

Spring 2022 Economics 2465: Health Economics

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Office Hours: By Appointment

This is a course in the economics of health care. Topics will include health capital, global health, health insurance, productivity of medical spending, and medical care markets.

Meeting: Class is scheduled for Tuesday, Thursday, and Friday from 10:30 - 11:45 am. Class will generally meet twice per week, with a few exceptions. Check the meeting schedule carefully.

Class: Class notes will be posted by the morning of the class on the class website: <https://canvas.harvard.edu/courses/100641>.

Notes: You should download the notes and bring them to class.

Seminar: Students are encouraged to attend the weekly Health Economics seminar, Wed. 4:00 – 5:30. See <https://www.bu.edu/econ/research/seminars/health-economics-seminar-papers/> for schedule and location.

Grading: There will be a one-day at home final exam during final exam period (50%), a 2-3 page research proposal due on the last day of reading period (25%), and three problem sets (25%).

Reading: I have indicated the readings that should be read **before class** (**pre-class readings**) and those that can be read at your leisure (**supplemental readings**). I have also indicated **classic papers** that you should be familiar with. **Job market papers** are indicated in blue. The pre-class reading is generally a recent article on the topic of the day. We will discuss the methodology and findings of the article in class. I will cold call on students to discuss the pre-class readings. The supplemental readings are an important part of the class; I will indicate which ones you should pay particular attention to.

Economics 2465 Class Schedule

Tue	January 25	1. Health over Time and Around the World
Thu	January 27	2. Race and health (with Marcella Alsan)
Fri	January 28	3. Health Capital

Health Capital

Tue	February 1	No class
Thu	February 3	No class
Fri	February 4	4. Health Behaviors

Tue	February 8	5. SES and Health
Thu	February 10	6. Deaths of despair
Fri	February 11	No class

Tue	February 15	7. Disease and Development: Macro Studies
Thu	February 17	8. Disease and Development: Micro Studies
Fri	February 18	No class

Health Systems

Tue	February 22	9. Overview of Health Systems
Thu	February 24	10. Health Reform in High Income Countries
Fri	February 25	11. Optimal insurance I: The Demand Side

Tue	March 1	12. Optimal insurance II: The Supply Side
Thu	March 3	13. Insurance Coverage and Health
Fri	March 4	No class

Tue	March 8	14. Demand and Moral Hazard
Thu	March 10	15. Supply-Side Responses to Payment
Fri	March 11	No class

Tue	March 15	SPRING BREAK
Thu	March 17	SPRING BREAK
Fri	March 18	SPRING BREAK

Tue	March 22	16. Insurance selection
Thu	March 24	17. Disability insurance (with Nicole Maestas)
Fri	March 25	No class

Productivity Analysis

Tue	March 29	18. Dimensions of Productivity and Productive Inefficiency
Thu	March 31	19. The Return to Doing More
Fri	April 2	No class
Tue	April 5	20. Theories for Uneven Productivity (with Amitabh Chandra)

Medical Care Markets

Thu	April 7	21. Overview of Medical Care Delivery
Fri	April 8	No class
Tue	April 12	22. Competition and Outcomes
Thu	April 14	23. Insurer-Provider Interactions
Fri	April 15	No class
Tue	April 19	24. Insurance competition
Thu	April 21	25. Antitrust policy in health care (with Leemore Dafny)
Fri	April 22	No class
Tue	April 26	26. Health care innovation

A Note on Readings

Readings in health economics are in several journals:

General interest journals: *American Economic Review*, *Journal of Political Economy*, *Quarterly Journal of Economics*, *Econometrica*.

Field journals: The major journal in the field is the *Journal of Health Economics*. There is also the *American Journal of Health Economics*.

Medical journals: Almost all medical journals publish health economics articles. The best are the *New England Journal of Medicine* and *JAMA*. Each will send you weekly summaries of what is in the journal if you wish. *Health Affairs* has a number of good articles on health care policy topics.

Reference books: There is no textbook in the field. The best collection is the *Handbook of Health Economics*. Volumes 1A and 1B were edited by Anthony Culyer and Joseph P. Newhouse and were published in 2000. Volume 2 was edited by Mark V. Pauly, Thomas G. McGuire and Pedro P. Barros and was published in 2011. You can find all the volumes here: <http://www.sciencedirect.com/science/handbooks/15740064>. For an undergraduate introduction, try Sherman Folland, Allen Goodman, and Miron Stano, *The Economics of Health and Health Care*. Any edition is fine.

Session 1: Health over Time and Around the World

Key points:

- Health has improved enormously in recent centuries
- Health covaries positively with income, with interesting exceptions

Pre-class readings

Cutler, David, Angus Deaton, and Adriana Lleras-Muney, “[The Determinants of Mortality](#),” *Journal of Economic Perspectives*, 2006, 20(3), 97-120.

Fogel, Robert W., “[Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy](#),” *American Economic Review*, 1994, 84(3), 369-395. (*classic paper*)

Supplemental readings

Bloom, David E., and David Canning, “[The Health and Wealth of Nations](#),” *Science*, 2000, 287(5456), 1207-1208.

Brainerd, Elizabeth, and David Cutler, “[Autopsy on an Empire: Understanding Mortality in Russia and the Former Soviet Union](#),” *Journal of Economic Perspectives*, 2005, 19(1), 107-130.

Costa, Dora, “[Health and the Economy in the United States, from 1750 to the Present](#),” *Journal of Economic Literature*, 2015, 53(3), 503–570.

Deaton, Angus, *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton, NJ: Princeton University Press, 2013, Part I, 59-164.

Session 2: Race and Health

Key points:

- Understanding differences in health by race
- The impact of structural racism

Pre-class readings

Alsan, Marcella, Owen Garrick, and Grant Graziani, 2019. “[Does Diversity Matter for Health? Experimental Evidence from Oakland](#),” *American Economic Review*, 2019, 109(12), 4071-4111.

Alsan, Marcella, Marianne Wanamaker, “[Tuskegee and the Health of Black Men](#),” *The Quarterly Journal of Economics*, 2018, 133(1), 407-455.

Supplemental readings

Alsan, Marcella, and Sarah Eichmeyer, "[Experimental Evidence on the Effectiveness of Non-Experts for Improving Vaccine Demand](#)," NBER Working Paper No. 28593, March 2021.

Bailey Zinzi D., Justin M. Feldman, and Mary T. Bassett, "[How Structural Racism Works - Racist Policies as a Root Cause of U.S. Racial Health Inequities](#)," *N Engl J Med.*, February 25, 2021, 384(8): 768-773.

Joseph Benitez, Charles Courtemanche, and Aaron Yelowitz, 2020. "[Racial and Ethnic Disparities in COVID-19: Evidence from Six Large Cities](#)," *Journal of Economics, Race, and Policy*, 2020, 3(4), 243-261.

Bor Jacob, Atheendar S. Venkataramani, David R. Williams, Alexander C. Tsai. "[Police killings and their spillover effects on the mental health of black Americans: a population-based, quasi-experimental study](#)," *Lancet*. 2018, 392(10144), 302-310.

Chandra, Amitabh, Michael Frakes, and Anup Malani, "[Challenges To Reducing Discrimination And Health Inequity Through Existing Civil Rights Laws](#)," *Health Affairs*, 2017, 36(6), 1041-1047.

Cook, Lisa D., Trevon D. Logan, John M. Parman, "[Racial Segregation and Southern Lynching](#)," *Social Science History*, 2018, 42(4), 635-675.

Gaskin, Darrell J, Eric T. Roberts, Kitty S. Chan, Rachel McCleary, Christine Buttorff, Benjo A. Delarmente, "[No Man is an Island - The impact of neighborhood disadvantage on mortality](#)," *International Journal of Environmental Research and Public Health*. 2019, 16(7), 1-18.

Institute of Medicine 2003. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: The National Academies Press, [Chapter 1](#) (Introduction and Literature Review); optional – entire volume.

Schwandt, Hannes, Janet Currie, Marlies Bär, et al., "[Inequality in mortality between Black and White Americans by age, place, and cause and in comparison to Europe, 1990 to 2018](#)," *Proceedings of the National Academy of Sciences* Oct 2021, 118 (40) e2104684118.

Williams, David R., and Pamela Braboy Jackson, "[Social Sources of Racial Disparities In Health](#)," *Health Affairs*, 2005 24(2), 325-334.

Pierson, Emma, David Cutler, Jure Leskovec, Sendhil Mullainathan, and Ziad Obermeyer, "[An algorithmic approach to reducing unexplained pain disparities in underserved populations](#)," *Nature Medicine*, 2021, 27, 136–140.

