



FOURTH EDITION

ECONOMICS *for*
HEALTHCARE
MANAGERS

ROBERT H. LEE

ECONOMICS *for*

HEALTHCARE

MANAGERS

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AUPHA

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BRIEF CONTENTS

<i>List of Cases</i>	xv
<i>Preface to the Fourth Edition</i>	xvii
Chapter 1. Why Health Economics?	1
Chapter 2. An Overview of the US Healthcare System	17
Chapter 3. An Overview of the Healthcare Financing System	37
Chapter 4. Describing, Evaluating, and Managing Risk.....	55
Chapter 5. Understanding Costs.....	73
Chapter 6. Realizing the Triple Aim	89
Chapter 7. The Demand for Healthcare Products.....	109
Chapter 8. Elasticities	125
Chapter 9. Forecasting.....	137
Chapter 10. Supply and Demand Analysis.....	153
Chapter 11. Maximizing Profits.....	169
Chapter 12. Pricing	185
Chapter 13. Asymmetric Information and Incentives	199
Chapter 14. Economic Analysis of Clinical and Managerial Interventions.....	219
Chapter 15. Profits, Market Structure, and Market Power	237
Chapter 16. Government Intervention in Healthcare Markets	257
Chapter 17. Regulation	277
Chapter 18. Behavioral Economics	293
<i>Answers to Select Chapter Exercises</i>	309
<i>Glossary</i>	313
<i>Index</i>	323
<i>About the Author</i>	341

DETAILED CONTENTS

<i>List of Cases</i>	xv
<i>Preface to the Fourth Edition</i>	xvii
Chapter 1. Why Health Economics?	1
1.1 Why Health Economics?	1
1.2 Economics as a Map for Decision Making	2
1.3 Special Challenges for Healthcare Managers	3
1.3.1 Risk and Uncertainty	4
1.3.2 Insurance	4
1.3.3 Information Asymmetries	5
1.3.4 Not-for-Profit Organizations	5
1.3.5 Technological and Institutional Change	6
1.4 Turmoil in the Healthcare System	6
1.4.1 The Pressure to Reduce Costs	7
1.4.2 The Fragmentation of Healthcare Payments	8
1.5 What Does Economics Study?	9
1.6 Conclusion	13
Exercises	13
References	15
Chapter 2. An Overview of the US Healthcare System	17
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 Why Is Healthcare Spending Rising More Slowly Than Anticipated?	22
2.4 The Shifting Pattern of Healthcare Spending	25
2.5 Disruptive Change in the Healthcare System	27
2.5.1 Rapid Technological Change	28

	2.5.2 Major Features of the Affordable Care Act.....	30
	2.5.3 The Transformation of the Health Insurance Industry	31
	2.6 Conclusion.....	32
	Exercises	32
	References.....	34
Chapter 3.	An Overview of the Healthcare Financing System	37
	3.1 Introduction	37
	3.1.1 Paying for Medical Care.....	37
	3.1.2 Direct Spending.....	38
	3.1.3 Sources of Insurance	39
	3.1.4 The Uninsured.....	39
	3.2 What Is Insurance, and Why Is It So Prevalent?	40
	3.2.1 What Insurance Does.....	40
	3.2.2 Adverse Selection and Moral Hazard.....	41
	3.2.3 Medicare as an Example of Complexity.....	42
	3.3 The Changing Nature of Health Insurance	44
	3.4 Payment Systems.....	48
	3.5 Conclusion.....	51
	Exercises	51
	References.....	52
Chapter 4.	Describing, Evaluating, and Managing Risk.....	55
	4.1 Introduction	55
	4.2 Describing Potential Outcomes.....	56
	4.3 Evaluating Outcomes	58
	4.3.1 Expected Values	58
	4.3.2 Outcome Variation.....	60
	4.3.3 Risk Preferences	62
	4.3.4 Decision Analysis	63
	4.3.5 Sensitivity Analysis	63
	4.3.6 Scenario Analysis.....	64
	4.4 Managing Risk.....	64
	4.4.1 Risk Sharing.....	64
	4.4.2 Diversification	65
	4.5 Conclusion.....	67
	Exercises	68
	References.....	71

