transitions from state to any other state in the data and then divides the counts by the number of occurrences for each. The VAR method involves two steps: 1) A VAR model is estimated for the data generating processes (DGPs) and the mean squared errors made by each method versus the true transition matrix. We employ two DGPs to populate the entries of our underlying transition probability matrix in our study: 1) A normal distribution with large variance (0.5), and 2) a uniform distribution with small variance (0.002). We then normalize each row so they sum to 1. RESULTS: In DG1, the VAR outperforms the count method in small samples (N = 10 or 30) and the count method marginally outperforms the VAR method in large sample (N = 50). For DG2, VAR outperforms small samples and both methods performed similarly in the large sample. We propose a comparison of the two methods by increasing the weight on the count method when the sample size increases relative to the size of the matrix.

CONCLUSIONS: By applying this methodology in Health Economics modeling, it allows the researcher to utilize Markov models in situations previously infeasible due to a paucity of data.

RESEARCH ON METHODS – Patient-Reported Outcomes Studies

**PM35** EPONOMICAL EXAMINATION OF STARTING POINT BIAS WITH THE BIDDING GAME IN A WILLINGNESS-TO-PAY ANALYSIS

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OBJECTIVES: Willingness-to-pay (WTP) analysis is a method for the monetization of a population's preference for a particular medication and may be determined using a bidding game where participants are asked if they would be willing to pay a particular amount, starting with a pre-determined value and oscillating between a series of starting points based on the participant's response. Starting point bias, which has been previously reported in the literature, is the objective of the present study was to ascertain if any bias was introduced by applying higher or lower starting values to a bidding game. METHODS: An online survey was presented to members of the general public in Canada, who were presented with two treatment delivery options (inhaler vs. injection) for a treatment of pulmonary arterial hypertension. Participants who selected the inhaler were randomly assigned to one of two starting points (CAD$1, $2 or $5) and were asked to identify their WTP in terms of additional monthly insurance premiums. The minimum and maximum bidding game values were set at CAD$0.01 and CAD$50.00; participants who agreed to pay CAD$50.00 were allowed to input a higher WTP explicitly, as desired. The Kruskal-Wallis non-parametric test was applied to explore differences in mean WTP associated with each starting value. RESULTS: Eighty-six participants reported a mean WTP of CAD$43.15 for the inhaler in additional monthly insurance premium. The mean WTP were CAD$37.55, CAD$49.36 and CAD$40.31 for participants who were assigned to a starting point of CAD$1, $2 or $5, respectively. No significant difference in WTP values was observed between the groups. CONCLUSIONS: The starting value did not appear to introduce a bias in the bidding game.

**PM36** INTERNATIONAL COMPARISONS OF EQ-5D HEALTH-STATES VALUATIONS

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OBJECTIVES: Different countries might have similar health preferences due to cultural or economic factors. The aim of this study is to identify whether there are groups of countries with similar health-state valuations. METHODS: A cluster analysis was performed for the 242 states of the EQ-5D valuations for 23 published studies in 18 countries. The perfect health state was not included. The Ward algorithm with the Euclidean measure and the hierarchical clustering technique were used to generate items for a survey in patients’ own voice. Cognitive debriefing (n=7) was used to refine the items. Including patient and treatment characteristics the resulting online questionnaire contained 170 items informing 17 dimensions of the Swisslos PATMOS questionnaire. Any discrepancy between the two reviewers was resolved through consensus. RESULTS: From 51 articles yielded by the literature search, 12 met the inclusion criteria and a further 5 were classified as secondary evidence (publications reporting on SP bias without presenting numerical data). Relevant publica-