about	● unable to walk about
● unable to wash or dress myself	● no problems washing or dressing myself
● no problems doing my usual activities	● slight problems doing my usual activities
● extreme pain or discomfort	● no pain or discomfort
● moderately anxious or depressed	● severely anxious or depressed

Figure 7. DCE Screen

After the DCE task, the respondent was asked again the difficulty or ease of understanding the questions similar to the questions asked after the cTTO module.

3. Philippine Country Questions

Sets of questions were also bolted on the main EQVT as a third assignment for the respondent. These country specific questions were formulated by the proponents of the study, and were included to ask the respondents regarding their religious beliefs, their health related practices, and their views on health with respect

the questions they were previously asked in TTO and DCE. The aim of these country specific questions was to unearth possible explanations to the answers provided by the respondents in TTO and DCE.

In addition, the proponents also included a set of questions that was not part of the EQVT. These questions were included after the first half of the data came in and initial analysis was done. In order to understand the perceptions of the respondents the second half of the data collection included a few excel based questions asking the respondents to comment on the definition and value of the dimensions in evaluating the overall quality of life. They were also asked what other dimensions they would add, and which they would remove, from the 5 main dimensions.

4. Discrete Choice Experiment Retest

In order to assess the impact of language in valuating states, an additional DCE in the survey was included. For all speakers who declare themselves to be fluent in Filipino and Cebuano, they were invited to answer an additional set of DCE questions. The DCE questions were the same set that they valued in the survey but presented in Cebuano or Filipino. The language presented in the second DCE was dependent on the language they chose in the main valuation study (i.e. if DCE was in Filipino, the DCE Retest appeared in Cebuano). All eligible respondents were invited to answer this additional module.

4.6 MATHEMATICAL MODELING

Statistical models used to estimate the 3,125 health states use the response values as dependent variables while the health states as independent variables. Models can be categorized according to specification and according to type of valuation being used.

Twenty parameter or eight-parameter models can be specified. The 20-parameter model includes all dimensions' disutilities into the equation as independent variables (i.e. MO2 to MO5, SC2 to SC5, UA2 to UA5, PD2 to PD5, AD2 to AD5). On the other hand, the eight-parameter model includes five independent variables representing the level five disutilities for each dimension (i.e. MO5, SC5, UA5, PD5, AD5) and three independent variables representing the different levels (i.e. Level 2, Level 3, and Level 4). Models can either use the data

from TTO, the data from DCE, or data from both valuation techniques. The estimation that uses both TTO and DCE in a single model is called the hybrid model – this is currently the state of the art in Quality of Life studies that use the EQ-5D-5L questionnaires. There is no rule-of-thumb when it comes to model selection. However, current valuation studies use the hybrid 20-parameter model. Each valuation technique is marred with its own limitations, thus, combining the two is believed to yield more precise estimates than using the valuation technique individually (Rowen et al. 2014).

Computing for the disutilities per health states vary with specification. Suppose that β is the coefficient for each dimension. For the 20-parameter model, health state 12222 is computed as: $1 - \beta_{MO2} - \beta_{SC2} - \beta_{UA2} - \beta_{PD2} - \beta_{AD2}$. For the eight-parameter model, the same health state is computed as: $1 - \beta_{MO} \times \beta_{L2} - \beta_{SC} \times \beta_{L2} - \beta_{UA} \times \beta_{L2} - \beta_{PD} \times \beta_{L2} - \beta_{AD} \times \beta_{L2}$ where subscript L2 signifies level 2.

There are several regression techniques to estimate the models. For TTO-only models, the techniques include: ordinary least squares (OLS), robust OLS models, generalized least squares (GLS) random intercept model, random coefficient models, censored model, and interval regression model. Same types of regression techniques can be used in DCE-only models, plus the addition of conditional logistic model and specific conditional logit and probit model. The hybrid model can be estimated using a single technique for both TTO and DCE like the conditional logistic model, or heteroskedastic model or using a combination of regression techniques in one run, like the OLS combined with conditional logistic model, interval regression combined with conditional logistic model, and treating TTO as having logistic distribution and treating DCE as having probit distribution. EuroQol has made the STATA commands for these estimations available for the study team to use and eventually to decide on which model to use. See Appendix O for the results of all models ran.

4.7 DCE VALUATION BETWEEN FILIPINO AND CEBUANO TRANSLATIONS

The repeat DCE dataset were analyzed in terms of agreement. The group measured (1) consistency or how often the responded chose the same health state as the preferable one and (2) agreement based on Brennan-Prediger coefficient treating the results as a case of test-retest reliability. Exploratory analysis was done

to identify individual level factors that could have affected agreement using univariate tests and multivariate logistic regression.

The repeat DCE responses were also modeled using the DCE-only conditional logistic model. Two sets based on the language of the test used were compared. Significant differences in coefficients were compared using the **suest** command in Stata. The **suest** (seemingly unrelated estimation) command is “a nonstandard application of the sandwich estimator” which is used to compare beta coefficients derived from two different populations but using the same independent variables (StataCorp 2017).

In addition, relative importance and relative decrement per level were computed for the two models described by Rowen et al. (2014) with details of model formulae explained in Appendix P. Relative importance was calculated as follows: First, we divided each level of each dimension coefficient by the mean of a similar level from all the dimensions. This resulted in adjusted coefficients for every level of every dimension: e.g. the adjusted coefficient for mobility level 3 was obtained by the MO3 coefficient divided by the mean of all 5 level 3 coefficients $[(MO3+SC3+UA3+PD3+AD3)/5]$. Second, the average of all adjusted coefficients for each dimension was calculated, resulting in 5 values each representing the relative importance attributed to the EQ-5D dimension.

The relative utility decrements between each of the 5 levels, meanwhile, were obtained in two steps: first, the total of each level coefficient from all dimensions, e.g. the sum of the level 2s of all dimensions was calculated. Secondly, the sum of each level coefficient was divided by the total of level 5 coefficients: e.g. the relative decrement of level 2 was the total coefficient of level 2 divided by the total coefficient of level 5.

4.8. FACE VALIDITY OF THE EQ-5D-5L

The concepts of health-related quality of life by Filipinos were explored. Focused group discussions (FGD) were conducted; one for each of the 6 major languages: Filipino, Cebuano, Hiligaynon, Bicolano, Ilokano, Waray. These discussions included concept of health-related quality of life and the items of the tool. Respondents were also asked regarding items they felt should be included in determining the health-related quality of life. This was used as basis for possible

additional items in the EQ-5D-5L tool that may be proposed for “bolt-on” research in future studies.

Another FGD with experts in public health, clinical health, sociology, aging, pain, and medical anthropology was conducted. Opinions on the collected data and observations were elicited, comments on the use of EQ-5D-5L in valuing health-related quality of life were raised, and suggestions on how to address study issues were also elicited.

4.9 ETHICAL CONSIDERATIONS

This study obtained ethical clearance from the University of the Philippines Manila Research Ethics Board (UPMREB).

4.9.1. Conflict of Interest: There is no conflict of interest for the investigators relevant to this study.

4.9.2. Confidentiality and Anonymity: Names and other identifying information were not included in the transcriptions and in the data collection forms for the survey. Identification numbers were used to track the forms. Once data analysis was completed the document linking facility names and identification numbers were destroyed. Interviews were conducted in areas with audio-visual privacy.

4.9.3. Risks and Benefits of the Study: There were no direct benefits to respondents for participating in this study.

4.9.4. Participant-related compensations/ reimbursements/ entitlements: Participants received a bother fee of PhP 150.00 for completion of survey.

4.9.5. Informed Consent Process and Recruitment Procedures: Letters were sent through local chief executives or community point persons (e.g. barangay health workers) prior to conduct of the study. Prior to any data collection activity, informed consent was obtained by the field team. Participants were asked to sign the consent forms if they agree to participate.

4.8.6. Vulnerability: No issues of vulnerability was expected in the context of this research.

5. RESULTS

5.1 MAIN VALUATION STUDY AND COUNTRY SPECIFIC QUESTIONS

5.1.1 Recruitment

The main valuation study began on October 16, 2017 and the last interview was conducted on December 21, 2017. The interviews suspended on November 17 and 18, 2017 due to a retraining that was conducted. During these 2 days of suspension no data was collected and the interviewers focused on the retraining module instructed by members of the EuroQol Group. They also spent the time to do some practice interviews. Retraining was done because, upon analysis of initial data from 516 respondents, the EuroQol group noted values collected had a relatively low percentage of worse-than-death answers. There were also problems with value concentration, stemming from the wheelchair examples, and inconsistencies were seen in the correlation between DCE and TTO models. These findings were deemed largely due to interviewer effects caused by miscommunication between the trainers and the interviewers and was appropriately addressed.

A total of 1,107 participants who were initially screened by local health workers or community organizers as eligible to participate in the study were invited to participate in the study. Due to the different processes and systems between the visited local government units and the local healthcare units the teams deployed in the field had to adjust to each area. Majority of the interviews were conducted in the Halls of the Local Government Unit, while several were conducted at the homes of the respondents or in health centers. In almost all cases members of the local government unit, the barangay health workers, or both would help the interviewers find the intended respondent (Appendix C).

Out of the 1,107 participants, 48 of those approached refused to participate. Of the 48 refusals, 41 respondents invited opted out of the study since they felt that the study was too long. One just got out of work and felt that he might not be able to give his full attention due to fatigue. Another respondent did not want to disclose any information about himself. There was one respondent that feared that she might not be able to answer the questions adequately. Three respondents invited were pressed for time, and informed the team that they will have to do more important things and therefore will not be able to complete the study. The last respondent who opted out of the study was afraid that the study was recruiting for Abu Sayyaf (militant group) (Appendix D).

With 1,059 left of those who were initially screened by the local health workers as eligible participants 30 more were asked to stop or stopped voluntarily while the interview was ongoing. Of the 30 the reasons for terminating the interview were: 1 - had difficulty reading, 1 - was not attentive to the questions being asked, 1 – was found to have gout, 1 – classification of the respondent was mistakenly given by the local government officer, 2 –respondents reported to not be currently in good health, 5 – disturbed by surroundings, 8 – had difficulty comprehending the questions and following instructions, and 11 – had to terminate halfway through the study due to concerns that they had to attend to immediately. With this there were 1,029 who completed the interview. Of the 1,029 who completed the interview, 24 were extra interviews conducted in case of data loss and 5 had some issues with the data when retrieved from the software. The 29 completed interviews were therefore no longer included in the final dataset to be analyzed and consequently the proponents had 1,000 responses in the final analysis. (Figure 8)

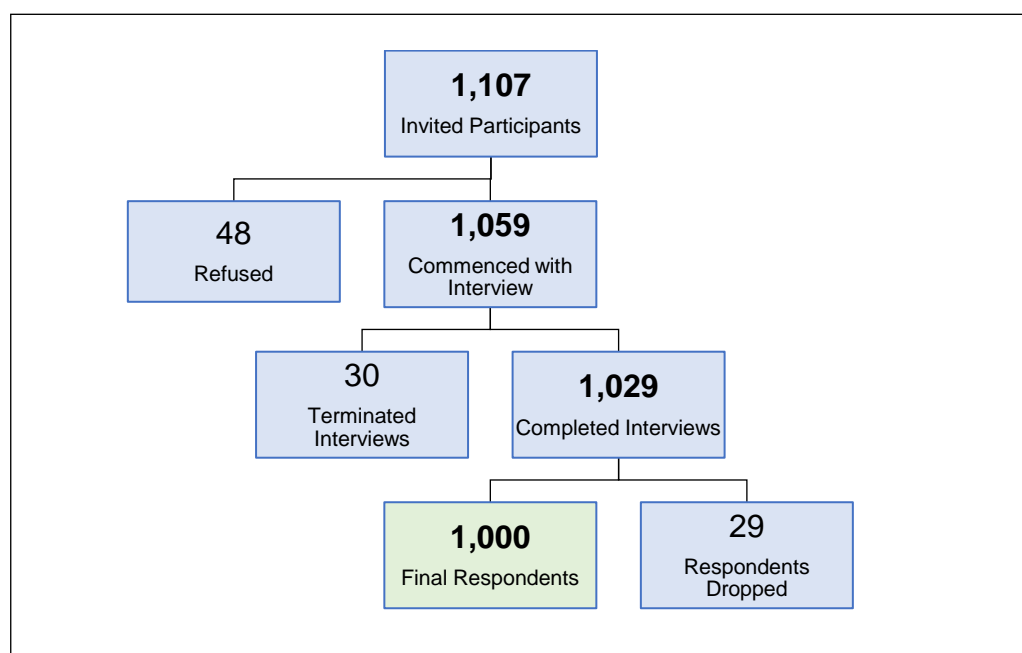


Figure 8. Recruitment and Final Data Set

5.1.2 Demographics

Table 3 presents the demographics of respondents. The mean age of the respondents was 39.60 years (SD=14.19). The number of male and female respondents was almost equal (50.4% and 49.6%, respectively) and most of them are married (68%). More than half of the respondents were High School Graduates (55.3%) and were Employed or Self-Employed (57.3%) at the time of interview (Figure 9). The average household income of 46% of the respondents ranged from Php5,000 to 16,000 pesos, and majority were not part of the National Household Targeting System (NHTS) of PhilHealth (77.4%). Majority of the respondents resided in a rural area (60%) and were Roman Catholics (82%). The target set for the 6 most abundant ethno-linguistic groups was achieved with majority of the respondents being Tagalog (37.6%) and Cebuano (27.7%).

Out of the 1,000 respondents, 343 respondents were asked to answer the Discrete Choice Experiment 2 (DCE 2). The DCE 2 was conducted to assess the consistency of the responses after changing the language. For the respondents who took the DCE 2, more than half of the respondents were High School Graduates (55.4%) and were employed (64.7%) at the time of interview. The average household income of 54.5% of the respondents ranged from Php 0 to 5,000.00 pesos, and more than half of the respondents were not part of the National Household Targeting System (NHTS) of PhilHealth (60.3%).

Table 3. Demographic Characteristics of Respondents (n=1,000)

Demographics	Mean (SD)	DCE 2	
Age (years)	39.60 (14.19)	39.7 (13.4)	
Demographics	n (%)	DCE 2 n (%)	National %
Age Group			
18 to 30	330 (33.0)	106 (30.9)	33.0% ^a
31 to 50	426 (42.6)	154 (44.9)	42.6% ^a
51 and older	244 (24.4)	83 (24.2)	24.4% ^a
Sex			
Male	504 (50.4)	173 (50.4)	50.4% ^a
Female	496 (49.6)	170 (49.6)	49.6% ^a
Marital Status			
Married	679 (67.90)	245 (71.4)	45.4% ^a
Single	201 (20.10)	53 (15.4)	43.5% ^a
Separated	300 (3.00)	8 (2.3)	1.2% ^a
Widowed	48 (4.8)	15 (4.37)	4.3% ^a
Others	42 (4.2)	22 (6.4)	5.6% ^a
Religion			
Roman Catholic	820 (82.0)	257 (74.9)	80.6% ^a
Aglipay	27 (2.7)	14 (4.1)	5.6% ^a
Protestant	27 (2.7)	9 (2.6)	1.2% ^a
Iglesia ni Kristo	25 (2.5)	9 (2.6)	2.4% ^a
Islam	21 (2.1)	5 (1.5)	5.6% ^a
Agnostic	3 (0.3)	1 (0.3)	0.1% ^a
Others	77 (7.7)	48 (14.0)	4.6% ^a
Ethnolinguistic Group			
Tagalog	376 (37.6)	8 (2.3)	37.6% ^b
Cebuano/Bisaya	277 (27.7)	272 (79.3)	27.7% ^b
Ilocano	121 (12.1)	-	12.1% ^b
Hiligaynon	101 (10.1)	45 (13.1)	10.1% ^b
Bicolano	80 (8.0)	-	8.0% ^b
Waray	45 (4.5)	14 (4.1)	4.5% ^b
Residential Area			
Urban	400 (40.0)	140 (40.8)	45.3% ^a
Rural	600 (60.0)	203 (59.2)	54.7% ^a
Region			
I Ilocos Region	50 (5.0)	-	5.0% ^c
II Cagayan Valley	34 (3.4)	-	3.4% ^c
III Central Luzon	111 (11.1)	1 (0.3)	11.1% ^c
IV-A CALABARZON	143 (14.3)	3 (0.9)	14.3% ^c
IV-B MIMAROPA	29 (2.9)	3 (0.9)	2.9% ^c
V Bicol Region	57 (5.7)	-	5.7% ^c
VI Western Visayas	58 (5.8)	4 (1.2)	4.4% ^c
VII Central Visayas	90 (9.0)	88 (25.7)	6.0% ^c
VIII Eastern Visayas	44 (4.4)	14 (4.1)	4.4% ^c
IX Zamboanga Peninsula	36 (3.6)	36 (10.5)	3.6% ^c
X Northern Mindanao	46 (4.6)	49 (14.3)	4.6% ^c

Demographics		Mean (SD)	DCE 2
Age (years)		39.60 (14.19)	39.7 (13.4)
Demographics	n (%)	DCE 2 n (%)	National %
XI Davao Region	48 (4.8)	51 (14.9)	4.8% ^c
XII SOCCSKSARGEN	45 (4.5)	45 (13.1)	4.5% ^c
XIII Caraga	26 (2.6)	26 (7.6)	2.6% ^c
Autonomous Region of Muslim Mindanao (ARMM)	37 (3.7)	21 (6.1)	3.7% ^c
Cordillera Administrative Region (CAR)	17 (17)	-	1.7% ^c
National Capital Region (NCR)	128 (12.8)	2 (0.6)	12.8% ^c
Education			
Finished High School	553 (55.3)	190 (55.4)	57.6% ^a
Did not Finish High School	447 (44.7)	153 (44.6)	42.4% ^a
Income			
NHTS	226 (22.6)	136 (39.7)	33.9% ^d
Non-NHTS	774 (77.4)	207 (60.3)	66.1% ^d
Average Household Monthly Income			
0 to Php 5,000	428 (42.8)	187 (54.5)	N/A
Php 5,001 to 16,000	462 (46.2)	137 (39.9)	N/A
Php 16,001 to 50,000	95 (9.5)	15 (4.4)	N/A
Php 50,001 to 155,000	11 (1.1)	2 (0.6)	N/A
Above Php 155,001	4 (0.4)	2 (0.6)	N/A
Employment			
Employed	620 (80.0)	222 (64.7)	93.7% ^e
Unemployed	155 (20.0)	121 (35.3)	6.3% ^e
Mean (SD)			
Number of Individuals in Household	5.4 (2.39)	5.5 (2.28)	4.6 ^a

^a2010 Census of Population and Housing (CPH), Philippine Statistics Authority

^b2000 Census of Population and Housing (CPH), Philippine Statistics Authority

^c2015 Census of Population and Housing (CPH), Philippine Statistics Authority

^dNational Household Targeting System, Department of Social Welfare and Development (2016)

^e2015 Annual Labor and Employment Status, Philippine Statistics Authority

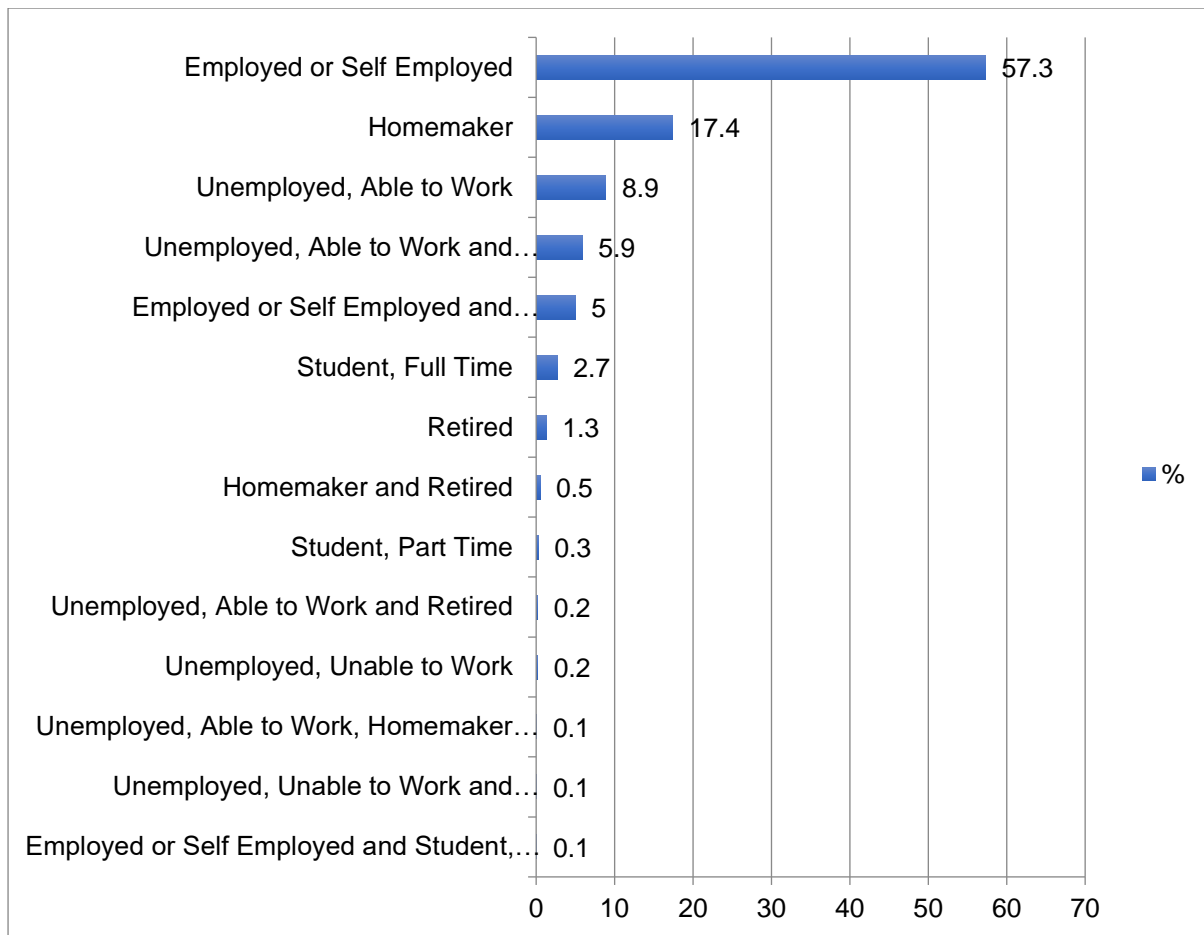


Figure 9. Employment Status of Respondents

Majority of the respondents reported 'no problem' with regards to their health status as measured by the EQ-5D-5L, with 67% of the respondents reporting 'no problem' for the pain/discomfort dimension to 96% for the self-care dimension (Table 4). Half of the 1000 respondents (50%) reported their own health as full health (11111) and only three respondents reported an extreme problem in the anxiety/depression dimension. The mean VAS score was 89. The mean time of computer-based interview was 45 minutes (SD=11.3).

Table 4. Health Status of Respondents By Level of Severity

Dimensions	No Problem	Slight Problem	Moderate Problem	Severe Problem	Extreme
Mobility	85.0%	11.7%	3.2%	0.1%	-
Self-care	96.4%	2.3%	1.3%	-	-
Usual Activities	83.6%	11.8%	4.5%	0.1%	-
Pain/discomfort	66.6%	26.6%	6.6%	0.2%	-
Anxiety/depression	74.4%	18.3%	6.4%	0.6%	0.3%

For the health status, respondents were asked to rate their overall health as 'Very Good', 'Good', 'Fair', and 'Bad'. The average Visual Analog Scale (VAS) score for each of the reported health status was then computed. VAS is a vertical, visual scale which records the respondent's self-rated health on a scale of 0-100, where 0 means 'the worst health you can imagine' and 100 as 'the best health you can imagine'. Respondents who reported their health as 'Very Good' had the highest mean VAS Score of 95 (SD= ± 6.8) while those those who had reported a 'Bad' health status had the lowest mean VAS score of 82 (SD= ± 6.8).

Table 5. VAS Score according to Reported Health Status

Reported Health Status	N	VAS Score (mean \pmSD)
Very Good	162	95 (± 6.8)
Good	530	90 (± 7.5)
Fair	304	85 (± 8.6)
Bad	4	82 (± 15.0)
OVERALL	1,000	89.26 (± 8.4)

The Pearson's chi-square statistic of the TTO block against selected socio-demographic factors was computed to assess success of random allocation (frequency of TTO block per chosen demographic factor are presented in Appendix M). The null hypothesis for the Pearson's Chi-Square test is that the factors help explain the dependent variable. The null hypothesis should be rejected to demonstrate that we have randomly allocated the sample. Results show that demographic factors, other than sex and residential area have been randomly sampled.

Table 6. Chi-Square of TTO blocks against Selected Socio-demographic Factors

Demographics	Pearson's Chi-Square	Degrees of Freedom	p-value
Age Group	42.3221	54	0.875
Sex	44.6751	27	0.018
Marital Status	91.7992	108	0.868
Religion	135.6992	162	0.935
Ethnolinguistic Group	179.4615	216	0.967
Residential Area	43.3513	27	0.024
Region	340.4866	432	1.000
Education	28.6961	27	0.376
NHTS	31.7766	27	0.240
Income	110.2250	108	0.422
Employment Status	15.9278	27	0.954

5.1.3 Quality Control Report

EuroQol has provided a Microsoft Excel-based tool for data quality control. This tool generates the Quality Control (QC) Report which contains indicators that may reflect the quality of interviews done by each interviewer (See Appendix Q for full QC report). The following table shows the number of interviews flagged for possible quality issues during the pretest:

Table 7. Flagged interviews in TTO

Interviewer	N	N flagged	% flagged	WC LT	% WC LT	Incon size	% Incon size	WC time	% WC time	TTO time	% TTO time
A	103	2	2%	1	1%	1	1%	0	0%	0	0%
B	5	2	40%	0	0%	2	40%	0	0%	0	0%
C	110	1	1%	0	0%	0	0%	1	1%	0	0%
D	111	2	2%	1	1%	0	0%	1	1%	0	0%
E	113	0	0%	0	0%	0	0%	0	0%	0	0%
F	112	0	0%	0	0%	0	0%	0	0%	0	0%
G	110	1	1%	0	0%	0	0%	0	0%	1	1%
H	96	0	0%	0	0%	0	0%	0	0%	0	0%
I	118	4	3%	0	0%	2	2%	0	0%	2	2%
J	122	1	1%	0	0%	0	0%	0	0%	1	1%

This table shows how many times each interviewer's TTO data have been flagged for data quality reasons. The total number of flagged interviews is shown in column 2, and the proportion of flagged interviews is shown in column 3. A given interview may be flagged for more than one reason. The flags are defined as follows:

- 1) WC LT - Interview is flagged if the interviewer does not enter the worse-than-dead element of one of the wheelchair examples.
- 2) Inconsistency size - Interview is flagged if the respondent has a clear inconsistency in their TTO ratings (the value for 55555 is not the lowest and is at least 0.5 higher than that of the state with the lowest value).
- 3) WC time - Interview is flagged if the interviewer does not spend at least 180 seconds (3 minutes) on the wheelchair example.

4) TTO time - Interview is flagged if the respondent does not spend at least 5 minutes on the 10 TTO tasks.

EuroQol suggested that an interviewer should be retrained if at least 40% of her/his interviews are flagged. If an interviewer still incurs flagging of 40% or more of her/his interviews despite retraining, she/he shall be considered for termination as an interviewer.

Interviewer J disengaged from the project after five interviews due to health reasons. Thus, the 40% of her interviews which are flagged cannot be considered as a quality issue since the total number of his interviews are small. Excluding J, no interviewer incurred more than 3% in terms of flagged interviews.

Flagging does not necessarily imply that the interview should be dropped. Interviewers were required to explain reasons behind flagging. All cases flagged due to time spent on TTO and WC occurred when the respondent is highly educated who needed shorter time and less moves with the WC examples and the TTO tasks. On the other hand, inconsistencies may be driven by respondent's possible malleable preferences despite interviewer probing.

Table 8 shows the number of DCE flagged for possible quality issues:

Table 8. DCE unusual responses

Interviewer	N	Time (min.)	IF AAAAAAA	IF BBBB BBB	IF ABABABA	IF BABABAB
A	103	4.35	0	0	3	0
B	5	4.65	0	0	0	0
C	110	4.19	4	2	0	0
D	111	4.21	5	1	0	1
E	113	4.63	0	0	1	3
F	112	4.35	0	0	2	2
G	110	4.55	0	0	0	1
H	96	3.83	1	0	2	1
I	118	3.49	5	2	2	1
J	122	3.88	1	2	0	0

This table shows the number of interviews completed (column 2); the mean amount of time taken (in minutes) to complete the 7 DCE tasks (column 3); and the

number of respondents who gave unusual sets of choices across all seven DCE tasks (columns 4-7). For example, if the respondent chose state A (or state B) in all seven tasks, this is flagged in column 4. Responses that show a consistent pattern like ABABABA or BABABAB are flagged in column 5 and 6, respectively.

Answers with straight As or Bs, or answers that alternates between A and B could be signs that the respondents are guessing their answers. Although this is not desirable, this cannot be avoided especially for a fact that the DCE tasks are done after the TTO tool which took around 20-30 minutes. Only 4.2% (42 respondents) displayed such pattern of responses.

5.1.4 MODELING

Of the three regression models: 20 Parameter Robust OLS, Mixed Effects Maximum Likelihood Regression, and 8 Parameter Hybrid Heteroskedastic Model, the only model that yielded no inconsistency is the 8 Parameter hybrid model. Results of the regressions are presented Table 9:

Table 9. Results of Regression

	20 Parameter Robust OLS	Mixed Effects Maximum Likelihood regression	8 Parameter Hybrid Heteroskedastic Model	
MO2	-0.001	0.027	INTERCEPT	0.0189147
MO3	-0.040	-0.034	MO	0.2928072
MO4	0.115	0.157	SC	0.2485457
MO5	0.183	0.141	UA	0.2305456
SC2	0.039	0.036	PD	0.2887432
SC3	-0.007	0.009	AD	0.175455
SC4	0.104	0.151	L2	0.2281298
SC5	0.164	0.108	L3	0.2728374
UA2	0.035	0.035	L4	0.7929942
UA3	0.045	0.024	INTERCEPT2	0.0145434
UA4	0.065	0.109	THETA	5.1089161
UA5	0.135	0.093	SIGMA_SLOPE	0.4346641
PD2	0.035	0.041	SIGMA_INTERCEPT	0.052391
PD3	0.002	0.013		
PD4	0.171	0.222		
PD5	0.156	0.068		
AD2	0.032	0.021		
AD3	-0.007	0.032		
AD4	0.079	0.073		
AD5	0.118	0.083		
CONS	0.029 ^a	0.036		

^aEstimate coefficients have p-values less than 0.05.

The 20 Parameter Robust OLS model yields inconsistent progression of coefficient results for all dimensions from Level 2 to Level 3 except for Usual Activity Dimension, where the coefficients are expected to increase as the level increases. These observations were also observed in the Mixed Effects Maximum Likelihood regression model. The 8 Parameter Hybrid Heteroskedastic Model yields consistent results because progression of coefficients in an increasing fashion is seen: that is, Level 3 has a higher coefficient than Level 2, and Level 4 has a higher coefficient than Level 3.

Table 10. 8-Parameter Heteroskedastic Hybrid Regression Results

Parameters	Estimate^a	Std Error
INTERCEPT	0.0189147	0.004145
MO	0.2928072	0.006475
SC	0.2485457	0.006049
UA	0.2305456	0.005873
PD	0.2887432	0.007047
AD	0.175455	0.005832
L2	0.2281298	0.010383
L3	0.2728374	0.009402
L4	0.7929942	0.011726
INTERCEPT2	0.0145434	0.005475
THETA	5.1089161	0.15326
SIGMA_SLOPE	0.4346641	0.007428
SIGMA_INTERCEPT	0.052391	0.002475

Table 10 shows the coefficient estimates and standard error of the 8 Parameter heteroskedastic hybrid model. Using the coefficients from the results, health state 22222 will be computed as $1 - \{(0.2928072 + 0.2485457 + 0.2305456 + 0.2887432 + 0.175455) \times 0.2281298\} - 0.0189147\} = 0.699$. Normalizing the value to range from 0 to 1, this will be equal to 0.712.

^aAll estimate coefficients have p-values less than 0.05.

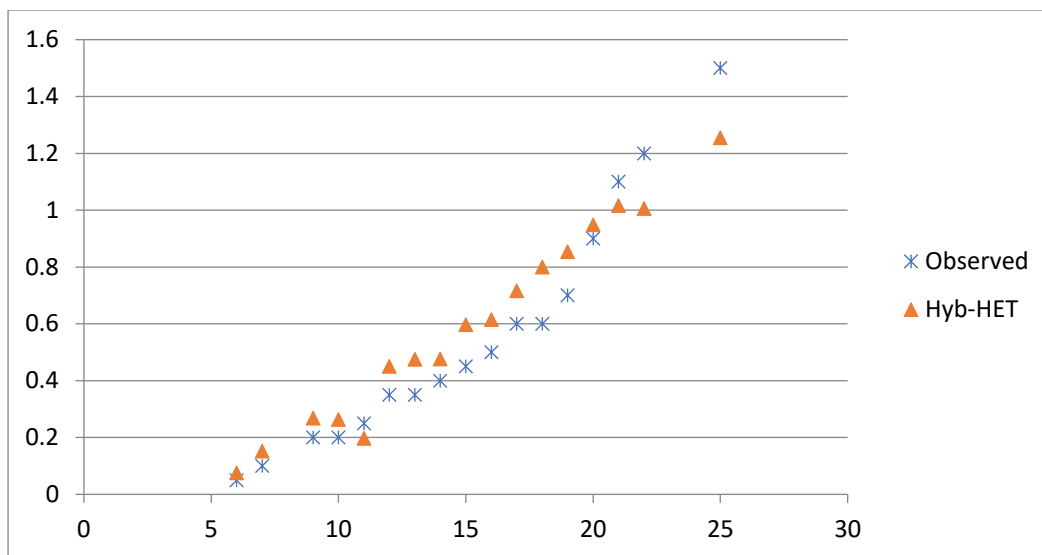


Figure 10. Comparing median observed and predicted values per severity

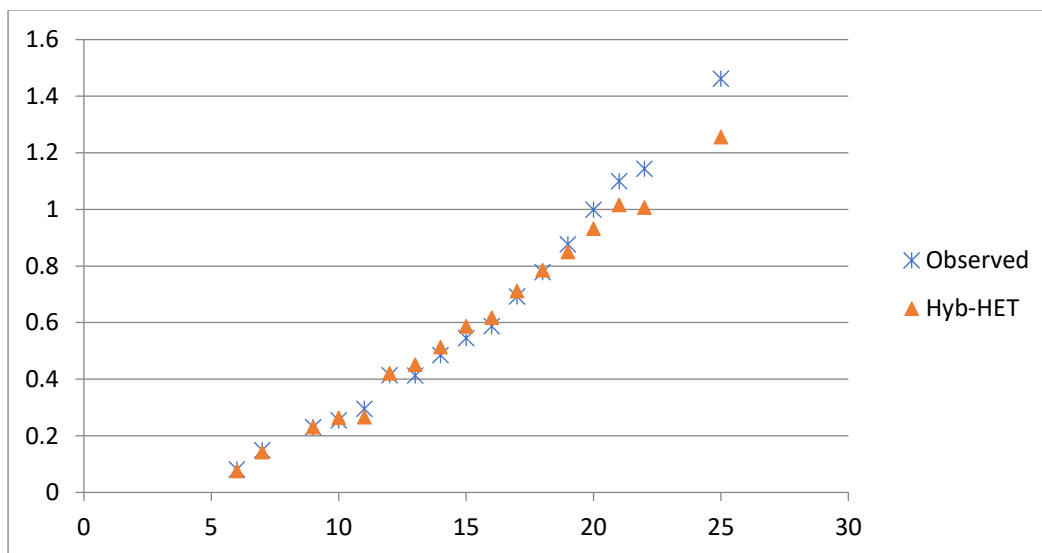


Figure 11. Comparing mean observed and predicted values per severity

The median observed and predicted values per severity for the 8 Parameter model is plotted in Figure 10 (median) and Figure 11 (mean). Upon visual inspection, the model is deemed to predict observed values well.

5.1.5 DCE valuation between Filipino and Cebuano translations

The consistency of responses is assessed through a change in the language (Filipino to Cebuano, or vice-versa) used for 329 respondents via repeat DCE testing. Each respondent answered 7 DCE questions resulting in paired 2,303 responses. Majority (90.0%) of the respondents used Cebuano as the first language. About a third (35.9%) of respondents reported to understand both languages well.

Of all the paired responses, consistency or simple agreement was observed in 71.6%. Agreement using the Brennan-Prediger coefficient was 43.2% (95%CI: 39.52 to 46.89%) suggesting moderate agreement. Agreement appeared to be a function of difference in severity of the choices in the DCE. For pairs with a 9 or 10 point absolute difference, 88.2% were responses were consistent. This value dropped to 61.5% when the difference was zero (0) and to 64.0% when the difference was one (1) (Figure 12). Significant influence of severity was observed even after clustered logistic regression (aOR: 1.20, 95%CI: 1.14 to 1.27). This was robust even after use of alternative models (e.g. modified Poisson, not cluster).

Language of first test does not seem to be a main factor with agreement at similar levels of 68.4% if Filipino was the first language and 72.0% if Cebuano was the first. No obvious difference was also observed when analysis of subgroups based on ability to speak both languages well was done with agreements at 71.7% for those who speak both languages well and 71.6% for those who didn't. These factors remain non-significant even in most multivariable analysis models. Level of understanding of Cebuano was a significant predictor of higher chance of agreement when a modified Poisson model was used.

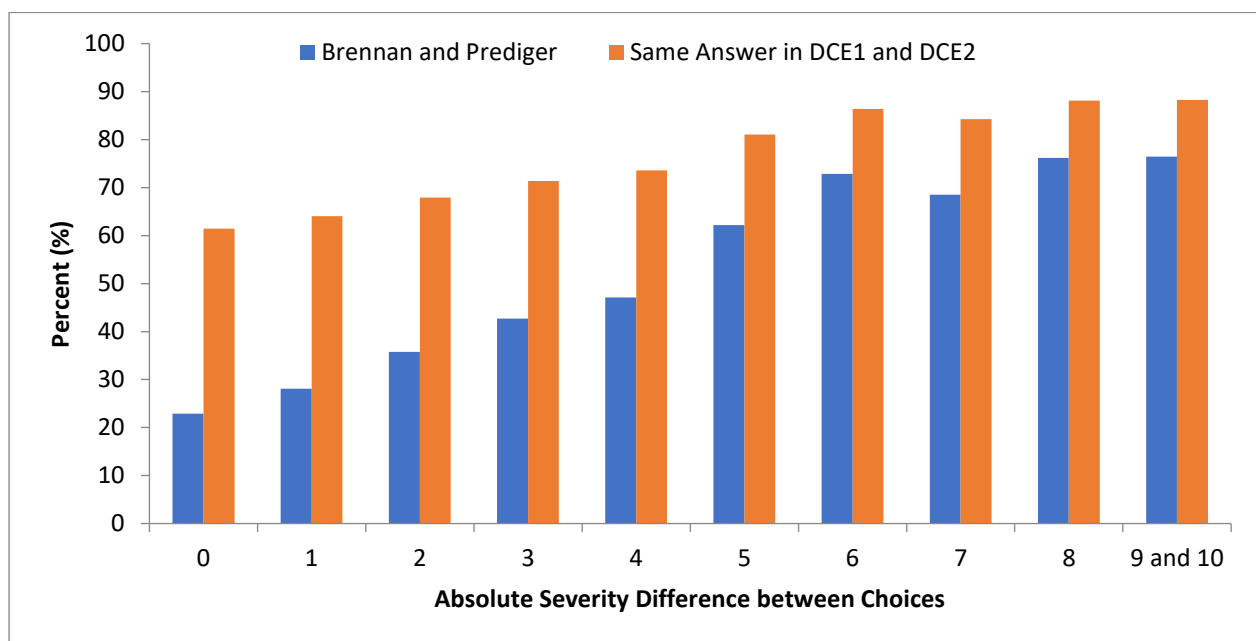


Figure 12. Agreement Statistics According to Absolute Difference in Severity between Choices. (n = 2,303)

Logistic regression where the levels were treated as ordinal variables did not show significant effect on odds of agreement. Treating the levels as categories (with level 1 as referent), an increased odds of agreement was observed if there is a Mobility level 5 in the 2nd health state (OR=1.625) and a decreased agreement if there is a Usual Activities level 2 in the 1st health state (OR=0.673) and a Mobility level 2 in the 1st health state (OR=0.657). The significance of Mobility levels remained when a modified Poisson regression was used ($p<0.05$).

Table 11. Factors Associated With Agreement between DCE 1 and DCE2

	OR	95% Conf Interval		p-value
Severity Difference^	1.20	1.14	1.27	<0.001
Severity (1 st)	0.987	0.91	1.07	0.753
Severity (2 nd)	0.978	0.90	1.06	0.607
Age	0.992	0.98	1.00	0.118
Sex	0.884	0.71	1.10	0.263
Married	1.19	0.88	1.60	0.258
High School Graduate	0.990	0.79	1.24	0.932
Low Income	1.17	0.99	1.38	0.072
Understands Cebuano Well	1.72	0.99	2.97	0.054
Understands Filipino well	0.988	0.81	1.21	0.903
Speaks Cebuano Well	0.772	0.57	1.05	0.095
Speaks Filipino Well	1.04	0.93	1.16	0.494
Used Filipino in 1 st DCE	1.17	0.76	1.82	0.477
Time of 1 st DCE	0.992	0.99	1.00	0.001
Time of 2 nd DCE	1.00	1.00	1.00	0.931
Mobility				
1 st DCE				
2	0.657	0.476	0.909	0.011
3	0.888	0.600	1.312	0.55
4	0.757	0.504	1.135	0.177
5	0.655	0.408	1.053	0.081
2 nd DCE				
2	1.087	0.775	1.525	0.627
3	1.236	0.840	1.820	0.282
4	1.249	0.814	1.914	0.308
5	1.625	1.013	2.608	0.044
Usual Activities				
1 st DCE				
2	0.673	0.482	0.938	0.02
3	0.745	0.521	1.065	0.107
4	0.890	0.593	1.337	0.575
5	0.738	0.476	1.146	0.176
2 nd DCE				
2	1.041	0.743	1.459	0.814
3	0.920	0.617	1.371	0.68
4	0.936	0.608	1.442	0.765
5	1.108	0.680	1.807	0.679
Self-care				
1 st DCE				
2	0.963	0.700	1.325	0.818
3	0.990	0.704	1.393	0.954
4	0.815	0.553	1.202	0.302

	OR	95% Conf Interval		p-value
5	1.211	0.762	1.924	0.418
2 nd DCE				
2	1.093	0.795	1.502	0.583
3	1.015	0.713	1.445	0.933
4	1.298	0.858	1.964	0.217
5	1.494	0.961	2.322	0.075
Pain/Discomfort				
1 st DCE				
2	0.810	0.567	1.156	0.245
3	1.087	0.737	1.604	0.674
4	1.033	0.630	1.692	0.899
5	1.035	0.621	1.725	0.896
2 nd DCE				
2	1.296	0.931	1.803	0.124
3	1.155	0.812	1.644	0.422
4	1.247	0.816	1.906	0.308
5	1.179	0.740	1.879	0.489
Anxiety/Depression				
1 st DCE				
2	1.041	0.776	1.396	0.787
3	0.957	0.706	1.297	0.777
4	0.848	0.633	1.136	0.269
5	omitted			
2 nd DCE				
2	0.796	0.599	1.057	0.115
3	0.849	0.633	1.139	0.276
4	0.804	0.617	1.047	0.105
5	omitted			
Constant term	2.474	0.557	10.983	0.234

Note: ^ - in absolute terms

These differences in agreement were reflected in the different Beta coefficients when the DCE data were modelled (Table 12). Point estimates when DCE was accomplished in Cebuano were very different from the point estimates for the DCE accomplished in Filipino. Although present in both languages, the paradoxical lower coefficient for a level 3 state compared to a level 2 state was seen more often in the DCE done in Filipino. Statistical testing comparing the coefficients, however, did not show significant difference between the coefficients of the two models.

Table 12. Disutility Coefficients in DCE 1 and 2

	Disutility DCE_2_Cebuano ^a	Disutility DCE_2_Filipino ^b	Disutility DCE_Filipino ^c	Comparing Cebuano and Filipino DCE 2
Mobility				
mo2	0.6172 (0.4136 - 0.8209)	0.6744 (0.4762 - 0.8727)	0.6477 (0.5044 - 0.7911)	0.6503
mo3	0.5348 (0.2889 - 0.7808)	0.346 (0.1243 - 0.5677)	0.5563 (0.3949 - 0.7177)	0.2008
mo4	1.8149 (1.5543 - 2.0755)	1.2294 (0.9957 - 1.463)	1.167 (1.0041 - 1.33)	0.0002
mo5	2.2549 (1.9635 - 2.5463)	2.0758 (1.8091 - 2.3425)	1.5538 (1.3734 - 1.7341)	0.3221
Self-care				
sc2	0.4697 (0.2468 - 0.6925)	0.6477 (0.4341 - 0.8612)	0.4176 (0.2681 - 0.5671)	0.1994
sc3	0.585 (0.3429 - 0.8271)	0.3493 (0.1225 - 0.5761)	0.4684 (0.3076 - 0.6292)	0.1276
sc4	1.7102 (1.455 - 1.9654)	1.0291 (0.7954 - 1.2629)	0.9703 (0.8064 - 1.1343)	<0.0001
sc5	1.7019 (1.452 - 1.9519)	1.4007 (1.1736 - 1.6279)	1.1656 (1.0102 - 1.3211)	0.0465
Usual Activities				
ua2	0.2813 (0.0725 - 0.4902)	0.4882 (0.2872 - 0.6893)	0.4888 (0.3455 - 0.6322)	0.1017
ua3	0.4459 (0.209 - 0.6828)	0.4148 (0.1968 - 0.6328)	0.4438 (0.2866 - 0.601)	0.8296
ua4	1.2013 (0.9554 - 1.4472)	0.8984 (0.6724 - 1.1243)	0.8997 (0.7411 - 1.0584)	0.0500
ua5	1.409 (1.1573 - 1.6607)	1.3073 (1.0789 - 1.5357)	1.0441 (0.8858 - 1.2024)	0.5088
Pain/Discomfort				
pd2	0.4023 (0.1803 - 0.6243)	0.7295 (0.5162 - 0.9428)	0.5882 (0.4388 - 0.7376)	0.0192
pd3	0.6379 (0.3973 - 0.8785)	0.6387 (0.4119 - 0.8655)	0.5282 (0.369 - 0.6874)	0.9956
pd4	1.6122 (1.3482 - 1.8761)	1.0326 (0.7997 - 1.2656)	1.183 (1.0183 - 1.3478)	0.0003
pd5	1.6871 (1.429 - 1.9452)	1.1844 (0.9554 - 1.4133)	1.3705 (1.2078 - 1.5332)	0.0012
Anxiety/Depression				
ad2	0.3032 (0.0777 - 0.5288)	0.212 (-0.0004 - 0.4244)	0.2478 (0.0952 - 0.4004)	0.4765
ad3	0.4195 (0.1844 - 0.6546)	0.0434 (-0.1747 - 0.2615)	0.4208 (0.2652 - 0.5763)	0.0109
ad4	0.9529 (0.6991 - 1.2068)	0.4968 (0.2718 - 0.7218)	0.8511 (0.6875 - 1.0147)	0.0025
ad5	0.7952 (0.5493 - 1.0411)	0.742 (0.509 - 0.975)	0.918 (0.7572 - 1.0788)	0.7243

a - DCE_1_Cebuano: participants who completed the test-retest and their first language is Cebuano, and identify themselves as bilingual (N=296)

b- DCE_2_Filipino: the same participants with above but this is from the DCE 2 where they completed the same DCE but in Filipino (their second language) (N=296)

c. DCE_1_Filipino: different respondents who only speak Filipino as their main language (N=632)

The relative importance using the main dataset suggests the following ranking by decreasing order: Mobility, Pain/Discomfort, Self-care, Usual Activity, Anxiety/Depression. The ranking from the repeat DCE in Filipino is similar to the main dataset although Pain/Discomfort outranks Mobility. For Cebuano, however, a change with the middle three domains was observed in decreasing order: self-care, pain/discomfort, usual activities.

The main dataset suggested that that there was minimal difference in relative decrements between level 2 and level 3 using coefficients from the DCE only model. However, the data from those who had repeat DCE suggest an effect of language. When accomplished in Filipino, level 3 had a lower relative decrement compared to level 2. When accomplished in Cebuano, the pattern was more consistent with the main dataset, with a decrement at level 3 greater than that of level 2 (Figure 13).

