Advanced Pharmacoeconomics and Value Demonstration Training Course

Professional Development Training Course Outline

Category	Biotechnology and Pharmaceutical Development	**Duration**	10 Days
Base Fee	$4,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Pharmacoeconomics is the critical scientific discipline at the nexus of clinical efficacy and fiscal sustainability in modern healthcare. In an era of escalating drug costs, finite healthcare budgets, and increasing complexity of specialty medicines and personalized therapies, the ability to accurately assess and articulate the true value of a pharmaceutical intervention is no longer optional it's essential. This course moves beyond foundational principles to master advanced modeling techniques and strategic value demonstration, equipping professionals with the rigorous analytical skills needed to navigate the demanding landscape of Health Technology Assessment (HTA) and market access.

Advanced Pharmacoeconomics and Value Demonstration Training Course is meticulously designed for professionals seeking to lead Health Economics and Outcomes Research (HEOR) initiatives and successfully influence pricing and reimbursement decisions across global markets. We focus heavily on Real-World Evidence (RWE) integration, advanced statistical methodologies like Bayesian modeling, and the art of payer engagement. Participants will gain mastery in crafting robust value dossiers and presenting compelling, evidence-based value stories that secure formulary access and optimal pricing, thereby ensuring patient access to innovative therapies while promoting value-based healthcare on a global scale.

Programme Curriculum

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Course Objectives

1. Master the development and critique of complex Markov Models and Discrete-Event Simulation (DES) in pharmacoeconomics.
2. Evaluate the role of Real-World Evidence (RWE) in validating and calibrating economic models for HTA submissions.
3. Apply advanced statistical methods, including Probabilistic Sensitivity Analysis (PSA) and Bayesian methods, for uncertainty quantification.
4. Differentiate the requirements for successful Health Technology Assessment (HTA) submissions across key international jurisdictions
5. Develop robust value dossiers that effectively articulate the patient-centric value of specialty medicines.
6. Analyze the impact of budget impact analysis (BIA) on formulary decision-making and resource allocation.
7. Strategize for market access by aligning clinical data, economic evidence, and payer engagement strategies.
8. Incorporate measures of Health-Related Quality of Life (HRQoL) and utility measures (QALYs) into complex economic evaluations.
9. Utilize Machine Learning (ML) and AI techniques to identify and analyze novel health outcomes data.
10. Critique and adapt economic models for different societal perspectives and low- and middle-income country (LMIC) settings.
11. Formulate risk-sharing agreements and value-based contracting strategies using pharmacoeconomic principles.
12. Address the challenges of economic evaluation for gene therapies and other high-cost, disruptive technologies.
13. Communicate complex pharmacoeconomic results effectively to diverse non-HEOR stakeholders, including clinicians and C-suite executives.

Target Audience

1. Market Access and Reimbursement Managers.
2. Health Economists and Outcomes Researchers.
3. Pharmaceutical and Biotech Executives.

4. Medical Affairs & Medical Science Liaisons.
5. Government and Regulatory Officials.
6. Pricing Analysts and Strategy Consultants.
7. Clinical Development Team Members.
8. Academics and Researchers.

Course Modules

1. Advanced Decision Modeling

- Review of core Markov model structures.
- Discrete-Event Simulation.
- Handling time-dependent probabilities and long-term extrapolation.
- Incorporating competing risks and treatment discontinuation rules.
- Case Study: Building a DES model for a complex sequential treatment regimen in metastatic cancer.

2. Advanced Uncertainty and Sensitivity Analysis

- Implementation of Probabilistic Sensitivity Analysis (PSA) using diverse distributions
- Cost-Effectiveness Acceptability Curves (CEACs) and planes.
- Mastering the role of the Value of Information (VOI) analysis in research prioritization.
- Addressing parameter uncertainty and structural uncertainty.
- Case Study: PSA and VOI analysis on a model where key utility inputs have high uncertainty due to limited RWE.

3. Real-World Evidence (RWE) in Economic Modeling

- Sources and limitations of RWE.
- Advanced statistical techniques for RWE.
- Using RWE to validate and calibrate transitional probabilities in existing models.
- Addressing bias and confounding when integrating observational data.
- Case Study: Calibrating the progression rates of a chronic disease Markov model using large claims database data.

4. Advanced Health Technology Assessment (HTA) Methodologies

- In-depth comparison of HTA body requirements
- Understanding the role of Multi-Criteria Decision Analysis (MCDA) in decision-making.
- Strategies for responding to complex HTA body queries and appraisals.
- Handling issues of orphan drugs and ultra-high-cost therapies in HTA.
- Case Study: Critique of a NICE Final Appraisal Document (FAD) for a high-cost gene therapy.

