

HEIDELBERG

HEALTH ECONOMICS SUMMER SCHOOL

2019

Program Overview

1. **Introductory Sessions**
including interactive exercises and mini cases
2. **Comparative Economic Analyses**
for Health Technology Assessment (HTA), market access and reimbursement
3. **Modeling in Theory and Practice**
(workshop)
4. **State of the Art Lectures**
reviewing strengths and limitations of the conventional health economic evaluation paradigm, and discussing potential solutions
5. **Stakeholder Debate**
on implications for policy and potential ways forward

Scientific Program Committee

- Prof. Michael Schlander, Heidelberg (Chair)
- Prof. Jeffrey Richardson, Melbourne
- Prof. Wendelin Schramm, Heilbronn
- Dr. Karla Hernandez-Villafuerte, Heidelberg

DIVISION OF HEALTH ECONOMICS

Faculty

- Prof. Silvio Garattini,
IRCCS – Istituto di Ricerche Farmacologiche Mario Negri, Milan / Italy
- Dr. Oriol de Sola-Morales,
IISPV & Universitat Internacional Catalunya (UIC) – Barcelona / Spain
- Dr. Ansgar Hebborn,
Roche – Basel / Switzerland
- Dr. Karla Hernandez-Villafuerte,
DKFZ, Heidelberg / Germany
- Prof. Sören Holm,
Universities of Manchester / England and Oslo / Norway
- Dr. Mohit Jain,
BioMarin, San Rafael, CA / USA
- Prof. Maarten Postma,
University of Groningen / The Netherlands
- Prof. Gérard de Pouvourville,
ESSEC, Paris / France
- Prof. Jeffrey Richardson,
Monash University, Melbourne, Vic / Australia
- Prof. Michael Schlander,
DKFZ & University of Heidelberg / Germany
- Prof. Wendelin Schramm,
University of Heilbronn / Germany
- Prof. Adrian Towse,
Office of Health Economics (OHE), London / England

Venue and Date

Heidelberg, Studio Villa Bosch

July 01 – July 05, 2019

Objectives

A major branch of health economics is concerned with the study of how scarce healthcare resources are allocated among competing health care programs and, by implication, among different groups in society.

The Summer School introduces basic concepts and practical issues faced by health care decision makers in charge of allocating scarce resources. They often refer to health economists using tools such as cost effectiveness analysis (CEA) to inform these decisions.

Conventionally, CEA is designed to help achieving the maximum potential health benefit that can be achieved given a resource constraint or “scarcity”. Results of conventional CEAs may however contradict prevailing social norms and preferences. The Summer School will address the underlying issues, and leading scholars of health economics will be available to participants to discuss implications, potential solutions, and ways forward.

The Summer School will be comprised of three modules that will offer a comprehensive overview of principles and methods, which build upon each other but may also be booked separately.

Module A – Days 1 and 2

Participants may also enroll for this module as a stand-alone subject.

The first two days provides an introduction to the discipline of health economics. The first part of the seminar will present a broad understanding of the economics of health and health care and the bases of the analytical economics techniques that are normally applied to inform resource allocation decision and well as policy development in the health system. The seminar will cover key economic issues for the health system and uses economics techniques to understand how the health system operates.

This part of the Summer School will provide participants concerned with health care policy (e.g., payers, industry, policy makers, physicians, planners and others who are involved in different segments of the health care system) with an overview of the economics of health and health care.

DIVISION OF HEALTH ECONOMICS

It will enable them to apply established analytical economic skills to problems of resource allocation in the health system.

After the first two days participants should be able to:

1. understand and describe the principles of economic analysis in health care.
2. be familiarized with the concepts related to the identification, measure, valuation and analysis of health outcomes and costs.
3. recognize the health economics techniques used to inform resource allocation and priority setting in the health system.
4. appreciate the role of economic evaluation in healthcare
5. be able to identify the key elements relevant to the organization of health care system (e.g. provision and funding).

Module B – Day 3

Participants may also enroll for this module as a stand-alone subject.

The program will be based on a mix of introductory lecture presentations, interactive discussion sessions, and complementary case studies, practical exercises and simulations.

Module C – Days 4 and 5

Participants may also enroll for this module as a stand-alone subject.

