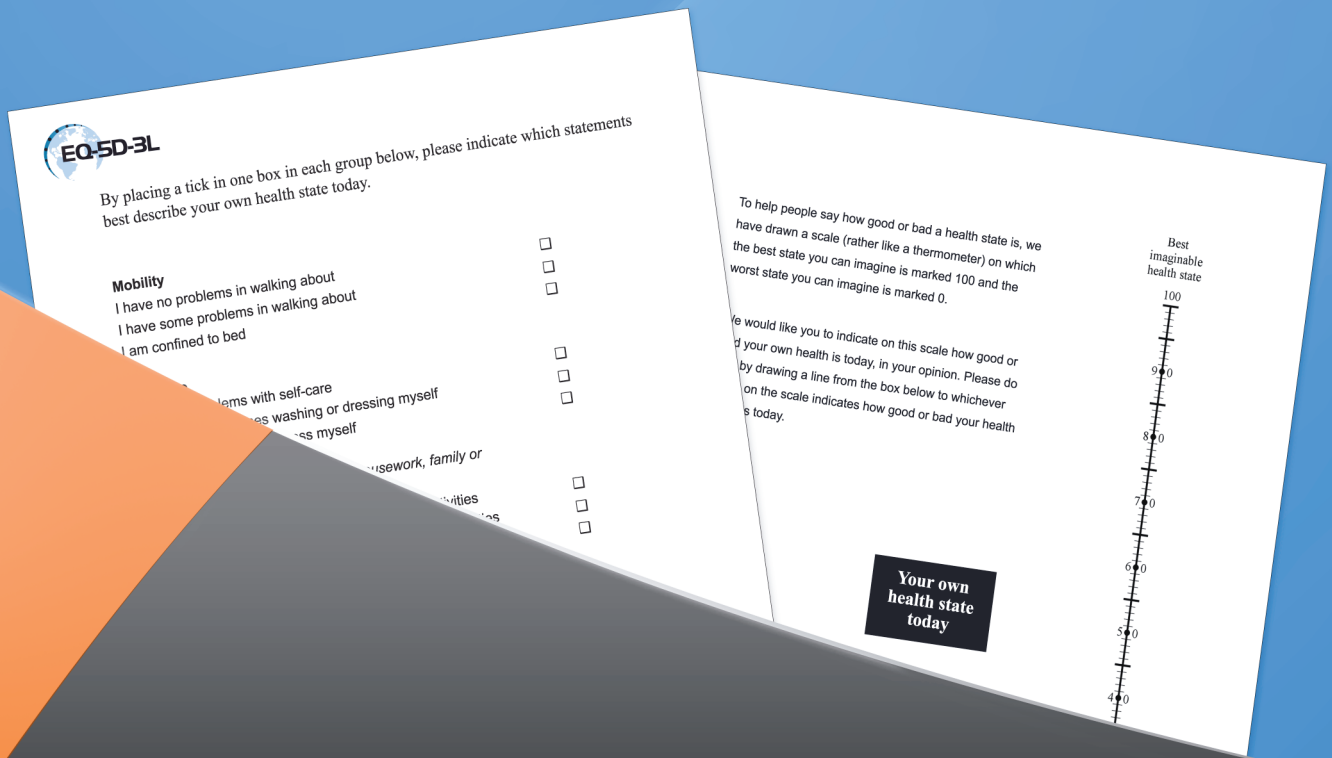




# EQ-5D-3L User Guide

*Basic information on how to use the EQ-5D-3L instrument*



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Prepared by  
Mandy van Reenen / Mark Oppe



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# 1. Introduction

This guide has been developed in order to give users basic information on how to use EQ-5D. Topics include administering the instrument, setting up a database for data collected using EQ-5D as well as information about how to present the results. Also included are several frequently asked questions dealing with common issues regarding the use of EQ-5D and a list of currently available EuroQol products.

## 1.1. The EuroQol Group

- The EuroQol Group is a network of international multidisciplinary researchers devoted to the measurement of health status. Established in 1987, the EuroQol Group originally consisted of researchers from Europe, but nowadays includes members from North America, Asia, Africa, Australia, and New Zealand. The Group is responsible for the development of EQ-5D, a preference based measure of health status that is now widely used in clinical trials, observational studies and other health surveys.
- The EuroQol Group has been holding annual scientific meetings since its inception in 1987.
- The EuroQol Group can be justifiably proud of its collective scientific achievements over the last 20 years. Research areas include: valuation, EQ-5D use in clinical studies and in population surveys, experimentation with the EQ-5D descriptive system, computerized applications, interpretation of EQ-5D ratings and the role of EQ-5D in measuring social inequalities in self-reported health.
- The EuroQol website ([www.euroqol.org](http://www.euroqol.org)) contains detailed information about EQ-5D, guidance for users, a list of available language versions, EQ-5D references and contact details.

## 1.2. EQ-5D

***EQ-5D is a standardised measure of health status developed by the EuroQol Group in order to provide a simple, generic measure of health for clinical and economic appraisal<sup>1</sup>.***

Applicable to a wide range of health conditions and treatments, it provides a simple descriptive profile and a single index value for health status that can be used in the clinical and economic evaluation of health care as well as in population health surveys (Figure 1). EQ-5D is designed for self-completion by respondents and is ideally suited for use in postal surveys, in clinics, and in face-to-face interviews. It is cognitively undemanding, taking only a few minutes to complete. Instructions to respondents are included in the questionnaire.

