NIHR Statistics Group

Welcome to
Annual Conference, 2018

statistics-group.nihr.ac.uk

76 participants

Aberdeen

Newcastle

York

UCLAN

Leeds

Manchester

Sheffield

Keele

Nottingham

Leicester

Cambridge

Birmingham

East Anglia

Oxford

UCL

Bristol

QMUL

KCL

RMH

Moorfields

Kent

Brighton Sussex

Exeter

Southampton

Plymouth

NIHR Statistics Group

Bringing statisticians and researchers together

NHS
National Institute for Health Research

Aims to promote uptake of the most appropriate statistical methodology, facilitate networking opportunities to share best practice and allow opportunity for applied statisticians, clinicians and scientists to collaborate.

The NIHR Office for Clinical Research Infrastructure (NOCRI) have used the NIHR Statistics Group as an exemplar of collaborative working between the different NIHR infrastructure organisations.

"Statisticians develop best as professionals by learning from each other, but some can be isolated or based in small groups. This group offers the opportunity to come together to support each other and share good practice." Deborah Ashby, OBE

NIHR Statistics Group

- NIHR statistics group membership
  - NIHR funded statisticians/researchers
  - surveys of members to identify themes and issues

- Organised themed meetings to promote aims of group in identified areas of need
  - meetings open to all interested
  - actively encourage scientists and/or clinicians to attend

- Sections and working groups, steering committee

- 2017 conference aimed at the needs of NIHR statisticians

Meetings since last conference

Ophthalmology Research Section Meeting, June 2018

First meeting of the Routine Data Section, April 2018

Applied Statisticians as Principal Investigators, March 2018

Early Phase Trials Research Section Workshop, February 2018

Method Agreement in Ophthalmology, November 2017

Statistical issues in evaluating an intervention to improve interpretation of CT colonography images, July 2017

Publications

Parsons NR, Teare MD & Sitch AJ (2018) *Unit of analysis issues in laboratory-based research. eLife, 7e32486*

Bunce C, Czanner G, Grzeda MT, Dore C & Freemantle N. (2017) *BJO Opthalmic Statistics note 12: multivariable or multivariate: what's in a name? BJO October 2017, Volume 101, Issue 10*

Imaging Studies Section

- Meetings have attracted more than 120 attendees, geographically spread across the UK
- Organising committee of 5 members, from the Universities of Oxford, Birmingham, Cambridge, Leeds & Warwick
- *We are seeking new members including members to organise meetings and topics*

Current activities

- Launch meeting, Oxford 2013 (Imaging in Translation Research)
- Twice-yearly meetings (since 2014) with meeting reports online
- Presentation and dissemination of group at relevant conferences

Typical meeting format (Imaging studies)

- Clinician and statistician summary of a clinical and statistical issues
- Structured scenario discussion in small groups
- Lunch networking for statisticians

Past topics

- Statistical Issues in designing a large-scale reliability exercise in ultrasonography of the joint synovium
- Statistical issues in clinical trials of inflammatory bowel disease
- Sample size and power in imaging studies
- Evaluating an intervention to improve interpretation of CT colonography images

Update from Early phase

Update from lab studies

National Institute for Health Research

Update from Opthalmology

Routine data event

A group interested in the analysis of routine data emerged from the NIHR statistics conference 2017, consisting of:

- Kathryn Richardson, UEA
- Jianhua Wu, Leeds University
- Jessica Harris, University of Bristol
- Janet Peacock, Kings College London

We had a number of teleconferences, and decided to host a workshop in London in April 2018 with up to 30 participants.

Within 2 days of being advertised, all 30 places on the workshop had been filled.

Routine data event

The sessions were split into:

- CPRD and THIN datasets
- HES data
- Data linkage / other routine data

Within each there were two short presentations and an opportunity for discussion.

The slides are available here:

https://statistics-group.nihr.ac.uk/event/first-meeting-of-the-routine-data-section/

Routine data event

Key messages from the day

- Need more clarity in routine data access; need to understand the barriers in data linkage; better coordination in sharing codes and experience in analysing routine data

Next steps

- Organise further meetings to tackle specific issues arising from data linkage, code sharing and analyses.

Feedback from participants

- Overwhelmingly positive, with suggestions to be discussed on Friday during breakout session 4 (1pm)

Routine data event

National Institute for Health Research

23 April 2018

Career Development Section

New section evolved from two breakout sessions held at the NIHR statistics conference 2017:

- Career development for applied statisticians
- Opportunities for statisticians to be PIs

Aim: Run events and provide resources for applied statisticians at various stages of their career

Members: Sam Leary (Lead), University of Bristol

Gordon Prescott, University of Aberdeen

Laura Flight, University of Sheffield

Janet Peacock, Kings College London

Career Development Section

First event aimed at mid-career researchers:

Applied Statisticians as Principal Investigators

9th March 2018, University of Bristol, 50 participants (waiting list!)

Sessions:

- Personal experience of securing funding as an applied statistician
- Funding opportunities available
- Public involvement in methodological research
- Writing an excellent plain English abstract (interactive)

Slides: https://statistics-group.nihr.ac.uk/event/applied-statisticians-as-principal-investigators/

Career Development Section

Other activities:

Biographies of Steering Group members on website:
https://statistics-group.nihr.ac.uk/about-us/

Breakout Session 11.15am Friday:
- Short talks on career paths (Gillian Lancaster, Stephen Walters)
- Plan for future activities e.g. workshop for early career statisticians

[Breakout session 1pm on Friday on PPI for methods research – Andy Vail]

Features of the Conference

Keynote speakers

Breakout discussion groups/ Feedback from discussion groups

Meet members of Steering Committee and Working Groups

Get involved in future meetings and activities

Lots of networking opportunities!

Keynote Speakers

- Professor Dave Jones.

- Professor Richard Emsley,

- Dr Mike Batley

- Need to add some brief bio notes to each of these speakers.

Breakout discussion groups

Thursday 1	Big/Routine Data (presentations)	Mendelian Randomisation	Good Clinical Practice (for Statisticians)
Thursday 2	Statistical Analysis Plans	Diagnostic/ prognostic modelling	Improving understanding of statistics
Friday 1	MRC Adaptive Designs Working Group	Career Development Group	Mediation Analysis -application beyond psychiatry
Friday 2	Missing Data	Big Data (future plans)	PPI for methods research

NIHR Stats Group Steering Committee

- https://statistics-group.nihr.ac.uk/about-us/#organising-committee

Thanks to

Get to know your neighbour(s)

Where have you travelled from?

What (statistical) issue currently takes up most of your work time?

Which of the breakout sessions are you most looking forward to and why?