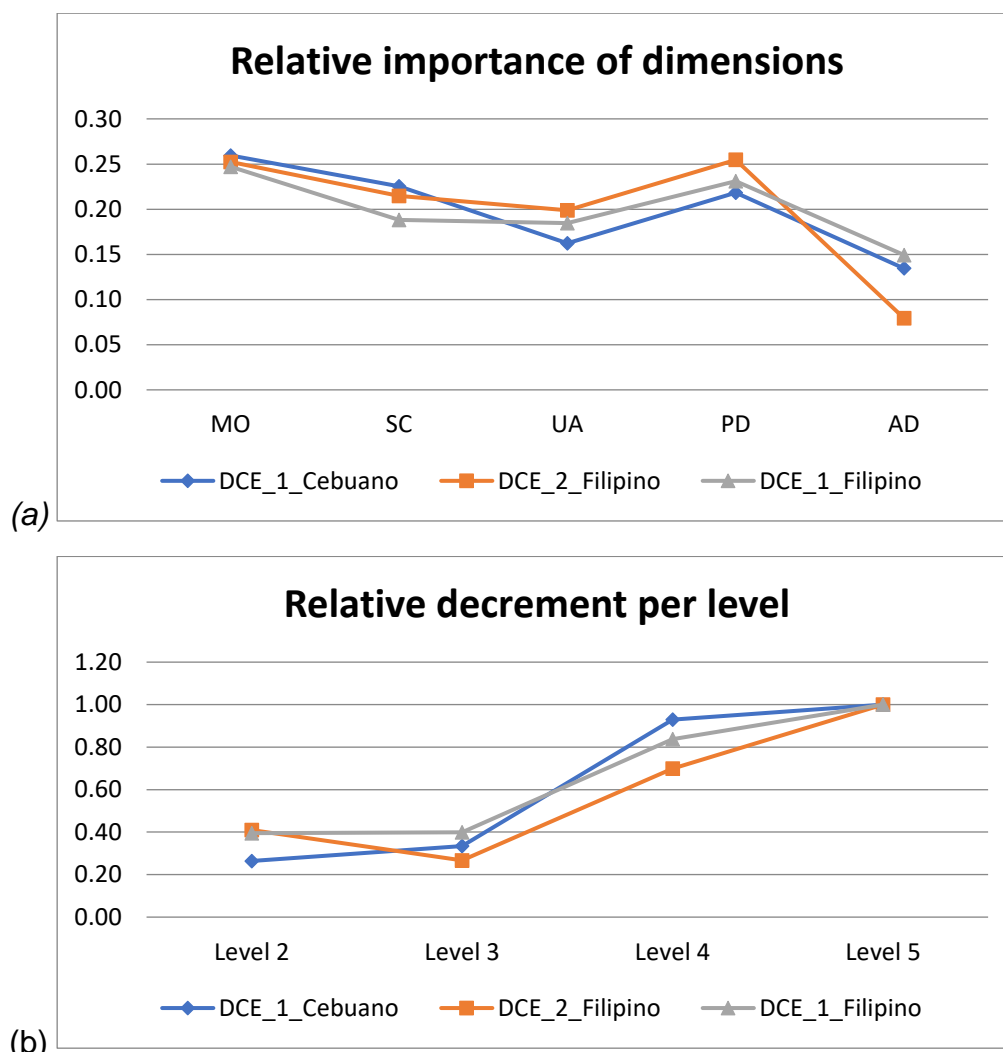


Figure 13. Relative Importance and Decrement based on Repeat DCE results Compared to Main Dataset

III. Domains Affecting Valuation

Country questions explored possible factors that may affect valuation for the respondents. When asked which is more important, around half (50.4) of the respondents answered that a healthy life regardless of length was more important, and less than a quarter (23.0) say a long life regardless of quality is more important (Figure 14).

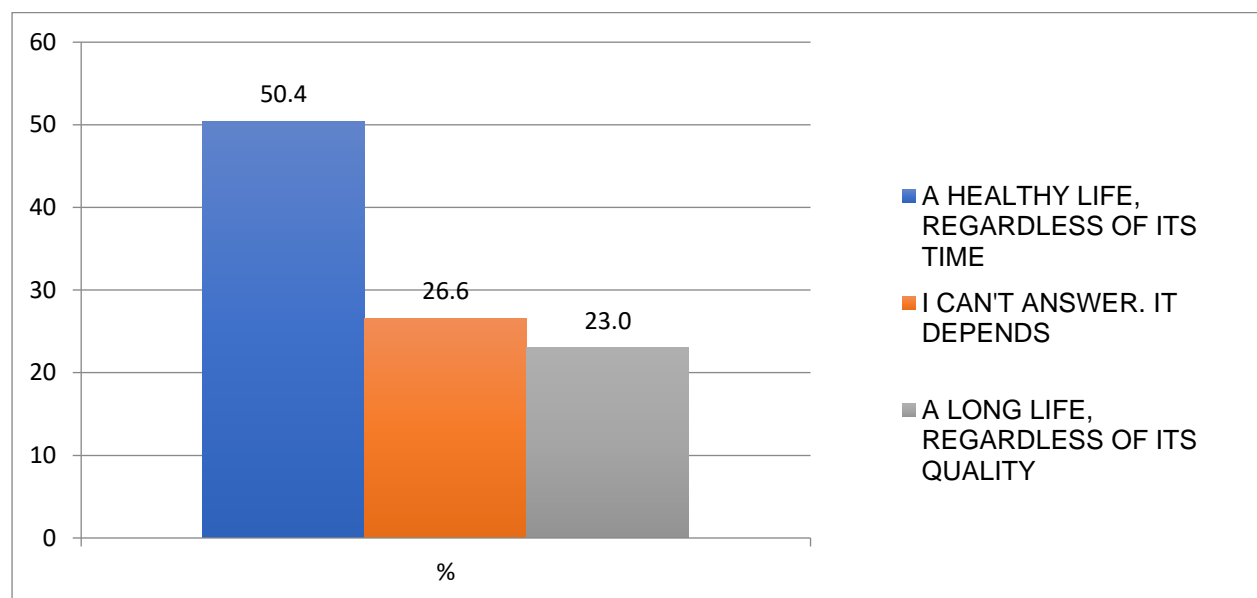


Figure 14. Which is more important to you?

The same respondents were asked what their considerations were in comparing different lengths of Life A and Life B, and around 75% answered Self-care and Mobility, followed by Usual Activities (66.8%) and Pain/Discomfort (54.9%). Less than half (45.1%) considered Anxiety/Depression (Table 13). An almost similar distribution of proportions were seen when they were asked what their considerations were in comparing health states A and health state B (Table 14).

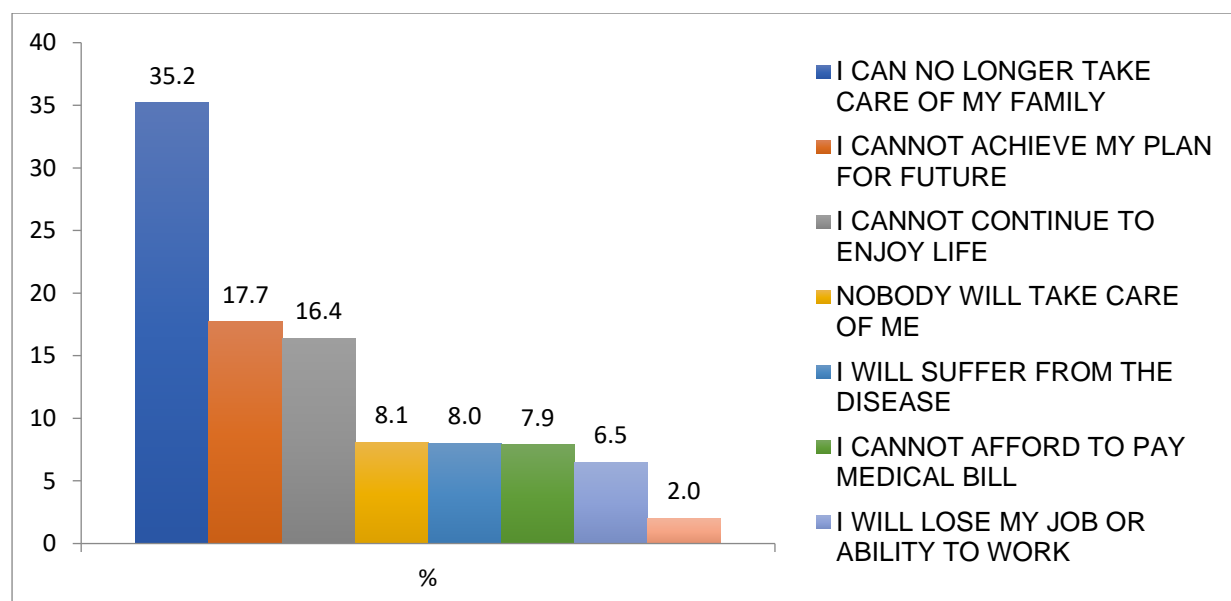
Table 13. Considerations in comparing different lengths of Life A and Life B

Responses	Number of Responses
Mobility	748
Self-care	763
Usual Activities	668
Pain/Discomfort	549
Anxiety/Depression	451

Table 14. Considerations in comparing health state A and health state B

Responses	Number of Responses
Mobility	721
Self-care	721
Usual Activities	665
Pain/Discomfort	545
Anxiety/Depression	454

When asked what their major concern would be if they were to suffer from a serious disease, many said it is not being able to take care of family (35.2%), and half of this proportion (17.7%) said they will not be able to achieve their plans for the future. This is followed by concerns that they cannot continue to enjoy life (16.4%). The other concerns which represent less than a third (32.6%) include: nobody will take care of them (8.1%), they will suffer from the disease (8.0%), they cannot afford to pay medical bills (7.9%), they will lose their job or ability to work (6.5%), and no answer (2%). This distribution is illustrated in Figure 15.

**Figure 15. If you were to suffer from a serious disease, what would be your major concern?**

They were also asked what bothers them the most at the time of interview. More than half (57.3%) answered “financial issues to support family”, 26.6% said “chronic disease or other health issues”, while the rest answered “unsafe living area” (8.6%), “lack of clean environment” (5.7%), and others (1.8%).

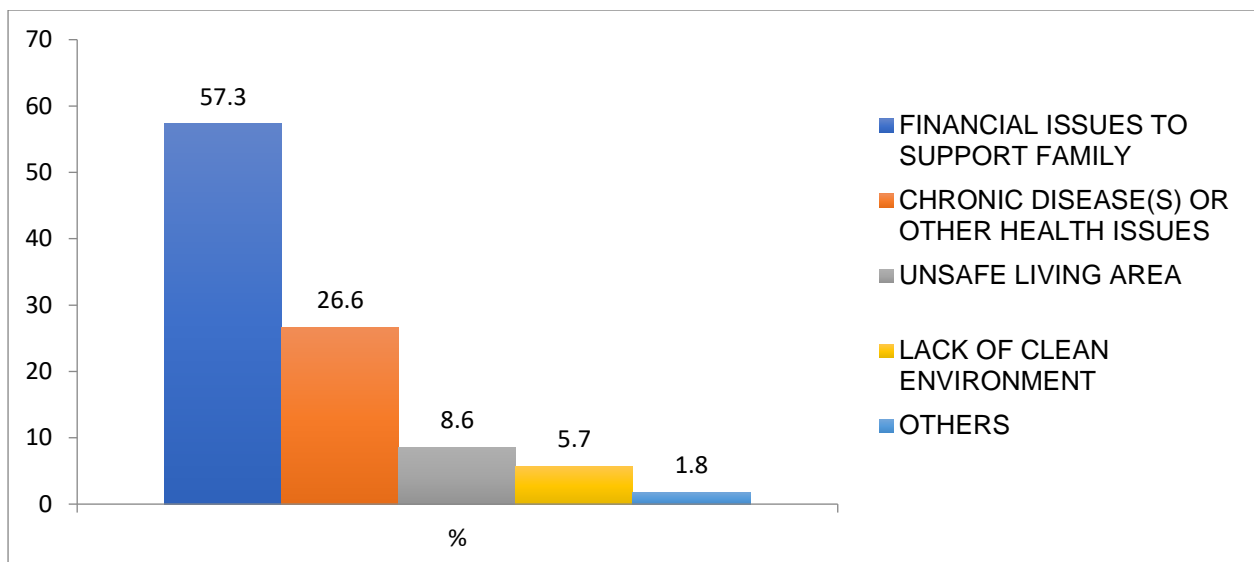


Figure 16. What is the thing that bothers you most now?

Evaluation of survey responses (n=288)

Two hundred eighty eight (288) respondents from the 1,000 were asked to define the five domains, and were also asked if they agree or not agree with the domains included.

To elicit common themes on their definitions for each domain, as well as other domains considered, a word frequency query was run using NVivo. Figure 17 illustrates word frequencies on the responses for the five domain definitions and other domains to be considered.

The most frequent response when asked for their definition of mobility was “walking” (41%), followed by “physical exercise” (33%), and “I don’t know” (27%). For self-care, the most frequent response on their definition was “taking a bath” (41%), “cleaning” (33%), and “taking care of self” (27%). Most frequent definitions of usual activity include “working” (38%), “doing activities” (34%), and “household chores”(28%). Definitions of pain and discomfort among the responders were mostly “physical pain” (47%), “feeling” (28%), and “body” (25%). For anxiety and depression, the most frequent response was “problems” (45%), followed by “depression”, and then “thinking” (25%).

When asked about what other domains should be included, most of them said “none or nothing” (82%), some (10%) said “think”, while 7% said the domains are already enough.

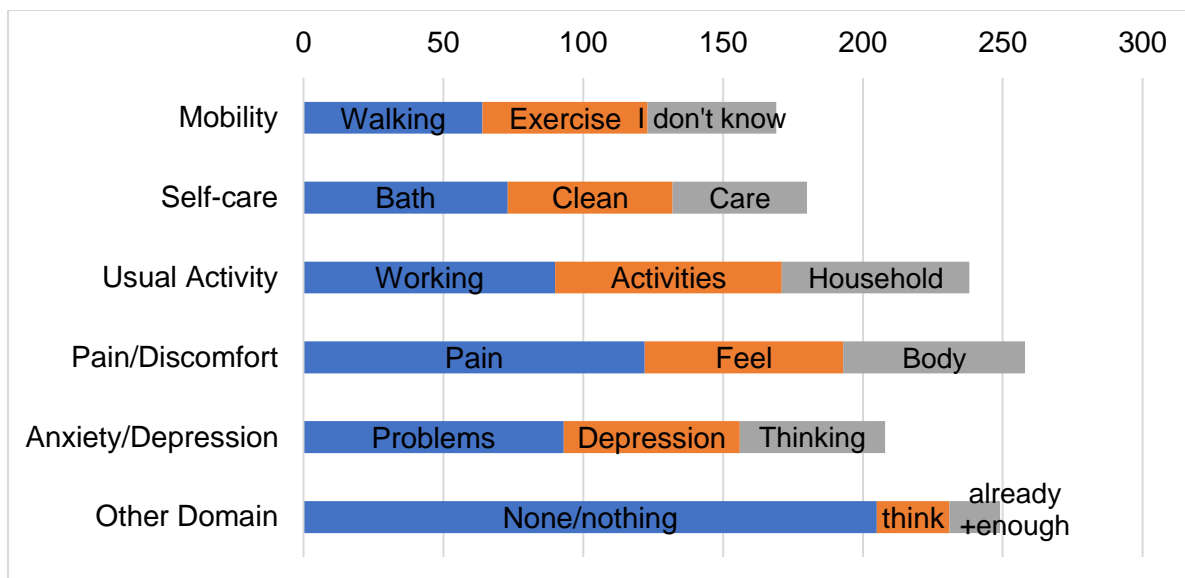


Figure 17. Word frequencies of responses to questions on definition of each domain and other domains to be considered

They were also asked if they would remove any of the domains and the reasons why a domain or domains should be removed. Most respondents “strongly agree” (129, 44.8%) or “agree” (129, 44.8%) to having the five domains, others (26, 9%) were neutral, while one respondent each for answers “disagree” and “strongly disagree” (0.3%) were noted. When asked about why the respondents disagree or strongly disagree to having five domains, no reasons were provided by the respondents.

They were then asked if they would add other domains that they think contribute to health-related quality of life. Thirty-three (33%) respondents expressed adding more domains. Twelve (12%) expressed religiosity or spirituality should be a domain. One respondent said: *“I think religiosity should be included because it is needed for self-improvement”*. A respondent from Calbayog City, Samar said finances and employment status should be included because *“if you have money, you will be entertained in the hospital”*. Among those who wanted to include additional domains are responses pertaining to desirable health practices such as: *“capability of people to adhere to food prohibitions and avoidance of vices to prevent occurrence of diseases”, and “if they drink their maintenance medicine”*.

5.2 QUALITATIVE METHODS

5.2.2 Focused group discussions (FGD) with 6 major language groups (n=44)

A total of 44 participants divided in 6 groups were recruited to participate in separate FGDs. Participants recruited are able to speak and understand Filipino and one of the languages where the EQ-5D-5L was translated. There were 7 participants each for the Bicolano, Cebuano, Filipino, and Waray groups, while 8 participants each for Hiligaynon and Ilocano groups. The age range was 18 to 78, with a median age of 34. There were 24 female and 20 male participants. The guide questions used in facilitating the FGDs are listed in Appendix E.

Quality of Life

Participants were asked to define quality of life (QoL). Among the emerging themes include were health and finances. Responses focusing on health as a theme include: *“For me it’s healthy lifestyle and exercise”*, while another says quality of life means being able to carry out any physical activity he/she wants despite her being already on maintenance medications for hypertension.

Across all groups, economically-focused themes describing QoL are evident in the responses. Socioeconomic status, access to basic needs, and material possessions define QoL for the participants. In the Waray group, one participant said: *“quality of life is simple as they’re just making ends meet and they have just enough”*. Another said: *“having someone help them economically improve their lives”* as being part of quality of life.

When asked what factors affect their QoL, most of the responses were financially related. Financial stability, *“having money to buy groceries and food for children, or medicines”* were common answers, as were having a job or livelihood, or *“a partner who has a stable income”*. Vices such as gambling, smoking, drinking, as well stress, affect QoL negatively according to the group. Contentment is a common factor among the participants in the Filipino group, while physical and mental health, stress, education, vices, and environment are among the other factors affecting the participants’ QoL.

Health

The common responses when participants were asked to define health point at avoiding activities that could make them ill, such as *“avoiding prohibited food,*

smoking, drinking, and illicit drugs". One participant describes health as *"having moderation in vices, proper nutrition, clean surroundings, and good hygiene"*. Health was also described as having both good physical and mental condition by a few of the participants. An interesting take was provided by one participant saying health is *"relative on what we consider as healthy; a common understanding is that overweight children are often regarded as healthy, while underweight children are considered undernourished, but we will only know the health status of these children if they are checked"*. Two participants in separate groups say health should be *"overall and holistic"*, and not just the physical aspects. In the Hiligaynon group, health is characterized by *"being regularly checked by a medical professional"*.

Among the most common factors that affect health according to the participants are environment, food, vices, and finances. A participant said *"children living in unsanitary environments tend to be frequently sick, where their food and water sources are contaminated."* However, another participant rebutted, *"children who live in dirty surroundings like Manila Bay or Payatas dump site seem to be healthy"* as their bodies *"adjust to the environment and their immunity can fend off diseases"*. Across different groups, proper nutrition in terms of quality and quantity, using food additives, avoidance of junk food, and food that aggravate existing illnesses affect health. Other factors elicited include physical activity, health literacy, stress, and quality of sleep.

Health-related Quality of Life

Nearly all participants said health and QoL are related, with most responses implying that *"you can't have a good QoL if you are not healthy"*, and *"if health is affected, the QoL is also affected"*. Some participants in three different groups uttered, *"health is part of QoL"*. Another traces *"good lifestyle results in good health, and good health results in good quality of life"*

One dissenting opinion arose in the Filipino group, and the participant argued, *"even if you have the worst health as long as you are financially capable to support life, you can have a good quality of life"*.

When asked what factors affect both health and quality of life, common answers are lifestyle, food choices, vices, finances, stress, problems, environment, and education. One participant mentioned various factors in his answer:

“If you’re an alcoholic beverage drinker, it can affect your health, and quality of life too since you also need to finance your vices. Consequently, your finances can affect your other responsibilities like your children’s education, and raising your family”.

As for vices, a participant explained that *“one should avoid vices, excessive drinking, lack of sleep”* while another says *“taking care of one’s self and avoiding vices”* affect health and quality of life. Other answers mentioned affording basic needs, social interactions, and self-confidence.

Domains and Levels

The same FGD participants from across 6 languages were asked if they agreed with the domains included in the tool, almost all participants agree with the five domains. Common answers were: *“I agree with the domains”*, and *“I can’t think of any domain to add, so I already agree to those five domains”*.

There seemed to be a misunderstanding of the question when one participant in the Cebuano group answered: *“For me, depression should be removed because I hope I wouldn’t be depressed in the future, I don’t want to experience it”*. Hence the proponents clarified the question, and retrieved a different response: *“maybe it depends on the person’s problems”*. A differing opinion in the Hiligaynon group also surfaced as he said he doesn’t believe in depression, explaining that he had experienced losses in the family but he did not experience depression.

In the Bicolano group, one participant wanted to add socio-economic domain explaining that contributes to access to health. Social interactions as a domain was suggested by a participant in the same group: *“Maybe these can be added: how you relate to other people, how you make relationships and your standing in your community”*.

When asked about the levels used in the tool, majority agreed to the five levels. Responses were: *“I can define them better with five levels”*, and *“this provides us with options but are not too many to handle”*. One said *“I feel with three options it gives you just the none and extreme, plus the middle, it doesn’t cover others”*. Two participants in the Bicolano group said severe and extreme can be merged in some instances, for example in pain or discomfort. A few in other groups said they agree with less options as it is easier to answer, while some are indifferent to three or five levels.

Responses to Regression Data

The results of the 8-parameter heteroskedastic model was explained in the FGDs, explaining the relative weights or ranking of each domain on how they contribute to HRQoL. The Hiligaynon, Ilocano, and Waray group participants universally agree with the weighting, with one explaining that: *“I agree with mobility because it encompasses everything we need to do, so we can’t really lose mobility”*. A participant in the Bicolano group further elaborated his response on why mobility weighs more: *“mobility may mean ability to work, and this is important in the Philippine setting, as we Filipinos prioritize work above many other things”*. In the Filipino group, a similar response was heard: *“mobility is first because if you can’t move, you can’t take care of yourself, do usual activities, and these may lead to depression”*. In the Filipino and Bicolano groups, a few commented that the weighting might vary from person to person, citing personal experiences, circumstances, and situations. *“For example: in Marawi, if the study was conducted there, I guess anxiety and depression would be on top because their environment relates more to that domain”*, cites one participant explaining a situation in a city where a recent armed conflict crisis happened.

Less insight on the other domains was gathered from the participants, except when asked why they think anxiety and depression had the least weight, their answers were: *“maybe they are not well informed on what anxiety and depression is”*, or *“they may have experienced it but they did not recognize it”*. *“The elderly dismisses it as non-sense”* explains one from the Bicolano group, and *“depression brings about social stigma and Filipinos are ashamed of admitting they have depression for fear that they may be tagged as having a mental illness”*.

Opinion on Translated EQ-5D-5L tools

Appendix F shows the suggested translations for each translated tool in 6 languages. Lines enclosed in braces “()” were the original translations, while the lines immediately preceding the original translations were the suggested translations from the FGD participants.

Official Translations (Filipino, Cebuano, Hiligaynon)

For the Filipino translation, a few insights were taken. One is using the word “kaunti” instead of “bahagya” to represent the “slight” level. However, it was generally understood by the group that “kaunti” is less severe than “medyo”, pertaining to the moderate level. Another suggestion was the use of “pagkalumbay” may be more difficult to understand than “pagkalungkot” or sadness.

The Cebuano group suggested more changes. One, the use of “Aduna” instead of the more colloquial term “Naa ko’y” (meaning “I have”) is more acceptable, as “Aduna ko’y” is somewhat archaic and not used in everyday language. For the second level, the term “diutay” instead of “gamay” was suggested. Another suggestion, which should be done along with the previous one is to remove the adjective “igo-igo”, which also has varied translations such as “moderate”, “ambiguous”, or “ordinary” according to some in the group. Translating back to English, the third suggested level for mobility should mean “I have problems in walking about”. The fourth and fifth level severities for each domain are then already meaningful and acceptable in terms of discerning severity when the suggested translations for level 2 and 3.

Similar to the Cebuano group, the Hiligaynon group suggested that “diutay” instead of “gamay” is used for level 2. For Level 3, “husto” is preferred over “diutay”, which appears in the official Hiligaynon translation for level 3. Also, “grabi” instead of “grabe” was suggested for level 4.

Unofficial Translations (Ilokano, Bicolano, Waray)

For the Ilokano group, it was suggested that “usual activities” be translated as “kanayon ko nga ar aramiden” instead of “pinagtrabahok”, is accurate word-for-word. The term discomfort was preferred to be translated as “saan nga komportable” instead of “panaas” which may mean suffering according to some in the group. For the Anxiety or Depression domain, “danag ken ladingit” was suggested instead of only “managdandanag” which means anxiety.

For the Waray group, most translations were agreed on, except for levels 2 and 3, which according to the group should be swapped: hence, “igo-igo” should be level 3 and “gutaiy” should be level 3.

Same suggestions emerged from the Bicolano group, suggesting levels 2 and 3 should be swapped to correct the level progression.

5.2.5 Focused group discussion (FGD) with experts (n=11)

After retrieving cognitive understanding and perceptions from the 6 FGDs, the results were brought to an FGD with experts. Eleven (11) participants considered experts contributed to the discussion. The group was comprised of a medical anthropologist, physical therapist, social psychologist, sociologist, public health experts, pain specialist, aging scientist, and a dentist.

The FGD was facilitated using the guide questions as shown in Appendix E. During the discussion, additional questions and clarifications were raised.

Weighting of Dimensions of Health-Related Quality of Life

When asked for their opinion on the study findings related to the weighting of the dimensions of EQ-5D-5L: First, the experts wanted to gather more details as to the composition of the sample, such as: *“all samples recruited are healthy, but can the sample be disaggregated based on income, education, etc.”*. One said *“income is an important role as a confounding variable of study, because when you talk about mobility, access is there, ability to pay is there, so income as indicator, rural versus urban matters most.”*

A few suggested tying the quantitative results with the value systems in the Philippines. One explains *“Maybe mobility weighs more because of how we put value to constructs related to mobility.”* *“The explanation for the ranking or weighting is precluded by the demographic characteristic of the sample population.”* says another expert, reiterating the importance of presenting the sample demographics.

When asked on specific dimensions, there were various responses as to why anxiety and depression had the least weight among the domains. A reason is the low mental health awareness among Filipinos, says one participant. Translation may have contributed to the low weighting, as the translated words for anxiety/depression in Filipino pertains to emotional, rather than mental condition. Another suggested touse *“depression”* instead of a translated word to retain accuracy. Pain and discomfort was also highlighted as a domain. One pointed out that people have different levels of pain threshold, for example: Muslims were found to have high pain threshold.

The concept of “*hiyang*” was introduced by a participant. “Hiyang” is a phenomenon that has no known equivalent in other cultures or languages. It may pertain to familiarity, tradition, effectiveness, and compatibility of a concept with a person. A concept could be food, medicine, events, place, person, or practice.

Insignificantly different coefficients for slight and moderate levels

We asked why the coefficients obtained across all domains show no significant difference on slight and moderate scenario levels. A prevailing answer from the participants is that there is no precise translation of slight and moderate in Filipino. It is “*difficult to homogenize 100+ ethnolinguistic groups*”, partly explaining the differences in understanding of the concepts of translated words. Other word suggestions were brought up but no consensus was made. In addition to ethnolinguistic groups, the spectrum of options across cultures may vary. One provided an: in the English language, “here” pertains to a single Filipino word “*dito*”, but “there” can refer to “*diyan*” meaning “there, or yours” and “*doon*” meaning “there, not yours”.

The concept of dualism also emerged as another reason for the observation presented. “*Filipinos have a concept of dualism: black and white, hot and cold, and this is innate to Filipinos or Orientals, whereas spectrum of options are Western constructs.*” Midline results are also difficult to attain, with one participant reasoning that “relative values are not taught in child education, unlike in English language classes where words like “some” is taught to be less than “many”.

Differences observed in DCE1 and DCE2

The results of the DCE1 and DCE2 were presented to the participants, pointing out that the incremental increase in coefficient scores do not reflect rationally when respondents who initially answered in Cebuano an answer the same sets of valuation questions in Filipino. Figure 13(b) illustrates this result. One participant articulated:

“*Translation has bearing on the thought process. When Cebuano respondents answer in Filipino, they may translate it first in English then translate it in Filipino instead of translating it directly from Filipino to Cebuano, and some meanings are lost or have changed in the translation process*” and others agreed to this statement.

Concept of QoL and HRQoL

The FGD with six language groups, showed varied interpretations of health. To this expert FGD, one of the experts expressed that the participants may have used health and healthy interchangeably, and that *“they may associate health with the institution so access to health emerges in their responses as physical access to health facilities”*

As for the domains of health-related quality of life, the experts said that the domains may not encompass all relevant phenomenon in the Philippine setting. *“Social and psychological components, spiritual, and peace and conflict”* aspects may be lacking, according to some.

The group suggested to explore the responses of from the FGDs on their definition or understanding of QoL. One said “quality of life is abstract and may be difficult to grasp”, and it is important to frame quality of life as a neutral concept.

Other comments

One expert expressed discomfort to comment on the initial findings because they need to know the sample population better as they provide context. Another commented that study proponents should sufficiently explain and put context on the data that was gathered.

Anxiety and depression as domains may be difficult to communicate, said one expert. *“Depression may be easy to understand, but anxiety might be challenging, they may not be able to answer that”* she added.

Other activities that may have significant effects on quality of life are: *“sleeping, eating, and sexual activity”* said one expert, and asked: *“Which domain do these fall under?”*. The *“domains of quality of life are vast”* and that *“spiritual and sociopolitical domains should be included”*.

The imprecision of the selection for urban and rural areas was pointed out, where a data collection site close to urban cities was categorized as rural. Another commented that age brackets are wide, and suggested subgroups and appropriate comparisons be made. As for the translated tools, specifically for the Filipino, it was noted that the *“translations were academic and not contemporary Filipino”*, and these translations *“may not be fully understood especially of the demographic characteristics of the respondents.”* The translated word of “slight” in Filipino (i.e.

“bahagya”) is not used in everyday language, says another and suggested to be clear in using colloquial vs non colloquial.

The group commented that our results will provide the proponents feedback that EQ-5D-5L may not be a *“culturally-universal tool, so they might need to release a more culturally-sensitive tool”*.

General Recommendations for this Study

Construct validity may be improved by *“comparing data from Southeast Asian countries that use the software. Choose countries that have similar characteristics as the Philippines, archipelagic like Indonesia”* suggested one expert. Recommendations were also offered that we should consider cultural context (i.e. Hofstede’s cultural dimensions) in explaining the quantitative observations. In this context, Hofstede’s dimensions of national culture include: Power Distance Index, Individualism vs. Collectivism, Masculinity vs Femininity, Uncertainty Avoidance Index, Long Term Orientation vs. Short Term Normative Orientation, and Indulgence vs. Restraint (Hofstede et al. 2010). Hofstede’s developed a database of scores or indices per dimension in more than 70 countries, and the indices represent relative preferences of countries from each other.

Data-wise, the compositions of FGD participants are to be presented according to demographic characteristics. Cross tabulation of results may also aid in finding patterns in our data.

Recommendations for Future Studies

When asked about methodological acceptability, several suggested the creation of a new customized tool that reflects how health-related quality of life can be measured for Filipinos. One recommendation in the conduct of health valuation studies is to conduct a qualitative study first to generate the domains that capture the different cultures in the Philippines, followed by a *“quantitative study to collect valuation data, and then qualitative study again to triangulate data”*, and those comprise *“complementary or mixed-methods study”*.

In devising a new tool, Delphi method was a suggested methodology *on “how to go about measuring the value of health”*, by inviting experts like *“medical doctors,*

public health experts, social scientists, behavioral scientists, demographers, and linguists” to contribute in the development of the tool.

As for the valuation method, while a graded rule was used in the second page of the EQ-5D-5L, visuals or emoticons may improve gathered data, especially that the words may be confusing. Clarifying use of terminology was also iterated, such as using Filipino instead of Tagalog, and Hiligaynon instead of Ilonggo.

6. DISCUSSION

The study team modelled the valuation of EQ5D-5L health states using data from a purposive sample of Filipino adults. After running models, the 8 parameter heteroskedastic hybrid model was selected to generate the Philippine value set. This model was selected because it was able to demonstrate monotonicity or logical progression of coefficients (i.e. level 2 coefficient is lower than level 3 coefficient). Predicted values also demonstrated consistency with the mild health states having the lowest value and the most severe health states (e.g. 55555) had the highest values. Demographic variables when included in the regression were not found to be significant and was not included in the final model.

Previous valuation studies in the region used other models for their valuation. South Korea (Kim et al. 2016) used a variation of the TTO-only model while Japan (Shiroiwa et al., 2016), Hong Kong (Wong et al., 2017) and Indonesia (Purba et al., 2017) used the 20-parameter hybrid model. However, when the group tried using those models as well as the other available models, there were paradoxical coefficients such as mobility level 3 having coefficients lower than mobility level 2. The 8 parameter model was one of the new approaches to modeling EQ-5D valuation data and was first used on the China EQ-5D-5L valuation study (Luo et al., 2017). The advantage of this model is that it is parsimonious and in the case leads of this study, logical coefficients. The disadvantage is that as a constrained version, fit will theoretically be lower than the 20 parameter models usually used in valuation studies. Due to the non-normal distribution, bootstrapping techniques were used to generate 95% confidence intervals of the parameters obtained.

The survey was able to demonstrate that Filipinos value each domain differently. The modeling results suggest that mobility domain has the highest impact

on HRQOL, followed by the pain/discomfort, self-care, and usual activities, while anxiety/depression domain has the lowest impact. This was validated by the responses to the questions which domains were considered when they were doing the TTO and DCE. The FGD responses provided some insight as to reasons behind this emerging ranking. FGD respondents perceive mobility as a more encompassing domain covering other domains, with particular emphasis in going to work. Usual activities and self-care are greatly associated by the respondents to mobility. Interestingly, anxiety and depression is also encroached by mobility, with the respondents reasoning that not having mobility, resulting to inability to perform usual tasks and activities will give them anxiety and depression.

There are two possible explanations for the paradoxical coefficients. First, is that it is the true phenomenon wherein Filipinos may actually value EQ-5D level 2 and 3 equally. The second is that there may be a translation ambiguity that affected valuation. From the FGDs there are evidence on the ambiguity of translation, particularly in the Cebuano and Hiligaynon groups. The Cebuano group suggested using another translation for “slight”, while Hiligaynon group suggested swapping the translation used for “slight” with the one used for “moderate”, and translating “moderate” into a different word that fits in between slight and severe. These findings are consistent with information gathered from the expert FGDs, in that there is no precise translation of slight and moderate in Filipino, and plausibly in other Philippine languages as well. This language effect is also supported by the observations that there was low agreement between retest DCE results and that paradoxical decrements were observed if with the DCE model using the Filipino questions but not when the Cebuano questions were used.

If the second hypothesis was true, this suggests that there may be a need to review the translation and conduct another valuation using the revised translation. This also stresses the need to use the appropriate translation when using the tool for research. Even if truly present, the suggested effect of the language seems to be small and statistically not significant based on modeling results of the repeat DCE. In addition, as the goal was to obtain a representative valuation from Filipinos, this effect might have been mitigated due to the inclusion of well represented participants from all over the country.

This study has several limitations. The main one was the use of a purposive sample which may affect external validity and representativeness. The group tried to obtain a sample that is roughly equivalent to the national distribution for certain demographic factors. Our sample, however, excludes individuals who are illiterate. However this comprises only a minority of Filipinos (4.4%) (Philippine Statistics Authority, 2017).

Another limitation was that the valuation software was translated only to English, Filipino, and Cebuano. We have found evidence that there are some minor effects on valuation if there are language incompatibilities between the platform and the user. We tried to mitigate this effect by having testers who can speak the local languages as well as provided standardized translations of the health state. So far this has been the usual practice for valuations in studies that recruit participants that has a primary language that is different from the platform and the effect of this practice or alternatives to it has not been fully evaluated. Overall, however, the study protocol complied with the EQ-5D-5L valuation protocol and quality control process was implemented to ensure collection of minimal error data.

It should be noted that in the future use of the EQ-5D-5L, it will be best for each participant to complete the questionnaire in their first language to minimize the effect of different interpretation due to language. Further adaptation of the current Filipino and Cebuano version to other languages in the country is warranted.

7. CONCLUSION AND RECOMMENDATIONS FOR POLICY

This study was successful in estimating utility values for health states using EQ-5D-5L. An 8-parameter heteroskedastic hybrid model was deemed the appropriate mathematical model to use because it provides regression coefficients without inconsistencies.

The official translations of EQ-5D-5L in Filipino and Cebuano translations are acceptable tools in measuring health utility values, especially when the respondents know both languages and/or is assisted in taking the test. These efforts were noted to address valuation effects of using the translated versions of the tool. However, for self-administered EQ-5D-5L, a modified version incorporating recommendations below is preferred by the proponents.

Recommendations

The value set of health states under EQ-5D-5L in Philippines is now estimated, thus, cost-utility analyses may now be conducted using local health state values to estimate QALY changes due to interventions. This study paves way to conducting clinical and public health economic research involving specific diseases, treatments, and public health programs allowing for more meaningful comparison since a common unit of comparison – cost/QALY gained – may now be calculated. We therefore recommend that the top causes of morbidity and mortality for the Philippines be considered in the initial studies, evaluating cost-effectiveness of diagnostics and interventions.

We also recommend a full validation of the tool for self-administered use in the Philippines, including face validity and construct validity studies incorporating the suggestions of the experts in the FGDs. Concurrent validation with other generic preference-based measures such as SF-36 and Health Utilities Incorporated's Health Utility Index, or condition-specific preference-based measures may also be worthwhile endeavors in the future. To improve face and construct validity, we recommend a continued collaboration with EuroQoL in developing better translations.

Finally, we recommend that a database of studies using EQ-5D-5L be established to assist future researchers in the conduct of cost-utility studies particularly in estimating sample size and mathematical models used. This will serve as a repository of studies estimating QALYs for diseases and their interventions. A repository such as this, may be used by future researchers and policy makers to improve outcomes, especially in the conduct of cost-effectiveness and cost-utility studies, or health technology assessment studies

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Appendix A. Sampling Matrix for Choosing Respondents

Location: Urban

Reg	18-30 years old								31 to 50 years old								51 and above								TOTAL
	M	M	M	M	F	F	F	F	M	M	M	M	F	F	F	F	M	M	M	M	F	F	F	F	
	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	HS Undergraduate	HS Undergraduate	HS Graduate	HS Graduate	
	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	NHTS	Non-NHTS	
1	1	2	0	2	1	1	0	2	0	2	0	2	0	2	0	2	0	1	0	1	0	1	0	1	21
2	0	1	0	1	0	2	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	13
3	0	2	0	4	0	2	0	4	0	4	1	5	0	4	1	5	0	3	0	2	1	3	0	2	43
4a	0	3	0	6	1	3	0	6	0	5	0	7	0	5	0	7	0	4	0	3	1	4	0	3	58
4b	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	2	0	0	0	1	0	0	9
5	0	1	1	2	0	1	1	2	1	1	1	2	1	1	1	2	1	1	0	1	1	1	0	1	24
6	0	1	1	2	0	1	1	2	1	2	1	2	1	1	1	2	0	1	0	1	0	1	0	1	23
7	1	1	1	3	1	1	1	3	1	2	1	3	1	2	1	3	1	2	1	1	1	2	1	1	36
8	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	18
9	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	14
10	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	18
11	0	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2	1	1	0	1	0	1	0	1	21
12	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	18
13	0	0	1	1	0	0	1	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	10
ARMM	1	0	2	0	1	0	2	0	1	0	2	0	1	0	2	0	1	0	1	0	1	0	1	0	16
CAR	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	6
NCR	0	3	0	6	1	3	0	5	1	4	0	6	0	4	0	6	1	4	0	2	0	4	0	2	52
TOTAL	3	18	11	35	5	18	11	34	9	29	12	37	8	28	12	37	6	24	2	15	6	23	2	15	
GRAND TOTAL																									400

Location: Rural

Reg	18-30 years old								31 to 50 years old								51 and above								TOT AL
	M	M	M	M	F	F	F	F	M	M	M	M	F	F	F	F	M	M	M	M	F	F	F	F	
	HS Under gradu ate	HS Under gradu ate	HS Gradu ate	HS Gradu ate	HS Under gradu ate	HS Under gradu ate	HS Gradu ate	HS Gradu ate	HS Under gradu ate	HS Under gradu ate	HS Gradu ate	HS Gradu ate	HS Under gradu ate	HS Under gradu ate	HS Gradu ate	HS Gradua te	HS Unde rgradu ate	HS Under gradu ate	HS Gradu ate	HS Gradu ate	HS Under gradu ate	HS Under gradu ate	HS Gradu ate	HS Gradu ate	
	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHT S	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	NHTS	Non- NHTS	
1	0	2	0	3	0	1	0	3	0	2	1	3	0	2	1	3	0	2	0	1	0	4	0	1	29
2	0	1	0	2	0	2	0	2	0	2	0	2	1	1	0	2	0	2	0	1	1	1	0	1	21
3	0	3	1	7	0	3	1	7	1	5	1	8	1	5	1	7	0	5	0	3	0	4	0	3	66
4a	0	4	1	9	0	4	1	9	0	7	1	10	0	7	1	10	0	6	0	4	0	6	0	4	84
4b	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	0	1	18
5	1	1	1	3	1	1	1	3	1	2	1	3	1	2	1	3	1	2	0	1	1	2	0	1	34
6	1	1	1	3	1	1	1	3	1	2	1	3	1	2	1	3	1	2	0	1	1	2	0	1	34
7	1	2	2	4	1	2	2	4	1	3	2	5	1	3	2	5	1	3	1	2	1	3	1	2	54
8	0	1	1	2	0	1	1	2	1	2	1	2	1	2	1	2	1	1	0	1	1	1	0	1	26
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	22
10	1	1	1	2	1	1	1	2	1	1	2	2	1	1	2	2	2	1	1	1	1	1	1	1	31
11	0	1	1	2	0	1	1	2	1	2	1	3	1	2	1	3	1	2	0	1	1	2	0	1	30
12	1	1	1	2	0	1	1	2	1	2	1	2	1	2	1	2	1	1	0	1	1	1	0	1	27
13	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	16
ARMM	1	0	2	0	1	0	2	0	2	0	3	0	2	0	3	0	2	0	1	0	2	0	1	0	22
CAR	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	1	1	1	0	0	1	1	0	0	10
NCR	1	4	0	8	0	4	0	8	0	7	0	9	0	7	0	9	0	6	0	4	0	6	0	3	76
TOTAL	9	24	15	51	6	24	15	51	13	41	18	56	13	40	18	55	13	37	3	23	13	37	3	22	
GRAND TOTAL																									600

Appendix B. Sample EQ-5D-5L Questionnaire

English Version

<p>Under each heading, please tick the ONE box that best describes your health TODAY.</p> <p>MOBILITY</p> <p>I have no problems in walking about <input type="checkbox"/></p> <p>I have slight problems in walking about <input type="checkbox"/></p> <p>I have moderate problems in walking about <input type="checkbox"/></p> <p>I have severe problems in walking about <input type="checkbox"/></p> <p>I am unable to walk about <input type="checkbox"/></p> <p>SELF-CARE</p> <p>I have no problems washing or dressing myself <input type="checkbox"/></p> <p>I have slight problems washing or dressing myself <input type="checkbox"/></p> <p>I have moderate problems washing or dressing myself <input type="checkbox"/></p> <p>I have severe problems washing or dressing myself <input type="checkbox"/></p> <p>I am unable to wash or dress myself <input type="checkbox"/></p> <p>USUAL ACTIVITIES (e.g., work, study, housework, family or leisure activities)</p> <p>I have no problems doing my usual activities <input type="checkbox"/></p> <p>I have slight problems doing my usual activities <input type="checkbox"/></p> <p>I have moderate problems doing my usual activities <input type="checkbox"/></p> <p>I have severe problems doing my usual activities <input type="checkbox"/></p> <p>I am unable to do my usual activities <input type="checkbox"/></p> <p>PAIN/DISCOMFORT</p> <p>I have no pain or discomfort <input type="checkbox"/></p> <p>I have slight pain or discomfort <input type="checkbox"/></p> <p>I have moderate pain or discomfort <input type="checkbox"/></p> <p>I have severe pain or discomfort <input type="checkbox"/></p> <p>I have extreme pain or discomfort <input type="checkbox"/></p> <p>ANXIETY/DEPRESSION</p> <p>I am not anxious or depressed <input type="checkbox"/></p> <p>I am slightly anxious or depressed <input type="checkbox"/></p> <p>I am moderately anxious or depressed <input type="checkbox"/></p> <p>I am very anxious or depressed <input type="checkbox"/></p> <p>I am extremely anxious or depressed <input type="checkbox"/></p>	<div style="text-align: right;">The best health you can imagine</div> <div style="text-align: right;">100</div> <div style="text-align: right;">95</div> <div style="text-align: right;">90</div> <div style="text-align: right;">85</div> <div style="text-align: right;">80</div> <div style="text-align: right;">75</div> <div style="text-align: right;">70</div> <div style="text-align: right;">65</div> <div style="text-align: right;">60</div> <div style="text-align: right;">55</div> <div style="text-align: right;">50</div> <div style="text-align: right;">45</div> <div style="text-align: right;">40</div> <div style="text-align: right;">35</div> <div style="text-align: right;">30</div> <div style="text-align: right;">25</div> <div style="text-align: right;">20</div> <div style="text-align: right;">15</div> <div style="text-align: right;">10</div> <div style="text-align: right;">5</div> <div style="text-align: right;">0</div> <div style="text-align: left;">The worst health you can imagine</div> <p>1. We like to know how is your health today.</p> <p>2. This scale is marked from 0 to 100.</p> <p>3. 100 means the best health you can imagine. 0 means the worst health you can imagine.</p> <p>4. Mark an X on the scale to indicate how is your health today.</p> <p>5. Now, please note the number you marked on the scale in the box below.</p> <p style="text-align: center;">Your Health Today = <input style="width: 40px; height: 30px; border: 1px solid black;" type="text"/></p>
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Filipino Version

Sa ilalim ng bawat paksa, paki-tsek ang ISANG kahon na pinakamagandang maglalarawan sa iyong kalusugan sa ARAW NA ITO.

PAGGALAW O PAGKILOS

- Wala akong problema sa paglalakad-lakad ☐
- May bahagya akong mga problema sa paglalakad-lakad ☐
- Medyo may mga problema ako sa paglalakad-lakad ☐
- May mga matindi akong problema sa paglalakad-lakad ☐
- Hindi ako nakakapaglakad-lakad ☐

PANGANGALAGA SA SARILI

- Wala akong problema sa paliligo o pagsusuot ng damit ☐
- May mga bahagya akong problema sa paliligo o pagsusuot ng damit ☐
- Medyo may mga problema ako sa paliligo o pagsusuot ng damit ☐
- May mga matitindi akong problema sa paliligo o pagsusuot ng damit ☐
- Hindi ko kaya ang paliligo o pagsusuot ng damit ☐

MGA KARANIWANG GAWAIN *(hal.: mga aktibidad sa trabaho, pag-aaral, gawain sa bahay, pamilya o libangan)*

- Wala akong problema sa paggawa ng aking mga karaniwang gawain ☐
- May mga bahagya akong problema sa paggawa ng aking mga karaniwang gawain ☐
- Medyo may mga problema ako sa paggawa ng aking mga karaniwang gawain ☐
- May matitindi akong mga problema sa paggawa ng aking mga karaniwang gawain ☐
- Hindi ko kayang gawin ang aking mga karaniwang gawain ☐

PISIKAL NA SAKIT O KIROT / PAGIGING DI-KOMPORTABLE

- Wala akong nararamdamang pisikal na sakit o kirot o pagiging di-komportable ☐
- May nararamdaman akong bahagyang pisikal na sakit o kirot o pagiging di-komportable ☐
- Medyo may nararamdaman akong sakit o kirot o pagiging di-komportable ☐
- May nararamdaman akong matinding sakit o kirot o pagiging di-komportable ☐
- May nararamdaman akong labis na sakit o kirot o pagiging di-komportable ☐

PAGKABAHALA / PAGKALUMBAY

- Hindi ako nababahala o nalulumbay ☐
- Ako ay bahagyang nababahala o nalulumbay ☐
- Ako ay medyo nababahala o nalulumbay ☐
- Ako ay masyadong nababahala o nalulumbay ☐
- Ako ay labis na nababahala o nalulumbay ☐

Pinakamabuting
kalusugan na kayang
maabot ng isipan mo

Gusto naming malaman kung gaano kabuti o kasamâ ang iyong kalusugan sa ARAW NA ITO.

