

options. The Task Force co-authors are considering an update to the 2011 task force report to reflect advances in practice that have emerged over the past few years. Survey design is a key component to this research and is also being considered as a topic. The ISPOR Stated Preference Methods Special Interest Group is considering several projects as well. ■

Additional information:

You can access, “*Methods for the Statistical Analysis of Discrete-Choice Experiments: A Report of the ISPOR Conjoint Analysis Good Research Practices Task Force*,” and other articles in this issue of *Value in Health* at: http://www.ispor.org/valueinhealth_index.asp.

To learn more about the Conjoint Analysis: Statistical Analyses – Good Research Practices Task Force, go to: <http://www.ispor.org/Conjoint-Analysis-Statistical-Methods-Guidelines.asp>

ISPOR Task Force Report: Statistical Methods for the Analysis of Discrete-Choice Experiments

The ISPOR Task Force Report, “Statistical Methods for the Analysis of Discrete Choice Experiments: A Report of the ISPOR Conjoint Analysis Good Research Practices Task Force Group,” was published in the June 2016 issue (Volume 19, Issue 4) of *Value in Health*.

Conjoint analysis is a survey method used to capture people’s preferences for individual features associated with health care interventions or services. Conjoint-analysis methods, particularly discrete-choice experiments (DCEs), have been increasingly used to quantify preferences of patients, caregivers, physicians, and other health care decision makers. Most notably, the Center for Devices and Radiological Health at the US Food and Drug Administration commissioned a DCE study of preferences for weight-loss devices among overweight and obese people in the US [1] which was subsequently used to support the approval of the Maestro® Rechargeable System, a new weight loss treatment. Therefore, understanding the key features of different methods used to analyze data from this type of survey is becoming increasingly important.

Understanding the characteristics and appropriate analysis of preference data generated by DCE surveys is critical to conducting a well-designed DCE. Good research practices for the statistical analysis of DCE data involve understanding the characteristics of alternative methods and ensuring that interpretation of the results is accurate. Despite the growing use of conjoint-analysis methods in outcomes research, there remains inconsistency in the statistical methods used to analyze data from DCEs. Given this inconsistency, the task force agreed that good research practices in the analysis of DCE data must start with ensuring that researchers have a good understanding of the fundamentals of DCE data and the range of statistical analysis methods commonly used in applications of DCEs in outcomes research.

This report starts with the basic idea behind estimating preferences using a DCE, helping readers understand some of the basic properties of this type of data. We then describe alternative approaches to setting up the data for analysis. We then describe the analysis of data using four commonly used statistical methods – conditional logit, random parameters logit, hierarchical Bayes, and latent-class finite-mixture models. We, we present the results

of each method as applied to a common simulated data set to demonstrate the differences in the properties of each of these analysis methods. The report concludes with a summary of the strengths and limitations of each method described in the report and provides the ESTIMATE checklist, a series of questions to consider when justifying the choice of analysis method, describing the analysis, and interpreting the results.

The ISPOR Conjoint Analysis Statistical Analysis: Statistical Analysis—Good Research Practices Task Force is the third ISPOR Conjoint Analysis Task Force and this report builds on two previous Task Force Reports, “Conjoint Analysis Applications in Health—A Checklist: A Report of the ISPOR Good Research Practices for Conjoint Analysis Task Force” and “Constructing Experimental Designs for Discrete-Choice Experiments: Report of the ISPOR Conjoint Analysis Experimental Design Good Research Practices Task Force.”

Reference

[1] HoMP, Gonzales JM, Lerner HP, et al. Incorporating patient-preference evidence into regulatory decision making. *Surg Endosc* 2015,29:2984-93. ■

Additional information:

To view this task force report, go to: <http://www.ispor.org/Conjoint-Analysis-Statistical-Methods-Guidelines.asp>

To view, “Conjoint Analysis Applications in Health—A Checklist: A Report of the ISPOR Good Research Practices for Conjoint Analysis Task Force,” go to: <http://www.ispor.org/workpaper/ConjointAnalysisGRP.asp>

To view, “Constructing Experimental Designs for Discrete-Choice Experiments: Report of the ISPOR Conjoint Analysis Experimental Design Good Research Practices Task Force,” go to: <http://www.ispor.org/conjoint-analysis-experimental-design-guidelines.asp>