Health Economics by Distance Learning

Module 3

Introduction to Health Care Evaluation

Module Workbook

2016 - 2017 academic year

DEPARTMENT OF ECONOMICS AND RELATED STUDIES
CENTRE FOR HEALTH ECONOMICS
YORK HEALTH ECONOMICS CONSORTIUM
Module 1
Basic Economic Concepts

Module 2
Health Economics: Concepts and Analysis

Module 3
Introduction to Health Care Evaluation

Module 4
The Economics of Health Care Systems

Module 5
Statistics for Health Economics

Module 6
Further Topics in Economic Evaluation

Module 7
Assessing the Impact of Medical Technologies on Health

Module 8
Outcome Measurement and Valuation

Module 9
Decision Analysis for Health Technology Assessment

PG Certificate

PG Diploma

MSc
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Guide to Module 3

Learning aims and objectives

This is a Level 7(M) module and is compensatable in certain circumstances. Please refer to the Programme Handbook, section 4, for full details.

Learning aims

To introduce you to the basic concepts of clinical and economic evaluation of health care interventions.

Learning objectives

Upon successful completion of the module you should be able to:

- Explain the basic concept of what economic evaluation is and why it is necessary
- Describe the different normative perspectives used in economic evaluation in health care
- Set up a decision problem for an economic evaluation in health care
- Consider the opportunity costs of different decisions
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- Discuss the advantages and disadvantages of different ways of expressing the measures of the effect of an intervention (relative risk, odds ratio, risk ratio, the number needed to treat and differences in mean).
- Explain what is meant by sampling error and the reasons we derive confidence intervals of estimates of effect.
- Explain what is meant by a meta-analysis and its use in summarising the results of studies of similar interventions.
- Describe different types of study design and their strengths and weaknesses.
- Explain the differences between the various forms of economic evaluation.
- Consider the different outcomes used for different forms of economic evaluation.
- Calculate the quality-adjusted life years gained from a health care intervention.
- Explain the various methods for valuing health states.
- Explain the various methods for calculating willingness to pay.
- Identify which costs are relevant to a given economic evaluation.
- Explain how costs can be measured.
- Understand how to measure and value cost.
- Calculate appropriate ICERs from a set of mutually exclusive treatment options.
- Demonstrate understanding of other decision rules.
- Discuss the logic for discounting costs and consequences and perform a discounting calculation.
- Discuss the need for modelling.
• Undertake sensitivity analyses

• Undertake a critical appraisal

In addition to these, you should ensure you can meet the learning objectives outlined at the start of each unit.

Mike Drummond is the lead author of this workbook and of the book entitled "Methods for the economic evaluation of health care programmes". 4th edition. 2015, Oxford: Oxford University Press. As a result, a significant amount of material that is included in the workbook is drawn from this.

Credits, timing and assessed work

The module is worth **20 credits** and should take approximately **200 hours** to complete over **12 weeks** of study, including the module assessment (see below). The following is a guide to the amount of time you might spend on each unit, although you are of course free to fit your study time to your own circumstances.

• w/c 27/3/2017. Week 1. Familiarisation with Module 3, aims and objectives, introduction, Unit 3.1

• w/c 3/4/2017. Week 2. Unit 3.2 and relevant parts of the Statistical Appendix (from page 181).


• w/c 24/4/2017. Week 5. Unit 3.4

• w/c 1/5/2017. Week 6. Unit 3.5

• w/c 8/5/2017, 15/5/2017 and 22/5/2017. Weeks 7, 8 and 9. Unit 3.6
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Module 3 workshop (8/5/2017 and 9/5/2017).


Assessed work

The two pieces of assessed work to be submitted on or before the dates detailed above are as follows:

1. Piece 1: Module 3 Examination Paper (2015-16 Euro paper), Question 1


The above questions can be found on Yorkshare under the contents page.
Please note that programme staff are under no obligation to mark assessed work that is submitted late. This applies to all modules.
Module assessment

Please read the programme handbook carefully for the regulations regarding assessment and award at postgraduate certificate level.

On-line learning: Yorkshire

The module is supported by the Yorkshire virtual learning environment located at:

vle.york.ac.uk

You can access this using your username and password which are separately supplied. Exercises which should be discussed on Yorkshare are flagged in the text with the computer icon.

Reading

The main teaching materials are contained within this workbook. References to books and papers are noted in this workbook by the book icon. These may be ordered from the University of York’s library, or you might find them in your local UK Libraries Plus library. If you work in the NHS, your local professional librarian may prove helpful.

The following textbook is supplied to you to accompany your study:


It is not essential that you read this book cover-to-cover. However, the units contain reference to the relevant parts of this book to supplement the material contained in the module workbook.
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You are not expected to obtain a textbook for Units 3.2 and 3.3. However, if you do wish to explore this material in more detail the following text is one of the most comprehensive and useful:


Textbooks that cover material in Unit 3.3 include:


From time to time, especially for some of the statistical matters, reference is also made to Folland et al.:


References are also made to the following books:


Finally, there are three key papers that are referenced extensively, and you should obtain them prior to starting this module. The articles by Shepherd and Caro should be available as e-journals.

- **The clinical evaluations:**
  
  
  

- **The economic evaluation:**
  
  
  [www.bmj.com/content/315/7122/1577](http://www.bmj.com/content/315/7122/1577)

Reading that is strongly recommended is marked with a *.

**Critical appraisal**

Throughout the module, you will be asked to discuss aspects of a published economic evaluation. These aspects are specific to the material covered in each unit and are based on the critical appraisal checklist by Drummond *et al*, reproduced on page 162 and discussed in detail in Unit 3.6. The objective is to help relate each of the units to the conduct and critical appraisal of an economic evaluation. The published economic evaluation is the study used in the exam of the previous year: Edlin R, Tubeuf S, Achten J, Parsons N, Costa M. Cost-effectiveness of total hip arthroplasty versus resurfacing arthroplasty: economic evaluation alongside a clinical trial. *BMJ Open* 2012. doi:10.1136/bmjopen-2012-001162.