

The Prevention and Population Health Branch has invited Paul Dickman and Paul Lambert to Adelaide to present a 1-week course on statistical methods for population-based cancer survival analysis.

The course will run for 5 days, from Monday 26 February to Friday 2 March 2018, and registration is now open.

About the course

This is an intensive 1-week course on the principles, methods and application of statistical methods in population-based cancer survival analysis.

The course will cover central concepts, such as how to estimate and model relative/net survival, as well as recent methodological developments including cure models, flexible parametric models, proportion of expected life lost, and estimating crude probabilities of death. Comparison of alternative methodological approaches (e.g., to estimating relative survival and to modelling relative survival) will be a focus of the course and participants will get the opportunity to apply and contrast a range of methods to real data. The course will consist primarily of lectures and hands-on computing sessions with a focus on individual instruction and discussion.

Participants are welcome to bring a laptop with their own data; we are happy to discuss how such data can be analysed. Our goal is that, after completing the course, participants will return to

their home institution with both the theoretical knowledge, practical skills, and computing code (e.g., Stata or SAS code) to perform survival analyses.

About the faculty

Paul Dickman is Professor of Biostatistics at the Department of Medical Epidemiology and Biostatistics at Karolinska Institutet. He conducts research in epidemiology and biostatistics with a focus on cancer epidemiology and register-based epidemiology. Professor Dickman has long been interested in the analysis of cancer patient survival, the topic of his 1997 doctoral thesis where he studied with Professor Timo Hakulinen. His primary interests lie in statistical methods for estimating and modelling relative survival. He has published widely in the field of cancer patient survival, is a co-author of the Stata `strs` command for estimating and modelling relative survival, and taught courses in cancer survival analysis in eight different countries.

Paul Lambert is Professor of Biostatistics in the Department of Health Sciences at the University of Leicester. Paul currently is seconded (30% FTE) to the Department of Medical Epidemiology and Biostatistics at Karolinska Institutet. Paul's main research interest has been in developing methods for modelling relative survival. In particular modelling time-dependent covariate effects, incorporating period analysis in statistical models, and the estimation and modelling of 'cure' in population-based cancer studies. He is particularly keen on the use of flexible parametric

survival models for both standard and relative survival. These offer a number of advantages in terms of communication of results, for example quantifying absolute levels of risk as well as relative risk. He has developed software in Stata to fit cure models for relative survival (`strsmix` and `strsnmix`) and also flexible parametric models (`stpm2`). Paul is co-author of the book *Flexible Parametric Survival Analysis Using Stata: Beyond the Cox Model*.

Who should attend

Epidemiologists, statisticians, physicians and oncologists, public health specialists and others with an interest in methods for studying cancer patient survival.

The primary focus of the course is on statistical methods, but a degree in statistics or mathematical statistics is not required. We expect participants to have varied backgrounds and our experience is that participants benefit most if they have some prior knowledge of the following areas:

- > statistical methods, especially methods for survival analysis;
- > application of statistical models in medical research, particularly epidemiology; and
- > cancer epidemiology and the diagnosis, treatment, and registration of cancer.

Very few participants will be extremely strong in all three areas - the level of knowledge in statistical methods, for example, is typically inversely proportional to the level of knowledge about cancer.

Computing

A significant amount of time will be allocated to hands-on computing sessions where participants will have the opportunity to apply the methods described in the course to real data. Stata version 14 will be the primary course software and a time-limited licence will be provided. Paul Lambert and Paul Dickman have each developed Stata commands for estimating and modelling relative survival. We will provide extensive exercises with worked solutions as well as Stata do files that participants can use as templates for analysing their own data. Paul Lambert and Paul Dickman also have experience applying these methods in other software, such as SAS, R, and WinBUGS, and are willing to assist participants who wish to work with these packages but not all of the methods described in the course can be applied in other packages and we do not have the same level of expertise in other packages as we do in Stata. The computing sessions are also intended as a forum for participants to talk to the faculty about aspects of particular interest to them. five faculty members will be in attendance during each session which will make individual instruction possible. The course is designed to be accessible to participants without previous experience of using Stata.

Participants should bring their own laptop

Course Language

The course language will be English. All instruction and course materials will be in English.

Course Organisers

The course is organised by Prevention and Population Health Branch, South Australian Department for Health and Ageing.

Date and Location

The course will be held at the South Australian Health and Medical Research Institute SAHMRI, North Terrace Adelaide South Australia.

Course fee and registration

The course fee is \$1750 per participant by invoice.

Please register your interest by email:
dianne.peacock@sa.gov.au

For more information

**Prevention and Population Health Branch
Department for Health and Ageing
PO Box 6, Rundle Mall, Adelaide SA 5000
Telephone: 822665458
dianne.peacock@sa.gov.au**

This course is run in partnership with the South Australian Health and Medical Research Institute



Cancer Survival Course: Adelaide 2018

Statistical Methods for
Population-Based
Cancer Survival
Analysis

Short course:
26/02/2018 to 2/03/2018