Spring 2015 TuTh 9:00am to 10:50am

Econ 249: Topics in Health Economics

The course will cover key topics in health economics, with a focus on the healthcare industry in the United States. The topics will be primarily empirical. In addition to covering existing work, a big part of the course will emphasize areas of research where additional research is feasible and warranted. Emphasis will also be given to the overlap between health economics and other applied micro fields, such as industrial organization, public economics, and labor economics.

The focus of the course will be on topics, not methods, and will therefore cater to a broad set of students, especially those with interest in applied microeconomics, broadly defined. The overlap with other applied micro sequences, including with Econ 258 (which was co-taught by one of us) should be minimal, so interested students can (and are encouraged) to take both classes. This class satisfies the second-year field requirement for labor economics in the department of economics.

Our goals in the course are to take students closer to the research frontier in several areas related to health economics, educate students about the specific aspects and institutions of the (highly complex) US healthcare system, and hopefully generate possible research topics and ideas that could lead to second-year papers and subsequent dissertations. We hope to balance two objectives: learning how to identify and pose interesting questions, and learning how to formulate and execute empirical analyses that sheds light on these questions. We also plan to highlight the use of theory to guide hypothesis testing and the specification of empirical models.

Below we list the tentative schedule of classes and topics, which will also include four guest lectures.

For a general background, students are encouraged to consult the two following textbooks:

- Health Economics, by Bhattacharya, Hyde, and Tu, Palgrave Macmillan, 2013.
- Your Money or Your Life, by David Cutler, Oxford University Press, 2005.

For broad coverage of topics in the health economics literature, students may also consult the following handbooks:

- Culyer, Anthony J., and Joseph P. Newhouse, ed. *Handbook of Health Economics*, Volumes 1(A) and 1(B). New York: Elsevier, 2000.
- Pauly, Mark V., Thomas G. Mcguire, and Pedro P. Barros, ed. *Handbook of Health Economics*, Volume 2. New York: Elsevier, 2011.

Course logistics and requirements

The class meets on Tuesdays and Thursdays, 9:00–10:50am in Room 206 (Landau Economics), and will include five guest lectures. Please also mark your calendars with two Friday meetings (1:45-3:35pm at Room 139). We will be using Coursework to post material and send announcements. Student requirements will include three components (weight in the final grade in parentheses):

- 1. Problem sets that will mostly include reviews of papers, concepts, and research ideas (30%).
- 2. Class attendance, preparation, participation, and occasional short class presentations (35%).
- 3. Take-home final exam or a research idea proposal (35%).

Class topics and schedule (MD=Michael Dickstein; LE=Liran Einav)

- 1. March 31 (LE) Introduction
- 2. April 2 (LE) Health insurance
- 3. April 7 (LE) Health insurance
- 4. April 9 (MD) Demand for healthcare
- 5. April 14 (LE) Health insurance
- 6. April 16 (MD) Employer-sponsored health insurance
- 7. April 21 (LE) Medicare and Medicaid
- 8. April 23 (Maria Polyakova) Medicare Part D
- 9. April 28 (MD) The individual market and the uninsured
- 10. April 30 (MD) Physicians
- 11. May 5 (Dave Chan) Physicians
- 12. May 7 (Kate Bundorf) Managed Care and ACOs
- 19. May 8 (Friday!) (Mark Duggan) Health, Disability, and Labor Supply
- 13. May 12 (LE) Managed competition
- 14. May 14 (Grant Miller) Health in Developing Countries
- 15. May 19 (LE) Risk Adjustments

- 16. May 21 (MD) Hospitals
- 17. May 26 (MD) Hospitals
- 18. May 28 (MD) Pharmaceuticals
- 19. May 29 (Friday!) (Both) Discussion of research ideas

(June 2 no class)

Reading List (MD Classes) (** denotes assigned readings)