I. Health Capital

Session 3: Health Capital

Key points:

- Health as a consumption and investment good
- Value of survival is linear in flow utility (not marginal utility)
- Health improvements are worth a lot

Pre-class readings

Grossman, Michael, “[The Human Capital Model](#),” in *Handbook of Health Economics, Volume 1A*, (an update of the **classic paper**, Michael Grossman, “[On the Concept of Health Capital and the Demand for Health](#),” *Journal of Political Economy*, 1972, 80(2), 223-255.)

Cutler, David, Kaushik Ghosh, Kassandra Messer, Trivellore Raghunathan, Allison Rosen, and Susan Stewart, “[A Satellite Account for Health in the United States](#),” *American Economic Review*, 2022, forthcoming.

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

Supplemental readings

Becker, Gary S., Tomas J. Philipson, and Rodrigo R. Soares, “[The Quantity and Quality of Life and the Evolution of World Inequality](#),” *American Economic Review*, 2005, 95(1), 277-291.

Murphy, Kevin M. and Robert H. Topel, “[The Value of Health and Longevity](#),” *Journal of Political Economy*, 2006, 114(5), 871-904.

Nordhaus, William, “[The Health of Nations: The Contribution of Improved Health to Living Standards](#),” in Kevin Murphy and Robert Topel, eds., *Measuring the Gains from Medical Research: An Economic Approach*. Chicago: University of Chicago Press, Spring 2003.

Session 4: Health Behaviors

Key points:

- Behaviors are a key ‘actual cause’ of death
- ‘Internalities’ are more important than externalities
- Models of behavior

Pre-class readings

Becker, Gary, and Kevin Murphy, "[A Theory of Rational Addiction](#)," *Journal of Political Economy*, 1988, 96(4), 675-700. (*classic paper*)

Gruber, Jonathan and Botond Koszegi, "[Is Addiction 'Rational'? Theory and Evidence](#)," *Quarterly Journal of Economics*, 2001, 116(4), 1261-1303.

Oster, Emily, Ira Shoulson, and E. Ray Dorsey, "[Optimal Expectations and Limited Medical Testing: Evidence from Huntington Disease](#)," *American Economic Review*, 2013, 103(2): 804-830.

Supplemental readings

Models of Health Behaviors

Cawley, John, and Chris Ruhm, "[The Economics of Risky Health Behaviors](#)," *Handbook of Health Economics*, Volume 2.

Cutler, David M., Amber Jessup, Donald Kenkel, and Martha A. Starr, "[Valuing Regulations Affecting Addictive or Habitual Goods](#)," *Journal of Benefit-Cost Analysis*, 2015, 6(2), 247-280.

Bernheim, B. Douglas, and Antonio Rangel, "[Addiction and Cue-Triggered Decision Processes](#)," *American Economic Review*, 2004, 94(5), 1558-90.

Handel, Ben and Joshua Schwartzstein, "[Frictions or Mental Gaps: What's Behind the Information We \(Don't\) Use and When Do We Care?](#)" *Journal of Economic Perspectives*, 2018, 32(1): 155-178.

Laibson, David, "[Golden Eggs and Hyperbolic Discounting](#)," *Quarterly Journal of Economics*, 1997, 112(2), 443-477.

Smoking

Chaloupka, Frank and Kenneth E. Warner, "[The Economics of Smoking](#)," in Anthony J. Culyer and Joseph Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.

De Walque, Damien, "[Education, information, and smoking decisions: evidence from smoking histories, 1940-2000](#)," *Journal of Human Resources*, 2010, 45(3), 682-717.

Manning, Willard, Emmett Keeler, Joseph Newhouse, Elizabeth Sloss, and Jeffrey Wasserman, "[The Taxes of Sin: Do Smokers and Drinkers Pay Their Way?](#)" *JAMA*, 1989, 261(11), 1604-9.

Obesity

Cutler, David, Edward Glaeser, and Jesse Shapiro, "[Why Have Americans Become More Obese?](#)" *Journal of Economic Perspectives*, 2003, 17(3), 93-118.

Sexual Behavior

Dupas, Pascaline, "[Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya](#)," *American Economic Journal: Applied Economics*, 2011, 3(1), 1-34.

Oster, Emily, "[Sexually Transmitted Infections, Sexual Behavior, and HIV/AIDS Epidemic](#)," *Quarterly Journal of Economics*, 2005, 120(2), 467-515.

Thornton, Rebecca, "[The Demand for and Impact of Learning HIV Status: Evidence from a Field Experiment](#)," *American Economic Review*, 2008, 98(5), 1829-1863.

Interventions

Asch, David A., et al., "[Effect of Financial Incentives to Physicians, Patients, or Both on Lipid Levels: A Randomized Clinical Trial](#)," *JAMA*, 2015; 314(18):1926-1935.

Volpp, Kevin, et al., "[A Randomized, Controlled Trial of Financial Incentives for Smoking Cessation](#)," *New England Journal of Medicine*, 2009, 360:699-709.

Volpp, Kevin, et al., "[Financial Incentive–Based Approaches for Weight Loss: A Randomized Trial](#)," *JAMA*. 2008; 300(22):2631-2637.

Technology and Behaviors

Sood, Neeraj, and Dana Goldman, "[HIV Breakthroughs and Risky Sexual Behavior](#)," *Quarterly Journal of Economics*, 2006, 121(3): 1063-1102.

Session 5: SES and Health

Key points:

- The 'gradient' in health
- Education is causally related to health
- The reason why is unclear, though may have to do with cognitive processing

Pre-class readings

Cutler, David and Adriana Lleras-Muney, "[Understanding Differences in Health Behavior by Education](#)," *Journal of Health Economics*, 2010, 29(1), 1-28.

Lleras-Muney, Adriana, "[The Relationship between Education and Adult Mortality in the U.S.](#)," *Review of Economic Studies*, 2005, 72(1), 189-221.

Supplemental readings

Case, Anne, Darren Lubotsky, and Christina Paxson, "[Economic Status and Health in Childhood: The Origins of the Gradient](#)," *American Economic Review*, 2002, 92(5), 1308-1334.

Heckman, James J., John Eric Humphries, and Greg Veramendi, "[Education, Health and Wages](#)," *Journal of Political Economy*, 2018, 126(S1): S197-S246.

Currie, Janet, and Enrico Moretti, "[Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings](#)," *Quarterly Journal of Economics*, 2003, 118(4), 1495-1532.

Goldman, Dana, and James Smith, “[Can patient self-management help explain the SES health gradient?](#)” *Proceedings of the National Academy of Science*, 2002, 99(16), 10929-34.

Rossin-Slater, Maya, Molly Schnell, Hannes Schwandt, Sam Trejo, Lindsey Uniat, “[Local exposure to school shootings and youth antidepressant use](#),” *Proceedings of the National Academy of Sciences*, 2020, 117(38), 23484-23489.

Connolly, Kevin, “[How Does Access to College Affect Long-Term Life Outcomes? Evidence from U.S. Openings of Two-Year Public Colleges](#),” mimeo, 2021. (job market paper)

Session 6: Deaths of Despair

Key points:

- Trends in deaths of despair
- Economic change or medical regress

Pre-class readings

Case, Anne, and Angus Deaton, “[Mortality and Morbidity in the 21st Century](#),” *Brookings Papers on Economic Activity*, 2018, 397-476.

Ruhm, Christopher J., “[Drivers of the fatal drug epidemic](#),” *Journal of Health Economics*, 2019, 64: 25-42.

Supplemental readings

Opioids

Abby E. Alpert, William N. Evans, Ethan M.J. Lieber, David Powell, “[Origins of the Opioid Crisis and Its Enduring Impacts](#),” *Quarterly Journal of Economics*, forthcoming 2022.

Alpert, Abby, David Powell, and Rosalie Liccardo Pacula. 2018. “[Supply-Side Drug Policy in the Presence of Substitutes: Evidence from the Introduction of Abuse-Deterrent Opioids](#),” *American Economic Journal: Economic Policy*, 10 (4): 1-35.

Evans, William, Ethan Lieber, and Patrick Power, “[How the Reformulation of OxyContin Ignited the Heroin Epidemic](#),” *The Review of Economics and Statistics*, 2019, 101(1): 1-15.

Meara, Ellen, et al., “[State Legal Restrictions and Prescription Opioid Use Among Disabled Adults](#),” *New England Journal of Medicine*, 2016, 375:44-53.

