Mgmt 444 **Health Care Economics** **David Dranove**

Overview

This course applies the basic principles of microeconomics and industrial organization to the health care industry. The student who successfully completes this course will be able to:

- Understand the key long run economic drivers of the health care system, including technological change.

- Use benefit-cost analysis to evaluate medical technology

- Describe the U.S. health insurance industry, explain the incentives facing insurers, strategies they use to successfully compete, and the welfare implications of those strategies

- Describe and evaluate changes in employee health benefit offerings, including Consumer Driven Health Plans

- Discuss the demand for medical care, and the role of health care providers in shaping demand. Describe the problem of medical practice variations.

- Explain how regulators have attempted to eliminate inefficiencies

- Explain the strategies used by managed care in the U.S. to eliminate inefficiencies

- Describe the quality movement, including the strengths and weaknesses of current approaches to measuring and rewarding quality

- Evaluate provider and supplier pricing strategies

- Evaluate the effectiveness of price and nonprice competition in the health economy. Describe strategies to improve the effectiveness of competition, including antitrust policy

- Learn the architecture of a provider report card

- Evaluate the strengths and flaws of the U.S. medical liability system

- Compare and contrast the economics of health care reform proposals

This course will interest any individual planning a career in the health care or related industries. It should also interest students who wish to see how economics is applied to business and policy issues. Students must have had at least one quarter of microeconomics prior to taking this course -- no exceptions please. No knowledge of the health care industry is presupposed.

About the Readings

The readings consist of selected chapters from two health economics textbooks, my new book, *Code Red*, on the economics of the U.S. healthcare system, journal articles that review scholarly research, and a handful of seminal original research studies. I expect you to come to class with a good understanding of the assigned readings – the quality of the in-class discussion will depend on your preparedness.

You may download all lecture notes from the course web page.
http://www.kellogg.northwestern.edu/faculty/dranove/htm/Dranove/coursepages/mgmt444.htm
I strongly urge you to do so prior to each class. I prefer if you do not read the lecture notes beforehand, as this may limit the scope of in-class discussions.

Is this a U.S.-Centric Course?

This course has a disproportionate focus on the United States health economy. In part, this is due to the preponderance of interest in health economics in the United States. It also reflects the disproportionate business and management opportunities here. Even so, most of the lecture material covers topics that apply universally. This is especially true for weeks 1, 2, 4, 5, 7, and 8. Moreover, other nations are beginning to adopt U.S. competitive principles. For example, there are emerging private health insurance markets throughout Europe and a few EU members are even adopting some of the principles of managed competition.

Final Grades

Course grades will be based on a midterm quiz (~30 points), final quiz (~25 points), class participation (~20 points), two short (500-750 words) write-ups of class discussion questions (~10 points), and a group project that I describe below (~15 points).[1]

I have assigned in-class discussion questions for each week. Your participation grade will depend, in large part, on your contributions to the discussions of these questions. You are also required to submit two short responses to assigned questions. These responses are due on the date of the class discussion and should be limited to 500-750 words.

To help you master the course material, I will prepare and post homework questions and solutions. I will assign homework questions at the end of each class based on where we are in the lecture. You will not turn in your solutions, but I will discuss the solutions to some of the questions at the start of each class.

[1]Point totals are tentative. I will let you know if there are any changes. I will provide you with a mid-term update on your class participation score.

Course Project

You may work in groups of 3-5 students on this project. The project requires comfort with K-Stat or more sophisticated statistical software. Bear this in mind when forming your group.

I will distribute administrative claims data obtained from the California Office of Statewide Health Planning and Development. The data provides information on cardiac admissions to hospitals in San Diego. You will use this data to create a cardiac care report card for San Diego. The requirements are as follows:

1) You must report at least 2 different quality scores. One of these must be inpatient mortality.

2) You must defend your choice of scores by reference to the existing report card literature. Choose scores that are used or have been suggested by other report card analysts.

3) If appropriate, risk adjust your scores. We will discuss methods for risk adjustment during week 8 of the quarter. However, you may feel free to discuss these methods with me at any time before then. Note that you do not need to report standard errors for your report card scores, as this is beyond the scope of the project.

