

Contents

Part I Applications of Health Policy Modeling

1 Public Health Modeling at the Centers for Disease Control and Prevention	3
Arielle Lasry, Michael L. Washington, Hannah K. Smalley, Faramroze Engineer, Pinar Keskinocak, and Larry Pickering	
2 OR in Public Health: A Little Help Can Go a Long Way	17
Margaret L. Brandeau	

Part II Health Policy and Operations

3 Analytical Long-Term Care Capacity Planning	39
Yue Zhang and Martin L. Puterman	
4 Managing Community-based Care for Chronic Diseases: The Quantitative Approach	71
Beste Kucukyazici and Vedat Verter	
5 Project Management Approach to Implement Clinical Pathways: An Example for Thyroidectomy	91
Yasar A. Ozcan, Elena Tãnfani, and Angela Testi	
6 EMS Planning and Management	105
Armann Ingolfsson	
7 Impact of Inpatient Reimbursement Systems on Hospital Performance: The Austrian Case-Based Payment Strategy	129
Marion S. Rauner and Michaela M. Schaffhauser-Linzatti	

Part III HIV Policy Models

- 8 Assessing Prevention for Positives: Cost-Utility
Assessment of Behavioral Interventions for
Reducing HIV Transmission** 157
Sada Soorapanth and Stephen E. Chick
- 9 Modeling the Impact of New HIV Prevention
Technologies in Sub-Saharan Africa** 179
John Stover, Carel Pretorius, and Kyeen Andersson
- 10 REACH: A Practical HIV Resource Allocation Tool
for Decision Makers** 201
Sabina S. Alistar, Margaret L. Brandeau, and Eduard J. Beck
- 11 Review of Operations Research Tools and
Techniques Used for Influenza Pandemic Planning** 225
David W. Hutton

Part IV Pharmaceutical Policy

- 12 Active Vaccine and Drug Surveillance: Towards a 100
Million Member System** 251
Margrét V. Bjarnadóttir and David Czerwinski
- 13 Application of Operations Research to Funding
Decisions for Treatments with Rare Disease** 281
Doug Coyle, Chaim M. Bell, Joe T.R. Clarke,
Gerald Evans, Anita Gadhok, Janet Martin,
Mona Sabharwal, and Eric Winquist
- 14 Modeling Risk Sharing Agreements and Patient
Access Schemes** 295
Gregory S. Zaric, Hui Zhang, and Reza Mahjoub

Part V Building Health Policy Models

- 15 Considerations for Developing Applied Health
Policy Models: The Example of HIV Treatment
Expansion in Resource-Limited Settings** 313
April D. Kimmel and Bruce R. Schackman
- 16 Cost-Effectiveness Analysis Using Registry
and Administrative Data** 341
Malek B. Hannouf and Gregory S. Zaric

Part VI Working with Policy Makers

**17 Evaluating Health Care Policy Decisions:
Canadian Blood Services in Atlantic Canada 365**
John Blake, Michelle Rogerson, and Dorothy Harris

**18 Improving the Efficiency of Cost-effectiveness
Analysis to Inform Policy Decisions in the Real
World: Lessons from the Pharmacoeconomics
Research Unit at Cancer Care Ontario 399**
Jeffrey S. Hoch

Index 417