### 1.2.1. EQ-5D-3L

The EQ-5D 3 level version (EQ-5D-3L) was introduced in 1990. The EQ-5D-3L essentially consists of 2 pages - the EQ-5D descriptive system (page 2) and the EQ visual analogue scale (EQ VAS) (page 3). The EQ-5D-3L descriptive system comprises the following 5 dimensions: mobility, self-care, usual activities,

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<sup>1</sup> EuroQol Group. EuroQol-a new facility for the measurement of health-related quality of life. Health Policy 1990;16:199-208

pain/discomfort and anxiety/depression. Each dimension has 3 levels: no problems, some problems, extreme problems. The respondent is asked to indicate his/her health state by ticking (or placing a cross) in the box against the most appropriate statement in each of the 5 dimensions. The EQ VAS records the respondent's self-rated health on a vertical, visual analogue scale where the endpoints are labelled 'Best imaginable health state' and 'Worst imaginable health state'. This information can be used as a quantitative measure of health outcome as judged by the individual respondents. **It should be noted that the numerals 1-3 have no arithmetic properties and should not be used as a cardinal score.**

**Figure 1: EQ-5D-3L (UK English sample version)**

By placing a tick in one box in each group below, please indicate which statements best describe your own health state today.

**Mobility**

- I have no problems in walking about
- I have some problems in walking about
- I am confined to bed

**Self-Care**

- I have no problems with self-care
- I have some problems washing or dressing myself
- I am unable to wash or dress myself

**Usual Activities** (e.g. work, study, housework, family or leisure activities)

- I have no problems with performing my usual activities
- I have some problems with performing my usual activities
- I am unable to perform my usual activities

**Pain/Discomfort**

- I have no pain or discomfort
- I have moderate pain or discomfort
- I have extreme pain or discomfort

**Anxiety/Depression**

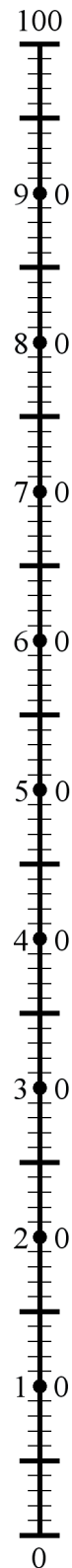
- I am not anxious or depressed
- I am moderately anxious or depressed
- I am extremely anxious or depressed

To help people say how good or bad a health state is, we have drawn a scale (rather like a thermometer) on which the best state you can imagine is marked **100** and the worst state you can imagine is marked **0**.

We would like you to indicate on this scale how good or bad your own health is today, in your opinion. Please do this by drawing a line from the box below to whichever point on the scale indicates how good or bad your health state is today.

**Your own  
health state  
today**

Best  
imaginable  
health state



Worst  
imaginable  
health state

### **1.3. What is a health state?**

Each of the 5 dimensions comprising the EQ-5D descriptive system is divided into 3 levels of perceived problems:

Level 1: indicating no problem

Level 2: indicating some problems

Level 3: indicating extreme problems

A unique health state is defined by combining 1 level from each of the 5 dimensions.



A total of 243 possible health states is defined in this way. Each state is referred to in terms of a 5 digit code. For example, state 11111 indicates no problems on any of the 5 dimensions, while state 11223 indicates no problems with mobility and self care, some problems with performing usual activities, moderate pain or discomfort and extreme anxiety or depression.

Note: Two further states (unconscious and death) are included in the full set of 245 EQ-5D health states, but information on these states is not collected via self-report.



## 2. Scoring the EQ-5D-3L descriptive system

The EQ-5D-3L descriptive system should be scored as follows:

By placing a tick in one box in each group, please indicate which statements best describe your health today.

**Mobility**

I have no problems in walking about

I have some problems in walking about

I am confined to bed

**Self-Care**

I have no problems with self-care

I have some problems washing or dressing myself

I am unable to wash or dress myself

**Usual Activities** (e.g. work, study, housework, family or leisure activities)

I have no problems with performing my usual activities

I have some problems with performing my usual activities

I am unable to perform my usual activities

**Pain/Discomfort**

I have no pain or discomfort

I have moderate pain or discomfort

I have extreme pain or discomfort

**Anxiety/Depression**

I am not anxious or depressed

I am moderately anxious or depressed

I am extremely anxious or depressed

Levels of perceived problems are coded as follows:

- Level 1 is coded as a '1'
- 
- 
- Level 2 is coded as a '2'
- 
- 
- Level 3 is coded as a '3'
- 
- 

