



Parkland College
Arba Minch
Short Term Trainings Programs

Using EpiInfo in a Pandemic Investigation, Advanced Analysis & Mapping

About the Course

Using a case study based on an actual investigation of COVID-19 pandemic in Ethiopia, you will use Epi Info for Windows (Version 7.2.5) software to perform data entry and analysis activities commonly encountered in a pandemic investigation.

This training is not intended to cover every function of EpiInfo for Windows but rather introduce the beginning user to the features that are required of a basic pandemic/ outbreak investigation.

Target Participants

The intended audience for this training activity is for Epidemiologist, Biostatisticians and Public Health professionals, however, anyone with the following prerequisites will benefit from the training.

Prerequisites

You should have an understanding of the following:

- Basic epidemiology
- Basic biostatistics
- The steps taken in outbreak investigations
- How to develop questions for an investigation
- Basic functions of Windows-based computers

It is not necessary, but may be helpful, to have experience with Epi Info 7 or any other database or spreadsheet software.

Course Duration

- 21 Days at 8 hours a day

Training Objectives

Using EpiInfo for Windows, a summary of an original outbreak investigation, and a set of questions to be used in a questionnaire, you will be able to

- Recreate a questionnaire form
- Program code to check for inaccurate data entry or to facilitate data entry
- Enter data in a questionnaire
- Manage the data entered



- Analyze the data entered
- Read data from and write to other database formats
- Create reports using Epi Report
- Create a menu
- Map data using Epi Map

Course Outline

1. Module 1: Welcome to Using Epi Info in an Outbreak Investigation

- 1.1. Overview of Training Activity
- 1.2. Target Audience
- 1.3. Training Objectives
- 1.4. Resources & Time Required
- 1.5. About this Training Manual
- 1.6. How to Install EpiInfo

2. Module 2: Introduction to Infectious Disease

- 2.1. COVID-19 Case Study
- 2.2. Case – Control Study Design

3. Module 3: Recreate the Questionnaire in EpiInfo

- 3.1. Open EpiInfo Main Menu
- 3.2. Parts of an EpiInfo Project
- 3.3. Start a New Project
- 3.4. Create a New View
- 3.5. Create Fields
- 3.6. Changing Alignment (Grid) Options
- 3.7. Revising Fields
- 3.8. Resizing the Field's Data Entry Box
- 3.9. Creating and Naming Pages
- 3.10. Group Fields
- 3.11. Exiting Makeview
- 3.12. Opening a Previously Created File
- 3.13. Creating a Code Sheet
- 3.14. Completing the Questionnaire

4. Module 4: Create Check Code in EpiInfo

- 4.1. What is "Check Code"?
- 4.2. How do you create check code in Epi Info for Windows?
- 4.3. Identify fields that should contain check code
- 4.4. Write Check Code
- 4.5. Enter Code in Program Editor

5. Module 5: Enter Data in EpiInfo

- 5.1. What is a record?
- 5.2. Enter Data
- 5.3. Working with Records
- 5.4. Enter Data from Make View



6. Module 6: Manage Data in EpiInfo

- 6.1. Before you Begin
- 6.2. Open File in Analysis Window (Read a File)
- 6.3. Display Variable Information (Create a Code Sheet)
- 6.4. Create a Line Listing
- 6.5. Sort a Line Listing
- 6.6. Cancel Sort
- 6.7. Create a Subset of the Data (Use Select Command)
- 6.8. Save a Subset of Data in a New File (Use Write Command)
- 6.9. Merge two data files with the same variables

7. Module 7: Analyze Data

- 7.1. Describing the Epidemic by Time, Place, and Person
- 7.2. Analyze Data Frequency
- 7.3. Graphs: Displaying Data in a Bar Graph
- 7.4. Work with Graph Files
- 7.5. Analyze Means of a Single Variable
- 7.6. Grouping Numerical Data
- 7.7. Graphs: Displaying Data in a Histogram (Epidemic Curve)
- 7.8. Analyzing the Risk Factors
- 7.9. Analyzing the Probability that One Data Variable is Associated with Another (using Table command)
- 7.10. Save Analysis Output
- 7.11. Work with Program Files
- 7.12. Environmental Survey Findings

8. Module 8: Read & Write Other Database Formats in EpiInfo

- 8.1. Read an Epi 7 File
- 8.2. Write an Epi 7 File
- 8.3. Read an Excel Table

9. Module 9: Creating Reports Using Epi Report

- 9.1. Open Epi Report
- 9.2. Create a New Template
- 9.3. Create a Label
- 9.4. Working in the Design Area
- 9.5. Save the Report Template
- 9.6. Add a System Variable
- 9.7. Generate a Report
- 9.8. Displaying Analysis Output
- 9.9. Display a Field Aggregate
- 9.10. Add a Line Listing
- 9.11. Insert an Image
- 9.12. Save a Report

10. Module 10: Creating a Menu in EpiInfo

- 10.1. STEP 1 Creating a New Menu
- 10.2. STEP 2 Adding Menu Items and Options to the Pull-Down Menu



- 10.3. STEP 3 Replacing Buttons
- 10.4. STEP 4 Adding the Command Blocks
- 10.5. STEP 5 Saving Your Work
- 10.6. STEP 6 Creating a Shortcut
- 10.7. STEP 7 Changing the Picture

11. Module 11: Conclusions from COVID-19 Pandemic Investigation

- 11.1. Implement Control and Prevention Measures
- 11.2. Communicate Findings
- 11.3. Make Recommendations

12. Module 12: Advanced Analysis & Mapping Using EpiInfo

- 12.1. Read the Dataset
- 12.2. Questions for Consideration
- 12.3. Using Epi Map Interactively
- 12.4. Saving Maps in Different File Formats
- 12.5. Complex Statistics – C Sample, Linear and Logistic Regression

Training Approach

This training is delivered by our seasoned trainers who have vast experience as expert professionals using EpiInfo. The course is taught through a mix of practical activities, theory and group works.

Training manuals and additional reference materials are provided to the participants.

Certification

Upon successful completion of this course, participants will be issued with a certificate.

Tailor-Made Course

We can also do this as a tailor-made course to meet organization-wide needs. A training needs assessment will be done on the training participants to collect data on the existing skills, knowledge gaps, training expectations, and tailor-made needs.