Session 7: Disease and Development: Macro Studies

Key points:

- The channels by which disease and development might be linked
- The empirical impact of disease on development is difficult to determine

Pre-class readings

Acemoglu, Daron, and Simon Johnson, “[Disease and Development: The Effect of Life Expectancy on Economic Growth](#),” *Journal of Political Economy*, 2007, 115(6), 925-985. [Also read the debate on the paper: Bloom, David, David Canning, and Gunther Fink, “[Disease and Development Revisited](#),” *Journal of Political Economy*, 2014, 122(6), 1355-1366; Acemoglu, Daron, and Simon Johnson. “[Disease and Development: A Reply to Bloom, Canning, and Fink](#).” *Journal of Political Economy* 2014, 122(6), 1367–1375.]

Alsan, Marcella. 2015. “[The Effect of the TseTse Fly on African Development](#).” *American Economic Review*, 105 (1): 382-410. (job market paper)

Ashraf, Quamrul H., Ashley Lester, and David N. Weil, “[When Does Improving Health Raise GDP?](#)” *NBER Macroeconomics Annual*, 2009.

Supplemental readings

Gallup, John Luke and Jeffrey D. Sachs, “[The Economic Burden of Malaria](#),” Supplement to *The American Journal of Tropical Medicine & Hygiene*, 2001, 64(1-2 Supplement), 85-96.

Jack, William, and Maureen Lewis, “[Health Investments and Economic Growth: Macroeconomic Evidence with Microeconomic Foundations](#),” chapter 1 in Michael Spence and Maureen Lewis, *Health and Growth*, World Bank, Commission on Growth and Development, available online.

Jamison, Dean T., et al., “[Global Health 2035: A World Converging Within a Generation](#),” *The Lancet*, 2013, 382(9908), 1898 – 1955.

Pritchett, Lant and Lawrence Summers, “[Wealthier is Healthier](#),” *Journal of Human Resources*, 1996, 31, 841-868.

Sachs, Jeffrey, and Pia Malaney, “[The Economic and Social Burden of Malaria](#),” *Nature*, 2002, 415(6872), 680-685.

Session 8: Disease and Development: Micro Studies

Key points:

- There is a clear relation between disease and development in micro studies
- The impact is often smaller than macro studies suggest

Pre-class readings

Miguel, Edward and Michael Kremer, “[Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities](#),” *Econometrica*, 2004, 72(1), 159-217. [Also read the follow up paper, Sarah Baird, Joan Hamory Hicks, Michael Kremer, and Edward Miguel, “[Worms at Work: Long-run Impacts of Child Health Gains](#),” *Quarterly Journal of Economics*, 2016, 131(4), 1637-1680.]

Weil, David N., “[Accounting for The Effect of Health on Economic Growth](#),” *Quarterly Journal of Economics*, 2007, 122(3), 1265-1306.

Supplemental readings

Bleakley, Hoyt, 2010. “[Health, Human Capital and Development](#),” *Annual Review of Economics*, Vol 2. 283-310.

Dean, Emma, Frank Schilbach, Heather Schofield, “[Poverty and Cognitive Function](#),” mimeo, 2018.

Kremer, Michael, and Rachel Glennerster, [Improving Health in Developing Countries: Evidence from Randomized Evaluations](#), *Handbook of Health Economics, Volume 2*.

Hookworm

Bleakley, Hoyt, “[Disease and Development: Evidence from Hookworm Eradication in the American South](#),” *Quarterly Journal of Economics*, 2007, 122(1), 73-117.

Malaria

Bleakley, Hoyt, “[Malaria Eradication in the Americas: A Retrospective Analysis of Childhood Exposure](#),” *American Economic Journal: Applied Economics*, 2010, 2(2), 1-45.

Cutler, David M., Winnie Fung, Michael Kremer, Monica Singhal, and Tom Vogl, “[Early-life Malaria Exposure and Adult Outcomes: Evidence from Malaria Eradication in India](#),” *American Economic Journal: Applied Economics*, 2010, 2(2), 72-94.

Lucas, Adrienne, “[Malaria Eradication and Educational Attainment: Evidence from Paraguay and Sri Lanka](#),” *American Economic Journal: Applied Economics*, 2010, 2(2), 46-71.

Malnutrition

Field, Erica, Omar Robles and Maximo Torero, “[Iodine deficiency and schooling attainment in Tanzania](#),” *American Economic Journal: Applied Economics*, 2009, 1(4), 140–69.

Schofield, Heather, “[The Economic Costs of Low Caloric Intake: Evidence from India](#),” mimeo, 2014. (job market paper)

Clean Water

Cutler, David, and Grant Miller, “[The role of public health improvements in health advances: the twentieth-century United States](#),” *Demography*, 2005 42(1), 1-22.

Alsan, Marcella, and Claudia Goldin, “[Watersheds in Infant Mortality: The Role of Effective Water and Sewerage Infrastructure, 1880 to 1915](#),” *Journal of Political Economy*, 2019, 27(2), 586-638.

Kremer, Michael, Jessica Leino, Edward Miguel, and Alix Peterson Zwane, “[Spring Cleaning: Rural Water Impacts, Valuation, and Property Rights Institutions](#),” *Quarterly Journal of Economics*, 2011, 126(1), 145-205.

Early Life Health, Schooling, and Productivity

Almond, Doug, “[Is the 1918 Influenza Pandemic Over? Long-Term Effects of In Utero Exposure in the Post-1940 US Population](#),” *Journal of Political Economy*, 2006, 114(4), 672-712.

Almond, Doug, Lena Edlund, and Mårten Palme, “[Chernobyl’s Subclinical Legacy: Prenatal Exposure to Radioactive Fallout and School Outcomes in Sweden](#),” *Quarterly Journal of Economics*, 2009, 124(4), 1729-1772.

Currie, Janet, “[Inequality at Birth: Some Causes and Consequences](#),” *American Economic Review*, 2011, 101(3): 1-22.

Maccini, Sharon and Dean Yang, “[Under the Weather: Health, Schooling and Socioeconomic Consequences of Early Life Rainfall](#),” *American Economic Review*, 2009, 99(3), 1006-1026.

II: Health Systems

Session 9: Overview of Health Systems

Key points:

- The basics of a health system
- Supply versus demand-side restrictions
- Problems of supply: Provider competence and attendance

Pre-class readings

Chaudhury, Nazmul, et al., “[Missing in Action: Teacher and Health Worker Absence in Developing Countries](#),” *Journal of Economic Perspectives*, 2006, 20(1), 91-116.

Supplemental readings

Rawlins, Michael D., “[NICE Work – Providing Guidance to the British National Health Service](#),” *New England Journal of Medicine*, 2004, 351(14), 1383-5.

Developing Countries (esp. China and India)

Blumenthal, David and William Hsiao, “[Privatization and Its Discontents: The Evolving Chinese Health System](#),” *New England Journal of Medicine*, 2005, 353(11), 1165-1170.

Filmer, Deon and Lant Pritchett, “[The Impact of Public Spending on Health: Does Money Matter?](#)” *Social Science and Medicine*, 1999, 49(10), 1309-1323.

Das, Jishnu and Jeffrey Hammer, “[Money for nothing: The dire straits of medical practice in Delhi, India](#),” *Journal of Development Economics*, 2007, 83(1), 1-36.

Conditional Cash Transfers

Gertler, Paul, “[Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA’s Control Randomized Experiment](#),” *American Economic Review*, 2004, 94(1), 336-341.

Session 10: Health Reform in Europe and the United States

Key points:

- Policy changes in rich countries
- The Affordable Care Act

Pre-class readings

Cutler, David M., “[Equality, Efficiency, and Market Fundamentals: The Dynamics of International Medical Care Reform](#),” *Journal of Economic Literature*, 2002, 40(3), 881-906.

Supplemental readings

Chandra, Amitabh, Gruber, Jonathan and McKnight, Robin, “[The Importance of the Individual Mandate – Evidence from Massachusetts](#).” *New England Journal of Medicine*, 2011, 364: 293-295.

Kolstad, Jonathan, and Amanda Kowalski, “[Mandate-Based Health Reform and the Labor Market: Evidence from the Massachusetts Health Insurance Reform](#),” *Journal of Health Economics*, 2016, 47, 81-106.

Newhouse, Joseph P., “[Medical Care Costs: How Much Welfare Loss?](#)” *Journal of Economic Perspectives*, 1992, 6(3), 13-29.

Evaluation of the ACA

Fang, Hanming, and Dirk Krueger, “[The Affordable Care Act After a Decade: Its Impact on the Labor Market and the Macro Economy](#),” NBER Working Paper No. 29240, September 2021.

Handel, Benjamin and Jonathan T. Kolstad, “[The Affordable Care Act After a Decade: Industrial Organization of the Insurance Exchanges](#),” NBER Working Paper No. 29178, August 2021.

Session 11: Optimal Health Insurance I: The Demand Side

Key points:

- The balance between risk spreading and moral hazard
- Is current insurance optimal?