Days 4 and 5 will be dedicated to an in-depth review of the strengths and limitations of the conventional logic of cost effectiveness, the need for broader or alternative concepts that capture citizens' social norms and preferences, and the search for such alternatives, presenting and discussing the current state of the art in theory and practice. Potential implications for cost value assessments of orphan medicinal products, gene and CAR-T cell therapies, and "personalized medicine" will be addressed by a group of international experts in Health Technology Assessment, evidence-based medicine, health economics, and medical ethics.

Program Outline

TOPIC	TIME	PRESENTER
1. Module A [Introductory Level]	July 1-3	
Day 1: Monday, July 1, 2019 [10:00am to 7:00pm]		
a. Welcome Reception and Registration	1 hour 10:00am- 11:00am	DKFZ Staff
b. Introduction to Program & Objectives	30 min 11:00am- 11:30am	M. Schlander
c. International Health Care Systems: Organization, Financing, Performance <ul style="list-style-type: none"> – Typology: Bismarck, Beveridge, and “market” style systems – Trends and convergence between “ideal” system types – Key Performance Indicators (inputs, structure / processes, outcomes) – Dynamics and Cost Drivers – Comparative Analysis of Systems (WHO and other studies) – Examples for discussion including United Kingdom, Germany , Spain/Italy, United States of America 	1 ½ hours 11:30am – 01:00pm	M. Schlander, R. Schäfer
Lunch Break	1 hour 01:00pm - 02:00pm	

DIVISION OF HEALTH ECONOMICS

<p>d. Fundamentals of Health Economics: Economics as a Way of Thinking</p> <ul style="list-style-type: none"> → Scarcity and Choices, Value, Utility, and Opportunity Cost, Marginal Analysis, Efficiency of Markets → What is Health Economics and Why Do We Need It? (including its origins in Welfare Theory and Decision Science / Operations Research – <i>Overview Only</i>) → Making Choices (Means and Ends, “Efficiency”) 	<p>1 ½ hours 2:00pm – 3:30pm</p>	<p>K. Hernandez-Villafuerte, J. Ubels</p>
<p>e. Group Exercise “The Kidney Machine” Allocation of Scarce Resources</p>	<p>1 hour 3:30pm-4:30pm</p>	<p>M. Schlander, K. Hernandez-Villafuerte, J. Ubels</p>
<p>Coffee Break</p>	<p>30 min 4:30pm – 5:00pm</p>	
<p>f. Value and Valuation in Health Economics</p> <ul style="list-style-type: none"> → Welfare Theory and Willingness-to-Pay (WTP); Allocative Efficiency → Extrawelfarism and Quality-Adjusted Life Years (QALYs); QALY Maximization → Preference-Based Measurement of Health-Related Quality of Life (HRQoL) → Preference-Based “Generic” HRQoL Measurement Instruments → Measurement Techniques: Standard Gamble (SG), Time-Trade-Off (TTO), Rating and Visual Analogue Scales (VAS) 	<p>1 ½ hours 5:00pm – 6:30pm</p>	<p>K. Hernandez-Villafuerte, J. Ubels</p>
<p>g. Exercise “Preference Measurement” Applying and Comparing SG, TTO and VAS</p>	<p>30 min 6:30pm – 7:00pm</p>	<p>K. Hernandez-Villafuerte, J. Ubels</p>

Day 2: Tuesday, July 2, 2019 [09:00am to 6:30pm]		
<p>a. Summary of Day 1</p> <ul style="list-style-type: none"> → Insights from “Preference Measurement” Exercise → What Have We Learnt on Day 1? 	<p>45 min 09:00am – 09:45am</p>	M. Schlander
<p>b. Costing in Theory & Practice</p> <ul style="list-style-type: none"> → Concept of Opportunity Cost → Identification of Costs <ul style="list-style-type: none"> → Types: Health care sector (formal / informal), non-health care sector, intangible → Perspectives: Health insurance, society and others → How to Measure and Valuate Resource Use and Output Adjusting → Guidelines and Recommendations → Cost Analyses in Practice 	<p>1 ½ hour 09:45am – 11:15am</p>	D. Hernandez, C-Y. Cheng
Coffee Break	<p>30 min 11:10am – 11:45am</p>	
<p>c. Group Exercise “Cost Analysis” Analyzing a Costing Study</p>	<p>1 ¼ hour 11:45am – 01:00pm</p>	D. Hernandez, C-Y. Cheng
Lunch Break	<p>1 hour 01:00pm – 02:00pm</p>	
<p>d. Cost Benefit Analysis in Practice</p> <ul style="list-style-type: none"> → Comparative Studies: Typology and Terminology → Perspectives of Analyses → Cost Benefit Analysis → Cost Effectiveness Analysis → Cost Consequence Analysis → Cost Utility Analysis 	<p>1 hour 02:00pm – 03:00pm</p>	T. Ran, C-Y. Cheng