Lecture: Demand for healthcare

- **Aron-Dine, Aviva, Liran Einav and Amy Finkelstein, "The RAND Health Insurance Experiment, Three Decades Later," *Journal of Economic Perspectives*, 2013.
- **Finkelstein, Amy et al., "The Oregon Health Insurance Experiment: Evidence from the First Year," *Quarterly Journal of Economics*, 2012.
- Manning, Willard et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *American Economic Review*, 1987, 77(3), 251-177.
- Chandra, Amitabh, Jonathan Gruber, and Robin McKnight, "Patient Cost-Sharing and Hospitalization Offsets in the Elderly," *American Economic Review*, 2010, 100(1), 1-24.
- Gladwell, Malcolm, "The Moral Hazard Myth," The New Yorker, August 29, 2005.
- Huskamp, Haiden, et al., "The Effect of Incentive-Based Formularies on Prescription-Drug Utilization and Spending," *New England Journal of Medicine*, 2003 349 2224-2232.
- Spenkuch, Jorg, "Moral hazard and Selection Among the Poor: Evidence from a Randomized Experiment," *Journal of Health Economics*, 2012, 31, 72-85.
- Zweifel, Peter and Willard G. Manning, "Moral Hazard and Consumer Incentives in Health Care," in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.

<u>Lecture: Employer-sponsored health insurance</u>

- **Gruber, Jonathan, "Health Insurance and the Labor Market," in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.
- **L. Summers, "Some Simple Economics of Mandated Benefits," *American Economic Review*, 79(2), May 1989, pp. 177-183.
- **J. Gruber, "The Incidence of Mandated Maternity Benefits," *American Economic Review*, 84(3), June 1994, pp. 622-641.
- Meyer, Bruce, and Dan T. Rosenbaum, "Welfare, The Earned Income Tax Credit, and The Labor Supply of Single Mothers," *Quarterly Journal of Economics*, 2001, 116(3), 1063-1114.
- B. Madrian, "Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job Lock?," *Quarterly Journal of Economics*, 109(1), February 1994, pp. 27-54.
- Aaron Yelowitz, "The Medicaid Notch, Labor Supply, and Welfare Participation: Evidence from Eligibility Expansions," *Quarterly Journal of Economics* 105, 1995, 909-940.
- Matthew S. Dey and Christopher J. Flinn, "An Equilibrium Model of Health Insurance Provision and Wage Determination," *Econometrica*, 73(2), Mar. 2005, pp. 571-627
- Nyce, Steven, et al., "Does Retiree Health Insurance Encourage Early Retirement?", NBER Working paper
- Rust, John, and Christopher Phelan, "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets," *Econometrica*, 65(4), July 1997, pp. 781-831.

Lecture: The individual market and the uninsured

- **Adverse Selection and an Individual Mandate: When Theory Meets Practice" (with Martin Hackmann and Jonathan T. Kolstad). *NBER Working Paper 19149*. Latest Version: June 2013.
- **Gruber, J. "Covering the Uninsured in the United States." *Journal of Economic Literature*,

- 2008, 46(3): 571-606.
- **Frank, Richard G., and Richard J. Zeckhauser, —Health Insurance Exchanges: Making the Markets Work, *New England Journal of Medicine*, 2009, 361, 1135-1137
- Wong, Paul, "State Variation in Non-Group Health Insurance Regulation: Understanding How Adverse Selection Limits Expansion of Coverage," mimeo, 2013.
- Orsini, Joe, "Underwriting in the Individual Market for Health Insurance", mimeo, 2013.

Lecture: Physicians – Part 1

- **Gruber, Jonathan, John Kim and Dina Mayzlin, "Physician Fees and Procedure Intensity: The Case of Cesarean Delivery," *Journal of Health Economics*, 18(4), August 1999, 473-490
- **Currie, Janet, Jonathan Gruber and Michael Fischer, "Physician Payments and Infant Mortality: Evidence From Medicaid Fee Policy," *American Economic Review*, 85(2), May 1995, 106-111.
- Ho, Kate and Ariel Pakes, "Hospital Choices, Hospital Prices and Financial Incentives to Physicians," *Harvard University Working Paper*, August 2013.
- Thomas G. McGuire, "Physician Agency," in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000 (it's long; skim).
- Dickstein, Michael, "Physician vs. Patient Incentives in Prescription Drug Choice," Stanford University Working Paper, September 2012.