Chapter 5.	Understanding Costs.....	73
	5.1 Understanding Costs.....	73
	5.2 Cost Perspectives	74
	5.3 Vocabulary	77
	5.4 Factors That Influence Costs.....	79
	5.4.1 Outputs	79
	5.4.2 Input Costs.....	81
	5.4.3 Technology.....	81
	5.4.4 Efficiency.....	81
	5.5 Variable and Fixed Costs	82
	5.6 Conclusion.....	85
	Exercises	85
	References.....	87
Chapter 6.	Realizing the Triple Aim	89
	6.1 What Is the Triple Aim?	89
	6.1.1 Accountable Care Organizations	90
	6.1.2 Bundled Payments	91
	6.1.3 Patient-Centered Medical Homes	91
	6.1.4 Value-Based Insurance Designs	93
	6.2 Improving the Experience of Care	96
	6.3 Improving Population Health	97
	6.3.1 What Is Population Health?	97
	6.3.2 What Are Modifiable Social Determinants of Health?.....	98
	6.4 Reducing Cost per Capita	98
	6.5 Conclusion.....	101
	Exercises	102
	References.....	103
Chapter 7.	The Demand for Healthcare Products.....	109
	7.1 Introduction	109
	7.1.1 Rationing.....	110
	7.1.2 Indirect Payments and Insurance.....	111
	7.2 Why Demand for Healthcare Is Complex.....	111
	7.3 Demand Without Insurance and Healthcare Professionals.....	112
	7.3.1 Changes in Price	112
	7.3.2 Factors Other Than Price.....	114
	7.4 Demand with Insurance	115

	7.5 Demand with Advice from Providers	118
	7.6 Conclusion.....	120
	Exercises	121
	References.....	123
Chapter 8.	Elasticities	125
	8.1 Introduction	125
	8.2 Elasticities	126
	8.3 Income Elasticities	127
	8.4 Price Elasticities of Demand.....	127
	8.5 Other Elasticities.....	130
	8.6 Using Elasticities.....	130
	8.7 Conclusion.....	132
	Exercises	133
	References.....	134
Chapter 9.	Forecasting.....	137
	9.1 Introduction	137
	9.2 What Is a Sales Forecast?.....	138
	9.3 Forecasting	140
	9.4 What Matters?.....	145
	9.5 Conclusion.....	148
	Exercises	149
	References.....	152
Chapter 10.	Supply and Demand Analysis.....	153
	10.1 Introduction	153
	10.1.1 Supply Curves.....	154
	10.1.2 Demand Curves.....	155
	10.1.3 Equilibrium.....	155
	10.1.4 Professional Advice and Imperfect Competition.....	155
	10.2 Demand and Supply Shifts	156
	10.2.1 A Shift in Demand.....	158
	10.2.2 A Shift in Supply.....	159
	10.3 Shortage and Surplus	160
	10.4 Analyses of Multiple Markets.....	162
	10.5 Conclusion.....	163
	Exercises	163
	References.....	167

Chapter 11.	Maximizing Profits	169
	11.1 Introduction	169
	11.2 Cutting Costs to Increase Profits.....	170
	11.2.1 Cost Reduction Through Improved Clinical Management	171
	11.2.2 Reengineering	173
	11.3 Maximizing Profits.....	173
	11.4 Return on Investment	175
	11.5 Producing to Stock or to Order	176
	11.6 Not-for-Profit Organizations.....	177
	11.6.1 Agency Problems	177
	11.6.2 Differences in Goals	177
	11.6.3 Differences in Costs	178
	11.7 Conclusion.....	180
	Exercises	181
	References.....	183
Chapter 12.	Pricing	185
	12.1 Introduction	185
	12.2 The Economic Model of Pricing	186
	12.3 Pricing and Profits	187
	12.4 Price Discrimination.....	189
	12.5 Multipart Pricing	192
	12.6 Pricing and Managed Care	194
	12.7 Conclusion.....	195
	Exercises	196
	References.....	198
Chapter 13.	Asymmetric Information and Incentives	199
	13.1 Asymmetric Information	199
	13.2 Opportunism	200
	13.2.1 Remedies for Asymmetric Information	201
	13.2.2 The Special Challenges for Healthcare	201
	13.2.3 Signaling.....	202
	13.3 Incentive Design for Providers	202
	13.4 Insurance and Incentives.....	205
	13.5 Limits on Incentive-Based Payments	208
	13.5.1 Risk	208
	13.5.2 Complexity	208
	13.5.3 Opportunistic Responses.....	208

