

## Training Workshop

**4-8 September 2011 University of St Andrews**



We are hosting an intensive 5-day course on the theory and practice of analysis of large sets of linked health and social data at an introductory to intermediate level.

Rapid growth in data linkage projects has led to a shortfall in skilled analysis. Some researchers understand epidemiological principles, but are unfamiliar with the specialised computing skills needed to analyse linked data files.

Others have a strong grasp of computing concepts, but lack an adequate theoretical base to design high quality applications to answer research questions. This course endeavours to fill a gap in training opportunities to cater to these two areas of need.

### Course outline

The course caters to users of SPSS, SAS or Stata with course materials and exercises covering all three statistical software packages. Professor Holman, the instructor, provides 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. Professor Holman is available in the computing laboratory session each afternoon and conducts one-on-one coaching for those who need assistance.

### Learning objectives

The course acquaints health and social researchers, clinical practitioners and managers with the theory and skills needed to analyse linked health and social data at the introductory to intermediate level. Upon completion the participant will:

- possess an overview of the theory of data linkage methods and features of comprehensive data linkage systems, sufficient to understand the sources and limitations of linked data sets
- understand the principles of epidemiologic measurement and research methods for the conceptualisation and construction of numerators and denominators used in the analysis of health and social phenomena, including services utilisation and outcomes
- understand sources of measurement error in linked data, the difference between confounding and effect modification, and use of regression models in risk adjustment in health and social research
- be able to perform statistical analyses on linked longitudinal health and social data
- be able to conceptualise and perform the manipulation of large linked data files
- be able to write syntax to prepare linked data files for analysis, derive exposure and outcome variables, relate numerators and denominators and produce results from statistical procedures

### Course prerequisites

Basic familiarity with computing syntax used in either SPSS, SAS or Stata and methods of basic statistical analysis of fixed-format data files.

There are no formal prerequisites in epidemiology for the course.

However, it is recommended that participants who have not previously completed an introductory course in epidemiology, familiarise themselves with the basic principles and terms used in that discipline. A working knowledge of statistical concepts, including regression models, used in data analysis in the medical and social sciences is assumed.

## About the Instructor

Professor D'Arcy Holman

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Professor Holman is an epidemiologist, public health physician and law graduate, who holds the Foundation Chair in Public Health at The University of Western Australia (WA) and who led the establishment of the world-class WA Health Data Linkage System, commencing in 1995, which has since been replicated by other Australian states as a growing network of national infrastructure for health data integration. His popular courses on the analysis of linked health data are in demand internationally.

His understanding of the uses of data linkage arises from a wealth of experience in leadership positions spanning the academic, government, community and private sectors. Prior to his academic career, he was an Assistant Commissioner for Planning in the WA Health Department and has served at the highest levels on both the policy and research arms of Australia's National Health and Medical Research

Council. He is also a Permanent Guest Professor at the School of Medicine at Zhejiang University in the People's Republic of China.

His research interests focus on public health and the evaluation of health care, with published works numbering well over 400 and competitive grant earnings exceeding Au\$45 million. His research team has a strongly applied focus and works closely with policy decision-makers, program managers, clinicians and consumers to ensure that results are translated into actions.

Professor Holman has received the Centenary Medal of Australia for his services to the Australian health system. He is also a recipient of Australia's highest professional honour for lifetime achievement in his field, the Sydney Sax Public Health Medal.

## ESSENTIAL INFORMATION

- Registration:** To register for the **Training Workshop** please complete the on-line registration form [here](#). The fee for the 5-day workshop is **£300**, which includes registration, lunches and coffees/teas (the fee for postgraduates and the unwaged will be **£140** although the number of such spaces will be limited to 10 so please apply early). Registration for the workshop will close on Monday 15 August 2011. Total places for the workshop are limited to 35 so please book early.
- Location:** The **Training Workshop** from **4-8 September 2011** (followed by the **SHIP International Conference** from **9-11 September**) will be held at the University of St Andrews. You are welcome to either or both. Details of the venues will be circulated to registered participants. For details of the **SHIP Conference** please see: [www.scot-ship.ac.uk/conference-2011](http://www.scot-ship.ac.uk/conference-2011)
- 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](http://www.stayinstandrews.co.uk). Central hotel accommodation can be found at the Greyfriars Hotel, North Street, St. Andrews, Russacks Hotel, The Scores, St Andrews and there are also excellent Bed & Breakfast establishments on Murray Place in St Andrews.
- Enquiries:** Please direct any further enquiries to [ship@st-andrews.ac.uk](mailto:ship@st-andrews.ac.uk)

