

Replicating a published regression predicting EQ-5D based on Health Assessment Questionnaire (HAQ) and Psoriasis Area and Severity Index (PASI) scores, however, led to subtle yet statistically significant differences in coefficients (Gray EQ-5D = 0.782–0.196xHAQ–0.00227xPASI vs. Rowen EQ-5D = 0.816–0.220xHAQ–0.0231xPASI). In this analysis the Rowen algorithm was more sensitive to changes in disease status, which is potentially important in a disease area with multiple available therapies. **CONCLUSIONS:** The choice of mapping algorithm has the potential to affect the results of analyses performed. Although mean values obtained from different mapping algorithms may be similar, regression coefficients were shown to differ by mapping algorithm. Analyses using all available mappings should be presented to avoid accusations of ‘cherry picking’ the most favourable estimate. When suggesting the most appropriate analysis, clear justification should be provided.

PR3

INVESTIGATING THE IMPACT OF PERSPECTIVE ON WEIGHTING QALYs:

A DISCRETE CHOICE EXPERIMENT

Butt T¹, Longworth L², Rubin G¹, Orr S¹

¹University College London, London, UK, ²Brunel University, Uxbridge, UK

OBJECTIVES: Discrete choice experiments (DCEs) are increasingly used to elicit preferences for weighting QALYs by other characteristics. Recent studies for weighting QALYs have asked respondents to take the role of decision maker and prioritize treatment options for groups of patients (‘someone else’). The procedure normally used to obtain preferences for health states is for respondents to consider oneself in that state from behind a veil of ignorance. The aim of this study was to elicit public preferences for weighting QALYs by other characteristics, and to test if the decision-maker perspective or naming the condition is equivalent to choosing for oneself from behind a veil of ignorance. **METHODS:** A DCE was developed with attributes for health gain, severity, unmet need and process of care. Four questionnaires were designed to reflect three different perspectives and one alternative framing: a) ‘oneself’ b) ‘someone like oneself’ c) ‘someone else’ d) ‘someone else’ with a disease label (age-related macular degeneration). 800 members of the public were recruited via an online survey panel, with 200 completing each of the four questionnaires. Results were analysed using a conditional logit model and utility weights derived using Hicksian compensating variation. **RESULTS:** Attributes of health gain, severity and process of care were significant for all perspectives ($p < 0.05$). Respondents preferred treatments that offered greater health gain, for a higher severity (lower starting level of health), and more convenient process. Unmet need was significant only in the ‘oneself’ perspective with respondents preferring treatments that addressed an unmet need. **CONCLUSIONS:** Members of the public are willing to trade health gain for other characteristics. These include severity, process of care, and in some cases unmet need. There is evidence that preferences for weighting QALYs vary by perspective. The study may help inform criteria for decision-making when prioritizing health care resources.

PR4

VALUING EQ-5D-5L: DOES THE ORDERING OF THE HEALTH DIMENSIONS IMPACT ON HEALTH STATE VALUATIONS?

Mulhern B¹, Shah K²

¹University of Sheffield, Sheffield, UK, ²Office of Health Economics, London, UK

OBJECTIVES: Health states defined by multi-attribute instruments such as the EQ-5D-5L can be valued using Time Trade Off (TTO) or Discrete Choice Experiment (DCE) methods. A key feature of the tasks is the order in which the health state dimensions are presented to respondents. This is because respondents may use a variety of heuristics to answer the questions (for example focusing on the first dimension presented), and therefore the order of the dimensions may impact on the importance assigned to particular health state descriptions. The objective of this study is to assess the impact of different EQ-5D-5L dimension orderings on health state valuations. **METHODS:** Preferences for EQ-5D-5L health states were elicited from a broadly representative sample of members of the UK general public. Respondents were allocated to one of three EQ-5D-5L dimension orderings, and completed 10 TTO and 9 DCE tasks via a computer assisted personal interview carried out in their home. Differences in mean values and the relative importance of the coefficients across the arms were compared using difference testing and regression analyses. **RESULTS:** Descriptive analysis suggests that there are minimal differences between the mean TTO health state values across the different dimension orderings. Regression analysis suggests that the magnitude of the dimension coefficients differs across the different dimension orders (for both TTO and DCE), but there is no clear pattern. **CONCLUSIONS:** There is some evidence that the order in which the dimensions are presented impacts on the coefficients, which may impact on the health state values provided. The order of dimensions is an important consideration in the design of health state valuation studies.

QUALITY OF LIFE AND UTILITY STUDIES

QL1

ELICITATION OF HEALTH STATE UTILITIES ASSOCIATED WITH VARYING SEVERITIES OF FLARE IN SYSTEMIC LUPUS ERYTHEMATOSUS

Hartz S¹, Liu-Leage S², Paget MA², Pollard C³, Cook J³, Enstone A³

¹Lilly Research Centre, Surrey, UK, ²Lilly France, Cedex, France, ³Adelphi Values, Bollington, UK