Pre-class readings

Ericson, Keith M. and Justin R. Sydnor. “[Liquidity Constraints and the Value of Insurance](#),” NBER Working Paper No. 24993, 2018.

Hendren, Nathan, “[Measuring Ex Ante Welfare in Insurance Markets](#),” *Review of Economic Studies*, 2021, 88(3), 1193-1223.

Classic papers

Arrow, Kenneth. “[Uncertainty and the Welfare Economics of Medical Care](#),” *American Economic Review*, 1963, 53(5), 941-973.

Pauly, Mark, “[The Economics of Moral Hazard: Comment](#),” *American Economic Review*, 1968, 58(3), 531-537.

Supplemental readings

Lockwood, Lee, “[Anti-Insurance: Health Insurance Increases Risk Exposure](#),” mimeo, September 2021.

McGuire, Tom, “[Demand for Health Insurance](#),” in *Handbook of Health Economics, Volume 2*.

Session 12: Optimal Health Insurance II: The Supply Side

Key points:

- The balance between risk spreading and moral hazard
- Is current insurance optimal?
- Supply-side cost sharing
- Managed care

Pre-class readings

Gawande, Atul, “[The Cost Conundrum](#),” *The New Yorker*, June 1, 2009.

Supplemental readings

Acquatella, Angie, “[Optimal Contracting for Low Value Care](#),” mimeo, 2020. (job market paper)

McGuire, Tom, “[Physician Agency](#),” in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.

Session 13: Health Insurance and Health

Key Points:

- Insurance coverage and health
- Public insurance expansions

Pre-class readings

Card, David, Carlos Dobkin, and Nicole Maestas, “[Does Medicare Save Lives?](#)” *Quarterly Journal of Economics*, 2009, 124(2), 597–636.

Finkelstein, Amy, et al., "[The Oregon Health Insurance Experiment: Evidence from the First Year](#)," *Quarterly Journal of Economics*, 2012, 127(3), 1057-1106.

Goldin, Jacob, Ithai Z. Lurie, and Janet McCubbin, "[Health Insurance and Mortality: Experimental Evidence from Taxpayer Outreach](#)," *Quarterly Journal of Economics*, 2021, 136(1), 1-49.

Supplemental readings

Medicare and health

Afendulis, Christopher C., Yulei He, Alan Zaslavsky, and Michael E. Chernew, "[The Impact of Medicare Part D on Hospitalization Rates](#)," *Health Services Research*, 2011, 46(4), 1022-1038.

McWilliams, J. Michael, Alan M. Zaslavsky, Ellen Meara, and John Z. Ayanian, "[Impact of Medicare Coverage on Basic Clinical Services for Previously Uninsured Adults](#)," *JAMA*, August 13, 2003, 290(6), pp. 757-764.

Weathers, Robert R., II, and Michelle Stegman, "[The effect of expanding access to health insurance on the health and mortality of Social Security Disability Insurance beneficiaries](#)," *Journal of Health Economics*, 2012, 31(6), 863-875.

Myerson, Rebecca Mary, Reginald Tucker-Seeley, Dana Goldman, and Darius N. Lakdawalla, "[Does Medicare Coverage Improve Cancer Detection and Mortality Outcomes?](#)" *Journal of Policy Analysis and Management*, Summer 2020, 39(3), 577-604.

Medicaid and health

Goodman-Bacon, Andrew, "[Public Insurance and Mortality: Evidence from Medicaid Implementation](#)," *Journal of Political Economy*, 2018, 126(1): 216-262. (job market paper)

Currie, Janet, and Jonathan Gruber, "[Saving Babies: The Efficacy and Cost of Recent Expansions of Medicaid Eligibility for Pregnant Women](#)," *Journal of Political Economy*, 1996, 104(6), 1263-1296.

Finkelstein, Amy, Nathan Hendren, and Erzo Luttmer, "[The Value of Medicaid: Interpreting Results from the Oregon Health Insurance Experiment](#)," *Journal of Political Economy*, 2019, 127(6), 2836-2874.

Miller, Sarah, Sean Altekruze, Norman Johnson, and Laura R. Wherry, "[Medicaid and Mortality: New Evidence from Linked Survey and Administrative Data](#)," *Quarterly Journal of Economics*, 2021, 136(3), 1783-1829.

More on Oregon

Baicker, Katherine, et al., "[The Oregon Experiment – Effects of Medicaid on Clinical Outcomes](#)," *New England Journal of Medicine*, 2013, 368(18), 1713-1722.

Taubman, Sarah, et al., “[Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment](#),” *Science*, January 2, 2014.

Health Insurance and Income

Brown, David W. and Kowalski, Amanda E. and Lurie, Ithai, “[Medicaid as an Investment in Children: What is the Long-Term Impact on Tax Receipts?](#)” *The Review of Economic Studies*, 2020, 87(2), Pages 792–821.

Miller, Sarah, and Wherry, Laura R. “[The Long-Term Health Effects of Early Life Medicaid Coverage](#),” *Journal of Human Resources*, 2019, 54(3), 785-824.

Health Plans and Health

Abaluck, Jason, Mauricio M. Caceres Bravo, Peter Hull, and Amanda Starc, “[Mortality Effects and Choice Across Private Health Insurance Plans](#),” *Quarterly Journal of Economics*, 2021, 136(3), 1557-1610.

Geruso, Michael, Tim Layton, and Jacob Wallace, “[Are All Managed Care Plans Created Equal? Evidence from Random Plan Assignment in Medicaid](#),” NBER Working Paper No. 27762, August 2020.

Other outcomes

Jacome, Elisa, “[Mental Health and Criminal Involvement: Evidence from Losing Medicaid Eligibility](#),” mimeo, 2021. (job market paper)

Session 14: Demand and Moral Hazard

Key Points:

- Empirical estimates of moral hazard
- Is it really moral hazard?

Pre-class readings

Feldstein, Martin, “[The Welfare Loss of Excess Health Insurance](#),” *Journal of Political Economy*, 81(2), part I, March-April 1973, 251-280. (*classic paper*)

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.

Brot-Goldberg, Zarak C., Amitabh Chandra, Benjamin Handel, and Jonathan Kolstad, “[What Does a Deductible Do? The Impact of Cost Sharing on Health Care Prices, Quantities, and Spending Dynamics](#)” *Quarterly Journal of Economics*, 2017, 132(3), 1261-1318.

Supplemental readings

Demand response to price: Cost Sharing, Utilization, and Health

Chandra, Amitabh, Jonathan Gruber, and Robin McKnight, "[Patient Cost-Sharing and Hospitalization Offsets in the Elderly](#)," *American Economic Review*, 2010, 100(1), 1-24.

Chandra, Amitabh, Evan Flack, and Ziad Obermeyer, "[The Health Cost of Cost-Sharing](#)," NBER Working Paper No. 28439, 2021.

Handel, Benjamin R. and Jonathan T. Kolstad, "[Health Insurance for 'Humans': Information Frictions, Plan Choice, and Consumer Welfare](#)," *American Economic Review*, August 2015, 105(8):2449-500.

Kaestner, Robert, and Anthony T. LoSasso, "[Does Seeing the Doctor More Often Keep You Out of the Hospital?](#)" *Journal of Health Economics*, January 2015, 39:259-72.

Lieber, Ethan M.J. "[Does It Pay to Know Prices in Health Care?](#)" *American Economic Journal: Economic Policy*, 2017, 9(1):154–179. **(job market paper)**

Prager, Elena, "[Consumer Responsiveness to Simple Health Care Prices: Evidence From Tiered Hospital Networks](#)," *American Economic Journal: Applied Economics*, 2020, 12 (4): 196-223. **(job market paper)**

Robinson, James C., and Timothy T. Brown, "[Increases in Consumer Cost Sharing Redirect Patient Volumes and Reduce Hospital Prices For Orthopedic Surgery](#)," *Health Affairs*, 2013, 32(8), 1392-1397.

Shigeoka, Hitoshi, "[The Effect of Patient Cost Sharing on Utilization, Health, and Risk Protection](#)," *American Economic Review*, July 2014, 104(7):2152-84.

Is it really moral hazard?

Gladwell, Malcolm, "[The Moral Hazard Myth](#)," *The New Yorker*, August 29, 2005.

Baicker, Katherine, Sendhil Mullainathan, and Joshua Schwartzstein, "[Behavioral Hazard in Health Insurance](#)," *Quarterly Journal of Economics*, 2015, 130(4), 1623-1667.

