Advanced Analysis of Linked Health Data

Training Workshop, 6-10 April 2010
University of St Andrews

SHIP
Scottish Health Informatics Programme

Course Co-ordinators

- Principal Instructor Professor D'Arcy Holman
- Associate Professor David Preen
- Associate Professor Rachael Moorin

This is an intensive five-day course on the theory and practice of analysis of large sets of linked health or social data at an intermediate to advanced level. Advanced principles of epidemiology are combined with hands-on practical exercises in the implementation of computing solutions. This course follows on directly from the highly successful Introductory Analysis of Linked Health Data course run by Professor Holman in St Andrews from 12-16 September 2009.

As part of the course two lunchtime seminars will be presented by David Preen and Rachael Moorin to illustrate their latest linkage research.

Educational objectives

Professor Holman provides students with a theoretical grounding in the classroom on each topic, followed by a training session on the corresponding computing solutions. Students use fictitious but realistic linked data files in the hands-on exercises.

Professors Preen and Holman are available in the computing laboratory session each afternoon and conduct one-on-one coaching to assist class participants on how to problem-solve complex research scenarios. Professor Moorin will provide support to participants during the first few days of the advanced course.

Advanced Analysis of Linked Health Data provides health researchers with the opportunity to build on their pre-existing theoretical knowledge and skills in the analysis of linked health data by exploring a number of advanced topics. Upon completion the participant will:

- have consolidated their grasp of foundation concepts of health and social epidemiology and data analysis
- possess an advanced understanding of methods for the conceptualisation and construction of valid measures and effect measures of utilisation and outcomes based on complex, multi-sourced linked data sets
- understand complex longitudinal research designs and how to implement them using multi-sourced linked data sets
- understand case distribution designs (eg as used in pharmacoepidemiology) and how to implement them using multi-sourced linked data sets
- have skills in the analysis of linked mortality, institutional, pharmaceutical and primary care health data
- be able to write computing syntax to prepare complex linked data files for analysis, derive exposure and outcome variables, relate numerators and denominators and produce results from advanced statistical procedures

Course prerequisites

The course assumes that students have completed Introductory Analysis of Linked Health Data or have equivalent knowledge. The computing component of the unit assumes a facile competence in the preparation of computing syntax for SPSS, SAS or STATA and familiarity with the statistical analysis of linked data files at an introductory to intermediate level.

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About the Principal Instructor

Professor D'Arcy Holman MBBS MPH(Harv.) PhD GCLaw GAICD FACE FPHAA FAFPHM FAIM

Professor D'Arcy Holman holds the Foundation Chair in Public Health at The University of Western Australia. The world class WA Data Linkage System was instigated by Professor Holman in 1995. His research interests focus on the use of innovative epidemiological methods to study the utilisation and outcomes of health services. His published works exceed 400 and he has made significant contributions to research training in Australia and by teaching courses by invitation in other locations around the globe. Professor Holman has received the Centenary Medal of Australia for his voluntary services to the Australian health system and in 2006 he was awarded his country's highest professional honour for his field, the Sydney Sax Public Health Medal, in recognition of his contributions to the promotion and protection of the community's health.

ESSENTIAL INFORMATION

Location

The **Advanced Training Workshop** from **6-10 April 2010** at the University of St Andrews.

Registration

To register for the **Advanced Training Workshop** please complete the on-line registration form at:

https://onlineshop.st-andrews.ac.uk/browse/product.asp?catid=14&modid=2&compid=1

The fee for the **Advanced Workshop** is **£260**, which includes registration, lunches and coffees/teas (the fee for postgraduates and the unwaged will be **£120** although the number of such spaces will be limited so please apply early). Registration for the Advanced Workshop will close on **Friday 12th March 2010**. Total places for the Advanced Workshop are limited to 32, so please book early.

Cancellation policy

Cancellations after Friday 12th March 2010 may incur a 50% penalty. All cancellations must be submitted via email to ship@st-andrews.ac.uk.

Accommodation

You are responsible for booking your own accommodation.

St Andrews has a wide range of accommodation to suit every budget; for further information log on to www.stayinstandrews.co.uk. Central hotel accommodation can be found at the Rusacks Hotel and there are also Bed & Breakfast establishments on Murray Place in St Andrews.

Meals

Whilst lunches, teas and coffees are provided, breakfast and dinner are not.

Enquiries

Please direct any further enquiries to ship@st-andrews.ac.uk.

EARLY REGISTRATION FOR THE ADVANCED TRAINING WORKSHOP IS RECOMMENDED