Ang iskalang ito ay nalagyan ng numero simula 0 hanggang 100.

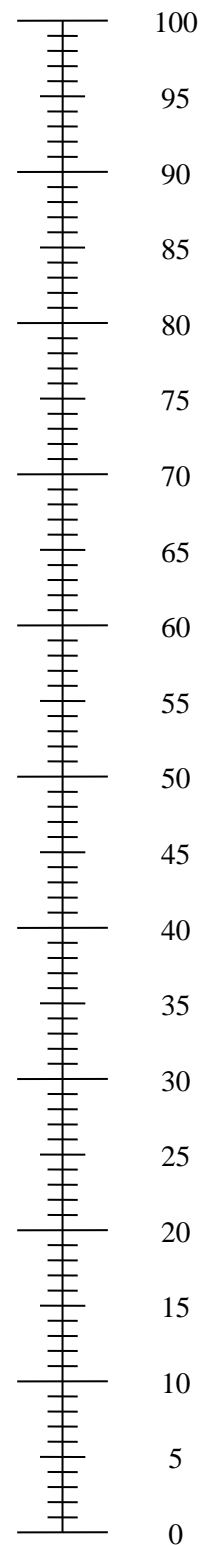
Ang 100 ay nangangahulugan ng pinakamabuting kalusugan na iyong maiisip.

Ang 0 ay nangangahulugan ng pinakamasamang kalusugan na iyong maiisip.

Markahan ng X ang iskala upang ipakita ang katayuan ng iyong kalusugan sa ARAW NA ITO.

Ngayon, pakisulat sa kahon sa ibaba ang numerong iyong minarkahan sa iskala.

ANG IYONG KALUSUGAN SA ARAW NA ITO =



Pinakamasamang
kalusugan na kayang
maabot ng isipan mo

Cebuano Version

Palihug markahi ang usa ka kahon, sa kada ulohan sa ubos, nga kinamaayohang nagsaysay sa imong panglawas KARONG ADLAWA.

PAGLIHUK-LIHUK

- Wala koy mga problema sa paglakaw-lakaw ☐
- Aduna koy gamay nga mga problema sa paglakaw-lakaw ☐
- Aduna koy igoigo ra nga mga problema sa paglakaw-lakaw ☐
- Aduna koy grabi nga mga problema sa paglakaw-lakaw ☐
- Dili ko makalakaw-lakaw ☐

PAG-ATIMAN SA KAUGALINGON

- Wala koy problema sa pagkaligo o pag-ilis sa akong kaugalingon ☐
- Aduna koy gamay nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon ☐
- Aduna koy igoigo ra nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon ☐
- Aduna koy grabi nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon ☐
- Dili ko makahugas ug makailis sa akong kaugalingon ☐

NAANDAN NGA MGA BULUHATON *(sama sa panarbaho, pagtuon, buluhaton sa panimalay, pamilya o panglingaw-lingaw)*

- Wala koy mga problema sa pagbuhat sa mga naandan na nakong mga buluhaton ☐
- Aduna koy gamay nga mga problema sa pagbuhat sa mga naandan na nakong mga buluhaton ☐
- Aduna koy igoigo ra nga mga problema sa pagbuhat sa akong mga naandan nga mga buluhaton ☐
- Aduna koy grabi nga mga problema sa pagbuhat sa akong mga naandan nga mga buluhaton ☐
- Dili ko makabuhat sa akong naandan na nga mga buluhaton ☐

PANAKIT / KAHASOL SA KALAWASAN

- Wala koy gibati nga panakit o kahasol sa kalawasan ☐
- Aduna koy gamay nga panakit o kahasol sa kalawasan ☐
- Aduna koy igoigo ra nga panakit o kahasol sa kalawasan ☐
- Aduna koy grabi nga panakit o kahasol sa kalawasan ☐
- Aduna koy labihang panakit o kahasol sa kalawasan ☐

KABALAKA / KAGUOL

- Wala ko nabalaka o maguol ☐
- Nabalaka o naguol ko gamay ☐
- Igoigo ra ang akong pagkabalaka o pagkaguol ☐
- Gabi ang akong pagkabalaka o pagkaguol ☐
- Gabi kaayo ang akong pagkabalaka o pagkaguol ☐

Gusto namong mahibaw-an kung unsa kamaayo o kadaut ang imong panglawas KARONG ADLAWA.

Kini nga suklanan gi-numirohan gikan sa 0 ngadto sa 100.

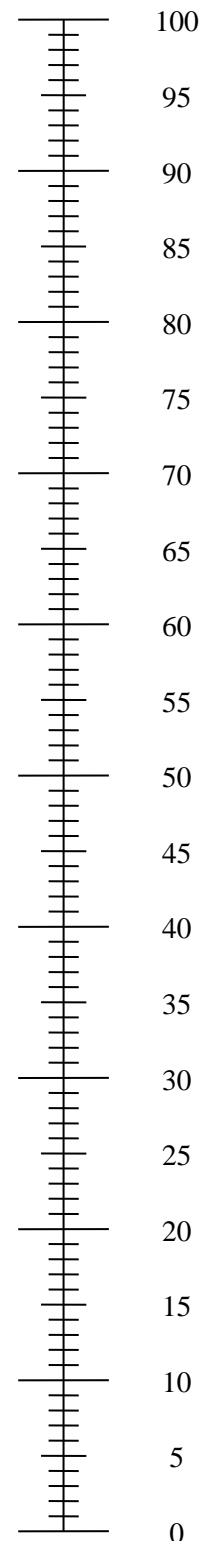
Ang 100 nagpasabot sa kinamaayohan nga panglawas nga mahunahuna nimo.

Ang 0 nagpasabot sa kinadautan nga panglawas nga mahunahuna nimo.

Pagmarka ug X sa mga linya sa suklanan aron ipasabot kung unsa ang imong panglawas karong ADLAWA.

Karon, palihug isulat ang numero nga imong gimarkahan sa suklanan diha sa kahon sa ubos.

ANG IMONG PANGLAWAS KARONG ADLAWA =



Kinadautan nga
panglawas nga
imong
mahunahunaan

Hiligaynon Version

Sa idalum sang kada heading, palihog tsek sang ISA ka box nga pinakamaayo nga nagalaragway sang imo ikaayong-lawas SUBONG NGA ADLAW.

MOBILIDAD / PANGHULAG

- Wala ako sang mga problema sa paglakat-lakat ☐
- May diutay ako nga mga problema sa paglakat-lakat ☐
- May husto ako nga mga problema sa paglakat-lakat ☐
- May grabe ako nga mga problema sa paglakat-lakat ☐
- Indi ako makasarang maglakat-lakat ☐

KAUGALINGON NGA PAGTATAP

- Wala ako sang mga problema sa pagpanghugas ukon pag-ilis ☐
- May diutay ako nga mga problema sa pagpanghugas ukon pag-ilis ☐
- May husto ako nga mga problema sa pagpanghugas ukon pag-ilis ☐
- May grabe ako nga mga problema sa pagpanghugas ukon pag-ilis ☐
- Indi ako makasarang manghugas ukon mag-ilis ☐

NAKAANDAN NGA AKTIBIDADES *(pareho sang obra, pagtuon, obra sa balay, pamilya ukon pangkalingawan nga aktibidades)*

- Wala ako sang mga problema sa paghimo sang akon nakaandan nga aktibidades ☐
- May diutay ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades ☐
- May husto ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades ☐
- May grabe ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades ☐
- Indi ako makasarang maghimo sang akon nakaandan nga aktibidades ☐

SAKIT / GINABATYAG SA KALAWASAN

- Wala ako sang sakit ukon ginabatyag sa kalawasan ☐
- May diutay ako nga sakit ukon ginabatyag sa kalawasan ☐
- May husto lang ako nga sakit ukon ginabatyag sa kalawasan ☐
- May grabe ako nga sakit ukon ginabatyag sa kalawasan ☐
- May grabe gid ako nga sakit ukon ginabatyag sa kalawasan ☐

INDI-PAGKAHAMTANG / DEPRESYON

- Wala ako sang indi-pagkahamtang ukon depresyon ☐
- May diutay ako nga indi-pagkahamtang ukon depresyon ☐
- May husto lang ako nga indi-pagkahamtang ukon depresyon ☐
- May grabe ako nga indi-pagkahamtang ukon depresyon ☐
- May grabe gid ako nga indi-pagkahamtang ukon depresyon ☐

Gusto namon mahibalan kon ano ka maayo ukon ka malain ang imo ikaayong-lawas SUBONG NGA ADLAW.

Ang ini nga eskala may numero halin sa 0 hasta sa 100.

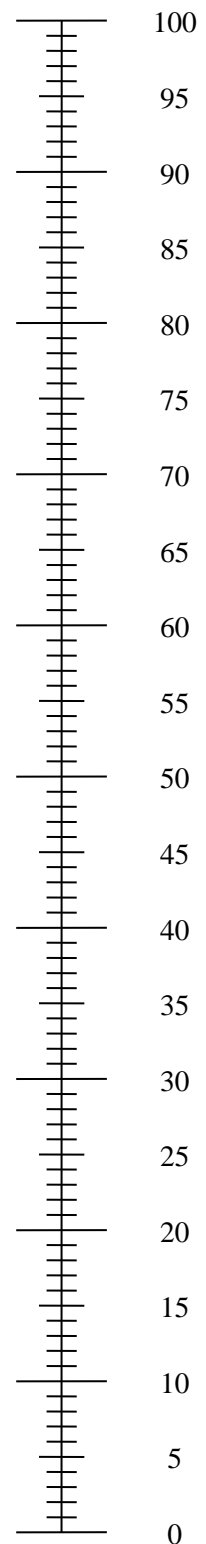
Ang 100 nagakahulugan nga pinakamaayo nga ikaayong-lawas nga imo mapensar.

Ang 0 nagakahulugan nga pinakamalain nga ikaayong-lawas nga imo mapensar.

Markahi sang X ang eskala sa pagpakita kon ano ang imo ikaayong-lawas SUBONG NGA ADLAW.

Karon, palihog sulat sang numero nga imo namarkahan sa eskala sa box sa idalum.

ANG IMO IKAAYONG-LAWAS
SUBONG NGA ADLAW =



Ang pinakamalain nga estado sang ikaayong-lawas nga imo mapensar

Country Questions

Respondent will be asked to choose between two states. Once a choice is made, the next pair will appear.

1. Additional questions in program

- i) At the time of your birth, did your mother usually live in a city, in a town property/poblacion, in the barrio or rural area, or abroad?

CITY	1
TOWN PROPER/POBLACION	2
BARRIO/RURAL AREA	3
ABROAD	4
DON'T KNOW	5

- ii) As of this moment, do you live in a city, in a town property/poblacion, in the barrio or rural area, or abroad?

CITY	1
TOWN PROPER/POBLACION	2
BARRIO/RURAL AREA	3
ABROAD	4

- iii) In what month and year were you born?

MONTH	_____
YEAR	_____

- iv) How old are you now?

AGE	_____
-----	-------

- v) As stated in your birth certificate, your sex is?

MALE	_____
FEMALE	_____

- vi) Which gender do you identify yourself with?

MALE	1
FEMALE	2
TRANSGENDER	3
OTHERS (PLEASE SPECIFY)	_____

- vii) What is your marital status now?

UNMARRIED	1
-----------	---

MARRIED	2
SEPARATED	3
DIVORCED	4
WIDOWED	5
OTHERS (PLEASE SPECIFY)	_____

viii) Have you ever attended school?

YES	1
NO	2

ix) What is your highest educational attainment (Indicate grade/year)?

N/A	1
ELEMENTARY SCHOOL GRADUATE	2
HIGH SCHOOL GRADUATE	3
VOCATIONAL SCHOOL CERTIFICATE HOLDER	4
COLLEGE GRADUATE	5
PROFESSIONAL DEGREE GRADUATE (MD, JD, etc.)	6
POST GRADUATE STUDIES (MA, MSc, PhD)	7
HIGHEST GRADE/YEAR COMPLETED	_____

x) Which of the answers below suit your current professional status best (check all that apply).

EMPLOYED/SELF-EMPLOYED	1
UNEMPLOYED (ABLE TO WORK)	2
UNEMPLOYED (UNABLE TO WORK)	3
STUDENT (FULL-TIME)	4
STUDENT (PART-TIME)	5
HOMEMAKER	6
RETIRED PERSON	7
OTHERS (PLEASE SPECIFY)	_____

xi) Are you included in the list by the National Household Targeting System, or a member of the *Pantawid Pamilyang Pilipino Program*?

YES	1
NO	2

xii) What is your average monthly income of your household?

0 to PhP 5,000	1
PhP 5,001 to 16,000	2
PhP 16,001 to 50,000	3
PhP 50,001 to 155,000	4
> PhP 155,001	5

xiii) If you would lose all salaries/earning, your savings would cover the period of:

I DO NOT HAVE ANY SAVINGS	1
NOT MORE THAN 3 MONTHS	2
NOT MORE THAN A YEAR	3
A FEW YEARS	4
TIL THE END OF LIFE	5

xiv) Do you consider yourself a religious person?

YES	1
NO	2

xv) What is your religion?

ROMAN CATHOLIC	1
PROTESTANT	2
IGLESIA NI KRISTO	3
AGLIPAY	4
ISLAM	5
AGNOSTIC	6
OTHERS (PLEASE SPECIFY)	_____

xvi) How often do you participate in mass/worship or other religious meetings?

MORE THAN ONCE A WEEK	1
AT LEAST ONCE A WEEK	2
AT LEAST ONCE A MONTH	3
A FEW TIMES A YEAR	4
NEVER OR PRACTICALLY NEVER	5

xvii) How many people in total (including yourself) occupy your house?

SPECIFY _____

xviii) Do you believe there is an afterlife?

STRONGLY DISAGREE	1
DISAGREE	2
AGREE	3
STRONGLY AGREE	4

xix) To which Socio-Linguistic group do you identify yourself with?

TAGALOG	1
CEBUANO	2
ILOCANO	3
HILIGAYNON	4
BICOLANO	5
WARAY	6
KAPAMPANGAN	7
PANGASINAN	8
OTHERS (PLEASE SPECIFY)	_____

xx) How well can you speak the following languages?

I DON'T SPEAK THIS LANGUAGE AT ALL	KNOW SOME VOCABULARY, BUT CAN'T SPEAK IN SENTENCES	NOT VERY WELL: KNOW A LOT OF WORDS AND PHRASES BUT HAVE DIFFICULTIES COMMUNICATING	SOMEWHAT FLUENTLY; CAN MAKE MYSELF UNDERSTOOD BUT HAVE SOME PROBLEMS WITH IT	FLUENTLY
--	--	---	--	----------

ENGLISH

TAGALOG

CEBUANO

ILOCANO

HILIGAYNON

BICOLANO

WARAY

KAPAMPANGAN

PANGASINAN

xxi) How well do you estimate that you can understand the language?

	NOT AT ALL	UNDERSTAND SOME WORDS AND PHRASES ONLY	UNDERSTAND MOST OF A CONVERSATION, BUT NOT COMPLETELY	VERY WELL; UNDERSTAND EVERYTHING SOMEONE SAYS TO ME
ENGLISH				
TAGALOG				
CEBUANO				
ILOCANO				
HILIGAYNON				
BICOLANO				
WARAY				
KAPAMPANGAN				
PANGASINAN				

xxii) When you compared different lengths of Life A and Life B a moment ago, which of the following aspect(s) did you actually consider when you decided your answers?
(Select all that applies)

MOBILITY	1
SELF-CARE	2
USUAL ACTIVITIES	3
PAIN / DISCOMFORT	4
ANXIETY / DEPRESSION	5

xxiii) When you compared health states A and B a moment ago, which of the following aspect(s) did you actually consider when you decided your answers? (Select all that applies)

MOBILITY	1
SELF-CARE	2
USUAL ACTIVITIES	3
PAIN / DISCOMFORT	4
ANXIETY / DEPRESSION	5

xxiv) Do you currently have a disease that has been diagnosed by a doctor or any health professional?

YES	1
NO	2
IF YES, PLEASE SPECIFY _____	

xxv) How do you rate your current health, overall? (Choose one option)

VERY GOOD	1
GOOD	2
FAIR	3
BAD	4
VERY BAD	5

xxvi) Which is more important to you? (Choose one only)

A HEALTHY LIFE, REGARDLESS OF ITS TIME	1
A LONG LIFE, REGARDLESS OF ITS QUALITY	2
I CAN'T ANSWER. IT DEPENDS	3

xxvii) If you were to suffer from a serious disease, what would be your major concern?
(Choose one only)

I CANNOT CONTINUE TO ENJOY LIFE	1
I CANNOT ACHIEVE MY PLAN FOR FUTURE	2
I WILL SUFFER FROM THE DISEASE	3
I WILL LOSE MY JOB OR ABILITY TO WORK	4
I CANNOT AFFORD TO PAY MEDICAL BILL	5
I CAN NO LONGER TAKE CARE OF MY FAMILY	6
NOBODY WILL TAKE CARE OF ME	7
OTHERS (PLEASE SPECIFY)	_____

xxviii) What is the thing that bothers you most now? (Choose one only)

CHRONIC DISEASE(S) OR OTHER HEALTH ISSUES	1
LACK OF CLEAN ENVIRONMENT	2
FINANCIAL ISSUES TO SUPPORT FAMILY	3
UNSAFE LIVING AREA	4
OTHERS (PLEASE SPECIFY)	_____

Appendix C. METHODS OF RECRUITMENT

AREA	INTERVIEW SET UP
Area 1 - Candon, Ilocos Sur	The interviews were conducted in the barangay hall and in the participants' residences during house to house visits. The Barangay Health Worker (BHW) assisted with the interviews.
Area 1 - San Esteban, Ilocos Sur	The councilor identified respondents based on the inclusion criteria and accompanied the team for the house to house interviews.
Area 1 - Tuguegarao, Cagayan Valley	The City Health Officer assigned the local enumerators into 3 different barangay clusters. The BHW helped conduct the house to house interviews and assisted with interviews done in the barangay hall.
Area 1 - Solana, Cagayan Valley	The local enumerators recruited the participants for the study. Interviews were conducted at the Regional Health Unit.
Area 1 - Balanga, Bataan	Respondents were identified by the BHWs based on the inclusion criteria. The BHWs also accompanied the research team during the house to house interviews.
Area 1 - Morong, Bataan	
Area 1 - Bacoor, Cavite	Based on the inclusion criteria, the BHWs identified the study respondents. House to house interviews were conducted with the help of BHWs.
Area 1 - Kawit, Cavite	
Area 1 - Tabuk, Kalinga	The City Health Officer recruited the respondents for the study. The interviews were done in the city health office.
Area 1 - Tinglayan, Kalinga	The BHWs identified the respondents based on the inclusion criteria and accompanied the team for the house to house interviews.
Area 2 - Marikina City	The interviews were conducted at Tanong Brgy. Hall.
Area 2 - Pateros	Interviews were done at San Pedro Brgy. Hall with the assistance of Brgy. Officials. Some were done through house to house visits.
Area 2 - Roxas City	The interviews were conducted at Poblacion Brgy. Hall with the help of BHWs.
Area 2 - Dumarao	The interviews were conducted at Bungsuan Brgy. Hall with the help of BHWs.
Area 2 - Bongabong	The interviews were conducted at Poblacion Feeding Center with the help of BHWs.
Area 2 - Calapan City	The interviews were conducted at the Brgy. Hall with the help of the head BHW.
Area 2 - Naga City	The interviews were conducted at Concepcion Pequena Brgy. Hall with the help of BHWs.
Area 2 - Bombon	The interviews were conducted at San Jose Brgy. Hall with the help of BHWs.
Area 2 - Calbayog City	The interviews were conducted at Matobato Brgy. Hall with the help of BHWs.
Area 2 - Tarangnan	The interviews were conducted at Tigdaranao Brgy. Hall with the help of barangay officials.

AREA	INTERVIEW SET UP
Area 3 - Tagbilaran, Bohol	The supervisor recruited the respondents and interviews were conducted in the Barangay Hall and during house to house visits.
Area 3 - President Carlos P. Garcia (Pitogo), Bohol	The supervisor and local enumerators recruited the respondents and interviews were conducted in the barangay hall and during house to house visits.
AREA 3 - Dapitan, Zamboanga Del Norte	The supervisor assisted by the BHWs recruited the respondents. Interviews were conducted in the barangay hall.
AREA 3 - Katipunan, Zamboanga Del Norte	The supervisor assisted by the BHWs recruited the respondents. The interviews were conducted in the barangay hall.
Area 3 - Zamboanga City	The supervisor assisted by the BHWs recruited the respondents. The interviews were conducted in the barangay hall.
Area 3 - Bonggao, Tawi Tawi	The supervisor assisted by the BHWs recruited the respondents. Interviews were conducted in the barangay hall.
Area 3 - Valencia, Bukidnon	The supervisor assisted by the BHWs recruited the respondents. Interviews were conducted in the Barangay Health Center.
Area 3 - Malitbog, Bukidnon	The team assisted by the BHWs recruited the respondents. Interviews were conducted in the barangay hall.
Area 3 - Kidapawan, North Cotabato	The supervisor recruited respondents with the help of BHWs. Interviews were conducted in one of the respondent's house.
Area 3 - Antipas, North Cotabato	The supervisor recruited respondents with the help of BHWs. Interviews were conducted in the barangay hall.
AREA 3 - Tagum, Davao Del Norte	The supervisor recruited respondents with the help of BHWs. Interviews were conducted in the barangay hall.
AREA 3 - Sto. Tomas, Davao Del Norte	The supervisor recruited respondents with the help of head nurse. Interviews were conducted in the Municipal Area (ABC Hall).
AREA 3 - Bislig, Surigao Del Sur	The supervisor recruited respondents with the help of barangay secretary. Interviews were conducted in the barangay hall.
AREA 3 - Cantillan, Surigao Del Sur	The supervisor recruited respondents with the help of MHO personnel and midwife. The interviews were conducted in CHO and Health Center.

Appendix D. RESPONDENTS WHO REFUSED TO PARTICIPATE

AREA	# of respondent s who refused	Reasons for Refusal
Area 1 - Candon, Ilocos Sur	2	Interview is too long
Area 1 - Solana, Cagayan Valley	5	Interview is too long
Area 1 - Balanga, Bataan	1	Interview is too long
Area 1 – Morong, Bataan	4	Interview is too long
Area 1 - Bacoor, Cavite	2	Interview is too long
Area 1 - Kawit, Cavite	6	Interview is too long
Area 2 - Marikina City	1	Just got out of work;was not feeling well.
Area 2 - Pateros	1	The respondent felt that he had more important things to do
Area 2 - Bongabong	1	Did not want to disclose anything about himself
Area 2 - Calapan City	1	The respondent was busy and did not have time to spare
Area 2 - Naga City	1	Interview is too long
Area 2 - Calbayog City	1	Feared that he may not be able to answer the questions adequately
Area 2 - Tarangnan	1	The interview is too long
Area 3 - Tagbilaran, Bohol	2	The interview is too long
Area 3 - President Carlos P. Garcia (Pitogo), Bohol	4	The interview is too long
AREA 3 - Dapitan, Zamboanga Del Norte	1	The interview is too long
Area 3 - Zamboanga City	1	The respondent felt that the interview is for the recruitment of Abusayaf (militant group). Despite thorough explanation, the respondent still refused to participate.
Area 3 - Valencia, Bukidnon	3	The interview is too long
Area 3 - Kidapawan, North Cotabato	2	The interview is too long
Area 3 - Antipas, North Cotabato	2	The interview is too long
Area 3 - Sto. Tomas, Davao Del Norte	3	The interview is too long
Area 3 - Cantillan, Surigao Del Sur	3	The interview is too long
Total Refused	48	

Appendix E. Suggested Translations for EQ-5D-5L Questionnaire

Filipino Version

Sa ilalim ng bawat paksa, paki-tsek ang ISANG kahon na pinakamagandang maglalarawan sa iyong kalusugan sa ARAW NA ITO.

PAGGALAW O PAGKILOS

Wala akong problema sa paglalakad-lakad ☐

May kaunti akong mga problema sa paglalakad-lakad
(May bahagya akong problema sa paglalakad-lakad) ☐

Medyo may mga problema ako sa paglalakad-lakad ☐

May mga matindi akong problema sa paglalakad-lakad ☐

Hindi ako nakakapaglakad-lakad ☐

PANGANGALAGA SA SARILI

Wala akong problema sa paliligo o pagsusuot ng damit ☐

May mga kaunti akong problema sa paliligo o pagsusuot ng damit
(May mga bahagya akong problema sa paliligo o pagsusuot ng damit) ☐

Medyo may mga problema ako sa paliligo o pagsusuot ng damit ☐

May mga matitindi akong problema sa paliligo o pagsusuot ng damit ☐

Hindi ko kaya ang paliligo o pagsusuot ng damit ☐

MGA KARANIWANG GAWAIN (*hal.: mga aktibidad sa trabaho, pag-aaral, gawain sa bahay, pamilya o libangan*)

Wala akong problema sa paggawa ng aking mga karaniwang gawain ☐

May mga kaunti akong problema sa paggawa ng aking mga karaniwang gawain
(May mga bahagya akong problema sa paggawa ng aking mga karaniwang gawain) ☐

Medyo may mga problema ako sa paggawa ng aking mga karaniwang gawain ☐

May matitindi akong mga problema sa paggawa ng aking mga karaniwang gawain ☐

Hindi ko kayang gawin ang aking mga karaniwang gawain ☐

PISIKAL NA SAKIT O KIROT / PAGIGING DI-KOMPORTABLE

Wala akong nararamdamang pisikal na sakit o kirot o pagiging di-komportable ☐

May nararamdaman akong kaunting pisikal na sakit o kirot o pagiging di-komportable
(May nararamdaman akong bahagyang pisikal na sakit o kirot o pagiging di-komportable) ☐

Medyo may nararamdaman akong sakit o kirot o pagiging di-komportable ☐

May nararamdaman akong matinding sakit o kirot o pagiging di-komportable ☐

May nararamdaman akong labis na sakit o kirot o pagiging di-komportable ☐

PAGKABAHALA / PAGKALUMBAY

- Hindi ako nababahala o nalulumbay ☐
- Ako ay nababahala o nalulumbay ng kaunti ☐
- (Ako ay bahagyang nababahala o nalulumbay) ☐
- Ako ay medyo nababahala o nalulumbay ☐
- Ako ay masyadong nababahala o nalulumbay ☐
- Ako ay labis na nababahala o nalulumbay ☐

Cebuano Version

Palihug markahi ang usa ka kahon, sa kada ulohan sa ubos, nga kinamaayohang nagsaysay sa imong panglawas KARONG ADLAWA.

PAGLIHUK-LIHUK

Wala koy mga problema sa paglakaw-lakaw

(Wala koy mga problema sa paglakaw-lakaw)

☐

Naa koy diutay nga mga problema sa paglakaw-lakaw

(Aduna koy gamay nga mga problema sa paglakaw-lakaw)

☐

Naa koy mga problema sa paglakaw-lakaw

(Aduna koy igoigo ra nga mga problema sa paglakaw-lakaw)

☐

Naa koy grabi nga mga problema sa paglakaw-lakaw

(Aduna koy grabi nga mga problema sa paglakaw-lakaw)

☐

Dili ko makalakaw-lakaw

(Dili ko makalakaw-lakaw)

☐

PAG-ATIMAN SA KAUGALINGON

Wala koy problema sa pagkaligo ug pag-ilis

(Wala koy problema sa pagkaligo o pag-ilis sa akong kaugalingon)

☐

Naa koy gamay nga mga problema sa pagkaligo ug pag-ilis

(Aduna koy gamay nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon)

☐

Naa koy mga problema sa pagkaligo ug pag-ilis

(Aduna koy igoigo ra nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon)

☐

Naa koy grabi nga mga problema sa pagkaligo ug pag-ilis

(Aduna koy grabi nga mga problema sa pagkaligo o pag-ilis sa akong kaugalingon)

☐

Dili ko makahugas ug makailis

(Dili ko makahugas ug makailis sa akong kaugalingon)

☐

NAANDAN NG MGA BULUHATON (*sama sa panarbaho, pagtuon, buluhaton sa panimalay, pamilya o panglingaw-lingaw*)

Wala koy mga problema sa pagbuhat ug mga naandan nakong mga buluhaton

(Wala koy mga problema sa pagbuhat sa mga naandan na nakong mga buluhaton)

☐

Naa koy gamay nga mga problema sa pagbuhat sa mga naandan nakong mga buluhaton

(Aduna koy gamay nga mga problema sa pagbuhat sa mga naandan na nakong mga buluhaton)

☐

Naa koy mga problema sa pagbuhat ug mga naandan nakong mga buluhaton

(Aduna koy igoigo ra nga mga problema sa pagbuhat sa akong mga naandan nga mga buluhaton)

☐

Naa koy grabi nga mga problema sa pagbuhat ug mga naandan nakong mga buluhaton

(Aduna koy grabi nga mga problema sa pagbuhat sa akong mga naandan nga mga buluhaton)

☐

Dili nako makabuhay sa akong mga naandan nga mga buluhaton

(Dili ko makabuhay sa akong naandan na nga mga buluhaton)

☐

PANAKIT / KAHASOL SA KALAWASAN

Wala koy gibati nga pagkasakit o pagkadili komportable sa kalawasan

(Wala koy gibati nga panakit o kahasol sa kalawasan)



Naa koy gibati nga gamay nga panakit o pagkadili komportable sa kalawasan

(Aduna koy gamay nga panakit o kahasol sa kalawasan)



Naa koy gibati nga panakit o pagkadili komportable sa kalawasan

(Aduna koy igoigo ra nga panakit o kahasol sa kalawasan)



Naaa koy gibati grabi nga panakit o pagkadili komportable sa kalawasan

(Aduna koy grabi nga panakit o kahasol sa kalawasan)



Naa koy labihang gibati nga pagkasakit sa akong kalawasan o pagkadili komportable sa kalawasan

(Aduna koy labihang panakit o kahasol sa kalawasan)

**KABALAKA / KAGUOL**

Wala ko pagkabalaka o pagkaguol

(Wala ko nabalaka o maguol)



Naa koy gamay nga pagkabalaka o pagkaguol

(Nabalaka o naguol ko gamay)



Naa koy pagkabalaka o pagkaguol

(Igoigo ra ang akong pagkabalaka o pagkaguol)



Naa koy grabi nga pagkabalaka o pagkaguol

(Gabi ang akong pagkabalaka o pagkaguol)



Naa koy grabi kayo nga pagkabalaka o pagkaguol

(Gabi kaayo ang akong pagkabalaka o pagkaguol)



Hiligaynon Version

Sa idalum sang kada heading, palihog tsek sang ISA ka box nga pinakamaayo nga nagalaragway sang imo ikaayong-lawas SUBONG NGA ADLAW.

MOBILIDAD / PANGHULAG

Wala ako sang mga problema sa paglakat-lakat

(Wala ako sang mga problema sa paglakat-lakat)

☐

May gamay ako nga mga problema sa paglakat-lakat

(May diutay ako nga mga problema sa paglakat-lakat)

☐

May diutay ako nga mga problema sa paglakat-lakat

(May husto ako nga mga problema sa paglakat-lakat)

☐

May grabi ako nga mga problema sa paglakat-lakat

(May grabe ako nga mga problema sa paglakat-lakat)

☐

Indi ako makasarang maglakat-lakat

(Indi ako makasarang maglakat-lakat)

☐

KAUGALINGON NGA PAGTATAP

Wala ako sang mga problema sa pagpanghugas sa akon pag-ilis

(Wala ako sang mga problema sa pagpanghugas ukon pag-ilis)

☐

May gamay ako nga mga problema sa pagpanghugas sa akon pag-ilis

(May diutay ako nga mga problema sa pagpanghugas ukon pag-ilis)

☐

May diutay ako nga mga problema sa pagpanghugas sa akon pag-ilis

(May husto ako nga mga problema sa pagpanghugas ukon pag-ilis)

☐

May grabi ako nga mga problema sa pagpanghugas sa akon pag-ilis

(May grabe ako nga mga problema sa pagpanghugas ukon pag-ilis)

☐

Indi ako makasarang manghugas ukon mag-ilis

(Indi ako makasarang manghugas ukon mag-ilis)

☐

NAKAANDAN NGA AKTIBIDADES (pareho sang obra, pagtuon, obra sa balay, pamilya ukon pangkalingawan nga aktibidades)

Wala ako sang mga problema sa paghimo sang akon nakaandan nga aktibidades

(Wala ako sang mga problema sa paghimo sang akon nakaandan nga aktibidades)

☐

May gamay ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades

(May diutay ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades)

☐

May diutay ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades

(May husto ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades)

☐

May grabi ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades

(May grabe ako nga mga problema sa paghimo sang akon nakaandan nga aktibidades)

☐

Indi ako makasarang maghimo sang akon nakaandan nga aktibidades

(Indi ako makasarang maghimo sang akon nakaandan nga aktibidades)

☐

SAKIT / GINABATYAG SA KALAWASAN

Wala ako sang sakit sa akon ginabatyag sa kalawasan

(Wala ako sang sakit ukon ginabatyag sa kalawasan)



May gamay ako nga sakit sa akon ginabatyag sa kalawasan

(May diutay ako nga sakit ukon ginabatyag sa kalawasan)



May diutay lang ako nga sakit sa akon ginabatyag sa kalawasan

(May husto lang ako nga sakit ukon ginabatyag sa kalawasan)



May grabi ako nga sakit sa akon ginabatyag sa kalawasan

(May grabe ako nga sakit ukon ginabatyag sa kalawasan)



May grabi gid ako nga sakit akon nga ginabatyag sa akon kalawasan

(May grabe gid ako nga sakit ukon ginabatyag sa kalawasan)

**INDI-PAGKAHMTANG / DEPRESYON**

Wa'ay ko ginahamtang ang akon depresyon

(Wala ako sang indi-pagkahamtang ukon depresyon)



May gamay ako nga pagkahamtang sa akon depresyon

(May diutay ako nga indi-pagkahamtang ukon depresyon)



May diutay lang ako nga pagkahamtang sa akon depresyon

(May husto lang ako nga indi-pagkahamtang ukon depresyon)



May grabi ako nga pagkahamtang sa akon depresyon

(May grabe ako nga indi-pagkahamtang ukon depresyon)



May grabi gid ako nga pagkahamtang sa akon depresyon

(May grabe gid ako nga indi-pagkahamtang ukon depresyon)



Ilocano Version

Ikkan ti marka nga tsek dagita MAYSA karton nga adda nakaikabil nga salita panggep iti salun at ITA.

PINAG-GARAW

Awan pulos problemak nu magna-ak

(Awan pulos problemak nu magna-ak)

☐

Adda bassit problemak ti pinagpagnak

(Adda bassit problemak ti pinagpagnak)

☐

Kalkalaingan nalang nga adda problemak nu magnaak

(Kalkalaingan nalang nga adda problemak nu magnaak)

☐

Adda nakaro nga problemak nu magnaak

(Adda nakaro nga problemak nu magnaak)

☐

Haan ak nga pulos nga makapagna

(Haan ak nga pulos nga makapagna)

☐

PINANGALWAD ITI BAGI

Awan problemak iti pinagdigidigos ken nu kasano ak nga agsukat tak

(Awan problemak iti pinagdigidigos ken nu kasano ak nga agsukat tak)

☐

Adda bassit problemak pinagdigidigos ko ken nu kasano ak nga agsukat

(Adda bassit problemak pinagdigidigos ko ken nu kasano ak nga agsukat)

☐

Kalkalaingan nalang nga adda problemak nu agdigos sak ken sukatak iti bagik

(Kalkalaingan nalang nga adda problemak nu agdigos sak ken sukatak iti bagik)

☐

Nakaro iti problemak nu agdigos sak ken agsukat

(Nakaro iti problemak nu agdigos sak ken agsukat)

☐

Haan ak nga pulos nga makadigos ken makasukat

(Haan ak nga pulos nga makadigos ken makasukat)

☐

KANKANAYUN NGA AR ARAMIDEN(kasla koma iti pinagtrabaho, pinagbasa, ar aramiden ditoy balbalay ken ti pinag gay ayam)

Awan problemak iti kanayon ko nga araramiden

(Awan problemak ti pinagtrabahok)

☐

Adda bassit problemak iti kanayon ko nga araramiden

(Adda bassit problemak iti pinagtrabahok)

☐

Makarikna ak iti problema kanayon ko nga araramiden

(Kalkalaingan nga makarikana ak ti problema nu agtrabaho nak)

☐

Adda nakaro nga mariknak iti kanayon ko nga araramiden

(Adda nakaro nga mariknak nu agtrabaho nak)

☐

Haan ak nga pulos nga makaaramid iti kanayon ko nga araramiden

(Haan ak nga pulos nga makaaramid iti trabahok)

☐

UT-OT / SAAN NGA KOMPORTABLE

Awan mariknak nga ut-ot wenno saan nga komportable
(Awan mariknak nga ut-ot ken panaas) ☐

Adda bassit mariknat nga na ut-ot wenno saan nga komportable
(Adda bassit mariknat nga na ut-ot ken napanaas) ☐

Kalkalaingan nalang na makarinkaak ito ut-ot wenno saan nga komportable
(Kalkalaingan nalang na makarinkaak ito ut-ot ken panaas) ☐

Mariknak nga nakaro ito pinag-ut-ot wenno saan nga komportable
(Mariknak nga nakaro ito pinag-ut-ot ken panaas) ☐

Nakaro la unay ti marikank nga ut-ot ken panaas
(Nakaro la unay ti marikank nga ut-ot ken panaas) ☐

PINAGDANAG/ HAAN AH PINAGTALMA ITI PANUNOT

Awan iti danag ko ken ladingit
(Siak ket haan nga managdandanag) ☐

Adda bassit danag ko ken ladingit
(Siak ket adda bassit ko nga pinagdandanag) ☐

Adda kalkalaingan nga danag ko ken ladingit
(Kalkalaingan nga adda pinagdanag ko) ☐

Adda nakaro nga danag ko ken ladingit
(Siak ket add nakaro nga pinagdanag) ☐

Adda la unay nakaro nga danag ko ken ladingit
(Adda nakarok la unay nga pinagdandanag) ☐

Waray Version

Ha ilarom hini, alayon pakimarka hit kahon nga pinakamaupay nga nagpapakita han imo kahimsog YANA NGA ADLAW.

PAG-GIOS / PAGTRABAHO

Waray ak problema ha paglakat

(May-ada ak gutiay nga problema ha paglakat)

☐

May-ada ak igo-igo nga problema ha paglakat

(May-ada ak gutiay nga problema ha paglakat)

☐

May-ada ak gutiay nga problema ha paglakat

(May-ada ak igo-igo nga problema ha paglakat)

☐

May-ada ak uraura nga problema ha paglakat

(May-ada ak uraura nga problema ha paglakat)

☐

Diri na ak nakakalakat

(Diri na ak nakakalakat)

☐

PAG-ATAMAN HAN IMO KALUGARINGON

Waray ak problema ha pagkarigo ngan pagliwan

(Waray ak problema ha paglimpyo ngan pagliwan)

☐

May-ada ak igo-igo nga problema ha pagkarigo ngan pagliwan

(May-ada ak gutiay nga problema ha paglimpyo ngan pagliwan)

☐

May-ada ak gutiay nga problema ha pagkarigo ngan pagliwan

(May-ada ak igo-igo nga problema ha paglimpyo ngan pagliwan)

☐

May-ada ak uraura nga problema ha pagkarigo ngan pagliwan

(May-ada ak uraura nga problema ha paglimpyo ngan pagliwan)

☐

Diri na ak makarigo ngan makaliwan ha akon kalugaringon

(Diri na ak makalimpyo ngan makaliwan ha akon kalugaringon)

☐

KASAGARAN NGA MGA BURUHATON *(e.g. trabaho, pag-aram, buruhaton sa balay, buruhaton pan-pamilya/kaliawan)*

Waray ak problema ha kasagaran nga mga buruhaton

(Waray ak problema ha kasagaran nga mga buruhaton)

☐

May-ada ak igo-igo nga problema ha kasagaran nga mga buruhaton

(May-ada ak gutiay nga problema ha kasagaran nga mga buruhaton)

☐

May-ada ak gutiay nga problema ha kasagaran nga mga buruhaton

(May-ada ak igo-igo nga problema ha kasagaran nga mga buruhaton)

☐

May-ada ak uraura nga problema ha kasagaran nga mga buruhaton

(May-ada ak uraura nga problema ha kasagaran nga mga buruhaton)

☐

Diri na ak makahimo hin mga kasagaran nga buruhaton

(Diri na ak makahimo hin mga kasagaran nga buruhaton)

☐

KASAKIT / DIRI KOMFORTABLE

Waray ak ginbabati nga kasakit / kakurian

(Waray ak ginbabati nga kasakit / kakurian)



May-ada ak igo-igo nga ginbabati nga kasakit / kakurian

(May-ada ak gutiay nga ginbabati nga kasakit / kakurian)



May-ada ak gutiay nga ginbabati nga kasakit / kakurian

(May-ada ak igo-igo nga ginbabati nga kasakit / kakurian)



May-ada ak uraura nga ginbabati nga kasakit / kakurian

(May-ada ak uraura nga ginbabati nga kasakit / kakurian)



May-ada ak sobra nga kasakit / kakurian

(May-ada ak sobra nga kasakit / kakurian)

**KABARAKA / DEPRESYON**

Waray ak ginbabati nga kabaraka / depresyon

(Waray ak ginbabati nga kabaraka / depresyon)



May-ada ak igo-igo nga ginbabati nga kabaraka / depresyon

(May-ada ak gutiay nga ginbabati nga kabaraka / depresyon)



May-ada ak gutiay nga ginbabati nga kabaraka / depresyon

(May-ada ak igo-igo nga ginbabati nga kabaraka / depresyon)



May-ada ak uraura nga ginbabati nga kabaraka / depresyon

(May-ada ak uraura nga ginbabati nga kabaraka / depresyon)



May-ada ak sobra nga ginbabati nga kabaraka / depresyon



(May-ada ak sobra nga ginbabati nga kabaraka / depresyon)

Bicolano Version

Sa lambang pamayo o heading, paki-tsek an SARONG kahon na pinakaminaladawan sa estado kan sa imong salud o pagmate NGONYAN.

PAGHIRO

Dai akong problema sa paglakaw-lakaw o paghiro

(Dai akong problema sa paglakaw-lakaw o paghiro)

☐

Medyo may problema ako sa paglakaw-lakaw o paghiro

(Igwa akong diit na problema sa paglakaw-lakaw o paghiro)

☐

Igwa akong diit na problema sa paglakaw-lakaw o paghiro

(Medyo may problema ako sa paglakaw-lakaw o paghiro)

☐

Grabi an problema ko sa paglakaw-lakaw o paghiro

(Grabi an problema ko sa paglakaw-lakaw o paghiro)

☐

Dai ko kayang makalakaw-lakaw o makahiro

(Dai ko kayang makalakaw-lakaw o makahiro)

☐

PAG-ATAMAN SA SADIRI

Dai akong problema sa pagkarigos o pagsangli sa sadiri

(Dai akong problema sa paglinig o pagsangli sa sadiri)

☐

Medyo may problema ako sa pagkarigos o pagsangli sa sadiri

(Igwa akong diit na problema sa paglinig o pagsangli sa sadiri)

☐

Igwa akong diit na problema sa paglinig o pagsangli sa sadiri

(Medyo may problema ako sa paglinig o pagsangli sa sadiri)

☐

Grabi an problema ko sa paglinig o pagsangli sa sadiri

(Grabi an problema ko sa paglinig o pagsangli sa sadiri)

☐

Dai ko kayang maglinig o magsangli sa sadiri

(Dai ko kayang maglinig o magsangli sa sadiri)

☐

MGA GIBUHON O AKTIBIDADES SA URUALDAW (e.g. sa pag trabaho, pagklase, pag gibo sa harong, at gibuhon para sa pamilya o pansadiring karahayan)

Dai akong problema sa paggibo kan sakuyang urualdaw na aktibidades

(Dai akong problema sa paggibo kan sakuyang urualdaw na aktibidades)

☐

Medyo may problema ako sa paggibo kan sakuyang urualdaw na aktibidades

(Igwa akong diit na problema sa paggibo kan sakuyang urualdaw na aktibidades)

☐

Igwa akong diit na problema sa paggibo kan sakuyang urualdaw na aktibidades

(Medyo may problema ako sa paggibo kan sakuyang urualdaw na aktibidades)

☐

Grabi an problema ko sa paggibo kan sakuyang urualdaw na aktibidades

(Grabi an problema ko sa paggibo kan sakuyang urualdaw na aktibidades)

☐

Dai ko kayang gibuhon an sakuyang urualdaw na aktibidades

(Dai ko kayang gibuhon an sakuyang urualdaw na aktibidades)

☐

KULOG O MARAOT NA NAMAMATEAN

Dai akong kulog o maraot na namamatean

(Dai akong kulog o maraot namamatean)

☐

Igwang diit na kulog o maraot sa pagmate ko

(Igwang diit na kulog o maraot sa pagmate ko)

☐

May makulog o maraot sa pagmati ko

(Igwang medyo makulog o maraot sa pagmati ko)

☐

Grabe an kulog o maraot na pagmati ko

(Grabi an kulog o maraot na pagmati ko)

☐

Sobra-sobra an kulog o maraot na pagmati ko

(Sobra an kulog o maraot na pagmati ko)

☐**KAHANDALAN/ DEPRESYON**

Dai ako nahahandal o nade-depress

(Dai ako nahahandal o nade-depress)

☐

Nahahandal ako nin diit o may diit na namamateang depresyon

(Nahahandal ako nin kadikit o may kadikit na namamateang depresyon)

☐

Nahahandal o nakakamate ako nin depresyon

(Medyo nahandal o nakakamate ako nin depresyon)

☐

Grabe an sakong pagkahandal o namamateang depresyon

(Grabe an sakong pagkahandal o namamateang depresyon)

☐

Sobra-sobra an sakong pagkahandal o namamateang depresyon

(Sobra an sakong pagkahandal o namamateang depresyon)

☐

Appendix F. Focus Group Discussion Questions

1. How would you define “health”?
2. Based on your definitions of health, what things will affect your health?
3. How would you define “quality of life”?
4. Based on your definition of “quality of life”, what are the things that will affect your “quality of life”?
5. Do you think that “health” and “quality of life” are related? If yes, what is that relationship?
6. What are the things that will both affect your health and your quality of life?
7. The EQ-5D is a tool that measures health-related quality of life. It has five domains: mobility, grooming, usual activities, pain or discomfort, and anxiety or depression.
 - a. How would you define:
 - i. Mobility?
 - ii. Grooming?
 - iii. Usual activities?
 - iv. Pain or discomfort?
 - v. Anxiety or depression?
 - b. Do you agree that these are related to how one should measure health-related quality of life?
 - c. Do you think we should delete any of the 5 domains? If yes, which one? Why?
 - d. What other domains do you think should be considered with your health-related quality of life?
8. Currently, the EQ-5D-5L is in the following widely-spoken languages in the Philippines: English, Filipino, Cebuano, Hiligaynon, Ilokano, and Waray. Are there other widely-spoken languages in the Philippines do you think we missed? If yes, please specify and we will consider creating a version of the EQ-5D-5L in that specified language.

9. These are the translations of EQ-5D 5L in English, Filipino, and Cebuano/Hiligaynon/Ilocano/Waray/Bikolano. Do you agree with words used in the form? Are there alternatives you would like to suggest?
- a. Show them the forms (English + translations)
 - b. Go line by line for all instructions, dimensions, and level (every word basically) for the forms relevant.

Appendix G. Screening Form

1. How do you feel today? Do you feel unwell? Do you have any illnesses?
2. Do you have any chronic diseases such as hypertension, diabetes, heart disease, etc?
3. Do you have any disabilities?
4. What is your sex?
5. When is your birthday? (Ask for Id or birth document)
6. What languages can you speak? Kindly rate your proficiency for each language.
7. What was your highest educational attainment?
8. Do you belong to an NHTS household? (Double-check name in NHTS masterlist)
9. Follow the instructions on the paper that you pick. (The respondent will pick a rolled paper among a set of rolled paper. Herein, each paper will have instructions for the respondents to follow. The following are the instructions.)
 - a. Using your right hand, touch your nose with your middle finger.
 - b. After touching your left ear with your left hand, close your left eye.
 - c. Stand up on both legs and touch the left knee with the right hand.
 - d. Scratch your head with your left hand.
 - e. Open your mouth and stick out your tongue.

