

## ECONOMICS 140: ECONOMICS OF HEALTH PRODUCERS

Fall 2017, Warren Lecture Hall 2111, Wed 5-7:50pm

*Professor:* Jeffrey Clemens

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**Office Hours:**

Mondays from 11am-noon

Wednesdays from 10:30am-11:30am

Also available by appointment.

*Teaching Assistant*

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**Regular Office Hour:** Thursday 2:00-3:00pm

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 three exams, each worth 33% of your grade. This includes two in-class midterm, scheduled for **Wednesday, November 1** and **Wednesday, November 29**, and a cumulative final exam. **The final exam is Thursday, December 14 from 7-10pm.**

*Exam Schedule:*

Midterm 1: November 1 (in class; 33% of course grade)

Midterm 2: November 29 (in class; 33% of course grade)

Comprehensive Final Exam: December 14 (7-10pm, location TBD, 33% of course grade)

*Course Materials:*

*Textbook:* Sherman Folland, Allen C. Goodman, and Miron Stano. "The Economics of Health and Health Care" Publisher: Pearson Education, Inc. 2013. 7<sup>th</sup> Edition.

*TritonEd:* This is where you access the syllabus, additional required articles, problems sets, your grades, a discussion board, announcements regarding review sessions and supplemental office hours, etc.

*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. If you believe an exam has not been graded properly, you may ask for a re-grade. I will re-grade your entire exam. The re-graded score will be your grade for the exam. You may not ask for another re-grade or go back to your first grade. To help maintain the integrity of the midterms and finals, we will require you to 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 <https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/appendices/2>.
  - (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? Review of Key Concepts from Microeconomics

**Week 2:** Overview of the Physician Landscape; How Do Physicians Respond to Incentives and How Should We Pay Them?

**Week 3:** Continuation of Physician Behavior and Physician Payment

**Week 4:** Midterm Review and Overview of Key Elements of the Affordable Care Act

**Week 5:** Midterm on 11/1

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

**Week 7:** Hospitals: Financing Hospital Care for the Uninsured; Optimal Hospital Payment

**Week 8:** Pharmaceutical Companies and Innovation in Medical Equipment and Devices

**Week 9:** Midterm on 11/29. Continuation of Medical Innovation

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

**Final Exam: Thursday December 14 from 7-10pm**

## **Week 1 (10/4):**

### **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

#### **Relevant Textbook Chapters:**

**Chapter 1 (Overview)**  
**Chapter 2 (Microeconomics Review)**

#### **Additional Readings:**

- Victor R. Fuchs, "Health Care Is Different—That's Why Expenditures Matter," *JAMA*. 2010;303(18):1859-1860. (Available on pages 21-23 at [http://siepr.stanford.edu/?q=/system/files/shared/pubs/papers/pdf/More\\_Healthcare.pdf](http://siepr.stanford.edu/?q=/system/files/shared/pubs/papers/pdf/More_Healthcare.pdf))
- 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>)
- \* 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=>)

## **Week 2 (10/11):**

### **How Do Physicians Respond to Incentives and How Should We Pay Them?**

#### **Primary Topics:**

Overview of the Landscape  
The Decision to Become a Physician  
Choice of Specialty and Where to Practice  
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

**Relevant Textbook Chapters:**  
**Chapter 16 (pp. 325-329; 339-341)**

**Additional Readings:**

- 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>)
- 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))
- 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 (10/18)**

**How Should We Pay Physicians; Quality Control (Malpractice; Bonus Systems);  
Assessing the Target Income and Cost-Shifting Hypotheses**

**Primary Topics:**

Wrap-up Model of Optimal Payment Policy  
Supplier-Induced-Demand  
The Target Income Hypothesis  
    Labor Supply Interpretation  
    Short Run vs. Long Run  
    Billing Norms Interpretation  
Medicare’s Influence on Private Payment Systems  
    The Cost-Shifting Hypothesis  
    Physician Contract Complexity  
Empirical Evidence

**Relevant Textbook Chapters:**  
**Chapter 15 (Physicians’ Practices)**

### **Additional 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.
- Clemens, Jeffrey, Joshua Gottlieb, and Timea Molnar. "Do Health Insurers Innovate? Evidence from the Anatomy of Physician Payments" (2014). (Link: [http://econweb.ucsd.edu/~jlclemens/pdfs/pricingrelationships\\_jhe\\_R2](http://econweb.ucsd.edu/~jlclemens/pdfs/pricingrelationships_jhe_R2)). The Introduction and Section 1 are again the most relevant sections for class.

### **Week 4 (10/25)**

**Midterm review and a Primer on the Affordable Care Act**

### **Week 5 (11/1):**

**Midterm; Discussion of Health Policy Issues**

### **Week 6 (11/8):**

**Hospital Sector Overview; Health Care Providers with Market Power;  
Economics of Non-Profit Firms**

#### **Primary Topics:**

Overview of Hospital Sector  
Organizational Structure of Hospitals  
Suppliers with Market power (Monopoly and Monopsony)  
What Motivates Hospitals?  
    Kindly Non-Profits?  
    Empire Building?  
    Empirical Evidence on Hospital Behavior

#### **Relevant Textbook Chapters:**

**Chapter 13 (Economics of Non-Profit Firms)**  
**Chapter 14 (pp. 283-293, Hospital Overview)**

### **Additional 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.
- 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>)
- Cooper, Zack, Fiona Scott Morton, and Nathan Shekita. "Surprise! Out-of-Network Billing for Emergency Care in the United States." No. w23623. National Bureau of Economic Research, 2017. (Available here: [http://isps.yale.edu/sites/default/files/publication/2017/07/surpriseoutofnetworkbilling\\_isps17-22.pdf](http://isps.yale.edu/sites/default/files/publication/2017/07/surpriseoutofnetworkbilling_isps17-22.pdf))
- Clemens, Jeffrey, and Benedic Ippolito. Uncompensated Care and the Collapse of Hospital Payment Regulation: An Illustration of the Tinbergen Rule. No. w23758. National Bureau of Economic Research, 2017. (Available here: <http://www.nber.org/papers/w23758>)
- Gupta, Atul. "Impacts of performance pay for hospitals: The Readmissions Reduction Program." Working Paper, 2016. (Available here: [http://web.stanford.edu/~atulg/Gupta\\_JMP.pdf](http://web.stanford.edu/~atulg/Gupta_JMP.pdf))
- 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 7 (11/15):**

#### **Hospitals Continued: Financing Hospital Care for the Uninsured; Payment Models; Quality Adjusted Payments**

#### **Primary Topics:**

Financing Hospital Care for the Uninsured  
Difficulty of Redistribution through Cross-Subsidies  
Hospital Behavior in the Real World  
How Should We Pay Hospitals (Returning to our Model of Provider Behavior)

### **Additional Readings:**

See prior week's readings.

## **Week 8 (11/22):**

### **Medical Innovation**

#### **Primary Topics:**

- 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
- 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

#### **Relevant Textbook Chapters:**

**Chapter 17 (Pharmaceuticals Overview)**

**Chapter 6 (pp. 121-126, Medical Technology Overview)**

#### **Additional 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.
- Clemens, Jeffrey, and Stan Veuger. "Risks to the Returns to Medical Innovation: The Case of Myriad Genetics." *Contemporary Economic Policy* 35.2 (2017): 345-357. (Available here: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2576481](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2576481))
- 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 9 (11/29):**

**Midterm; Medical Innovation Continued**

**Week 10 (12/6):**

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

**Final Exam: Thursday, December 14, 7:00-10:00pm**