African Population and Health Research Center

Quantitative Data Analysis in R Training Call for Applications

Date: July 15-19, 2024

Despite the increasing demand for data-driven decision-making in various fields, many individuals have limited skills to efficiently analyze and interpret data. Moreover, the ability to create reproducible and transparent workflows is essential but frequently overlooked in data analysis training. In an effort to address these gaps, the African Population and Health Research Center (APHRC) invites eligible individuals to participate in a 5-day short course in Quantitative Data Analysis Using R. As an open-source software environment for statistical computing, R has become a tool of choice in the fields of data science and statistics due to its versatility, powerful packages, and strong community support. With hands-on exercises and real-world datasets, this course is therefore designed to build attendees' confidence and proficiency in using R for data analysis and visualization.

Objectives

This training program equips participants with practical skills in R programming to perform effective data analyses and produce high-quality, reproducible results. Participants will learn to navigate RStudio, understand R's capabilities, and import various data types into R. They will apply best practices for data cleaning and transformation using packages like dplyr, summarize data with measures of central tendency and variability, and create visualizations using ggplot2. The training covers basic and advanced statistical analysis techniques, including hypothesis testing and regression analysis, and teaches automation of data workflows using R scripts and RMarkdown. Practical exercises will reinforce these skills, ensuring participants can independently conduct robust and insightful data analyses on their datasets.

Eligibility requirements

- Foundational understanding of basic statistical principles is essential. This includes concepts such as mean, median, variance, standard deviation, correlation, regression and basic hypothesis testing.
- Participants should bring their own laptops to the workshop, as they will need to install R and RStudio and work on their own machines.
- Having a dataset ready for analysis will be an added advantage
- While prior experience with R specifically is not required, familiarity with any programming or scripting language is desirable.

Methodology

The workshop will be discussion-based characterized by active participation of all participants. A mixture of short lectures, group work, and group presentation and discussion will be employed. The course will be conducted in English.

Cost

USD 300 per participant (incl. VAT). This fee will cover participation in the course, certificate of participation, and course materials.

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