Appendix H. Informed Consent

1. For participants of the Computer-Assisted Valuation Survey

This informed consent form is for individuals who are being invited to participate in the study, Valuation of the Filipino Health Utilities using the EQ-5D-5L

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Information

Greetings! I am Dr. Hilton Lam of the Foundation for the Advancement of Clinical Epidemiology. I, together with my fellow researchers, am conducting a study funded by the Philippine Council for Health Research and Development to value the health states of the EQ-5D-5L tool. I am inviting you to participate in our study. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. This consent form might contain words that you might not comprehend. You may ask for clarifications for any section that you might not comprehend. If you have questions later, you may ask those to me or to my research staff.

Study Design and Selection of Participants:

This study requires a survey of around 1,000 literate Filipino 18 years old or older all-over the country. Recruitment is purposive and was done through the assistance of barangay staff and through snowball methods (i.e. referrals).

Voluntary Participation and Right to Refuse or Withdraw:

Participation in this study is voluntary. It is your choice if you want to participate or not. Your decision will not affect your ability to utilize government services. You can change your decision at any time and withdraw participation even after you agreed to participate in the beginning.

Procedure and Duration:

As a participant, you will sit in an interview that will last 30 to 60 minutes. The questions will be shown on a computer. The screen questions will ask you to choose between health states and provide valuation for different health states. A data collector will assist you in the process. If you are fluent in both Filipino and Cebuano/Bisaya, an optional set of additional questions may also be asked.

Risks:

There are no foreseen risks in participating in this study.

Benefits and Reimbursements:

There are no expected direct benefits but the collected data may be useful for making government decisions. Participants will receive a token worth PhP 150 for participating in this study. If the interview was done away from your home or office, we will also reimburse your travel expenses computed using the cheapest mode of transportation.

Confidentiality:

Responses will be confidential. No names will be recorded in the computer program. Names will not appear in the report. A data protection plan will be set-up. Information will not be used for any industrial or commercial purpose.

How the information will be used:

The information you provide will be used in to value the health states of EQ-5D-5L. The EQ-5D-5L tool will be used for future decisionmaking for public health interventions. Results may be published for academic purposes. You can request a copy of the results. Due to coding, individual results cannot be produced.

Who to Contact:

If you have any questions, you can ask them before we proceed. You may also contact the following:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

Email: **hiltonyulam@gmail.com**

This study has been reviewed and approved by UP Manila Research Ethics Board, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910.

Do you have any further questions?

Part II: Certificate of Consent

I have been invited to participate in research on EQ-5D-5L. I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____

Date _____
Day/month/year

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness _____

Signature of witness _____

Date _____

Day/month/year

2. For participants of the Testing of the Translated Tools

This informed consent form is for individuals who are being invited to participate in the study, Valuation of the Filipino Health Utilities using the EQ-5D-5L

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Information

Greetings! I am Dr. Hilton Lam of the Foundation for the Advancement of Clinical Epidemiology. I, together with my fellow researchers, am conducting a study funded by the Philippine Council for Health Research and Development to value the health states of the EQ-5D-5L tool. I am inviting you to participate in our study. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. This consent form might contain words that you might not comprehend. You may ask for clarifications for any section that you might not comprehend. If you have questions later, you may ask those to me or to my research staff.

Study Design and Selection of Participants:

This study requires a survey of around 30 Filipinos 18 years old or older who can understand and speak Bicolano/Ilocano/Waray and English or Filipino. Recruitment is purposive and was done through the assistance of barangay staff, public advertisements and through snowball methods (i.e. referrals).

Voluntary Participation and Right to Refuse or Withdraw:

Participation in this study is voluntary. It is your choice if you want to participate or not. Your decision will not affect your ability to utilize government services. You can change your decision at any time and withdraw participation even after you agreed to participate in the beginning.

Procedure and Duration:

As a participant, you will sit in an interview that will last 20 to 60 minutes. You will be asked to accomplish two survey forms. You will then be asked to comment on the survey and how you understood the questions.

Risks:

There are no foreseen risks in participating in this study.

Benefits and Reimbursements:

There are no expected direct benefits but the data is useful for making government decisions. Participants will receive a token worth PHP 75 for participating in this study. If the interview was done away from your home, school, or office or was done outside your scheduled visit to a hospital we will also reimburse the travel expenses of you based on the cheapest means of transportation.

Confidentiality:

Responses will be confidential. No names will be recorded in the computer program. The name will not appear in the report. A data protection plan will be set-up. Information will not be used for any industrial or commercial purpose.

How the information will be used:

The information you provide will be used in to value the health states of EQ-5D-5L. The EQ-5D-5L tool will be used for future decisionmaking for public health interventions. Results may be published for academic purposes.

Who to Contact:

If you have any questions, you can ask them before we proceed. You may also contact the following:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

Email: **hiltonyulam@gmail.com**

This study has been reviewed and approved by UP Manila Research Ethics Board, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910.

Do you have any further questions?

Part II: Certificate of Consent

I have been invited to participate in research on EQ-5D-5L. I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____

Date _____
Day/month/year

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness _____

Signature of witness _____

Date _____
Day/month/year

3. For participants of the Validation Interview or Focus-Group Discussion

This informed consent form is for individuals who are being invited to participate in the study, Valuation of the Filipino Health Utilities using the EQ-5D-5L

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Information

Greetings! I am Dr. Hilton Lam of the Foundation for the Advancement of Clinical Epidemiology. I, together with my fellow researchers, am conducting a study funded by the Philippine Council for Health Research and Development to value the health states of the EQ-5D-5L tool. I am inviting you to participate in our study. I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in the research. This consent form might contain words that you might not comprehend. . You may ask for clarifications for any section that you might not comprehend. If you have questions later, you may ask those to me or to my research staff.

Study Design and Selection of Participants:

This study requires focus group discussions or key informant interviews of Filipino adults regarding their concept of health-related quality of life. Around 30 individuals will participate in this method.

Voluntary Participation and Right to Refuse or Withdraw:

Participation in this study is voluntary. It is your choice if you want to participate or not. Your decision will not affect your ability to utilize health services or be part of any organization. You can change your decision at any time and withdraw participation even after you agreed to participate in the beginning.

Procedure and Duration:

As a participant, you will sit in an interview or group discussion that will last 20 to 60 minutes. The discussion will be on the concepts of quality of life, health-related quality of life, and the EQ-5D-5L tool.

Risks:

There are no foreseen risks in participating in this study.

Benefits and Reimbursements:

Participants will receive a token worth PhP 150 for participating in this study. If the interview was done away from your home, office, or school or outside a scheduled visit to the participating health facility, we will also reimburse your travel expenses computed using the cheapest mode of transportation.

Confidentiality:

The transcripts and reports will not contain identifying information about any respondent. Quotations will be anonymized. A data protection plan will be set-up. Information will not be used for any industrial or commercial purpose. *For FGDs:* Due to the group nature of this method, protection of confidentiality and anonymity cannot be assured. We request participants to refrain from divulging details of the group members and the discussion outside of this activity.

How the information will be used:

The information you provide will be used in to refine the methods for valuating the health states of EQ-5D-5L. The EQ-5D-5L tool will be used for future decision making for public health interventions.

Who to Contact:

If you have any questions, you can ask them before we proceed. You may also contact the following:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

Email: **hiltonyulam@gmail.com**

This study has been reviewed and approved by UP Manila Research Ethics Board, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910.

Do you have any further questions?

Part II: Certificate of Consent

I have been invited to participate in research about the Philhealth services. I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____

Date _____

Day/month/year

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness _____

Signature of witness _____

Date _____

Day/month/year

Appendix I. Informed Consent Forms in Filipino

Katibayan ng Pahintulot para sa mga Kalahok sa Computer-Assisted Survey

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Impormasyon at Layunin ng Pag-aaral

Magandang araw! Ako si Dr. Hilton Lam ng Foundation for the Advancement of Clinical Epidemiology. Ako, kasama ng aking mga kapwa mananaliksik, ay nagsasagawa ng pag-aaral na pinondohan ng **Philippine Council for Health Research and Development** upang bigyang halaga ang mga health state ng EQ-5D-5L. Inaanya ka ng grupo makilahok, at bibigyan kayo ng impormasyon ukol dito. Hindi mo kailangan magdesisyon ngayon kung gusto o ayaw mo makilahok sa pag-aaral. Maaaring may mga salitang hindi mo maintinidihan. Maaari mo tanungin ang grupo ukol sa mga ito. Kung may mga tanong ka mamaya, maaari mo itanong sa mga kawani ng grupo.

Disenyo at paraan ng pagpili ng mga kalahok

Kailangan ng pag-aaral o sarbei ng mga 1,000 na Pilipino na 18 taon gulang pataas at kayang magbasa. Saklaw nito ang buong Pilipinas. Ang pagpili ng kalahok ay sinadya at isinagawa sa tulong ng mga tauhan ng barangay at sa mga ibang taong naging kalahok.

Boluntaryong Pakikilahok at Karapatang Tumanggi

Boluntaryo o kusang-loob ang pakikilahok dito. Karapatan mo mamili kung makikilahok ka o hindi. Hindi ma-apektuhan ang kakayahan mong gamiting ang mga serbisyo ng gobyerno. Maaari ka magpalit ng pasya sa anu mang oras at bawiin ang pakikilahok kahit na pumayag ka pa sa sa simula.

Mga Paraan at Durasyon

Bilang kalahok, ikaw ay ma-i-interbyu na tatagal ng 30 to 60 na minuto. Ang mga tanong ay lalabas sa kompyuter. Papipiliin ka sa mga estadong pangkalusugan at magbibigay ka ng halaga ng mga estadong ito. May gagabay sa iyong data collector sa prosesong ito. Kung ikaw ay matatas sa Filipino at Cebuano, may dagdag na katanungan na maaaring itanong sa iyo. Opsyonal ang mga tanong na iyon.

Mga Panganib

Walang nakikitang panganib sa pakikilahok mo sa pag-aaral.

Mga Benepisyo at Reimbursements

Wala kayong makukuhang direktang benepisyo sa pakikilahok sa pag-aaral. Makakatulong ang resulta ng pag-aaral sa paggawa ng desiyon ng gobyerno. Kung matapos mo ang panayam, bibigyan ka ng token na naghahalagang PHP 150 para sa iyong oras. Kung isagawa ang panayam sa labas ng iyong bahay, bibigyan ka ng pera kapalit ng iyong pamasahe.

Pananatiling pribado at kumpidensyal

Mananatiling kumpidensyal ang iyong sagot. Walang pangalano ang marerecord sa computer program. Magsasagawa ng mga paraan para masiguro na mananatiling pribado ang iyong impormasyon. Hindi gagamitin ng grupo ang iyong impormasyon para gawaing kumersyal o pangangalakal.

Paano gagamitin ang impormasyon

Gagamitin impormasyon upang mabigyang halaga ang mga estadong pangkalusugan ng EQ-5D-5L. Ang EQ-5D-5L ay maaaring gamitin sa mga desisyon para sa mga programang pangkalusugan. Maaaring mailathala ang resulta para sa mga layuning akademiko.

Sino ang maaaring tawagan

Kung may mga tanong ka, maaari mo ito tanungin bago tayo magpatuloy. Maaari mo rin tawagan ang mga sumusunod:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

Email: **hiltonyulam@gmail.com**

Ang pagaaral na ito ay pinagaralan at inaprobahan ng UPM Research Ethics Board. Ang layunin ng komiteng ito ay

siguraduhin na ligtas ka sa pag-aaral na ito. Kung mayroon ka pang gustong tanungin sa IRB, kontakin lang ang UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910. May iba ka pa bang tanong?

Part II: Certificate of Consent

Inanyayahan ako makilahok sa isang pag-aaral ukol sa EQ-5D-5L. Nabasa ko o binasa sa akin ang nasa itaas. Nagkaroon ako ng pagkakataong magtanong at ang aking mga natanong ay nasagot na mainam. Kusang-loob akong pumapayag makilahok sa pag-aaral.

Pangalan _____

Lagda _____

Petsa _____

Araw/Buwan/Taon

Nakita ko ang wastong pagbasa ng consent form sa posibleng kalahok, at ang taong ito ay nagkaroon ng pagkakataon na magtanong. Pinapatunayan ko na malayang pumayag ang taong ito.

Pangalan ng witness _____

Lagda na witness _____

Petsa _____

Araw/Buwan/Taon

Katibayan ng Pahintulot para sa mga Kalahok sa Pilot Testing ng Salin ng EQ-5D-5L

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Impormasyon at Layunin ng Pag-aaral

Magandang araw! Ako si Dr. Hilton Lam ng Foundation for the Advancement of Clinical Epidemiology. Ako, kasama ng aking mga kapwa mananaliksik, ay nagsasagawa ng pag-aaral na pinondohan ng **Philippine Council for Health Research and Development** upang bigyang halaga ang mga health state ng EQ-5D-5L. Inaanya ka ng grupo makilahok, at bibigyan kayo ng impormasyon ukol dito.. Hindi mo kailangan magdesisyon ngayon kung gusto o ayaw mo makilahok sa pag-aaral. Maaaring may mga salitang hindi mo maintinidihan. Maaari mo tanungin ang grupo ukol sa mga ito. Kung may mga tanong ka mamaya, maaari mo itanong sa mga kawani ng grupo.

Disenyo at paraan ng pagpili ng mga kalahok

Kailangan ng pag-aaral o sarbei ng mga 30 na Pilipino na 18 taon gulang pataas at kayang magbasa at maintindihan ang wikang Ilokano/Bikolano/Waray at Filipino o Ingles. Ang pagpili ng kalahok ay sinadya at isinagawa sa tulong ng mga tauhan ng barangay at sa mga ibang taong naging kalahok. Gumamit rin kami ng mga pahayag.

Boluntaryong Pakikilahok at Karapatang Tumanggi

Boluntaryo o kusang-loob ang pakikilahok dito. Karapatan mo mamili kung makikilahok ka o hindi. Hindi ma-apektuhan ang kakayahan mong gamiting ang mga serbisyo ng gobyerno. Maaari ka magpalit ng pasya sa anu mang oras at bawiin ang pakikilahok kahit na pumayag ka pa sa sa simula.

Mga Paraan at Durasyon

Bilang kalahok, ma-i-interbyu ka ng mga 20 hanggang 60 na minuto. Sasagutan mo ang dalawang survey forms. Pagkatapos nito ay hihingilin namin ang iyong mga komento sa forms at tatanungin ka kung ano ang intindi mo sa mga katanungan.

Mga Panganib

Walang nakikitang panganib sa pakikilahok mo sa pag-aaral.

Mga Benepisyo at Reimbursements

Wala kayong makukuhang direktang benepisyo sa pakikilahok sa pag-aaral. Makakatulong ang resulta ng pag-aaral sa paggawa ng desiyon ng gobyerno. Kung matapos mo ang panayam, bibigyan ka ng token na naghahalagang PhP 75 para sa iyong oras. Kung isagawa ang panayam sa labas ng iyong bahay, paaaralan o opisina o kaya sa araw na hindi ka nakatakda pumunta sa ospital, bibigyan ka ng pera kapalit ng iyong pamasaha. Ang pinakamurang pamasaha ang gagawing basehan nito.

Pananatiling pribado at kumpidensyal

Mananatiling kumpidensyal ang iyong sagot. Walang pangalano ang marerecord sa computer program. Magsasagawa ng mga paraan para masiguro na mananatiling pribado ang iyong impormasyon. Hindi gagamitin ng grupo ang iyong impormasyon para gawaing kumersyal o pangangalakal.

Paano gagamitin ang impormasyon

Gagamitin impormasyon upang mabigyang halaga ang mga estadong pangkalusugan ng EQ-5D-5L. Ang EQ-5D-5L ay maaaring gamitin sa mga desisyon para sa mga programang pangkalusugan. Maaaring mailathala ang resulta para sa mga layuning akademiko.

Sino ang maaaring tawagan

Kung may mga tanong ka, maaari mo ito tanungin bago tayo magpatuloy. Maaari mo rin tawagan ang mga sumusunod:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

Email: **hiltonyulam@gmail.com**

Ang pagaaral na ito ay pinagalaran at inaprobahan ng UP Research Ethics Board. Ang layunin ng komiteng ito ay siguraduhin na ligtas ka sa pag-aaral na ito. Kung mayroon ka pang gustong tanungin sa IRB, kontakin lang ang UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910. May iba ka pa bang tanong?

Part II: Certificate of Consent

Inanyayahan ako makilahok sa isang pag-aaral ukol sa EQ-5D-5L. Nabasa ko o binasa sa akin ang nasa itaas. Nagkaroon ako ng pagkakataong magtanong at ang aking mga natanong ay nasagot na mainam. Kusang-loob akong pumapayag makilahok sa pag-aaral.

Pangalan _____

Lagda _____

Petsa _____

Araw/Buwan/Taon

Nakita ko ang wastong pagbasa ng consent form sa posibleng kalahok, at ang taong ito ay nagkaroon ng pagkakataon na magtanong. Pinapatunayan ko na malayang pumayag ang taong ito.

Pangalan ng witnes _____

Lagda na witnes _____

Petsa _____

Araw/Buwan/Taon

Katibayan ng Pahintulot para sa mga Kalahok sa Focus-Group Discussion

Pangalan ng Punong Imbestigador: **Hilton Y Lam, MHA, PhD**

Pangalan ng Organisasyon: **Foundation for the Advancement of Clinical Epidemiology**

Pangalan ng Sponsor: **Philippine Council for Health Research and Development**

Pangalan ng Proyekto at Bersyon: **Valuation of the Filipino Health Utilities using the EQ-5D-5L**

Impormasyon at Layunin ng Pag-aaral

Magandang araw! Ako si Dr. Hilton Lam ng Foundation for the Advancement of Clinical Epidemiology. Ako, kasama ng aking mga kapwa mananaliksik, ay nagsasagawa ng pag-aaral na pinondohan ng **Philippine Council for Health Research and Development** upang bigyang halaga ang mga health state ng EQ-5D-5L. Inaanya ka ng grupo makilahok, at bibigyan kayo ng impormasyon ukol dito.. Hindi mo kailangan magdesisyon ngayon kung gusto o ayaw mo makilahok sa pag-aaral. Maaaring may mga salitang hindi mo maintinidhan. Maaari mo tanungin ang grupo ukol sa mga ito. Kung may mga tanong ka mamaya, maaari mo itanong sa mga kawani ng grupo.

Disenyo at paraan ng pagpili ng mga kalahok

Kailangan ng masinsinang interbyu o focus group discussion ng mga Filipino ukol sa konsepto ng health-related quality of life o kalidad ng buhay na ukol sa kalusugan. Mga 30 na tao ang magiging kalahok sa bahaging ito.

Boluntaryong Pakikilahok at Karapatang Tumanggi

Boluntaryo o kusang-loob ang pakikilahok dito. Karapatan mo mamili kung makikilahok ka o hindi. Hindi ma-apektuhan ang kakayahan mong gamiting ang mga serbisyo ng gobyerno. Maaari ka magpalit ng pasya sa anu mang oras at bawiin ang pakikilahok kahit na pumayag ka pa sa sa simula.

Mga Paraan at Durasyon

Bilang kalahok, ikaw ay ma-i-interbyu na tatagal ng 20 to 60 na minuto. Ang mga tanong ay ukol sa konsepto ng kalidad ng buhay, pangkalusugan na kalidad ng buhay, at ang EQ-5D-5L tool.

Mga Panganib

Walang nakikitang panganib sa pakikilahok mo sa pag-aaral.

Mga Benepisyo at Reimbursements

Wala kayong makukuhang direktang benepisyo sa pakikilahok sa pag-aaral. Makakatulong ang resulta ng pag-aaral sa paggawa ng desiyon ng gobyerno. Kung matapos mo ang panayam, bibigyan ka ng token na naghahalagang PhP 150 para sa iyong oras. Kung isagawa ang panayam sa labas ng iyong bahay, paaaralan o opisina o kaya sa araw na hindi ka nakatakda pumunta sa ospital, bibigyan ka ng pera kapalit ng iyong pamasaha. Ang pinakamurang pamasaha ang gagawing basehan nito.

Pananatiling pribado at kumpidensyal

Walang pangalan o ibang sensitibong impormasyon ang ilalagay sa transcripts. Magsasagawa ng mga paraan para masiguro na mananatiling pribado ang iyong impormasyon. Hindi gagamitin ng grupo ang iyong impormasyon para gawaing kumersyal o pangangalakal. *Kung FGD:* Dahil sa grupo, di masisiguro ang proteksyon ng pagiging kumpidensyal at anonymous. Hihilingin namin sa ibang kalahok na wag isiwalat ang mga napagusapan at detalye ng kalahok sa mga hindi kalahok.

Paano gagamitin ang impormasyon

Gagamitin impormasyon upang mabigyang halaga ang mga estadong pangkalusugan ng EQ-5D-5L. Ang EQ-5D-5L ay maaaring gamitin sa mga desisyon para sa mga programang pangkalusugan. Maaaring mailathala ang resulta para sa mga layuning akademiko.

Sino ang maaaring tawagan

Kung may mga tanong ka, maaari mo ito tanungin bago tayo magpatuloy. Maaari mo rin tawagan ang mga sumusunod:

Name: **Dr. Hilton Y. Lam**

Address: **Unit 21M, Eton 8 Adriatico, Padre Faura, Manila**

Mobile Phone Number: **+63.917.896.8006**

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Ang pagaaral na ito ay pinagalaran at inaprobahan ng UPM Research Ethics Board. Ang layunin ng komiteng ito ay siguraduhin na ligtas ka sa pag-aaral na ito. Kung mayroon ka pang gustong tanungin sa IRB, kontakin lang ang, UPMREB Review Panel 2, 2/F Paz Mendoza Building, 547 Pedro Gil St., Ermita 1000 Manila, Email: upmreb@post.upm.edu.ph, Tel: +63 2 5222684, Mobile: +639273264910. May iba ka pa bang tanong?

Part II: Certificate of Consent

Inanyayahan ako makilahok sa isang pag-aaral ukol sa EQ-5D-5L. Nabasa ko o binasa sa akin ang nasa itaas. Nagkaroon ako ng pagkakataong magtanong at ang aking mga natanong ay nasagot na mainam. Kusang-loob akong pumapayag makilahok sa pag-aaral.

Pangalan _____

Lagda _____

Petsa _____

Araw/Buwan/Taon

Nakita ko ang wastong pagbasa ng consent form sa posibleng kalahok, at ang taong ito ay nagkaroon ng pagkakataon na magtanong. Pinapatunayan ko na malayang pumayag ang taong ito.

Pangalan ng witnes _____

Lagda na witnes _____

Petsa _____

Araw/Buwan/Taon

Appendix J. Data Protection Plan

1. Only study team laptops and tablets will be used for data collection. These will be password or pattern protected and accessible only to the study team.
2. The team will collect private information only for the purposes of tracking and liquidation of expenses. Forms containing names and private information (e.g. contact number and address) will be kept only in hard copies.
3. Data collected through the Computer-Assisted Survey will be sent to a secure server accessible only to the study team and the EuroQoL foundation. Data sent to this will not contain personal or private information. Forms will be tracked using a study id number.
4. Linking documents will be kept only for the participants of the equivalence study. This will be kept only until completion of data collection and cleaning.
5. Attendance sheets or tracking sheets containing signatures will be kept by the study team until completion of the study. After this period, forms will either be destroyed or submitted to offices for accounting and liquidation purposes.

Appendix K. Number of Respondents by Age, Gender, Residential Area per Region

Region	Age						Gender				Residential Area			
	18 to 30		31 to 50		51 and older		Male		Female		Urban		Rural	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
1	18	36.00%	20	40.00%	12	24.00%	25	50.00%	25	50.00%	21	42.00%	29	58.00%
2	12	35.29%	12	35.29%	10	29.41%	16	47.06%	18	52.94%	13	38.24%	21	61.76%
3	34	31.19%	49	44.95%	26	23.85%	55	50.46%	54	49.54%	43	39.45%	66	60.55%
4a	47	33.10%	60	42.25%	35	24.65%	70	49.30%	72	50.70%	58	40.85%	84	59.15%
4b	9	33.33%	11	40.74%	7	25.93%	15	55.56%	12	44.44%	9	33.33%	18	66.67%
5	20	34.48%	24	41.38%	14	24.14%	29	50.00%	29	50.00%	24	41.38%	34	58.62%
6	20	35.09%	25	43.86%	12	21.05%	29	50.88%	28	49.12%	23	40.35%	34	59.65%
7	30	33.33%	36	40.00%	24	26.67%	45	50.00%	45	50.00%	36	40.00%	54	60.00%
8	14	31.82%	20	45.45%	10	22.73%	22	50.00%	22	50.00%	18	40.91%	26	59.09%
9	12	33.33%	16	44.44%	8	22.22%	18	50.00%	18	50.00%	14	38.89%	22	61.11%
10	16	32.65%	20	40.82%	13	26.53%	25	51.02%	24	48.98%	18	36.73%	31	63.27%
11	16	31.37%	22	43.14%	13	25.49%	26	50.98%	25	49.02%	21	41.18%	30	58.82%
12	15	33.33%	20	44.44%	10	22.22%	23	51.11%	22	48.89%	18	40.00%	27	60.00%
13	8	30.77%	14	53.85%	4	15.38%	13	50.00%	13	50.00%	10	38.46%	16	61.54%
ARMM	12	31.58%	16	42.11%	10	26.32%	19	50.00%	19	50.00%	16	42.11%	22	57.89%
CAR	4	25.00%	8	50.00%	4	25.00%	8	50.00%	8	50.00%	6	37.50%	10	62.50%
NCR	43	33.59%	53	41.41%	32	25.00%	66	51.56%	62	48.44%	52	40.63%	76	59.38%
Total	330	33.00%	426	42.60%	244	24.40%	504	50.40%	496	49.60%	400	40.00%	600	60.00%

Number of Respondents by Educational Status and Income per Region

Region	Education				Income			
	Finished HS		Did not Finish HS		NHTS		Not NHTS	
	n	%	n	%	n	%	n	%
1	26	52.00%	24	48.00%	4	8.00%	46	92.00%
2	16	47.06%	18	52.94%	2	5.88%	32	94.12%
3	63	57.80%	46	42.20%	9	8.26%	100	91.74%
4a	82	57.75%	60	42.25%	6	4.23%	136	95.77%
4b	14	51.85%	13	48.15%	6	22.22%	21	77.78%
5	32	55.17%	26	44.83%	18	31.03%	40	68.97%
6	32	56.14%	25	43.86%	16	28.07%	41	71.93%
7	52	57.78%	38	42.22%	28	31.11%	62	68.89%
8	24	54.55%	20	45.45%	14	31.82%	30	68.18%
9	18	50.00%	18	50.00%	16	44.44%	20	55.56%
10	26	53.06%	23	46.94%	23	46.94%	26	53.06%
11	30	58.82%	21	41.18%	13	25.49%	38	74.51%
12	24	53.33%	21	46.67%	15	33.33%	30	66.67%
13	16	61.54%	10	38.46%	12	46.15%	14	53.85%
ARMM	22	57.89%	16	42.11%	38	100.00%	0	0.00%
CAR	8	50.00%	8	50.00%	2	12.50%	14	87.50%
NCR	68	53.13%	60	46.88%	4	3.13%	124	96.88%
Total	553	55.30%	447	44.70%	226	22.60%	774	77.40%

Appendix L. Demographic Characteristics of Respondents Before and After Retraining (n=1,000)

Demographics	Before Retraining 39.4 (14.31)	After Retraining 39.9 (14.02)	National
Age (years)	n (%)		%
Age Group			
18 to 30	202 (33.9)	128 (31.7)	19.2% ^a
31 to 50	246 (41.3)	181 (44.8)	24.8% ^a
51 and older	148 (24.8)	95 (23.5)	14.2% ^a
Sex			
Male	296 (49.7)	208 (51.5)	50.4% ^a
Female	300 (50.3)	196 (48.5)	49.6% ^a
Marital Status			
Married	383 (64.3)	296 (73.3)	45.4% ^a
Single	126 (21.1)	75 (18.6)	43.5% ^a
Separated	23 (3.9)	7 (1.7)	1.2% ^a
Widowed	32 (5.4)	16 (4.0)	4.3% ^a
Others	32 (5.4)	10 (2.5)	5.5% ^a
Religion			
Roman Catholic	507 (85.1)	313 (77.5)	80.6% ^a
Aglipay	18 (3.0)	9 (2.2)	1.0% ^a
Protestant	13 (2.2)	14 (3.5)	1.2% ^a
Iglesia ni Kristo	11 (1.8)	14 (3.5)	2.4% ^a
Islam	19 (3.2)	2 (0.5)	5.6% ^a
Agnostic	2 (0.3)	1 (0.3)	0.3% ^a
Others	26 (4.4)	51 (12.6)	1.9% ^a
Ethnolinguistic Group			
Tagalog	231 (38.8)	130 (32.2)	24.4% ^a
Cebuano/Bisaya	176 (29.5)	100 (24.7)	21.3% ^a
Ilocano	97 (16.3)	16 (4.0)	8.8% ^a
Hiligaynon	61 (10.2)	40 (9.9)	8.4% ^a
Bicolano	8 (1.3)	72 (17.8)	6.8% ^a
Waray	3 (0.5)	44 (10.9)	4.0% ^a
Kapampangan	1 (0.2)	1 (0.2)	
Pangasinan	-	1 (0.2)	
Others	19 (3.2)	-	
Residential Area			
Urban	167 (41.3)	233 (39.1)	45.3% ^a
Rural	237 (58.7)	363 (60.9)	54.7% ^a
Region			
I Ilocos Region	50 (8.4)	-	5.0% ^c
II Cagayan Valley	24 (4.0)	-	3.4% ^c
III Central Luzon	90 (15.1)	19 (4.7)	11.1% ^c
IV-A CALABARZON	-	142 (35.1)	14.3% ^c

Demographics	Before Retraining	After Retraining	National
IV-B MIMAROPA	27 (4.5)	-	2.9% ^c
V Bicol Region	-	58 (14.4)	5.7% ^c
VI Western Visayas	57 (9.6)	-	4.4% ^c
VII Central Visayas	90 (15.1)	-	6.0% ^c
VIII Eastern Visayas	-	44 (10.9)	4.4% ^c
IX Zamboanga Peninsula	36 (6.0)	-	3.6% ^c
X Northern Mindanao	31 (5.2)	18 (4.5)	4.6% ^c
XI Davao Region	-	51 (12.6)	4.8% ^c
XII SOCCSKSARGEN	-	45 (11.1)	4.5% ^c
XIII Caraga	-	26 (6.4)	2.6% ^c
Autonomous Region of Muslim Mindanao (ARMM)	38 (6.4)	-	3.7% ^c
Cordillera Administrative Region (CAR)	26 (4.4)	-	1.7% ^c
National Capital Region (NCR)	127 (21.3)	1 (0.2)	12.8% ^c
Education			
Finished High School	331 (55.5)	222 (55.0)	57.6% ^a
Did not Finish High School	265 (44.5)	182 (45.0)	42.0% ^a
Income			
NHTS	137 (23.0)	89 (22.0)	33.9% ^b
Non-NHTS	459 (77.0)	315 (78.0)	66.1% ^b
Average Household Monthly Income			
0 to Php 5,000	262 (44.0)	166 (41.2)	N/A
Php 5,001 to 16,000	276 (46.3)	186 (46.0)	N/A
Php 16,001 to 50,000	51 (8.6)	44 (10.9)	N/A
Php 50,001 to 155,000	4 (0.7)	7 (1.7)	N/A
Above Php 155,001	3 (0.5)	1 (0.2)	N/A
Employment			
Employed	362 (60.7)	258 (63.9)	93.7% ^d
Unemployed	234 (39.3)	146 (36.1)	6.3% ^d
	Mean (SD)		
Number of Individuals in Household	5.5 (2.45)	5.2 (2.3)	4.6 ^a

Appendix M. Inferential Statistics for TTO blocks and Selected Socio-Demographic Factors

Age Group

TTO Block	18-30	31-50	51 and above
1	16	12	6
2	11	15	10
3	9	17	7
4	11	18	8
5	14	12	7
6	18	13	4
7	10	17	10
8	9	13	7
9	16	15	6
10	12	16	9
11	12	12	11
12	8	17	6
13	9	16	12
14	14	16	12
15	15	13	9
16	9	15	9
17	12	17	7
18	12	20	9
19	11	18	4
20	11	17	7
21	11	16	11
22	14	12	11
23	9	11	12
24	9	14	14
25	13	12	10
26	14	15	12
27	9	21	7
28	12	17	6
Pearson Chi Square	42.3221		
Degrees of Freedom	54		
p-value	0.875		

Sex

TTO Block	Male	Female
1	22	12
2	16	20
3	19	14
4	19	18
5	13	20
6	20	15
7	22	15
8	17	12
9	27	10
10	22	15
11	11	24
12	15	16
13	16	21
14	26	16
15	12	25
16	9	24
17	22	14
18	18	23
19	18	15
20	18	17
21	17	21
22	21	16
23	17	15
24	16	21
25	16	19
26	16	25
27	20	17
28	20	15
Pearson Chi Square	44.6751	
Degrees of Freedom	27	
p-value	0.018	

Marital Status

TTO Block	Married	Single	Separated	Widowed	Others
1	23	9	0	0	2
2	24	8	0	2	2
3	24	4	2	1	2
4	26	7	2	1	1
5	21	7	0	3	2
6	21	9	1	1	3
7	25	7	1	2	2
8	20	5	1	2	1
9	26	10	1	0	0
10	22	12	0	0	3
11	25	7	1	2	0
12	24	3	1	2	1
13	27	8	0	1	1
14	27	7	1	3	4
15	20	8	1	5	3
16	27	4	1	1	0
17	24	9	0	2	1
18	30	7	4	0	0
19	23	7	0	2	1
20	23	9	0	2	1
21	25	7	3	2	1
22	24	7	1	2	3
23	22	5	0	4	1
24	27	7	2	1	0
25	26	6	1	0	2
26	21	9	3	5	3
27	28	6	2	1	0
28	24	7	1	1	2
Pearson Chi Square		91.7992			
Degrees of Freedom		108			
p-value		0.868			

Religion

TTO Block	Aglipay	Agnostic	Iglesia ni Kristo	Islam	Protestant	Roman Catholic	Others
1	1	0	0	0	1	29	3
2	0	0	1	0	0	32	3
3	0	0	0	2	0	27	4
4	1	0	1	2	1	28	4
5	3	0	1	0	0	25	4
6	1	0	0	1	1	30	2
7	0	0	1	1	1	32	2
8	1	0	0	0	2	24	2
9	1	0	1	2	3	26	4
10	1	1	2	0	3	29	1
11	1	0	0	1	1	30	2
12	1	0	2	1	1	23	3
13	2	0	0	0	0	33	2
14	1	1	2	0	2	34	2
15	0	0	2	2	1	27	5
16	2	0	2	1	1	24	3
17	3	0	1	0	0	32	0
18	2	0	0	1	1	35	2
19	1	0	0	0	2	29	1
20	0	1	1	3	0	28	2
21	0	0	0	1	1	33	3
22	1	0	0	0	1	32	3
23	1	0	1	0	0	26	4
24	0	0	0	0	1	32	4
25	0	0	2	1	0	28	4
26	1	0	0	0	2	35	3
27	2	0	2	1	0	29	3
28	0	0	3	1	1	28	2
Pearson Chi Square		135.6992					
Degrees of Freedom		162					
p-value		0.935					

NHTS

TTO Block	NHTS	Non-NHTS
1	29	5
2	31	5
3	22	11
4	27	10
5	28	5
6	26	9
7	33	4
8	19	10
9	28	9
10	32	5
11	27	8
12	27	4
13	25	12
14	33	9
15	24	13
16	26	7
17	29	7
18	34	7
19	24	9
20	28	7
21	28	10
22	31	6
23	29	3
24	24	13
25	26	9
26	32	9
27	28	9
28	24	11
Pearson Chi Square	31.7766	
Degrees of Freedom	27	
p-value	0.240	

Income

TTO Block	Php 0-5,000.00	Php 5,001 to 16,000	Php 16,001 to 50,000	Php 50,001 to 155,000	Php 155,001 and above
1	15	11	8	0	0
2	19	14	3	0	0
3	15	16	2	0	0
4	18	15	3	1	0
5	14	15	4	0	0
6	19	13	3	0	0
7	12	20	5	0	0
8	8	15	6	0	0
9	9	24	3	1	0
10	18	15	3	1	0
11	12	21	2	0	0
12	12	16	3	0	0
13	16	19	2	0	0
14	17	21	3	0	1
15	15	15	6	1	0
16	19	9	4	1	0
17	15	19	0	1	1
18	14	25	1	1	0
19	14	12	7	0	0
20	17	15	3	0	0
21	16	19	3	0	0
22	18	15	4	0	0
23	12	14	4	1	1
24	20	13	3	0	1
25	16	15	4	0	0
26	20	19	0	2	0
27	11	24	2	0	0
28	17	13	4	1	0
Pearson Chi Square		110.2250			
Degrees of Freedom		108			
p-value		0.422			

Socio-Linguistic Group

TTO Block	Bicolano	Cebuano	Hiligaynon	Ilocano	Kapampangan	Pangasinan	Tagalog	Waray	Others
1	1	8	2	4	0	0	16	3	0
2	2	13	3	4	1	0	13	0	0
3	3	11	4	3	0	0	9	1	2
4	2	8	3	2	0	0	16	5	1
5	2	11	3	4	0	0	12	1	0
6	1	11	3	5	0	0	11	3	1
7	2	13	3	6	0	0	12	1	0
8	2	8	1	1	0	0	16	0	1
9	5	8	3	2	0	0	15	2	2
10	3	10	3	6	0	0	11	4	0
11	1	8	3	4	0	0	14	4	1
12	3	8	3	3	0	0	11	1	2
13	4	9	4	5	0	1	12	1	1
14	3	12	3	7	0	0	14	3	0
15	4	9	5	5	0	0	11	1	2
16	4	9	3	4	0	0	11	2	0
17	3	13	4	4	0	0	11	1	0
18	1	12	5	5	0	0	14	3	1
19	3	9	3	4	0	0	11	1	2
20	4	10	4	2	0	0	15	0	0
21	6	8	6	4	0	0	14	0	0
22	3	11	4	5	0	0	13	0	1
23	2	6	4	3	0	0	17	0	0
24	5	8	7	4	0	0	12	1	0
25	3	8	3	4	1	0	9	6	1
26	4	12	4	4	0	0	16	1	0
27	4	14	3	5	0	0	8	2	1
28	0	9	5	4	0	0	17	0	0
Pearson Chi Square			179.4615						
Degrees of Freedom			216						
p-value			0.967						

Region

TTO Block	1	2	3	4a	4b	5	6	7	8	9	10	11	12	13	ARMM	CAR	NCR
1	1	0	5	6	1	1	0	2	3	2	2	0	2	1	0	1	7
2	2	0	4	5	2	2	2	4	0	1	2	4	1	0	2	1	4
3	1	1	3	4	1	2	3	2	1	2	1	2	1	1	4	1	3
4	1	1	3	5	0	2	2	3	5	1	4	0	1	0	2	1	6
5	1	2	2	6	1	2	3	0	1	3	3	2	0	1	0	0	6
6	2	1	3	3	0	1	1	3	3	3	3	2	2	0	1	2	5
7	3	1	5	4	0	2	3	6	0	1	1	5	0	0	1	1	4
8	1	1	6	5	1	2	0	3	0	1	0	2	1	2	1	0	3
9	0	1	6	4	1	4	2	3	2	0	0	2	1	2	3	1	5
10	4	0	4	5	1	2	1	6	4	0	0	2	3	1	0	1	3
11	2	0	6	7	0	0	3	1	4	2	0	2	0	3	2	0	3
12	1	1	2	6	2	2	2	1	1	1	3	0	2	1	2	1	3
13	3	3	6	3	1	4	1	3	1	2	1	3	3	0	0	0	3
14	3	2	3	5	0	2	1	6	3	0	2	2	2	0	2	2	7
15	2	1	2	6	2	2	3	4	1	1	2	2	1	0	2	2	4
16	2	0	4	3	2	2	1	2	2	0	3	0	2	3	2	1	4
17	1	1	6	5	1	1	3	6	0	0	4	2	1	1	0	1	3
18	2	0	3	8	1	1	4	3	3	1	2	2	2	2	1	1	5
19	3	2	4	4	1	3	2	3	1	2	0	1	1	1	2	0	3
20	2	0	4	5	0	2	2	3	0	2	1	3	1	0	3	0	7
21	2	0	5	4	0	6	4	3	0	0	1	2	2	1	2	1	5
22	2	1	4	6	1	3	3	2	0	3	2	2	2	1	0	2	3
23	1	0	4	6	2	1	1	3	0	1	2	1	2	0	0	2	6
24	1	1	4	5	1	3	3	4	0	0	3	0	5	0	0	2	5
25	2	1	3	5	0	1	1	3	6	1	1	0	2	2	3	0	4
26	0	0	4	5	2	2	1	3	1	1	3	4	2	2	1	2	8
27	3	1	3	4	1	3	2	5	2	2	1	3	1	1	1	0	4
28	2	2	1	8	2	0	3	3	0	3	2	1	2	0	1	0	5
Pearson Chi Square				340.4866													
Degrees of Freedom				432													
p-value				1.000													

Residential Area

TTO Block	Urban	Rural
1	21	13
2	24	12
3	23	10
4	21	16
5	15	18
6	22	13
7	20	17
8	22	7
9	16	21
10	18	19
11	23	12
12	25	6
13	25	12
14	23	19
15	20	17
16	17	16
17	20	16
18	26	15
19	19	14
20	16	19
21	18	20
22	29	8
23	23	9
24	19	18
25	16	19
26	23	18
27	24	13
28	25	10
Pearson Chi Square	43.3513	
Degrees of Freedom	27	
p-value	0.024	

Education

TTO Block	High School Graduate	Non-High School Graduate
1	18	16
2	20	16
3	14	19
4	22	15
5	21	12
6	22	13
7	23	14
8	14	15
9	23	14
10	21	16
11	22	13
12	18	13
13	16	21
14	19	23
15	20	17
16	15	18
17	20	16
18	31	10
19	19	14
20	12	23
21	23	15
22	19	18
23	15	17
24	19	18
25	18	17
26	25	16
27	22	15
28	21	14
Pearson Chi Square	28.6961	
Degrees of Freedom	27	
p-value	0.376	

Employment Status

TTO Block	Employed	Unemployed
1	24	10
2	21	15
3	20	13
4	27	10
5	21	12
6	20	15
7	21	16
8	20	9
9	25	12
10	23	14
11	21	14
12	16	15
13	21	16
14	28	14
15	21	16
16	20	13
17	24	12
18	24	17
19	20	13
20	19	16
21	23	15
22	26	11
23	20	12
24	21	16
25	18	17
26	24	17
27	27	10
28	25	10
Pearson Chi Square	15.9278	
Degrees of Freedom	27	
p-value	0.954	

Appendix N. Philippine Preference Score

Health State	Utility	Health State	Utility	Health State	Utility
11111	1.0000	11243	0.6636	11425	0.5678
11112	0.9592	11244	0.5708	11431	0.7329
11113	0.9511	11245	0.5341	11432	0.6922
11114	0.8583	11251	0.6514	11433	0.6840
11115	0.8216	11252	0.6106	11434	0.5912
11121	0.9327	11253	0.6024	11435	0.5545
11122	0.8919	11254	0.5097	11441	0.5800
11123	0.8838	11255	0.4730	11442	0.5392
11124	0.7910	11311	0.9358	11443	0.5311
11125	0.7543	11312	0.8950	11444	0.4383
11131	0.9195	11313	0.8869	11445	0.4016
11132	0.8787	11314	0.7941	11451	0.5189
11133	0.8705	11315	0.7574	11452	0.4781
11134	0.7778	11321	0.8685	11453	0.4699
11135	0.7411	11322	0.8277	11454	0.3772
11141	0.7666	11323	0.8196	11455	0.3405
11142	0.7258	11324	0.7268	11511	0.7645
11143	0.7176	11325	0.6901	11512	0.7238
11144	0.6249	11331	0.8552	11513	0.7156
11145	0.5882	11332	0.8145	11514	0.6228
11151	0.7054	11333	0.8063	11515	0.5861
11152	0.6646	11334	0.7136	11521	0.6972
11153	0.6565	11335	0.6769	11522	0.6565
11154	0.5637	11341	0.7023	11523	0.6483
11155	0.5270	11342	0.6616	11524	0.5556
11211	0.9460	11343	0.6534	11525	0.5189
11212	0.9052	11344	0.5607	11531	0.6840
11213	0.8970	11345	0.5240	11532	0.6432
11214	0.8043	11351	0.6412	11533	0.6351
11215	0.7676	11352	0.6004	11534	0.5423
11221	0.8787	11353	0.5923	11535	0.5056
11222	0.8379	11354	0.4995	11541	0.5311
11223	0.8298	11355	0.4628	11542	0.4903
11224	0.7370	11411	0.8135	11543	0.4822
11225	0.7003	11412	0.7727	11544	0.3894
11231	0.8654	11413	0.7645	11545	0.3527
11232	0.8247	11414	0.6718	11551	0.4699
11233	0.8165	11415	0.6351	11552	0.4292
11234	0.7238	11421	0.7462	11553	0.4210
11235	0.6871	11422	0.7054	11554	0.3282
11241	0.7125	11423	0.6972	11555	0.2915
11242	0.6718	11424	0.6045		

Health State	Utility	Health State	Utility	Health State	Utility
12111	0.9419	12243	0.6055	12425	0.5097
12112	0.9011	12244	0.5127	12431	0.6748
12113	0.8930	12245	0.4760	12432	0.6340
12114	0.8002	12251	0.5933	12433	0.6259
12115	0.7635	12252	0.5525	12434	0.5331
12121	0.8746	12253	0.5443	12435	0.4964
12122	0.8338	12254	0.4516	12441	0.5219
12123	0.8257	12255	0.4149	12442	0.4811
12124	0.7329	12311	0.8777	12443	0.4730
12125	0.6962	12312	0.8369	12444	0.3802
12131	0.8614	12313	0.8287	12445	0.3435
12132	0.8206	12314	0.7360	12451	0.4608
12133	0.8124	12315	0.6993	12452	0.4200
12134	0.7197	12321	0.8104	12453	0.4118
12135	0.6830	12322	0.7696	12454	0.3191
12141	0.7085	12323	0.7615	12455	0.2824
12142	0.6677	12324	0.6687	12511	0.7064
12143	0.6595	12325	0.6320	12512	0.6656
12144	0.5668	12331	0.7971	12513	0.6575
12145	0.5301	12332	0.7564	12514	0.5647
12151	0.6473	12333	0.7482	12515	0.5280
12152	0.6065	12334	0.6555	12521	0.6391
12153	0.5984	12335	0.6188	12522	0.5984
12154	0.5056	12341	0.6442	12523	0.5902
12155	0.4689	12342	0.6035	12524	0.4975
12211	0.8879	12343	0.5953	12525	0.4608
12212	0.8471	12344	0.5025	12531	0.6259
12213	0.8389	12345	0.4659	12532	0.5851
12214	0.7462	12351	0.5831	12533	0.5770
12215	0.7095	12352	0.5423	12534	0.4842
12221	0.8206	12353	0.5341	12535	0.4475
12222	0.7798	12354	0.4414	12541	0.4730
12223	0.7717	12355	0.4047	12542	0.4322
12224	0.6789	12411	0.7554	12543	0.4241
12225	0.6422	12412	0.7146	12544	0.3313
12231	0.8073	12413	0.7064	12545	0.2946
12232	0.7666	12414	0.6137	12551	0.4118
12233	0.7584	12415	0.5770	12552	0.3710
12234	0.6656	12421	0.6881	12553	0.3629
12235	0.6290	12422	0.6473	12554	0.2701
12241	0.6544	12423	0.6391	12555	0.2334
12242	0.6137	12424	0.5464		