	13.5.4 Team Production	209
	13.6 Incentive Design for Managers.....	209
	13.7 Conclusion.....	213
	Exercises	213
	References.....	216
Chapter 14.	Economic Analysis of Clinical and Managerial	
	Interventions	219
	14.1 Introduction	219
	14.2 Cost Analysis.....	221
	14.2.1 Identifying a Cost Perspective	221
	14.2.2 Identifying Resources and Opportunity Costs... ..	222
	14.2.3 Direct and Indirect Costs	223
	14.3 Types of Analysis.....	223
	14.4 Cost-Minimization Analysis.....	224
	14.5 Cost-Effectiveness Analysis	225
	14.6 Cost–Benefit Analysis	226
	14.7 Cost–Utility Analysis	228
	14.8 Conclusion.....	233
	Exercises	234
	References.....	235
Chapter 15.	Profits, Market Structure, and Market Power	237
	15.1 Introduction	237
	15.2 Rivalry Among Existing Firms.....	239
	15.3 Defining Market Structures.....	240
	15.4 Customers’ Bargaining Power	241
	15.5 The Bargaining Power of Suppliers	243
	15.6 Entry by Potential Rivals.....	244
	15.7 Market Structure and Markups.....	245
	15.7.1 Markups.....	246
	15.7.2 The Impact of Market Structure on Prices	247
	15.8 Market Power and Profits.....	248
	15.8.1 Collusion	248
	15.8.2 Product Differentiation and Advertising.....	249
	15.9 Conclusion.....	253
	Exercises	254
	References.....	256
Chapter 16.	Government Intervention in Healthcare Markets	257
	16.1 Government Intervention in Healthcare.....	258

16.1.1 On the Virtues of Markets	258
16.1.2 Information Processing	258
16.1.3 Static Resource Allocation.....	260
16.1.4 Dynamic Resource Allocation.....	261
16.2 Market Failure	261
16.2.1 Externalities	262
16.2.2 Public Goods	264
16.2.3 Imperfect Competition	267
16.2.4 Imperfect Information and Incomplete Markets	267
16.2.5 Natural Monopoly	269
16.2.6 Income Redistribution	269
16.3 Remedies	269
16.3.1 Assignment of Property Rights.....	270
16.3.2 Taxes and Subsidies.....	271
16.3.3 Public Production	272
16.3.4 Regulation	272
16.4 Conclusion.....	272
Exercises	273
References.....	276
Chapter 17. Regulation	277
17.1 Introduction	277
17.2 Market Imperfections.....	278
17.2.1 Insurance	279
17.2.2 Market Power	279
17.2.3 Externalities	279
17.3 Rational Consumer Ignorance.....	280
17.4 The Interest Group Model of Regulation.....	281
17.4.1 Limiting Competition	282
17.4.2 Licensure	282
17.4.3 Regulation as a Competitive Strategy	283
17.5 Regulatory Imperfections.....	283
17.6 Market Responses to Market Imperfections.....	285
17.6.1 Tort Law and Contract Law.....	286
17.6.2 Information Dissemination.....	286
17.6.3 Contracts	287
17.7 Conclusion.....	288
Exercises	289
References.....	291

Chapter 18.	Behavioral Economics	293
	18.1 Introduction	293
	18.2 Inconsistent Preferences	294
	18.3 Risk Preferences	296
	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.....	303
	Exercises	304
	Note	306
	References.....	306
	<i>Answers to Select Chapter Exercises</i>	309
	<i>Glossary</i>	313
	<i>Index</i>	323
	<i>About the Author</i>	341

