META-ANALYSIS OF UTILITY ESTIMATES: HIV/AIDS AND STROKE
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Published utility estimates can vary over a wide range even for the same level of disease severity. As a result, cost-utility analysts seeking secondary utilities have difficulty choosing appropriate weights for QALYs. OBJECTIVES: We performed two meta-analyses to derive pooled utilities for AIDS, symptomatic HIV, and asymptomatic HIV and minor, moderate, and major stroke. In addition, we sought to assess the relative importance of study design characteristics in predicting utility.

METHODS: We identified 26 articles reporting 75 unique utilities for HIV/AIDS and 20 articles reporting 53 utilities for stroke. Multiple utility estimates often appeared in the same article so that data were nested. Consequently, we used a Hierarchical Linear Model to perform each meta-analysis. Lacking the variance, studies were weighted by sample size.

RESULTS: For HIV/AIDS, disease stage (P = 0.016) and respondents (P = 0.014) were significant predictors of utility while elicitation method (P < 0.1) was marginally significant and scale bounds were not. Pooled utility estimates are 0.71 for AIDS, 0.82 for symptomatic HIV, and 0.93 for asymptomatic HIV when the time tradeoff method is used in patients and the scale is death to perfect health. For stroke, severity of stroke (P < 0.0001) and scale bounds (P = 0.0015) were significant predictors of utility, while the elicitation method and respondents were not. Pooled utility estimates are 0.52 for major stroke, 0.68 for moderate stroke, and 0.87 for minor stroke when the time tradeoff method is used in community members and the scale is death to perfect health.

CONCLUSION: Because the pooled utility estimates reported here are based on a comprehensive review of the literature, they should be of great use to researchers performing cost-utility analyses of interventions for HIV/AIDS as well as those designed to prevent or treat stroke, or where stroke is a possible side effect of therapy.