*NB: There should be only one response for each dimension.*

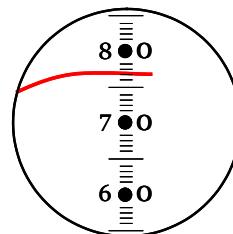
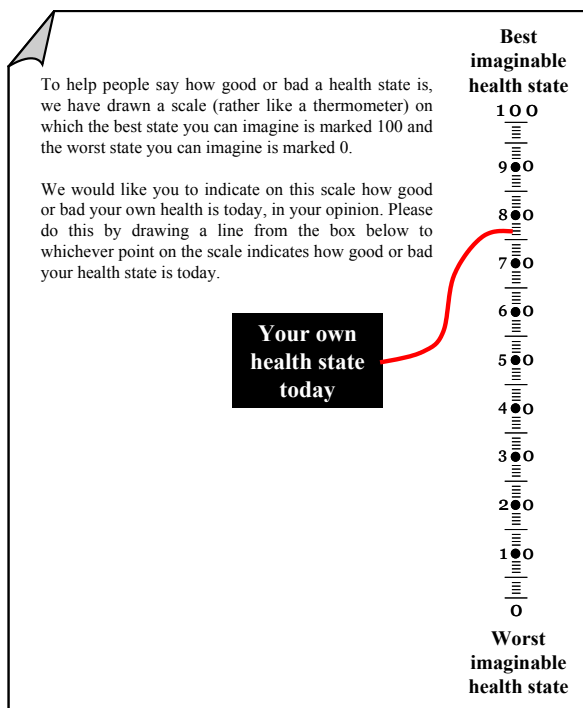
This example identifies the state 11232.

**NB: Missing values** can be coded as '9'.

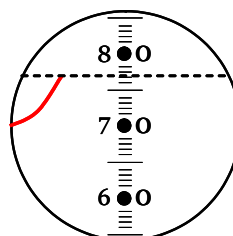
**NB: Ambiguous values** (e.g. 2 boxes are ticked for a single dimension) should be treated as missing values.

### 3. Scoring the EQ VAS

The EQ VAS should be scored as follows:



For example this response should be coded as 77



Even though the line does not cross the VAS this response can still be scored by drawing a horizontal line from the end point of the response to the VAS. In this example the response should be coded as 77

**NB: Missing values** should be coded as '999'.

**NB: Ambiguous values** (e.g. the line crosses the VAS twice) should be treated as missing values.

## 4. Converting EQ-5D states to a single summary index

EQ-5D health states, defined by the EQ-5D descriptive system, may be converted into a single summary index by applying a formula that essentially attaches values (also called weights) to each of the levels in each dimension. The index can be calculated by deducting the appropriate weights from 1, the value for full health (i.e. state 11111). Information in this format is useful, for example, in cost utility analysis.

Value sets have been derived for EQ-5D in several countries using the EQ-5D visual analogue scale (EQ-5D VAS) valuation technique or the time trade-off (TTO) valuation technique. The list of currently available value sets for the EQ-5D-3L with the number of respondents and valuation technique applied is presented in table 1. Most of the EQ-5D value sets have been obtained using a representative sample of the general population, thereby ensuring that they represent the societal perspective. For anyone working with EQ-5D data, an essential guide to the Group's available value sets can be found in: EuroQol Group Monograph series: Volume 2: EQ-5D value sets: inventory, comparative review and user guide, published by Springer (see section 9.3 for more information).

**Table 1:** List of available value sets for the EQ-5D-3L (references available on the website)

Country	N	Valuation method
Belgium	722	EQ-5D VAS
Denmark	1686	EQ-5D VAS
Denmark	1332	TTO
Europe	8709	EQ-5D VAS
Finland	1634	EQ-5D VAS
France	443	VAS/TTO
Germany	339	EQ-5D VAS
Germany	339	TTO
Japan	621	TTO
Netherlands	309	TTO
New Zealand	1360	EQ-5D VAS
Slovenia	733	EQ-5D VAS
Spain	300	EQ-5D VAS
Spain	1000	TTO
Thailand	1324	TTO
UK	3395	EQ-5D VAS
UK	3395	TTO
US	4048	TTO
Zimbabwe	2440	TTO

Documents containing the scoring algorithms, information on the valuation studies, tables of values for all 243 health states and SPSS and SAS syntax files can be ordered from the EuroQol Office.

## 5. Organising EQ-5D-3L data

Data collected using EQ-5D-3L can be entered in a database according to the following schema:

Variable name	ID	COUNTRY	YEAR	MOBILITY	SELFCARE	ACTIVITY	PAIN	ANXIETY
Variable description	patient ID number			1=No Problems, 2=Some problems, 3=Extreme problems, 9=Missing value	1=No Problems, 2=Some problems, 3=Extreme problems, 9=Missing value	1=No Problems, 2=Some problems, 3=Extreme problems, 9=Missing value	1=No Problems, 2=Some problems, 3=Extreme problems, 9=Missing value	1=No Problems, 2=Some problems, 3=Extreme problems, 9=Missing value
Data row 1	1001	UK	2006	2	1	2	2	1
Data row 2	1002	UK	2006	1	1	1	1	1

Variable name	STATE	EQ_VAS	SEX	AGE	EDU	METHOD	SOC_ECON
Variable description		999=Missing value	1=male, 2=female, 9=Missing value	999=Missing value	1=low, 2=medium, 3=high, 9=Missing value	0=postal, 1=interview, 2=telephone, 9=Missing value	1=employed, 2=retired, ....., 9=Missing value
Data row 1	21221	80	1	43	1	0	1
Data row 2	21111	90	2	24	2	0	4

**NB:** The variable names are just examples. However, the variables for the 5 dimensions of the EQ-5D descriptive system should be named 'mobility', 'self-care', 'activity', 'pain', and 'anxiety'. If they are given different names the syntax codes containing the value sets that are distributed by the EuroQol Group will not work properly.

