

The European Social Preference Measurement (ESPM) Study: Conceptual Considerations and Implementation

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Background, Rationale & Objectives

Unlike cost benefit analysis, cost effectiveness analysis is restricted to length of life and health-related quality of life as integrated measures of benefit. Valuation is based on individual preferences for health states. Yet social value may exceed (aggregated) individual preference satisfaction. Multi-criteria decision analysis and social cost value analysis have been suggested as alternative evaluation approaches, which incorporate broader value frameworks. These should be supported by robust evidence on social preferences.

Limitations of the existing literature on social preferences include heterogeneity of study designs, small size and narrow focus of many studies, and potential bias owing to incomplete information and framing effects, as well as limited validity due to unstable preferences and potential cognitive overload of respondents in some surveys. Specifically, studies addressing the relevance of “rarity” have been subject to critique because of the low level of familiarity with the orphan drug issue, and the “zero-sum” framing commonly used.¹

The ESPM Project or “Social Preferences for Health Care Interventions” (SoPHI) Study is intended to add insights into the weights (and their interaction) of key characteristics of health interventions, valued from a citizens’ perspective. Here we present essential features of the study design (for study phase I in Switzerland) for discussion.

¹cf. N. Dragojovic, S. Rizzardo, N. Bansack, et al., *Patient* 2015; 8: 93-101

Literature Review

Social Preference Studies

suggest a broad range of characteristics contributing to social value¹

- Attributes of the Health Condition
 - individual valuation of health conditions
 - severity of the condition
 - unmet medical need
 - urgency of an intervention
 - capacity to benefit from an intervention (of relatively lower importance)
- Attributes of the Persons Afflicted
 - non-discrimination (and claims-based approaches)
 - age (and fair innings)
 - other patient attributes
 - fairness objectives and aversion against *all-or-nothing* decisions

¹cf. M. Schlander, S. Garattini, S. Holm, et al., *Journal of Comparative Effectiveness Research* 2014; 3 (4): 399-422.

Stated Preference Studies

reporting public preferences for health care priority setting¹

- Health Care Delivery
 - health benefits (type of, i.e., prevention, size of benefit, harm reduction, cause of harm...)
 - non-health benefits (often valued to a lesser extent)
- Patient Groups
 - prioritize by health gain (length and/or quality of life)
 - severity of illness (before and after treatment)
 - (younger) age and socioeconomic status
 - caregiver status, lifestyle / responsibility
 - availability of effective alternatives
 - cost or cost effectiveness of treatment
 - disease prevalence, equality, waiting times

¹cf. J. Whitty, E. Lanscar, K. Rixon, et al., *Patient* 2014; 7: 365-386.