4) You must prepare user friendly tables showing your risk adjusted report card scores.

5) You must delete this data from your computers upon completion of the project.

Your report should be no more than 2500 words long, plus tables. Your report should include the following:

· The strengths and weaknesses of your chosen quality scores, with references to the research literature on report cards.
· Description of your statistical methods
· Your reactions to the scores. What did you learn from the exercise? Would you rely on the scores that you generated?

You must turn in your project no later than the Friday of the last week of classes (12/5).

Lecture Topics and Readings

September 22 (part a): Technological change

Readings:

Weisbrod, B., 1991, "The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment" *Journal of Economic Literature* 29: 523-552.

Congressional Budget Office, 2004, "Would Prescription Drug Importation Reduce U.S. Drug Spending?" Economic and Budget Issue Brief

Dranove, D. and M. Kyle, 2007, "At Any Price? What Research Evidence Says about Pharmaceutical Pricing, Innovation, and Patient Health" Unpublished Working Paper

In-class discussion questions:

Suppose that you are Director of Policy for a major U.S. pharmaceutical company. Your job is to lobby the federal government on regulatory and legislative matters that affect your company, and to advise the CEO on how to respond to regulatory and legislative challenges. The next U.S. President may direct the Secretary for Health and Human Services to certify the safety of drugs imported from Canada, setting the stage for importation. You now believe that importation is inevitable, but you also believe that the specific rules and regulations for importation are in flux.

What specific rules would you seek so as to minimize the potential harm to your firm and industry? What advice would you give to your CEO for dealing with the potential threat of importation?

September 22 (part b): Value Based Health Care

Readings:

Becker, G. et al., 2007, "Value of Life Near its End and Terminal Care" (introduction). NBER Working Paper. (posted to course page)

Cutler, D., and M. McClellan, 2001, "Is Technological Change in Medicine Worth It?" *Health Affairs* 20(5): 11-29

September 29 (part a): Cost-effectiveness

Folland, Goodman, and Stano, 2007, *The Economics of Health and Health Care (5th Edition)*, Chapter 4: Economic Efficiency and Cost-benefit Analysis

In-class discussion question:

Cardiologists often place stents into clogged arteries. The human body treats stents as foreign objects and often grows scar tissue in response. This can increase the risk of clotting which, in turn, can cause heart attacks. Drug eluting stents slowly release drugs that, in theory, should limit the growth of scar tissue. Research mostly supports this theory.

Manufacturers of drug eluting stents differentiate their products through the choice of drug and method of delivery of the drug (e.g., dosage over time). Some manufacturers can point to research studies that show that their products offer theoretical advantages over rival products. A few can even identify empirical studies demonstrating their products' superiority. Even so, manufacturers of "higher quality" stents find it difficult to charge a premium price. They complain that the hospitals that purchase stents have no business justification for paying a higher price.

Why do you suppose that hospitals are unwilling to pay higher prices for differentiated products like some drug eluting stents? How would you go about marketing these products so as to extract the value that they create?

September 29 (part b): An Early History of the U.S. Healthcare System and the Emergence of Health Insurance

Readings:

Committee on the Cost of Medical Care, 1932, *Medicine and Society in America* Introduction (pp. v-x), Recommendations of the Committee (p. xvi), Chapter II (pp. 37-56)

Dranove, D., 2008, *Code Red* Princeton, NJ: Princeton University Press, Chapter 1.

October 6: Health Insurance and Adverse Selection

Readings:

Teaching Note on Adverse Selection

Cutler, D. and R. Zeckhauser, 1997, "Adverse Selection in Health Insurance" NBER Working Paper #6107

Cook, K., Dranove, D. and A. Sfekas, 2008, "Does Major Illness Cause Financial Catastrophe for the Uninsured? Working paper to be posted to the course page.

Pauly, M., 1997, "Who Pays When the Employer Pays for Health Insurance?" in *Health Benefits at Work* Ann Arbor: University of Michigan Press. Focus on pages 15-25.