Alpert, Abby, "[The anticipatory effects of Medicare Part D on drug utilization](#)," *Journal of Health Economics*, 2016 49(Sep), 28-45. **(job market paper)**

Direct to Consumer Advertising

Shapiro, Bradley, "[Positive spillovers and free riding in advertising of prescription pharmaceuticals: The case of antidepressants](#)," *Journal of Political Economy*, 2018, 126(1), 381-437. **(job market paper)**

Shapiro, Bradley, "[Promoting Wellness or Waste? Evidence from Antidepressant Advertising](#)," forthcoming, *American Economic Journal: Microeconomics*, 2022.

Sinkinson, Michael and Amanda Starc, "[Ask Your Doctor? Direct-to-Consumer Advertising of Pharmaceuticals](#)," *Review of Economic Studies*, 2019, 86(2): 836–881.

Session 15: Supply-Side Responses to Payment

Key Points:

- Response to supply prices
- Payment rate changes, health care utilization, and health

Pre-class readings

Clemens, Jeffrey, and Joshua Gottlieb, “[Do Physicians’ Financial Incentives Affect Treatment Patterns and Patient Health?](#)” *American Economic Review*, 2014; 104(4): 1320–1349.

Song, Zirui, et al., “[Changes in Health Care Spending and Quality 4 Years into Global Payment,](#)” *New England Journal of Medicine*, 2014; 371:1704-1714

Supplemental readings

Impact of Prices on Physician Behavior

Dafny, Leemore, “[How Do Hospitals Respond to Price Changes?](#)” *American Economic Review* 2005, 95: 1525-1547.

Jacobson, Mireille, Craig C. Earle, Mary Price, and Joe Newhouse, “[How Medicare’s Payment Cuts for Cancer Chemotherapy Drugs Changed Patterns of Treatment,](#)” *Health Affairs*, 2010, 29(7): 1391-1399.

Ji, Yunan, “[Can Competitive Bidding Work in Health Care? Evidence from Medicare Durable Medical Equipment,](#)” mimeo, 2021. (job market paper)

Bundled Payments / Accountable Care Organizations

Barnett, Michael L., et al., “[Two-Year Evaluation of Mandatory Bundled Payments for Joint Replacement,](#)” *New England Journal of Medicine*, January 2, 2019.

Song, Zirui, et al., “[The ‘Alternative Quality Contract,’ based on a global budget, lowered medical spending and improved quality,](#)” *Health Affairs*, 2012, 31(8), 1885-94.

McWilliams, J. Michael, Bruce E. Landon, and Michael E. Chernew, “[Changes in health care spending and quality for Medicare beneficiaries associated with a commercial ACO contract,](#)” *JAMA*, 2013, 310(8), 829-836.

Physician Responses to Information

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.

Dranove, David, “[Health Care Markets, Regulators, and Certifiers,](#)” in *Handbook of Health Economics, Volume 2*, esp. section 5.

Dranove, David, Dan Kessler, Mark McClellan, and Mark Satterthwaite, “[Is More Information Better? The Effects of 'Report Cards' On Health Care Providers](#),” *Journal of Political Economy*, 2003, 111(3), 555-88.

Kolstad, Jonathan, “[Information and Quality When Motivation is Intrinsic: Evidence from Surgeon Report Cards](#),” *American Economic Review*, 2013, 103(7), 2875-2910.

Schnell, Molly, “[Physician Behavior in the Presence of a Secondary Market: The Case of Prescription Opioids](#),” mimeo, 2017. **(job market paper)**

Physician responses to malpractice

Avraham, Ronen, and Max Schanzenbach, “[The Impact of Tort Reform on Intensity of Treatment: Evidence from Heart Patients](#),” *Journal of Health Economics*, 2015, 39:273-88.

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.

Carroll, Caitlin, David Cutler, and Bapu Jena, “[How Do Physicians Respond to Malpractice Allegations? Evidence from Florida Emergency Departments?](#),” NBER Working Paper No. 28330, January 2021.

Kessler, Daniel, and Mark McClellan, “[Do Doctors Practice Defensive Medicine?](#)” *Quarterly Journal of Economics*, 1996, 111(2), 353-390.

Physician Responses to Detailing

Grennan, Matthew, Matthew Grennan, Kyle Myers, Ashley Swanson, and Aaron Chatterji, “[No Free Lunch? Welfare Analysis of Firms Selling Through Expert Intermediaries](#),” NBER Working Paper No. 24864, July 2018.

Impact on Labor Markets

Hackmann, Martin, Joerg Heining, Roman Klimke, Maria Polyakova, and Holger Siebert, “[General Equilibrium Effects of Insurance Expansions: Evidence from Long-Term Care Labor Markets](#),” mimeo, 2021.

Shen, Karen, “[Who Benefits from Public Financing of Home Care for Low-Income Seniors?](#)”, mimeo, 2021. **(job market paper)**

Session 16: Insurance Selection

Key points:

- Perfect and imperfect information in insurance are each problematic
- The right model of insurance choice is difficult
- Market design is a major issue

Pre-class readings

Einav, Liran, Amy Finkelstein, and Mark Cullen, “[Estimating Welfare in Insurance Markets Using Variation in Prices](#),” *Quarterly Journal of Economics*, 2010, 125(3), 877-921. [See also Einav, Liran, and Amy Finkelstein, “[Selection in Insurance Markets: Theory and Empirics in Pictures](#),” *Journal of Economic Perspectives*, 2011, 25(1), 115-138.]

Hackmann, Martin B. Jonathan T. Kolstad, and Amanda E. Kowalski, “[Adverse Selection and an Individual Mandate](#),” *American Economic Review*, March 2015, 105(3):1030-66.

Hendren, Nathaniel, “[Private Information and Insurance Rejections](#),” *Econometrica*, 2013, 81(5): 1713-1762. **(job market paper)**

Classic papers

Akerlof, George A., “[The Market for 'Lemons': Quality Uncertainty and the Market Mechanism](#),” *Quarterly Journal of Economics*, 1970, 84(3), 488-500.

Rothschild, Michael and Joseph E. Stiglitz, “[Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information](#),” *Quarterly Journal of Economics*, 1976, 90(4), 629-650.

Supplemental readings

Breyer, Friedrich, M. Kate Bundorf, and Mark Pauly, “[Health Care Spending Risk, Health Insurance, and Payment to Health Plans](#),” in *Handbook of Health Economics, Volume 2*.

Cutler, David, Amy Finkelstein, and Kathleen McGarry, “[Preference Heterogeneity and Insurance Markets](#),” *American Economic Review*, 2008, 98(2), 157-62.

Cutler, David, and Sarah Reber, “[Paying for Health Insurance: The Tradeoff between Competition and Adverse Selection](#),” *Quarterly Journal of Economics*, 1998, 113(2), 433-466.

Einav, Liran, Amy Finkelstein, and Neale Mahoney, “[The IO of Selection Markets](#),” NBER Working Paper No. 29039, July 2021.

Finkelstein, Amy and Kathleen McGarry, “[Multiple dimensions of private information: evidence from the long-term care insurance market](#),” *American Economic Review* 2006, 96(4), 938-958.

Geruso, Michael, Timothy Layton, and Daniel Prinz, “[Screening in Contract Design: Evidence from the ACA Health Insurance Exchanges](#),” *American Economic Journal: Economic Policy*, 2019, 11(2): 64-107.

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

Handel, Ben, Igal Hendel, and Michael D. Whinston, “[Equilibria in Health Exchanges: Adverse Selection vs. Reclassification Risk](#),” *Econometrica*, 2015, 83(4), 2015, 1261-1313

Shepard, Mark, “[Hospital Network Competition and Adverse Selection: Evidence from the Massachusetts Health Insurance Exchange](#),” forthcoming, *American Economic Review*, 2022. (job market paper)

Risk Adjustment

Van de Ven, Wynand P.M.M., and Randall Ellis, “[Risk Adjustment in Competitive Health Plan Markets](#),” in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.

Mahoney, Neale, and E. Glen Weyl, “[Imperfect Competition in Selection Markets](#),” *Review of Economics and Statistics*, 2017, 99(4), 637-651.

Session 17: Disability Insurance

Key points:

- Rapid increase in disability insurance (DI) program participation over time; but recently, caseload decline
- DI provides valuable social insurance but discourages work
 - Economic conditions affect DI claiming
 - Insurance-incentive tradeoff, moral hazard
- DI trend not strongly related to trends in population health
 - Incidence of severe health problems did not fuel historic rise
 - But pain treatment has been a major problem, and there are signs of trouble ahead
- DI participants account for large share of Medicare and Medicaid spending

Pre-class readings

Maestas, Nicole, Kathleen Mullen, and Alexander Strand, “[Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt](#),” *American Economic Review* 2013. 103(5): 1797-1829.

