Contents

List of abbreviations xii

1	Intro	duction to economic evaluation 1				
	1.1	Some basics 1				
	1.2	Why is economic evaluation important? 2				
	1.3	The features of economic evaluation 3				
	1.4	Do all economic evaluations use the same techniques? 5				
	1.5	Use of economic evaluation in health care decision-making 1.				
	1.6	How to use this book 13				
2	Making decisions in health care 19					
	2.1	Some basics 19				
	2.2	Informing health care choices 19				
	2.3	Requirements for economic evaluation 22				
	2.4	What is the purpose of health care interventions? 27				
	2.5	Concluding remarks 37				
3	Critic	cal assessment of economic evaluation 41				
	3.1	Some basics 41				
	3.2	Elements of a sound economic evaluation 41				
	3.3	Reporting guidelines for economic evaluation 61				
	3.4	Limitations of economic evaluation techniques 63				
	3.5	Conclusions 64				
	3.6	Critical appraisal of published articles 65				
4	Principles of economic evaluation 77					
	4.1	Alternatives, costs, and benefits: some basics 77				
	4.2	Making decisions about health care 79				
	4.3	The cost-effectiveness threshold 83				
	4.4	Making decisions with multiple alternatives 98				
	4.5	Some methodological implications 106				
	4.6	Concluding remarks 116				
5	Meas	uring and valuing effects: health gain 123				
	5.1	Some basics 123				
	5.2	Using health effects in economic evaluation 124				

5.3 Measuring preferences for health states 133

- 5.4 Methods for measuring preferences 136
- 5.5 Multi-attribute health status classification systems with preference scores 144
- 5.6 Mapping between non-preference-based measures of health and generic preference-based measures 162
- 5.7 Whose values should be used to value health states? 164
- 5.8 Criticisms of QALYs 166
- 5.9 Further reading 170

6 Measuring and valuing effects: consumption benefits of health care 181

- 6.1 Some basics 181
- 6.2 Assigning money values to the outcomes of health care programmes 182
- 6.3 What might we mean by willingness to pay (WTP)? 187
- 6.4 Pragmatic measurement issues in willingness to pay (WTP) 194
- 6.5 Exercise: designing a willingness-to-pay (WTP) survey for a new treatment for ovarian cancer 197
- 6.6 Other stated preference approaches: discrete choice experiments (DCEs) 199
- 6.7 Valuation of health effects for health policy decisions 206
- 6.8 Further reading 211

7 Cost analysis 219

- 7.1 Some basics 219
- 7.2 Allowance for differential timing of costs (discounting and the annuitization of capital expenditures) 241
- 7.3 Productivity changes 245
- 7.4 Exercise: costing alternative radiotherapy treatments 250
- 7.5 Concluding remarks 255
- Annex 7.1 Tutorial on methods of measuring and valuing capital costs 258 Annex 7.2 Discount tables 262

8 Using clinical studies as vehicles for economic evaluation 267

- 8.1 Introduction to vehicles for economic evaluation 267
- 8.2 Alternative vehicles for economic evaluation 267
- 8.3 Analytical issues with individual patient data 288
- 8.4 Conclusions 305
- 8.5 Exercise 306

9 Economic evaluation using decision-analytic modelling 311

- 9.1 Some basics 311
- 9.2 The role of decision-analytic models for economic evaluation 312
- 9.3 Key elements of decision-analytic modelling 323

9.4	Stages in	the develop	pment of a	decision-	analytic	model	325
2.1	otages in	t tile de velo	official of a	accioion	unding the	mout	UL

- 9.5 Critical appraisal of decision-analytic models 338
- 9.6 Conclusions 339
- 9.7 Exercise: developing a decision-analytic model 339

Annex 9.1 Checklist for assessing quality in decision-analytic models 345

10 Identifying, synthesizing, and analysing evidence for economic evaluation 353

- 10.1 Introduction to evidence in economic evaluation 353
- 10.2 Defining relevant evidence 353
- 10.3 Identifying and reviewing evidence 354
- 10.4 Synthesizing evidence 359
- 10.5 Estimating other parameters for economic evaluation 370
- 10.6 Conclusions 384
- 10.7 Exercise 384

11 Characterizing, reporting, and interpreting uncertainty 389

- 11.1 Some basics 389
- 11.2 Characterizing uncertainty 392
- 11.3 Is current evidence sufficient? 409
- 11.4 Implications for approval and research decisions 417
- 11.5 Uncertainty, heterogeneity, and individualized care 421
- 11.6 Concluding remarks 422

12 How to take matters further 427

- 12.1 Taking matters further 427
- 12.2 Further reading and key sources of literature 427
- 12.3 Planning and undertaking an economic evaluation 427
- 12.4 Expanding your network in economic evaluation 428
- 12.5 Looking to the future 429

Author index 431

Subject index 437