LIST OF CASES

Case 1.1	Why Is the Pressure to Reduce Healthcare Costs So Strong?	7
Case 1.2	Why Does the United States Spend So Much More?	11
Case 2.1	Comparing Health Outcomes in Adjoining Counties.....	23
Case 3.1	Oregon’s Coordinated Care Organizations	45
Case 3.2	Geisinger’s Transformation	48
Case 4.1	Managing Risk in Medicare Advantage Plans	57
Case 4.2	Diversification by Joint Venture and Acquisition	66
Case 5.1	Cost Reductions at Baptist Health System	76
Case 5.2	Improving Performance in Primary Care	80
Case 5.3	Costs of Care in the Emergency Department.....	83
Case 6.1	Can Patient-Centered Medical Homes Help Realize the Triple Aim?.....	92
Case 6.2	Centers of Excellence.....	95
Case 6.3	Would Medicare for All Reduce Costs?	100
Case 7.1	MinuteClinic	117
Case 8.1	The Curious Case of Daraprim	128
Case 8.2	Should Sodas Be Taxed?	131
Case 9.1	Forecasting Supply Use.....	139
Case 9.2	Mistakes to Avoid When Making Forecasts	147
Case 10.1	Worrying About Demand Shifts.....	157
Case 10.2	How Large Will the Shortage of Primary Care Physicians Be?.....	161
Case 11.1	Profiting from Clinical Improvement	172
Case 11.2	Tax Exemptions for Not-for-Profit Hospitals	178
Case 12.1	Price Discrimination in Practice	190

Case 12.2	What Should You Charge?	192
Case 12.3	Should My Firm Accept This Contract?	194
Case 13.1	Incentives in Accountable Care Organizations	206
Case 13.2	The Total Care and Cost Improvement Program	211
Case 14.1	Teledermatology	231
Case 15.1	Should Governments Participate in Price Negotiations?	242
Case 15.2	Deregulating Pharmaceutical Advertising	252
Case 16.1	Setting Prices for Walkers	259
Case 16.2	To Vaccinate or Not	265
Case 17.1	Monks, Caskets, and the Supreme Court	284
Case 17.2	Changing Consumer Information	287
Case 18.1	Encouraging Employees and Patients to Be Active	295
Case 18.2	Children's Health Insurance	301

PREFACE TO THE FOURTH EDITION

A fourth edition of *Economics for Healthcare Managers* was needed for three main reasons. The principal reason is the dramatic changes underway. Health insurance and healthcare have already changed, partly because of the implementation of the Affordable Care Act of 2010 and partly because of the increasing ability of insurers and sponsors to identify efficient and inefficient providers of care. Providers have begun to respond to these changes in insurance; the full extent of provider responses is impossible to forecast. Nonetheless, change is in the wind, and everyone in healthcare must be prepared. The radical idea that success requires offering customers exceptional value is becoming more common in healthcare. While challenging, this classic prescription for managing turbulent times is one of the most useful ideas that economics has to offer.

Second, the purview of healthcare managers has expanded significantly. Improving a population's health, not just its healthcare, has become a challenge for managers. A population health approach adds genetics, individual behavior, public health interventions, and social determinants of health to the concerns of working managers.

Third, the fourth edition expands opportunities for active learning. The number of cases has been expanded, and the instructor resources offer multiple activities that allow students to engage with the thorny economic issues that healthcare managers must address. With study questions and at least one case for discussion in each chapter, this text and its online instructor resources are designed to facilitate discussion and learning.

The fourth edition remains firmly focused on the economics that healthcare managers must understand to be effective, but it updates the references and offers students a glimpse into contemporary research. Although many classic citations remain vital, research has exploded in the last five years. The fourth edition shares some of this new work with students in an accessible way.

Instructor Resources

This book's instructor resources include answers to the study questions, guides to the cases, a PowerPoint presentation for each chapter, a lesson plan for each chapter, and a test bank.

For the most up-to-date information about this book and its instructor resources, go to ache.org/HAP and search for the book's order code (2380).

This book's instructor resources are available to instructors who adopt this book for use in their course. For access information, please e-mail hapbooks@ache.org.