Supplemental readings

How SSDI and SSI Work and How They Can Be Made Better

Maestas, Nicole, “[Identifying Work Capacity and Promoting Work: A Strategy for Modernizing the SSDI Program.](#)” *The ANNALS of the American Academy of Political and Social Science*, 2019, 686:93-120.

Daly, Mary C. and Mark Duggan, “[When One Size Does Not Fit All: Modernizing the Supplemental Security Income Program.](#)” *The ANNALS of the American Academy of Political and Social Science*, 2019, 686:229-249.

Overview of the Disability Insurance System

Liebman, Jeffrey B. “[Understanding the Increase in Disability Insurance Benefit Receipt in the United States.](#)” *The Journal of Economic Perspectives*, 2015, 29(2): 123-149.

Disability Insurance and Labor Supply

Autor, David and Mark Duggan, “[The Rise in Disability Reciprocity and the Decline in Unemployment.](#)” *Quarterly Journal of Economics*, 2003, 118(1), 157-206.

Autor, David, Nicole Maestas, Kathleen Mullen, and Alexander Strand, “[Does Delay Cause Decay? The Effect of Administrative Decision Time on the Labor Force Participation and Earnings of Disability Applicants.](#)” NBER Working Paper No. 20840. January 2015.

Maestas, Nicole, Kathleen Mullen, and Alexander Strand, “[The Effect of Economic Conditions on the Disability Insurance Program: Evidence from the Great Recession.](#)” *Journal of Public Economics*, 2021, 199, 104410.

Welfare of the Disabled

Burkhauser, Richard V., and Mary Daly. “[The Economic Status of People with Disabilities.](#)” in: *The declining work and welfare of people with disabilities: What went wrong and a strategy for change*, chapter 1, AEI Press, 2011, 10-20.

Deshpande, Manasi, Tal Gross, and Yalun Su, “[Disability and Distress: The Effect of Disability Programs on Financial Outcomes.](#)” *American Economic Journal: Applied Economics*, 2021, 13(2), 151-178.

Optimal Social Insurance Programs

Chetty, Raj, “[A General Formula for the Optimal Level of Social Insurance.](#)” *Journal of Public Economics*, 2006, 90(10-11), 1879-1901.

Low, Hamish, and Luigi Pistaferri. “[Disability insurance and the dynamics of the incentive insurance trade-off.](#)” *American Economic Review* 105.10 (2015): 2986-3029.

Lockwood, Lee, and Manasi Deshpande, “[Beyond Health: Non-Health Risk and the Value of Disability Insurance.](#)” forthcoming, *Econometrica*, 2022.

On Why In Kind Benefits May Be Optimal

Lieber, Ethan M. J., and Lee M. Lockwood, “[Targeting with In-Kind Transfers: Evidence from Medicaid Home Care.](#)” *American Economic Review*, 2019, 109(4), 1461-1485.

III. Productivity

Session 18: Dimensions of Productivity and Productive Inefficiency

Key points:

- Defining health care productivity
- Healthcare productivity is low

Pre-class readings

Bloom, Nicholas, et al., “[Management Practices across Firms and Countries](#),” *Academy of Management*, 2012, 26(1), 12-33.

Finkelstein, Amy, Annetta Zhou, Sarah Taubman, and Joseph Doyle. 2020. “[Health Care Hotspotting – A Randomized, Controlled Trial](#).” *The New England Journal of Medicine*, 2020, 382(2), 152-62.

Einav, Liran, Amy Finkelstein, Sendhil Mullainathan, and Ziad Obermeyer, “[Predictive modeling of U.S. health care spending in late life](#),” *Science*, 2018, 360(6936): 1462-1465.

Supplemental readings***Administrative costs***

Cutler, David, and Dan Ly, “[The \(Paper\) Work of Medicine](#),” *Journal of Economic Perspectives*, 25(2), 3-25.

Dunn, Abe, Josh Gottlieb, Adam Shapiro, Daniel Sonnenstuhl, and Pietro Tebaldi, “[A Denial a Day Keeps the Doctor Away](#),” NBER Working Paper No. 29010, July 2021.

Shi, Maggie, “[The Costs and Benefits of Monitoring Providers: Evidence from Medicare Audits](#),” mimeo, 2021 (**job market paper**)

Workforce policy

Aiken, Linda, et al., “[Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction](#),” *JAMA*, 2002, 288(16), 1987-1993.

Chan, David, “[Teamwork and Moral Hazard: Evidence from the Emergency Department](#),” *Journal of Political Economy*, 2016, 124(3): 734-770. (**job market paper**)

Propper, Carol, and John Van Reenen, “[Can Pay Regulation Kill? Panel Data Evidence on the Effect of Labor Markets on Hospital Performance](#),” *Journal of Political Economy*, 2010, 118(2): 222-273.

Hygiene

Wellsjo, Alex Steiny, “[Simple Actions, Complex Habits: Lessons from Hospital Hand Hygiene](#),” mimeo 2021. (**job market paper**)

Session 19: The Return to Doing More

Key points:

- The aggregate returns to health spending have been large
- Cross-section spending differences are often not associated with improved outcomes

Pre-class readings

Chandra, Amitabh and Douglas Staiger, “[Productivity Spillovers in Health Care: Evidence from the Treatment of Heart Attacks](#),” *Journal of Political Economy*, 2007, 115(1), 103-140.

Cutler, David, Allison B. Rosen, and Sandeep Vijan, “[Value of Medical Innovation in the United States: 1960-2000](#),” *New England Journal of Medicine*, 2006; 355(9), 920-927.

Finkelstein, Amy, Matthew Gentzkow, and Heidi Williams, “[Sources of Geographic Variation in Health Care: Evidence from Patient Migration](#),” *Quarterly Journal of Economics*, 2016, 131(4), 1681-1726.

Fisher, Elliott S. et al., “The implications of regional variations in Medicare spending. [Part 1: the content, quality, and accessibility of care](#),” and [Part 2: health outcomes and satisfaction with care](#),” *Annals of Internal Medicine*, 2003, 138(4), 273-287 and 288-298.

Mullainathan, Sendhil and Ziad Obermeyer, “[Diagnosing Physician Error: A Machine Learning Approach to Low-Value Health Care](#),” *The Quarterly Journal of Economics*, 2022, forthcoming.

Supplemental readings

Time Series Returns to Spending

Cutler, David, *Your Money or Your Life*, Oxford: Oxford University Press, 2004, chapter 3-5.

Cutler, David, “[Are We Finally Winning the War on Cancer?](#)” *Journal of Economic Perspectives*, 2008, 22(4), 3-26.

Cutler, David, and Robert Huckman, “[Technological Development and Medical Productivity: The Diffusion of Angioplasty in New York State](#),” *Journal of Health Economics*, 2003, 22(2), 187-217.

Lichtenberg, Frank, “[The Impact of New Drugs on U.S. Longevity and Medical Expenditure, 1990-2003](#),” *American Economic Review*, 2007, 97(2), 438-443.

Cross-sectional Returns to Spending

Almond, Douglas, Joseph J. Doyle Jr., Amanda E. Kowalski, and Heidi Williams, “[Estimating Marginal Returns to Medical Care: Evidence from At-Risk Newborns](#),” *Quarterly Journal of Economics*, 2010, 125(2), 591-634.

Chandra, Amitabh, and Doug Staiger, “[Identifying Sources of Inefficiency in Healthcare and Education](#),” *Quarterly Journal of Economics*, 2020, 135(2): 785-843.

Chandra, Amitabh, Any Finkelstein, Adam Sacarny, and Chad Syverson, “[Healthcare Exceptionalism? Productivity and Allocation in the U.S. Healthcare Sector](#),” *American Economic Review*, 2016, 106(8), 2110-2144.

Doyle, Joseph J., Jr., “[Returns to Local-Area Health Care Spending: Using Health Shocks to Patients Far from Home](#),” *American Economic Journal: Applied Economics*, 2011, 3(3), 221-243.

McClellan, Mark, Barbara J. McNeil, and Joseph P. Newhouse. “[Does More Intensive Treatment of Acute Myocardial Infarction in the Elderly Reduce Mortality? Analysis using Instrumental Variables](#),” *JAMA* 1994, 272(11), 859-859.

Skinner, Jonathan, and Doug Staiger, “[Technology Diffusion and Productivity Growth in Health Care](#),” *The Review of Economics and Statistics*, 2015, 97(5): 951–964

More on Regional Variations in Spending

Cooper, Zach, Stuart V. Craig, Martin Gaynor, and John Van Reenan, “[The Price Ain’t Right? Hospital Prices and Health Spending on the Privately Insured](#),” *Quarterly Journal of Economics*, 2019, 134(1), 51-107.