Health State	Utility	Health State	Utility	Health State	Utility
13111	0.9307	13243	0.5943	13425	0.4985
13112	0.8899	13244	0.5015	13431	0.6636
13113	0.8818	13245	0.4648	13432	0.6228
13114	0.7890	13251	0.5821	13433	0.6147
13115	0.7523	13252	0.5413	13434	0.5219
13121	0.8634	13253	0.5331	13435	0.4852
13122	0.8226	13254	0.4404	13441	0.5107
13123	0.8145	13255	0.4037	13442	0.4699
13124	0.7217	13311	0.8665	13443	0.4618
13125	0.6850	13312	0.8257	13444	0.3690
13131	0.8502	13313	0.8175	13445	0.3323
13132	0.8094	13314	0.7248	13451	0.4495
13133	0.8012	13315	0.6881	13452	0.4088
13134	0.7085	13321	0.7992	13453	0.4006
13135	0.6718	13322	0.7584	13454	0.3078
13141	0.6972	13323	0.7503	13455	0.2712
13142	0.6565	13324	0.6575	13511	0.6952
13143	0.6483	13325	0.6208	13512	0.6544
13144	0.5556	13331	0.7859	13513	0.6463
13145	0.5189	13332	0.7452	13514	0.5535
13151	0.6361	13333	0.7370	13515	0.5168
13152	0.5953	13334	0.6442	13521	0.6279
13153	0.5872	13335	0.6075	13522	0.5872
13154	0.4944	13341	0.6330	13523	0.5790
13155	0.4577	13342	0.5923	13524	0.4862
13211	0.8767	13343	0.5841	13525	0.4495
13212	0.8359	13344	0.4913	13531	0.6147
13213	0.8277	13345	0.4546	13532	0.5739
13214	0.7350	13351	0.5719	13533	0.5657
13215	0.6983	13352	0.5311	13534	0.4730
13221	0.8094	13353	0.5229	13535	0.4363
13222	0.7686	13354	0.4302	13541	0.4618
13223	0.7604	13355	0.3935	13542	0.4210
13224	0.6677	13411	0.7441	13543	0.4128
13225	0.6310	13412	0.7034	13544	0.3201
13231	0.7961	13413	0.6952	13545	0.2834
13232	0.7554	13414	0.6024	13551	0.4006
13233	0.7472	13415	0.5657	13552	0.3598
13234	0.6544	13421	0.6769	13553	0.3517
13235	0.6177	13422	0.6361	13554	0.2589
13241	0.6432	13423	0.6279	13555	0.2222
13242	0.6024	13424	0.5352		

Health State	Utility	Health State	Utility	Health State	Utility
14111	0.7992	14243	0.4628	14425	0.3670
14112	0.7584	14244	0.3700	14431	0.5321
14113	0.7503	14245	0.3333	14432	0.4913
14114	0.6575	14251	0.4506	14433	0.4832
14115	0.6208	14252	0.4098	14434	0.3904
14121	0.7319	14253	0.4016	14435	0.3537
14122	0.6911	14254	0.3089	14441	0.3792
14123	0.6830	14255	0.2722	14442	0.3384
14124	0.5902	14311	0.7350	14443	0.3303
14125	0.5535	14312	0.6942	14444	0.2375
14131	0.7187	14313	0.6860	14445	0.2008
14132	0.6779	14314	0.5933	14451	0.3180
14133	0.6697	14315	0.5566	14452	0.2773
14134	0.5770	14321	0.6677	14453	0.2691
14135	0.5403	14322	0.6269	14454	0.1764
14141	0.5657	14323	0.6188	14455	0.1397
14142	0.5250	14324	0.5260	14511	0.5637
14143	0.5168	14325	0.4893	14512	0.5229
14144	0.4241	14331	0.6544	14513	0.5148
14145	0.3874	14332	0.6137	14514	0.4220
14151	0.5046	14333	0.6055	14515	0.3853
14152	0.4638	14334	0.5127	14521	0.4964
14153	0.4557	14335	0.4760	14522	0.4557
14154	0.3629	14341	0.5015	14523	0.4475
14155	0.3262	14342	0.4608	14524	0.3547
14211	0.7452	14343	0.4526	14525	0.3180
14212	0.7044	14344	0.3598	14531	0.4832
14213	0.6962	14345	0.3231	14532	0.4424
14214	0.6035	14351	0.4404	14533	0.4343
14215	0.5668	14352	0.3996	14534	0.3415
14221	0.6779	14353	0.3914	14535	0.3048
14222	0.6371	14354	0.2987	14541	0.3303
14223	0.6290	14355	0.2620	14542	0.2895
14224	0.5362	14411	0.6126	14543	0.2813
14225	0.4995	14412	0.5719	14544	0.1886
14231	0.6646	14413	0.5637	14545	0.1519
14232	0.6239	14414	0.4709	14551	0.2691
14233	0.6157	14415	0.4343	14552	0.2283
14234	0.5229	14421	0.5454	14553	0.2202
14235	0.4862	14422	0.5046	14554	0.1274
14241	0.5117	14423	0.4964	14555	0.0907
14242	0.4709	14424	0.4037		

Health State	Utility	Health State	Utility	Health State	Utility
15111	0.7462	15243	0.4098	15425	0.3140
15112	0.7054	15244	0.3170	15431	0.4791
15113	0.6972	15245	0.2803	15432	0.4383
15114	0.6045	15251	0.3976	15433	0.4302
15115	0.5678	15252	0.3568	15434	0.3374
15121	0.6789	15253	0.3486	15435	0.3007
15122	0.6381	15254	0.2559	15441	0.3262
15123	0.6300	15255	0.2192	15442	0.2854
15124	0.5372	15311	0.6820	15443	0.2773
15125	0.5005	15312	0.6412	15444	0.1845
15131	0.6656	15313	0.6330	15445	0.1478
15132	0.6249	15314	0.5403	15451	0.2650
15133	0.6167	15315	0.5036	15452	0.2243
15134	0.5240	15321	0.6147	15453	0.2161
15135	0.4873	15322	0.5739	15454	0.1233
15141	0.5127	15323	0.5657	15455	0.0866
15142	0.4720	15324	0.4730	15511	0.5107
15143	0.4638	15325	0.4363	15512	0.4699
15144	0.3710	15331	0.6014	15513	0.4618
15145	0.3344	15332	0.5607	15514	0.3690
15151	0.4516	15333	0.5525	15515	0.3323
15152	0.4108	15334	0.4597	15521	0.4434
15153	0.4027	15335	0.4230	15522	0.4027
15154	0.3099	15341	0.4485	15523	0.3945
15155	0.2732	15342	0.4077	15524	0.3017
15211	0.6922	15343	0.3996	15525	0.2650
15212	0.6514	15344	0.3068	15531	0.4302
15213	0.6432	15345	0.2701	15532	0.3894
15214	0.5505	15351	0.3874	15533	0.3812
15215	0.5138	15352	0.3466	15534	0.2885
15221	0.6249	15353	0.3384	15535	0.2518
15222	0.5841	15354	0.2457	15541	0.2773
15223	0.5759	15355	0.2090	15542	0.2365
15224	0.4832	15411	0.5596	15543	0.2283
15225	0.4465	15412	0.5189	15544	0.1356
15231	0.6116	15413	0.5107	15545	0.0989
15232	0.5708	15414	0.4179	15551	0.2161
15233	0.5627	15415	0.3812	15552	0.1753
15234	0.4699	15421	0.4924	15553	0.1672
15235	0.4332	15422	0.4516	15554	0.0744
15241	0.4587	15423	0.4434	15555	0.0377
15242	0.4179	15424	0.3507		

Health State	Utility	Health State	Utility	Health State	Utility
21111	0.9317	21243	0.5953	21425	0.4995
21112	0.8909	21244	0.5025	21431	0.6646
21113	0.8828	21245	0.4659	21432	0.6239
21114	0.7900	21251	0.5831	21433	0.6157
21115	0.7533	21252	0.5423	21434	0.5229
21121	0.8644	21253	0.5341	21435	0.4862
21122	0.8236	21254	0.4414	21441	0.5117
21123	0.8155	21255	0.4047	21442	0.4709
21124	0.7227	21311	0.8675	21443	0.4628
21125	0.6860	21312	0.8267	21444	0.3700
21131	0.8512	21313	0.8186	21445	0.3333
21132	0.8104	21314	0.7258	21451	0.4506
21133	0.8022	21315	0.6891	21452	0.4098
21134	0.7095	21321	0.8002	21453	0.4016
21135	0.6728	21322	0.7594	21454	0.3089
21141	0.6983	21323	0.7513	21455	0.2722
21142	0.6575	21324	0.6585	21511	0.6962
21143	0.6493	21325	0.6218	21512	0.6555
21144	0.5566	21331	0.7870	21513	0.6473
21145	0.5199	21332	0.7462	21514	0.5545
21151	0.6371	21333	0.7380	21515	0.5178
21152	0.5963	21334	0.6453	21521	0.6290
21153	0.5882	21335	0.6086	21522	0.5882
21154	0.4954	21341	0.6340	21523	0.5800
21155	0.4587	21342	0.5933	21524	0.4873
21211	0.8777	21343	0.5851	21525	0.4506
21212	0.8369	21344	0.4924	21531	0.6157
21213	0.8287	21345	0.4557	21532	0.5749
21214	0.7360	21351	0.5729	21533	0.5668
21215	0.6993	21352	0.5321	21534	0.4740
21221	0.8104	21353	0.5240	21535	0.4373
21222	0.7696	21354	0.4312	21541	0.4628
21223	0.7615	21355	0.3945	21542	0.4220
21224	0.6687	21411	0.7452	21543	0.4139
21225	0.6320	21412	0.7044	21544	0.3211
21231	0.7971	21413	0.6962	21545	0.2844
21232	0.7564	21414	0.6035	21551	0.4016
21233	0.7482	21415	0.5668	21552	0.3609
21234	0.6555	21421	0.6779	21553	0.3527
21235	0.6188	21422	0.6371	21554	0.2599
21241	0.6442	21423	0.6290	21555	0.2232
21242	0.6035	21424	0.5362		

Health State	Utility	Health State	Utility	Health State	Utility
22111	0.8736	22243	0.5372	22425	0.4414
22112	0.8328	22244	0.4444	22431	0.6065
22113	0.8247	22245	0.4077	22432	0.5657
22114	0.7319	22251	0.5250	22433	0.5576
22115	0.6952	22252	0.4842	22434	0.4648
22121	0.8063	22253	0.4760	22435	0.4281
22122	0.7655	22254	0.3833	22441	0.4536
22123	0.7574	22255	0.3466	22442	0.4128
22124	0.6646	22311	0.8094	22443	0.4047
22125	0.6279	22312	0.7686	22444	0.3119
22131	0.7931	22313	0.7604	22445	0.2752
22132	0.7523	22314	0.6677	22451	0.3925
22133	0.7441	22315	0.6310	22452	0.3517
22134	0.6514	22321	0.7421	22453	0.3435
22135	0.6147	22322	0.7013	22454	0.2508
22141	0.6402	22323	0.6932	22455	0.2141
22142	0.5994	22324	0.6004	22511	0.6381
22143	0.5912	22325	0.5637	22512	0.5973
22144	0.4985	22331	0.7288	22513	0.5892
22145	0.4618	22332	0.6881	22514	0.4964
22151	0.5790	22333	0.6799	22515	0.4597
22152	0.5382	22334	0.5872	22521	0.5708
22153	0.5301	22335	0.5505	22522	0.5301
22154	0.4373	22341	0.5759	22523	0.5219
22155	0.4006	22342	0.5352	22524	0.4292
22211	0.8196	22343	0.5270	22525	0.3925
22212	0.7788	22344	0.4343	22531	0.5576
22213	0.7706	22345	0.3976	22532	0.5168
22214	0.6779	22351	0.5148	22533	0.5087
22215	0.6412	22352	0.4740	22534	0.4159
22221	0.7523	22353	0.4659	22535	0.3792
22222	0.7115	22354	0.3731	22541	0.4047
22223	0.7034	22355	0.3364	22542	0.3639
22224	0.6106	22411	0.6871	22543	0.3558
22225	0.5739	22412	0.6463	22544	0.2630
22231	0.7390	22413	0.6381	22545	0.2263
22232	0.6983	22414	0.5454	22551	0.3435
22233	0.6901	22415	0.5087	22552	0.3028
22234	0.5973	22421	0.6198	22553	0.2946
22235	0.5607	22422	0.5790	22554	0.2018
22241	0.5861	22423	0.5708	22555	0.1651
22242	0.5454	22424	0.4781		

Health State	Utility	Health State	Utility	Health State	Utility
23111	0.8624	23243	0.5260	23425	0.4302
23112	0.8216	23244	0.4332	23431	0.5953
23113	0.8135	23245	0.3965	23432	0.5545
23114	0.7207	23251	0.5138	23433	0.5464
23115	0.6840	23252	0.4730	23434	0.4536
23121	0.7951	23253	0.4648	23435	0.4169
23122	0.7543	23254	0.3721	23441	0.4424
23123	0.7462	23255	0.3354	23442	0.4016
23124	0.6534	23311	0.7982	23443	0.3935
23125	0.6167	23312	0.7574	23444	0.3007
23131	0.7819	23313	0.7492	23445	0.2640
23132	0.7411	23314	0.6565	23451	0.3812
23133	0.7329	23315	0.6198	23452	0.3405
23134	0.6402	23321	0.7309	23453	0.3323
23135	0.6035	23322	0.6901	23454	0.2396
23141	0.6290	23323	0.6820	23455	0.2029
23142	0.5882	23324	0.5892	23511	0.6269
23143	0.5800	23325	0.5525	23512	0.5861
23144	0.4873	23331	0.7176	23513	0.5780
23145	0.4506	23332	0.6769	23514	0.4852
23151	0.5678	23333	0.6687	23515	0.4485
23152	0.5270	23334	0.5759	23521	0.5596
23153	0.5189	23335	0.5392	23522	0.5189
23154	0.4261	23341	0.5647	23523	0.5107
23155	0.3894	23342	0.5240	23524	0.4179
23211	0.8084	23343	0.5158	23525	0.3812
23212	0.7676	23344	0.4230	23531	0.5464
23213	0.7594	23345	0.3863	23532	0.5056
23214	0.6667	23351	0.5036	23533	0.4975
23215	0.6300	23352	0.4628	23534	0.4047
23221	0.7411	23353	0.4546	23535	0.3680
23222	0.7003	23354	0.3619	23541	0.3935
23223	0.6922	23355	0.3252	23542	0.3527
23224	0.5994	23411	0.6758	23543	0.3445
23225	0.5627	23412	0.6351	23544	0.2518
23231	0.7278	23413	0.6269	23545	0.2151
23232	0.6871	23414	0.5341	23551	0.3323
23233	0.6789	23415	0.4975	23552	0.2915
23234	0.5861	23421	0.6086	23553	0.2834
23235	0.5494	23422	0.5678	23554	0.1906
23241	0.5749	23423	0.5596	23555	0.1539
23242	0.5341	23424	0.4669		

Health State	Utility	Health State	Utility	Health State	Utility
24111	0.7309	24243	0.3945	24425	0.2987
24112	0.6901	24244	0.3017	24431	0.4638
24113	0.6820	24245	0.2650	24432	0.4230
24114	0.5892	24251	0.3823	24433	0.4149
24115	0.5525	24252	0.3415	24434	0.3221
24121	0.6636	24253	0.3333	24435	0.2854
24122	0.6228	24254	0.2406	24441	0.3109
24123	0.6147	24255	0.2039	24442	0.2701
24124	0.5219	24311	0.6667	24443	0.2620
24125	0.4852	24312	0.6259	24444	0.1692
24131	0.6504	24313	0.6177	24445	0.1325
24132	0.6096	24314	0.5250	24451	0.2497
24133	0.6014	24315	0.4883	24452	0.2090
24134	0.5087	24321	0.5994	24453	0.2008
24135	0.4720	24322	0.5586	24454	0.1081
24141	0.4975	24323	0.5505	24455	0.0714
24142	0.4567	24324	0.4577	24511	0.4954
24143	0.4485	24325	0.4210	24512	0.4546
24144	0.3558	24331	0.5861	24513	0.4465
24145	0.3191	24332	0.5454	24514	0.3537
24151	0.4363	24333	0.5372	24515	0.3170
24152	0.3955	24334	0.4444	24521	0.4281
24153	0.3874	24335	0.4077	24522	0.3874
24154	0.2946	24341	0.4332	24523	0.3792
24155	0.2579	24342	0.3925	24524	0.2864
24211	0.6769	24343	0.3843	24525	0.2497
24212	0.6361	24344	0.2915	24531	0.4149
24213	0.6279	24345	0.2548	24532	0.3741
24214	0.5352	24351	0.3721	24533	0.3660
24215	0.4985	24352	0.3313	24534	0.2732
24221	0.6096	24353	0.3231	24535	0.2365
24222	0.5688	24354	0.2304	24541	0.2620
24223	0.5607	24355	0.1937	24542	0.2212
24224	0.4679	24411	0.5443	24543	0.2130
24225	0.4312	24412	0.5036	24544	0.1203
24231	0.5963	24413	0.4954	24545	0.0836
24232	0.5556	24414	0.4027	24551	0.2008
24233	0.5474	24415	0.3660	24552	0.1600
24234	0.4546	24421	0.4771	24553	0.1519
24235	0.4179	24422	0.4363	24554	0.0591
24241	0.4434	24423	0.4281	24555	0.0224
24242	0.4027	24424	0.3354		

Health State	Utility	Health State	Utility	Health State	Utility
25111	0.6779	25243	0.3415	25425	0.2457
25112	0.6371	25244	0.2487	25431	0.4108
25113	0.6290	25245	0.2120	25432	0.3700
25114	0.5362	25251	0.3293	25433	0.3619
25115	0.4995	25252	0.2885	25434	0.2691
25121	0.6106	25253	0.2803	25435	0.2324
25122	0.5698	25254	0.1876	25441	0.2579
25123	0.5617	25255	0.1509	25442	0.2171
25124	0.4689	25311	0.6137	25443	0.2090
25125	0.4322	25312	0.5729	25444	0.1162
25131	0.5973	25313	0.5647	25445	0.0795
25132	0.5566	25314	0.4720	25451	0.1967
25133	0.5484	25315	0.4353	25452	0.1560
25134	0.4557	25321	0.5464	25453	0.1478
25135	0.4190	25322	0.5056	25454	0.0550
25141	0.4444	25323	0.4975	25455	0.0183
25142	0.4037	25324	0.4047	25511	0.4424
25143	0.3955	25325	0.3680	25512	0.4016
25144	0.3028	25331	0.5331	25513	0.3935
25145	0.2661	25332	0.4924	25514	0.3007
25151	0.3833	25333	0.4842	25515	0.2640
25152	0.3425	25334	0.3914	25521	0.3751
25153	0.3344	25335	0.3547	25522	0.3344
25154	0.2416	25341	0.3802	25523	0.3262
25155	0.2049	25342	0.3394	25524	0.2334
25211	0.6239	25343	0.3313	25525	0.1967
25212	0.5831	25344	0.2385	25531	0.3619
25213	0.5749	25345	0.2018	25532	0.3211
25214	0.4822	25351	0.3191	25533	0.3129
25215	0.4455	25352	0.2783	25534	0.2202
25221	0.5566	25353	0.2701	25535	0.1835
25222	0.5158	25354	0.1774	25541	0.2090
25223	0.5076	25355	0.1407	25542	0.1682
25224	0.4149	25411	0.4913	25543	0.1600
25225	0.3782	25412	0.4506	25544	0.0673
25231	0.5433	25413	0.4424	25545	0.0306
25232	0.5025	25414	0.3496	25551	0.1478
25233	0.4944	25415	0.3129	25552	0.1070
25234	0.4016	25421	0.4241	25553	0.0989
25235	0.3649	25422	0.3833	25554	0.0061
25241	0.3904	25423	0.3751	25555	-0.0306
25242	0.3496	25424	0.2824		

Health State	Utility	Health State	Utility	Health State	Utility
31111	0.9185	31243	0.5821	31425	0.4862
31112	0.8777	31244	0.4893	31431	0.6514
31113	0.8695	31245	0.4526	31432	0.6106
31114	0.7768	31251	0.5698	31433	0.6024
31115	0.7401	31252	0.5291	31434	0.5097
31121	0.8512	31253	0.5209	31435	0.4730
31122	0.8104	31254	0.4281	31441	0.4985
31123	0.8022	31255	0.3914	31442	0.4577
31124	0.7095	31311	0.8542	31443	0.4495
31125	0.6728	31312	0.8135	31444	0.3568
31131	0.8379	31313	0.8053	31445	0.3201
31132	0.7971	31314	0.7125	31451	0.4373
31133	0.7890	31315	0.6758	31452	0.3965
31134	0.6962	31321	0.7870	31453	0.3884
31135	0.6595	31322	0.7462	31454	0.2956
31141	0.6850	31323	0.7380	31455	0.2589
31142	0.6442	31324	0.6453	31511	0.6830
31143	0.6361	31325	0.6086	31512	0.6422
31144	0.5433	31331	0.7737	31513	0.6340
31145	0.5066	31332	0.7329	31514	0.5413
31151	0.6239	31333	0.7248	31515	0.5046
31152	0.5831	31334	0.6320	31521	0.6157
31153	0.5749	31335	0.5953	31522	0.5749
31154	0.4822	31341	0.6208	31523	0.5668
31155	0.4455	31342	0.5800	31524	0.4740
31211	0.8644	31343	0.5719	31525	0.4373
31212	0.8236	31344	0.4791	31531	0.6024
31213	0.8155	31345	0.4424	31532	0.5617
31214	0.7227	31351	0.5596	31533	0.5535
31215	0.6860	31352	0.5189	31534	0.4608
31221	0.7971	31353	0.5107	31535	0.4241
31222	0.7564	31354	0.4179	31541	0.4495
31223	0.7482	31355	0.3812	31542	0.4088
31224	0.6555	31411	0.7319	31543	0.4006
31225	0.6188	31412	0.6911	31544	0.3078
31231	0.7839	31413	0.6830	31545	0.2712
31232	0.7431	31414	0.5902	31551	0.3884
31233	0.7350	31415	0.5535	31552	0.3476
31234	0.6422	31421	0.6646	31553	0.3394
31235	0.6055	31422	0.6239	31554	0.2467
31241	0.6310	31423	0.6157	31555	0.2100
31242	0.5902	31424	0.5229		

Health State	Utility	Health State	Utility	Health State	Utility
32111	0.8603	32243	0.5240	32425	0.4281
32112	0.8196	32244	0.4312	32431	0.5933
32113	0.8114	32245	0.3945	32432	0.5525
32114	0.7187	32251	0.5117	32433	0.5443
32115	0.6820	32252	0.4709	32434	0.4516
32121	0.7931	32253	0.4628	32435	0.4149
32122	0.7523	32254	0.3700	32441	0.4404
32123	0.7441	32255	0.3333	32442	0.3996
32124	0.6514	32311	0.7961	32443	0.3914
32125	0.6147	32312	0.7554	32444	0.2987
32131	0.7798	32313	0.7472	32445	0.2620
32132	0.7390	32314	0.6544	32451	0.3792
32133	0.7309	32315	0.6177	32452	0.3384
32134	0.6381	32321	0.7288	32453	0.3303
32135	0.6014	32322	0.6881	32454	0.2375
32141	0.6269	32323	0.6799	32455	0.2008
32142	0.5861	32324	0.5872	32511	0.6249
32143	0.5780	32325	0.5505	32512	0.5841
32144	0.4852	32331	0.7156	32513	0.5759
32145	0.4485	32332	0.6748	32514	0.4832
32151	0.5657	32333	0.6667	32515	0.4465
32152	0.5250	32334	0.5739	32521	0.5576
32153	0.5168	32335	0.5372	32522	0.5168
32154	0.4241	32341	0.5627	32523	0.5087
32155	0.3874	32342	0.5219	32524	0.4159
32211	0.8063	32343	0.5138	32525	0.3792
32212	0.7655	32344	0.4210	32531	0.5443
32213	0.7574	32345	0.3843	32532	0.5036
32214	0.6646	32351	0.5015	32533	0.4954
32215	0.6279	32352	0.4608	32534	0.4027
32221	0.7390	32353	0.4526	32535	0.3660
32222	0.6983	32354	0.3598	32541	0.3914
32223	0.6901	32355	0.3231	32542	0.3507
32224	0.5973	32411	0.6738	32543	0.3425
32225	0.5607	32412	0.6330	32544	0.2497
32231	0.7258	32413	0.6249	32545	0.2130
32232	0.6850	32414	0.5321	32551	0.3303
32233	0.6769	32415	0.4954	32552	0.2895
32234	0.5841	32421	0.6065	32553	0.2813
32235	0.5474	32422	0.5657	32554	0.1886
32241	0.5729	32423	0.5576	32555	0.1519
32242	0.5321	32424	0.4648		

Health State	Utility	Health State	Utility	Health State	Utility
33111	0.8491	33243	0.5127	33425	0.4169
33112	0.8084	33244	0.4200	33431	0.5821
33113	0.8002	33245	0.3833	33432	0.5413
33114	0.7074	33251	0.5005	33433	0.5331
33115	0.6707	33252	0.4597	33434	0.4404
33121	0.7819	33253	0.4516	33435	0.4037
33122	0.7411	33254	0.3588	33441	0.4292
33123	0.7329	33255	0.3221	33442	0.3884
33124	0.6402	33311	0.7849	33443	0.3802
33125	0.6035	33312	0.7441	33444	0.2875
33131	0.7686	33313	0.7360	33445	0.2508
33132	0.7278	33314	0.6432	33451	0.3680
33133	0.7197	33315	0.6065	33452	0.3272
33134	0.6269	33321	0.7176	33453	0.3191
33135	0.5902	33322	0.6769	33454	0.2263
33141	0.6157	33323	0.6687	33455	0.1896
33142	0.5749	33324	0.5759	33511	0.6137
33143	0.5668	33325	0.5392	33512	0.5729
33144	0.4740	33331	0.7044	33513	0.5647
33145	0.4373	33332	0.6636	33514	0.4720
33151	0.5545	33333	0.6555	33515	0.4353
33152	0.5138	33334	0.5627	33521	0.5464
33153	0.5056	33335	0.5260	33522	0.5056
33154	0.4128	33341	0.5515	33523	0.4975
33155	0.3761	33342	0.5107	33524	0.4047
33211	0.7951	33343	0.5025	33525	0.3680
33212	0.7543	33344	0.4098	33531	0.5331
33213	0.7462	33345	0.3731	33532	0.4924
33214	0.6534	33351	0.4903	33533	0.4842
33215	0.6167	33352	0.4495	33534	0.3914
33221	0.7278	33353	0.4414	33535	0.3547
33222	0.6871	33354	0.3486	33541	0.3802
33223	0.6789	33355	0.3119	33542	0.3394
33224	0.5861	33411	0.6626	33543	0.3313
33225	0.5494	33412	0.6218	33544	0.2385
33231	0.7146	33413	0.6137	33545	0.2018
33232	0.6738	33414	0.5209	33551	0.3191
33233	0.6656	33415	0.4842	33552	0.2783
33234	0.5729	33421	0.5953	33553	0.2701
33235	0.5362	33422	0.5545	33554	0.1774
33241	0.5617	33423	0.5464	33555	0.1407
33242	0.5209	33424	0.4536		

Health State	Utility	Health State	Utility	Health State	Utility
34111	0.7176	34243	0.3812	34425	0.2854
34112	0.6769	34244	0.2885	34431	0.4506
34113	0.6687	34245	0.2518	34432	0.4098
34114	0.5759	34251	0.3690	34433	0.4016
34115	0.5392	34252	0.3282	34434	0.3089
34121	0.6504	34253	0.3201	34435	0.2722
34122	0.6096	34254	0.2273	34441	0.2977
34123	0.6014	34255	0.1906	34442	0.2569
34124	0.5087	34311	0.6534	34443	0.2487
34125	0.4720	34312	0.6126	34444	0.1560
34131	0.6371	34313	0.6045	34445	0.1193
34132	0.5963	34314	0.5117	34451	0.2365
34133	0.5882	34315	0.4750	34452	0.1957
34134	0.4954	34321	0.5861	34453	0.1876
34135	0.4587	34322	0.5454	34454	0.0948
34141	0.4842	34323	0.5372	34455	0.0581
34142	0.4434	34324	0.4444	34511	0.4822
34143	0.4353	34325	0.4077	34512	0.4414
34144	0.3425	34331	0.5729	34513	0.4332
34145	0.3058	34332	0.5321	34514	0.3405
34151	0.4230	34333	0.5240	34515	0.3038
34152	0.3823	34334	0.4312	34521	0.4149
34153	0.3741	34335	0.3945	34522	0.3741
34154	0.2813	34341	0.4200	34523	0.3660
34155	0.2446	34342	0.3792	34524	0.2732
34211	0.6636	34343	0.3710	34525	0.2365
34212	0.6228	34344	0.2783	34531	0.4016
34213	0.6147	34345	0.2416	34532	0.3609
34214	0.5219	34351	0.3588	34533	0.3527
34215	0.4852	34352	0.3180	34534	0.2599
34221	0.5963	34353	0.3099	34535	0.2232
34222	0.5556	34354	0.2171	34541	0.2487
34223	0.5474	34355	0.1804	34542	0.2080
34224	0.4546	34411	0.5311	34543	0.1998
34225	0.4179	34412	0.4903	34544	0.1070
34231	0.5831	34413	0.4822	34545	0.0703
34232	0.5423	34414	0.3894	34551	0.1876
34233	0.5341	34415	0.3527	34552	0.1468
34234	0.4414	34421	0.4638	34553	0.1386
34235	0.4047	34422	0.4230	34554	0.0459
34241	0.4302	34423	0.4149	34555	0.0092
34242	0.3894	34424	0.3221		

Health State	Utility	Health State	Utility	Health State	Utility
35111	0.6646	35243	0.3282	35425	0.2324
35112	0.6239	35244	0.2355	35431	0.3976
35113	0.6157	35245	0.1988	35432	0.3568
35114	0.5229	35251	0.3160	35433	0.3486
35115	0.4862	35252	0.2752	35434	0.2559
35121	0.5973	35253	0.2671	35435	0.2192
35122	0.5566	35254	0.1743	35441	0.2446
35123	0.5484	35255	0.1376	35442	0.2039
35124	0.4557	35311	0.6004	35443	0.1957
35125	0.4190	35312	0.5596	35444	0.1030
35131	0.5841	35313	0.5515	35445	0.0663
35132	0.5433	35314	0.4587	35451	0.1835
35133	0.5352	35315	0.4220	35452	0.1427
35134	0.4424	35321	0.5331	35453	0.1346
35135	0.4057	35322	0.4924	35454	0.0418
35141	0.4312	35323	0.4842	35455	0.0051
35142	0.3904	35324	0.3914	35511	0.4292
35143	0.3823	35325	0.3547	35512	0.3884
35144	0.2895	35331	0.5199	35513	0.3802
35145	0.2528	35332	0.4791	35514	0.2875
35151	0.3700	35333	0.4709	35515	0.2508
35152	0.3293	35334	0.3782	35521	0.3619
35153	0.3211	35335	0.3415	35522	0.3211
35154	0.2283	35341	0.3670	35523	0.3129
35155	0.1916	35342	0.3262	35524	0.2202
35211	0.6106	35343	0.3180	35525	0.1835
35212	0.5698	35344	0.2253	35531	0.3486
35213	0.5617	35345	0.1886	35532	0.3078
35214	0.4689	35351	0.3058	35533	0.2997
35215	0.4322	35352	0.2650	35534	0.2069
35221	0.5433	35353	0.2569	35535	0.1702
35222	0.5025	35354	0.1641	35541	0.1957
35223	0.4944	35355	0.1274	35542	0.1549
35224	0.4016	35411	0.4781	35543	0.1468
35225	0.3649	35412	0.4373	35544	0.0540
35231	0.5301	35413	0.4292	35545	0.0173
35232	0.4893	35414	0.3364	35551	0.1346
35233	0.4811	35415	0.2997	35552	0.0938
35234	0.3884	35421	0.4108	35553	0.0856
35235	0.3517	35422	0.3700	35554	-0.0071
35241	0.3772	35423	0.3619	35555	-0.0438
35242	0.3364	35424	0.2691		

Health State	Utility	Health State	Utility	Health State	Utility
41111	0.7635	41243	0.4271	41425	0.3313
41112	0.7227	41244	0.3344	41431	0.4964
41113	0.7146	41245	0.2977	41432	0.4557
41114	0.6218	41251	0.4149	41433	0.4475
41115	0.5851	41252	0.3741	41434	0.3547
41121	0.6962	41253	0.3660	41435	0.3180
41122	0.6555	41254	0.2732	41441	0.3435
41123	0.6473	41255	0.2365	41442	0.3028
41124	0.5545	41311	0.6993	41443	0.2946
41125	0.5178	41312	0.6585	41444	0.2018
41131	0.6830	41313	0.6504	41445	0.1651
41132	0.6422	41314	0.5576	41451	0.2824
41133	0.6340	41315	0.5209	41452	0.2416
41134	0.5413	41321	0.6320	41453	0.2334
41135	0.5046	41322	0.5912	41454	0.1407
41141	0.5301	41323	0.5831	41455	0.1040
41142	0.4893	41324	0.4903	41511	0.5280
41143	0.4811	41325	0.4536	41512	0.4873
41144	0.3884	41331	0.6188	41513	0.4791
41145	0.3517	41332	0.5780	41514	0.3863
41151	0.4689	41333	0.5698	41515	0.3496
41152	0.4281	41334	0.4771	41521	0.4608
41153	0.4200	41335	0.4404	41522	0.4200
41154	0.3272	41341	0.4659	41523	0.4118
41155	0.2905	41342	0.4251	41524	0.3191
41211	0.7095	41343	0.4169	41525	0.2824
41212	0.6687	41344	0.3242	41531	0.4475
41213	0.6606	41345	0.2875	41532	0.4067
41214	0.5678	41351	0.4047	41533	0.3986
41215	0.5311	41352	0.3639	41534	0.3058
41221	0.6422	41353	0.3558	41535	0.2691
41222	0.6014	41354	0.2630	41541	0.2946
41223	0.5933	41355	0.2263	41542	0.2538
41224	0.5005	41411	0.5770	41543	0.2457
41225	0.4638	41412	0.5362	41544	0.1529
41231	0.6290	41413	0.5280	41545	0.1162
41232	0.5882	41414	0.4353	41551	0.2334
41233	0.5800	41415	0.3986	41552	0.1927
41234	0.4873	41421	0.5097	41553	0.1845
41235	0.4506	41422	0.4689	41554	0.0917
41241	0.4760	41423	0.4608	41555	0.0550
41242	0.4353	41424	0.3680		

Health State	Utility	Health State	Utility	Health State	Utility
42111	0.7054	42243	0.3690	42425	0.2732
42112	0.6646	42244	0.2762	42431	0.4383
42113	0.6565	42245	0.2396	42432	0.3976
42114	0.5637	42251	0.3568	42433	0.3894
42115	0.5270	42252	0.3160	42434	0.2966
42121	0.6381	42253	0.3078	42435	0.2599
42122	0.5973	42254	0.2151	42441	0.2854
42123	0.5892	42255	0.1784	42442	0.2446
42124	0.4964	42311	0.6412	42443	0.2365
42125	0.4597	42312	0.6004	42444	0.1437
42131	0.6249	42313	0.5923	42445	0.1070
42132	0.5841	42314	0.4995	42451	0.2243
42133	0.5759	42315	0.4628	42452	0.1835
42134	0.4832	42321	0.5739	42453	0.1753
42135	0.4465	42322	0.5331	42454	0.0826
42141	0.4720	42323	0.5250	42455	0.0459
42142	0.4312	42324	0.4322	42511	0.4699
42143	0.4230	42325	0.3955	42512	0.4292
42144	0.3303	42331	0.5607	42513	0.4210
42145	0.2936	42332	0.5199	42514	0.3282
42151	0.4108	42333	0.5117	42515	0.2915
42152	0.3700	42334	0.4190	42521	0.4027
42153	0.3619	42335	0.3823	42522	0.3619
42154	0.2691	42341	0.4077	42523	0.3537
42155	0.2324	42342	0.3670	42524	0.2610
42211	0.6514	42343	0.3588	42525	0.2243
42212	0.6106	42344	0.2661	42531	0.3894
42213	0.6024	42345	0.2294	42532	0.3486
42214	0.5097	42351	0.3466	42533	0.3405
42215	0.4730	42352	0.3058	42534	0.2477
42221	0.5841	42353	0.2977	42535	0.2110
42222	0.5433	42354	0.2049	42541	0.2365
42223	0.5352	42355	0.1682	42542	0.1957
42224	0.4424	42411	0.5189	42543	0.1876
42225	0.4057	42412	0.4781	42544	0.0948
42231	0.5708	42413	0.4699	42545	0.0581
42232	0.5301	42414	0.3772	42551	0.1753
42233	0.5219	42415	0.3405	42552	0.1346
42234	0.4292	42421	0.4516	42553	0.1264
42235	0.3925	42422	0.4108	42554	0.0336
42241	0.4179	42423	0.4027	42555	-0.0031
42242	0.3772	42424	0.3099		

Health State	Utility	Health State	Utility	Health State	Utility
43111	0.6942	43243	0.3578	43425	0.2620
43112	0.6534	43244	0.2650	43431	0.4271
43113	0.6453	43245	0.2283	43432	0.3863
43114	0.5525	43251	0.3456	43433	0.3782
43115	0.5158	43252	0.3048	43434	0.2854
43121	0.6269	43253	0.2966	43435	0.2487
43122	0.5861	43254	0.2039	43441	0.2742
43123	0.5780	43255	0.1672	43442	0.2334
43124	0.4852	43311	0.6300	43443	0.2253
43125	0.4485	43312	0.5892	43444	0.1325
43131	0.6137	43313	0.5810	43445	0.0958
43132	0.5729	43314	0.4883	43451	0.2130
43133	0.5647	43315	0.4516	43452	0.1723
43134	0.4720	43321	0.5627	43453	0.1641
43135	0.4353	43322	0.5219	43454	0.0714
43141	0.4608	43323	0.5138	43455	0.0347
43142	0.4200	43324	0.4210	43511	0.4587
43143	0.4118	43325	0.3843	43512	0.4179
43144	0.3191	43331	0.5494	43513	0.4098
43145	0.2824	43332	0.5087	43514	0.3170
43151	0.3996	43333	0.5005	43515	0.2803
43152	0.3588	43334	0.4077	43521	0.3914
43153	0.3507	43335	0.3710	43522	0.3507
43154	0.2579	43341	0.3965	43523	0.3425
43155	0.2212	43342	0.3558	43524	0.2497
43211	0.6402	43343	0.3476	43525	0.2130
43212	0.5994	43344	0.2548	43531	0.3782
43213	0.5912	43345	0.2181	43532	0.3374
43214	0.4985	43351	0.3354	43533	0.3293
43215	0.4618	43352	0.2946	43534	0.2365
43221	0.5729	43353	0.2864	43535	0.1998
43222	0.5321	43354	0.1937	43541	0.2253
43223	0.5240	43355	0.1570	43542	0.1845
43224	0.4312	43411	0.5076	43543	0.1764
43225	0.3945	43412	0.4669	43544	0.0836
43231	0.5596	43413	0.4587	43545	0.0469
43232	0.5189	43414	0.3660	43551	0.1641
43233	0.5107	43415	0.3293	43552	0.1233
43234	0.4179	43421	0.4404	43553	0.1152
43235	0.3812	43422	0.3996	43554	0.0224
43241	0.4067	43423	0.3914	43555	-0.0143
43242	0.3660	43424	0.2987		

Health State	Utility	Health State	Utility	Health State	Utility
44111	0.5627	44243	0.2263	44425	0.1305
44112	0.5219	44244	0.1335	44431	0.2956
44113	0.5138	44245	0.0968	44432	0.2548
44114	0.4210	44251	0.2141	44433	0.2467
44115	0.3843	44252	0.1733	44434	0.1539
44121	0.4954	44253	0.1651	44435	0.1172
44122	0.4546	44254	0.0724	44441	0.1427
44123	0.4465	44255	0.0357	44442	0.1019
44124	0.3537	44311	0.4985	44443	0.0938
44125	0.3170	44312	0.4577	44444	0.0010
44131	0.4822	44313	0.4495	44445	-0.0357
44132	0.4414	44314	0.3568	44451	0.0815
44133	0.4332	44315	0.3201	44452	0.0408
44134	0.3405	44321	0.4312	44453	0.0326
44135	0.3038	44322	0.3904	44454	-0.0601
44141	0.3293	44323	0.3823	44455	-0.0968
44142	0.2885	44324	0.2895	44511	0.3272
44143	0.2803	44325	0.2528	44512	0.2864
44144	0.1876	44331	0.4179	44513	0.2783
44145	0.1509	44332	0.3772	44514	0.1855
44151	0.2681	44333	0.3690	44515	0.1488
44152	0.2273	44334	0.2762	44521	0.2599
44153	0.2192	44335	0.2396	44522	0.2192
44154	0.1264	44341	0.2650	44523	0.2110
44155	0.0897	44342	0.2243	44524	0.1182
44211	0.5087	44343	0.2161	44525	0.0815
44212	0.4679	44344	0.1233	44531	0.2467
44213	0.4597	44345	0.0866	44532	0.2059
44214	0.3670	44351	0.2039	44533	0.1978
44215	0.3303	44352	0.1631	44534	0.1050
44221	0.4414	44353	0.1549	44535	0.0683
44222	0.4006	44354	0.0622	44541	0.0938
44223	0.3925	44355	0.0255	44542	0.0530
44224	0.2997	44411	0.3761	44543	0.0449
44225	0.2630	44412	0.3354	44544	-0.0479
44231	0.4281	44413	0.3272	44545	-0.0846
44232	0.3874	44414	0.2345	44551	0.0326
44233	0.3792	44415	0.1978	44552	-0.0082
44234	0.2864	44421	0.3089	44553	-0.0163
44235	0.2497	44422	0.2681	44554	-0.1091
44241	0.2752	44423	0.2599	44555	-0.1458
44242	0.2345	44424	0.1672		

Health State	Utility	Health State	Utility	Health State	Utility
45111	0.5097	45243	0.1733	45425	0.0775
45112	0.4689	45244	0.0805	45431	0.2426
45113	0.4608	45245	0.0438	45432	0.2018
45114	0.3680	45251	0.1611	45433	0.1937
45115	0.3313	45252	0.1203	45434	0.1009
45121	0.4424	45253	0.1121	45435	0.0642
45122	0.4016	45254	0.0194	45441	0.0897
45123	0.3935	45255	-0.0173	45442	0.0489
45124	0.3007	45311	0.4455	45443	0.0408
45125	0.2640	45312	0.4047	45444	-0.0520
45131	0.4292	45313	0.3965	45445	-0.0887
45132	0.3884	45314	0.3038	45451	0.0285
45133	0.3802	45315	0.2671	45452	-0.0122
45134	0.2875	45321	0.3782	45453	-0.0204
45135	0.2508	45322	0.3374	45454	-0.1131
45141	0.2762	45323	0.3293	45455	-0.1498
45142	0.2355	45324	0.2365	45511	0.2742
45143	0.2273	45325	0.1998	45512	0.2334
45144	0.1346	45331	0.3649	45513	0.2253
45145	0.0979	45332	0.3242	45514	0.1325
45151	0.2151	45333	0.3160	45515	0.0958
45152	0.1743	45334	0.2232	45521	0.2069
45153	0.1662	45335	0.1865	45522	0.1662
45154	0.0734	45341	0.2120	45523	0.1580
45155	0.0367	45342	0.1713	45524	0.0652
45211	0.4557	45343	0.1631	45525	0.0285
45212	0.4149	45344	0.0703	45531	0.1937
45213	0.4067	45345	0.0336	45532	0.1529
45214	0.3140	45351	0.1509	45533	0.1448
45215	0.2773	45352	0.1101	45534	0.0520
45221	0.3884	45353	0.1019	45535	0.0153
45222	0.3476	45354	0.0092	45541	0.0408
45223	0.3394	45355	-0.0275	45542	0.0000
45224	0.2467	45411	0.3231	45543	-0.0082
45225	0.2100	45412	0.2824	45544	-0.1009
45231	0.3751	45413	0.2742	45545	-0.1376
45232	0.3344	45414	0.1814	45551	-0.0204
45233	0.3262	45415	0.1448	45552	-0.0612
45234	0.2334	45421	0.2559	45553	-0.0693
45235	0.1967	45422	0.2151	45554	-0.1621
45241	0.2222	45423	0.2069	45555	-0.1988
45242	0.1814	45424	0.1142		

Health State	Utility	Health State	Utility	Health State	Utility
51111	0.7013	51243	0.3649	51425	0.2691
51112	0.6606	51244	0.2722	51431	0.4343
51113	0.6524	51245	0.2355	51432	0.3935
51114	0.5596	51251	0.3527	51433	0.3853
51115	0.5229	51252	0.3119	51434	0.2926
51121	0.6340	51253	0.3038	51435	0.2559
51122	0.5933	51254	0.2110	51441	0.2813
51123	0.5851	51255	0.1743	51442	0.2406
51124	0.4924	51311	0.6371	51443	0.2324
51125	0.4557	51312	0.5963	51444	0.1397
51131	0.6208	51313	0.5882	51445	0.1030
51132	0.5800	51314	0.4954	51451	0.2202
51133	0.5719	51315	0.4587	51452	0.1794
51134	0.4791	51321	0.5698	51453	0.1713
51135	0.4424	51322	0.5291	51454	0.0785
51141	0.4679	51323	0.5209	51455	0.0418
51142	0.4271	51324	0.4281	51511	0.4659
51143	0.4190	51325	0.3914	51512	0.4251
51144	0.3262	51331	0.5566	51513	0.4169
51145	0.2895	51332	0.5158	51514	0.3242
51151	0.4067	51333	0.5076	51515	0.2875
51152	0.3660	51334	0.4149	51521	0.3986
51153	0.3578	51335	0.3782	51522	0.3578
51154	0.2650	51341	0.4037	51523	0.3496
51155	0.2283	51342	0.3629	51524	0.2569
51211	0.6473	51343	0.3547	51525	0.2202
51212	0.6065	51344	0.2620	51531	0.3853
51213	0.5984	51345	0.2253	51532	0.3445
51214	0.5056	51351	0.3425	51533	0.3364
51215	0.4689	51352	0.3017	51534	0.2436
51221	0.5800	51353	0.2936	51535	0.2069
51222	0.5392	51354	0.2008	51541	0.2324
51223	0.5311	51355	0.1641	51542	0.1916
51224	0.4383	51411	0.5148	51543	0.1835
51225	0.4016	51412	0.4740	51544	0.0907
51231	0.5668	51413	0.4659	51545	0.0540
51232	0.5260	51414	0.3731	51551	0.1713
51233	0.5178	51415	0.3364	51552	0.1305
51234	0.4251	51421	0.4475	51553	0.1223
51235	0.3884	51422	0.4067	51554	0.0296
51241	0.4139	51423	0.3986	51555	-0.0071
51242	0.3731	51424	0.3058		

Health State	Utility	Health State	Utility	Health State	Utility
52111	0.6432	52243	0.3068	52425	0.2110
52112	0.6024	52244	0.2141	52431	0.3761
52113	0.5943	52245	0.1774	52432	0.3354
52114	0.5015	52251	0.2946	52433	0.3272
52115	0.4648	52252	0.2538	52434	0.2345
52121	0.5759	52253	0.2457	52435	0.1978
52122	0.5352	52254	0.1529	52441	0.2232
52123	0.5270	52255	0.1162	52442	0.1825
52124	0.4343	52311	0.5790	52443	0.1743
52125	0.3976	52312	0.5382	52444	0.0815
52131	0.5627	52313	0.5301	52445	0.0449
52132	0.5219	52314	0.4373	52451	0.1621
52133	0.5138	52315	0.4006	52452	0.1213
52134	0.4210	52321	0.5117	52453	0.1131
52135	0.3843	52322	0.4709	52454	0.0204
52141	0.4098	52323	0.4628	52455	-0.0163
52142	0.3690	52324	0.3700	52511	0.4077
52143	0.3609	52325	0.3333	52512	0.3670
52144	0.2681	52331	0.4985	52513	0.3588
52145	0.2314	52332	0.4577	52514	0.2661
52151	0.3486	52333	0.4495	52515	0.2294
52152	0.3078	52334	0.3568	52521	0.3405
52153	0.2997	52335	0.3201	52522	0.2997
52154	0.2069	52341	0.3456	52523	0.2915
52155	0.1702	52342	0.3048	52524	0.1988
52211	0.5892	52343	0.2966	52525	0.1621
52212	0.5484	52344	0.2039	52531	0.3272
52213	0.5403	52345	0.1672	52532	0.2864
52214	0.4475	52351	0.2844	52533	0.2783
52215	0.4108	52352	0.2436	52534	0.1855
52221	0.5219	52353	0.2355	52535	0.1488
52222	0.4811	52354	0.1427	52541	0.1743
52223	0.4730	52355	0.1060	52542	0.1335
52224	0.3802	52411	0.4567	52543	0.1254
52225	0.3435	52412	0.4159	52544	0.0326
52231	0.5087	52413	0.4077	52545	-0.0041
52232	0.4679	52414	0.3150	52551	0.1131
52233	0.4597	52415	0.2783	52552	0.0724
52234	0.3670	52421	0.3894	52553	0.0642
52235	0.3303	52422	0.3486	52554	-0.0285
52241	0.3558	52423	0.3405	52555	-0.0652
52242	0.3150	52424	0.2477		

