# Cost-Effectiveness Analysis Training Course

Professional Development Training Course Outline

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|---|---|---|---|
| **Category** | Public Health | **Duration** | 5 Days |
| **Base Fee** | $1,500 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Cost-Effectiveness Analysis (CEA) has become a critical decision-support tool in modern health economics, public policy, program evaluation, and strategic investment planning. It enables organizations to systematically compare alternative interventions by assessing both their costs and outcomes, ensuring optimal allocation of limited resources. In an era driven by data-driven decision-making, value-based funding, and performance optimization, CEA empowers stakeholders to identify solutions that deliver the highest impact per unit cost.

Cost-Effectiveness Analysis Training Course provides a comprehensive foundation in advanced cost-effectiveness modeling, economic evaluation frameworks, and real-world application techniques. Participants will gain hands-on expertise in applying incremental cost-effectiveness ratios (ICER), decision trees, Markov models, and sensitivity analysis tools. Designed for professionals across healthcare, government, NGOs, and corporate sectors, the program emphasizes practical implementation, global best practices, and evidence-based policy design.

## Programme Curriculum

**Cost-Effectiveness Analysis Training Course**

**Introduction**

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**Course Duration**

5 days

**Course Objectives**

1. Understand core principles of health economics and cost-effectiveness evaluation
2. Apply Incremental Cost-Effectiveness Ratio (ICER) in decision-making
3. Build and interpret decision tree models for economic analysis
4. Develop Markov models for long-term outcome evaluation
5. Conduct sensitivity and uncertainty analysis techniques
6. Evaluate budget impact analysis for policy planning
7. Integrate QALYs (Quality-Adjusted Life Years) and DALYs metrics
8. Apply real-world evidence (RWE) in cost-effectiveness studies
9. Compare alternative interventions using value-for-money frameworks
10. Use software tools for health economic modeling and simulation
11. Interpret cost-utility and cost-benefit analysis results
12. Design evidence-based resource allocation strategies
13. Enhance data-driven policy formulation and optimization

**Target Audience**

1. Healthcare policy makers and analysts
2. Public health professionals
3. Pharmaceutical industry researchers
4. NGO program managers
5. Government planning officials
6. Health economists and statisticians
7. Data analysts in healthcare systems
8. Academic researchers and postgraduate students

**Course Modules**

**Module 1: Foundations of Cost-Effectiveness Analysis**

- Introduction to economic evaluation frameworks
- Types of cost analysis (CEA, CUA, CBA)
- Understanding opportunity cost in decision-making
- Role of CEA in healthcare systems
- Case Study: Comparing vaccination programs in low-income countries

**Module 2: Cost Measurement and Data Collection**

- Direct, indirect, and intangible cost classification
- Data sourcing techniques in healthcare economics
- Cost identification and valuation methods
- Inflation and currency adjustment models

- Case Study: Hospital treatment cost tracking system

**Module 3: Outcome Measurement and Health Metrics**

- QALY and DALY concepts explained
- Patient-reported outcome measures (PROMs)
- Utility measurement techniques
- Standardization of outcome indicators
- Case Study: Cancer treatment outcome evaluation

**Module 4: Decision Tree Modeling Techniques**

- Structure of decision tree analysis
- Probability assignment methods
- Expected value calculations
- Clinical pathway modeling
- Case Study: Antibiotic treatment strategy selection

**Module 5: Markov Modeling in Healthcare Economics**

- Health state transition modeling
- Cycle length and time horizon selection
- Absorbing and recurring states
- Discounting future costs and benefits
- Case Study: Chronic disease progression modeling (Diabetes)

**Module 6: Sensitivity & Uncertainty Analysis**

- Deterministic vs probabilistic sensitivity analysis
- Monte Carlo simulation techniques
- Scenario and threshold analysis
- Risk and variability assessment
- Case Study: Vaccine cost uncertainty modeling

**Module 7: Budget Impact & Policy Evaluation**

- Budget impact analysis framework
- Healthcare affordability assessment
- Policy simulation techniques
- Cost containment strategies
- Case Study: National drug reimbursement policy

**Module 8: Advanced Applications & Real-World Evidence**

- Integration of real-world data in CEA
- AI and machine learning in health economics
- Global health financing models
- Evidence-based decision dashboards
- Case Study: Digital health intervention evaluation

## 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.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 |

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **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**

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com