test the claim that any set of values are in fact utility weights. Secondly, quality-adjustment weights play a crucial role in determining cost-utility ratios. Different weights are elicited when different utility measurement techniques are used, so that cost-utility ratios can be susceptible to systematic bias depending upon the choice of method used. Examples of this weakness are provided from the published literature and reveal the extent to which cost/QALY ratios can vary in the analysis of a single intervention. Finally, the paper argues for a less technically demanding approach to the determination of preferences in the valuation of health.

**RESULTS:** It specifies the minimum requirements for any quality-adjustment index and proposes the use of stated preference methods that have an established theoretical basis but that are also grounded in the practical day-to-day experiences of ordinary people. The case is demonstrated using VAS data collected in a UK national postal survey (n = 682) designed to establish values for EQ-5D health states but where paired comparisons methods have been used to establish health state values.

**CONCLUSIONS:** The paper concludes that there is no basis for the continued reliance on utility weights in calculating cost/QALY ratios.

**STATISTICAL ISSUES IN DISCRETE CHOICE MODELLING**

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Discrete choice models are used to elicit preference data from patients, medical and allied healthcare experts, and representative community samples. The resulting data are used in economic evaluation studies to derive health utility values. In most reported studies, statistical methodology issues are usually glossed over and standard assumptions are made. However, statistical properties of discrete choice models present some interesting challenges to these more traditional views.

**OBJECTIVES:** In this presentation we focus on two areas fundamental to the conduct of any discrete choice study: the use of orthogonal designs in experimental design and interpretation of model results, and highlight some misconceptions surrounding their current use.

**METHODS:** More specifically, we highlight, with examples, that important properties of orthogonal designs assumed to underlie methods used in discrete choice studies don’t hold in general.

**RESULTS:** We also discuss implications of applying the usual random effects or conditional models to the current use.

**CONCLUSIONS:** The intention of this presentation is to inform researchers about these potential shortcomings in statistical methodology which is widely applied to discrete choice studies, and to encourage the development and use of alternative methods which may improve validity.

**CHRONIC DISEASE SCORES AMONG SENIORS IN ALBERTA, CANADA**

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**OBJECTIVES:** Derive Chronic Disease Scores (CDS) among Alberta seniors from population-based automated pharmacy data. **METHODS:** Different types of medications prescribed during 2001/2002 for the treatment and management of chronic conditions were obtained from Alberta Blue Cross (ABC) claims database. The medications were clustered into 25 therapeutic classes to indicate the presence of a chronic illness based on the criteria proposed by Clark. The study population was composed of all Alberta residents aged 65 or over who were registered with the Alberta Health Care Insurance Plan (AHCIP) continuously from June 30, 2001 to June 30, 2002. Registration with the AHCIP is mandatory for all Alberta residents. Individuals were excluded if they had been diagnosed with any malignancy, tuberculosis or HIV during the study period. Three outcomes: total cost, outpatient care cost and the number of primary care visits in 2002/2003, were derived from AHCIP databases. Linear regression models were utilized to estimate parameters associated with age, gender and each medication class for each of the three outcomes. **RESULTS:** Records for 221,230 seniors were used to estimate the empirical weights for calculating CDS. With the weights an estimate of an individual’s one-year predicted score for cost and visits can be obtained. For example, a 72-year-old man receiving medications for rheumatoid arthritis would have an estimated one-year total cost of $2,591.96 (3,447.66(intercept)+592.62(male)-2,868.49(age 65–74)+1,420.17(rheumatoid arthritis)). Using the R-square criteria, our CDS prospectively explained 11.9% of the variance in total cost, 40.7% of outpatient cost, and 10.2% in primary care visit. These are higher in costs but lower in visits comparing with Clark’s results. **CONCLUSIONS:** We estimated CDS with the same method proposed by Clark using Alberta data. The results showed that these models can be generally used to measure disease severity and to predict the prospective health service cost and utilization for different populations.
items (8%). Two different versions of the scale were developed according to the age of the children. CONCLUSIONS: The DANN scale is the first questionnaire of NRQol developed in Europe and can be a useful tool for the evaluation of the effects of a nutritional intervention in healthy children.