<u>Lecture: Physicians – Part 2</u>

- **Doyle, Joseph J., Steven M. Ewer, Todd H. Wagner, "Returns to Physician Human Capital: Analyzing Patients Randomized to Physician Teams" *Journal of Health Economics*, 2010.
- **Kessler, Daniel, and Mark McClellan, "Do Doctors Practice Defensive Medicine," *Quarterly Journal of Economics*, 1996, 111(2), 353-390.
- Cutler, David, Robert S. Huckman, and Mary Beth Landrum, "The Role of Information in Medical Markets: An Analysis of Publicly Reported Outcomes in Cardiac Surgery," *American Economic Review*, 2004, 94(2), 342-346.
- Currie, Janet, and MacLeod, W. Bentley, "First Do No Harm? Tort Reform and Birth Outcomes" in *Quarterly Journal of Economics*, May 2008, 123(2), 795-830
- Baicker, Katherine, Elliott S. Fisher, and Amitabh Chandra. "Malpractice Liability Costs and the Practice of Medicine in the Medicare Program." *Health Affairs* 2007, 26(3), 841-852.
- Frank, Richard and Richard Zeckhauser, "Custom-made vs. Ready to Wear Treatments: Behavioral Propensities in Physicians' Choices," *Journal of Health Economics*, 2007, 26(6), 1101-1127.
- Gaynor, Martin and Paul Gertler, "Moral Hazard and Risk Spreading in Partnerships," *Rand Journal of Economics*, 1995, 26(4), 591-614.
- Meredith B. Rosenthal, Richard G. Frank, Zhonghe Li, Arnold M. Epstein, "Early Experience With Pay-for- Performance: From Concept to Practice," *Journal of the American Medical Association*, 2005, 294:1788-1793.

Lecture: Hospitals – Part 1

- **Duggan, Mark, "Hospital Ownership and Public Medical Spending. Quarterly Journal of Economics, 2000, 115(4), 1343-1373.
- **Dafny, Leemore, "How Do Hospitals Respond to Price Changes?" American Economic

- Review 2005, 95: 1525-1547.
- Baicker, Katherine and Douglas Staiger, "Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality," *Quarterly Journal of Economics*, 2005, 120(1), 345-386.
- Horwitz, Jill, "Making Profits and Providing Care: Comparing Nonprofit, For-Profit, and Government Hospitals," *Health Affairs*, 2005, 23(3), 790-801.

<u>Lecture: Hospitals – Part 2</u>

- **Kessler, Daniel and Mark McClellan, "Is Hospital Competition Socially Wasteful?" *Quarterly Journal of Economics*, 2000, 115(2), 577-615.
- **Ho, Katherine, "Insurer-Provider Networks in the Medical Care Market," *American Economic Review*, 2009, 99(1): 393-430.
- Dranove, David, Mark Shanley, and Carol Simon. "Is Hospital Competition Wasteful?" *The Rand Journal of Economics* 23, no. 2 (1992): 247-262.
- "Examination of Health Care Cost Trends and Cost Drivers," Massachusetts Attorney Generals' Office, March 16, 2010.

Lecture: Pharmaceuticals

- **Scott Morton, Fiona. "Entry Decisions in the Generic Pharmaceutical Industry." *The Rand Journal of Economics* 30, no. 3 (1999): 421-440.
- **Acemoglu, Daron, and Joshua Linn. "Market Size in Innovation: Theory and Evidence from the Pharmaceutical Industry." *Quarterly Journal Of Economics* 119, no. 3 (2004): 1049-1090.
- Lichtenberg, Frank, "The Impact of New Drugs on U.S. Longevity and Medical Expenditure, 1990-2003," *American Economic Review*, 2007, 97(2), 438-443.
- Scherer, F. M. "The Pharmaceutical Industry." In *Handbook of Health Economics* Volume 1B, edited by Anthony J. Culyer and Joseph P. Newhouse, 1297-1336. New York: Elsevier, 2000.

