East Asia Training & Consultancy Pte Ltd
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Biostatistics & Epidemiology Analysis Using STATA

3-Day Professional Development Workshop in Australia

East Asia Training & Consultancy Pte Ltd invites you to attend a three-day professional development workshop, reviewing statistical methods used in Biostatistics and Epidemiology and using Stata to analyse the course databases. Stata is the well-known statistics and econometrics software package developed by StataCorp (USA). Stata is a statistical software package that offers a broad range of statistics to professional researchers in many disciplines. Stata is particular useful to professionals working in areas of biostatistics, epidemiology, medical research and economic research.

Course Programme

The aim of this workshop deals with the analysis of data that typically arise in biostatistics and epidemiology. The emphasis is practical so that participants should understand both the principles of analysis and how to carry them out. Participants should, by the end of the workshop, be able to use Stata for carrying out their own analyses for the most common types of problem encountered in biostatistics and epidemiology. Readings and data sets from the medical and public health literature will be used as case studies and in practical exercises wherever possible, using the Stata® statistical package. Participants are encouraged to bring their own datasets if they wish.

Who should Attend

Researchers, physicians, clinicians, public health professionals, students and lecturers in biostatistics, epidemiology and biomedical sciences, from public and private institutions who wish to increase their familiarity with quantitative methods in the principles of epidemiology and biostatistics, or epidemiology applied to health care planning and evaluation, so they can more effectively address problems in health research and use computational tools to solve practical problems.

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Fee and Registration

The fee for this three-day specialised and professional workshop includes extensive course materials, data-sets, lectures, lunches, morning and afternoon coffee/tea breaks, receptions and the opportunity to network with medical researchers, epidemiologists and biostatisticians across the various industries in Asia. This is a "hands-on" workshop. Participants are required to bring their own laptops.

The number of participants is restricted. Please register early to guarantee your place. Please complete the official registration form and fax to (65)-67694739 or email it to us at stata@eastasiatc.com.sg to reserve your place. Confirmation will only be made upon receiving full payment. Further instructions will be sent to confirmed participants.

Course Outline

	Day 1 **Data Management and Manipulation; Exploratory and bivariate data Analysis**	**Day 2** **Regression; Meta analyses**	**Day 3** **Methods for Correlated Data**
9.00 a.m **10.30 a.m**	**Introduction** Stata Windows, help, log files; copying and pasting into Word **Input and output of data** • reading and saving data • entering and editing data • opening Stata files **Variables** • types of variables • naming, labeling formatting • changing types of variables • date variables and formats generating new variables, dropping variables	**Linear regression** • analysis commands • use of continuous and categorical variables • interpretation of coefficients • tests for significance of variables • confidence intervals • regression diagnostics	**svy commands for complex sampling methods** • bivariate analysis • regression analysis • robust variance • design effects
10.30 a.m-11.00 a.m	**Morning Tea with snacks**		

11.00 a.m-12.30 p.m	**Exploratory data analysis** • describe, tabulate, summarise subsetting analysis (by and if commands), • deleting observations • combining files (merging, appending) • reformatting files (reshape, expand)	**Logistic regression** • analysis commands • use of continuous and categorical variables • interpretation of coefficients	**Longitudinal data analysis** • Format of data • Random effect, fixed effects, population average models • interpretation of coefficients • Hypothesis tests
12.30 p.m-1.30 p.m	**Lunch**		
1.30 p.m-3.00 p.m	**Graphs** • univariate graphs • bivariate graphs • graphing subsets of variables saving, opening, combining graphs printing graphs • labeling graphs changing axes, etc.	**Logistic regression continued** • tests for significance of variables • confidence intervals • regression diagnostics	**Multilevel / hierarchical analysis** • Format of data / levels • analysis commands • interpretation of coefficients • tests for significance of variables • confidence intervals
3.00 p.m-3.30 p.m	**Afternoon Tea with snacks**		
3.30 p.m-5.00 p.m	**Bivariate analysis: continuous and categorical data** • hypothesis tests • confidence intervals • paired and unpaired analysis • ttest or non-parametric equivalent • ANOVA and Kruskal-Wallis test • Correlation • Chisquare and exact methods • Measure of effect • Stratified analyses	**Meta-analysis** • Format of data • Publication bias • Heterogeneity • Fixed and random effects pooling • Meta-regression	**Multilevel / hierarchical analysis (continued)** • Examples and practice session

General outcome for each Session
~ 15 minute discussion of topic (eg method used for comparison of means, etc)
~ 15 minute discussion of the Stata commands
~ 60 minutes hands on practice using commands on example data sets