WHY HEALTH ECONOMICS?

Learning Objectives

After reading this chapter, students will be able to

- describe the value of economics for managers,
- identify major challenges for healthcare managers,
- find current information about health outcomes, and
- distinguish between positive and normative economics.

Key Concepts

- Economics helps managers focus on key issues.
- Economics helps managers understand goal-oriented decision making.
- Economics helps managers understand strategic decision making.
- Economics gives managers a framework for understanding costs.
- Economics gives managers a framework for understanding market demand.
- Economics gives managers a framework for assessing profitability.
- Economics helps managers understand risk and uncertainty.
- Economics helps managers understand insurance.
- Economics helps managers understand information asymmetries.
- Economics helps managers deal with rapid change.

1.1 Why Health Economics?

Why should working healthcare managers study economics? This simple question is really two questions. Why is economics valuable for managers? What special challenges do healthcare managers face? These questions motivate this book.

Why is economics valuable for managers? There are six reasons. We will briefly touch on each of them to highlight the themes we will develop in later chapters.

1. Economics helps managers focus on key issues. Economics helps managers wade through the deluge of information they confront and identify the data they need.
2. Economics outlines strategies for realizing goals given the available resources. A primary task of economics is to explore carefully the implications of rational decision making.
3. Economics gives managers ground rules for strategic decision making. When rivals are not only competing against them but watching what they do, managers must be prepared to think strategically.
4. Economics gives managers a framework for making sense of **costs**. Managers need to understand costs because good decisions are unlikely to be made without this understanding.
5. Economics gives managers a framework for thinking about value. The benefits of the goods and services that successful organizations provide to customers exceed the costs of producing those goods and services. Good management decisions require an understanding of how customers perceive value.
6. Most importantly, economics sensitizes managers to fundamental ideas that affect the operations of every organization. Effective management begins with the recognition that consumers are sensitive to price differences, that organizations compete to advance the interests of their stakeholders, and that success comes from providing value to customers.

cost

The value of a resource in its next best use.

1.2 Economics as a Map for Decision Making

Economics provides a map for decision making. Maps do two things. They highlight key features and suppress unimportant features. To drive from Des Moines, Iowa, to Dallas, Texas, you need to know how the major highways connect. You do not want to know the name and location of each street in each town you pass through. Of course, what is important and what is unimportant depend on the task at hand. If you want to drive from West 116th Street and Ridgeview Road in Olathe, Kansas, to the Truman homestead in Independence, Missouri, a map that describes only the interstate highway system will be of limited value to you. You need to know which map is the right tool for your situation.

Using a map takes knowledge and skill. You need to know what information you need, or you may choose the wrong map and be swamped in extraneous data or lost without key facts. Having the right map is no guarantee that you can use it, however. You need to practice to be able to use a map quickly and effectively.

Like a map, economics highlights some issues and suppresses others. For example, it tells managers to focus on **marginal** or **incremental costs**, which makes understanding and managing costs much simpler, but economics has little to say about the belief systems that motivate consumer behavior. If you are seeking to make therapeutic regimens easier to adhere to by making them more consistent with consumers' belief systems, economics is not a helpful map. If, on the other hand, you want to decide whether setting up an urgent care clinic is financially feasible, economics helps you focus on how your project will change revenues and costs.

Economics also gives managers a framework for understanding rational decision making. **Rational decision making** involves making choices that further one's goals given the resources available. Whether those goals include maximizing profits, securing the health of the indigent, or other objectives, the framework is much the same. It entails looking at benefits and costs to realize the largest net benefit. (We will explore this question further in section 1.5.)

Managers must understand costs and be able to explain costs to others. Confusion about costs is common, so confusion in decision making is also common. Confusion about benefits is even more widespread than confusion about costs. As a result, management decisions in healthcare often leave much to be desired.

