

## **ECONOMICS 140: ECONOMICS OF HEALTH PRODUCERS**

Spring 2017, Peterson 104, MW 5-6:30 pm

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Office Hours: MW 6:30-7:00pm

W 3:30-4:45pm

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Office Hours: Thursday 10:30-11:30

Tuesday 1:30-2:30.

Prerequisites: Econ 2 OR 100B

*Course Objectives:* This course applies microeconomic theory to the health care market with a particular focus on the providers in the health care sector (physicians, nurses, hospitals, pharmaceutical firms, and health insurers). We will examine where markets work efficiently and where it may be possible for government intervention to improve efficiency. We will use microeconomic models to predict how proposals to reform the market for health care will affect the incentives of health care providers and outcomes in health care markets. Where possible, we will examine the empirical research that tests the predictions from economic models.

Note: Econ 141 focuses on the consumer side of the health market: the demand for health and medical care, the demand for health insurance, proposals to address the uninsured, employer provision of health insurance and the effects on worker wages and decision to work, and international comparisons of health systems.

After passing this class you will be able to:

1. Apply microeconomics to the study of the suppliers in healthcare markets.
2. Analyze current policy issues in the U.S. healthcare system from an economic perspective. Our focus will be on policy issues associated with how Medicare, Medicaid, and private insurance plans pay healthcare providers, although we will also discuss health policy issues related to redistribution and social insurance.

*Assessment:* Your course grade will be based on a midterm exam (35% of your grade), on-line reading quizzes (5% of your grade), in-class responses (10% of your grade), and a final exam worth 50% of your grade.

*Exam Schedule:*

Midterm: Wednesday, May 3 (in class; 35% of course grade)

Reading Quizzes: top 5 of 6 quizzes (5% of course grade)

TopHat Score: 10% of course grade (5% participation and 5% correctness)

Comprehensive Final Exam: Friday 6/16, 7-10:00p (40% of course grade)

*Course Materials:*

*TritonED:* This is where you access the syllabus, required articles, online quizzes, problems sets, your grades, a discussion board, announcements regarding review sessions, etc.

*Reading Quizzes:* Posted on TritonED after class on Wednesday and must be completed before 4:30 pm on Monday (except for week 4 when it will be due before 4:30pm on Wednesday). The quizzes are designed to help you focus on the key points in each article. The only aid

you can use are the assigned readings.

*Top Hat:* We will be using the Top Hat ([www.tophat.com](http://www.tophat.com)) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. An email invitation will be sent to you by or you can register by simply visiting our course website: <https://app.tophat.com/e/753132> and our Course Join Code is **753132**. Should you require assistance, please contact their Support Team [support@tophat.com](mailto:support@tophat.com)

*Practice Problem Sets:* Posted on Friday and solutions available on TritonEd the following Friday.

*Additional Review Materials:* Practice midterms and any additional practice exam questions will be posted on TritonED prior to the weekend preceding each exam.

*Administrative Issues:*

- (1) Exams are closed book: you may not use any notes, electronic devices, books or consult other classmates. To help maintain the integrity of the midterm and final, you must show your student ID when turning in your exam.
  - (2) Any student found responsible for violating academic integrity will earn a failing grade for the course. In addition to the academic sanction that I impose, the Council of Deans of Student Affairs will impose a disciplinary penalty. For a review of UCSD policy, please see <http://www-senate.ucsd.edu/manual/appendices/app2.htm>.
  - (3) If you have a documented disability, please bring your documentation and come to talk to me as soon as possible so that I can make suitable accommodations for you. If you believe that you may have a disability and will desire accommodation, please register with the Office for Students with Disabilities, Building 202 University Center
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**Concise Course Overview:**

**Week 1:** Introduction: Why Study Markets for Health Care Services; What Makes Health Service Markets Unique?

**Week 2: Reading Quiz 1.** The Allocation Question; How Do Physicians Respond to Incentives and How Should We Pay Them?

**Week 3: Reading Quiz 2.** Continuation of How Should We Pay Physicians

**Week 4: NO CLASS MONDAY April 24**  
**Reading Quiz 3.** Assessing the Target Income and Cost-Shifting Hypotheses;

**Week 5: Midterm 1 (Wednesday, May 3)** Policy Issues Associated with the Affordable Care Act

**Week 6:** Hospitals: Health Care Providers with Market Power; Economics of Non-Profit Firms

**Week 7: Reading Quiz 4.** Hospitals: Financing Hospital Care for the Uninsured; Competition on Price vs. Competition on Quality; Introduction to Health Care Innovation

**Week 8: Reading Quiz 5.** Pharmaceutical Companies and Innovation in Medical Equipment and Devices

**Week 9: Reading Quiz 6.** Long-Term Care and Provider Incentives.

**Week 10:** Further Discussion of Issues in Health Policy and Final Review

**Final Exam: Friday, 6/16, 7-10:00p**

## **Week 1 (April 3):**

### **Introduction: Why Study Markets for Health Care Services; What Makes Health Service Markets Unique?**

#### **Primary Topics:**

Overview of the Health Care Landscape  
Review of Consumer Demand  
Being Comfortable with Cost-Benefit Analysis  
Why We Buy Health Care through Insurance  
Review of Supply by Competitive Firms (Physicians?)  
The Decision to Become a Physician  
Choice of Specialty and Where to Practice

