

# Public Health Training Camp 2021 (Spring Session)

## Online Workshop on “Stata, Biostatistics and Epidemiology: theory and applications”

### Facilitators

**Stuart Gilmour**, Professor, St. Luke's International University, Tokyo, Japan

**Shahjahan Khan**, Professor, University of Southern Queensland, Australia

**Mizanur Rahman**, Assistant Professor, The University of Tokyo, Japan

**Ashrafal Alam**, Assistant Professor, The University of Tokyo, Japan

**Md. Shafiur Rahman**, Assistant Professor, Hamamatsu University, Japan

**Md. Rashedul Islam**, PhD candidate, The University of Tokyo, Japan

**Host: Global Public Health Research Foundation, Bangladesh**

**Teaching mode: Online [Zoom]**

**Duration: 6 days (19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup>, 23<sup>rd</sup> and 24<sup>th</sup> March 2021)**

**Registration deadline: March 5, 2021**

**Online registration form: [gphrf.org/index.php/registration/workshop](http://gphrf.org/index.php/registration/workshop)**

### Contents

Date & Time	Content	Facilitators
<b>Day 1</b> <b>19<sup>th</sup> March, 2021</b> (A) 10:00 -12:00 (B) 12:00 -13:00 <b>GMT+6 time</b>	<b>Principles of Epidemiology</b> <ol style="list-style-type: none"><li>Epidemiology: concepts and terminology [SG]</li><li>Overview of epidemiologic study designs [MR]</li><li>Sample size determination: basic [MR]</li></ol>	<b>Stuart Gilmour [SG]; Mizanur Rahman [MR]</b>
<b>Day 2</b> <b>20<sup>th</sup> March, 2021</b> (A) 10:00 -12:00 (B) 12:00 -13:00 <b>GMT+6 time</b>	<b>Introduction to Stata</b> <ol style="list-style-type: none"><li>Overview of Stata [SR]</li><li>Data import, export, and transformation [AA]</li><li>Advanced data management &amp; visualization [SR, RI]</li></ol> <b>Practical-I: Data management in Stata/R [SR, RI &amp; AA]</b>	<b>Shafiur Rahman [SR]; Rashedul Islam [RI]; Ashrafal Alam [AA]</b>
<b>Day 3</b> <b>21<sup>st</sup> March, 2021</b> (A) 10:00-11:30 (B) 11:30-13:00 <b>GMT+6 time</b>	<b>Descriptive Statistics and Statistical Test</b> <ol style="list-style-type: none"><li>Basic concepts about data type [SK]</li><li>Descriptive statistics [SK]</li><li>Statistical test: Chi-square, t-test [SK]</li></ol> <b>Practical-II: Descriptive statistics and test in Stata/R [SR, RI &amp; AA]</b>	<b>Shahjahan Khan [SK]; Shafiur Rahman [SR] Ashrafal Alam [AA]; Rashedul Islam [RI]</b>
<b>Day 4</b> <b>22<sup>nd</sup> March, 2021</b> (A) 10:00-11:30 (B) 11:30-13:00 <b>GMT+6 time</b>	<b>Common Statistical Models</b> <ol style="list-style-type: none"><li>Model, ANOVA, ANCOVA [SG]</li><li>Simple and multiple linear regression [SG]</li><li>Logistic regression model [SG]</li></ol> <b>Practical-III: Regression analysis in Stata/R [MR, RI &amp; AA]</b>	<b>Stuart Gilmour [SG]; Mizanur Rahman [MR]; Ashrafal Alam [AA]; Rashedul Islam [RI]</b>
<b>Day 5</b> <b>23<sup>rd</sup> March, 2021</b> (A) 10:00-12:00 (B) 12:00-13:00 <b>GMT+6 time</b>	<b>Survival Analysis</b> <ol style="list-style-type: none"><li>Sample size determination: advanced [MR]</li><li>Basic concepts about survival analysis [SG]</li><li>Kaplan-Meier model, Cox regression model, etc. [SG]</li></ol> <b>Practical-IV: Survival analysis in Stata/R [MR, RI &amp; AA]</b>	<b>Mizanur Rahman [MR]; Stuart Gilmour [SG]; Ashrafal Alam [AA]; Rashedul Islam [RI]</b>
<b>Day 6</b> <b>24<sup>th</sup> March, 2021</b> (A) 10:00-12:00 (B) 12:00-13:30 <b>GMT+6 time</b>	<b>Multilevel Modelling</b> <ol style="list-style-type: none"><li>Multilevel model [MR]</li><li>Required analysis for paper (Practical) [MR]</li><li>Q &amp; A</li></ol> <b>Practical-V: Multilevel analysis in Stata/R [MR, RI &amp; AA]</b>	<b>Mizanur Rahman [MR]; Ashrafal Alam [AA]; Rashedul Islam [RI]</b>

**NB: Participants are required to install Stata version 11 or latest / R 3.6.3 or latest software.**

### Description

This six (6) days course will introduce principles and methods of epidemiologic investigation of disease and other health states. The aim of the course is to provide knowledge on different types of study designs (including randomized trials, cohort, case-control studies, and cross-sectional study); measurement of exposures and outcomes; and risk estimation. The course will provide Stata/R techniques from basic epidemiology, interpreting findings, and drawing inferences; to a variety of commands to manipulate and format data to manage your own projects. The course content covers data management, programming concepts, procedural programming, various Stata/R commands and constructs, and project workflow. Participants will master advanced methods of data analysis including simple linear regression and multiple linear regression, simple and multiple logistic regression, Kaplan-Meier analysis, and Cox proportional hazard model.

### Course Fee

**Bangladesh: BDT 2000 for students and BDT 3000 for professionals.**

**International: Low- & lower middle-income countries  
\$40 for both students and professionals.**

**Upper middle- & high-income countries  
\$80 for both students and professionals.**

### Contact



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