Cutler, David, Jon Skinner, Ariel Stern, and David Wennberg, “[Physician Beliefs and Patient Preferences: A New Look at Regional Variation in Health Care Spending](#),” *American Economic Journal: Economic Policy*, 2019, 11(1): 192-221.

Diagnostic ability

Currie, Janet and Bentley MacLeod. “[Diagnosing Expertise: Human Capital, Decision Making, and Performance among Physicians](#),” *Journal of Labor Economics*, 2017, 35(1): 18977.

Doyle, Joseph, Todd Wagner, and Steven Ewer, “[Returns to physician human capital: Evidence from patients randomized to physician teams](#),” *Journal of Health Economics*, 2010, 29(6), 866-882.

Marquandt, Kelli, “[Mis\(sed\) Diagnosis: Physician Decision Making and ADHD](#),” mimeo, 2021. (job market paper)

Session 20: Theories of Uneven Productivity

Key points:

- Theories for uneven productivity: flat of the curve medicine, increasing returns, behavioral biases

Pre-class readings

Chandra, Amitabh, and Jonathan Skinner, “[Technology Growth and Expenditure Growth in Health Care](#),” *Journal of Economic Literature*, 2012, 50(3): 645-80.

Supplemental readings

Chandra, Amitabh, David Cutler, and Zirui Song, “[Who Ordered That?](#)” in *Handbook of Health Economics, Volume 2*.

Garber, Alan, and Jonathan Skinner, “[Is American Health Care Uniquely Inefficient?](#)” *Journal of Economic Perspectives*, 2008, 22(4), 27-50.

Skinner, Jonathan, “[Causes and Consequences of Regional Variations in Health Care](#),” in *Handbook of Health Economics, Volume 2*.

IV. Medical Care Markets

Session 21: Overview of Medical Care Delivery

Key points:

- Both horizontal and vertical integration are common

Supplemental readings

Summary

Handel, Benjamin and Kate Ho, “[Industrial Organization of Health Care Markets](#),” NBER Working Paper No. 29137, August 2021. [Paper relevant for entire unit]

Not-for-profit versus for-profit institutions

Baicker, Katherine and Douglas Staiger, “[Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality](#),” *Quarterly Journal of Economics*, 2005, 120(1), 345-386.

Duggan, Mark, “[Hospital Ownership and Public Medical Spending](#),” *Quarterly Journal of Economics*, 2000, 115(4), 1343-1373.

Horwitz, Jill, “[Making Profits and Providing Care: Comparing Nonprofit, For-Profit, and Government Hospitals](#),” *Health Affairs*, 2005, 23(3), 790-801.

Sloan, Frank, “[Not-for-Profit Ownership and Hospital Behavior](#),” in Anthony J. Culyer and Joseph P. Newhouse, eds., *Handbook of Health Economics*, Amsterdam: North-Holland, 2000.

Pharmaceuticals

Duggan, Mark and Fiona Scott-Morton, “[The Effect of Medicare Part D on Pharmaceutical Prices and Utilization](#),” *American Economic Review*, 2010, 100(1): 590–607.

Scott-Morton, Fiona, and Margaret Kyle, “[Markets for Pharmaceutical Products](#),” in *Handbook of Health Economics, Volume 2*.

Lakdawalla, Darius, and Wesley Yin, “[Insurers’ Negotiating Leverage and the External Effects of Medicare Part D](#),” *Review of Economics and Statistics*, 2015, 97(2), 314-331.

Private Equity

Gupta, Atul, Sabrina T Howell, Constantine Yannelis, and Abhinav Gupta, “[Does Private Equity Investment in Healthcare Benefit Patients? Evidence from Nursing Homes](#),” NBER Working Paper No. 28474, February 2021.

Session 22: Competition and Outcomes

Key points:

- Consolidation has costs and benefits

Pre-class readings

Gaynor, Martin, Rodrigo Moreno-Serra, and Carol Propper, “[Death by Market Power: Reform, Competition, and Patient Outcomes in the National Health Service](#),” *American Economic Journal: Economic Policy*, 2013, 5(4), 134-166.

Supplemental readings

Competition

Cutler, David, and Fiona Scott-Morton, “[Hospitals, Market Share, and Competition](#),” *JAMA*, 2013, 310(18), 1964-1970.

Dafny, Leemore, “[Hospital Industry Consolidation – Still More to Come?](#)” *New England Journal of Medicine*, 2013, December 11.

Grennan, Matthew. “[Price Discrimination and Bargaining: Empirical Evidence from Medical Devices](#),” *The American Economic Review*, 2013, 103(1), 145-177. (job market paper)

Kessler, Daniel and Mark McClellan, “[Is Hospital Competition Socially Wasteful?](#)” *Quarterly Journal of Economics*, 2000, 115(2), 577-615.

Scheffler, Richard M., Daniel R. Arnold, and Christopher M. Whaley, “[Consolidation Trends In California’s Health Care System: Impacts On ACA Premiums And Outpatient Visit Prices](#),” *Health Affairs*, 2018, 37(9):1409-1416.

Entry

Cutler, David, Robert S. Huckman, and Jonathan T. Kolstad, “[Input Constraints and the Efficiency of Entry: Lessons from Cardiac Surgery](#),” *American Economic Journal: Economic Policy*, 2010, 2(1), 51-76.

Clark, Jonathan R. and Robert Huckman, “[Broadening Focus: Spillovers, Complementarities and Specialization in the Hospital Industry](#),” *Management Science*, 2012, 58(4), 708–722.

Gaynor, Martin, Carol Propper, and Stephan Seiler, “[Free to Choose? Reform, Choice, and Consideration Sets in the English National Health Service](#),” *American Economic Review*, 2016, 106 (11): 3521-57.

Collusion

Cuddy, Emily, “[Competition and Collusion in the US Generic Drug Market](#),” mimeo, 2021. (job market paper)

Vertical integration

Brot-Goldberg, Zarek and Mathijs de Vaan, “[Intermediation and Vertical Integration in the Market for Surgeons](#),” mimeo, 2018. (job market paper)

Session 23: Insurer-Provider Interactions

Key points:

- Equilibria with bilateral oligopoly
- Network formation is a Pareto inefficient equilibrium

Pre-class readings

Clemens, Jeffrey, and Joshua Gottlieb, “[In the Shadow of a Giant: Medicare’s Influence on Private Payment Systems](#),” *Journal of Political Economy*, 2017, 125(1), 1-39.

Ho, Kate, “[Insurer-Provider Networks in the Medical Care Market](#),” *American Economic Review*, 2009, 99(1): 393-430.

Ho, Kate, and Robin Lee, “[Equilibrium Provider Networks: Bargaining and Exclusion in Health Care Markets](#),” *American Economic Review*, 2019, 109(2), pages 473-522. [To understand the estimates, you need to also read Ho and Lee, “[Insurer Competition in Health Care Markets](#),” *Econometrica*, 2017, 85(2), 379-417.]

Supplemental readings

Gowrisankaran, Gautam, Aviv Nevo, and Robert Town, “[Mergers When Prices Are Negotiated: Evidence from the Hospital Industry](#),” *American Economic Review*, 2015, 105(1): 172-203.

Session 24: Insurer competition

Key points:

- The insurance industry is relatively low profit, but not that competitive
- People do not make the best choices in insurance, and this influences equilibria

Pre-class readings

Dafny, Leemore, Mark Duggan and Subramaniam Ramanarayanan, “[Paying a Premium on Your Premium? Consolidation in the U.S. Health Insurance Industry](#),” *American Economic Review*, 2012, 102(2), 1161-1185.

Marone, Victoria, and Adrienne Sabety, “[Should There be Vertical Choice in Health Insurance Markets?](#)” NBER Working Paper No. 28779, May 2021. **(job market paper)**

Starc, Amanda, “[Insurer Pricing and Consumer Welfare: Evidence from Medigap](#),” *Rand Journal of Economics*, 2014, 45(1): 198-220. **(job market paper)**

Supplemental readings

Theory

Ericson, Keith, and Amanda Starc, "[How Product Standardization Affects Choice: Evidence from the Massachusetts Health Insurance Exchange](#)," *Journal of Health Economics*, 2016, 50, 71-85.

Frank, Richard, and Richard Zeckhauser, "[Health Insurance Exchanges – Making the Markets Work](#)," *New England Journal of Medicine*, 2009, 361(12), 1135-1137.

How competitive is insurance?

Cabral, Marika, Michael Geruso, Neale Mahoney, "[Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage](#)," *American Economic Review*, 2018, 108(8): 2048-2087.