#### **Readings:**

- Victor R. Fuchs, "Health Care Is Different—That's Why Expenditures Matter," *JAMA*. 2010;303(18):1859-1860. (<http://jamanetwork.com/journals/jama/article-abstract/185819?resultClick=1>)
- Baicker, Katherine, and Amitabh Chandra. "Myths and misconceptions about US health insurance." *Health Affairs* 27.6 (2008): w533-w543. (Available here: <http://content.healthaffairs.org/content/27/6/w533.full.pdf+html>)
- DeZee KJ, Maurer D, Colt R, Shimeall W, Mallory R, Powers J, Durning SJ. "Effect of financial remuneration on specialty choice of fourth-year U.S. medical students." *Acad Med*. 2011 Feb; 86(2):187-93. (Available here: <http://www.ncbi.nlm.nih.gov/pubmed/21169785>)

## **Week 2 (April 10)**

### **The Allocation Question; How Do Physicians Respond to Incentives and How Should We Pay Them?**

#### **Primary Topics:**

Issues of Allocation:  
    Organ markets,  
    Markets for predictable services  
    Markets for uncertain services  
The Physicians' Utility Function  
A Model of Optimal Payment Policy: Salary vs. Fee-For-Service  
Complications for Payment Policy  
How Does Medicare Stack Up?  
Paying for Capital and Technology Intensive Services

#### **Readings:**

- Becker, Gary and Julio Elias, "Introducing Incentives in the Market for Live and Cadaveric Organs," *Journal of Economic Perspectives*, Vol 21. No. 3, Summer

- 2007, p. 3-24. (Available here:  
<http://www.aeaweb.org/articles.php?doi=10.1257/jep.21.3.3&title=>)
- Mark Hogland. “How Does Your Doctor Get Paid?” (Available here:  
<http://www.pbs.org/wgbh/pages/frontline/shows/doctor/care/capitation.html>)
  - Jeffrey Clemens. “Implications of Physician Ethics, Billing Norms, and Service Cost Structures for Medicare's Fee Schedule.” (Available here:  
[http://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=706192](http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=706192))
  - Gawande, Atul. “Overkill” The New Yorker, May 11, 2015 (Available here:  
<http://www.newyorker.com/magazine/2015/05/11/overkill-atul-gawande>)
  - Center for Medicare and Medicaid Services. “Evaluation and Management Services Billing Guide.” April 2013. (Available here:  
<https://www.medicarenhic.com/providers/pubs/REF-EDO-0056%20EvaluationManagementServicesBillingGuide.pdf>)
    - Note: Do not read this document in its entirety! This document is worth perusing if you want a taste for the complexity of Medicare’s billing guidelines.

### **Week 3 (April 17)**

#### **How Should We Pay Physicians: Assessing the Target Income and Cost-Shifting Hypotheses;**

##### **Primary Topics:**

Review of Optimal Payment Policy  
 Supplier-Induced-Demand  
 The Target Income Hypothesis  
     Labor Supply Interpretation  
     Short Run vs. Long Run  
     Billing Norms Interpretation  
 The Cost-Shifting Hypothesis  
     Bargaining Over Physicians’ Time  
     Medicare’s Influence on Private Payment Systems  
 Empirical Evidence

##### **Readings:**

- McGuire, Thomas G., and Mark V. Pauly. "Physician response to fee changes with multiple payers." *Journal of health economics* 10.4 (1991): 385-410. (Available here:  
<http://www.sciencedirect.com/science/article/pii/016762969190022F>)
  - Focus on the Introduction and Section 4. The remaining sections are quite technical.
- Clemens, Jeffrey, and Joshua Gottlieb. "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" (2014). (Available here:  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2101251](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2101251)).
  - Focus on the Introduction and Section 1. The introduction describes the paper’s findings. Section 1 provides some detail regarding how Medicare pays physicians.

- Fang, Hanming and Qing Gong. “Detecting Potential Overbilling in Medicare Reimbursements via Hours Worked” *American Economics Review* 107(2) (2017):562-591. <http://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.20160349>
  - Focus on the introduction, section 2 (which provides some detail on how Medicare pays physicians), and figure 1.
- Finkelstein, Amy, Matthew Gentzkow, Peter Hull and Heidi Williams, “Adjusting Risk Adjustment — Accounting for Variation in Diagnostic Intensity.” (2017) *New England Journal of Medicine*; 376:608-610  
<http://www.nejm.org/doi/full/10.1056/NEJMp1613238?query=TOC>

#### **Week 4 (April 24) Start Hospitals: Health Care Providers with Market Power; Economics of Non-Profit Firms**

##### **Primary Topics:**

Overview of Hospital Sector  
What Motivates Hospitals?  
Kindly Non-Profits?  
Standard Monopolists?  
The Hold-Up Problem

##### **Readings:**

- Brill, Steven. "Bitter pill: why medical bills are killing us." *Special report TIME magazine*, (Mar. 04, 2013) (2013). (Available here: [https://www.nesri.org/sites/default/files/Bitter\\_Pill-Time\\_Magazine.pdf](https://www.nesri.org/sites/default/files/Bitter_Pill-Time_Magazine.pdf))
  - Read through at least 2 of the anecdotes to get a flavor for the article.

