

# European Quality of Life-5 Dimension (EQ-5D) Principle, Applications, Benefit in Pharmacoeconomics Research

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# EQ – 5D

- **It is a simple set of questionnaire,**
- **It had been validated in several of countries (a.o. UK, Malaysia, Thailand), to measure health status / quality of live of individuals based on clinical and economic criteria.**
- **Recommended the use of EQ – 5D to measure utility value, for the calculation of QALY (Quality Adjusted of Life Years) in a Cost Utility Analysis,**

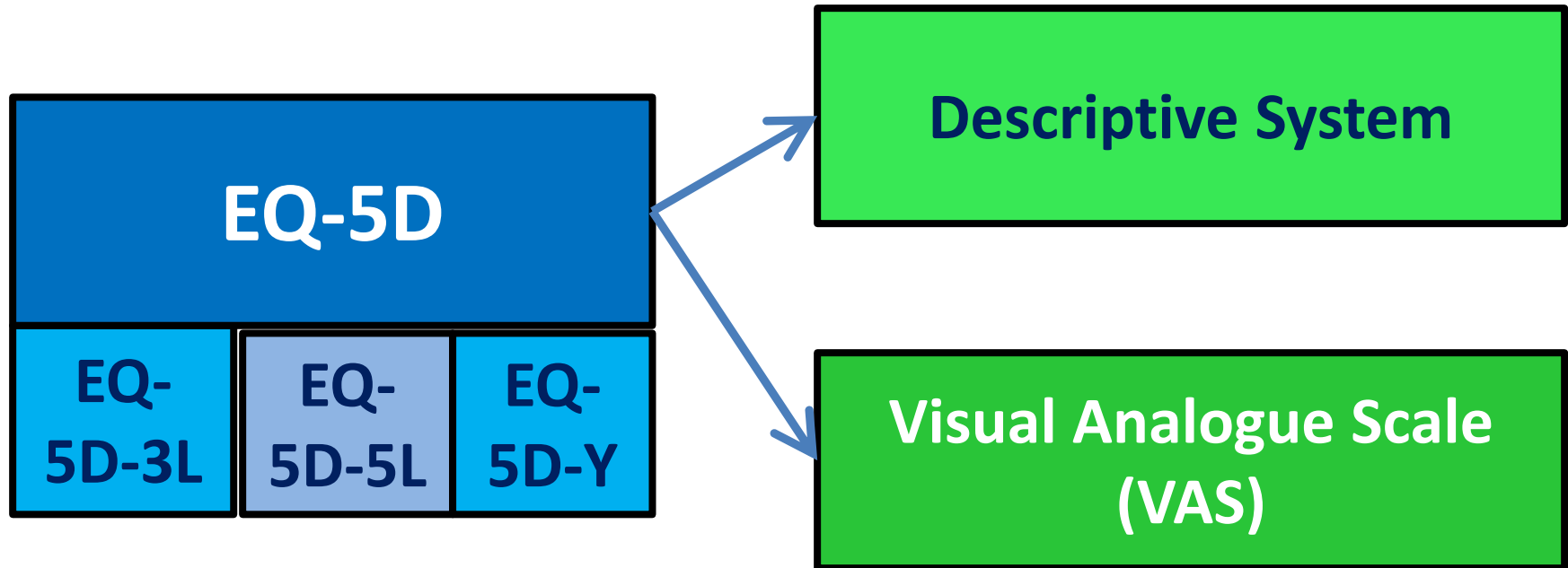
# Quality of Life

- **Quality of Life is a key criteria in evaluation of the outcome of a medical treatment of a disease.**
- **Quality of Life is an individual perception regarding impact, satisfaction, and/or limitation about his/her health status. It is the key element in final evaluation of a medical treatment.**

# Where is EQ -5D used?

- **EQ5D is used by scientists across the world in different settings and for many different diseases.**
- **It is used by Academia (eg. Universities, research institutes), Governments (national, regional), Pharmaceutical Industry, and by hospital and clinics.**

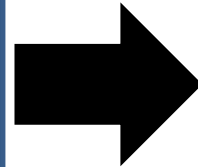
# Stages of EQ-5D



# 1. Descriptive System

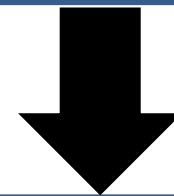
Questionnaire regarding :

- Mobility
- Self-care
- Usual Activity
- Pain / Discomfort
- Anxiety / Depression



Patient's levels of response :

1. No problems
2. Slight problems
3. Moderate problems
4. Severe problems
5. Extreme problems/  
inability



**Value Set**

# 5 Dimension

- **Mobility** asks about the person's walking ability
- **Self care** : the ability to wash or dress by oneself
- **Usual activities** : measures performance in work, study, housework, family or leisure activities.
- **Pain / discomfort**: how much pain or discomfort they have
- **Anxious /depression**: how anxious or depressed they are

# Value Set

- **Value Set is derived from the general population sample,**
- **It can be regarded as a societal valuation of respondent's state of health in a country.**



# EQ-5D example

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

Under each heading, please tick the **ONE** box that best describes your health **TODAY**