5. Budget Impact Analysis (BIA) and Forecasting

- Developing a robust BIA model aligned with payer perspectives.
- Handling patient population dynamics, market share, and uptake assumptions.
- Advanced sensitivity analyses for key BIA drivers.
- Distinction and linkage between BIA and Cost-Effectiveness Analysis (CEA).
- Case Study: Creating a 5-year BIA for a new Hepatitis C therapy for a major public health payer.

6. Value Dossier and Evidence Synthesis

- Structure and components of a Global Value Dossier (GVD) and local adaptations.
- Best practices for conducting and reporting Systematic Literature Reviews (SLR) and Meta-Analyses.
- Synthesizing clinical, economic, and humanistic evidence into a cohesive narrative.
- Techniques for creating an effective Value Story for different stakeholders.
- Case Study: Drafting the economic section of a GVD for a new multiple sclerosis drug.

7. Health-Related Quality of Life (HRQoL) and Utility Measurement

- Selection and validation of preference-based measures
- Advanced methods for valuing health states
- Using Mapping to derive utility scores from non-preference-based instruments.
- Critique of QALY limitations and alternative outcomes measures.
- Case Study: Comparing utility scores derived via direct and mapping methods in a phase III trial data set.

8. Economic Evaluation of Diagnostics and Personalized Medicine

- Modeling the value of information from a diagnostic test
- Incorporating test performance and downstream treatment decisions into the model structure.
- Addressing small sample size and generalizability issues for personalized therapies.
- The concept of Dynamic Modeling in adaptive treatment strategies.
- Case Study: Economic evaluation of a pharmacogenomic test designed to guide anti-depressant selection.

9. Advanced Pricing and Reimbursement Strategies

- Understanding External Reference Pricing (ERP) and its impact on global strategy.
- Development of value-based pricing and dynamic pricing models.
- Negotiation tactics and communication in Payer Engagement meetings.
- The role of ICER thresholds and flexibility in price setting.
- Case Study: Developing a regional pricing strategy for a rare disease drug facing strict international reference pricing.

10. Value-Based Healthcare and Innovative Contracts

- Principles of Value-Based Healthcare (VBHC) and its translation to HEOR.
- Design and modeling of Risk-Sharing Agreements (RSAs)
- Legal and operational considerations for implementing innovative contracts.
- Measuring and reporting against agreed-upon Outcomes Metrics.
- Case Study: Designing a performance-based RSA for a new diabetes drug tied to HbA1c control and hospitalization rates.

11. Economic Evaluation for Public Health and Prevention

- Application of pharmacoeconomics to Vaccines and public health programs.
- Modeling Herd Immunity and indirect effects in cost-effectiveness studies.
- The appropriate perspective for public health interventions.
- Addressing equity and distributional concerns in economic modeling.
- Case Study: Modeling the long-term cost-effectiveness of a national flu vaccination program with varying coverage rates.

12. Use of AI and Big Data in HEOR

- Fundamentals of Machine Learning (ML) for predicting health outcomes and costs.
- Leveraging Natural Language Processing (NLP) for rapid evidence extraction from clinical notes.
- Ethical considerations and data privacy in Big Data HEOR.
- Synthetic data generation and its use in modeling.
- Case Study: Using a machine learning model to predict high-cost non-adherence patients from claims data.

13. Advanced Survival Analysis in HEOR

- Review of Kaplan-Meier and Cox Proportional Hazards models.
- Advanced Extrapolation Techniques
- Dealing with non-proportional hazards and treatment-switching adjustments.
- Best practices for justifying and selecting the final extrapolation function.
- Case Study: Selecting and justifying the long-term survival curve in a CEA for a new oncology therapy.

14. Communication and Visualization of Economic Results

- Best practices for presenting complex models to non-technical Payer Panels.
- Designing compelling visual aids for ICERs, CEACs, and BIAs.
- Techniques for creating a succinct, actionable executive summary.
- Adapting communication style for clinical, policy, and C-suite audiences.
- Case Study: Developing a 10-slide presentation to a national HTA committee to advocate for a positive recommendation.

15. The Global HEOR Landscape and Future Trends

- Emerging HTA trends in Asia-Pacific and Latin American markets.
- The growing emphasis on Patient-Reported Outcomes (PROs) in value assessment.
- Economic considerations for Digital Health Technologies and medical devices.
- Future of Personalized Value and dynamic reimbursement.
- Case Study: Analyzing the HTA submission requirements for a novel medical device in three distinct global markets

Training Methodology

The course employs an intensive, blended-learning approach focusing on practical application over purely theoretical review.

- Interactive Workshops.
- Case-Study Driven Learning.
- Expert-Led Discussions
- Value Dossier Development Project.
- Peer Review and Presentation.

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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