## 6. Presenting EQ-5D-3L results

Data collected using EQ-5D-3L can be presented in various ways. A basic subdivision can be made according to the structure of the EQ-5D-3L:

1. Presenting results from the descriptive system as a health profile
2. Presenting results of the EQ VAS as a measure of overall self-rated health status
3. Presenting results from the EQ-5D-3L index value

The way results can be presented is determined both by the data and by what message you, as a researcher, wish to convey to your audience.

### 6.1. Health profiles

One way of presenting data as a health profile is by making a table with the frequency or the proportion of reported problems for each level for each dimension. These tables can be broken down to include the proportions per subgroup, such as age, before vs. after treatment, treatment vs. comparator, etc.

Sometimes it is more convenient to dichotomise the EQ-5D levels into 'no problems' (i.e. level 1) and 'problems' (i.e. levels 2 and 3), thereby changing the profile into frequencies of reported problems. This can be the case, for example, in a general population survey where the numbers of reported level 3 problems are very low. Tables 2 and 3 are examples of how to present EQ-5D data in tabulated form. The data for the tables originates from a general population survey in the UK<sup>2</sup>.

**Table 2:** Proportion of levels 1, 2 and 3 by dimension and by age group

<b>EQ-5D DIMENSION</b>		<b>AGE GROUPS</b>							<b>TOTAL</b>
		<b>18-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50-59</b>	<b>60-69</b>	<b>70-79</b>	<b>80+</b>	
<b>MOBILITY</b>	Level 1	95.4	92.2	89.7	78.1	70.7	60.2	43.3	<b>81.6</b>
	Level 2	4.6	7.6	9.9	21.9	29.3	39.8	56.7	<b>18.3</b>
	Level 3	0.0	0.1	0.4	0.0	0.0	0.0	0.0	<b>0.1</b>
<b>SELF-CARE</b>	Level 1	99.1	98.4	95.8	94.8	94.3	92.6	83.7	<b>95.7</b>
	Level 2	0.9	1.5	4.0	5.2	5.5	7.1	15.6	<b>4.1</b>
	Level 3	0.0	0.1	0.2	0.0	0.2	0.2	0.7	<b>0.1</b>
<b>USUAL ACTIVITIES</b>	Level 1	93.3	91.4	89.2	78.1	75.3	73.7	56.0	<b>83.7</b>
	Level 2	6.3	7.9	9.4	18.8	21.6	22.1	38.3	<b>14.2</b>
	Level 3	0.4	0.7	1.5	3.0	3.1	4.2	5.7	<b>2.1</b>
<b>PAIN / DISCOMFORT</b>	Level 1	83.9	80.7	74.1	56.3	53.8	44.0	39.7	<b>67.0</b>
	Level 2	15.8	17.7	22.8	38.1	40.6	48.4	49.6	<b>29.2</b>
	Level 3	0.3	1.6	3.1	5.6	5.6	7.6	10.6	<b>3.8</b>
<b>ANXIETY / DEPRESSION</b>	Level 1	86.5	82.6	81.3	72.8	72.0	74.7	75.2	<b>79.1</b>
	Level 2	12.6	16.4	16.9	24.4	25.1	22.6	24.1	<b>19.1</b>
	Level 3	0.9	1.0	1.8	2.8	2.9	2.7	0.7	<b>1.8</b>

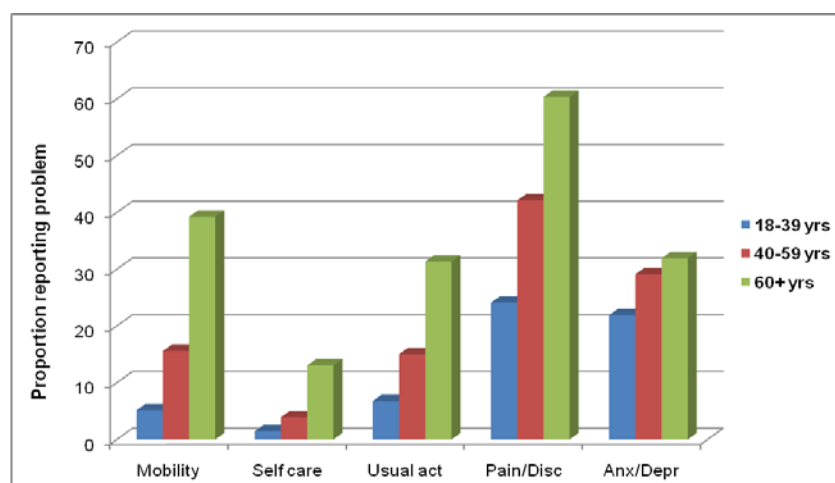
<sup>2</sup>Kind P, Dolan P, Gudex C, Williams A. Variations in population health status: results from a United Kingdom national questionnaire survey *Bmj* 1998;316 (7133): 736-41.

