Generation of a Danish TTO value set for EQ-5D health states

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Abstract

Aims: Health policy decisions should be based on national social preferences. In the absence of a set of Danish health preferences, patient outcome studies using the EQ-5D instrument have typically used UK health state valuations. This article describes the development of a Danish EQ-5D value set. Methods: Regression modelling was based on Time Trade-Off (TTO) data derived from computer-assisted interviews conducted with 1,332 respondents from the Danish general population. Using a split-sample technique, 46 health states were directly valued by the respondents. Five different model types were tested and compared on statistical and theoretical grounds. Eleven different specifications were then tested for the chosen model type to identify the most appropriate model that had high explanatory power and parameters that were both consistent (positively signed) and statistically significant. Results: An additive random effects model was found to be superior to ordinary least squares, fixed effects, random coefficient and censored Tobit modelling approaches. From the 11 model specifications tested, the TTO3 model (main effects model, without an N3 factor) performed best and was used to generate a Danish set of health state preferences. Conclusions: An additive random effects model appears to adequately generate a Danish set of EQ-5D health state preferences. The model has high explanatory power and produces consistent and significant parameters for EQ-5D dimensions and levels. It is recommended that this value set be used in Danish cost-utility studies using EQ-5D.