Health State	Utility	Health State	Utility	Health State	Utility
53111	0.6320	53243	0.2956	53425	0.1998
53112	0.5912	53244	0.2029	53431	0.3649
53113	0.5831	53245	0.1662	53432	0.3242
53114	0.4903	53251	0.2834	53433	0.3160
53115	0.4536	53252	0.2426	53434	0.2232
53121	0.5647	53253	0.2345	53435	0.1865
53122	0.5240	53254	0.1417	53441	0.2120
53123	0.5158	53255	0.1050	53442	0.1713
53124	0.4230	53311	0.5678	53443	0.1631
53125	0.3863	53312	0.5270	53444	0.0703
53131	0.5515	53313	0.5189	53445	0.0336
53132	0.5107	53314	0.4261	53451	0.1509
53133	0.5025	53315	0.3894	53452	0.1101
53134	0.4098	53321	0.5005	53453	0.1019
53135	0.3731	53322	0.4597	53454	0.0092
53141	0.3986	53323	0.4516	53455	-0.0275
53142	0.3578	53324	0.3588	53511	0.3965
53143	0.3496	53325	0.3221	53512	0.3558
53144	0.2569	53331	0.4873	53513	0.3476
53145	0.2202	53332	0.4465	53514	0.2548
53151	0.3374	53333	0.4383	53515	0.2181
53152	0.2966	53334	0.3456	53521	0.3293
53153	0.2885	53335	0.3089	53522	0.2885
53154	0.1957	53341	0.3344	53523	0.2803
53155	0.1590	53342	0.2936	53524	0.1876
53211	0.5780	53343	0.2854	53525	0.1509
53212	0.5372	53344	0.1927	53531	0.3160
53213	0.5291	53345	0.1560	53532	0.2752
53214	0.4363	53351	0.2732	53533	0.2671
53215	0.3996	53352	0.2324	53534	0.1743
53221	0.5107	53353	0.2243	53535	0.1376
53222	0.4699	53354	0.1315	53541	0.1631
53223	0.4618	53355	0.0948	53542	0.1223
53224	0.3690	53411	0.4455	53543	0.1142
53225	0.3323	53412	0.4047	53544	0.0214
53231	0.4975	53413	0.3965	53545	-0.0153
53232	0.4567	53414	0.3038	53551	0.1019
53233	0.4485	53415	0.2671	53552	0.0612
53234	0.3558	53421	0.3782	53553	0.0530
53235	0.3191	53422	0.3374	53554	-0.0398
53241	0.3445	53423	0.3293	53555	-0.0765
53242	0.3038	53424	0.2365		

Health State	Utility	Health State	Utility	Health State	Utility
54111	0.5005	54243	0.1641	54425	0.0683
54112	0.4597	54244	0.0714	54431	0.2334
54113	0.4516	54245	0.0347	54432	0.1927
54114	0.3588	54251	0.1519	54433	0.1845
54115	0.3221	54252	0.1111	54434	0.0917
54121	0.4332	54253	0.1030	54435	0.0550
54122	0.3925	54254	0.0102	54441	0.0805
54123	0.3843	54255	-0.0265	54442	0.0398
54124	0.2915	54311	0.4363	54443	0.0316
54125	0.2548	54312	0.3955	54444	-0.0612
54131	0.4200	54313	0.3874	54445	-0.0979
54132	0.3792	54314	0.2946	54451	0.0194
54133	0.3710	54315	0.2579	54452	-0.0214
54134	0.2783	54321	0.3690	54453	-0.0296
54135	0.2416	54322	0.3282	54454	-0.1223
54141	0.2671	54323	0.3201	54455	-0.1590
54142	0.2263	54324	0.2273	54511	0.2650
54143	0.2181	54325	0.1906	54512	0.2243
54144	0.1254	54331	0.3558	54513	0.2161
54145	0.0887	54332	0.3150	54514	0.1233
54151	0.2059	54333	0.3068	54515	0.0866
54152	0.1651	54334	0.2141	54521	0.1978
54153	0.1570	54335	0.1774	54522	0.1570
54154	0.0642	54341	0.2029	54523	0.1488
54155	0.0275	54342	0.1621	54524	0.0561
54211	0.4465	54343	0.1539	54525	0.0194
54212	0.4057	54344	0.0612	54531	0.1845
54213	0.3976	54345	0.0245	54532	0.1437
54214	0.3048	54351	0.1417	54533	0.1356
54215	0.2681	54352	0.1009	54534	0.0428
54221	0.3792	54353	0.0928	54535	0.0061
54222	0.3384	54354	0.0000	54541	0.0316
54223	0.3303	54355	-0.0367	54542	-0.0092
54224	0.2375	54411	0.3140	54543	-0.0173
54225	0.2008	54412	0.2732	54544	-0.1101
54231	0.3660	54413	0.2650	54545	-0.1468
54232	0.3252	54414	0.1723	54551	-0.0296
54233	0.3170	54415	0.1356	54552	-0.0703
54234	0.2243	54421	0.2467	54553	-0.0785
54235	0.1876	54422	0.2059	54554	-0.1713
54241	0.2130	54423	0.1978	54555	-0.2080
54242	0.1723	54424	0.1050		

Health State	Utility	Health State	Utility	Health State	Utility
55111	0.4475	55243	0.1111	55425	0.0153
55112	0.4067	55244	0.0183	55431	0.1804
55113	0.3986	55245	-0.0183	55432	0.1397
55114	0.3058	55251	0.0989	55433	0.1315
55115	0.2691	55252	0.0581	55434	0.0387
55121	0.3802	55253	0.0499	55435	0.0020
55122	0.3394	55254	-0.0428	55441	0.0275
55123	0.3313	55255	-0.0795	55442	-0.0133
55124	0.2385	55311	0.3833	55443	-0.0214
55125	0.2018	55312	0.3425	55444	-0.1142
55131	0.3670	55313	0.3344	55445	-0.1509
55132	0.3262	55314	0.2416	55451	-0.0336
55133	0.3180	55315	0.2049	55452	-0.0744
55134	0.2253	55321	0.3160	55453	-0.0826
55135	0.1886	55322	0.2752	55454	-0.1753
55141	0.2141	55323	0.2671	55455	-0.2120
55142	0.1733	55324	0.1743	55511	0.2120
55143	0.1651	55325	0.1376	55512	0.1713
55144	0.0724	55331	0.3028	55513	0.1631
55145	0.0357	55332	0.2620	55514	0.0703
55151	0.1529	55333	0.2538	55515	0.0336
55152	0.1121	55334	0.1611	55521	0.1448
55153	0.1040	55335	0.1244	55522	0.1040
55154	0.0112	55341	0.1498	55523	0.0958
55155	-0.0255	55342	0.1091	55524	0.0031
55211	0.3935	55343	0.1009	55525	-0.0336
55212	0.3527	55344	0.0082	55531	0.1315
55213	0.3445	55345	-0.0285	55532	0.0907
55214	0.2518	55351	0.0887	55533	0.0826
55215	0.2151	55352	0.0479	55534	-0.0102
55221	0.3262	55353	0.0398	55535	-0.0469
55222	0.2854	55354	-0.0530	55541	-0.0214
55223	0.2773	55355	-0.0897	55542	-0.0622
55224	0.1845	55411	0.2610	55543	-0.0703
55225	0.1478	55412	0.2202	55544	-0.1631
55231	0.3129	55413	0.2120	55545	-0.1998
55232	0.2722	55414	0.1193	55551	-0.0826
55233	0.2640	55415	0.0826	55552	-0.1233
55234	0.1713	55421	0.1937	55553	-0.1315
55235	0.1346	55422	0.1529	55554	-0.2243
55241	0.1600	55423	0.1448	55555	-0.2610
55242	0.1193	55424	0.0520		

Appendix O. 20-parameter Models

TTO-ONLY MODELS

OLS

	Coefficient	Standard Error	p-value
mo2	0.026	0.012	0.023
mo3	-0.023	0.013	0.075
mo4	0.163	0.014	0.000
mo5	0.138	0.013	0.000
sc2	0.029	0.011	0.009
sc3	0.014	0.014	0.317
sc4	0.153	0.013	0.000
sc5	0.093	0.012	0.000
ua2	0.033	0.012	0.005
ua3	0.036	0.012	0.003
ua4	0.103	0.013	0.000
ua5	0.086	0.013	0.000
pd2	0.052	0.011	0.000
pd3	0.002	0.014	0.886
pd4	0.224	0.013	0.000
pd5	0.065	0.014	0.000
ad2	0.022	0.012	0.066
ad3	0.044	0.013	0.001
ad4	0.075	0.013	0.000
ad5	0.074	0.012	0.000
cons	0.024	0.012	0.044

ROBUST OLS

	Coefficient	Standard Error	p-value
mo2	-0.001	0.008	0.861
mo3	-0.040	0.009	0.000
mo4	0.115	0.010	0.000
mo5	0.183	0.010	0.000
sc2	0.039	0.008	0.000
sc3	-0.007	0.010	0.482
sc4	0.104	0.010	0.000
sc5	0.164	0.008	0.000
ua2	0.035	0.009	0.000
ua3	0.045	0.009	0.000
ua4	0.065	0.010	0.000
ua5	0.135	0.009	0.000
pd2	0.035	0.008	0.000
pd3	0.002	0.010	0.855
pd4	0.171	0.009	0.000
pd5	0.156	0.010	0.000
ad2	0.032	0.008	0.000
ad3	-0.007	0.009	0.470
ad4	0.079	0.009	0.000
ad5	0.118	0.008	0.000
cons	0.029	0.009	0.001

MAXIMUM LIKELIHOOD ESTIMATOR

	Coefficient	Standard Error	p-value
mo2	0.021	0.010	0.033
mo3	-0.017	0.011	0.124
mo4	0.156	0.012	0.000
mo5	0.139	0.012	0.000
sc2	0.031	0.010	0.001
sc3	0.014	0.012	0.252
sc4	0.151	0.012	0.000
sc5	0.096	0.010	0.000
ua2	0.036	0.010	0.000
ua3	0.030	0.011	0.006
ua4	0.112	0.012	0.000
ua5	0.080	0.011	0.000
pd2	0.047	0.009	0.000
pd3	0.016	0.012	0.198
pd4	0.216	0.011	0.000
pd5	0.064	0.013	0.000
ad2	0.016	0.011	0.119
ad3	0.042	0.011	0.000
ad4	0.074	0.011	0.000
ad5	0.081	0.010	0.000
cons	0.029	0.012	0.016

MIXED EFFECTS MAXIMUM LIKELIHOOD REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.027	0.009	0.004
mo3	-0.034	0.010	0.001
mo4	0.157	0.011	0.000
mo5	0.141	0.011	0.000
sc2	0.036	0.008	0.000
sc3	0.009	0.010	0.370
sc4	0.151	0.011	0.000
sc5	0.108	0.010	0.000
ua2	0.035	0.009	0.000
ua3	0.024	0.009	0.009
ua4	0.109	0.011	0.000
ua5	0.093	0.010	0.000
pd2	0.041	0.008	0.000
pd3	0.013	0.011	0.241
pd4	0.222	0.011	0.000
pd5	0.068	0.013	0.000
ad2	0.021	0.008	0.011
ad3	0.032	0.010	0.002
ad4	0.073	0.010	0.000
ad5	0.083	0.010	0.000
cons	0.036	0.008	0.000

TOBIT REGION

	Coefficient	Standard Error	p-value
mo2	0.026	0.012	0.024
mo3	-0.023	0.013	0.073
mo4	0.163	0.014	0.000
mo5	0.139	0.013	0.000
sc2	0.029	0.011	0.009
sc3	0.014	0.014	0.324
sc4	0.153	0.013	0.000
sc5	0.094	0.012	0.000
ua2	0.033	0.012	0.005
ua3	0.036	0.012	0.003
ua4	0.103	0.014	0.000
ua5	0.086	0.013	0.000
pd2	0.051	0.011	0.000
pd3	0.002	0.014	0.891
pd4	0.224	0.013	0.000
pd5	0.066	0.014	0.000
ad2	0.022	0.012	0.066
ad3	0.043	0.013	0.001
ad4	0.075	0.013	0.000
ad5	0.074	0.012	0.000
cons	0.024	0.012	0.045

RANDOM EFFECTS TOBIT REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.021	0.010	0.036
mo3	-0.017	0.011	0.122
mo4	0.156	0.012	0.000
mo5	0.140	0.012	0.000
sc2	0.031	0.010	0.001
sc3	0.013	0.012	0.261
sc4	0.151	0.012	0.000
sc5	0.097	0.010	0.000
ua2	0.036	0.010	0.000
ua3	0.030	0.011	0.005
ua4	0.112	0.012	0.000
ua5	0.081	0.011	0.000
pd2	0.046	0.009	0.000
pd3	0.016	0.012	0.197
pd4	0.217	0.011	0.000
pd5	0.065	0.013	0.000
ad2	0.016	0.011	0.120
ad3	0.042	0.012	0.000
ad4	0.075	0.011	0.000
ad5	0.081	0.010	0.000
cons	0.028	0.012	0.016

INTERVAL REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.026	0.012	0.024
mo3	-0.023	0.013	0.073
mo4	0.163	0.014	0.000
mo5	0.139	0.013	0.000
sc2	0.029	0.011	0.009
sc3	0.014	0.014	0.324
sc4	0.153	0.013	0.000
sc5	0.094	0.012	0.000
ua2	0.033	0.012	0.005
ua3	0.036	0.012	0.003
ua4	0.103	0.014	0.000
ua5	0.086	0.013	0.000
pd2	0.051	0.011	0.000
pd3	0.002	0.014	0.891
pd4	0.224	0.013	0.000
pd5	0.066	0.014	0.000
ad2	0.022	0.012	0.066
ad3	0.043	0.013	0.001
ad4	0.075	0.013	0.000
ad5	0.074	0.012	0.000
cons	0.024	0.012	0.045

RANDOM EFFECTS INTERVAL REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.021	0.010	0.036
mo3	-0.017	0.011	0.122
mo4	0.156	0.012	0.000
mo5	0.140	0.012	0.000
sc2	0.031	0.010	0.001
sc3	0.013	0.012	0.261
sc4	0.151	0.012	0.000
sc5	0.097	0.010	0.000
ua2	0.036	0.010	0.000
ua3	0.030	0.011	0.005
ua4	0.112	0.012	0.000
ua5	0.081	0.011	0.000
pd2	0.046	0.009	0.000
pd3	0.016	0.012	0.197
pd4	0.217	0.011	0.000
pd5	0.065	0.013	0.000
ad2	0.016	0.011	0.120
ad3	0.042	0.012	0.000
ad4	0.075	0.011	0.000
ad5	0.081	0.010	0.000
cons	0.028	0.012	0.016

RANDOM EFFECTS INTERVAL REGRESSION MODEL

	Coefficient	Standard Error	p-value
mo2	0.025	0.012	0.028
mo3	-0.025	0.013	0.054
mo4	0.164	0.014	0.000
mo5	0.143	0.013	0.000
sc2	0.029	0.011	0.011
sc3	0.014	0.014	0.303
sc4	0.154	0.013	0.000
sc5	0.095	0.012	0.000
ua2	0.034	0.012	0.005
ua3	0.037	0.012	0.003
ua4	0.102	0.014	0.000
ua5	0.089	0.013	0.000
pd2	0.051	0.011	0.000
pd3	0.002	0.014	0.887
pd4	0.227	0.013	0.000
pd5	0.066	0.014	0.000
ad2	0.022	0.012	0.067
ad3	0.043	0.013	0.001
ad4	0.076	0.013	0.000
ad5	0.076	0.012	0.000
cons	0.023	0.012	0.051

GENERALIZED LEAST SQUARES INTERVAL REGRESION MODEL

	Coefficient	Standard Error	p-value
mo2	0.019	0.010	0.050
mo3	-0.018	0.011	0.100
mo4	0.158	0.012	0.000
mo5	0.143	0.012	0.000
sc2	0.031	0.010	0.002
sc3	0.013	0.012	0.262
sc4	0.153	0.012	0.000
sc5	0.097	0.010	0.000
ua2	0.036	0.010	0.000
ua3	0.030	0.011	0.006
ua4	0.111	0.012	0.000
ua5	0.084	0.011	0.000
pd2	0.046	0.009	0.000
pd3	0.016	0.012	0.189
pd4	0.219	0.011	0.000
pd5	0.065	0.013	0.000
ad2	0.016	0.011	0.133
ad3	0.042	0.012	0.000
ad4	0.075	0.011	0.000
ad5	0.083	0.010	0.000
cons	0.029	0.012	0.015

DCE MODELS

CONDITIONAL LOGISTIC REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.602	0.058	0.000
mo3	-0.086	0.064	0.176
mo4	0.793	0.063	0.000
mo5	0.479	0.067	0.000
sc2	0.448	0.062	0.000
sc3	0.035	0.066	0.599
sc4	0.692	0.070	0.000
sc5	0.148	0.063	0.020
ua2	0.398	0.059	0.000
ua3	-0.004	0.064	0.956
ua4	0.557	0.065	0.000
ua5	0.206	0.065	0.001
pd2	0.494	0.062	0.000
pd3	0.030	0.065	0.646
pd4	0.756	0.066	0.000
pd5	0.139	0.068	0.040
ad2	0.241	0.063	0.000
ad3	0.146	0.065	0.025
ad4	0.497	0.071	0.000
ad5	0.008	0.066	0.907

LOGISTIC REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.602	0.058	0.000
mo3	-0.086	0.064	0.176
mo4	0.793	0.063	0.000
mo5	0.479	0.067	0.000
sc2	0.448	0.062	0.000
sc3	0.035	0.066	0.599
sc4	0.692	0.070	0.000
sc5	0.148	0.063	0.020
ua2	0.398	0.059	0.000
ua3	-0.004	0.064	0.956
ua4	0.557	0.065	0.000
ua5	0.206	0.065	0.001
pd2	0.494	0.062	0.000
pd3	0.030	0.065	0.646
pd4	0.756	0.066	0.000
pd5	0.139	0.068	0.040
ad2	0.241	0.063	0.000
ad3	0.146	0.065	0.025
ad4	0.497	0.071	0.000
ad5	0.008	0.066	0.907

PROBIT REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.362	0.035	0.000
mo3	-0.057	0.038	0.133
mo4	0.474	0.037	0.000
mo5	0.268	0.039	0.000
sc2	0.262	0.037	0.000
sc3	0.026	0.039	0.497
sc4	0.408	0.041	0.000
sc5	0.084	0.037	0.024
ua2	0.239	0.035	0.000
ua3	-0.004	0.038	0.906
ua4	0.325	0.038	0.000
ua5	0.116	0.038	0.002
pd2	0.289	0.037	0.000
pd3	0.016	0.039	0.672
pd4	0.442	0.038	0.000
pd5	0.082	0.039	0.039
ad2	0.137	0.037	0.000
ad3	0.092	0.039	0.017
ad4	0.289	0.041	0.000
ad5	0.006	0.039	0.876

HETEROSKEDASTIC PROBIT MODEL

	Coefficient	Standard Error	p-value
mo2	0.349	0.036	0.000
mo3	-0.029	0.039	0.461
mo4	0.434	0.040	0.000
mo5	0.251	0.043	0.000
sc2	0.276	0.037	0.000
sc3	0.015	0.041	0.709
sc4	0.430	0.045	0.000
sc5	0.025	0.040	0.535
ua2	0.248	0.037	0.000
ua3	-0.056	0.040	0.159
ua4	0.339	0.040	0.000
ua5	0.154	0.043	0.000
pd2	0.285	0.037	0.000
pd3	-0.003	0.040	0.945
pd4	0.442	0.042	0.000
pd5	0.102	0.043	0.017
ad2	0.147	0.039	0.000
ad3	0.101	0.042	0.016
ad4	0.270	0.043	0.000
ad5	0.024	0.040	0.554

Insigma2

mo2	0.061	0.071	0.390
mo3	0.008	0.067	0.901
mo4	0.009	0.063	0.883
mo5	0.109	0.061	0.076
sc2	0.123	0.065	0.058
sc3	-0.073	0.062	0.245
sc4	0.177	0.074	0.016
sc5	-0.088	0.061	0.149
ua2	-0.149	0.064	0.020
ua3	0.276	0.067	0.000
ua4	-0.110	0.059	0.061
ua5	-0.002	0.062	0.968
pd2	0.148	0.065	0.024
pd3	-0.046	0.068	0.502
pd4	-0.196	0.057	0.001
pd5	0.066	0.058	0.256
ad2	-0.244	0.069	0.000
ad3	0.028	0.068	0.683
ad4	0.131	0.059	0.026
ad5	-0.023	0.059	0.690

RANDOM EFFECTS LOGISTIC MODEL

	Coefficient	Standard Error	p-value
mo2	0.613	0.059	0.000
mo3	-0.089	0.065	0.171
mo4	0.806	0.064	0.000
mo5	0.489	0.068	0.000
sc2	0.456	0.063	0.000
sc3	0.033	0.067	0.623
sc4	0.707	0.072	0.000
sc5	0.149	0.064	0.021
ua2	0.405	0.060	0.000
ua3	-0.007	0.065	0.909
ua4	0.566	0.066	0.000
ua5	0.215	0.066	0.001
pd2	0.503	0.063	0.000
pd3	0.033	0.066	0.616
pd4	0.765	0.067	0.000
pd5	0.146	0.069	0.035
ad2	0.241	0.064	0.000
ad3	0.152	0.067	0.023
ad4	0.504	0.072	0.000
ad5	0.009	0.068	0.898

RANDOM EFFECTS PROBIT REGRESSION

	Coefficient	Standard Error	p-value
mo2	0.367	0.036	0.000
mo3	-0.058	0.039	0.133
mo4	0.480	0.038	0.000
mo5	0.274	0.039	0.000
sc2	0.266	0.037	0.000
sc3	0.026	0.040	0.515
sc4	0.416	0.042	0.000
sc5	0.085	0.038	0.025
ua2	0.243	0.036	0.000
ua3	-0.007	0.038	0.863
ua4	0.330	0.038	0.000
ua5	0.122	0.039	0.002
pd2	0.294	0.038	0.000
pd3	0.018	0.039	0.645
pd4	0.447	0.039	0.000
pd5	0.086	0.040	0.033
ad2	0.138	0.038	0.000
ad3	0.094	0.040	0.017
ad4	0.293	0.042	0.000
ad5	0.006	0.039	0.875

HYBRID MODELS

BASIC HYBRID MODEL (OLS AND CONDITIONAL LOGIT)

	Coefficient	Standard Error	p-value
mo2	0.069	0.008	0.000
mo3	-0.021	0.010	0.031
mo4	0.166	0.010	0.000
mo5	0.131	0.009	0.000
sc2	0.057	0.008	0.000
sc3	0.003	0.010	0.778
sc4	0.153	0.010	0.000
sc5	0.070	0.009	0.000
ua2	0.047	0.008	0.000
ua3	0.012	0.009	0.190
ua4	0.119	0.010	0.000
ua5	0.076	0.010	0.000
pd2	0.074	0.008	0.000
pd3	-0.004	0.010	0.706
pd4	0.201	0.010	0.000
pd5	0.066	0.010	0.000
ad2	0.025	0.008	0.002
ad3	0.041	0.010	0.000
ad4	0.085	0.010	0.000
ad5	0.051	0.009	0.000
cons	-0.018	0.005	0.001

BASIC HYBRID MODEL (OLS AND CONDITIONAL LOGIT, -1 IS CENSORED)

	Coefficient	Standard Error	p-value
mo2	0.069	0.008	0.000
mo3	-0.021	0.010	0.031
mo4	0.166	0.010	0.000
mo5	0.132	0.009	0.000
sc2	0.057	0.008	0.000
sc3	0.003	0.010	0.787
sc4	0.153	0.010	0.000
sc5	0.070	0.009	0.000
ua2	0.047	0.008	0.000
ua3	0.012	0.009	0.191
ua4	0.120	0.010	0.000
ua5	0.076	0.010	0.000
pd2	0.074	0.008	0.000
pd3	-0.004	0.010	0.704
pd4	0.201	0.010	0.000
pd5	0.067	0.010	0.000
ad2	0.025	0.008	0.003
ad3	0.041	0.010	0.000
ad4	0.086	0.010	0.000
ad5	0.051	0.009	0.000
cons	-0.019	0.005	0.001

SUGGESTED HYBRID MODEL IN THE CURRENT LITERATURE

	Coefficient	Standard Error	p-value
mo2	0.066	0.005	0.000
mo3	-0.012	0.008	0.157
mo4	0.151	0.010	0.000
mo5	0.116	0.009	0.000
sc2	0.065	0.004	0.000
sc3	-0.004	0.007	0.557
sc4	0.139	0.009	0.000
sc5	0.057	0.009	0.000
ua2	0.063	0.005	0.000
ua3	0.000	0.007	0.984
ua4	0.109	0.009	0.000
ua5	0.058	0.009	0.000
pd2	0.068	0.004	0.000
pd3	-0.003	0.008	0.691
pd4	0.179	0.009	0.000
pd5	0.059	0.010	0.000
ad2	0.058	0.004	0.000
ad3	0.018	0.008	0.025
ad4	0.070	0.009	0.000
ad5	0.041	0.008	0.000

Insigma

mo2	0.266	0.026	0.000
mo3	0.114	0.029	0.000
mo4	0.171	0.032	0.000
mo5	-0.051	0.031	0.095
sc2	0.185	0.026	0.000
sc3	0.007	0.031	0.835
sc4	0.187	0.030	0.000
sc5	-0.003	0.025	0.903
ua2	0.278	0.027	0.000
ua3	0.021	0.028	0.452
ua4	0.190	0.031	0.000
ua5	-0.161	0.029	0.000
pd2	0.165	0.024	0.000
pd3	0.005	0.032	0.884
pd4	0.209	0.030	0.000
pd5	0.064	0.032	0.041
ad2	0.160	0.027	0.000
ad3	0.157	0.030	0.000
ad4	0.080	0.028	0.004
ad5	-0.160	0.026	0.000
cons	-2.528	0.030	0.000

APPENDIX P. Formulae for Models Used (Rowen et al. 2014)

1. A combined likelihood function

We may combine the data from the TTO and DCE datasets as follows where v represents utility and x_{ij} is a vector of dummy variables for each level λ of dimension d of the health state classification system where level $\lambda = 1$ is the baseline for each dimension. Health state $j=1,2 \dots N$ is valued by respondent $i=1,2 \dots N$. For the linear regression part we assume a normal distributed error leading to:

$$v_i = \alpha + \sum_{j=1}^{nd} \beta_j x_{ij} + e_i = \alpha + \beta' x + e_i$$

$$e_i \sim N(0, \sigma^2)$$

This can be rewritten as:

$$f(v_i) = \frac{1}{\sqrt{2\pi\sigma^2}} \exp \left(-\frac{\left(v_i - \sum_{j=1}^{nd} \beta_j x_{ij} \right)^2}{2\sigma^2} \right)$$

and leading to the log likelihood function:

$$\text{loglik} = \log \left(\prod_{i=1}^N f(v_i) \right) = -\frac{N}{2} \log(2\pi) - \frac{N}{2} \log(\sigma^2) - \sum_{i=1}^N \frac{\left(v_i - \sum_{j=1}^{nd} \beta_j x_{ij} \right)^2}{2\sigma^2}$$

For the discrete choice data we may say:

$$P(left > right) = P(v_l) > P(v_r)$$

$$v_l = \sum_{j=1}^{nd} \beta_j x_{lj} + e_l; \quad v_r = \sum_{j=1}^{nd} \beta_j x_{rj} + e_r$$

$$P(left > right) = \frac{1}{\left(1 + \exp\left(-\sum_{j=1}^{nd} \beta_j (x_{lj} - x_{rj})\right)\right)}$$

$$P(right > left) = \frac{\exp\left(-\sum_{j=1}^{nd} \beta_j (x_{lj} - x_{rj})\right)}{\left(1 + \exp\left(-\sum_{j=1}^{nd} \beta_j (x_{lj} - x_{rj})\right)\right)}$$

$$Loglik = \sum_{i=1}^{Npair} N_{LGTR}^i \log\left(\frac{1}{(1 + \exp(-\beta' \Delta x_i))}\right) + \sum_{i=1}^{Npair} N_{RGTL}^i \log\left(\frac{\exp(-\beta' \Delta x_i)}{(1 + \exp(-\beta' \Delta x_i))}\right)$$

Where Δx^j is a vector measuring the difference in the dummy variables that characterise the health states in comparison j . The combination of the two may be seen as a simple product while acknowledging that they may differ up to a constant. The following likelihood was used to combine both sets of data:

$$\loglik = -\frac{N}{2} \log(2\pi) - \frac{N}{2} \log(\sigma^2) - \sum_{i=1}^N \frac{\left(v_i - \sum_{j=1}^{nd} \beta_j x_{ij}\right)^2}{2\sigma^2} +$$

$$\sum_{i=1}^{Npair} N_{LGTR}^i \log\left(\frac{1}{(1 + \exp(-\theta\beta' \Delta x_i))}\right) + \sum_{i=1}^{Npair} N_{RGTL}^i \log\left(\frac{\exp(-\theta\beta' \Delta x_i)}{(1 + \exp(-\theta\beta' \Delta x_i))}\right)$$

2. A Bayesian approach

Methods 1-3 in the paper use random effects models and force the constant term to 1 (or zero). To compare these results to the results of hybrid method (4) we have to redefine the likelihoods, and here it is done using a Bayesian approach.

In the logistic model, used for the DCE data, we assume:

$$\begin{aligned}
c_i^j &\sim \text{Bernoulli}(p_i^j) \quad i = 1, \dots, N_{\text{subjects}}, \quad j = 1, \dots, N_{\text{states}}^i \\
\text{logit}(p_i^j) &= \beta_i' \Delta x^j \quad i = 1, \dots, N_{\text{subjects}}, \quad j = 1, \dots, N_{\text{states}}^i \\
\beta_i &\sim N(\bar{\beta}, \delta) \quad i = 1, \dots, N_{\text{subjects}}
\end{aligned}$$

Here, c_i^j is the answer of individual i to a discrete choice j (between two states), and β_i is a subject specific vector of parameters weighing the differences between the health states. Finally, $\bar{\beta}$ is the vector of average weights which is the main focus here.

In the linear model used for the TTO data, where v_i^j is the TTO value given by individual i to state j , we assume:

$$\begin{aligned}
v_i^j &\sim N(\beta_i' \Delta x^j, \sigma^i) \quad i = 1, \dots, N_{\text{subjects}}, \quad j = 1, \dots, N_{\text{states}}^i \\
\beta_i &\sim N(\bar{\beta}, \delta) \quad i = 1, \dots, N_{\text{subjects}} \\
\sigma^i &\sim \Gamma(g_1, g_2) \quad i = 1, \dots, N_{\text{subjects}}
\end{aligned}$$

In the hybrid approach we are using the same formulae as in the state approaches.

However, we are saying that the mean beta's in both approaches are similar except for a constant ϑ . So, the whole model is now:

$$\begin{aligned}
c_i^j &\sim \text{Bernoulli}(p_i^j) \quad i = 1, \dots, N_{\text{subjects}}, \quad j = 1, \dots, N_{\text{states}}^i \\
\text{logit}(p_i^j) &= \beta_i^{DCE} \Delta x^j \quad i = 1, \dots, N_{\text{subjects}}^{DCE}, \quad j = 1, \dots, N_{\text{states}}^i \\
\beta_i^{DCE} &\sim N(\bar{\beta}^{DCE}, \delta) \quad i = 1, \dots, N_{\text{subjects}}^{DCE} \\
v_i^j &\sim N(\beta_i^{TTO} \Delta x^j, \sigma^i) \quad i = 1, \dots, N_{\text{subjects}}^{TTO}, \quad j = 1, \dots, N_{\text{states}}^i \\
\beta_i^{TTO} &\sim N(\vartheta \bar{\beta}^{DCE}, \delta) \quad i = 1, \dots, N_{\text{subjects}}^{TTO} \\
\sigma^i &\sim \Gamma(g_1, g_2) \quad i = 1, \dots, N_{\text{subjects}}
\end{aligned}$$

Appendix Q. Full QC Report

QC Report for EQVT study in Philippines

This document is automatically generated by the EuroQol EQ-VT QC Excel tool.

Date of report: 03/01/2018

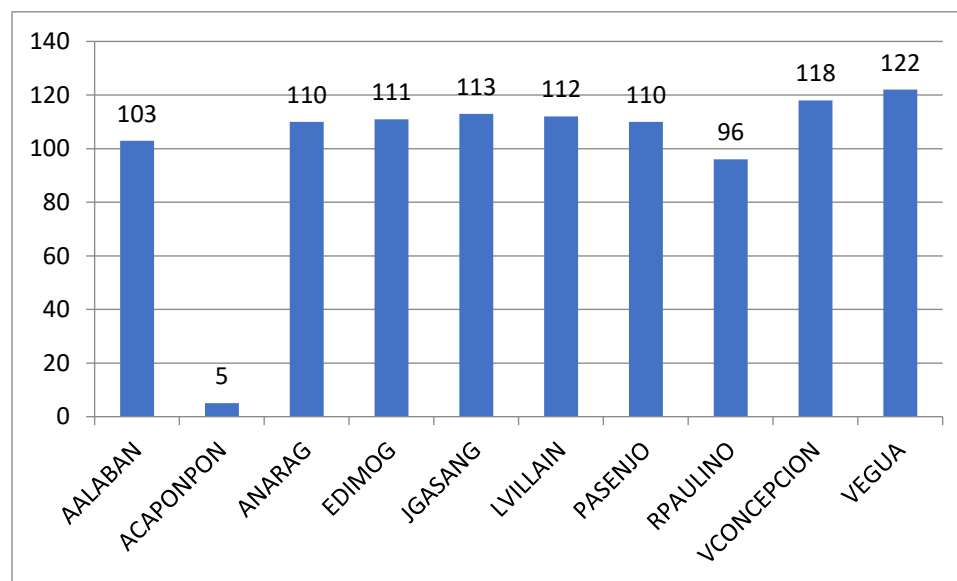
Total number of interviews: 1000

Table 1. Sample demographics

Age	FEMALE	MALE	Total	%
<25	72	98	170	17.00%
[25 - 34]	131	114	245	24.50%
[35 - 44]	108	111	219	21.90%
[45 - 54]	95	94	189	18.90%
[55 - 64]	72	57	129	12.90%
[65 - 74]	14	28	42	4.20%
>75	3	3	6	0.60%
Total	495	505	1000	100.00%

This table shows the total number of respondents in each age-sex category.

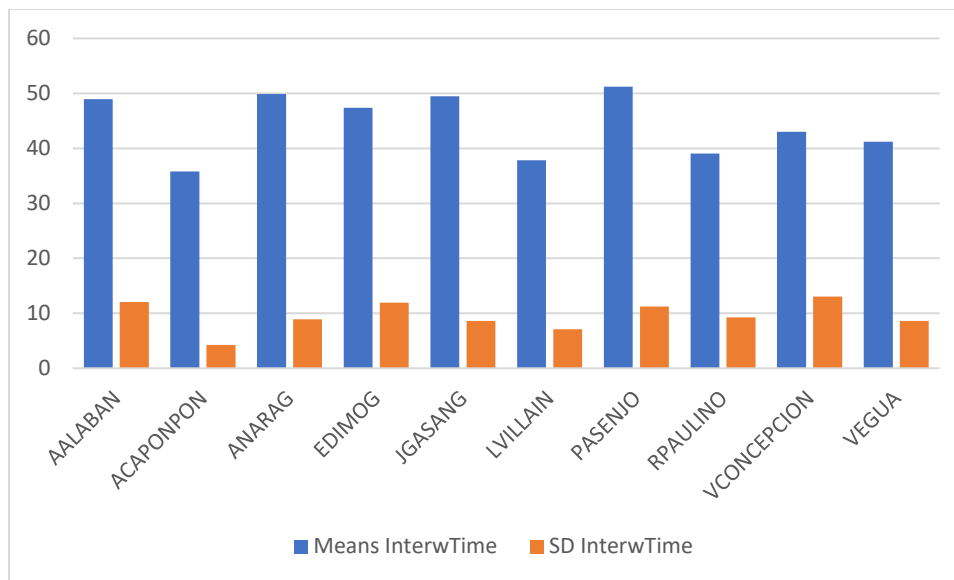
Figure 1. Number of interviews completed, by interviewer



This figure shows the total number of interviews completed by each interviewer.

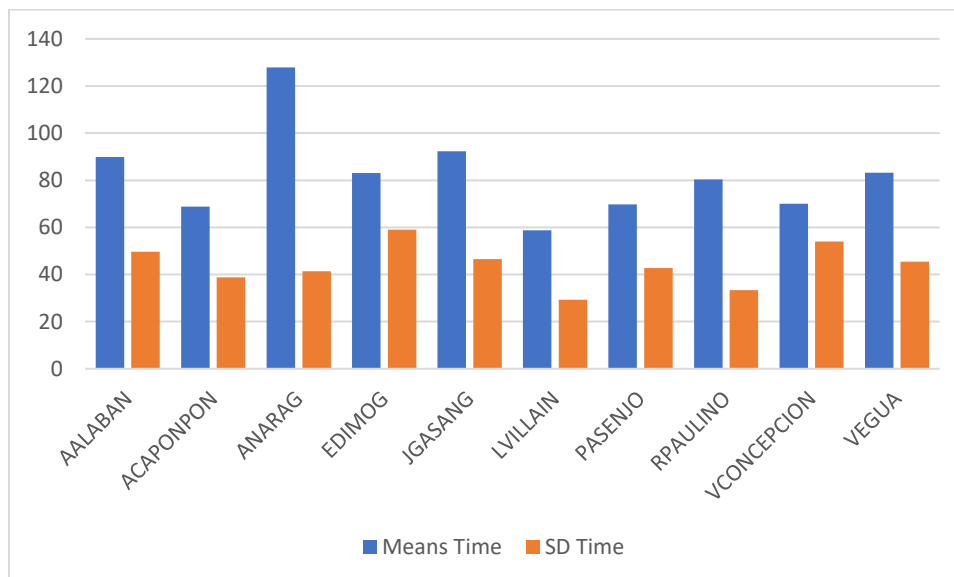
Protocol compliance, by interviewer

Figure 2. Duration of interviews, by interviewer



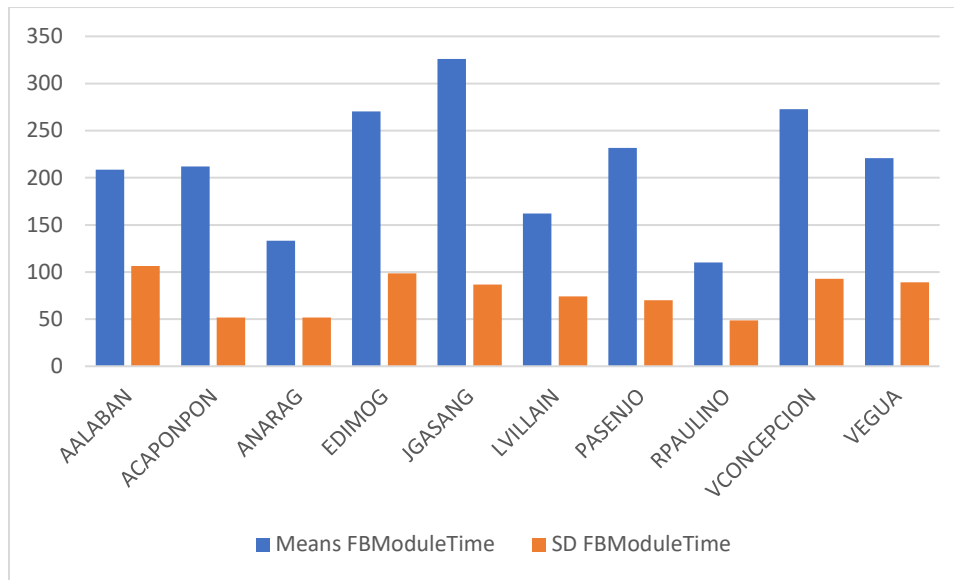
This figure shows the mean (and standard deviation) amount of time taken (in minutes) to complete the valuation questionnaire, by interviewer. This excludes any time taken to complete additional questionnaires such as the country-specific background questionnaire.

Figure 3. Time taken to complete a single TTO task, by interviewer



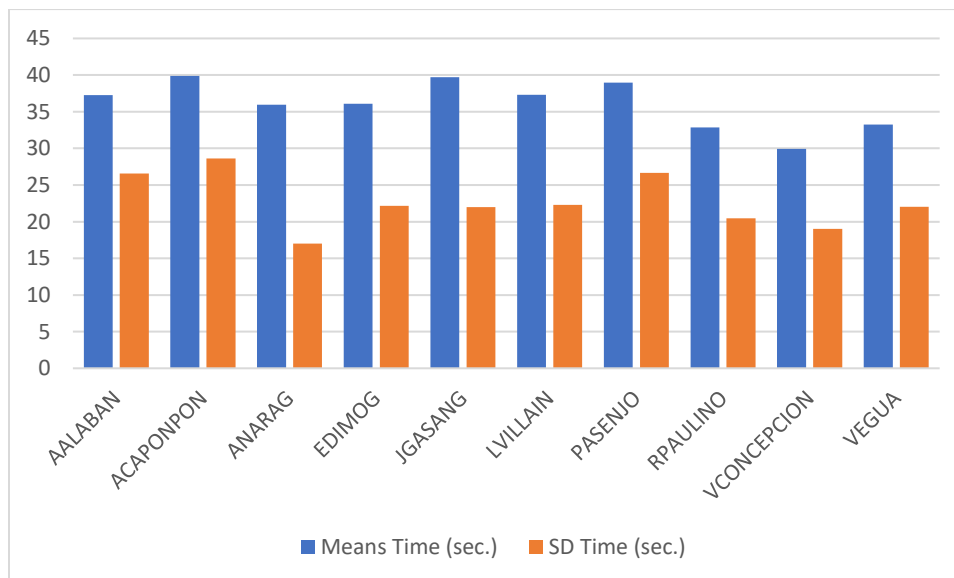
This figure shows the mean (and standard deviation) amount of time taken (in seconds) to complete each TTO task, by interviewer. This excludes the wheelchair example and practice TTO tasks.

Figure 4. Time spent on feedback module, by interviewer



This figure shows the mean (and standard deviation) amount of time taken (in seconds) to complete the feedback module, by interviewer.

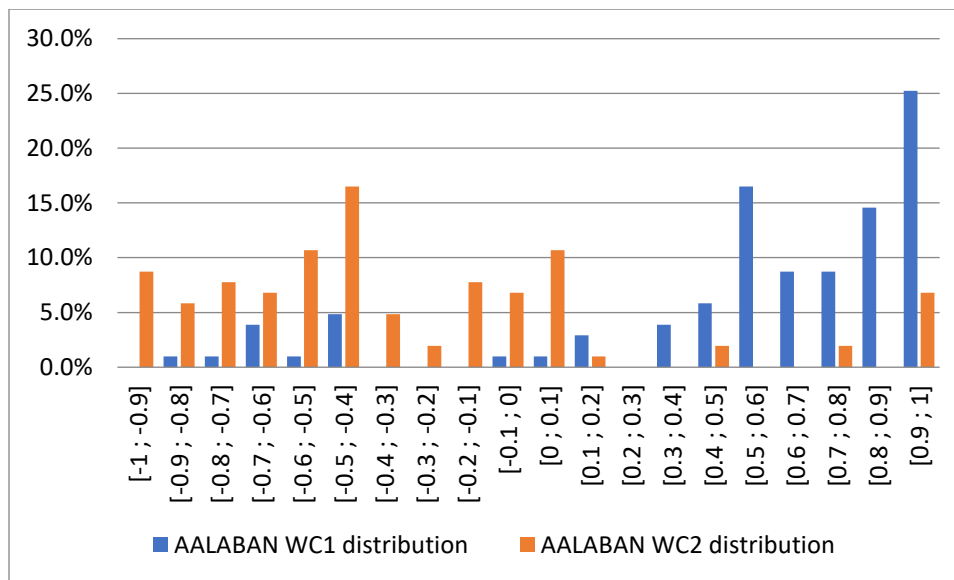
Figure 5. Time taken to complete a single DC task, by interviewer



This figure shows the mean (and standard deviation) amount of time taken (in seconds) to complete each DC task, by interviewer.

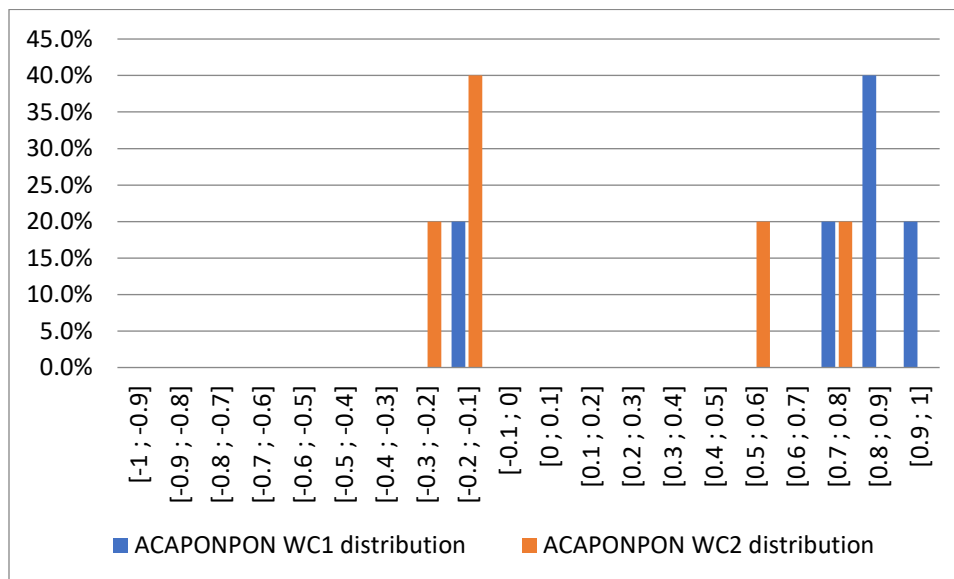
Wheelchair example stats.

Figure 6. WC value distribution for interviewer: AALABAN



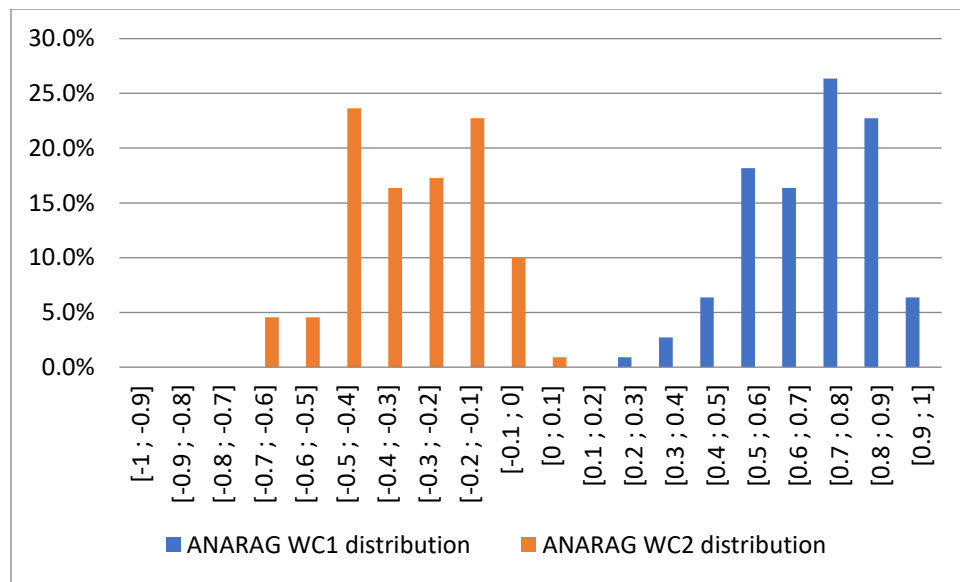
This figure shows the TTO WC1 value distribution for the interviewer AALABAN.