DIVISION OF HEALTH ECONOMICS

<ul style="list-style-type: none"> – Incremental Cost Effectiveness Ratios and the Logic of Cost Effectiveness – Types of Sensitivity Analyses and Cost Effectiveness Acceptability Curves 		
<p>e. Mini Case Study: Analyzing the Cost Effectiveness of a Cancer Screening Program</p>	<p>1 hour 03:00pm – 04:00pm</p>	<p>T. Ran, C-Y. Cheng</p>
<p>Coffee Break</p>	<p>30 min 04:00pm – 04:30pm</p>	
<p>f. Economic Evaluation and HTA</p> <ul style="list-style-type: none"> – Health Technology Assessment (HTA): Principles and Practical Relevance – Decision Support for Health Care Policy Makers, Market Access and Reimbursement – Economic Analysis, Modeling Approaches, Acceptance, Limitations, and Use in HTAs 	<p>2 hours 04:30pm – 06:30pm</p>	<p>M. Schlander, R. Schäfer</p>

Note:

During the Summer School, we will present new research findings in a poster exhibition.

2. Module B [Intermediate Level]	July 03	
Day 3: Wednesday, July 3, 2019 [09:00am to 6:00pm]		
a. Technical Set-Up	30 min 09:00am - 09:30am	W. Schramm, M. Pobiruchin
b. Summary of Day 2	30 min 09:30am – 10:00am	M. Schlander
c. Theoretical Foundations of Models and Markov Methodology	1 hour 10:00am - 11:00am	W. Schramm, M. Pobiruchin
Coffee Break	15 min 11:00am – 11:15am	
d. Basic Techniques of spreadsheet software needed for building a model e. Implementing a three state model structure (norm state, temporary state and absorbing state) f. Building transition matrixes based on fixed probabilities (Markov chain) g. Implementing a half-cycle correction (several possibilities)	1 ¼ hours 11:15am – 12:30am	W. Schramm, M. Pobiruchin
Lunch Break	1 hour 12:30pm - 01:30pm	

DIVISION OF HEALTH ECONOMICS

<p>h. Including Cost; discounting and willingness-to-pay threshold</p> <p>i. Including quality-of-life factors for calculating QALYs</p> <p>j. Implementing a second comparator to the model</p> <p>k. How to expand from Markov chains to Markov processes (i.e. age and gender dependent mortality)</p>	<p>2 hours 01:30pm – 03:30pm</p>	<p>W. Schramm, M. Pobiruchin</p>
<p>Coffee Break</p>	<p>15 min 3:30pm – 3:45pm</p>	
<p>l. Designing and Reporting of key medical, economic and health-economic outcome parameters (cost-per-QALY-gained, net benefit calculations, etc.)</p> <p>m. Design and structure of a model-based health-economic study report or publication</p>	<p>2 hours 03:45pm – 05:45pm</p>	<p>W. Schramm, M. Pobiruchin</p>
<p>n. Wrap-Up of the Day</p>	<p>15 min 05:45pm – 06:00pm</p>	<p>W. Schramm, M. Schlander</p>

