

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

Winter 2020, Humanities and Social Sciences (HSS) Room 1305

Section 1: Mon and Wed 5-6:20pm

Section 2: Mon and Wed 6:30-7:50pm

*Professor:* Jeffrey Clemens

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### **Office Hours:**

Wednesdays from 10am-11am

Also available by appointment

### *Teaching Assistant*

(1) Brendan (Holt) Dwyer

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**Regular Office Hour:** Thursday 11:00am-noon

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 one written assignment (5%) and three exams. This includes two midterms, scheduled for **Monday, February 3<sup>rd</sup>** and **Monday, March 2<sup>nd</sup>**, and a cumulative final exam.

### *Exam Schedule:*

Midterm 1: February 3<sup>rd</sup> (5:45pm-7pm; 30% of course grade)

Midterm 2: March 2<sup>nd</sup> (5:45pm-7pm; 30% of course grade)

Comprehensive Final Exam: Section 1 March 16th (7-10pm, 35% of course grade)

Section 2 March 18th (7-10pm, 35% of course grade)

*Course Materials:*

*Optional 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.

*Canvas:* 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.

*Additional Resources:*

- I highly recommend the “What the Health?” podcast from Kaiser Health News: <https://khn.org/news/tag/podcast/>
- The optional textbook is intended primarily for background material. Much of this material, for example key facts on how much money we spend on health care, how much is spent by Medicare, how much goes to hospitals, etc., can be found using google. The website of the Kaiser Family Foundation is a great resource for these and many other background facts: <https://www.kff.org/>

*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.

**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:** Holiday January 20<sup>th</sup>; Continuation of Physician Payment

**Week 4:** Continuation of Physician Payment; Economics of the Affordable Care Act

**Week 5:** Midterm on February 3<sup>rd</sup>; Introduction to Hospitals

**Week 6:** Economic Models and Empirical Analyses of Hospital Behavior

**Week 7:** Holiday February 17<sup>th</sup>; Optimal Payment in Hospitals and Health Systems

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

**Week 9:** Midterm on March 2<sup>nd</sup>; Continuation of Medical Innovation

**Week 10:** Continuation of Medical Innovation and Final Review

**Final Exam: Section 1 Monday March 16<sup>th</sup> from 7-10pm**  
**Section 2 Wednesday March 16<sup>th</sup> from 7-10pm**

## **Week 1:**

### **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:**

### **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**

#### **Holiday January 20<sup>th</sup>; Optimal Physician Payment; Quality Control**

#### **Primary Topics:**

Wrap-up Model of Optimal Payment Policy (Malpractice; Bonus Systems)

#### **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**

### **Empirical Evidence on Physician Payment; Assessing the Target Income and Cost-Shifting Hypotheses; Economics of the Affordable Care Act**

#### **Primary Topics:**

Empirical Evidence  
Medicare's Influence on Private Payment Systems  
The Cost-Shifting Hypothesis  
Supplier-Induced-Demand  
The Target Income Hypothesis  
The Affordable Care Act  
Economics of Adverse Selection

#### **Week 5**

### **Midterm on February 3<sup>rd</sup> from 5:45-7:00pm; Introduction to Hospitals**

#### **Primary Topics:**

Overview of Hospital Sector  
Organizational Structure of Hospitals

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

**Chapter 14 (pp. 283-293, Hospital Overview)**

#### **Week 6:**

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

#### **Primary Topics:**

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)**

#### **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:

### **Holiday February 17th; Optimal Payment in Hospitals and Health Systems**

#### **Primary Topics:**

Financing Hospital Care for the Uninsured  
 Hospital Behavior in the Real World  
 How Should We Pay Hospitals (Returning to our Model of Provider Behavior)

**See prior week's readings.**

## Week 8:

### **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

**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:**

**Midterm on March 2<sup>nd</sup> from 5:45-7:00pm; Medical Innovation Continued**

**Primary Topics:**

The Difficulty of Evaluating Technology Policy  
Innovation in Medical Equipment and Devices

**Week 10:**

**Medical Innovation Continued; Final Review**

**Primary Topics:**

Empirical Evidence on Innovation  
Pharmaceutical Sector  
Medical Equipment  
Payment Policy and the Nature of Innovation  
Final Review

**Final Exam: Section 1 Monday March 16<sup>th</sup> from 7-10pm**

**Section 2 Wednesday March 16<sup>th</sup> from 7-10pm**