Madrian, B., 2006, "The U.S. Health Care System and Labor Markets" NBER Working Paper

#11980.

In-class discussion question:

Suppose that you work for a firm that funds health care start-up enterprises. You have been approached by a firm that proposes to be an insurance "market maker". Specifically, that firm will sign up small businesses and health insurers within distinct geographic areas. The health insurers will offer coverage though a web portal that can be accessed by any employee of one of the participating small businesses. Employees are free to enroll in any participating insurer. The market maker will collect premiums from employers and pay them to insurers. The market maker proposes to risk adjust the premiums based on each enrollee's age, sex, and available historical health information. The market maker will collect from the insurers a modest 3% fee for its services. This will be more than sufficient to cover its costs.

Why might employers and insurers be willing to do business with the market maker? What factors will you weigh as you consider providing seed money for this venture?

October 13: Marcus Welby Medicine

Readings:

Arrow, K., 1963, "Uncertainty and the Welfare Economics of Medical Care" *American Economic Review*, 53(5): 941-73. This it, the "granddaddy of them all", the most famous paper in health economics. Read it and see if you don't agree that Arrow's insights remain enormously valuable today.

Dranove, Chapter 2

Gruber, J., 2006, "The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond" You can upload this report from http://www.kff.org/insurance/upload/7566.pdf

In-class discussion question:

Read the Dafny/Dranove proposal for increasing pay for charity care in Illinois. (See the link at the web page.) Put yourself in the shoes of the Illinois Hospital Association. Prepare a statement giving your position on this proposal. Make a counter proposal. (Note that this proposal is currently under consideration in the state legislature and was endorsed by Crain's Chicago Business.)

October 20: More Inefficiencies and Regulatory Solutions

Teaching Note on Models of Demand

Dranove, Chapter 3

Phelps, C., 2002, *Health Economics* (3rd Edition), Ch. 3, "The Transformation of Medical Care to Health" (focus on pp. 75-95)

Goodman, Folland, and Stano, 2007, "Chapter 20: Government Regulation: Principle Regulatory Mechanisms" (focus on pp. 430-450).

In-class discussion question:

Imagine that you are a lobbyist for the German College of Obstetrics and Gynecology (DGGG). A consortium of Sickness Funds (quasi private insurers) has presented data to the Federal Government on the extent of variations in caesarian section rates across cities in Germany. They want to profile all German doctors and withhold funding from those doctors whose risk-adjusted c-section rates depart from acceptable norms. (Such profiling already takes place in Germany for drug prescription and selected other practices.) How would you respond to this profiling recommendation? Can you offer a proposal that serves both the members of DGGG and the German public?

October 27 (part a): In Class Quiz

October 27 (part b): The Candidate's Health Care Plans

Readings:

Obama's Healthcare plan: http://www.barackobama.com/issues/pdf/HealthCareFullPlan.pdf
McCain on Healthcare: http://www.johnmccain.com/Informing/Issues/19ba2f1c-c03f-4ac2-8cd5-5cf2edb527cf.htm

In-class discussion question:

Compare and contrast the Obama and McCain healthcare proposals. Whose proposal do you support and why? Or do you prefer the status quo?

November 3 (part a): The Rise and Fall of Managed Care

Readings:

Dranove, Ch. 4

Miller, R. and H. Luft, 2002, "HMO Plan Performance Update: An Analysis of the Literature, 1997-2001, *Health Affairs*, 21(4): 63-86

Blendon, R., 1998, "Understanding the Managed Care Backlash" *Health Affairs*, 17(4): 80-94.

November 3 (part b): Quality

Readings:

Dranove, Ch. 6

Brook, R., 1997, "Managed Care is not the Problem, Quality Is" *JAMA*, 278(19): 1612-14.

Needleman, J. et al., 2002, "Nurse-staffing Levels and the Quality of Care in Hospitals" *New England Journal of Medicine*, 346(2): 1715-22.

Fung, C. et al., 2008, "Systematic Review: The Evidence that Publishing Patient Care Performance Data Improves Quality of Care" *Annals of Internal Medicine*, 148(2): 111-23.

