Indian Institute of Public Health – Delhi
Public Health Foundation of India

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Workshop Series 2023- 24
Online Workshop on
'Data Handling, Cleaning, Visualization and Statistical Analysis in R for Public Health'
November 20 - 24, 2023
Last date of registration: 6th Nov 2023
Course lead: Dr. Surabhi Pandey, Associate Professor, Indian Institute of Public Health-Delhi

Click here to **Apply Online**

About the course

Data visualization involves transforming information within data into graphical representations. It is a highly effective method for conveying the underlying narrative within complex datasets. In the realm of Big Data, data visualization serves as a tool to comprehend patterns, emphasizing trends, and outliers in the data. By utilizing programming languages, individuals can automate the creation of charts, graphs, and maps. This automation allows for the replication of similar visualizations across various datasets using identical R codes. During this workshop, attendees will participate in lectures and practical exercises involving health-related datasets. They will delve into and master the art of writing R codes to create visual representations of data. Moreover, participants will acquire the expertise to choose the most appropriate visualization methods for their specific datasets and develop the ability to interpret the visualized information. The workshop will also encompass crucial subjects like data cleaning and the foundational principles of statistical analysis.

This workshop is ideal for individuals seeking to enhance their data visualization skills and acquire basic to intermediate coding proficiency for tasks such as data cleaning, visualization, and statistical analysis in R.

This is an online workshop thus requires participants to have their own laptop/desktop and stable internet connection. The workshop will be facilitated on CISCO WebEx of IIPH-Delhi Platform.

Contents

- Introduction to R
- Installing R and familiarizing R Environment, Libraries for Data Visualization and Statistical Analysis
- Strength and limitation of Data Visualization libraries viz., Matplotlib, Pandas, Seaborn
- Writing R Code for Data Visualization: Scatter, Line and Bar plot, Histogram, Box plot, Heat Map, Tree Map, Faceting etc.
- Assignment and Hand-on training of writing R code to create graphs
- **Statistical Analysis of Big data** (Descriptive and Inferential (Linear and Logistic Regression))

About the Faculty

Dr. Surabhi Pandey, Associate Professor is PhD in Mathematics and specialized in Infectious Disease Modelling (IDM). She has 14.5 years of experience in teaching, conducting research and online trainings and administration. Her research interest is computation modelling of infectious diseases and data analysis with a focus on policy and using technology for health.

Ms. Tripti Agarwal *(B. Tech in Biotechnology and MSc in Clinical Research)* is a PhD Scholar, Clinical Research (specialization in Genetic Epidemiology) at Indian Institute of Public Health-Delhi- affiliated with Academy of Scientific and Innovative Research (AcSIR). She has actively handled and analysed epidemiological datasets and is proficient in Data Analysis using Stata, R and Python. During her PhD, she has gained teaching experience in the courses such as Statistical Genetics in Genetic Epidemiology, Basic Biostatistics, and Epidemiology and also assisted in conducting workshops on Data Analysis using R and Python

Who should attend?

This workshop is suitable for anyone who wants to upgrade their skill of data visualization and learn basic to intermediate coding in R.

How to Apply?

Interested participants may **Apply Online** and submit online registration form or write an email to **trainings@iiphd.org** The fee will be submitted by E-transfer, the **bank details will be shared upon applying for the workshop**.

Registration Fee:

Indian National: 9000 INR per participant	**Foreign National:** 18000 INR per participant

* We have limited seats available; registrations will be confirmed on a first come first serve basis.