3. Module C [Intermediate / Advanced Level]	July 04-05	
Day 4: Thursday, July 4, 2019 [09:30am to 6:30pm]		
a. Welcome Reception and Registration	30 min 09:30am- 10:00am	
b. Introduction to Program & Objectives; Allocative Efficiency and Distribution	30 min 10:00am- 10:30am	M. Schlander
c. The Conventional Logic of Cost Effectiveness: A Critique (Part 1) <ul style="list-style-type: none"> → Theoretical Underpinnings, including von Neumann Morgenstern Theory → Efficiency and Equity: a simple trade-off? 	1 hour 10:30am- 11:30pm	J. Richardson
Coffee Break	30 min 11:30am- 12:00am	
d. The Conventional Logic of Cost Effectiveness: A Critique (Part 2) <ul style="list-style-type: none"> → Normative Analysis: Deontological and Consequentialist Ethics in Medicine, Economics, and Health Care Policy → What are “Social Preferences” (and when / why should they matter)? → Empirical versus normative ethics: How to reconcile? Some limitations 	1 hour 12:00am- 1:00pm	S. Holm
Lunch Break	1 hour 01:00pm - 02:00pm	

DIVISION OF HEALTH ECONOMICS

<p>e. The Search for Solutions (1): “Social Cost Value Analysis”</p>	<p>30 min 02:00pm – 02:30pm</p>	<p>M. Schlander</p>
<p>f. The Search for Solutions (2&3): Empirical Evidence</p> <ul style="list-style-type: none"> – The Measurement of Social Preferences – Discrete Choice Experiments (DCE): Social Willingness-to Pay (S-WTP) in Switzerland and United Kingdom – Relative Social Willingness-to-Pay (RS-WTP) Studies: Severity, Age, Responsibility, and Sharing – Meta-Ethics, revisited 	<p>1 ½ hours 02:30pm – 04:00pm</p>	<p>O. de Sola-Morales & J. Richardson</p>
<p>Coffee Break</p>	<p>30 min 04:00pm – 04:30pm</p>	
<p>g. The Search for Solutions (4&5):</p> <ul style="list-style-type: none"> – Multi-Criteria Decision Analysis – U.S. “Value Frameworks” – Extended Cost per QALY Analysis – Social Cost Value Analysis – Principles, Commonalities, Limitations – Discussion 	<p>1 ½ hours 04:30pm – 06:00pm</p>	<p>M. Postma & Discussion All / M. Schlander</p>
<p>Summer School Dinner</p>	<p>07:00pm - 10:00pm</p>	<p><i>Venue in the Old Town of Heidelberg will be communicated on site</i></p>

Day 5: Friday, July 5, 2019 [09:00am to 03:00pm]		
<p>a. Implications & Applications: Health Technology Assessment (HTA)</p> <p>Introduction to Case Studies for Discussion</p> <ul style="list-style-type: none"> – The “Value of a Cure” – evaluation of CAR T cell and gene therapies – Orphan Medicinal Products (OMPs): Evaluation of Expensive Drugs for Rare Diseases – Highly Effective Drugs for common diseases – the case of hepatitis C 	<p>30 min</p> <p>09:00am – 09:30am</p>	<p>A. Towse</p> <p>M. Jain</p> <p>M. Postma</p>
<p>b. Perspectives from Stakeholders on Case Studies (2)</p> <ul style="list-style-type: none"> – Italy (Pharmacology & HTA) & The Need for Robust Clinical Evidence – Switzerland (Biopharmaceutical Industry) – USA (Biopharmaceutical Industry) 	<p>2 hours</p> <p>09:30am – 11:30am</p>	<p>S. Garattini</p> <p>A. Hebborn</p> <p>M. Jain</p>
Coffee Break	<p>30 min</p> <p>11:30am - 12:00am</p>	
<p>c. Perspectives from Stakeholders on Case Studies (1)</p> <ul style="list-style-type: none"> – United Kingdom (Economics & HTA) – The Netherlands (Economics & HTA) – France (Economics & HTA) 	<p>1 ½ hours</p> <p>12:00am – 01:30am</p>	<p>A. Towse.</p> <p>M. Postma</p> <p>G. de Pourville</p>
<p>d. Summary, Review & Outlook</p>	<p>30 min</p> <p>01:30pm – 02:00pm</p>	<p>All /</p> <p>M. Schlander</p>

DIVISION OF HEALTH ECONOMICS

Lunch	1 hour 02:00pm – 03:00pm	
Special Interest Group Working Meeting: <i>Measuring Social Preferences / Research Needs & Strategies</i>	1 ½ hours 03:00pm – 04:30pm	<i>by invitation</i>

The present program may be subject to change and revision without special notice.

Heidelberg, June 26, 2019

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