

1-day Course on
BAYESIAN APPROACHES TO EVIDENCE SYNTHESIS &
DECISION MODELLING

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Beijing International Conference Center (BICC)

Faculty & Instructor

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Description

This course introduces the use of Bayesian methods in evidence synthesis (including meta-analysis) and decision modelling. It allows participants to gain hands on experience using such modelling techniques within the freely available WinBUGS software package.

Topics covered in the course include;

- Introduction to Bayesian methods & WinBUGS
- Bayesian fixed & random effects meta-analysis models
- Exploring heterogeneity & adjusting for baseline risk
- Indirect and mixed treatment comparisons
- Integration of evidence synthesis methods within economic decision models

Each topic will be introduced via an expository lecture, followed a hands-on computer practical session.

Prerequisites

Course participants should have a basic understanding of standard meta-analysis methods and/or decision modelling. No prior knowledge of Bayesian methods will be assumed, but basic statistical knowledge will be. Participants will be expected to bring their own laptop with WinBUGS pre-installed* if they want to participate in the practical sessions.

All course material (including WinBUGS files necessary for the practical sessions) will be made available on the iHEA website prior to the course.

Background Reading & Resources

Sutton AJ, Abrams KR. 2001. Bayesian methods in meta-analysis and evidence synthesis. *Statistical Methods in Medical Research* **10** :277-303.

Caldwell DM, Ades AE, Higgins JP. 2005. Simultaneous comparison of multiple treatments: combining direct and indirect evidence. *British Medical Journal* **331**:897–900.

Cooper NJ, Sutton AJ, Abrams KR, Turner D, Wailoo A. Comprehensive decision analytical modelling in economic evaluation: A Bayesian approach. *Health Economics*. 2004;13(3):203–226.

* WinBUGS is freely available from the MRC Biostatistics website <http://www.mrc-bsu.cam.ac.uk/bugs/winbugs/contents.shtml> Course participants should ensure that they also download the “key” so that they can use an unrestricted version of WinBUGS.