

Public Health Research Methods Training Course

Professional Development Training Course Outline

Category	Public Health	Duration	10 Days
Base Fee	\$2,999 USD	Delivery Mode	Online / On-site Hybrid

Course Introduction

Public health systems globally are increasingly driven by evidence-based decision-making, requiring professionals who are skilled in epidemiological research methods, biostatistics, data analytics, surveillance systems, and implementation science. Public Health Research Methods Training Course is designed to equip participants with advanced competencies in research design, quantitative and qualitative methodologies, health data interpretation, and scientific communication. This training strengthens capacity to generate high-quality evidence that informs policy development, disease prevention strategies, health systems strengthening, and global health interventions.

In an era defined by emerging infectious diseases, climate-related health risks, non-communicable diseases (NCDs), and digital health transformation, public health research has become a critical pillar of sustainable healthcare systems. This course integrates modern approaches such as machine learning in epidemiology, real-time surveillance analytics, community-based participatory research, and implementation research frameworks. Participants will gain practical skills to design, conduct, analyze, and disseminate impactful research that addresses pressing health challenges at local, national, and global levels.

Programme Curriculum

Public Health Research Methods Training Course

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Course Objectives

1. Master epidemiological study designs and causal inference frameworks
2. Apply biostatistical analysis using modern statistical software tools
3. Develop skills in quantitative and qualitative research methodologies
4. Strengthen capacity in public health surveillance and outbreak investigation
5. Understand health systems research and policy translation
6. Apply data science and machine learning in public health research
7. Conduct systematic reviews and meta-analysis techniques
8. Design community-based participatory research (CBPR) studies
9. Enhance skills in implementation science and intervention evaluation
10. Utilize digital health and mobile health (mHealth) research tools
11. Strengthen research ethics and responsible conduct of research
12. Build competency in scientific writing and publication strategies
13. Develop expertise in global health research and equity-focused studies

Target Audience

1. Public health professionals
2. Epidemiologists and biostatisticians
3. Medical doctors and clinical researchers
4. Health policy makers and planners
5. NGO and humanitarian health workers
6. Academic researchers and lecturers
7. Graduate students in public health and medicine
8. Data scientists working in health analytics

Course Modules

Module 1: Introduction to Public Health Research

- Principles of public health research
- Types of research designs
- Role of evidence in health systems
- Research process framework
- Global health research priorities
- **Case Study:** COVID-19 rapid response research design analysis

Module 2: Epidemiological Methods

- Descriptive epidemiology
- Analytical epidemiology
- Cohort and case-control studies
- Measures of disease frequency
- Bias and confounding
- **Case Study:** Cholera outbreak investigation in coastal regions

Module 3: Biostatistics Fundamentals

- Descriptive statistics
- Probability distributions
- Hypothesis testing
- Confidence intervals
- Statistical significance
- **Case Study:** Malaria incidence data analysis

Module 4: Advanced Statistical Modeling

- Regression analysis
- Logistic regression
- Survival analysis
- Multivariate techniques
- Predictive modeling
- **Case Study:** HIV risk factor modeling study

Module 5: Qualitative Research Methods

- Interviews and focus groups
- Thematic analysis
- Grounded theory
- Ethnographic research
- Data coding techniques
- **Case Study:** Maternal health service utilization study

Module 6: Mixed Methods Research

- Integration of qualitative and quantitative data
- Triangulation techniques
- Study design frameworks
- Data convergence models
- Interpretation strategies
- **Case Study:** Tuberculosis treatment adherence research

Module 7: Disease Surveillance Systems

- Surveillance types
- Data collection systems
- Early warning systems
- Reporting mechanisms
- Outbreak detection

- **Case Study:** Ebola surveillance system evaluation

Module 8: Outbreak Investigation

- Steps of outbreak investigation
- Case definition development
- Hypothesis generation
- Data collection strategies
- Control measures
- **Case Study:** Foodborne illness outbreak in a community

Module 9: Health Informatics & Digital Health

- Electronic health records
- mHealth applications
- Data interoperability
- Digital epidemiology
- AI in health research
- **Case Study:** Mobile-based malaria tracking system

Module 10: Systematic Reviews & Meta-Analysis

- Literature search strategies
- PRISMA framework
- Study selection criteria
- Effect size calculation
- Bias assessment
- **Case Study:** Global vaccine effectiveness review

Module 11: Implementation Science

- Intervention frameworks
- Adoption and scaling strategies
- Health system integration
- Program evaluation
- Sustainability models
- **Case Study:** HIV prevention program implementation

Module 12: Community-Based Participatory Research

- Community engagement strategies
- Stakeholder mapping
- Participatory data collection
- Ethical community involvement
- Feedback mechanisms
- **Case Study:** Water sanitation intervention in rural communities

Module 13: Research Ethics & Governance

- Ethical approval processes
- Informed consent
- Data privacy and confidentiality

- Ethical dilemmas in research
- Institutional review boards
- **Case Study:** Ethical challenges in vaccine trials

Module 14: Scientific Writing & Publication

- Manuscript structure
- Journal selection strategies
- Peer review process
- Referencing systems
- Publication ethics
- **Case Study:** Writing a publishable malaria research paper

Module 15: Global Health Research & Policy Translation

- Global health frameworks
- Policy briefs development
- Knowledge translation strategies
- SDG alignment
- Advocacy in research
- **Case Study:** Translating research into national HIV policy

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.com 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
07 Sep 2026	18 Sep 2026	Online	\$2,999
14 Sep 2026	25 Sep 2026	Online	\$2,999
21 Sep 2026	02 Oct 2026	Online	\$2,999
28 Sep 2026	09 Oct 2026	Online	\$2,999
05 Oct 2026	16 Oct 2026	Online	\$2,999
12 Oct 2026	23 Oct 2026	Online	\$2,999
19 Oct 2026	30 Oct 2026	Online	\$2,999
26 Oct 2026	06 Nov 2026	Online	\$2,999

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