application of discrete choice experiments to value multi-attribute health states for use in economic evaluation

abstract:

background: health care resource allocation decisions are increasingly made on the basis of assessment or incremental cost-effectiveness ratios measured in terms of cost per additional quality adjusted life year (qalys). qalys adjust survival duration by a qaly weight that reflects the trade-off between quality of life and survival. as qalys become more commonly used, there has been growing interest in the development of generic quality of life instruments known as multi-attribute utility instruments (maui), which allow qaly weights to be estimated for any health state that can be described by the maui. to date qaly weights have most commonly been obtained through rating scales, standard gamble and time trade-off experiments. these approaches impose a considerable data collection burden and require strong restrictions on individual preferences. discrete choice experiments (dce) offer a potentially more flexible approach to do estimation of preferences for health outcomes and the trade-off between quality of life and survival for use in cost-utility analysis. while dce provide an alternative approach for estimation of qaly weights for the instruments such as the eq-5d or sf-6d that provide greater flexibility in testing the underlying model of preferences and reduce respondent burden, there are significant methodological challenges to be addressed. this paper presents a dce to value multi-attribute health states for use in economic evaluation, discusses some of the methodological challenges that arise from this approach and contrasts the approach with the standard methods of standard gamble and time trade-off. results from the pilot study are presented.

methods: a questionnaire was designed to elicit preferences for hypothetical scenarios in which respondents were offered the choice between alternative health profiles each described as an eq-5d health state and a survival duration. the pilot study was conducted using an online panel (n=150). in this paper we focus on issue related to the choice of health states to be included in the discrete choice experiment, in particular the trade-off between statistical efficiency and respondent burden.

results and conclusion: the results from the pilot study will be presented and the implications for the main study will be discussed. this research demonstrates that use of a dce to obtain qaly weights is feasible and provides a potentially more flexible approach that allows for greater coverage of the response surface, more flexible functional forms and reduces respondent burden.