**Table 3:** Frequency of reported problems by dimension and age group

EQ-5D DIMENSION		AGE GROUPS							TOTAL
		18-29	30-39	40-49	50-59	60-69	70-79	80+	
MOBILITY	No problems	643	631	489	362	339	246	61	2770
	Problems	31	53	56	101	140	162	81	625
SELF-CARE	No problems	668	673	522	439	452	378	119	3251
	Problems	6	11	23	24	27	30	23	144
USUAL ACTIVITIES	No problems	629	625	486	362	361	301	80	2842
	Problems	45	59	59	101	118	107	62	553
PAIN / DISCOMFORT	No problems	566	552	404	261	258	179	56	2275
	Problems	108	132	141	202	221	229	86	1120
ANXIETY / DEPRESSION	No problems	583	565	443	337	345	305	107	2684
	Problems	91	119	102	126	134	103	35	711

In addition to presenting the results in tabulated form, you can also use graphical presentations. Two or 3 dimensional bar charts can be used to summarise the results in 1 graph, (see figure 2). Figure 2 shows the sum of the proportion of reported level 2 and level 3 problems for each of the 5 EQ-5D-3L dimensions for 3 distinct age groups. Older people reported more problems on all dimensions but the effect of age was strongest for mobility and weakest for anxiety/depression.

**Figure 2:** Profile of the population (% reporting problem)



## 6.2. EQ VAS

In order to present all aspects of the EQ VAS data, you should present both a measure of the central tendency and a measure of dispersion. This could be the mean values and the standard deviation or, if the data is skewed, the median values and the 25th and 75th percentiles. An example is presented in table 4. The data for the table originates from a general population survey in the UK<sup>3</sup>.

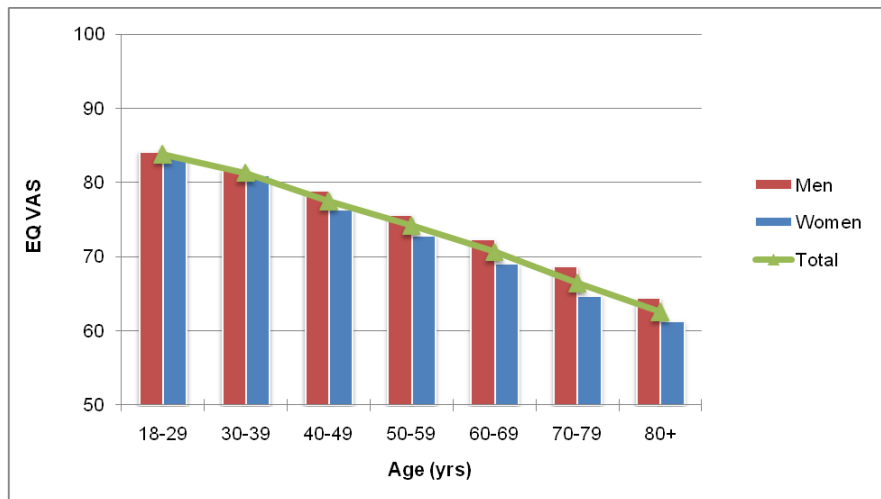
<sup>3</sup> Kind P, Dolan P, Gudex C, Williams A. Variations in population health status: results from a United Kingdom national questionnaire survey *Bmj* 1998;316 (7133): 736-41.

**Table 4:** EQ VAS values by age – mean + standard deviation and median + percentiles

EQ VAS	AGE GROUPS							TOTAL
	18-29	30-39	40-49	50-59	60-69	70-79	80+	
<b>Mean</b>	87.0	86.2	85.1	81.3	79.8	75.3	72.5	<b>82.8</b>
<b>- Std dev</b>	13.8	14.6	15.5	46.8	17.5	18.5	18.2	<b>23.1</b>
<b>Median</b>	90	90	90	86	85	80	75	<b>90</b>
<b>- 25th</b>	80	80	80	70	70	65	60	<b>75</b>
<b>- 75th</b>	98	95	95	95	93	90	88	<b>95</b>

You can present a graphical representation of the data by using bar charts, line charts, or both (see figure 3). Figure 3 shows the mean EQ VAS ratings reported by men, women and both for 7 distinct age groups. The mean EQ VAS ratings are seen to decrease with increasing age. Also, men of all age groups reported higher EQ VAS ratings than women.

**Figure 3:** Mean population EQ VAS ratings by age group and sex



### 6.3. EQ-5D index

Information about the EQ-5D index can be presented in much the same way as the EQ VAS data. This means that for the index, you can present both a measure of the central tendency and a measure of dispersion. This could be the mean values and the standard deviation (or standard error). If the data is skewed, the median values and the 25th and 75th percentiles could be presented. Tables 5 and 6 and figures 4 and 5 contain 2 examples of how to present EQ-5D index results. Table 5 and figure 4 present the results from a study where the effect of a treatment on health status is investigated. Table 6 and figure 5 show results for a patient population and 3 subgroups (the tables and figures are based on hypothetical data and for illustration purposes only).