**PMCC1**

**AN EXPLORATION OF THE DISCREPANCIES BETWEEN HEALTH STATE VALUATIONS OF PATIENTS AND THE GENERAL POPULATION**

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**OBJECTIVES:** Investigate the relationship between patients’ valuations of their own health using the standard gamble (SG) and EQ-5D visual analogue scale (VAS) and general population values of the same health states within the context of a randomised controlled trial to compare alternative treatments for varicose veins. METHODS: Patients (n = 131) were surveyed at randomisation and at 12 months to assess their own health status using the SG. Patients also completed the SF-36 and the EQ-5D at the same time points. Responses to the SF-36 were converted into SF-6D using the SG algorithms developed by Brazier and colleagues, version one and two, based upon general population values. RESULTS: At both time points, the SG produced a higher mean score than either of the SF-6D algorithms although the difference between patient and general population values was far more pronounced for version two [Baseline mean (SD) version one: 0.913 (0.072), version two: 0.730 (0.108), patients’ value 0.942 (0.116); 12 months mean (SD) version one: 0.912 (0.082), version two: 0.736 (0.108), patients’ value 0.924 (0.115)]. Similarly, the VAS produced a higher mean score than either of the algorithms based upon general population values [Baseline mean (SD) SF-6D VAS algorithm: 0.668 (0.173), EQ-5D VAS algorithm: 0.743 (0.173), patients’ value 0.762 (0.167); 12 months mean (SD) SF-6D VAS algorithm: 0.676 (0.191), EQ-5D VAS algorithm: 0.771 (0.155), patients’ value 0.781 (0.104)]. CONCLUSIONS: For the condition of varicose veins, the magnitude of differences in health state valuations due to treatment appears to be small compared with the magnitude of differences exhibited between alternative sources of values and the effect of different valuation systems. The variant of elicitation technique used to solicit SG values may be more important than the source of those values in revealing discrepancies.

**PMCC2**

**REVIEW OF INSTRUMENTS MEASURING TREATMENT SATISFACTION WITH MEDICATION**

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**OBJECTIVES:** Treatment satisfaction with medication (TSM), a patient reported outcome, is an important factor in promoting patient adherence to prescription regimens. This review evaluates published instruments measuring TSM across various disease states. METHODS: A systematic literature review of Medline from 1980–2004 was conducted. Instruments measuring satisfaction with important attributes of treatment, as opposed to one-item global measures of satisfaction, were selected for review. The following fields were abstracted from articles for each instrument and summarized: applicable disease state; mode of administration; modules, domains and items; response options; method used for item development/selection; psychometric properties; and practicality. Standard psychometric measures including internal consistency and test-retest reliability, validity and responsiveness were chosen as evaluative criteria. Alpha ≥ 0.7 was chosen as acceptable for reliability. RESULTS: Eleven disease-specific instruments were identified (SATQ, PSAM, MTSM, DTSQ, PPMQ, PSIT, EDITS, PSQ, TSS-TOP, ITSQ, HVTSQ), in addition to one generic instrument (TSQM). All these instruments are self-administered but vary widely in items, domains, and psychometric measures. The number of items range from eight (DTSQ)–26 (SATQ) and the number of domains one–eight. All instruments except PSQ and EDITs were developed through patient reports. All measured internal consistency. Of the 12 instruments evaluated, only 6 measured test-retest reliability; 3 of the 6 (ITSQ, SATQ, and PSIT) had domains with low reproducibility (alpha <0.7). Only PPMQ reported responsiveness. Only MTSM measured patient expectations at baseline, and expectations, weighted by subjective importance of symptoms and the actual treatment experience, were used to derive TSM. CONCLUSIONS: This review determined that most TSM instruments have acceptable psychometric properties. However, expectations with treatment and clinical interpretation of change scores are missing from these measures. Further research is required to develop well-supported conceptual models of TSM, TSM measures in different therapeutic areas, and validation of existing measures in different populations.

**PMCC3**

**REVIEW AND ASSESSMENT OF THE ECONOMIC EVALUATION STUDIES ON HEALTH CARE IN MEXICO**

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**OBJECTIVES:** Assess the state of the art of the studies on economic evaluations in health care in Mexico, regarding their methodological quality and tendencies. METHODS: Systematic review of the research on economic evaluation in health published in Mexico from January 1983 to July 2004. We searched multiple electronic databases, hand-searched key journals and personally contacted investigators in June 2004. Two health economist reviewers independently assessed the relevance of retrieved articles, described the methods of included studies and extrated data that were summarized. Used Drummond criteria; a) to classify in complete (CEE) or parcial evaluation economic (PPE), and b) assessment criteria in quality of methodology. The analysis of the publications characteristics was made with descriptive statistics. Limitation: Included only published studies and possible omitted studies subjectivity in judging certain items. RESULTS: Ninety-six match with inclusion criteria, 24 of them were CEE, 69 were PEE and 3 were editorials. The number of CEE in Mexico increased greatly between 1983–1993 (three studies) and 1994-May 2004 (21 studies). We reviewed 23 CEE studies in extenso. The technique most used was cost-effectiveness (83%). In terms of methodological quality the 78% do not mentioned study perspective, 56.52% do not reported sensitivity analyses, 58.34% do not reported had used the discount rate when it was necessary and 60% do not report clearly the costs. CONCLUSIONS: The study results reveal an increase in CEE in México in the last ten years, with low quality methodology. There is a need to elaborate and validate guidelines for economic evaluation in health for Mexico by unified quality standards in order to have internal and external validity.