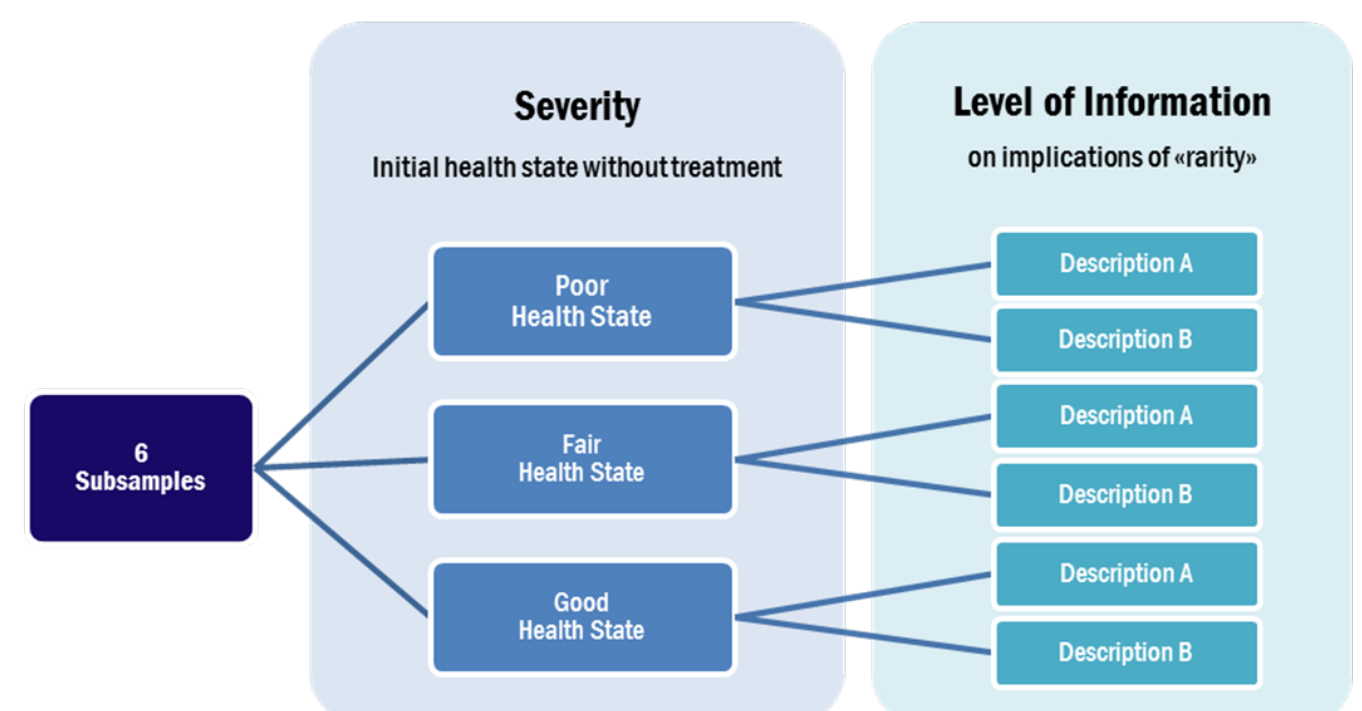
Contingent Valuation (CV) of Health¹

- Smith and Sach identified 265 CV Studies (published from 1985 – 2005):
 - Focus on **Use Value** of Health only, 73%
 - Focus also on **Option Value**, 13%
 - Focus also on **Externalities**, 5%
 - Focus including **Option Value and Externalities**, 9%
- Arguably, **Option Value** and **Externalities** will be most important when access to high technology and/or high cost interventions is at stake – *i.e., in practice, when most Health Technology Assessments (HTAs) are conducted*

¹cf. R.D. Smith, T.C. Sach, *Health Economics, Policy and Law* 2010; 5: 91-111.

Randomization of Respondents:

Subsamples for Study



Survey Questionnaire: 3 Stages

1. Initial “Preference Formation Phase” (PFP)

- Open questions to stimulate reflection by respondents on value judgments
- Randomized subgroup of respondents receiving additional information on impact of “rarity”

2. Discrete Choice Experiment (DCE)

- D-Efficient design
- Econometric analysis

3. General Questionnaire

- Health state and health insurance of respondents
- Socioeconomic information & specific feedback

Attributes

included in DCE:

A: Age (“fair innings” argument)

S1: Severity (ex ante) – HRQoL

S2: Severity (ex ante) – life expectancy

E1: Effectiveness – improvement of HRQoL

E2: Effectiveness – improvement of life expectancy

R: “Rarity” (prevalence) (“fair chance of access” argument)

Subgroup to receive additional information on relationship between prevalence and cost per patient / budget impact

C: Cost – citizens’ perspective

(payment vehicle = mandatory OKP health insurance premiums)
“WTP_{public_tax}”

DCE Design and Analysis

Efficient Design ...

- Selection of scenarios necessary
- Fractional factorial design
- D-efficient designs as gold standard

Econometric Analysis Strategies¹

- Linear conditional logit as base model
- Testing for interactions and non-linearities of attributes and deriving a “best” model
- Preference heterogeneity in subgroups, random-coefficient models, and latent-class models

¹cf. R.D. Smith, T.C. Sach, *Health Economics, Policy and Law* 2010; 5: 91-111.