

Monitoring and Evaluation Course Description

Introduction to Economic Evaluation

Economic evaluation and decision analysis are central to achieving one of the goals of monitoring and evaluation (M&E): making the best use of limited resources to achieve desired public health outcomes. The information gained from economic analyses on the cost and value of public health activities helps decision makers to make choices that are based on data. In helping to determine whether a program is doing what it was intended to do—a main focus of M&E—economic evaluation can answer the following questions:

- How much does it cost to achieve a certain level of program performance?
- How can a fixed budget best be allocated across program priorities?
- What are the costs and benefits of choosing one program instead of another?

Description

The M&E Team of the Centers for Disease Control and Prevention/Global AIDS Program contracted with Macro International Inc. to assist in the development of Introduction to Economic Evaluation. The purpose of this course is to build capacity for conducting economic evaluations of health projects, policies, and interventions in developing countries. It provides a grounding in the use of economic evaluation and decision analysis in public health. Using examples and case studies related to interventions in HIV and other sexually transmitted infections, participants learn how to:

- understand the key concepts of economic evaluation
- describe how economic evaluation can be used to answer different questions about health interventions and programs
- compare different programs, treatments, or methods in terms of their outcomes and costs
- understand the use of economic evaluation in setting health policy
- understand the steps involved in conceiving, designing, conducting, and analyzing a simple economic evaluation
- interpret the results of economic evaluations to improve program performance.

Audience and Format

This course is designed primarily for two main audiences:

- Practitioners who already have a background in economics and/or M&E, and who aim to improve their skills in carrying out economic evaluation
- Decision-makers and other consumers of economic evaluation data, who are interested in improving their ability to interpret and apply the results of these evaluations.

The module-based course, which includes group activities, is led by a facilitator and can be tailored to specific country contexts and relative strengths of the audience in terms of M&E, economics, quantitative analysis, public health, and specific experience in HIV/AIDS programs. When all modules are delivered, the course takes 5 days; however, the course can easily be modified on the basis of the audience's needs and time constraints. A country counterpart may be assigned for capacity building and for assisting with group activities.

Additional information on this course can be obtained by contacting Lela Baughman (lela.n.baughman@macrointernational.com) or John Blandford (zbx1@cdc.gov).

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Introduction to Economic Evaluation: Course Module Descriptions	
Module	Focus
Module 1: Use and Methods in Public Health	<ul style="list-style-type: none"> ▪ Define economic evaluation ▪ Understand the role of economics in epidemiology and public health ▪ Review common economic evaluation approaches in public health ▪ Understand the use of economic evaluation in setting health policy
Module 2: Framing an Economic Evaluation	<ul style="list-style-type: none"> ▪ Learn how to define the problem to be analyzed and decide on a research strategy to analyze it ▪ Learn how to think systematically about the effect of study design questions on the final results
Module 3: Decision Analysis	<ul style="list-style-type: none"> ▪ Understand the purpose of decision analysis ▪ Construct a decision tree ▪ Evaluate and compare different policy/program choices when events and outcomes are uncertain
Module 4: Cost Analysis	<ul style="list-style-type: none"> ▪ Identify the types of costs that need to be counted in calculating the cost of a program ▪ Identify sources for cost data
Module 5: Cost-Effectiveness Analysis	<ul style="list-style-type: none"> ▪ Understand what different cost-effectiveness ratios measure and how to use them in making decisions ▪ Describe the information needed to conduct a cost-effectiveness analysis ▪ Calculate and interpret cost-effectiveness ratios in order to inform decision making
Module 6: Sensitivity Analysis	<ul style="list-style-type: none"> ▪ Understand how to use sensitivity analysis to assess how uncertainty in the data and model affects the results of economic evaluations ▪ Understand sources of uncertainty: parameters and model assumptions
Module 7: Cost-Utility Analysis	<ul style="list-style-type: none"> ▪ Understand what cost-utility analysis is and how it relates to cost-effectiveness ▪ Understand how quality of life is measured and incorporated into economic evaluations
Optional Module: Review of Test Characteristics: Sensitivity, Specificity, and Predictive Value	<ul style="list-style-type: none"> ▪ Understand and calculate sensitivity, specificity, predictive value positive, and predictive value negative ▪ Understand how and when they should be used in a decision analysis model
Optional Module: Multivariate Sensitivity Analysis	<ul style="list-style-type: none"> ▪ Understand the purpose and types of multivariate sensitivity analyses ▪ Understand how to use multivariate sensitivity analysis to assess how uncertainty affects the results of economic evaluations