VIRTUAL WORKSHOP – DATA MANAGEMENT, ANALYSIS & VISUALISATION USING MICROSOFT EXCEL

INTRODUCTION

Microsoft Excel is Software developed and manufactured by Microsoft Corporation that allows users to organize, format, and calculate data with formulas using a spreadsheet system broken up by rows and columns. Microsoft Excel usually comes bundled with Microsoft Office and is compatible with other applications offered in the suite of products. Excel has powerful tools that enable busy M&E professionals to set up simplified and yet automated data analysis and interpretation systems. Using the advanced features of excel for M&E of interventions helps program managers, M&E professions and organizations to devote their time to making decisions and taking corrective actions and become result based.

This course will provide a thorough understanding of data management process, and pragmatic step-by-step training for conducting data analysis and development of databases using advanced features of EXCEL. While the course is centered on the above, it will also impart insights on the importance of data collection, key performance indicators and data quality control and assurance.

WHO SHOULD ATTEND?

This training is ideal for managers and researchers from development organizations, foundations, governments, and non-governmental organizations, as well as M&E professionals and students. It is for people wanting to use more complex functions within Excel to automate and hence simplify data analysis and interpretation within their interventions. Participants will need to have attended or be familiar with the basics of Microsoft Excel.

LEARNING OBJECTIVES

- To improve participants knowledge & understanding of M&E data
- To improve practical skills for data management and analysis through understanding the use of advanced functions
- To share knowledge and experiences in M&E data analysis using MS Excel

COURSE SESSIONS

TIME	SESSION ACTIVITY
	Day 1 – Advanced Excel Course
9:00-9:15am	**Session 0: Introduction to the course** • Registration, Introduction, Expectations, General norms, Pre-test • Workshop goals & Time table
9:15-10:00am	**Session 1: Understanding M&E Data & its Concepts** • What is statistics? • Types of data, Variables, Measurements of variable
10am-11am	**Session 2: Designing and managing M&E Data Entry Screens** • Brief introduction to Microsoft Excel • Designing entry screens for surveys
11-11:30	**Break**
11:30-1:30	**Session 2: continued** • Using Data validation while designing entry screens • Data conditional formatting
1:30-2:15	**Lunch**
2:15-3pm	**Session 2: continued** • Using Data validation while designing entry screens • Data conditional formatting • Using advance EXCEL form Add-on • Practicing Data entry • Data entry using Excel forms
3pm-4pm	**Session 3: Database Management Introduced** • Introduction to building databases in EXCEL

TIME	SESSION ACTIVITY
	• Conducting data manipulations and transformations using advanced formulae
Exercise 1 – Provided to participants	

Day 2 – Advanced Excel

TIME	SESSION ACTIVITY
9:00-9:15am	**Recap for Day 1**
9:15-11:00am	**Session 3: Database Management continued** • Creating new variable using EXCEL functions such as IF functions • Using excel tables • Concatenating Functions • Importing and exporting EXCEL data • Merging datasets using the VLOOKUP Function, HLOOKUP Function, INDEX MATCH Function.
11-11:30	Break
11:30-1:30	**Session 4: Data analysis and interpretation using PIVOT table and the Excel Add ins.** • Univariate analysis (Frequency tables and descriptive statistics) • Conducting Bivariate analysis • Cross tabulations • Formatting a PivotTable • Using Advanced Data Field Settings in Pivot table • Creating PivotChart Reports from Scratch • Adding Fields to a PivotChart
1:30-2:15	**Lunch**
2:15-4pm	**Session 4: continued.** • Creating PivotChart Reports from Scratch • Adding Fields to a PivotChart • Building dashboards using pivot tables
Exercise 2 – Provided to participants	

Day 3 – Advanced Excel

TIME	SESSION ACTIVITY
9:00-9:15am	**Recap for Day 2**
9:15-11am	**Session 5: Advanced Excel Visualizations/ Graphics** • Elements of a good Excel Visual • Comparison Visuals • Composition Visuals • Distribution Visuals • Relationship Visuals
11-11:30	Break
11:30-1:30	**Session 7: Linking and Automating Data analysis tables and graphs** • Introduction to linking sheets in same or different worksheet • Using Count, countif and countifs function • Using the sumif and sumifs

TIME	SESSION ACTIVITY
	• Using the averageif and averageifs • Combining various formulae
1:30-2:15	**Lunch**
2:15-3:30pm	**Session 6: Regression Analysis and Correlational analysis** • Conducting correlation analysis • Simple linear regression • Multiple regression • Testing for differences using T-tests **Session 8: Enforcing M&E data security.** • File Protection • Cell Protection • M&E data backups
Closure - Final Assignment will be provided to participants

For more information/queries: email us on admin@polarists.co.za for any inquiries, or visit www.polarists.co.za