A three day intensive computer based course in health economic evaluation.

25th – 27th November 2013
The University of Melbourne, Melbourne, Australia

More information:
health-economics@unimelb.edu.au or http://peu.unimelb.edu.au/
Overview
Economic evaluation is widely used to assess many new health care interventions and technologies and is routinely used to allocate scarce health care resources. The purpose of this course is to familiarise participants with the methods and techniques that are currently routinely used in evaluations with an emphasis on cost-effectiveness analysis. The course will cover the common steps in an evaluation, from methods for collecting cost and outcome data to analysing, reporting and interpreting the final results.

Who is this course designed for?
This course is designed for those who are or will be engaged in undertaking cost-effectiveness analysis, or for those who need a more detailed understanding of the current methods of health economic evaluation to assist in using the evidence from economic evaluations to inform resource allocation decisions. This will include researchers, consultants and those assessing economic evaluations from public, commercial and academic organisations. The course leaders, Professors Philip Clarke and Andrew Palmer have taught short courses on health economic evaluation for more than a dozen years and bring considerable expertise in undertaking health economic evaluations both in Australia and internationally. They have drawn on this experience and tailored the course to the issues facing health economists in this region. Other faculty include Dr Dennis Petrie, an economist with a strong background in econometrics and Dr Kim Dalziel who has extensive experience in health economic evaluation.

Prerequisites
There are no formal prerequisites, but participants should have an appreciation of the concepts of health economic evaluation and should be familiar with introductory statistics and Microsoft Excel. The one-day course, ‘Introduction to cost effectiveness analysis in health’ is recommended prior to undertaking this course for those who require an overview or refresher on the basics of health economic evaluation. If you wish to discuss your suitability for this course please contact health-economics@unimelb.edu.au.

Overview of the content
The course will be divided into 3 modules, that build on each other to provide an overview of all the steps required for health economic evaluation.

1. Study Design Principles
   - Overview of cost-effectiveness analysis
   - What health economic data need to be collected?
   - Summary of key data sources including: clinical trials; linked administrative data; synthesis of the literature.

2. Techniques for Analysing Outcomes and Costs
   - Quantifying outcomes using life tables and an overview of survival analysis techniques including Kaplan Meier, as well as parametric survival functions.
   - Capturing and analysing preference based measures of quality of life;
   - Using estimates of health care costs from the literature
   - Techniques for analysing health care cost data

   - Building a decision tree
   - Markov models; including defining transitions and rewards in terms of costs and utilities
   - Conducting cost-effectiveness analysis including modelling Quality Adjusted Life Years (QALYS) and costs
   - Capturing uncertainty and sensitivity analysis
   - Presenting and interpreting results for decision makers

Each module will be re-enforced by exercises in Excel and the specialist modelling software TreeAge. The exercises will cover:
   - Preparing data for analysis;
   - Life table and survival analysis;
   - Using published regression equations to inform evaluations;
   - Developing decision trees and Markov models in TreeAge.

Professor Philip Clarke
Centre for Health Policy, Programs & Economics, Melbourne School of Population and Global Health, University of Melbourne.
Bio: Philip Clarke has joined the School of Population and Global Health at the University of Melbourne following appointments at Oxford and Sydney Universities. He has been involved in conducting economic evaluations of a large number of clinical studies including the UKPDS, ADVANCE and FIELD studies. He developed the UKPDS Outcomes Model, a widely used individual level computer simulation model for predicting outcomes for patients with Type 2 diabetes and is currently working with Prof Palmer and other course faculty on a comparable model for Type 1 diabetes. He has over 65 peer review publications and has recently contributed to books on cost-effectiveness analysis and cost-benefit analysis published by Oxford University Press.

Professor Andrew Palmer
Head of Health Economics Research Unit, Menzies Research Institute Tasmania, University of Tasmania.
Bio: Andrew Palmer is the Founding Chair of Health Economics, Menzies Research Institute, University of Tasmania. Prior to entering academia, he was a health economics consultant at the Institute for Medical Informatics and Biostatistics, the Centre for Outcomes Research, and IMS Health, all based in Basel, Switzerland, where he provided expertise to international pharmaceutical industries, government and insurance sectors. Andrew led the development of the CORE Diabetes Model, one of the world’s most widely published health economics model that has been applied in over 50 successful reimbursement submissions globally. Andrew has used TreeAge software since 1995, and has taught TreeAge courses since 2002.

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