

# The Analysis of Complex Health Survey Data Using Stata

**Dates:** 8 - 12 September 2014  
**Mon-Fri:** 8:30 - 16:00  
**Target audience:** Participants should have a basic understanding of biostatistics and should have had exposure to Stata statistical software before the course starts.

This is an intermediate/advanced treatment of an important topic. There will be a health survey focus but the course will also be of value to anybody who is tasked with the design and data analysis from complex surveys, including:

- Public health practitioners
- Medical scientists
- Veterinary scientists
- Other health scientists
- Social scientists
- Population studies/ demographers
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**Survey data is more complex to handle for three main reasons:**

1. data may be clustered due to the use of multi-stage cluster samples or longitudinal survey designs;
2. sample units may be selected with unequal probabilities; when these probabilities are related to the outcome variable, the model holding for the sample is then different from the model holding in the population;
3. survey data is almost inevitably subject to nonresponse, often of considerable magnitude.
4. Official statistics agencies conduct many sample surveys, generating complex survey data that users may have difficulty in analysing. Understanding the methods and software available enables data producers to enhance data sets prepared for dissemination and data analysts to take account of complex design features.

**FACILITATORS:**

- **Professor Pedro Silva** is an internationally recognised expert in sampling and survey methodology with wide experience in research, consulting, applying and teaching Statistics in a range of topics including design and analysis of complex sample surveys, methods for conducting these sample surveys, calibration estimation, variance estimation, small area estimation, poverty mapping, and editing and imputation for census and survey data. Prof. Silva is a Professor at the National School of Statistical Sciences in Brazil. He is a Fellow of the American Statistical Association and is the President-elect of the International Statistical Institute.
- **Dr. Marcel Vieira** is a Senior Lecturer at the Federal University of Juiz de Fora, Brazil. He has interests in statistical methods in sample surveys, official statistics, statistical modelling, including the design and analysis of longitudinal sample surveys and surveys for policy evaluation. He is widely published and is author of the book *Analysis of Longitudinal Survey Data* (2009). He was winner of the CASS-ESRC Fellowship Award (2006) and of the Cochran-Hansen Prize (2007) and is currently Council Member of the International Association of Survey Statisticians, IASS.

**COORDINATOR:** Prof Brendan Girdler-Brown  
**FEES:** R11 000 (incl VAT)  
This fee includes teas, lunches, a textbook, course notes and handouts.

**CLOSING DATE FOR APPLICATIONS:**  
15 AUGUST 2014

**REGISTRATION ENQUIRIES:**

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## Annual Summer School in Health Measurement

Postgraduate centre, University of Pretoria  
1 - 12 Sep 2014

This is the first Annual Health Measurement Summer School incorporating the fifth Annual Summer School in Biostatistics under the auspices of the School of Health Systems and Public Health, University of Pretoria.

Contact sessions will take place in the Postgraduate centre and nearby computer laboratories on the Hatfield campus.

Aimed at new researchers, the first week will offer two short courses: Basic Biostatistics for Health Researchers without the use of software (2 days), and Analysis of Biomedical Data using Stata (3 days presented in a computer laboratory).

During the second week, two courses will be presented simultaneously: Qualitative Research Methods for the Health and Social Services Sector (introductory course), as well as The Analysis of Complex Survey Data using Stata.

The organising committee members are thrilled to announce that the course on analysis of complex survey data will be taught by two esteemed statisticians who will visit from Brazil, and who are internationally regarded experts in survey design and analysis, namely:

- Prof. Pedro Luis do Nascimento Silva (IBGE – ENCE; Brazil) (President-elect of the International Statistical Institute)
- Dr. Marcel de Toledo Vieira (UFJF; Brazil)

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CAREER-ENHANCING SHORT COURSES

## Basic Biostatistics for Health Researchers

**Dates:** 1 - 2 September 2014  
**Mon-Tue:** 8:30 - 16:00  
**Target audience:** New researchers in Public -; Medical -;  
Veterinary health and Health sciences

This is an introductory course aimed at new researchers. The course will cover basic biostatistical concepts from a frequentist's perspective: descriptive statistics; hypothesis testing; regression analysis and sample size planning.

There will be no statistical software or computer laboratory-based learning during these two days.

**FACILITATOR:** Prof Paul Rheeder

- Prof Rheeder is a specialist physician with a strong interest in diabetes. He is also a respected clinical epidemiologist with several years of experience teaching clinical epidemiology and biostatistics to students and colleagues with a wide range of professional backgrounds. These range from medicine to pharmacology and to public health. He is currently working as a specialist physician at the Steve Biko Academic Hospital.

**COORDINATOR:** Mrs Loveness Dzikiti  
**FEES:** R4 000 (incl VAT)  
This fee includes teas, lunches, course notes and handouts.

## Analysis of Biomedical Data Using Stata

**Dates:** 3 - 5 September 2014  
**Wed-Fri:** 8:30 - 16:00  
**Target audience:** New researchers or those new to Stata  
in Public -; Medical -; Veterinary health and  
Health sciences

This course will cover the use of Stata for data entry, importing data, data manipulation and basic descriptive statistics as well as common statistical tests (day 1). This will be followed by two days of regression analysis, both linear and logistic regression analysis, using Stata. The demonstrations will be supplemented by facilitated practical work using Stata.

This course will be presented in one of the University's computer laboratories on the Hatfield campus. The course presenters will assume knowledge of the material learnt during the Basic Biostatistics for Health Researchers course (or its equivalent done elsewhere).

**FACILITATORS:** Mrs Loveness Dzikiti  
Prof Brendan Girdler-Brown

- Mrs Dzikiti is a biostatistician in the School of Health Systems and Public Health at the University of Pretoria.
- Prof Girdler-Brown is an extraordinary professor in the School of Health Systems and Public Health. Both facilitators have several years of experience developing course materials for, and teaching of, biostatistics to novice biostatisticians.

**COORDINATOR:** Mrs Loveness Dzikiti  
**FEES:** R6 000 (incl VAT)  
This fee includes teas, lunches, course notes and handouts.

## Qualitative Research Methods for the Health and Social Services Sector

**Dates:** 8 - 12 September 2014  
**Mon-Fri:** 8:30 - 16:00  
(Ends after lunch on Friday)  
**Target audience:** Health/social services sector needing qualitative  
methods for planning, monitoring and  
evaluation.  
Postgraduate students wanting an understanding  
of qualitative methods.

This four-and-a-half day course will introduce participants to the theoretical background and concepts of qualitative research, and enable them to plan and carry out basic qualitative research in the health and social services. Software to organise and analyse data will be introduced.

**FACILITATORS:** Dr Kirstie Rendall-Mkosi  
Dr Anne-Marie Bergh  
Dr Liz Wolvaardt

- Dr Kirstie Rendall-Mkosi is a senior lecturer in the School of Health Systems and Public Health (SHSPH) with a special focus on health promotion. She has considerable experience using qualitative research methods in programme evaluation and has co-ordinated the qualitative research learning in the SHSPH for the last five years.
- Dr Anne-Marie Bergh is a senior researcher at the MRC Unit for Maternal and Infant Health Care Strategies, University of Pretoria.
- Dr Liz Wolvaardt is a senior lecturer at the SHSPH with a special interest in action research and mixed methods research for strengthening health systems.

**COORDINATOR:** Dr Kirstie Rendall-Mkosi  
**FEES:** R9 000 (incl VAT)  
This fee includes teas, lunches, course notes and handouts.



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