

# DETAILED CONTENTS

*Preface to the Third Edition* ..... xv

|   |           |
|---|-----------|
| <b>Chapter 1.</b> Why Health Economics? .....                   | <b>1</b>  |
| 1.1 Why Health Economics?.....                                  | 1         |
| 1.2 Economics as a Map for Decision Making .....                | 2         |
| 1.3 Special Challenges for Healthcare Managers .....            | 4         |
| 1.3.1 Risk and Uncertainty.....                                 | 4         |
| 1.3.2 Insurance .....   | 5         |
| 1.3.3 Information Asymmetries .....                             | 5         |
| 1.3.4 Not-for-Profit Organizations .....                        | 6         |
| 1.3.5 Technological and Institutional Change.....               | 6         |
| 1.4 Turmoil in the Healthcare System .....                      | 8         |
| 1.4.1 The Pressure to Reduce Costs .....                        | 9         |
| 1.4.2 The Fragmentation of Healthcare Payments .....            | 10        |
| 1.5 What Does Economics Study? .....                            | 11        |
| 1.6 Conclusion .....  | 14        |
| <b>Chapter 2.</b> An Overview of the US Healthcare System ..... | <b>17</b> |
| 2.1 Input and Output Views of Healthcare.....                   | 17        |
| 2.1.1 The Input View.....                                       | 18        |
| 2.1.2 The Output View.....                                      | 20        |
| 2.2 Health Outcomes .....                                       | 20        |
| 2.3 Outputs of the Healthcare System .....                      | 22        |
| 2.3.1 Why Is How Much We Spend on Healthcare Interesting? ..... | 22        |
| 2.3.2 The Shifting Pattern of Healthcare Spending.....          | 26        |
| 2.4 Disruptive Change in the Healthcare System .....            | 27        |
| 2.4.1 Rapid Technological Change .....                          | 29        |
| 2.4.2 Major Features of the Affordable Care Act .....           | 31        |

|  |           |
|--|-----------|
| 2.4.3 The Transformation of the Health Insurance Industry .....        | 32        |
| 2.5 Conclusion .....   | 33        |
| <b>Chapter 3.</b> An Overview of the Healthcare Financing System ..... | <b>37</b> |
| 3.1 Introduction.....  | 37        |
| 3.1.1 Paying for Medical Care .....                                    | 37        |
| 3.1.2 Indirect Spending.....   | 38        |
| 3.1.3 The Uninsured.....   | 40        |
| 3.2 What Is Insurance, and Why Is It So Prevalent?.....                | 41        |
| 3.2.1 What Insurance Does .....  | 41        |
| 3.2.2 Adverse Selection and Moral Hazard.....                          | 41        |
| 3.2.3 Medicare as an Example of Complexity .....                       | 44        |
| 3.3 The Changing Nature of Health Insurance.....                       | 45        |
| 3.4 Payment Systems .....  | 50        |
| 3.5 Conclusion .....   | 52        |
| <b>Chapter 4.</b> Describing, Evaluating, and Managing Risk.....       | <b>57</b> |
| 4.1 Introduction.....  | 57        |
| 4.2 Describing Potential Outcomes .....                                | 58        |
| 4.3 Evaluating Outcomes .....  | 60        |
| 4.3.1 Risk Preferences .....   | 65        |
| 4.3.2 Decision Analysis.....   | 66        |
| 4.3.3 Sensitivity Analysis.....  | 67        |
| 4.4 Managing Risk .....  | 67        |
| 4.4.1 Risk Sharing .....   | 67        |
| 4.4.2 Diversification .....  | 68        |
| 4.5 Conclusion .....   | 70        |
| <b>Chapter 5.</b> Understanding Costs.....                             | <b>73</b> |
| 5.1 Introduction.....  | 74        |
| 5.2 Cost Perspectives.....   | 76        |
| 5.3 Vocabulary .....   | 78        |
| 5.4 Factors That Influence Costs .....                                 | 79        |
| 5.4.1 Outputs.....   | 79        |
| 5.4.2 Input Costs .....  | 81        |