Figure 7. WC value distribution for interviewer: ACAPONPON



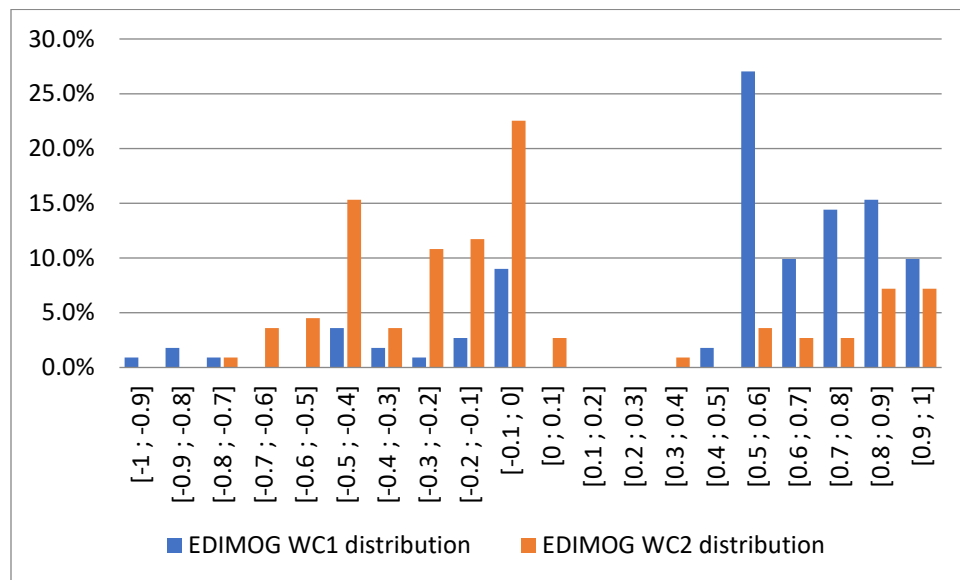
This figure shows the TTO WC1 value distribution for the interviewer ACAPONPON.

Figure 8. WC value distribution for interviewer: ANARAG



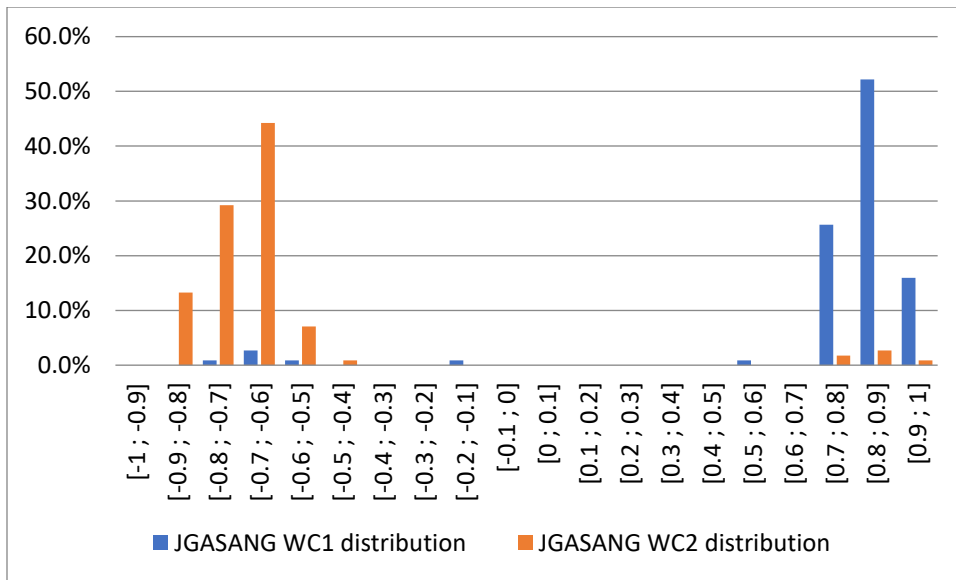
This figure shows the TTO WC1 value distribution for the interviewer ANARAG.

Figure 9. WC value distribution for interviewer: EDIMOG



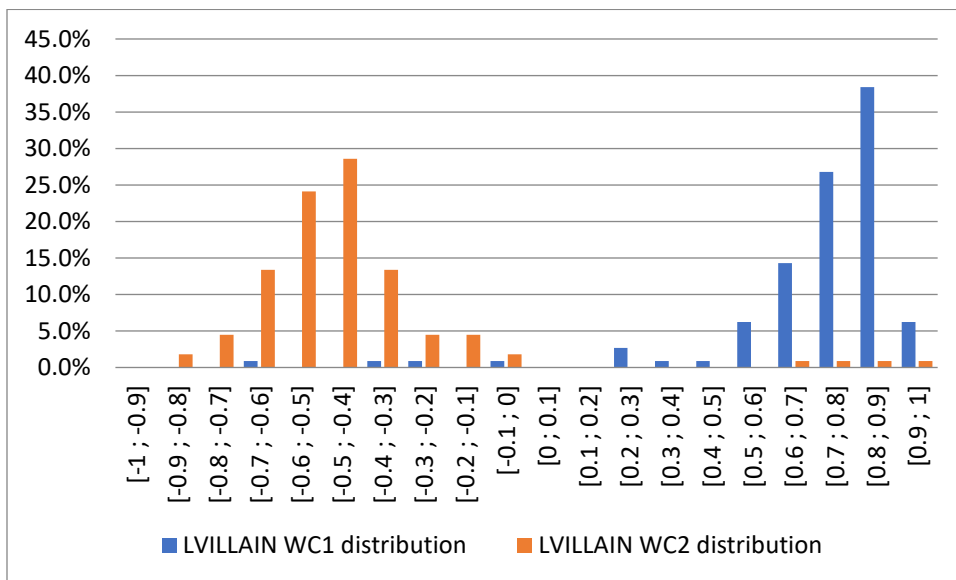
This figure shows the TTO WC1 value distribution for the interviewer EDIMOG.

Figure 10. WC value distribution for interviewer: JGASANG



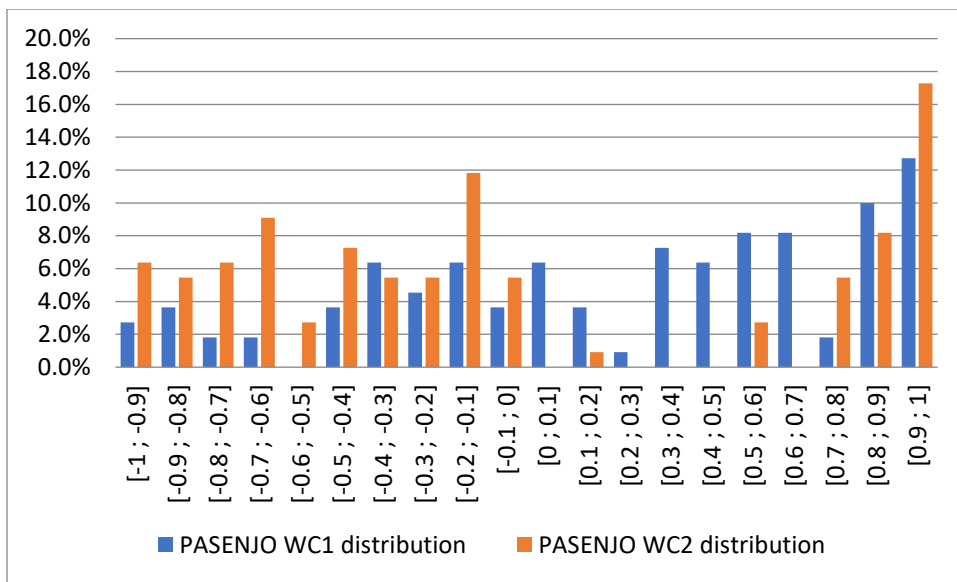
This figure shows the TTO WC1 value distribution for the interviewer JGASANG.

Figure 11. WC value distribution for interviewer: LVILLAIN



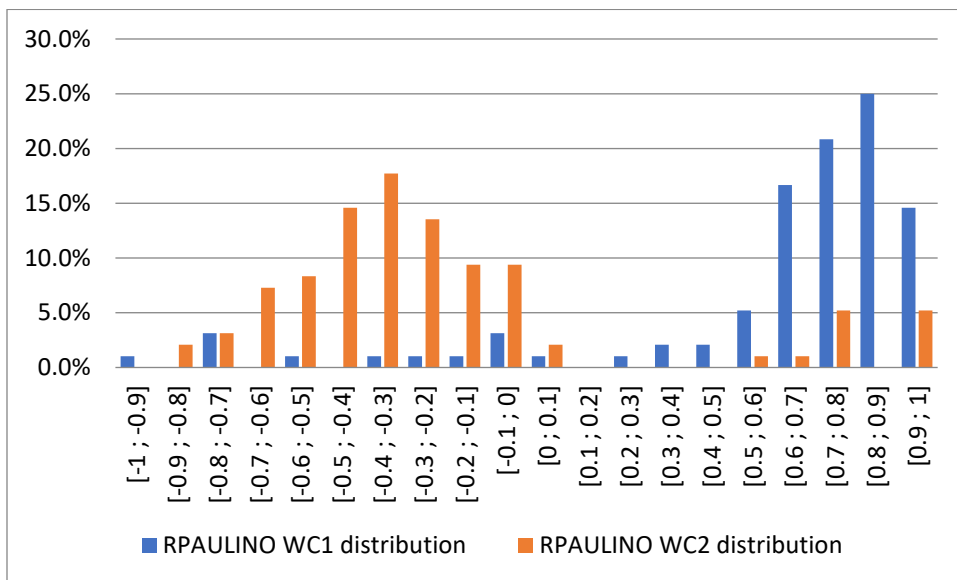
This figure shows the TTO WC1 value distribution for the interviewer LVILLAIN.

Figure 12. WC value distribution for interviewer: PASENJO



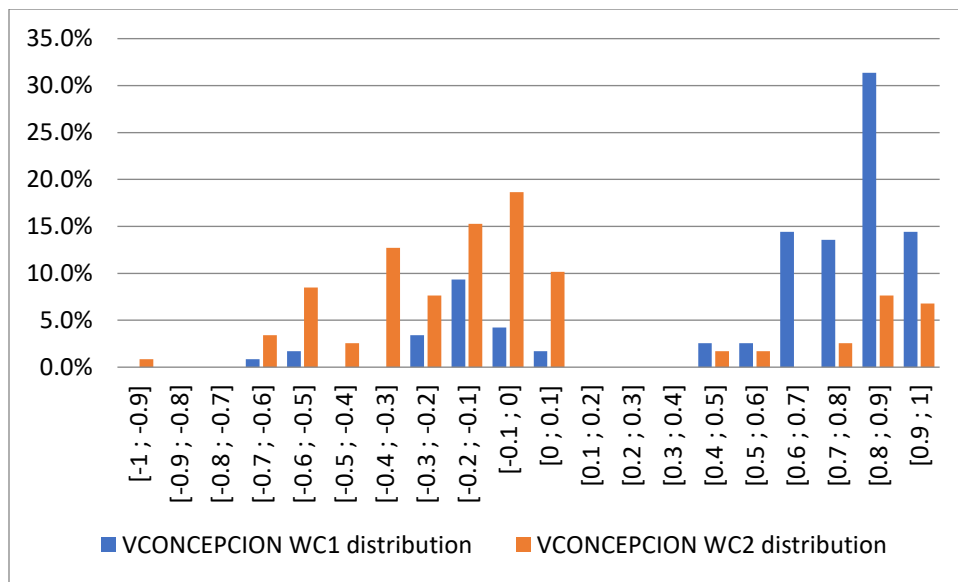
This figure shows the TTO WC1 value distribution for the interviewer PASENJO.

Figure 13. WC value distribution for interviewer: RPAULINO



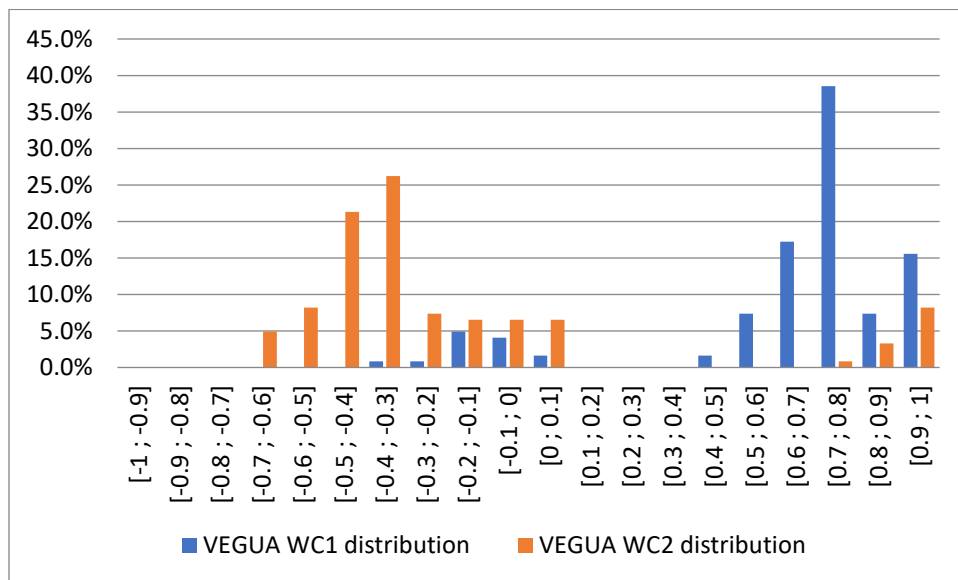
This figure shows the TTO WC1 value distribution for the interviewer RPAULINO.

Figure 14. WC value distribution for interviewer: VCONCEPCION



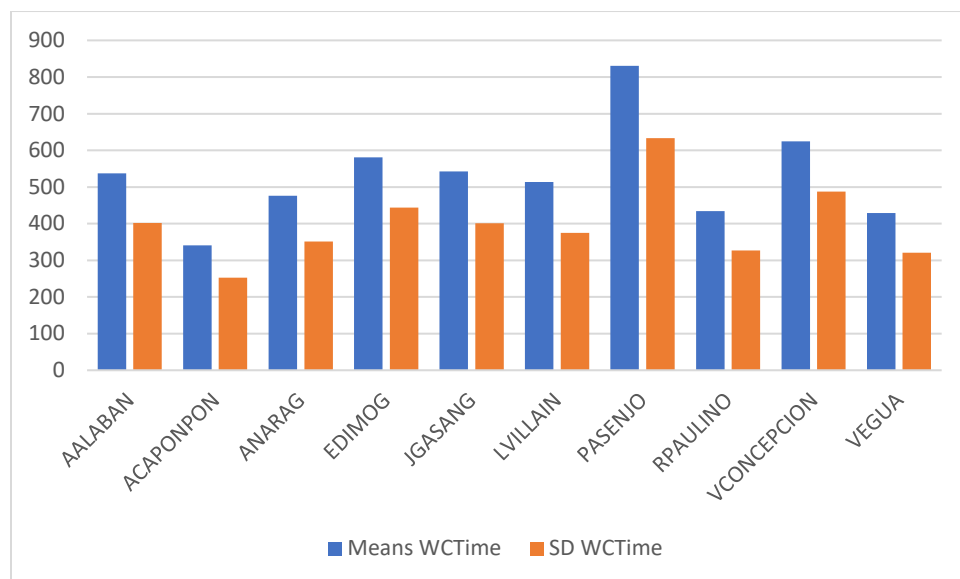
This figure shows the TTO WC1 value distribution for the interviewer VCONCEPCION.

Figure 15. WC value distribution for interviewer: VEGUA



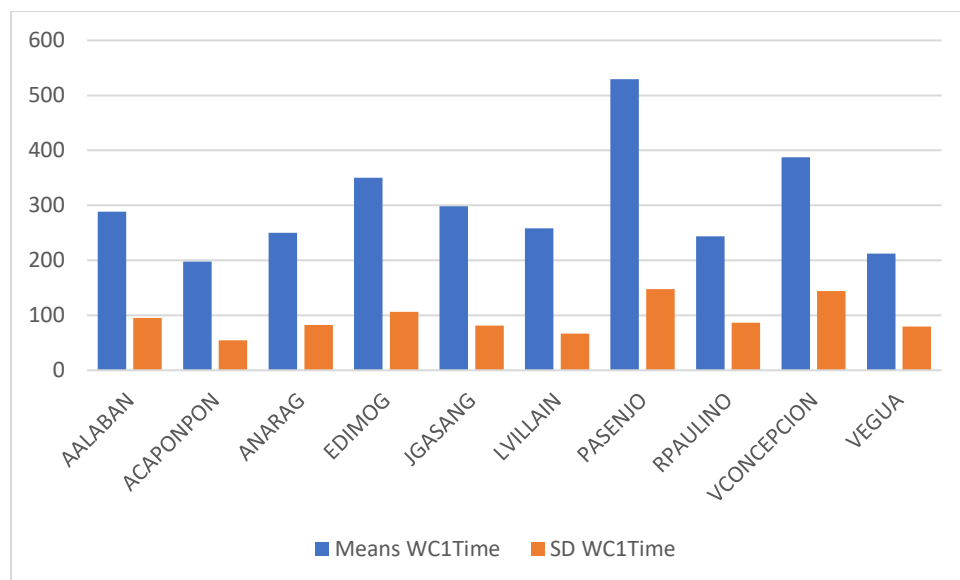
This figure shows the TTO WC1 value distribution for the interviewer VEGUA.

Figure 16. Time spent on both TTO wheelchair examples, by interviewer



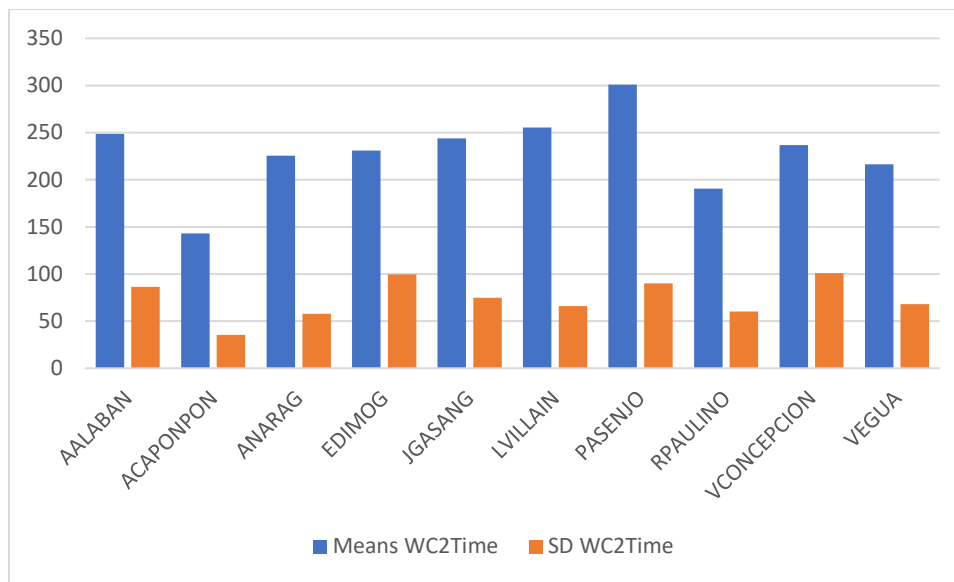
This figure shows the mean (and standard deviation) amount of time spent (in seconds) on both wheelchair examples designed to introduce the TTO task, by interviewer.

Figure 17. Time spent on TTO wheelchair example 1, by interviewer



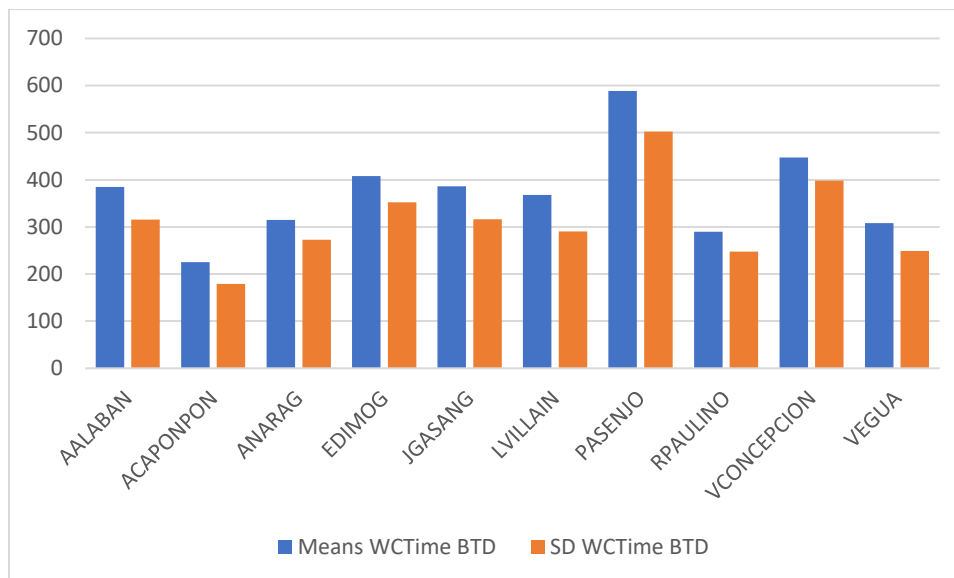
This figure shows the mean (and standard deviation) amount of time spent (in seconds) on the wheelchair example 1 designed to introduce the TTO task, by interviewer.

Figure 18. Time spent on TTO wheelchair example 2, by interviewer



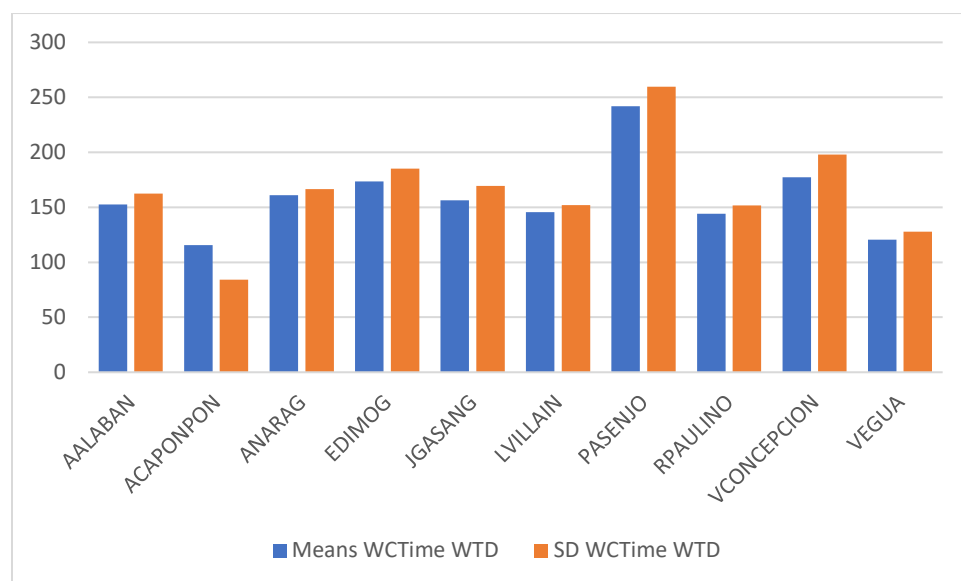
This figure shows the mean (and standard deviation) amount of time spent (in seconds) on the wheelchair example 2 designed to introduce the TTO task, by interviewer.

Figure 19. Time spent on BTD element of TTO wheelchair example, by interviewer



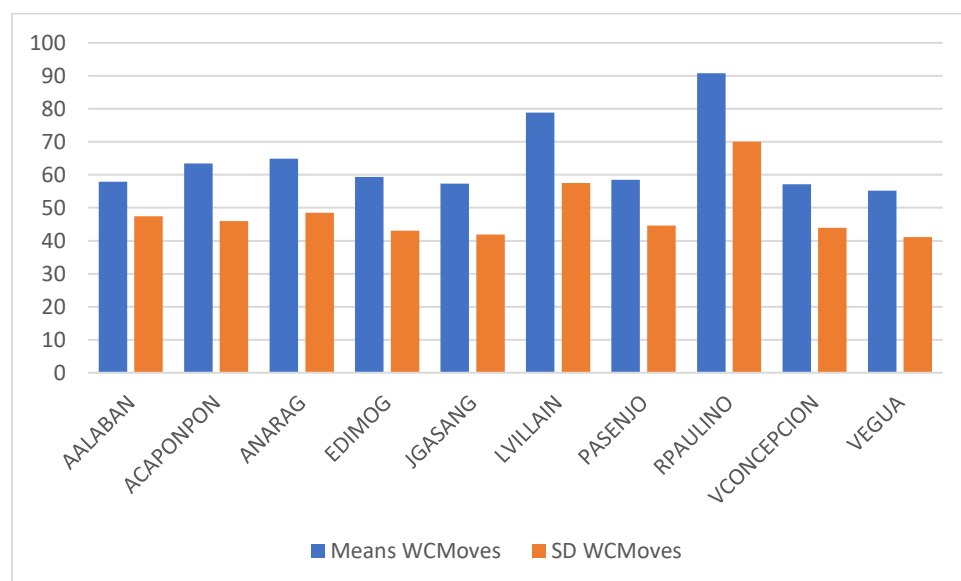
This figure shows the mean (and standard deviation) amount of time spent (in seconds) on the better-than-dead element of both wheelchair examples, by interviewer.

Figure 20. Time spent on WTD element of TTO wheelchair example, by interviewer



This figure shows the mean (and standard deviation) amount of time spent (in seconds) on the worse-than-dead element of both wheelchair examples (designed to introduce the lead time TTO task), by interviewer.

Figure 21. Number of moves used to complete both TTO wheelchair examples, by interviewer



This figure shows the mean (and standard deviation) number of iterative steps used in both wheelchair examples, by interviewer.

Figure 22. Number of moves used to complete TTO wheelchair example 1, by interviewer



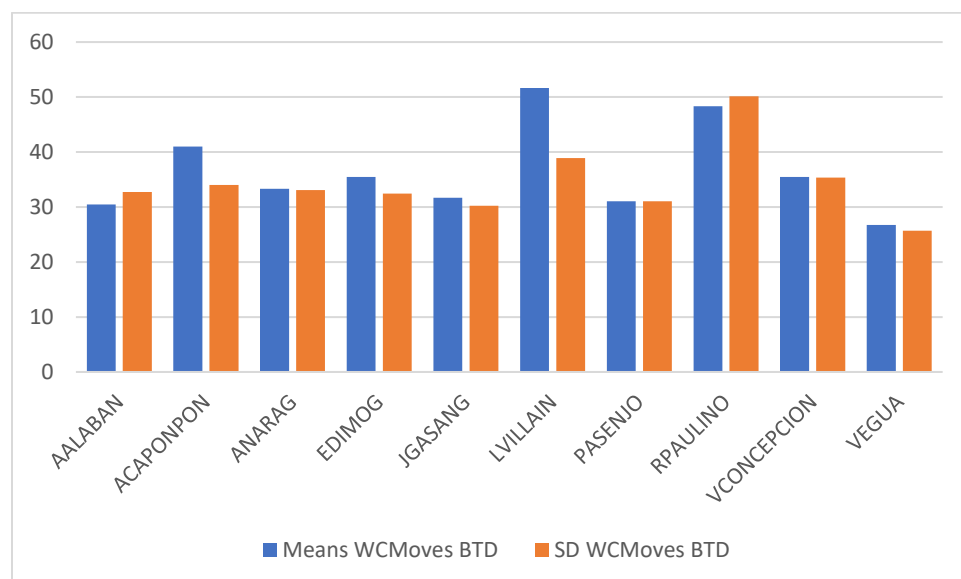
This figure shows the mean (and standard deviation) number of iterative steps used in the wheelchair example 1, by interviewer.

Figure 23. Number of moves used to complete TTO wheelchair example 2, by interviewer



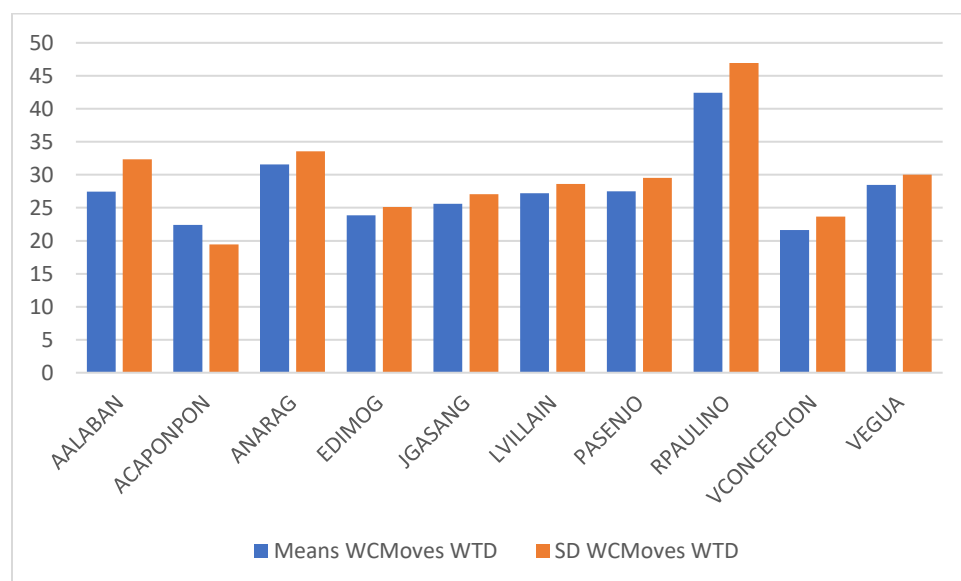
This figure shows the mean (and standard deviation) number of iterative steps used in the wheelchair example 2, by interviewer.

Figure 24. Number of moves used in BTD element of both TTO wheelchair examples, by interviewer



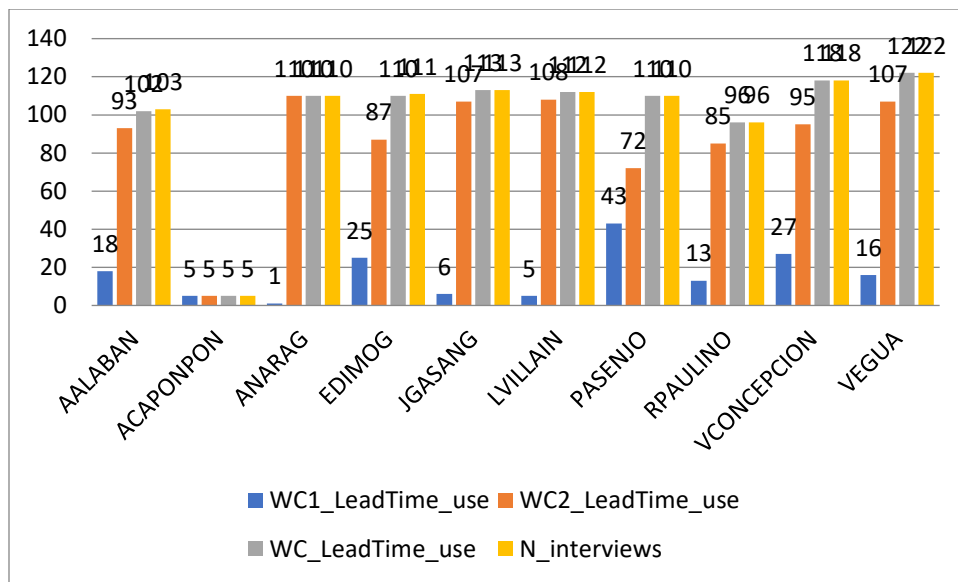
This figure shows the mean (and standard deviation) number of iterative steps used in the better-than-dead element of both wheelchair examples, by interviewer.

Figure 25. Number of moves used in WTD element of both TTO wheelchair example, by interviewer



This figure shows the mean (and standard deviation) number of iterative steps used in the worse-than-dead element of both wheelchair examples, by interviewer.

Figure 26. Use of WTD element of both TTO wheelchair examples, by interviewer



This figure shows the number of interviews in which the worse-than-dead element of both wheelchair examples was used (reported separately and jointly), by interviewer. The total number of interviews completed by each interviewer is also shown in this figure, for comparison purposes.

Table 2. Flagged interviews

Interviewer	N	N flagged	% flagged	WC LT	% WC LT	Incon size	% Incon size	WC time	% WC time	TTO time	% TTO time
A	103	2	2%	1	1%	1	1%	0	0%	0	0%
B	5	2	40%	0	0%	2	40%	0	0%	0	0%
C	110	1	1%	0	0%	0	0%	1	1%	0	0%
D	111	2	2%	1	1%	0	0%	1	1%	0	0%
E	113	0	0%	0	0%	0	0%	0	0%	0	0%
F	112	0	0%	0	0%	0	0%	0	0%	0	0%
G	110	1	1%	0	0%	0	0%	0	0%	1	1%
H	96	0	0%	0	0%	0	0%	0	0%	0	0%
I	118	4	3%	0	0%	2	2%	0	0%	2	2%
J	122	1	1%	0	0%	0	0%	0	0%	1	1%

This table shows how many times each interviewer's TTO data have been flagged for data quality reasons. The total number of flagged interviews is shown in column 2, and the proportion of flagged interviews is shown in column 3. A given interview may be flagged for more than one reason. The flags are defined as follows:

- 1) WC LT - Interview is flagged if the interviewer does not enter the worse-than-dead element of one of the wheelchair examples
- 2) Incon size - Interview is flagged if the respondent has a clear inconsistency in their TTO ratings (the value for 55555 is not the lowest and is at least 0.5 higher than that of the state with the lowest value).
- 3) WC time - Interview is flagged if the interviewer does not spend at least 180 seconds (3 minutes) on the wheelchair example.
- 4) TTO time - Interview is flagged if the respondent does not spend at least 5 minutes on the 10 TTO tasks

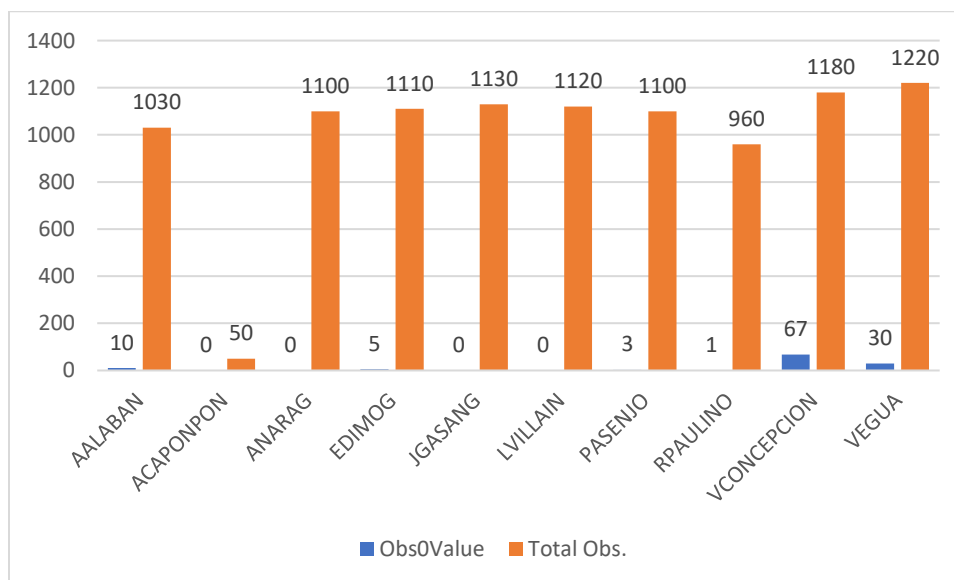
Face validity of the data, by interviewer

Figure 27. Non-traders, by interviewer



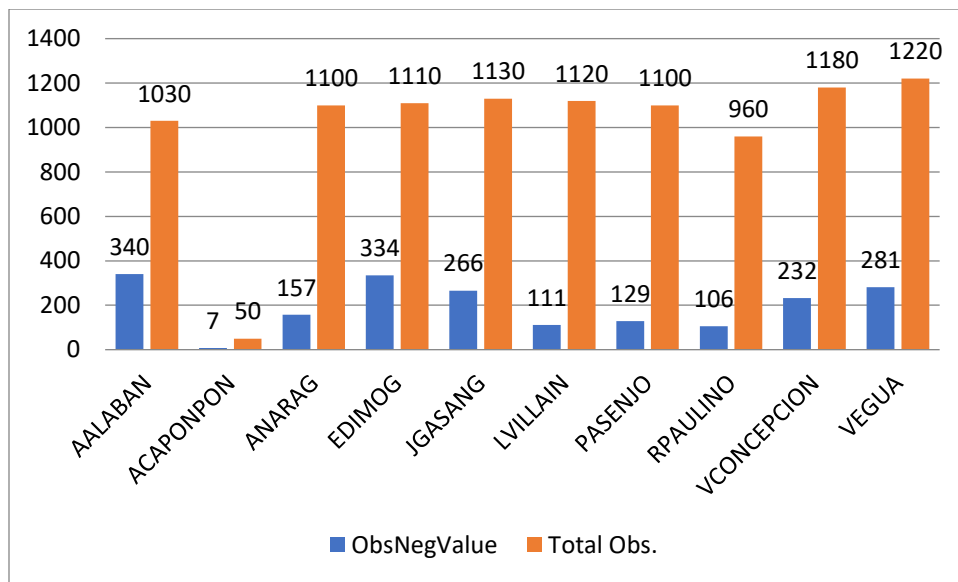
This figure shows, by interviewer, the total number of respondents who can be described as a 'non-trader' - that is, a respondent who failed to trade in any of the TTO tasks and therefore gave a value of 1 for all health states. The total number of interviews completed by each interviewer is also shown in this figure, for comparison purposes.

Figure 28. Zero values, by interviewer



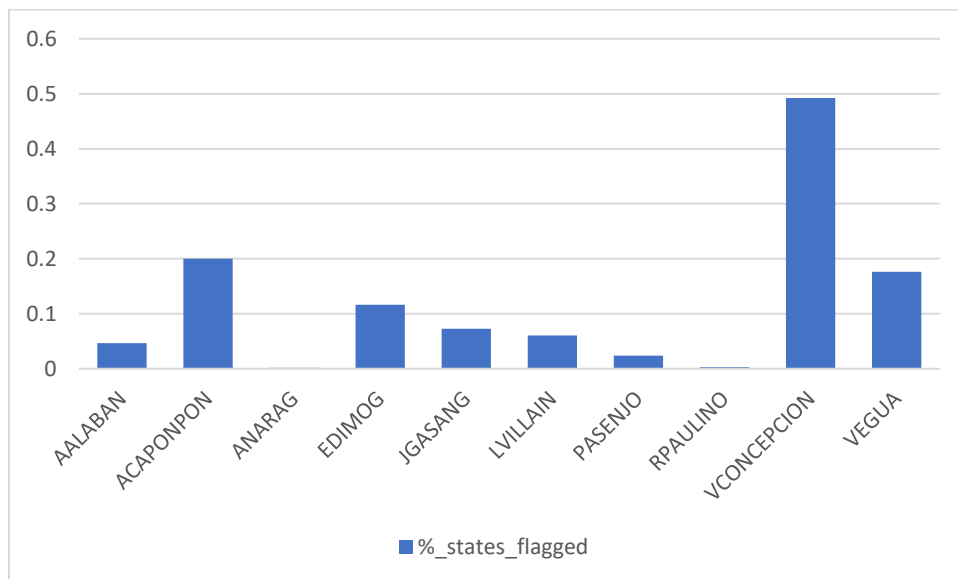
This figure shows, by interviewer, the total number of health states given a value of exactly 0 in the TTO tasks. The total number of observations for each interviewer (total number of interviews multiplied by 10) is also shown in this figure, for comparison purposes.

Figure 29. Negative values, by interviewer



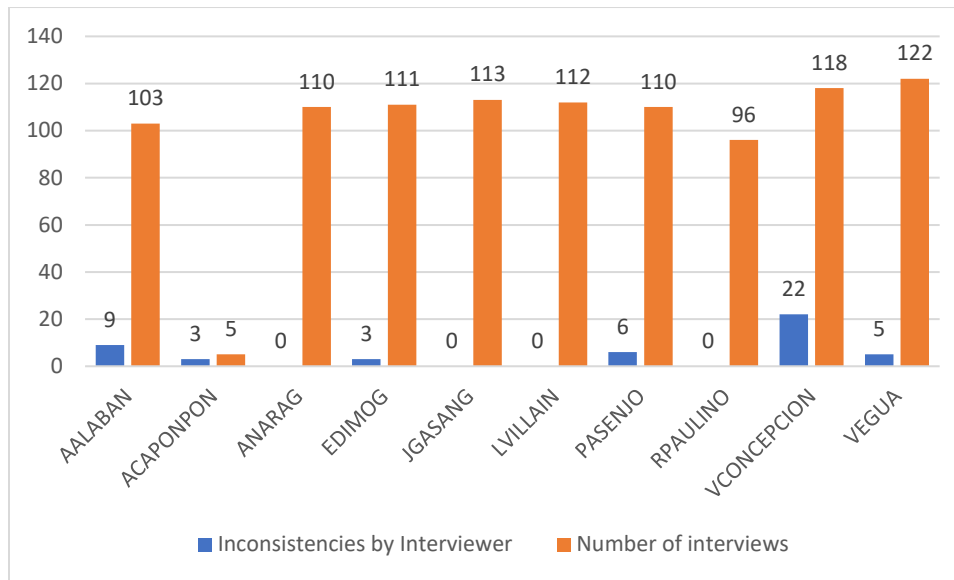
This figure shows, by interviewer, the total number of health states given a value of less than 0 in the TTO tasks (i.e. the number of times a health state was valued as being worse than dead). The total number of observations for each interviewer (total number of interviews multiplied by 10) is also shown in this figure, for comparison purposes.

Figure 30. Percentage of health states flagged using feedback module



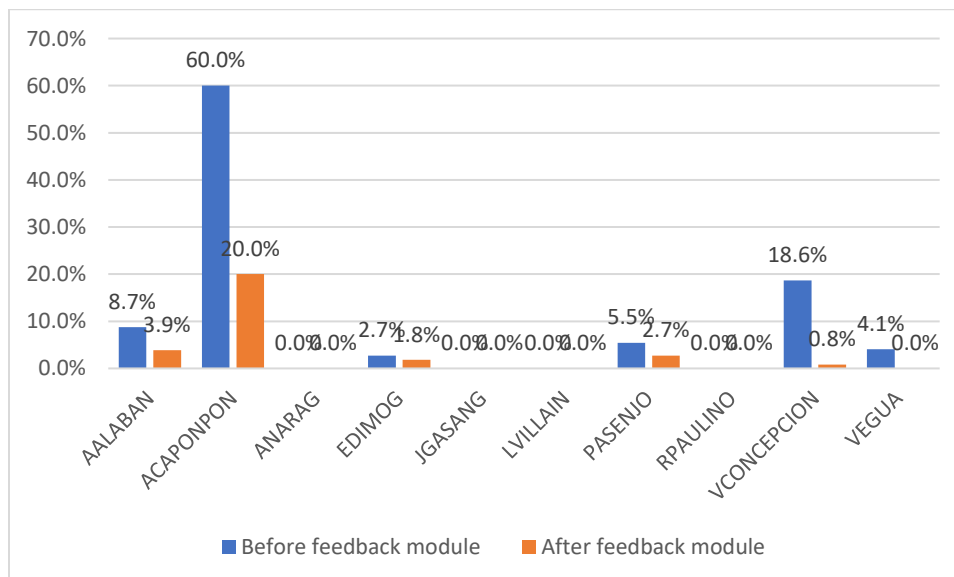
This figure shows, by interviewer, the overall proportion of health states that were flagged for exclusion by respondents via the feedback module.

Figure 31. Respondents with inconsistencies, by interviewer



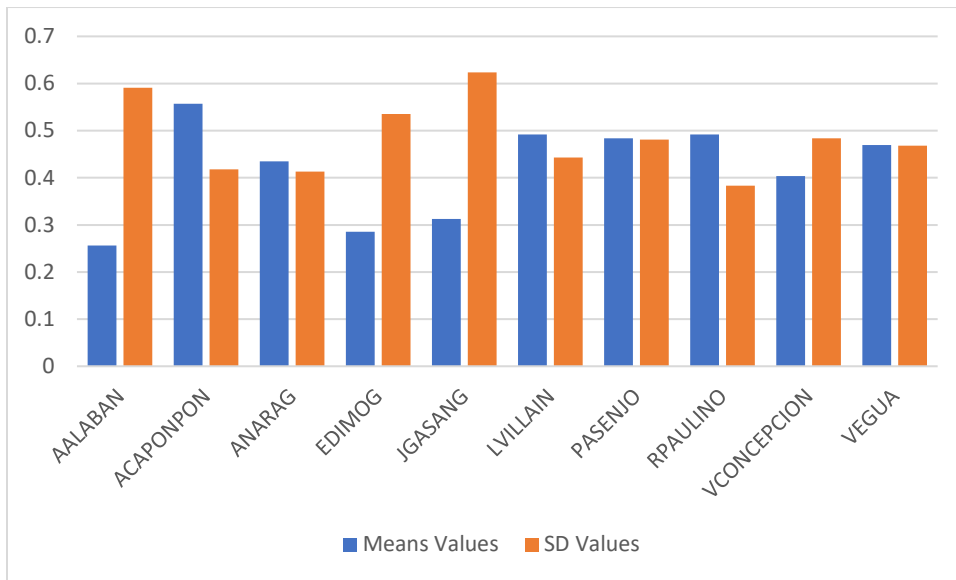
This figure shows, by interviewer, the number of respondents whose TTO data contain at least one 'inconsistency' in relation to health state 55555. An inconsistency is defined as a case where 55555 was not given the lowest value. The total number of interviews completed by each interviewer is also shown in this figure, for comparison purposes.

Figure 32. Proportion of respondents with inconsistencies before and after the feedback module, by interviewer



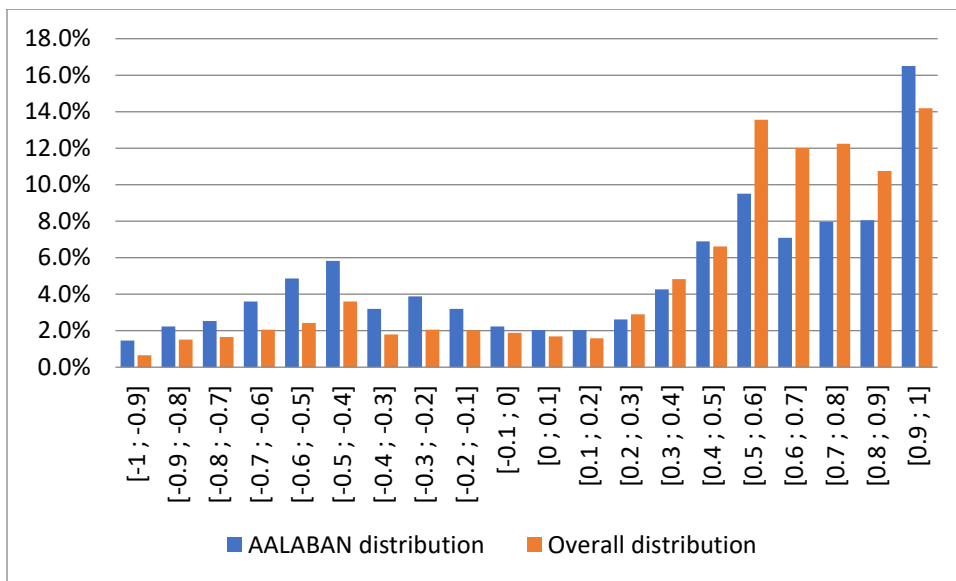
This figure shows, by interviewer, the proportion of respondents whose TTO data contained at least one inconsistency (as defined above) both before and after they were given the opportunity to flag data for removal using the feedback module.

Figure 33. Mean TTO value, by interviewer



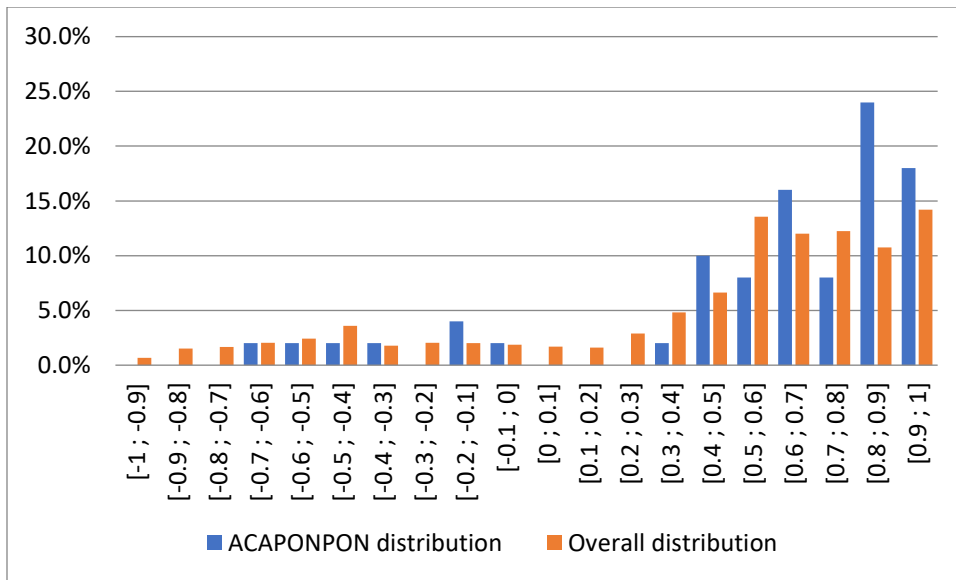
This figure shows the mean (and standard deviation) value observed across all TTO tasks, by interviewer. This excludes the wheelchair example and practice TTO tasks.