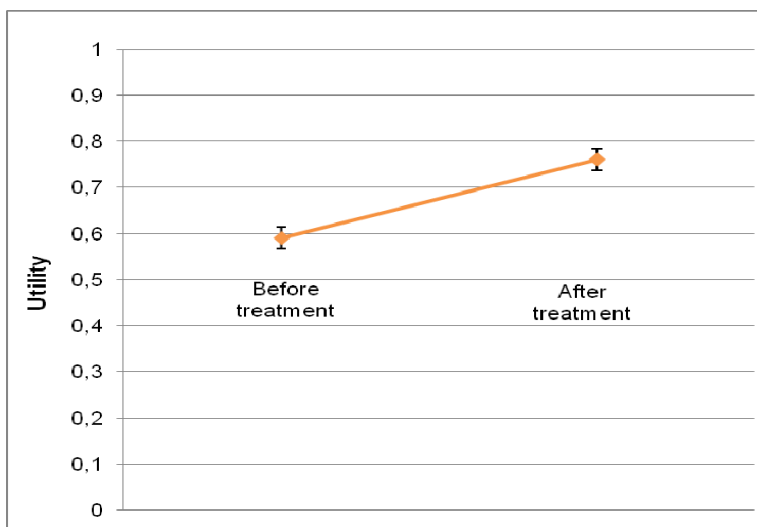
**Table 5:** EQ-5D-3L index values before and after treatment

EQ-Index	Before treatment	After treatment
Mean	0,59	0,76
- Std error	0,012	0,015
Median	0,60	0,70
- 25th	0,50	0,65
- 75th	0,70	0,80
N	120	110

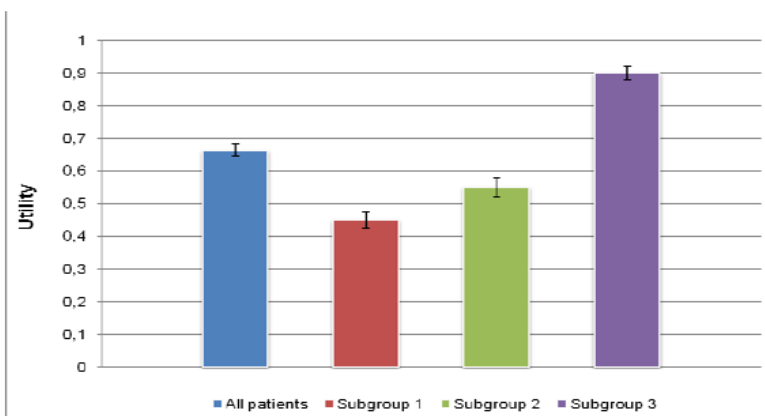
**Table 6:** EQ-5D-3L index values for the total patient population and the 3 subgroups

EQ-Index	All patients	Subgroup 1	Subgroup 2	Subgroup 3
Mean	0,66	0,45	0,55	0,90
- Std error	0,010	0,013	0,015	0,010
Median	0,55	0,40	0,55	0,95
- 25th	0,50	0,30	0,50	0,80
- 75th	0,70	0,50	0,60	1,00
N	300	100	75	125

**Figure 4:** EQ-5D-3L index values before and after treatment: mean values and 95% confidence intervals



**Figure 5:** Mean EQ-5D-3L index values and 95% confidence intervals for the total patient population and 3 subgroups.





## 7. EQ-5D Products

### 7.1. EQ-5D-3L Translations and other formats

The EQ-5D-3L (EQ-5D 3 level) self complete paper version is currently translated in more than 170 language versions. Likewise, although the EQ-5D-3L was also primarily designed as a pen-and-paper self-complete instrument, it is now available in alternative formats and modes of administration, and in multiple translations:

<ul style="list-style-type: none"><li>• Face-to-face and proxy paper</li></ul>	<ul style="list-style-type: none"><li>• Tablet</li></ul>
<ul style="list-style-type: none"><li>• Interactive Voice Response</li></ul>	<ul style="list-style-type: none"><li>• Telephone</li></ul>
<ul style="list-style-type: none"><li>• PDA</li></ul>	<ul style="list-style-type: none"><li>• Web</li></ul>

If you want to know whether an EQ-5D-3L language version exists for your country, please consult the EuroQol website.

### 7.2. Other EQ-5D Products

#### 7.2.1. EQ-5D-5L Translations and formats

The EQ-5D-5L self-complete paper version is currently available in more than 120 different language versions. Likewise, although the EQ-5D-5L was primarily designed as a pen-and-paper, self-complete instrument, it is now available in alternative formats and modes of administration, and in multiple translations:

<ul style="list-style-type: none"><li>• PDA</li></ul>	<ul style="list-style-type: none"><li>• Telephone</li></ul>
<ul style="list-style-type: none"><li>• Proxy paper</li></ul>	<ul style="list-style-type: none"><li>• Web</li></ul>
<ul style="list-style-type: none"><li>• Tablet</li></ul>	

If you want to know whether an EQ-5D-5L version exists for your country, please consult the EuroQol website.

#### 7.2.2. EQ-5D-Y Translations

The EQ-5D-Y is an EQ-5D-3L self complete youth version has been developed specifically for children and adolescents aged 8-15 years (or respectively 8-18 years; see Youth User Guide). At present, this version is available in more than 30 different languages. Likewise, although the EQ-5D-Y was primarily designed as a pen-and-paper, self-complete instrument, it is now available in the following alternative formats:

<ul style="list-style-type: none"><li>• PDA</li></ul>	<ul style="list-style-type: none"><li>• Tablet</li></ul>
<ul style="list-style-type: none"><li>• Proxy paper</li></ul>	

If you want to know if there is an EQ-5D-Y version appropriate for your country, please consult the EuroQol website.

### ***7.3. Translation process***

All translation/adaptations of the EQ-5D-3L are produced using a standardized translation protocol that conforms to internationally recognized guidelines. These guidelines aim to ensure equivalence to the English 'source' version and involve a forward/backward translation process and cognitive debriefing. Only the EuroQol Office can give permission for a translation to be performed and translations can only be stamped as official if they are performed in cooperation with EuroQol reviewers.