Reading List (LE Classes) (** denotes assigned readings)

1. Introduction (Lecture 1)

Fisher, Elliott, David Goodman, Jonathan Skinner, Kristen Bronner (2009). "Health Care Spending, Quality, and Outcomes." The Dartmouth Institute for Health Policy and Clinical Practice, http://www.dartmouthatlas.org.

Fuchs, Victor R. (2014). "Why Do Other Rich Nations Spend So Much Less on Healthcare?" *The Atlantic*, July 23, 2014.

Garber, Alan M., and Jonathan Skinner (2008). "Is American Health Care Uniquely Inefficient?" *Journal of Economics Perspectives* 22(4), 27-50.

**Hall, Robert E., and Charles I. Jones (2007). "The Value of Life and the Rise in Health Spending." *Quarterly Journal of Economics* 122(1), 39-72.

2. Adverse Selection (Lecture 2-4)

Theory

Akerlof, George (1970). "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* 84, 488–500.

**Arrow, Kenneth (1963). "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review* 53(5), 941–973.

**Einav, Liran, Amy Finkelstein, and Mark R. Cullen (2010). "Estimating Welfare in Insurance Markets using Variation in Prices." *Quarterly Journal of Economics* 125(3), 877–921.

**Hendren, Nathaniel (2013). "Private Information and Insurance Rejections." *Econometrica* 81(5), 1713-1762.

Miyazaki, H. (1977). "The Rat Race and Internal Labor Markets." *The Bell Journal of Economics* 8(2), 394–418.

Rothschild, Michael, and Joseph E. Stiglitz (1976). "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information." *Quarterly Journal of Economics* 90, 630–649.

Wilson, Charles (1977). "A Model of Insurance Markets with Incomplete Information." *Journal of Economic Theory* 16, 167-207.

Riley, John G. (1979). "Informational Equilibrium." Econometrica 47(2), 331–359.

Empirical work

**Bundorf, Kate, Jonathan Levin, and Neale Mahoney (2012). "Pricing and Welfare in Health Plan Choice." *American Economic Review* 102(7), 3214-3248.

**Cardon, James H., and Igal Hendel (2001). "Asymmetric Information in Health Insurance: Evidence from The National Medical Expenditure Survey." *RAND Journal of Economics* 32(3), 408-427.

Cohen, Alma, and Liran Einav (2007). "Estimating Risk Preferences from Deductible Choice." *American Economic Review* 97(3), 745-788.

**Einav, Finklestein, Stephen Ryan, Paul Schrimpf, and Mark Cullen, "Selection on Moral Hazard in Health Insurance," American Economic Review, 2013, 103 (1), 178–219

**Einav, Liran, Amy Finkelstein, and Paul Schrimpf (2010). "Optimal Mandates and The Welfare Cost of Asymmetric Information: Evidence from The U.K. Annuity Market." *Econometrica* 78(3), 1031-1092.

**Fang, Hanming, Michael Keane, and Dan Silverman (2008). "Sources of Advantageous Selection: Evidence from the Medigap Insurance Market." *Journal of Political Economy* 116(2), 303-350.

**Finkelstein, Amy, and Kathleen McGarry (2006), "Multiple Dimensions of Private Information: Evidence from the Long-Term Care Insurance Market." *American Economic Review* 96, 938-958.

Finkelstein, Amy, and James Poterba (2004). "Adverse Selection in Insurance Markets: Policyholder Evidence from the U.K. Annuity Market." *Journal of Political Economy* 112(1), 193-208.

