

Applying Discrete Choice Experiments in Health Economics: Theoretical and Practical Issues

15-17 NOVEMBER 2017

JURY'S INN, UNION SQUARE, ABERDEEN

1. Introduction to the theoretical basis for the development and application of DCEs in health economics.
2. Step by step guide to the design of DCEs, questionnaire development, data input, data analysis and interpretation of results.
3. An update on methodological issues raised in the application of DCEs in Health Economics.

Presenters:

Professor Mandy Ryan, Dr Verity Watson, Dr Nicolas Krucien and Dr Sebastian Heidenreich

Background

Finite public resources coupled with an increasing demand for health care means that decisions have to be made about how to most efficiently allocate the scarce health care budget. This requires information about costs and *benefits* of health care. Health economists have developed techniques that can provide values for health care benefits. A technique that is increasingly used for this purpose is the discrete choice experiment (DCE) method.

DCEs are now widely applied to value health and health care. Furthermore, DCEs are a potential method to recognise the importance of patient centred care, and to value patient experiences in the delivery of health care. DCEs are also applied more widely to consider population and health care professionals' preferences in many areas of health policy such as:

- Lifestyle interventions
- Health state valuation
- Medical careers decision making
- Priority setting

Presenters

Professor Mandy Ryan, Dr Verity Watson, Dr Nicolas Krucien and Dr Sebastian Heidenreich from the Health Economics Research Unit (HERU) at the **University of Aberdeen** will present the course.



Professor Mandy Ryan

Mandy is the Director of the Health Economics Research Unit. Her research has focused on developing methods of valuation in health economics, with a focus on discrete choice experiments and contingent valuation.

Mandy has worked with academics, government and the pharmaceutical industry.

Mandy has published widely in the field of health economics generally, and monetary valuation more specifically. In 2012 Mandy was ranked amongst the top health economists in the world, placed 21st on the list of the top 100 health economists, based on a measure of health economics publications and the number of times they have been cited, making her the top-ranked health economist in the UK.



Dr Verity Watson

Verity is a senior research fellow at HERU and theme leader for the Methods of Benefit Valuation research theme. Dr Watson's expertise is non-market valuation using contingent valuation and discrete choice experiments. Her research focusses on testing the validity of non-market valuation methods and how study context can influence responses. Dr Watson has applied these methods to inform a range of policy issues. In doing so she has worked with academics from a number of different fields, the government and the pharmaceutical industry.



Dr Nicolas Krucien

Nicolas joined HERU in 2013. He is leading a number of research projects about stated preferences methods (especially DCEs). Current projects relate to processing multi-attributes information and optimisation of the DCE approach (best-worst scaling; individual-level modelling).



Dr Sebastian Heidenreich

Sebastian joined HERU in 2012 as a PhD student and was awarded a two year postdoctoral fellowship in 2016. Sebastian's PhD investigated if DCE respondents ignore information presented to them and how analysts should account for such behaviour. As part of his postdoctoral research, he is involved in different methodological and applied DCE projects.

Learning Outcomes

Participants will be able to

- understand and communicate the theory underlying discrete choice experiments
- design, conduct, analyse and interpret discrete choice experiments using best practice techniques
- understand key methodological issues that may arise in applications of discrete choice experiments

Who should attend?

This course is aimed at those interested in applying DCEs in health economics and will focus on the practical and theoretical issues raised when applying the technique. The course includes practical group work sessions with computers that allow participants to gain first hands-on experience with the conduct and analysis of DCEs. No prior knowledge of economic theory or DCEs is required to follow the course. Prior experience with regression analysis may be an advantage.

Computer Workshops

Participants are encouraged to bring their own laptops with trial Software versions of

NGene (www.choice-metrics.com) and STATA (www.stata.com) pre-installed.

Times

Registration and lunch are from 12.30pm on Day 1. The course starts at 2pm. On Day 3 teaching finishes at 12.30pm, lunch to follow. Following lunch on Day 3, some of the presenters will be available to meet with participants to discuss any remaining questions or the participants' current DCE projects. For more information please contact **Alison Horne** – alison.horne@abdn.ac.uk

The registration fee includes 2 nights' accommodation (15 and 16 Nov) at the **Jury's Inn**, Union Square, Aberdeen plus all meals.

Participants will receive a full documentation pack containing:

- A bound copy of the teaching material
- All group work and answers
- A copy of the book "Using discrete choice experiments to value health and health care" by Ryan, M., Gerard, K. and Amaya-Amaya, M.
- A bibliography linked to the subject area
- Temporary licenses for the software packages NGene and STATA

Registration fees:

Students/Academic/Public Sector

£1,520

Commercial Sector

£2,180

For information on registration please visit our website:

www.abdn.ac.uk/heru/courses/workshops/

We look forward to welcoming you in Aberdeen!

Day 1 Wednesday 15 November 2017

- Session 1:** Discrete Choice Experiments (DCEs): What are they and how can they be applied in health care?
- Session 2:** Issues in defining attributes and levels and selecting choice format
- Session 3:** Using qualitative research methods to define attributes and levels

Day 2 Thursday 16 November 2017

- Session 4:** Experimental design 1: General issues and binary choice designs
Group work 1: Experimental design – obtaining profiles
- Session 5:** Experimental design 2: Moving from binary choice to multiple choice designs
Group work 2: Experimental design – creating choice sets
- Session 6:** Questionnaire development and data collection
- Session 7:** Group work 3: Data coding and management
- Session 8:** Data analysis and interpretation 1 – Marginal rates of substitution and willingness to pay
Group work 4: Marginal rates of substitution and willingness to pay

Day 3 Friday 17 November 2017

- Session 9:** Data analysis and interpretation 2 – Calculating probabilities and welfare estimates
Group work 5: Calculating probabilities and welfare estimates
- Session 10:** Panel session – Good practice, guidelines and new developments
- Lunch** Following lunch some participants will be available to meet with presenters

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