### ***7.4. How to obtain EQ-5D-3L?***

If you require a version that is not available, please first check with the EuroQol Office to ascertain whether the version is in progress. If the version is not in progress and you are interested in getting the version (or versions) translated, the policy of the EuroQol Research Foundation is that you use a specialist agency to carry out the work. The EuroQol Office will refer you to their preferred agencies who cooperate with the Foundation regularly and are aware of our requirements. Please note that copyright of all translations remains with the Foundation.

## 8. FAQs

### 8.1. General

#### **For what period of time does EQ-5D-3L record health status?**

Self-reported health status captured by EQ-5D-3L relates to the respondent's situation at the time of completion. No attempt is made to summarise the recalled health status over the preceding days or weeks, although EQ-5D-3L has been tested in recall mode. An early decision taken by the EuroQol Group determined that health status measurement ought to apply to the respondent's immediate situation - hence the focus on 'your own health state today'.

#### **Can I use only the EQ-5D-3L descriptive system or only the EQ VAS?**

We cannot advise this. EQ-5D-3L is a 2-part instrument so if you only use 1 part you cannot claim to have used EQ-5D-3L in your publications.

#### **How long should the EQ VAS be?**

Officially, for paper versions, the EQ VAS scale should be 20cms. All methodological and developmental work has been carried using this length. To ensure that you print the correct length, make sure your paper size is set at A4 and the box in your printing instructions labelled 'scale to paper size' is set at 'no scaling'.

#### **Can I publish our study using EQ-5D-3L?**

Yes, you are free to publish your results. If you are reproducing the EQ-5D, we request that you use the sample version of EQ-5D-3L. Also, please include the copyright statement stated in the footer of the specific EQ-5D-3L language version.

#### **What is the difference between the EQ-5D-3L descriptive system, the EQ VAS and the EQ-5D index values?**

The descriptive system can be represented as a health state, e.g. health state 11212 represents a patient who indicates some problems on the usual activities and anxiety/depression dimensions. These health states can be converted to a single index value using (one of) the available EQ-5D-3L value sets. These value sets have been derived using VAS or TTO valuation techniques, and reflect the opinion of the general population. The EQ VAS self-rating records the respondent's own assessment of their health status and are therefore not representative of the general population. Since, the EQ VAS scores are anchored on 100 = best imaginable health and 0 = worst imaginable health these scores are not suitable for QALY calculations, whereas the value sets are anchored on 11111 = 1 and dead = 0 and can therefore be used in QALY calculations.

#### **What is the difference between the VAS and TTO techniques?**

The difference between the value sets based on TTO and those based on VAS is that the techniques used for the elicitation of the values on which the models are based differ. In the TTO task, respondents are asked, for example, to imagine they live in a health state (e.g. 22222) for 10 years and then asked to specify the amount of time they are willing to give up to live in full health instead (i.e. 11111). For example, someone might find 8 years in 11111 equivalent to 10 years in

22222. The VAS technique on the other hand, asks people to indicate where, on a vertical thermometer-like scale ranging from best imaginable health to worst imaginable health, they think a health state should be positioned.

### **General population value sets vs. patient population value sets**

If you want to undertake a utility analysis you will need to use a value set. Generally speaking utility analysis requires a general population-based value set (as opposed to a patient-based set). The rationale behind this is that the values are supposed to reflect the preferences of local taxpayers and potential receivers of healthcare. Additionally, patients tend to rate their health states higher than the general population because of coping etc, often underestimating their need for healthcare. The EQ-5D-3L value sets are therefore based on the values of the general population.

### **Multinational clinical trials**

Information relating to EQ-5D health states gathered in the context of multinational trials may be converted into a single summary index using one of the available EQ-5D-3L value sets. There are different options available to do this using appropriate value sets-however the choice depends on the context in which the information will be used by researchers or decision makers. In cases where data from an international trial are to be used to inform decision makers in a specific country, it seems reasonable to expect decision makers to be interested primarily in value sets that reflect the values for EQ-5D-3L health states in that specific country. So for example, if applications for reimbursement of a drug are rolled out from country to country, country-specific value sets should be applied and

reported in each pharmaco-economic report. This is no different from the requirement to use country-specific costs. In the absence of a country-specific value set, the researcher should select another set of values for a population that most closely approximates that country. Sometimes however, information about utilities is required to inform researchers or decision makers in an international context. In these instances, 1 value set applied over all EQ-5D health states data is probably more appropriate. The decision about which value set to use will also depend on whether the relevant decision making body in each country specifies any requirements or preferences in regard to the methodology used in different contexts (e.g. TTO, standard gamble (SG), VAS or discrete choice modelling (DCM)). These guidelines are the topic of an international ongoing debate but the EuroQol website is planning to provide a summary of health care decision-making bodies internationally, and their stated requirements regarding the valuation of health states. Detailed information regarding the valuation protocols, guidelines on which value set to use and tables of all available value sets has recently been published by Springer in: EuroQol Group Monograph series: Volume 2: EQ-5D value sets: inventory, comparative review and user guide' (see section 9.3 for more information).

