

Valuing EQ-5D using Time Trade-Off in France

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Figure 1: EQ-5D (UK English 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

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**Health profile :
12223**

EQ-5D
↓
243 health profiles



Introduction

- **Value-sets :**
 - **EQ-5D health states -> population-based utility weights.**
 - **Available in several countries BUT not in France.**
 - ➔ **MVH Study (UK)**

- **Preferences for different health states are not all-purpose.**
 - ➔ **French value-set (tariff)**



The French valuation study

Method

○ Survey :

- Face to face interview.
- 450 respondents (representative sample of the French population).
- 24 health states directly valued.
 - Splitted into 3 groups of 8 : A, B, C
- 300 respondents per health state.
 - 3 sets of health states : A + B → 150 resp.
B + C → 150 resp.
A + C → 150 resp.



The French valuation study

Method

- **Direct valuation of the 24 health states :**
 - Time Trade-Off
- **Values of the remaining 219 health states :**
 - Regression model

Set 1		Set 2		Set 3				
21111*	}	Group 1	21111*	}	Group 1	11211*	}	Group 2
12111*			12111*			11121*		
13311*			13311*			32211*		
11113*			11113*			11112*		
11131*			11131*			11312*		
22222*			22222*			11133*		
23232*			23232*			32223*		
32313*			32313*			33323*		
11211*	}	Group 2	22121	}	Group 3	22121	}	Group 3
11121*			21323			21323		
32211*			22122			22122		
11112*			22233			22233		
11312*			33321			33321		
11133*			13332			13332		
32223*			23313			23313		
33323*			33232			33232		
33333*	33333*	33333*						
+ 11111*			+ 11111*			+ 11111*		
+ Death*			+ Death*			+ Death*		

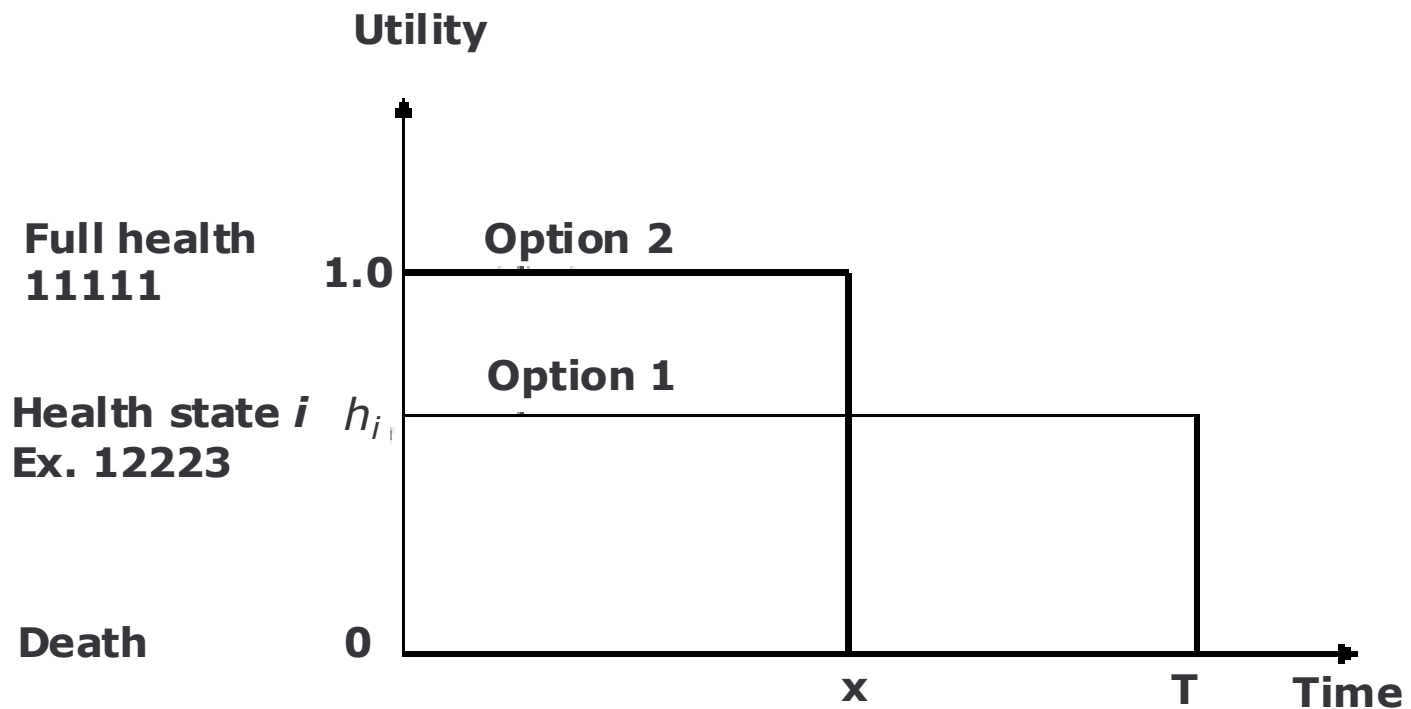
* Health states forming a part of the 17 ones.