OBJECTIVES: Systemic Lupus Erythematosus (SLE) is characterised by fluctuating periods of minimal disease activity and ‘flare’. Flare is an important outcome variable impacting the economic and humanistic burden of SLE. The objective of this study was to obtain population-based utility values for varying severities of flare to measure the impact on health-related quality of life (HRQoL). **METHODS:** Six health states (HS) for varying severities of flare were developed based on literature, patient blogs, and interviews with patients (n=12), rheumatologists (n=7) and nurses (n=2). HS were verified by independent clinical experts (n=6) and pilot interviews (n=10, UK). HS were evaluated using the time-trade-off (TTO) method

during face-to-face interviews with a minimum representative sample (n=100) of the general population, per-country, in Australia, Canada, France, Japan, Spain and the UK. Visual Analog Scale (VAS) scores were obtained to validate TTO scores. TTO scores were converted into utility values. **RESULTS:** The highest mean TTO utility scores (range 0.66–0.82) were observed for the anchor HS (minimal disease activity) across all countries. All flare HS were associated with a disutility compared with the anchor HS: mild flare HS (0.55–0.71), moderate flare HS (0.38–0.53), severe renal flare HS (0.33–0.45), severe Central Nervous System (CNS) flare HS (0.30–0.45) and severe generalised flare HS (0.19–0.33). Significant differences were reported between the anchor state and each flare state across all countries ($p < 0.05$). Mean VAS scores followed the same trend. The severe generalised flare HS received the lowest mean TTO utility score across all six countries suggesting that the perceived day-to-day impact of a severe generalised flare was greater than a severe CNS or severe renal flare. **CONCLUSIONS:** These results show that a decrease in utility, representing a detrimental impact on HRQoL, was observed with increasing severity of flare. These results could be applied in cost-utility analyses for interventions for SLE.

QL2

THE IMPACT OF DISCRIMINATION, VICTIMIZATION AND SOCIAL STANDING ON HEALTH-RELATED QUALITY OF LIFE

Samnaliev M

Boston Childrens Hospital, Boston, MA, USA

OBJECTIVES: To examine the link between discrimination, victimization and social standing on health-related quality of life (HRQL). This information is currently not known, but is crucial as it can aid decision makers in the design of cost-effective policies to reduce such victimization among specific minority populations. **METHODS:** We used data from 6,194 females and males from a prospective cohort of youth that has been tracked for over 15 years. We specifically examined the impact of discrimination, victimization and social standing of sexual orientation minorities on their HRQL (using EQ-5D-5L). In 2013, participants reported sexual orientation (Completely Heterosexual [CH], Mostly Heterosexual [MH], Bisexual [B], and Lesbian/Gay [LG]). Participants previously reported past-year bullying victimization and discrimination (range: 1 [never] to 5 [several times/week]) and self-perceived social standing (range: 1 [top] to 10 [bottom]) in adolescence. Longitudinal, multivariable linear regression models were used to assess the effect of bullying and social standing in adolescence on sexual orientation HRQL score disparities in young adulthood, controlling for gender and age. **RESULTS:** Compared to CHs, sexual minorities reported more bullying and lower social standing in adolescence and lower HRQL in young adulthood: MH HRQL score=0.880; B 0.845; LG 0.870 vs. CH 0.916 (all differences had p -values < 0.05). When discrimination, victimization and social standing were added to the multivariable models, orientation-group effect estimates were attenuated ~10%, suggesting adolescent bullying and lower social standing partly explained HRQL disparities in young adulthood. **CONCLUSIONS:** Our findings are a proof of concept that victimization is not only a social justice issue but imposes an economic burden on society, as evidenced by its impact on HRQL. Our findings can also be used in cost-effectiveness analyses of interventions to reduce stigma against sexual orientation minorities.

QL3

QUALITY OF LIFE DECREMENTS AFTER STROKE

Dewilde S¹, Thijs V², Annemans L³, Peeters A⁴, Belgian Stroke Council NP⁵

¹SHE, Brussels, Belgium, ²KU Leuven, Leuven, Belgium, ³Ghent University & Brussels University, Ghent, Belgium, ⁴Cliniques Universitaires Saint-Luc, Bruxelles, Belgium, ⁵Virga Jesseziekenhuis, Hasselt, Belgium

OBJECTIVES: To quantify which factors affect the quality of life valuations (QoL) of patients after stroke. **METHODS:** 569 ischemic stroke patients were recruited into a retrospective, observational study in 10 teaching and regional hospitals across Belgium. Patients were stratified according to their modified Rankin Score (mRS) ranging from 0 (full health) to 5 (severely dependent). QoL as measured by the EQ5D and the VAS were collected for their health status before and after the index stroke. Utility decrements were calculated and using a general linear model the relationship between a set of variables and quality of life evaluation and its decrement associated with the stroke experience was investigated. Different distributions and link functions were tested against each other using the AICC and BIC criterion. **RESULTS:** Stroke had a significant effect on patient's QoL: a positive relationship with the degree of disability was found: EQ5D decrements were 0.08, 0.17, 0.25, 0.40, 0.64 and 0.75 for mRS categories 0 to 5; and equivalent decrements on the VAS scale were 7, 11, 20, 27, 33 and 39. The EQ5D and VAS decrements were significantly related to each other ($r = 0.49$, $p < 0.001$) and the decrements were also correlated with their baseline values ($r = -0.74$ for EQ5D baseline measurement and its decrement; $r = -0.55$ for VAS baseline value and decrement, $p < 0.001$). The decrements were of higher magnitude when measured by the EQ5D compared to the VAS. Furthermore the utility decrements were significantly associated with being female, being diabetic, having atrial fibrillation, being in a wheelchair, experiencing a change in one's living situation and the number of days spent in an inpatient care facility during the first 3 months after stroke. **CONCLUSIONS:** Stroke results in a significant decrease in patient's QoL, the magnitude of which is related to patient characteristics, disease severity measures, clinical risk factors and living circumstances.

QL4

DIFFERENCES BETWEEN HYPOTHETICAL AND EXPERIENCE-BASED VALUE SETS FOR EQ-5D: IMPLICATIONS FOR DECISION MAKERS

Aronsson M, Husberg M, Kalkan A, Eckard N, Alwin J

Linköping University, Linköping, Sweden

OBJECTIVES: The aim of the study was to analyse the differences between hypothetical and experience-based EQ-5D value sets. Furthermore, the aim was to evaluate the health economic implications of such differences for policy decisions in health care. **METHODS:** We studied the differences in hypothetical and experience-based value sets using three different methods: numerical comparison, empirical