## **8.2. Registration**

**I am not conducting a study but would like to use the EQ-5D to measure routine clinical outcomes or to set-up a registry. Do I still need to register?**

Yes. You can only obtain EQ-5D versions by completing the EQ-5D Registration Form.

### **8.3. Copyright**

#### **Is the EQ-5D-3L a copyrighted instrument?**

Yes. Please note that without the prior written consent of the EuroQol Office, you are not permitted to i.e. use, reproduce, alter, amend, convert, translate, publish or make available in whatever way (digital, hard-copy etc.) the EQ-5D-3L and related proprietary materials. The EuroQol Research Foundation stresses that any and all copyrights in the EQ-5D, its (digital) representations, and its translations exclusively vest in the EuroQol Research Foundation. EQ-5D™ is a trade mark of the EuroQol Research Foundation.

## 9. References and Publications

### 9.1. Key EuroQol Group references

1. The EuroQol Group (1990). EuroQol-a new facility for the measurement of health-related quality of life. *Health Policy* 16(3):199-208.
2. Brooks R (1996). EuroQol: the current state of play. *Health Policy* 37(1):53-72.
3. Dolan P (1997). Modeling valuations for EuroQol health states. *Med Care* 35(11):1095-108.
4. Roset M, Badia X, Mayo NE (1999). Sample size calculations in studies using the EuroQol 5D. *Qual Life Res* 8(6):539-49.
5. Greiner W, Weijnen T, Nieuwenhuizen M, et al. (2003). A single European currency for EQ-5D health states. Results from a six country study. *Eur J Health Econ*; 4(3):222-231.
6. Shaw JW, Johnson JA, Coons SJ (2005). US valuation of the EQ-5D health states: development and testing of the D1 valuation model. *Med Care*; 43(3): 203-220.

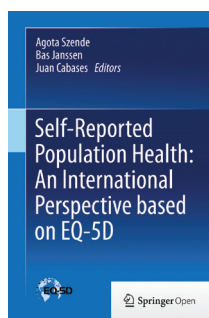
### 9.2. Referring to the EQ-5D-3L instrument in publications

When publishing results obtained with the EQ-5D-3L, the following references can be used:

1. The EuroQol Group (1990). EuroQol-a new facility for the measurement of health-related quality of life. *Health Policy* 16(3):199-208.
2. Brooks R (1996). EuroQol: the current state of play. *Health Policy* 37(1):53-72.

If you used a value set in your study you can also include a reference to the publication regarding that value set. The appropriate references for the value sets can be found in the EQ-5D Value Sets Monograph and in the value set summary documents that can be ordered from Springer at [www.springeronline.com](http://www.springeronline.com).

### 9.3. EQ-5D Books



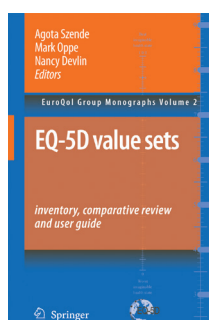
#### **Self-Reported Population Health: An International Perspective based on EQ-5D. Eds. Szende A, Janssen MF, Cabases J. Springer, 2014.**

This book captures up-to-date and expanded information of EQ-5D self-reported health and index values. EQ-5D population norms and cross-country analyses are provided from representative national surveys of 20 countries and additional regional surveys. The book can be obtained from Springer at [www.springeronline.com](http://www.springeronline.com) and is also available as open-access book.



#### **The EuroQol Group after 25 years, Brooks R. Springer, 2013.**

This book describes the history of the institutional and administrative framework within which the EuroQol Group operated. It also presents how the EQ-5D's descriptive system was determined, how translation and language issues were handled, and how valuations were provided. The book and e-book can be obtained from Springer at [www.springeronline.com](http://www.springeronline.com).



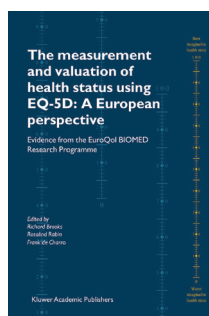
#### **EQ-5D value sets: Inventory, comparative review and user guide. Eds. Szende A, Oppe M, Devlin N. EuroQol Group Monographs Volume 2. Springer, 2006.**

This book provides an essential guide to the use of the EuroQol Group's value sets for anyone working with EQ-5D data and can be obtained from Springer at [www.springeronline.com](http://www.springeronline.com).



#### **EQ-5D concepts and methods: a developmental history. Eds Kind P, Brooks R, Rabin R. Springer, 2005.**

This book is a collection of papers representing the collective intellectual enterprise of the EuroQol Group and can be obtained from Springer at [www.springeronline.com](http://www.springeronline.com).



#### **The Measurement and valuation of health status using EQ-5D: A European perspective. Eds Brooks R, Rabin R, de Charro F. Kluwer Academic Publishers, 2005**

This book reports on the results of the European Union-funded EQ-net project which furthered the development of EQ-5D in the key areas of valuation, application and translation. The book can be obtained from Springer at [www.springeronline.com](http://www.springeronline.com).





**EuroQol Research Foundation**

Marten Meesweg 107  
3068 AV Rotterdam  
The Netherlands

Tel: +31 (0)88 4400190  
Email: [userinformationservice@euroqol.org](mailto:userinformationservice@euroqol.org)  
[www.euroqol.org](http://www.euroqol.org)