** The state unconscious was removed in the French study.

The French study

Method

○ Time Trade-Off



$$U(i) = X / T$$



The French study

Method

- **Model specification :**
 - **Dependent variable : 1 - ScoreTTO**
 - **Several sets of dummy variables.**
 - **Measuring the difference between the levels.**
 - **Measuring the severity of the state.**
 - **Individual level : each respondent values several states**
 - ➡ **Random effect model.**



The French study

Results

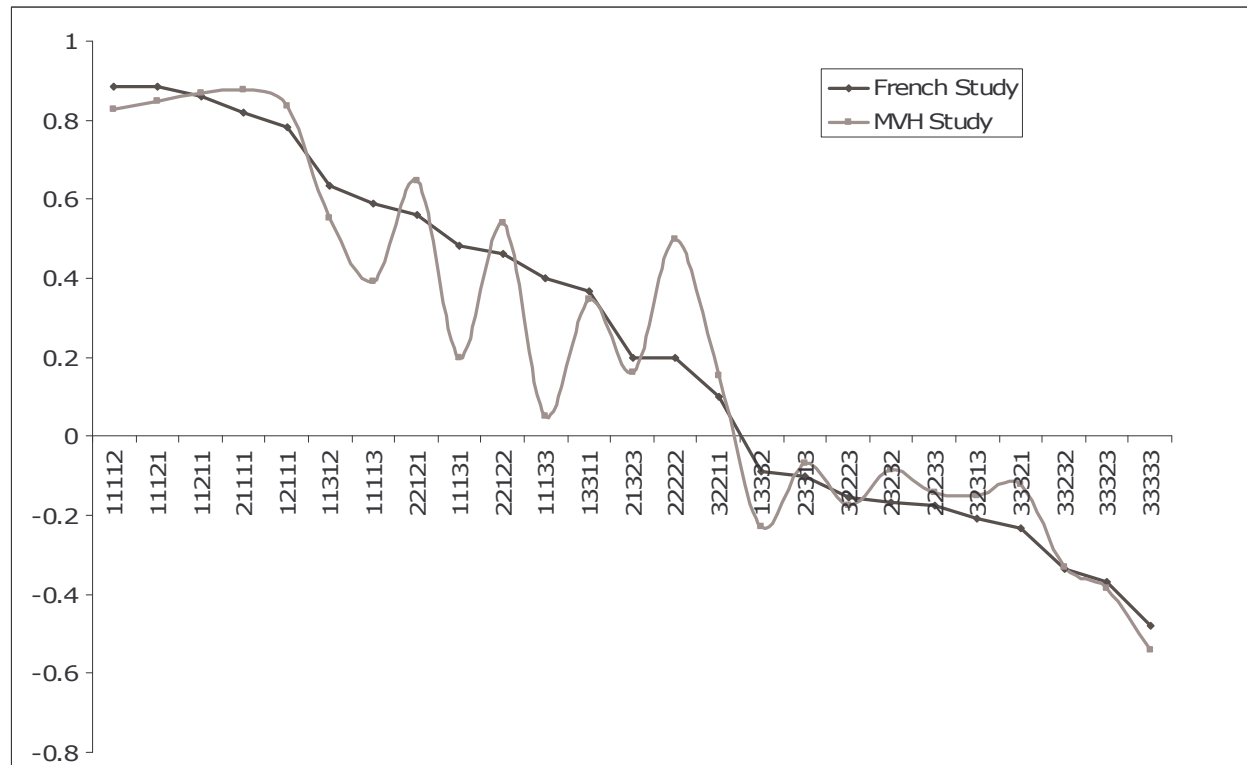
- **Characteristics of the sample :**
 - 452 respondents.
 - 9 excluded :
 - 8 gave all states the same value.
 - 1 valued all states worse than death.
 - **Women : 52%**
 - **Mean age : 46 years old.**
 - **Perceived health : 87% Excellent / (very) good**

The French study

Results

○ Mean values for the 24 health states :

- **0.88 for 11121.** **By definition : Score11111=1**
- **-0.50 for 33333.** **ScoreDeath=0**





The French study

Results

		Parameter estimates
MO2	1 if « mobility » is level 2; 0 otherwise.	0.1536
MO3	1 if « mobility » is level 3; 0 otherwise.	0.3729
SC2	1 if « self-care » is level 2; 0 otherwise.	0.2097
SC3	1 if « self-care » is level 3; 0 otherwise.	0.3251
UA2	1 if « usual activities » is level 2; 0 otherwise.	0.1556
UA3	1 if « usual activities » is level 3; 0 otherwise.	0.1875
PD2	1 if « pain/discomfort » is level 2; 0 otherwise.	0.1095
PD3	1 if « pain/discomfort » is level 3; 0 otherwise.	0.2644
AD2	1 if « anxiety/depression » is level 2; 0 otherwise.	0.0877
AD3	1 if « anxiety/depression » is level 3; 0 otherwise.	0.2040
N3	1 if any dimension is at level 3; 0 otherwise.	0.1692

		Parameter estimates
M02	1 if « mobility » is level 2; 0 otherwise.	0.15
M03	1 if « mobility » is level 3; 0 otherwise.	0.37
SC2	1 if « self-care » is level 2; 0 otherwise.	0.21
SC3	1 if « self-care » is level 3; 0 otherwise.	0.32
UA2	1 if « usual activities » is level 2; 0 otherwise.	0.16
UA3	1 if « usual activities » is level 3; 0 otherwise.	0.19
PD2	1 if « pain/discomfort » is level 2; 0 otherwise.	0.11
PD3	1 if « pain/discomfort » is level 3; 0 otherwise.	0.26
AD2	1 if « anxiety/depression » is level 2; 0 otherwise.	0.09
AD3	1 if « anxiety/depression » is level 3; 0 otherwise.	0.20
N3	1 if any dimension is at level 3; 0 otherwise.	0.17

- $U(11111) = 1$
- $U(21111) = 1 - 0.15 = 0.85$
- $U(31111) = 1 - 0.37 - 0.17 = 0.46$

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The French study

Results / Conclusion

- **Model** → **French EQ-5D tariff**



Thank you