# Workshop Series 2019 - 20

# **Introduction to Multivariable Analysis using Stata**

November 4 – 8, 2019

(Last date of registration: Oct 21, 2019)

Course Director: Prof. Sanjay Zodpey, Director

Course Coordinator: Dr. Tanica Lyngdoh, Additional Professor



## **Training Venue:**

#### Indian Institute of Public Health- Delhi

Public Health Foundation of India

Plot 47, Sector 44, Institutional area, Near HUDA City Centre metro station, Gurgaon-122002, Haryana, India

#### **Key Contact person:**

Ms Tanuja Bhandari, Assistant Manager – Program (Trainings)

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## About the workshop

Multivariable techniques are the mainstay of statistical analysis allowing the analysis of more than two independent variables at once. This workshop is intended to provide a sound grounding in analytical techniques involving multiple exposures and adequate skills to perform such analyses using Stata. This workshop will cover key issues surrounding the principles and application of regression techniques, in particular, linear and logistic regression. Participants applying to this workshop are expected to have knowledge in basic biostatistics.

At the end of workshop, participants will gain theoretical insights and applied skills into the use of multivariable techniques in addressing research questions. S/he will be confident to use Stata to conduct statistical work on their own data.

#### **Registration Fee**

**Indian National:** 12500 INR per participant **Foreign National:** 25000 INR per participant

The registration fee includes course kit, lunch and snacks. Please note that the participants will have to bear their own travel, boarding and lodging expenses. However, the organizers will be able to provide a list of hotels or guesthouses nearby the institute upon request.

#### Who should attend?

These workshop are ideal for physicians, medical students, clinical and medical researchers, study coordinators, project managers, medical writers, data managers, pharmaceutical scientists, statisticians, and those working in the health services.

## How to apply?

Interested participants may email their completed registration form at trainings@iiphd.org and submit the fee by E-transfer or by Demand Draft in favor of "Public Health Foundation of India" payable Delhi and dispatch to the key contact person. Bank details for E-transfer will be shared upon request. We do not accept cash.

**International participants** are requested to submit the fee **only by E-transfer.** 

<u>The seats are limited, Confirmation will be on first come first</u> serve basis

## **Contents**

- Overview of statistical concepts: inferential statistics, univariable analysis
- Introduction to Stata
- Introduction to multivariable analysis: overview of confounding and effect modification, need for multivariable analysis, type of multivariable analysis etc.
- Linear regression: Simple and multiple linear regression, interpretation of coefficients, regression diagnostics
- Logistic regression: Odds and Odds ratio, stratified analysis (Mantel-Haenszel Test), interaction effects, conditional logistic regression, introduction to multinomial logistic regression, fitting and evaluating models

## About the faculty

Dr Tanica Lyngdoh, MD (Community Medicine), PhD (Epidemiology), Additional Professor. Tanica completed her graduation from Lady Hardinge Medical College, New Delhi and has an MD in Community Medicine from University College of Medical Sciences, New Delhi. She further specialized in Epidemiology from the London School of Hygiene and Tropical Medicine (LSHTM), UK as an external student. She was funded by the Swiss National Science Foundation for a PhD in Epidemiology from the University of Lausanne, Switzerland which she completed in May 2013. Prior to her PhD, she has several years of experience working in a large population-based project in collaboration with the LSHTM. Her area of interest include cardiovascular risks and diseases, statistical methods, statistics, metabolic abnormalities, life-course epidemiology, genetic epidemiology, clinical research design and household cohort studies.

**Dr Niveditha Devasenapathy**, Associate Professor is a medical doctor by training and is a full-time faculty at the institute. She has formal training in clinical trials, epidemiology and applied biostatistics. She has around 13 years of experience in the field of health research and applied statistics. She is involved in design and conduct of in-house academic programs in health research and has the experience of having conducted several workshop to health professionals of diverse background.