



Biostatistics for Research (STATA) *Basic / Intermediate*

8 - 11 March 2021

Introduction

Participants will be introduced to biostatistical concepts and analysis using STATA for their quantitative clinical research.

Course Objectives

To equip participants with the knowledge and skills to:

- understand clinical trials and epidemiological designs, sample size calculations,
- design a database,
- perform statistical analysis STATA and interpret the findings of the results obtained from the various analysis.

(NB: **Navigation of the STATA live will not be available during the course.** STATA step-by-step guide will be included in the course notes for all course participants.)

Prerequisites

- Participants should have statistical knowledge, used STATA and have computer literacy skills such as Microsoft Windows and Excel.
- STATA software is required for participants to practice at their own time after the course.

(This course is not suitable for beginners in statistics.)

Course Outline

- ☐ Session 1: STATA Basics
 - Setting up a database in STATA
 - Importing Excel into STATA
 - Merging files
 - Basic descriptive
 - Graphs
 - Computing and Recoding
- ☐ Session 2: Introduction to Research Designs
 - Randomised Controlled Trials:
 - ❖ Parallel vs Crossover, Randomisation & Blinding
 - Epidemiological Studies
 - Sample size calculations
- ☐ Session 3: Basic Biostatistics
 - Univariate analysis
 - ❖ Quantitative Data analysis.
 - Parametric vs Non-Parametric tests
 - ❖ Qualitative Data analysis
 - Chi-square & Fisher's exact tests
 - McNemar test
 - ❖ Correlation
 - Pearson's vs Spearman's
 - ☐ Session 4: Intermediate Biostatistics
 - Multivariate regression
 - ❖ Linear regression
 - ❖ Logistic regression
 - ❖ Survival analysis: Kaplan Meier & Cox regression

Course Details

Date	: 8 - 11 March 2021 (Mon - Thu)
Duration	: 4 half-days
Time	: 9.00 am - 12.30 pm
Class size	: 30
Device required	: Laptop / Desktop (with microphone, speaker and webcam)
Platform	: Zoom Cloud Meetings
Fee	: S\$460 (SingHealth) S\$510 (Regular) (inclusive of 7% GST)

Target Audience

All Healthcare researchers who wish to gain knowledge on experimental designs, biostatistical analysis and interpretation of the results from the STATA software.

Teaching Faculty

Dr. Shen Liang received her PhD in Statistics from the National University of Singapore (2006), and is currently the head biostatistician at the Biostatistics Unit in the Yong Loo Lin School of Medicine, National University Health System. She is actively involved in conducting research and statistical courses to help researchers in their aims of publication and to enhance their understanding of reading published articles. Co-authored more than 200 publications, she also serves as statistical reviewer for local and international medical journals, is a committee member of both the Product Vigilance Advisory Committee (PVAC) and the Medicines Advisory Committee (MAC), Health Science Authority (HSA) of Singapore.

Ms Wong Hung Chew received her MSc in Statistics from the National University of Singapore. She is currently the Senior Biostatistician in the Yong Loo Lin School of Medicine, National University Health System. Prior to joining Yong Loo Lin School of Medicine, she has 6 years of statistical experience in pharmaceutical industries. She has been actively providing guidance to the researchers and conducting training courses to enhance the researchers' understanding about research and statistical methodology.

Registration

To register, please scan the QR code or click on the web link. Registration closes on **8 February 2021, Monday**.



<https://form.gov.sg/5fb6335c4782560011864de8>

Upon registration, you agree to PGAHI [Terms & Conditions](#).

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