Economists typically speak about economics at a theoretical level, using "perfectly competitive markets" (which are, for the most part, mythical social structures) as a model; as a result, application of economics can be difficult for managers competing in real-world markets. Yet, economics offers concrete guidance about pricing, contracting, and other quandaries that managers face. Economics also offers a framework for evaluating the strategic choices managers must make. Many healthcare organizations have rivals, so good decisions must take into account what the competition is doing. Will being the first to enter a market give your organization an advantage, or will it give your rivals a low-cost way of seeing what works and what does not? Will buying primary care practices bring you increased market share or buyer's remorse? Knowing economics will not make these choices easy, but it can give managers a plan for sorting through the issues.

marginal or incremental cost
The cost of producing an additional unit of output.

rational decision making
Choosing the course of action that offers the best outcomes, given the constraints one faces.

1.3 Special Challenges for Healthcare Managers

What special challenges do healthcare managers face? Healthcare managers face five issues more than other managers do:

1. The central roles of risk and uncertainty
2. The complexities created by insurance
3. The perils produced by information asymmetries

4. The problems posed by not-for-profit organizations
5. The rapid and confusing course of technical and institutional change

Let us look at each of these challenges in more depth.

1.3.1 Risk and Uncertainty

Risk and uncertainty are defining features of healthcare markets and healthcare organizations. Both the incidence of illness and the effectiveness of medical care should be described in terms of probabilities. For example, the right therapy, provided the right way, usually carries some risk of failure. A proportion of patients will experience harmful side effects, and a proportion of patients will not benefit. As a result, management of costs and quality presents difficult challenges. Has a provider produced bad outcomes because he was unlucky and had to treat an extremely sick panel of patients, or because he encountered a panel of patients for whom standard therapies were ineffective? Did his colleagues let him down? Or was he incompetent, sloppy, or lazy? The reason is not always evident.

1.3.2 Insurance

Because risk and uncertainty are inherent in healthcare, most consumers have health insurance, and healthcare organizations have to contend with the management problems insurance presents. First, insurance creates confusion about who the customer is. Customers use the products, but insurance plans often pay most of the bill. Moreover, most people with private medical insurance receive coverage through their employer (in large part because the tax system makes this arrangement advantageous). Although economists generally agree that employees ultimately pay for insurance via wage reductions, most employees do not know the costs of their insurance alternatives (and unless they are changing jobs, they have limited interest in finding out). As a result of this situation, employees remain unaware of the true costs of care and are not eager to balance cost and value. If insurance is footing the bill, most patients choose the best, most expensive treatment—a choice they might not make if they were paying the full cost.

In addition, insurance makes even simple transactions complex. Most transactions involve at least three parties (the patient, the insurer, and the provider), and many involve more. To add to the confusion, most providers deal with a wide array of insurance plans and face blizzards of disparate claim forms and payment systems. Increasing numbers of insurance plans have negotiated individual payment systems and rates, so many healthcare providers look wistfully at industries that simply bill customers to obtain revenues. The complexity of insurance transactions also increases opportunity for error and fraud. In fact, both are fairly common.

Despite this bewildering array of insurance plans, many providers still rely on a few plans for their revenue (a circumstance most managers seek to avoid). For example, most hospitals receive at least a third of their revenue from Medicare. As a result, changes in Medicare regulations or payment methods can profoundly alter a healthcare organization's prospects. Overnight, changes to reimbursement terms may transform a market that is profitable for everyone to one in which only the strongest, best-led, best-positioned organizations can survive.

1.3.3 Information Asymmetries

Information asymmetries are common in healthcare markets and create a number of problems. An **information asymmetry** occurs when one party in a transaction has less information than the other party. In this situation, the party with more information has an opportunity to take advantage of the party with less information. Recognizing a disadvantage, the party with less information may become skeptical of the other party's motivation and decline a recommendation that would have been beneficial. For example, physicians and other healthcare providers usually understand patients' medical options better than patients do. Unaware of their choices, patients may accept recommendations for therapies that are not cost-effective or, recognizing their vulnerability to physicians' self-serving advice, may resist recommendations made in their best interest.

