Training course on Epidemiology and Biostatistics with Stata

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The ability to analyze health data effectively is critical for addressing public health challenges. Epidemiology and Biostatistics are foundational tools for understanding disease patterns, assessing risk factors, and guiding interventions to improve population health. Training course on Epidemiology and Biostatistics with Stata equips participants with practical skills to manage datasets, perform advanced statistical analyses, and interpret findings to inform evidence-based decision-making. Epidemiology and Biostatistics are foundational tools for understanding disease patterns, assessing risk factors, and guiding interventions to improve population health. The **Training Course on Epidemiology and Biostatistics with Stata** is designed to empower health professionals, researchers, and students with the statistical skills needed to analyze and interpret epidemiological data using the powerful Stata software.

Stata is a comprehensive and user-friendly statistical package widely used in epidemiology and biostatistics. This course equips participants with practical skills to manage datasets, perform advanced statistical analyses, and interpret findings to inform evidence-based decision-making. By integrating epidemiological concepts with biostatistical techniques, the training ensures participants can apply statistical methods to real-world public health challenges effectively.

Programme Curriculum

Training course on Epidemiology and Biostatistics with Stata

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Course Duration

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Course Objectives

1. Understand the fundamentals of epidemiology and biostatistics.
2. Gain proficiency in using Stata for statistical analysis.
3. Learn how to design and implement epidemiological studies.
4. Perform descriptive and inferential statistical analyses.
5. Conduct survival analysis and time-to-event studies using Stata.
6. Apply regression models, including logistic and linear regression, in public health research.
7. Interpret and communicate statistical results effectively.
8. Understand data management and cleaning in Stata.
9. Utilize real-world datasets to analyze disease trends and risk factors.
10. Enhance evidence-based decision-making skills in public health.

Organizational Benefits

1. **Improved Decision-Making**: Equip teams with data-driven insights to improve public health outcomes.
2. **Enhanced Research Capabilities**: Build capacity for conducting robust health research.
3. **Efficient Data Analysis**: Save time and resources by mastering Stata's advanced features.
4. **Evidence-Based Policies**: Support the development of health policies grounded in sound data analysis.
5. **Increased Productivity**: Empower teams with skills to manage and analyze large datasets efficiently.
6. **Accurate Health Assessments**: Improve the accuracy of disease monitoring and evaluation.
7. **Advanced Risk Analysis**: Identify and prioritize public health interventions effectively.
8. **Capacity Building**: Strengthen the analytical skills of health professionals.
9. **Interdisciplinary Collaboration**: Facilitate better communication between statisticians, epidemiologists, and policymakers.
10. **Reputation Enhancement**: Establish the organization as a leader in evidence-based public health initiatives.

Target Participants

- Public health professionals and epidemiologists.
- Medical researchers and clinicians.
- Biostatisticians and data analysts.
- Health policy makers and program managers.
- University faculty and students in health sciences.
- Professionals working in NGOs focused on health interventions.
- Monitoring and Evaluation (M&E) specialists in health projects.
- Health economists and consultants.

- Data scientists in the healthcare sector.
- Anyone involved in health-related research or data analysis.

Course Outline

Module 1: Introduction to Epidemiology and Biostatistics

1. Fundamentals of epidemiological study designs.
2. Measures of disease frequency: incidence and prevalence.
3. Measures of association: relative risk, odds ratio, and attributable risk.
4. Introduction to biostatistical concepts.
5. **Case Study**: Evaluating the effectiveness of vaccination programs.

Module 2: Data Management in Stata

1. Importing and organizing datasets in Stata.
2. Cleaning and transforming data for analysis.
3. Managing missing data and outliers.
4. Creating summary tables and graphs.
5. **Case Study**: Data cleaning in a large multi-country study.

Module 3: Descriptive and Inferential Statistics

1. Descriptive statistics: means, medians, standard deviations.
2. Hypothesis testing: t-tests, chi-square tests, and ANOVA.
3. Confidence intervals and p-values.
4. Sampling techniques and sample size determination.
5. **Case Study**: Assessing nutritional deficiencies in a population.

Module 4: Regression Analysis in Epidemiology

1. Linear regression for continuous outcomes.
2. Logistic regression for binary outcomes.
3. Cox proportional hazards model for survival analysis.
4. Interpreting regression coefficients and diagnostics.
5. **Case Study**: Investigating risk factors for diabetes.

Module 5: Advanced Statistical Methods in Stata

1. Multivariable modeling techniques.
2. Handling longitudinal data: panel data analysis.
3. Analysis of complex survey data.
4. Time-series analysis in public health.
5. **Case Study**: Impact of air pollution on respiratory diseases.

Module 6: Reporting and Interpreting Epidemiological Results

1. Preparing tables and graphs for publications and reports.
2. Writing clear and concise result interpretations.
3. Presenting findings to stakeholders and policymakers.
4. Ethics and confidentiality in health data reporting.
5. **Case Study**: Communicating findings from a maternal health study.

Training Methodology

1. **Interactive Lectures**: Engage with experts in epidemiology, biostatistics, and Stata.
2. **Hands-On Sessions**: Work directly with Stata software using real-world datasets.
3. **Case Studies**: Analyze real-life public health scenarios to apply learned skills.

4. **Group Discussions**: Collaborate with peers to solve public health data challenges.
5. **Exercises and Assignments**: Practice key concepts to reinforce learning.
6. **Role-Playing Simulations**: Experience the process of presenting findings to diverse audiences.

By completing this **Training Course on Epidemiology and Biostatistics with Stata**, participants will gain essential skills to analyze health data, improve decision-making, and contribute to evidence-based public health solutions.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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