Introduction to Meta-analysis: a CPD module

Course overview

Meta-analysis is a statistical technique used as part of a systematic review to combine the results of trials that address the same research question. This one-day course aims to provide grounding in statistical concepts and methods for data extraction and meta-analysis, and interpretation of results. Review manager software will be demonstrated.

Who should attend? Is it right for me?

This course is aimed at researchers who require an understanding of meta-analysis. It is suitable for those who have no previous experience of data analysis, as well as those seeking to refresh their skills.

What is the course schedule?

This course runs online. The lecture videos will be available online and can be watched at any time (from two weeks before to two weeks after the course is scheduled to take place). A suggested timetable is given in the table below, which highlights the live sessions provided for participants to ask questions.

What will delegates learn?

By the end of this course delegates will:

- know what types of data to extract for a meta-analysis
- be able to conduct a meta-analysis
- be able to identify and address issues relating to heterogeneity
- be able assess the robustness of findings
- know how to interpret and report a meta-analysis
- be aware of some other advanced meta-analysis methods

What does the course cover?

- Meta-analysis of binary data
- Meta-analysis of continuous data
- Heterogeneity
- Bias
- Advanced meta-analysis
- Review manager software

Timetable (Note: times subject to change, TBC before the course)

Time	Session
10:00	Introductory concepts Meta-analysis of binary data **(recorded video followed by live Q&A)**
11.30 approx.	BREAK
11.45 approx.	Heterogeneity and bias in meta-analysis **(recorded video followed by live Q&A)**
12:00 approx.	Practical 1: Interpreting heterogeneity
12:45 approx.	LUNCH
13:30 approx.	Meta-analysis of continuous data **(recorded video followed by live Q&A)**
14:00 approx.	Practical 2: Interpreting meta-analysis
14.45 approx.	BREAK
15:00 approx.	Bias and robustness of results **(recorded video followed by live Q&A)** Other issues

To find out more

Contact Dr Sarah Donegan at sarah.donegan@liverpool.ac.uk in the Department of Health Data Science.

Alternatively, visit the department's website at

https://www.liverpool.ac.uk/population-health/about/health-data-science/courses-and-workshops/.