From a manager's perspective, asymmetric information means that providers have a great deal of autonomy in recommending therapies. Because providers' recommendations largely define the operations of insurance plans, hospitals, and group practices, managers need to ensure that providers do not have incentives to use their superior information to their advantage. Conversely, in certain situations, patients have the upper hand and are likely to forecast their healthcare use more accurately than insurers. Patients know whether they want to start a family, whether they seek medical attention whenever they feel ill, or whether they have symptoms that indicate a potential condition. As a result, health plans are vulnerable to **adverse selection**, meaning that high-risk consumers are more likely to seek insurance whereas healthier individuals are more likely to go without.

1.3.4 Not-for-Profit Organizations

Most not-for-profit organizations have worthy goals that their managers take seriously, but these organizations can create problems for healthcare managers as well. For example, not-for-profit organizations usually have multiple stakeholders. Multiple stakeholders mean multiple goals, so organizations become much harder to manage, and managers' performance becomes harder to assess. The potential for managers to put their own needs before

information asymmetry

When one party in a transaction has less information than the other party.

adverse selection

A situation that occurs when buyers have better information than sellers. For example, high-risk consumers are willing to pay more for insurance than low-risk consumers are. (Organizations that have difficulty distinguishing high-risk from low-risk consumers are unlikely to be profitable.)

their stakeholders' needs exists in all organizations but is more difficult to detect in not-for-profit organizations because they do not have a simple bottom line. In addition, not-for-profit organizations may be harder to run well. They operate amid a web of regulations designed to prevent them from being used as tax avoidance schemes. These regulations make setting up incentive-based compensation systems for managers, employees, and contractors (the most important of whom are physicians) more difficult. Further, when a project is not successful, not-for-profit organizations have greater difficulty putting the resources invested in the failed idea to other uses. For example, the trustees of a not-for-profit organization may have to get approval from a court to sell or repurpose its assets. Because of these special circumstances, managers of not-for-profit organizations can always claim that substandard performance reflects their more complex environment.

1.3.5 Technological and Institutional Change

This fifth challenge makes the others pale in comparison. The healthcare system is in a state of flux. Virtually every part of the healthcare sector is reinventing itself, and no one seems to know where the healthcare system is headed. Leadership is difficult to provide if you do not know where you are going. Because change presents a pervasive test for healthcare managers, we will examine it in greater detail.

1.4 Turmoil in the Healthcare System

Why is the healthcare system of the United States in such turmoil? One explanation is common to the entire developed world: rapid technical change. The pace of medical research and development is breathtaking, and the public's desire for better therapies is manifest. These demands challenge healthcare managers to regularly lead their organizations into unmapped territory. To make matters worse, changes in technology or changes in insurance can quickly affect healthcare markets. In healthcare, as in every other sector of the economy, new technologies can create winners and losers. For example, between 2000 and 2007, Medicare payments to ambulatory surgery centers more than doubled. Medicare changed its policy, and growth slowed down (Medicare Payment Advisory Commission 2018). What appears profitable today may not be profitable tomorrow if technology, competition, rates, or regulations change significantly.

The Affordable Care Act (ACA) has resulted in a wave of innovations by providers, insurers, employers, and governments. (See chapter 6 for more detail.) Which of these innovations will succeed is not clear. In addition, some healthcare organizations will thrive in the environment of the ACA,

and some will fail. The passage of the ACA appears to have been transformative, but its repeal might not undo the changes it led to.

1.4.1 The Pressure to Reduce Costs

The economics of high healthcare costs is far simpler than the politics of high healthcare costs. To reduce costs, managers must reallocate resources from low-productivity uses to high-productivity uses, increase productivity wherever feasible, and reduce prices paid to suppliers and sectors that have excess supply. They also must recognize that cost cutting is politically difficult. Reallocating resources and increasing productivity will cost some people their jobs. Reducing prices will lower some people's incomes. These steps are difficult for any government to take, and many of those who will be affected (physicians, nurses, and hospital employees) are politically well organized.

CASE 1.1

Why Is the Pressure to Reduce Healthcare Costs So Strong?

The United States spends far more than other wealthy industrial countries but has poorer outcomes. Spending per person is more than double the spending per person in Canada, France, and the United Kingdom (see exhibit 1.1). Differences this large should be reflected in the outcomes of care.