Harris, K. and M. Buntin, 2008, "Choosing a Healthcare Provider" The Role of Quality Information" RWJF Synthesis Project
http://www.rwjf.org/files/research/051508.policysynthesis.qualityinfo.rpt.pdf

Also, please peruse the hospital report cards at the following web sites:

Healthgrades:
http://www.healthgrades.com/consumer/index.cfm?fuseaction=mod&modtype=Hospitals&modact=search_wizard&subact=state&prodtype=hosprat

Leapfrog group: http://www.leapfroggroup.org/cp

Niagara Health Quality Coalition:
http://www.nhqc.com/hospital_care/hospital_quality_reports_new.htm

Especially:

http://www.myhealthfinder.com/newyork07/

Here is a representative Health Plan report card:

http://www.health.state.mn.us/divs/hpsc/mcs/hedis/blue05.pdf

In-class discussion question:

Kellogg alum Bruce Boissonault is the Director of the Niagara Health Quality Coalition. He believes that the NHQC report cards are the best in the nation. What do you think?

In what ways are the NHQC, Healthgrades, and Leapfrog reports similar? How do they differ? In what ways are the NHQC reports more useful? In what ways are they less useful? What more would you want to know before comparing different report cards or choosing a hospital based on one or more report cards?

November 10: Competition, Integration, and Antitrust

Robinson, J., and H. Luft, 1985, "The Impact of Hospital Market Structure on Patient Volume, Average Length of Stay, and the Cost of Care" *Journal of Health Economics*, 4: 333-56.

Vogt, W. and R. Town, 2006, "How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?" Robert Wood Johnson Foundation Research Synthesis Report No. 9.

Burns, LR and M. Pauly, 2002, "Integrated Delivery Networks: A Detour on the Road to Integrated Health Care? *Health Affairs*, 21(4): 128-43.

Burns, LR et al., 2000, "The Fall of the House of AHERF: The Allegheny Bankruptcy" *Health Affairs*, 19(1): 7-41.

In-class discussion questions:

Suppose that Coopers and Lybrand had not issued a clean bill of health to AHERF in 1996. As a result, the creditors of AHERF managed to oust CEO Sherif Abdelhak, just prior to the acquisition of the Graduate Health System. Now suppose that the creditors asked you to assess AHERF's strategic direction. What changes, if any, would you recommend? Do you believe that AHERF could have avoided bankruptcy?

Do you believe that an integrated delivery system like AHERF could succeed in the Philadelphia market today?

November 17 (part a): Guest Presenter – Bruce Boissonault, President and CEO, Niagara Health Quality Coalition

November 17 (part b): Pricing and Consumerism

Readings:

Dranove, Ch. 5

Teaching Note on Price Discrimination and Cost-Shifting

Tynan and Christianson, 2008, "Consumer-Directed Health Plans: Mixed Employer Signals, Complex Market Dynamics" Center for Studying Health Systems Change Issue Brief. You can upload this report from http://www.hschange.com/CONTENT/976/

Congressional Budget Office, 2006, "Consumer-Directed Health Plans: Potential Effects on Health Care Spending and Outcomes". You can upload this report at http://www.cbo.gov/ftpdocs/77xx/doc7700/12-21-HealthPlans.pdf. Please focus on the Summary and Sections 1 and 2.

Reinhardt, U., 2006, "The Pricing of U.S. Hospital Services: Chaos Behind a Veil of Secrecy" *Health Affairs* 25(1): 57-69.

In-class discussion question:

Consumer-directed health plans seemed like a good idea just a few years ago, but enrollments have begun to flatten out. Why have consumers resisted CDHPs? What will it take for CDHPs to regain their momentum in the market?

December 1 (part a): Pricing and Consumerism (continued)

December 1 (part b): Malpractice

Reading:

Phelps, C., 2002, *Health Economics* (3rd Edition), Ch. 13, "Medical Malpractice"

December 1 (part c): Reviving the Healthcare System

Reading:

Dranove, Ch. 7 and 8