|  |            |
|--|------------|
| 5.4.3 Technology .....   | 82         |
| 5.4.4 Efficiency .....   | 82         |
| 5.5 Variable and Fixed Costs.....                                  | 82         |
| 5.6 Conclusion .....   | 85         |
| <b>Chapter 6.</b> Bending the Cost Curve.....                      | <b>89</b>  |
| 6.1 The Triple Aim.....  | 90         |
| 6.2 Reducing Costs .....   | 91         |
| 6.3 Innovations to Reduce the Cost of Care.....                    | 94         |
| 6.3.1 Innovations to Reduce the Cost of Care:<br>New Jersey .....  | 94         |
| 6.3.2 Innovations to Reduce the Cost of Care:<br>Missouri .....    | 96         |
| 6.3.3 Innovations to Reduce the Cost of Care:<br>California .....  | 99         |
| 6.4 Conclusion .....   | 101        |
| <b>Chapter 7.</b> The Demand for Healthcare Products.....          | <b>109</b> |
| 7.1 Introduction.....  | 110        |
| 7.1.1 Rationing .....  | 110        |
| 7.1.2 Indirect Payments and Insurance .....                        | 111        |
| 7.2 Why Demand for Healthcare Is Complex .....                     | 112        |
| 7.3 Demand Without Insurance and<br>Healthcare Professionals ..... | 113        |
| 7.3.1 Changes in Price .....                                       | 113        |
| 7.3.2 Factors Other Than Price .....                               | 115        |
| 7.4 Demand with Insurance.....                                     | 118        |
| 7.5 Demand with Advice from Providers .....                        | 119        |
| 7.6 Conclusion .....   | 121        |
| <b>Chapter 8.</b> Elasticities .....                               | <b>127</b> |
| 8.1 Introduction.....  | 128        |
| 8.2 Elasticities .....   | 128        |
| 8.3 Income Elasticities.....                                       | 129        |
| 8.4 Price Elasticities of Demand .....                             | 130        |
| 8.5 Using Elasticities .....                                       | 132        |
| 8.6 Conclusion .....   | 135        |

|                    |   |     |
|--------------------|---|-----|
| <b>Chapter 9.</b>  | Forecasting.....  | 139 |
| 9.1                | Introduction.....   | 139 |
| 9.2                | What Is a Sales Forecast? .....                             | 140 |
| 9.3                | Forecasting.....  | 143 |
| 9.4                | What Matters? .....   | 148 |
| 9.5                | Conclusion.....   | 150 |
| <b>Chapter 10.</b> | Supply and Demand Analysis.....                             | 155 |
| 10.1               | Introduction.....   | 156 |
| 10.1.1             | Supply Curves .....   | 156 |
| 10.1.2             | Demand Curves .....   | 157 |
| 10.1.3             | Equilibrium.....  | 157 |
| 10.1.4             | Professional Advice and<br>Imperfect Competition.....       | 158 |
| 10.2               | Demand and Supply Shifts.....                               | 158 |
| 10.2.1             | A Shift in Demand .....                                     | 160 |
| 10.2.2             | A Shift in Supply .....                                     | 160 |
| 10.3               | Shortage and Surplus.....                                   | 162 |
| 10.4               | Analyses of Multiple Markets .....                          | 164 |
| 10.5               | Conclusion .....  | 165 |
| <b>Chapter 11.</b> | Maximizing Profits.....                                     | 171 |
| 11.1               | Introduction.....   | 171 |
| 11.2               | Cutting Costs to Increase Profits .....                     | 172 |
| 11.2.1             | Cost Reduction Through Improved Clinical<br>Management..... | 174 |
| 11.2.2             | Reengineering.....  | 175 |
| 11.3               | Maximizing Profits .....                                    | 175 |
| 11.4               | Return on Investment .....                                  | 177 |
| 11.5               | Producing to Stock or to Order.....                         | 178 |
| 11.6               | Not-for-Profit Organizations .....                          | 179 |
| 11.6.1             | Agency Problems.....  | 179 |
| 11.6.2             | Differences in Goals .....                                  | 179 |
| 11.6.3             | Differences in Costs .....                                  | 180 |
| 11.7               | Conclusion .....  | 180 |

|                    |   |     |
|--------------------|---|-----|
| <b>Chapter 12.</b> | Pricing .....   | 187 |
| 12.1               | Introduction.....   | 187 |
| 12.2               | The Economic Model of Pricing.....                              | 188 |
| 12.3               | Pricing and Profits.....  | 189 |
| 12.4               | Price Discrimination .....                                      | 191 |
| 12.5               | Multipart Pricing.....  | 194 |
| 12.6               | Pricing and Managed Care .....                                  | 195 |
| 12.7               | Conclusion .....  | 197 |
| <b>Chapter 13.</b> | Asymmetric Information and Incentives .....                     | 201 |
| 13.1               | Asymmetric Information.....                                     | 201 |
| 13.2               | Opportunism.....  | 202 |
| 13.2.1             | Remedies for Asymmetric Information .....                       | 203 |
| 13.2.2             | The Special Challenges for Healthcare.....                      | 203 |
| 13.2.3             | Signaling .....   | 204 |
| 13.3               | Incentive Design for Providers.....                             | 204 |
| 13.4               | Insurance and Incentives .....                                  | 208 |
| 13.5               | Limits on Incentive-Based Payments.....                         | 209 |
| 13.5.1             | Risk.....   | 209 |
| 13.5.2             | Complexity.....   | 209 |
| 13.5.3             | Opportunism .....   | 210 |
| 13.5.4             | Team Production .....   | 210 |
| 13.6               | Incentive Design for Managers .....                             | 210 |
| 13.7               | Conclusion .....  | 214 |
| <b>Chapter 14.</b> | Economic Analysis of Clinical and Managerial Interventions..... | 219 |
| 14.1               | Introduction.....   | 219 |
| 14.2               | Cost Analysis .....   | 221 |
| 14.2.1             | Identifying Cost Perspective .....                              | 221 |
| 14.2.2             | Identifying Resources and Opportunity Costs .....               | 222 |
| 14.2.3             | Direct and Indirect Costs .....                                 | 222 |
| 14.3               | Types of Analysis .....   | 223 |
| 14.4               | Cost-Minimization Analysis .....                                | 225 |