#### **Week 5 (May 1): MIDTERM 1 on Wednesday May 3**

##### **Hospitals and the Economics of Non-Profit Firms**

##### **Primary Topics:**

Hospital Costs in the U.S. and Abroad  
Prices and Quantities  
Administrative Overhead  
How We Pay Hospitals  
Financing Hospital Care for the Uninsured  
Competition on Price vs. Competition on Quality

##### **Readings:**

- Duggan, Mark. “Hospital ownership and public medical spending.” *Quarterly Journal of Economics*. 15(4): 1343-1373.
- Dafny, Leemore S. *How do hospitals respond to price changes?*. *American Economic Review*. 95(5):1525-1547. 2005. (Available here: <http://www.ingentaconnect.com/content/aea/aer/2005/00000095/00000005/art00009>)

- Cutler, David M., and Dan P. Ly. "The (paper) work of medicine: understanding international medical costs." *The Journal of Economic Perspectives* 25.2 (2011): 3-25. (Available here: <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.25.2.3>)

## **Week 6 (May 8)**

### **Demand for Nurses When Employers Have Monopsony Power; Introduction to Health Care Innovation**

#### **Primary Topics:**

Demand for Nurses  
 The Advance of Health Care Innovation  
     Health Gains  
     Rising Costs  
 Pharmaceutical Innovation  
     The Decision to Invest in R&D  
     Patent Law and Monopoly Pricing  
     Drugs for Developing Countries

#### **Readings:**

- Kremer, Michael. "Pharmaceuticals and the developing world." *The Journal of Economic Perspectives* 16.4 (2002): 67-90. (Available here: <http://www.jstor.org/stable/3216915>)
- Cutler, David M., Allison B. Rosen, and Sandeep Vijan. "The value of medical spending in the United States, 1960–2000." *New England Journal of Medicine* 355.9 (2006): 920-927. (Available here: <http://www.nejm.org/doi/full/10.1056/NEJMsa054744>)

## **Week 7 (May 15)**

### **Innovation Continued;**

#### **Primary Topics:**

The Difficulty of Evaluating Technology Policy  
 Innovation in Medical Equipment and Devices  
 Empirical Evidence on Innovation  
     Pharmaceutical Sector  
     Medical Equipment  
 Payment Policy and the Nature of Innovation  
 Implications of the ACA for Innovation

#### **Readings:**

- Roberts, EDWARD B. "Technological innovation and medical devices." *New medical devices: invention, development, and use* (1988): 35-51.
  - This article appears as a chapter in a book. The relevant pages (35-51) can be accessed via google books by searching for the article title from the

“Google Scholar” home page. The chapter provides an excellent discussion of what medical device innovation looks like and how it differs from pharmaceutical innovation.

- Jeffrey Clemens and Stan Veuger. “Innovation and Uncertainty in the Medical Industry: Evidence from the Case of Myriad Genetics, Inc.” Available here: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2576481](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2576481)

## **Week 8 (May 22) : Quality of Care**

### **Primary Topics**

Evidence on the Quality of Care  
Information Problems and the Quality of Care  
Effects of Providing Information to Consumers

### **Readings**

- McGlynn EA, Asch SM, Adams J, et. al., “The Quality of Health Care Delivered to Adults in the United States.” *New England Journal of Medicine*, 2003, 348: p. 2635-45. Available here: <http://www.nejm.org/doi/pdf/10.1056/NEJMsa022615>
- Dranove, David, Daniel Kessler, Mark McClellan, and Mark Satterthwaite, “Is more Information Better? The Effects of Report Cards on Health Care Providers,” *Journal of Political Economy*, 2003, Vol. 111, No. 3: p. 555-588. Available here: <http://www.jstor.org/stable/10.1086/374180>

## **Week 9 (May 29): Long-Term Care**

### **Primary Topics**

Post-acute care  
Evidence on the Optimality of Provider Incentives

### **Readings:**

Einav, Liran, Amy Finkelstein and Neale Mahoney. “Provider Incentives and Healthcare Costs: Evidence from Long-Term Care Hospitals NBER #23100. Available here: [http://papers.nber.org/papers/W23100?utm\\_campaign=ntw&utm\\_medium=email&utm\\_source=ntw](http://papers.nber.org/papers/W23100?utm_campaign=ntw&utm_medium=email&utm_source=ntw) Focus on the Introduction, Sections 2.1 and 2.2., Figures 1-7.

## **Week 10 (June 5):**

**Discussion of Issues in Health Policy and Final Review**

**Final Exam: Friday, May 16, 11:30-2:30pm**