Country	2011	2016
Canada	\$4,248	\$4,644
France	\$4,031	\$4,600
Germany	\$4,588	\$5,501
Switzerland	\$6,048	\$7,919
United Kingdom	\$3,084	\$4,193
United States	\$8,145	\$9,892

Source: Data from Organisation for Economic Co-operation and Development (OECD 2017).

Note: Spending has been converted into US dollars.

EXHIBIT 1.1
Healthcare
Spending per
Person

(continued)

CASE 1.1 (continued)

However, of the six countries listed in exhibit 1.2, the United States has the shortest life expectancy at birth. In part, this difference is because the

United States invests relatively little in improving the **social determinants of health** and reducing inequality. Adler, Glymour, and Fielding (2016) note that the life expectancy of 40-year-old men at the bottom of the income distribution is 14.6 years shorter than for men in the top of the income distribution. Greater spending should not produce these results.

social determinants of health
Factors that affect health independently of healthcare (e.g., education and housing).

EXHIBIT 1.2 Life Expectancy at Birth, 2015

Country	Males	Females
Canada	79.6 years	83.8 years
France	79.6 years	85.5 years
Germany	78.3 years	83.1 years
Switzerland	80.8 years	85.1 years
United Kingdom	79.5 years	82.8 years
United States	76.5 years	81.2 years

Source: Data from OECD (2017).

Discussion Questions

- Why is spending so much more than other countries a problem?
- What can Americans not buy because of high spending on healthcare?
- What factors other than healthcare affect population health?
- Does this evidence suggest that the American healthcare system is not efficient?
- What are the most important social determinants of health?

1.4.2 The Fragmentation of Healthcare Payments

The fragmented payment system compounds the political problem. Most Americans see only a fraction of their total spending. A typical American pays for care through a mixture of direct payments for care; payroll deductions for insurance premiums; lower wages; higher prices for goods and services; and higher federal, state, and local taxes. Because so much of the payment system is hidden, few can effectively track healthcare costs. The exceptions, notably

employers who write checks for the entire cost of insurance policies and the trustees of the Medicare system, understand the need to reduce costs.

1.5 What Does Economics Study?

What does economics study? Economics analyzes the allocation of **scarce resources**. Although this answer appears straightforward, several definitions are needed to make this sentence understandable. Resources include anything useful in consumption or production. From the perspective of a manager, resources include the flow of services from supplies or equipment the organization owns and the flow of services from employees, buildings, or other entities the organization hires. A resource is scarce if it has alternative uses, which might include another use in the organization or use by another person or organization. Most issues that managers deal with involve scarce resources, so economics is potentially useful for nearly all of them.

Economics focuses on rational behavior—that is, it focuses on individuals' efforts to best realize their goals, given their resources. Because time and energy spent in collecting and analyzing information are scarce resources (i.e., the time and energy have other uses), complete rationality is irrational. Everyone uses shortcuts and rules to make certain choices, and doing so is rational, even though better decisions are theoretically possible.

Much of economics is positive. **Positive economics** uses objective analysis and evidence to answer questions about individuals, organizations, and societies. Positive economics might describe the state of healthcare, for example, in terms of hospital occupancy rates over a certain period. Positive economics also proposes hypotheses and assesses how consistent the evidence is with them. For example, one might examine whether the evidence supports the conjecture that reductions in direct consumer payments for medical care (measured as a share of spending) have been a major contributing factor in the rapid growth of healthcare spending per person. Although values do not directly enter the realm of positive economics, they do shape the questions economists ask (or do not ask) and how they interpret the evidence.

Normative economics often addresses public policy issues, but not always. The manager of a healthcare organization who can identify additional services or additional features that customers are willing to pay for is demonstrating normative economics. Likewise, the manager who can identify features or services that customers do not value is also demonstrating normative economics.

Normative economics takes two forms. In one, citizens use the tools of economics to answer public policy questions. Usually these questions involve ethical and value judgments (which economics cannot supply) as well

scarce resource
Anything useful in consumption or production that has alternative uses.

positive economics
Using objective analysis and evidence to answer questions about individuals, organizations, and societies.

normative economics
Using values to identify the best options.