|   |            |
|---|------------|
| 14.5 Cost-Effectiveness Analysis .....                                | 226        |
| 14.6 Cost-Benefit Analysis .....                                      | 227        |
| 14.7 Cost-Utility Analysis .....                                      | 229        |
| 14.8 Conclusion .....   | 233        |
| <b>Chapter 15.</b> Profits, Market Structure, and Market Power .....  | <b>237</b> |
| 15.1 Introduction.....  | 237        |
| 15.2 Rivalry Among Existing Firms .....                               | 238        |
| 15.3 Customers' Bargaining Power.....                                 | 241        |
| 15.4 Entry by Potential Rivals .....                                  | 241        |
| 15.5 Market Structure and Markups .....                               | 242        |
| 15.5.1 Markups.....   | 243        |
| 15.5.2 The Impact of Market Structure<br>on Markups .....             | 244        |
| 15.6 Market Power and Profits .....                                   | 245        |
| 15.6.1 Collusion .....  | 245        |
| 15.6.2 Product Differentiation and Advertising .....                  | 247        |
| 15.7 Conclusion .....   | 251        |
| <b>Chapter 16.</b> Government Intervention in Healthcare Markets..... | <b>255</b> |
| 16.1 Government Intervention in Healthcare .....                      | 255        |
| 16.1.1 On the Virtues of Markets.....                                 | 256        |
| 16.1.2 Information Processing .....                                   | 256        |
| 16.1.3 Static Resource Allocation .....                               | 258        |
| 16.1.4 Dynamic Resource Allocation.....                               | 258        |
| 16.2 Market Failure .....   | 259        |
| 16.2.1 Externalities .....  | 259        |
| 16.2.2 Public Goods .....   | 261        |
| 16.2.3 Imperfect Competition.....                                     | 264        |
| 16.2.4 Imperfect Information and<br>Incomplete Markets .....          | 264        |
| 16.2.5 Natural Monopoly.....  | 266        |
| 16.2.6 Income Redistribution.....                                     | 267        |
| 16.3 Remedies.....  | 267        |
| 16.3.1 Assignment of Property Rights.....                             | 267        |
| 16.3.2 Taxes and Subsidies .....                                      | 268        |

|  |            |
|--|------------|
| 16.3.3 Public Production .....                           | 269        |
| 16.3.4 Regulation .....                                  | 270        |
| 16.4 Conclusion .....                                    | 270        |
| <b>Chapter 17.</b> Regulation .....                      | <b>275</b> |
| 17.1 Introduction.....                                   | 275        |
| 17.2 Market Imperfections .....                          | 276        |
| 17.2.1 Insurance .....                                   | 277        |
| 17.2.2 Market Power.....                                 | 277        |
| 17.2.3 Externalities .....                               | 277        |
| 17.3 Rational Consumer Ignorance .....                   | 278        |
| 17.4 The Interest Group Model of Regulation .....        | 279        |
| 17.4.1 Limiting Competition .....                        | 280        |
| 17.4.2 Licensure.....                                    | 280        |
| 17.4.3 Regulation as a Competitive Strategy .....        | 282        |
| 17.5 Regulatory Imperfections .....                      | 282        |
| 17.6 Market Responses to Market Imperfections .....      | 284        |
| 17.6.1 Tort Law and Contract Law .....                   | 284        |
| 17.6.2 Information Dissemination.....                    | 285        |
| 17.6.3 Contracts .....                                   | 285        |
| 17.7 Implications for Managers .....                     | 287        |
| 17.8 Conclusion .....                                    | 288        |
| <b>Chapter 18.</b> Behavioral Economics .....            | <b>291</b> |
| 18.1 Introduction.....                                   | 291        |
| 18.2 Inconsistent Preferences .....                      | 293        |
| 18.3 Risk Preferences .....                              | 295        |
| 18.4 Incorrect Beliefs .....                             | 297        |
| 18.5 Representativeness and the Law of Small Numbers.... | 299        |
| 18.6 Inconsistent Decision Making: Framing.....          | 300        |
| 18.7 Conclusion .....                                    | 301        |
| <i>Glossary</i> .....                                    | 307        |
| <i>Index</i> .....                                       | 315        |
| <i>About the Author</i> .....                            | 333        |