## **MOBILITY**

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

## **SELF-CARE**

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe 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 doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

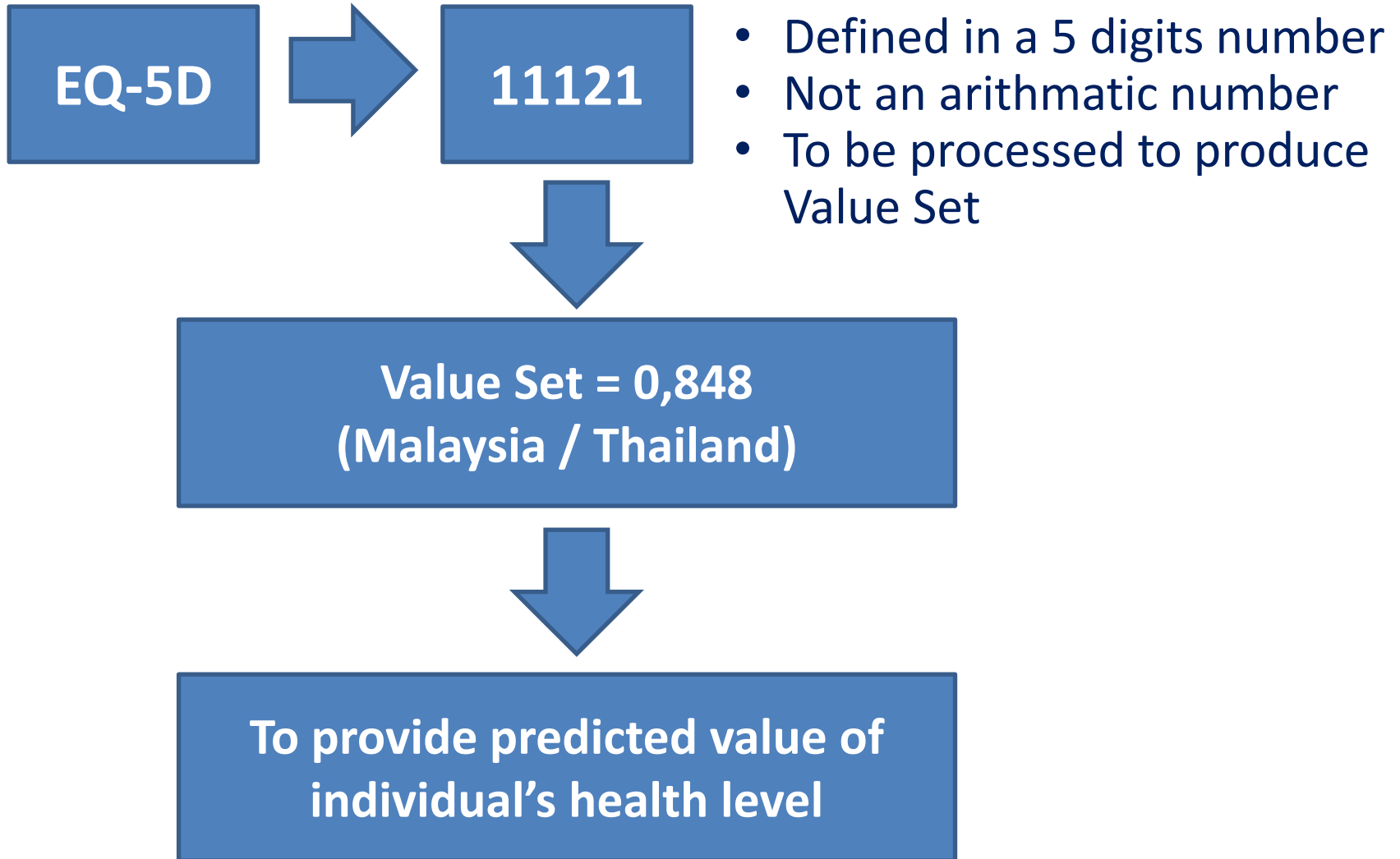
**PAIN / DISCOMFORT**

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

**ANXIETY / DEPRESSION**

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

# Descriptive System : from EQ-5D to Value Set



## 2. Visual Analogue Scale (VAS)

- **Quality of Life with respect to Health Status of individuals can be established by way of self rating, using a visual analogue scale – a thermometer like scale.**
- **Subjects will be requested to indicate his/her subjective judgement about his/her health status, by putting mark (X) in a scale between 0 (worst health status) and 100 (best health status).**

# Visual Analogue Scale : example

## Visual Analogue Scale

The best health you can imagine

- We would like to know how good or bad your health is **TODAY**.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.  
0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your health is **TODAY**.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY =

The worst health you can imagine

# Limitation of Visual Analogue Scale

- **Is end of scale bias that respondents are less likely to use the extreme ends of the scale for rating their health status.**
- **However, It is useful and the simplest direct method for valuing health related quality of life weights.**

# Conclusion

- **EQ-5D is useful for comparison of health status of individual patient at different times or different stages of health treatment.**
- **EQ-5D is a systematic method to evaluate the severity of a health problem at different times.**
- **EQ-5D has been used to evaluate local, regional or national level health status.**

**THANK YOU**