Figure 34. TTO value distribution for interviewer: AALABAN



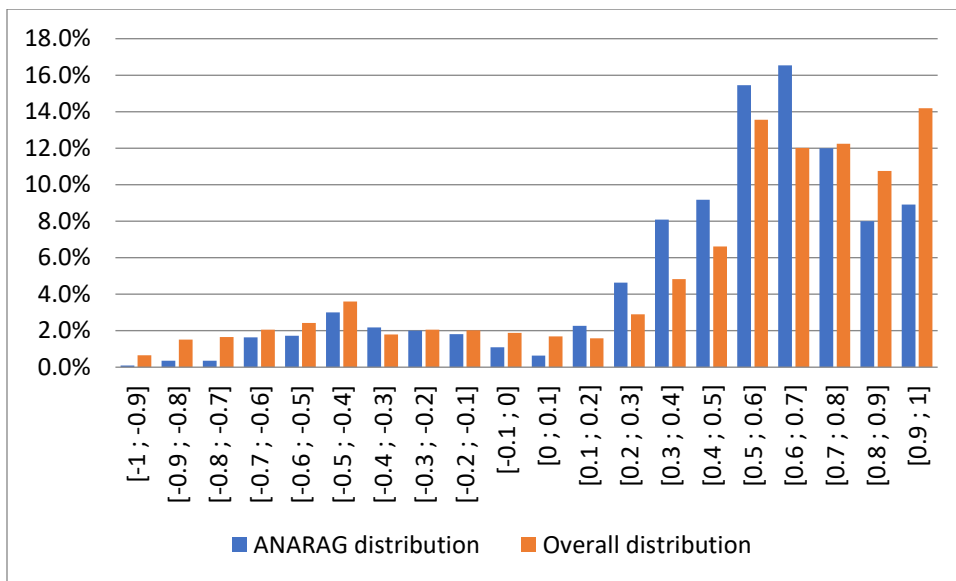
This figure shows the TTO value distribution for the interviewer AALABAN. The overall distribution is also shown in this figure, for comparison purposes.

Figure 35. TTO value distribution for interviewer: ACAPONPON



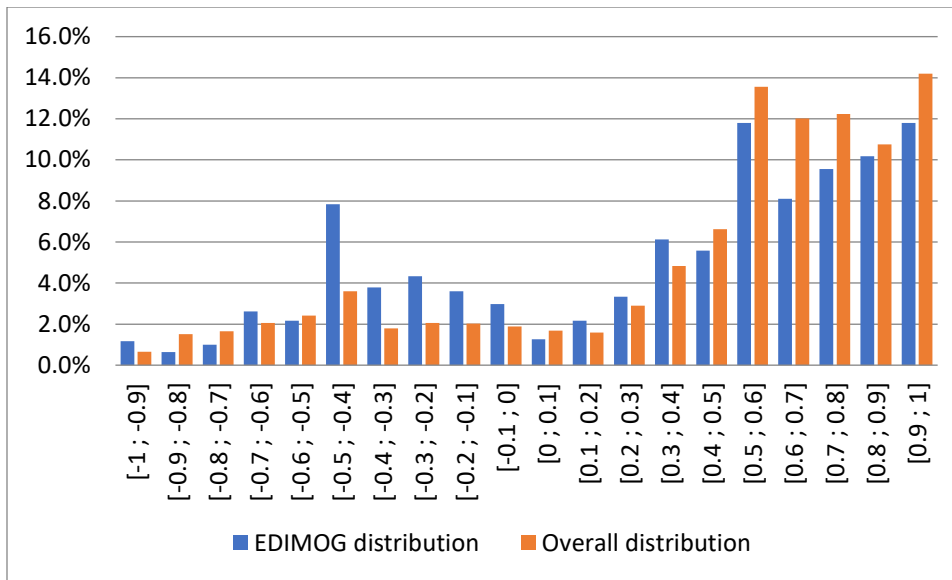
This figure shows the TTO value distribution for the interviewer ACAPONPON. The overall distribution is also shown in this figure, for comparison purposes.

Figure 36. TTO value distribution for interviewer: ANARAG



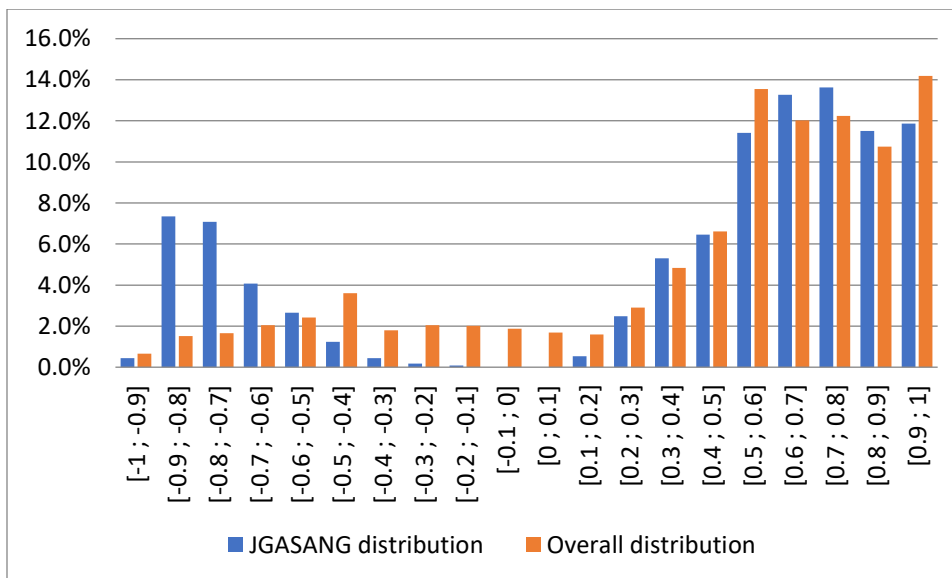
This figure shows the TTO value distribution for the interviewer ANARAG. The overall distribution is also shown in this figure, for comparison purposes.

Figure 37. TTO value distribution for interviewer: EDIMOG



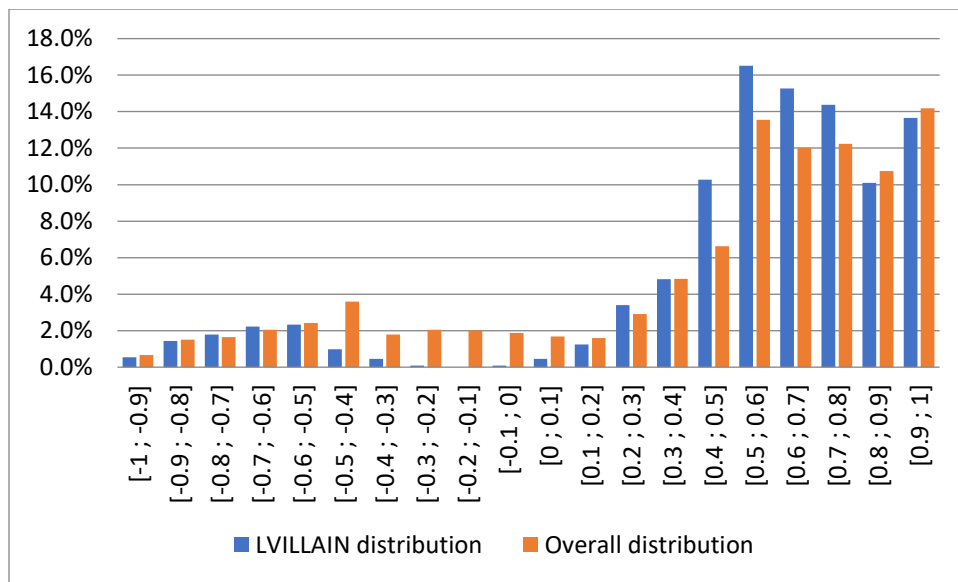
This figure shows the TTO value distribution for the interviewer EDIMOG. The overall distribution is also shown in this figure, for comparison purposes.

Figure 38. TTO value distribution for interviewer: JGASANG



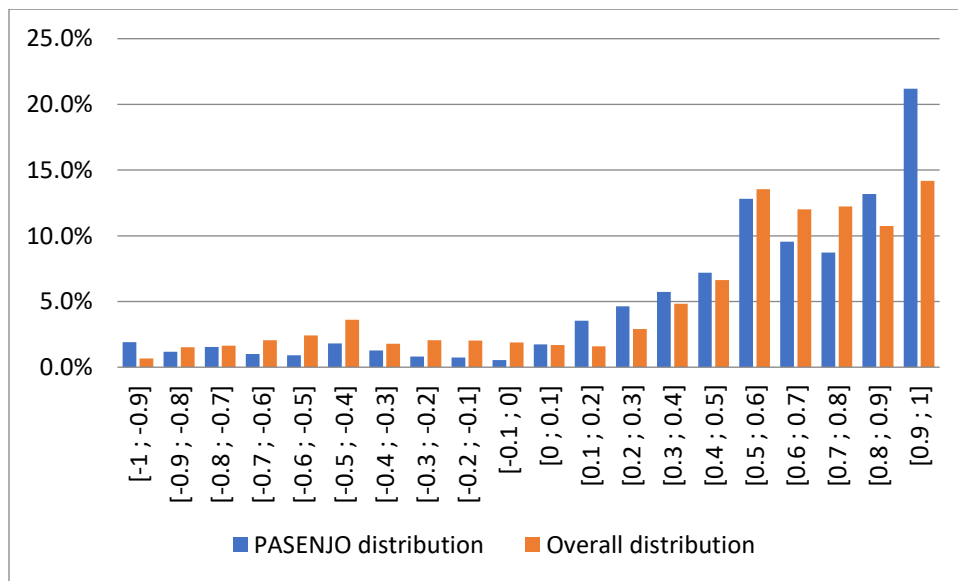
This figure shows the TTO value distribution for the interviewer JGASANG. The overall distribution is also shown in this figure, for comparison purposes.

Figure 39. TTO value distribution for interviewer: LVILLAIN



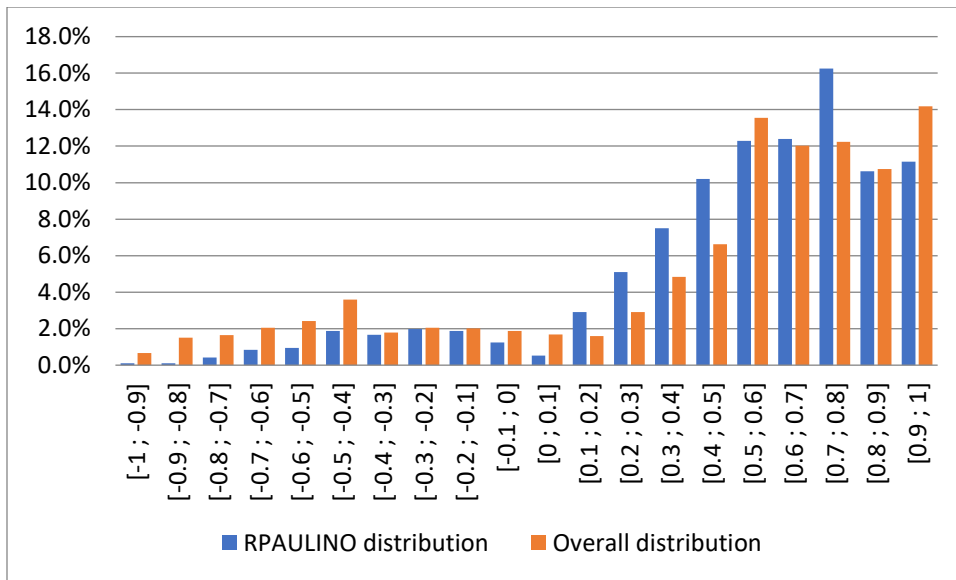
This figure shows the TTO value distribution for the interviewer LVILLAIN. The overall distribution is also shown in this figure, for comparison purposes.

Figure 40. TTO value distribution for interviewer: PASENJO



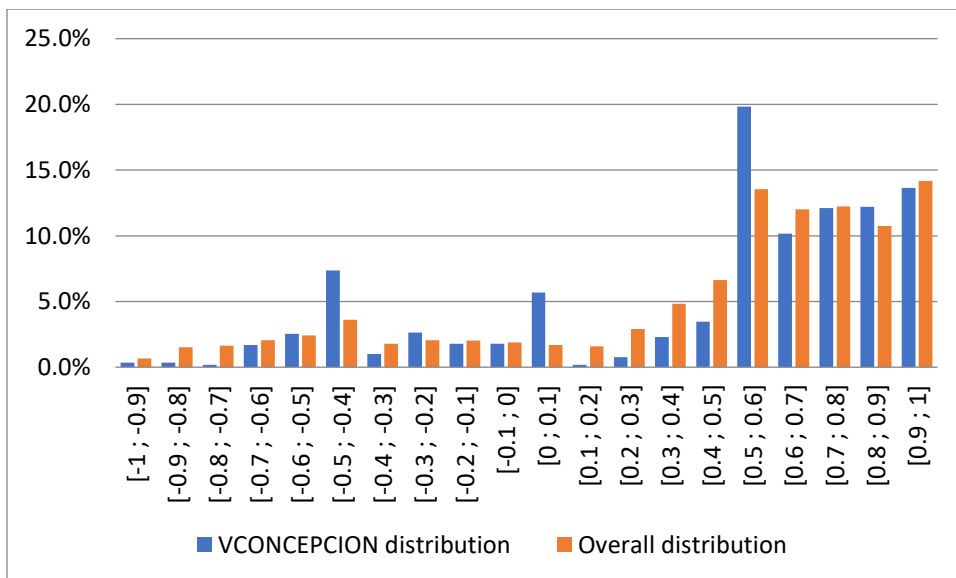
This figure shows the TTO value distribution for the interviewer PASENJO. The overall distribution is also shown in this figure, for comparison purposes.

Figure 41. TTO value distribution for interviewer: RPAULINO



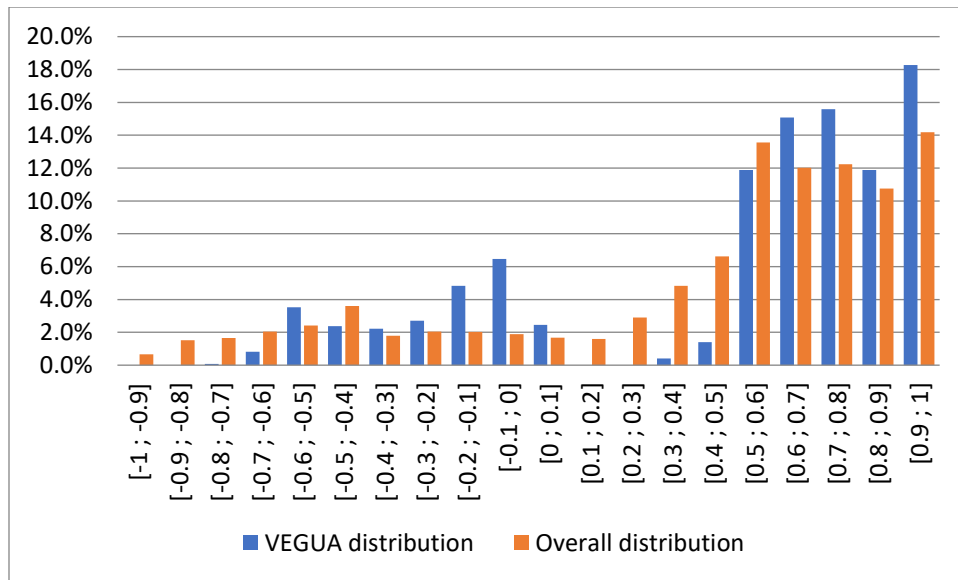
This figure shows the TTO value distribution for the interviewer RPAULINO. The overall distribution is also shown in this figure, for comparison purposes.

Figure 42. TTO value distribution for interviewer: VCONCEPCION



This figure shows the TTO value distribution for the interviewer VCONCEPCION. The overall distribution is also shown in this figure, for comparison purposes.

Figure 43. TTO value distribution for interviewer: VEGUA



This figure shows the TTO value distribution for the interviewer VEGUA. The overall distribution is also shown in this figure, for comparison purposes.

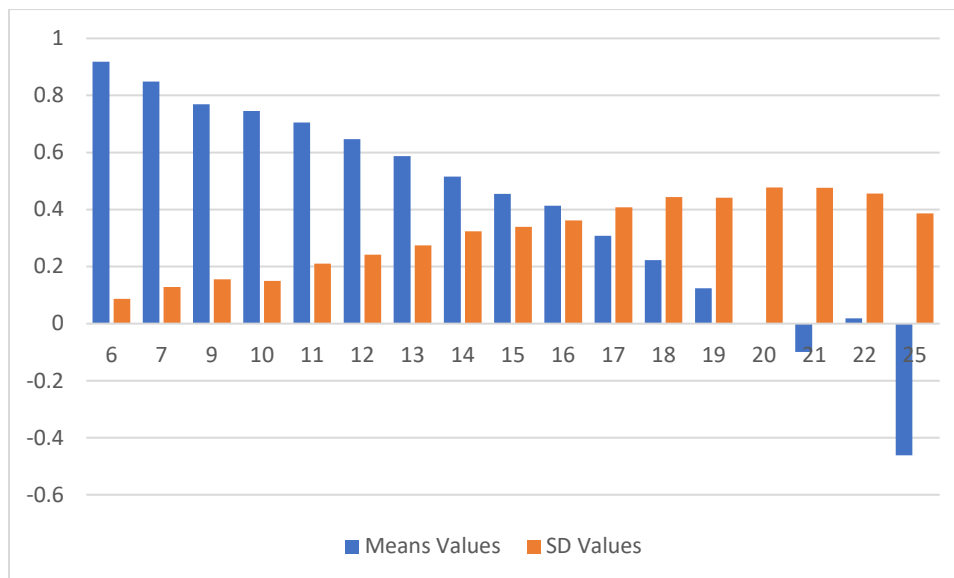
Table 3. DCE unusual responses

Interviewer	N	Time (min.)	IF AAAAAA A	IF BBBBBB B	IF ABABAB A	IF BABABA B
AALABAN	103	4.35	0	0	3	0
ACAPONPON	5	4.65	0	0	0	0
ANARAG	110	4.19	4	2	0	0
EDIMOG	111	4.21	5	1	0	1
JGASANG	113	4.63	0	0	1	3
LVILLAIN	112	4.35	0	0	2	2
PASENJO	110	4.55	0	0	0	1
RPAULINO	96	3.83	1	0	2	1
VCONCEPCION	118	3.49	5	2	2	1
VEGUA	122	3.88	1	2	0	0

This table shows, by interviewer: the number of interviews completed (column 2); the mean amount of time taken (in minutes) to complete the 7 DC tasks (column 3); and the number of respondents who gave unusual sets of choices across all seven DCE tasks (columns 4-7). For example, if the respondent chose state A in all seven tasks, this is flagged in column 4.

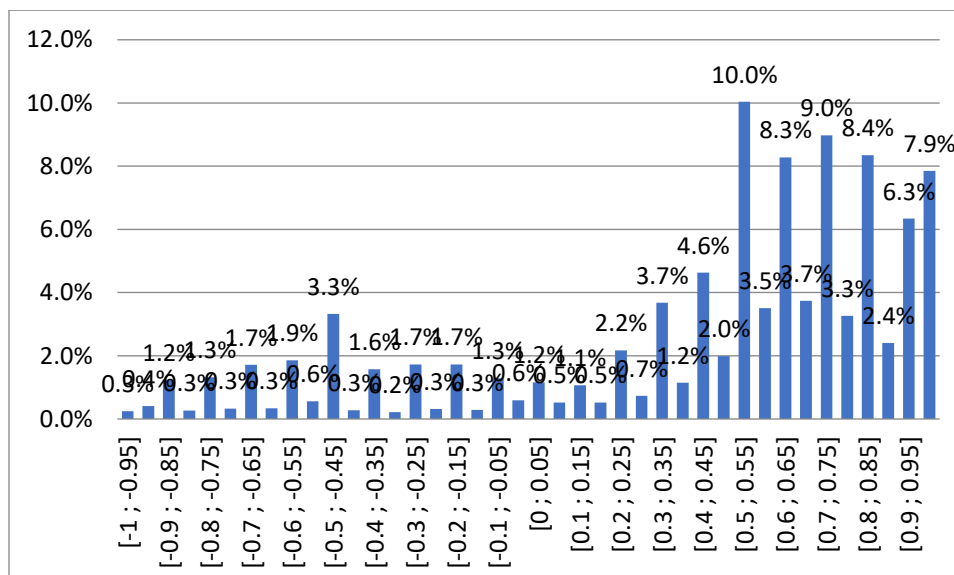
Face validity of aggregate data.

Figure 44. Mean TTO value, by level sum score



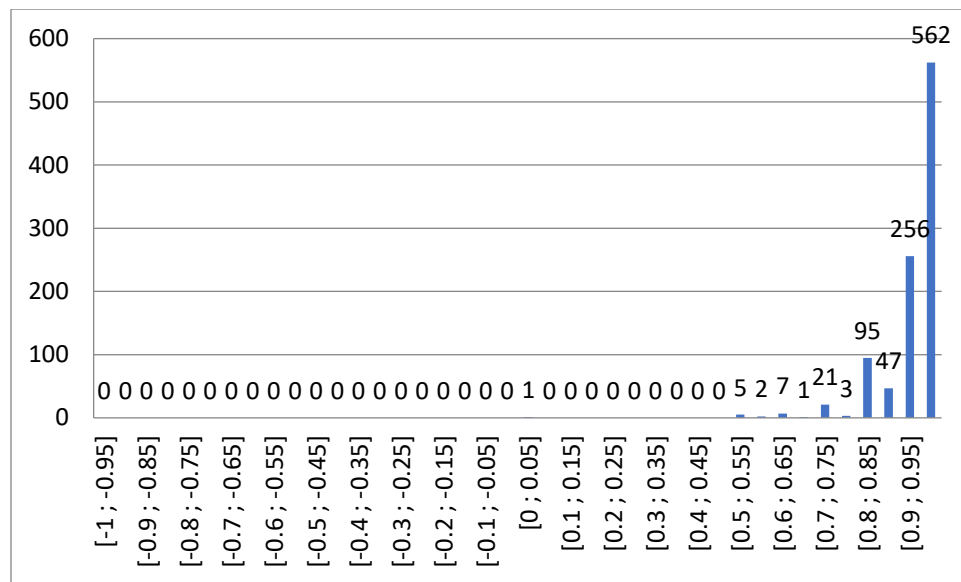
This figure shows the mean (and standard deviation) TTO value observed, by level sum score, across all interviewers. The level sum score is a proxy for severity and is calculated by summing the five dimension levels for each health state. We would expect health states with lower level sum scores (e.g. 21111: $2+1+1+1+1=6$) to have higher mean values than those with higher level sum scores (e.g. 55555: $5+5+5+5+5=25$). This excludes the wheelchair example and practice TTO tasks.

Figure 45. Overall TTO value distribution



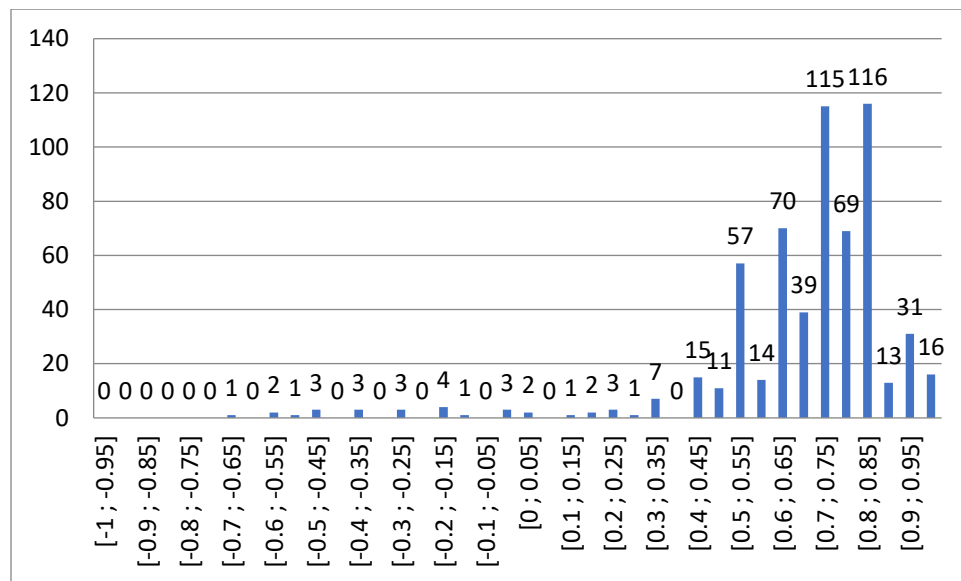
This figure shows the 5L TTO value distribution for all health states. For example, the rightmost bar shows the proportion of observations of values greater than 0.95 and less than or equal to 1.0. This excludes the wheelchair example and practice TTO tasks.

Figure 46. TTO value distribution: level sum score = 6



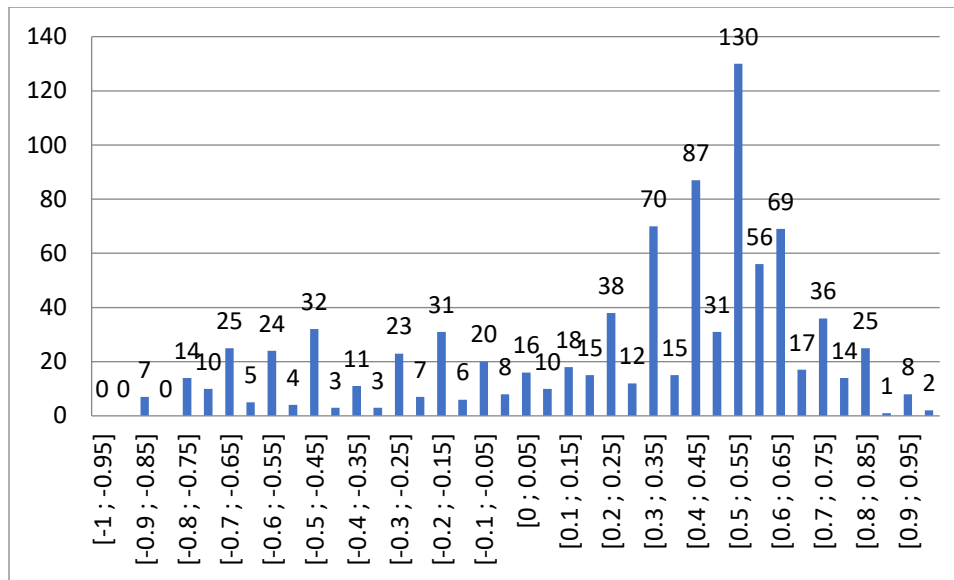
This figure shows the 5L TTO value distribution for health states with a level sum score of 6 (e.g. 21111). This excludes the wheelchair example and practice TTO tasks.

Figure 47. TTO value distribution: level sum score = 12



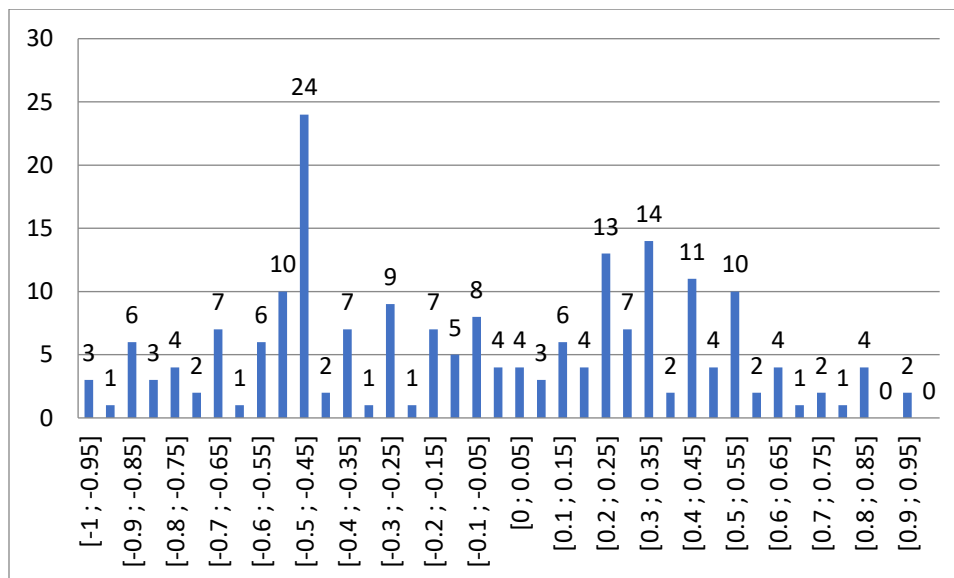
This figure shows the 5L TTO value distribution for health states with a level sum score of 12 (e.g. 52221). This excludes the wheelchair example and practice TTO tasks.

Figure 48. TTO value distribution: level sum score = 18



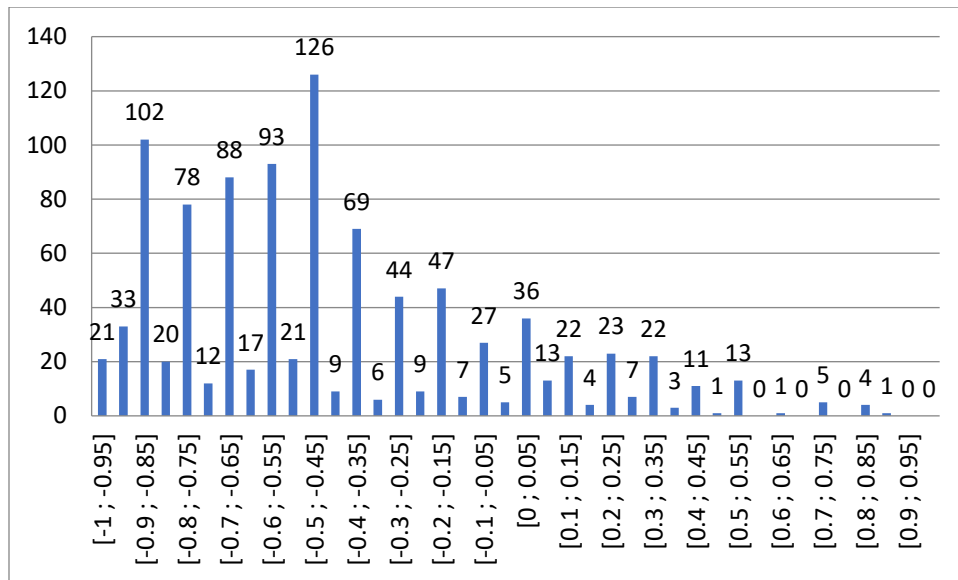
This figure shows the 5L TTO value distribution for health states with a level sum score of 18 (e.g. 54342). This excludes the wheelchair example and practice TTO tasks.

Figure 49. TTO value distribution: level sum score = 21



This figure shows the 5L TTO value distribution for health states with a level sum score of 21 (e.g. 44553). This excludes the wheelchair example and practice TTO tasks.

Figure 50. TTO value distribution: level sum score = 25



This figure shows the 5L TTO value distribution for health states with a level sum score of 25 ((the worst health state in the descriptive system - 55555)). This excludes the wheelchair example and practice TTO tasks.

Report extension with interim analysis

1.- FUNNIES

Same value: 0 Non-traders: 0 Funnies: 0

2.- INCONSISTENCIES

Before/after FBM.	Total Inconsistencies		Inconsistencies related to severity 6 states		Inconsistencies related to 55555	
	N	%	N	%	N	%
Before FBM	265	26.5	36	3.6	48	4.8
After FBM	143	14.3	11	1.1	8	.8

3.- SELF-REPORTED HEALTH

obs: 1000
obs valid: 1000
obs missing: 0
EQ-5D version: 5L

Levels/dims. (%)	MO	SC	UA	PD	AD
No problems	85	96.4	83.6	66.6	74.4
Slight problems	11.7	2.3	11.8	26.6	18.3
Moderate problems	3.2	1.3	4.5	6.6	6.4
Severe problems	.1	0	.1	.2	.6
Unable/Extreme problems	0	0	0	0	.3

Visual Analog Scale	Mean	SD	Centile 25	Median	centile 75
vas5l	89.264	8.45398	80	90	95

4.- MODELING

NOTICE THAT INCREMENTAL DUMMIES ARE USED. THEREFORE ALL COEFFICIENTS > 0 MEANS CONSISTENT MODEL

4.1.- TTO models (ONLY COEFFICIENTS)

Variable	GLS	Tobit_GLS
#1		
mo2	.02101056	.02072393
mo3	-.01683893	-.01693105
mo4	.15635102	.1564199
mo5	.13916286	.1396516
sc2	.03103778	.03119356
sc3	.01357969	.01337533
sc4	.1512031	.15134772
sc5	.09624163	.09680114
ua2	.03617251	.03615104
ua3	.03012734	.03023772
ua4	.11165779	.11164967
ua5	.08036287	.0809105
pd2	.04661387	.04647671
pd3	.01597795	.01604923
pd4	.21642417	.21652769
pd5	.06446886	.06500384
ad2	.01638826	.01634675
ad3	.04240113	.04202952
ad4	.07432248	.07458107
ad5	.08056478	.08103049
_cons	.02855485	.0284919
sigma_u		
_cons	.17430875	.17472369
sigma_e		
_cons	.26227116	.26288783
Statistics		
aic	3043.2154	3145.614
bic	3206.207	3308.6056

4.2.- DCE models (ONLY COEFFICIENTS)

Variable	Logit	Probit
_mo2	.60243888	.36176619
_mo3	-.08636833	-.05704127
_mo4	.79285846	.47368688
_mo5	.47895891	.26826479
_sc2	.44806456	.26210274
_sc3	.03473218	.02645381
_sc4	.6921139	.40802723
_sc5	.14768476	.08432897
_ua2	.39758137	.23887687
_ua3	-.00350431	-.00442346
_ua4	.55714454	.32541307
_ua5	.20587625	.11607358
_pd2	.49386415	.28943881
_pd3	.02990718	.01637518
_pd4	.7564763	.44220487
_pd5	.13922586	.08155569
_ad2	.24112289	.13728205
_ad3	.14611245	.09195048
_ad4	.49692918	.28881293
_ad5	.00772239	.00604109
aic	7633.5253	7647.9534
bic	7770.5986	7785.0267

4.3.- hybrid models (ONLY COEFFICIENTS)

Variable	hybrid	hybrid_ul	hybrid_u=t
#1			
_mo2	.06504274	.06495355	.06622046
_mo3	-.01875355	-.01883824	-.01170136
_mo4	.16408658	.16421758	.15054867
_mo5	.13356042	.13406153	.11645159
_sc2	.05153643	.05154045	.06519895
_sc3	.00485021	.004765	-.00424798
_sc4	.15145881	.15152577	.13918733
_sc5	.07117969	.07164861	.05679455
_ua2	.04170907	.04162497	.0629381
_ua3	.01365433	.01367377	.00014459
_ua4	.11884968	.11901556	.10898476
_ua5	.07545834	.0757527	.05772665
_pd2	.06705151	.06697743	.06766813
_pd3	-.00121819	-.00124427	-.00305322
_pd4	.20289791	.20310389	.17915214
_pd5	.06448623	.06488642	.05908682
_ad2	.01799952	.01786883	.05792427
_ad3	.04372496	.04365994	.01751374
_ad4	.08410944	.08428812	.07017139
_ad5	.05160105	.05183996	.04103492
lnsigma			
_mo2			.26600342
_mo3			.11398977
_mo4			.17079139
_mo5			-.05115542
_sc2			.18533345
_sc3			.00651024
_sc4			.18701987
_sc5			-.00309613
_ua2			.27796603
_ua3			.02108358
_ua4			.18967171
_ua5			-.16139866
_pd2			.1652374
_pd3			.00473674
_pd4			.20928352
_pd5			.06446842
_ad2			.15983333
_ad3			.15700569
_ad4			.07966166
_ad5			-.1602271
_cons	-1.1508608	-1.1484383	-2.5282303
lntheta			
_cons	1.4596696	1.457878	1.580812
Statistics			
aic	12504.793	12606.037	9505.3787
bic	12673.534	12774.778	9827.5205

PLEASE, ALSO SEE THE CREATED FIGURES 1 and 2

Figure 1

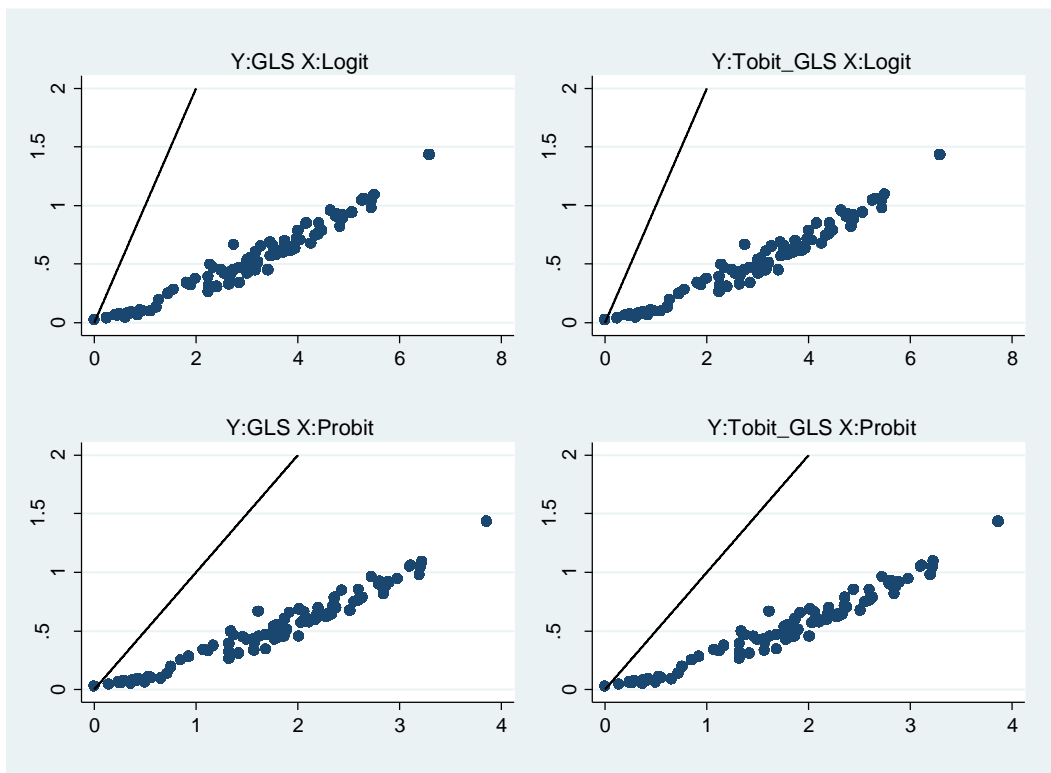
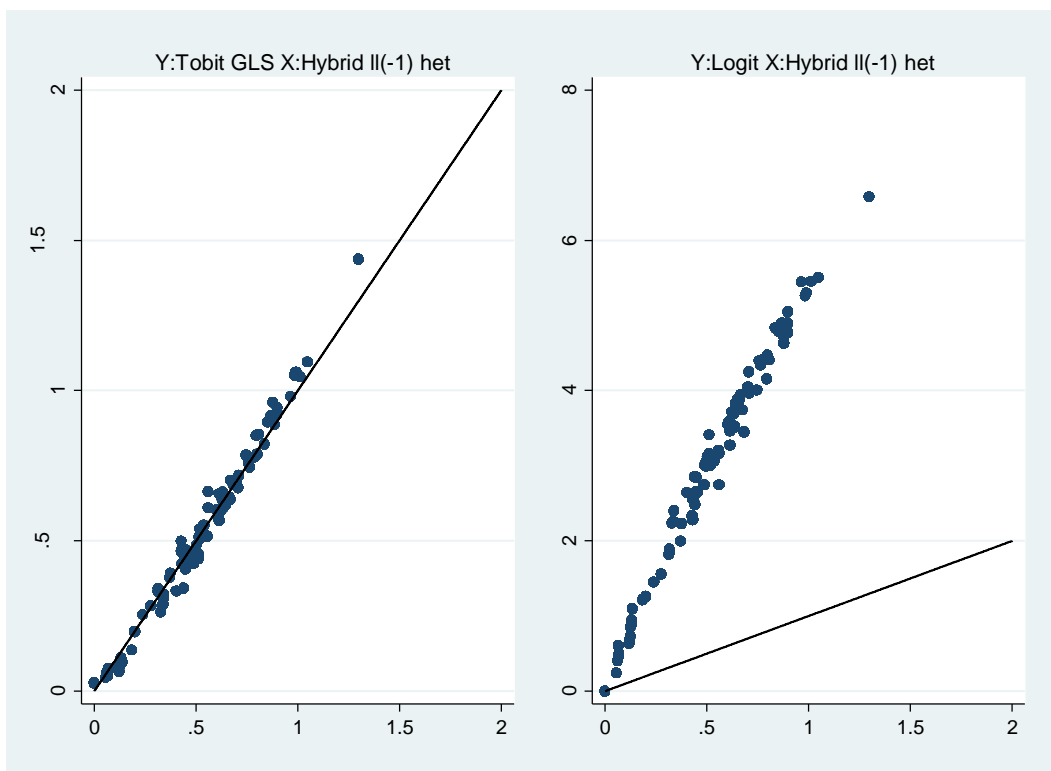
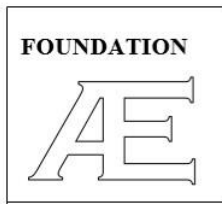


Figure 2



Annex 1. Sample Endorsement letter



Officers and members of The Board of Council

Jacinto Blas V. Mantaring III, MD
President

Olivia T. Sison, MSPH
Secretary

Hilton Y. Lam, PhD
Treasurer

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Noel R. Juban, MD

Mary Ann D. Lansang, MD

Agnes D. Mejia, MD

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FOUNDATION FOR THE ADVANCEMENT OF CLINICAL EPIDEMIOLOGY, INC.

20 September 2017

HON. FRANCIS ANTHONY S. GARCIA
City Mayor
Balanga City, Bataan

Attention: DR. MARIANO BANZON
City Health Officer
Balanga City, Bataan

Re: Implementation of the Department of Science and Technology Philippine Council for Health Research and Development (DOST-PCHRD)-supported study entitled "Estimating the EQ-5D-5L Value Set for the Philippines"

Dear **HON.GARCIA**:

Greetings!

We were chosen by the DOST-PCHRD to implement the project entitled "Estimating the EQ-5D-5L Value Set for the Philippines." This research aims to estimate the utility values of different health states. This study is important because results will be used to estimate a Filipino-specific Quality of Life Years (QALY) measure, a widely used measure in economic evaluations of healthcare technologies.

This is to inform your office that we will be interviewing members of your community for this study. The data collection is scheduled on November 2017. We will coordinate with your office regarding the final schedule of our visit.

Rest assured that our data collectors will observe utmost ethical behavior when interviewing your constituents. We will be happy to provide more information if our study interests your office.


Thank you very much.

Sincerely,

Hilton Lam, MHA, PhD
Project Leader

Annex 2. Ethics Approval

UPMREB FORM 4(B)2012: APPROVAL LETTER OF THE STUDY PROTOCOL
11/01/2013



University of the Philippines Manila
RESEARCH ETHICS BOARD
2nd Floor Paz Mendoza Building, College of Medicine, UP Manila
547 Pedro Gil Street, Ermita, 1000 Manila
Telephone: +63 2 5222684; Mobile: +63 927 3264910; Email: upmreb@post.upm.edu.ph

11 April 2017

DR. HILTON LAM
Principal Investigator
NIH Building
University of the Philippines Manila

Re: UPMREB 2017-156-01
Estimating the EQ-5D-5L Value Set for the Philippines

Dear **DR. LAM**:

We wish to inform you that your study protocol has been reviewed and is hereby granted approval for implementation by the **UP Manila Research Ethics Board (UPMREB) Review Panel 2**. Your study has been assigned study protocol code UPMREB 2017-156-01, which should be used for all communication to the UPMREB Review Panel 2 related to this study. This ethical clearance is valid until **30 April 2018**.

The following documents have been approved for use in the study.

1. Study protocol version 1.0 dated 20 March 2017.
2. Appendix A: Sample EQ5D 5L Questionnaire (English, Filipino, Cebuano, Hiligaynon).
3. Appendix B: Screenshot of EQ5D 5L Valuation Program.
4. Appendix C: Focus Group Discussion Questionnaire.
5. Appendix D: Screening Form.
6. Appendix E: Sampling Matrix.
7. Appendix F: Informed Consent.
8. Appendix G: Informed Consent Forms in Filipino.
9. Appendix H: Data Protection Rules.

In addition to the abovementioned documents, the following technical document/s was/were included in the review on which this approval was based:

1. Curriculum Vitae of the Principal Investigator, Dr. Hilton Lam.
2. Curriculum Vitae of the Co-Investigator, Dr. Adovich Rivera.

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Page 1 of 3

3. Curriculum Vitae of the Co-Investigator, Dr. Anthony Cordero.
4. Curriculum Vitae of the Co-Investigator, Dr. Vicente Medina III.

While the study is in progress, we request you to submit to us the following documents:

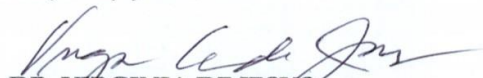
1. Progress report using the attached UPMREB FORM3(B)2012: Continuing Review Application Form every (12 months) twelve months which includes the following:
(NOTE: *In view of active ethical clearance, this report is mandatory even if the study has not started or is still awaiting release of funds.*)
 - a. Date covered by the report
 - b. Protocol summary and status report on the progress of the research
 - c. Status of registration of study in Philippine Health Research Registry (<http://registry.healthresearch.ph>)
 - d. Number of participants accrued
 - e. Withdrawal or termination of participants
 - f. Complaints on the research since the last UPMREB review
 - g. Summary of relevant recent research literature, interim findings and amendments since the last UPMREB review
 - h. Any relevant multi-center research reports
 - i. Any relevant information especially about risks associated with the research
 - j. A copy of the informed consent document
2. Any amendment/s in the protocol, especially those that may adversely affect the safety of the participants during the conduct of the trial including changes in personnel, must be submitted or reported using the attached UPMREB FORM3(A)2012: Study Protocol Amendment Submission Form.
3. Revisions in the informed consent form using the attached UPMREB FORM 3(A)2012: Study Protocol Amendment Submission Form.
4. Reports of adverse events including from other study sites (national, international) using the attached UPMREB FORM 3(G)2012: Serious Adverse Events Report form, with timelines for submission guided by the attached GL 01 Version 1.1: Guideline on Reporting Serious Adverse Events.
5. Notice of early termination of the study and reasons for such using UPMREB FORM 3(E)2012.
6. Any event which may have ethical significance.
7. Any information which is needed by the UPMREB to do ongoing review
8. Notice of time of completion of the study using UPMREB FORM 3(C)2012: Final Report Form.
9. Application for renewal of ethical clearance 90 days before the expiration date of this approval through submission of UPMREB FORM3(B)2012: Continuing Review Application Form, if the study will continue beyond expiration date of ethical clearance.

10. Complete UPMREB FORM 3(I)2012 Queries Notification and Complaints for queries, notifications and complaints not relating to the above.

Please note that forms may be downloaded from the UPMREB website: reb.upm.edu.ph.

Thank you.

Very truly yours,



DR. VIRGINIA DE JESUS

Chair, UPMREB Review Panel 2




CERTIFICATION

This certifies that the **University of the Philippines Manila Research Ethics Board (UPMREB) Review Panel 2** is constituted and established, and functions in accordance with the requirements set by the University of the Philippines Manila, the Philippine Health Research Ethics Board (PHREB); and in compliance with the WHO Standards and Operational Guidance for Ethics Review of Health-related Research with Human Participants (2011), the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (1996), and the National Ethical Guidelines for Health Research (2011).

The current members of the UPMREB Review Panel 2 are in the attached document. UPMREB Review Panel 2 actions and recommendations are facilitated through consensus. In reference to protocol of **Dr. Hilton Lam**, entitled **"Estimating the EQ-5D-5L Value Set for the Philippines"** (UPMREB2017-156-01), the decision was APPROVED for the aforementioned study protocol and documents specified in the approval package through expedited review.

Final APPROVAL was processed through EXPEDITED REVIEW and issued on 11 April 2017.


JACINTO BLAS MANTARING III, MD, MSc
UPMREB, Chair
11 April 2017