**Handel, Ben (2013). "Adverse Selection and Inertia in Health Insurance Markets: When Nudging Hurts." *American Economic Review* 103(7), 2643-2682.

3. Medicare (Lecture 5)

Cabral, Marika, and Neale Mahoney (2013). "Externalities and Taxation of Supplemental Insurance: A Study of Medicare and Medigap." Manuscript, UT Austin.

Clemens, Jeff (2014). "The Effect of U.S. Health Insurance Expansions on Medical Innovation." NBER Working Paper No. 19761.

**Clemens, Jeff, and Joshua Gottlieb (2014). "Do Physicians' Financial Incentives Affect Treatment Patterns and Patient Health?" *American Economic Review* 104(4), 1320-1349.

Cutler, David, and Jonathan Gruber (1996). "Does Public Insurance Crowd out Private Insurance?" *Quarterly Journal of Economics* 111(2), 391-430.

Decarolis, Francesco (2015). "Medicare Part D: Are Insurers Gaming the Low Income Subsidy Design?" *American Economic Review*, forthcoming.

**Dobkin, Carlos, David Card, and Nicole Maestas (2009). "Does Medicare Save Lives?" *Quarterly Journal of Economics* 124(2), 597-636.

Duggan, Mark, and Fiona Scott Morton (2006). "The Distortionary Effects Of Government Procurement: Evidence From Medicaid Prescription Drug Purchasing." *Quarterly Journal of Economics* 121(1), 1-30.

**Duggan, Mark, and Fiona Scott Morton (2010). "The Effect of Medicare Part D on Pharmaceutical Prices and Utilization." *American Economic Review* 100(1), 590-607. Ericson, Keith (2014). "Consumer Inertia and Firm Pricing in the Medicare Part D Prescription Drug Insurance Exchange." *AEJ: Economic Policy* 6(1), 38-64.

**Finkelstein, Amy (2007). "The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare." *Quarterly Journal of Economics* 122(1), 1-37.

Finkelstein, Amy, and Robin McKnight (2008). "What Did Medicare Do? The Initial Impact of Medicare on Mortality and Out of Pocket Medical Spending." *Journal of Public Economics* 92, 1644-1669.

Managed Competition and Risk Adjustments (Lecture 6-7)

- **Brown, Jason, Mark Duggan, Ilyana Kuziemko, and William Woolston (2014). "How does Risk Selection Respond to Risk Adjustment? New Evidence from the Medicare Advantage Program." *American Economic Review* 104(10), 3335-3364.
- **Curto, Vilsa, Liran Einav, Jonathan Levin, and Jay Bhattacharya (2014). "Can Health Insurance Competition Work? Evidence from Medicare Advantage." NBER Working Paper No. 20818.
- **Liran Einav, Amy Finkelstein, Raymond Kluender, and Paul Schrimpf (2015). "Beyond statistics: The Economic Content of Risk Scores." Manuscript, Stanford University.
- Enthoven, Alain C. (1993). "The History and Principles of Managed Competition." *Health Affairs* 12(1), 24-48.
- **Glazer, Jacob, and Thomas G. McGuire (2000). "Optimal Risk Adjustment in Markets with Adverse Selection: An Application to Managed Care." *American Economic Review* 90(4), 1055-1071.
- Glazer, Jacob, Thomas G. McGuire, and Julie Shi (2014). "Risk Adjustment of Health Plan Payments to Correct Inefficient Plan Choice from Adverse Selection." NBER Working Paper No. 19998.
- **Handel, Ben, Igal Hendel, and Michael D. Whinston (2015). "Equilibria in Health Exchanges: Adverse Selection vs. Reclassification Risk." *Econometrica*, forthcoming.
- Newhouse, Joseph P., Mary Price, Jie Huang, J. Michael McWilliams, and John Hsu (2012). "Steps To Reduce Favorable Risk Selection In Medicare Advantage Largely Succeeded, Boding Well For Health Insurance Exchanges." *Health Affairs* 31(12), 2618-2628.