Curto, Vilsa, Liran Einav, Jonathan Levin, and Jay Bhattacharya, "[Can Health Insurance Competition Work? Evidence from Medicare Advantage](#)," *Journal of Political Economy*, 2021, 129(2), 570-606.

Duggan, Mark, Amanda Starc, and Boris Vabson, "[Who Benefits when the Government Pays More? Pass-Through in the Medicare Advantage Program](#)," *Journal of Public Economics*, 2016, 141, 50-67.

Dafny, Leemore, "[Are Health Insurance Markets Competitive?](#)" *American Economic Review*, 2010, 100(4), 1399-1431.

How People Make Choice Decisions

Abaluck, Jason T., and Jonathan Gruber, "[Choice Inconsistencies among the Elderly: Evidence from Plan Choice in the Medicare Part D Program](#)," *American Economic Review*, 101(4): 1180-1210.

Barseghyan, Levon, Francesca Molinari, Ted O'Donoghue, and Joshua C. Teitelbaum, "[The Nature of Risk Preferences: Evidence from Insurance Choices](#)," *American Economic Review*, 2013, 103(6), 2499-2529.

Ericson, Keith, and Amanda Starc, "[Pricing Regulation and Imperfect Competition on the Massachusetts Health Insurance Exchange](#)," *Review of Economics and Statistics*, 2015, 97(3), 667-682

Ericson, Keith Marzilli, and Amanda Starc, "[Heuristics and Heterogeneity in Health Insurance Exchanges: Evidence from the Massachusetts Connector](#)," *American Economic Review*, 2012, 102(3): 493-97.

Handel, Ben, and Jonathan Kolstad, "[Health Insurance for Humans: Information Frictions, Plan Choice, and Consumer Welfare](#)," *American Economic Review*, 2015, 105(8), 2449-2500.

Heiss, Florian, Adam Leive, Daniel McFadden, and Joachim Winter, "[Plan Selection in Medicare Part D: Evidence from Administrative Data](#)," *Journal of Health Economics*, 2013, 32(6), 1325–1344.

Bhargava, Saurabh, George Loewenstein, and Justin Sydnor, “[Choose to Lose: Health Plan Choices from a Menu with Dominated Options](#),” *Quarterly Journal of Economics*, 2017, 132(3): 1319-1372.

Pakes, Ariel, Jack Porter, Mark Shepard, and Sophie Calder-Wang, “[Unobserved Heterogeneity, State Dependence, and Health Plan Choices](#),” NBER Working Paper No. 29025, July 2021.

Dynamics

Ericson, Keith, “[Consumer Inertia and Firm Pricing in the Medicare Part D Prescription Drug Insurance Exchange](#),” *AEJ: Economic Policy*, 2014, 6(1): 38-64. (job market paper)

Session 25: Antitrust Analysis (joint with Leemore Dafny)

Key points:

- How antitrust enforcers evaluate proposed mergers (with hospital sector as example)
- How economic research has impacted these evaluations in the healthcare sector
- The scope of antitrust law (specifically, its limits)

Pre-class readings

Dafny, Leemore S., Katherine Ho, and Robin S. Lee, “[The Price Effects of Cross-Market Mergers: Theory and Evidence from the Hospital Industry](#),” *Rand Journal of Economics*, 2019, 50(2), 286-325.

Supplemental readings

Capps, Cory, David Dranove, and Mark Satterthwaite, “[Competition and market power in option demand markets](#),” *Rand Journal of Economics*, 2003, 34(4): 737–763.

Dafny, Leemore, “[Estimation and Identification of Merger Effects: An Application to Hospital Mergers](#),” *Journal of Law & Economics*, August 2009, 52(3): 523-550

Dafny, Leemore, and Thomas Lee, “[The Good Merger](#),” NEJM Perspective, *New England Journal of Medicine*, 2015; 372:2077-2079

Dafny, Leemore. “[Hospital Industry Consolidation — Still More to Come?](#)” *New England Journal of Medicine*; 370: 198-199. January 16, 2014.

Farrell, Joseph, et al., “[Economics at the FTC: Hospital Mergers, Authorized Generic Drugs, and Consumer Credit Markets](#),” *Review of Industrial Organization*, 2011, 37, (read pp. 271-282).

Wollmann, Thomas G., “How To Get Away with Merger: Stealth Consolidation and Its Real Effects on US Healthcare,” [NBER Working Paper No. 27274](#), May 2020.

Session 26: Health Care Innovation

Key points:

- Insurance has dynamic as well as static effects
- The importance of intellectual property for investment

Pre-class readings

Budish, Eric, Benjamin N. Roin, and Heidi Williams, “[Do Firms Underinvest in Long-Term Research? Evidence from Cancer Clinical Trials](#),” *American Economic Review*, 2015, 105(7): 2044-85.

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

Williams, Heidi, “[Intellectual Property Rights and Innovation: Evidence from the Human Genome](#),” *Journal of Political Economy*, 2013, 121(1), 1-27. (job market paper)

Supplemental readings

Carpenter, Daniel, “[Groups, the Media, Agency Waiting Costs, and FDA Drug Approval](#),” *American Journal of Political Science*, 2002, 46(3), 490-505.

Lakdawalla, Darius N. 2018. “[Economics of the Pharmaceutical Industry](#),” *Journal of Economic Literature*, 56 (2): 397-449.

Sampat, Bhaven, and Heidi L. Williams, “[How Do Patents Affect Follow-On Innovation? Evidence from the Human Genome](#),” *American Economic Review*, 2019, 109 (1): 203-36.

Stern, Ariel Dora. “[Innovation Under Regulatory Uncertainty: Evidence from Medical Technology](#),” *Journal of Public Economics*, 2017, 145, 181–200. (job market paper)

Innovation for Pandemic Disease

Ahuja, Amrita, Susan Athey, Arthur Baker, et al., “[Preparing for a Pandemic: Accelerating Vaccine Availability](#),” *AEA Papers and Proceedings*, May 2021, 111, 331-335.

Castillo, Camilo, Amrita Ahuja, Susan Athey, et al., “[Market design to accelerate COVID-19 vaccine supply](#),” *Science*, Feb 25, 2021, 371 (6534), 1107-1109.

Kremer, Michael, Jonathan D. Levin, and Christopher M. Snyder, “[Designing Advance Market Commitments for New Vaccines](#),” BFI Working Paper, December 7, 2020.

Wiecek, Witold, Amrita Ahuja, Michael Kremer, et al., “[Could Vaccine Dose Stretching Reduce COVID-19 Deaths?](#)” NBER Working Paper No. 29018, July 2021.

Innovation and Inequality

Cutler, David M, Ellen Meara, and Seth Richards-Shubik. 2012. “[Induced Innovation and Social Inequality: Evidence from Infant Medical Care](#).” *Journal of Human Resources*, 2012, 47 (2): 456-492.

Hamilton, Barton, Andres Hincapie, Emma C. Kalish, and Nicholas W. Papageorge, “[Innovation and Health Disparities During an Epidemic: The Case of HIV](#),” NBER Working Paper No. 28864, May 2021.

Lleras-Muney, Adriana, and Frank R. Lichenberg, “[Are the More Educated More Likely to Use New Drugs?](#)” *Annales d'Économie et de Statistique*, no. 79/80, 2005, pp. 671–96.

Other Papers to Read on COVID

Macroeconomic Impact

Fernández-Villaverde, Jesus, and Charles I. Jones, “[Macroeconomic Outcomes and COVID-19: A Progress Report](#),” *Brookings Papers on Economic Activity*, 2020(3), 111-166.

Bloom, David E., Michael Kuhn, and Klaus Prettnner, “[Modern Infectious Diseases: Macroeconomic Impacts and Policy Responses](#),” NBER Working Paper No. 27757, August 2020.

Goolsbee, Austan and Chad Syverson, “[Fear, lockdown, and diversion: Comparing drivers of pandemic economic decline 2020](#),” *Journal of Public Economics*, 2021, 193, 104311.

Distributional Impact

Alsan, Marcella, Amitabh Chandra, and Kosali Simon, “[The Great Unequalizer: Initial Health Effects of COVID-19 in the United States](#),” *Journal of Economic Perspectives*, 2021, 35(3): 25-46.

Behavioral Responses

Sumedha Gupta, Sumedha, Kosali Simon, and Coady Wing, 2020. “[Mandated and Voluntary Social Distancing during the COVID-19 Epidemic](#),” *Brookings Papers on Economic Activity*, vol 2020(2), 269-326.

Banerjee, Abhijit, Arun G. Chandrasekhar, Suresh Dalpaht, et al., “[Selecting the Most Effective Nudge: Evidence from a Large-Scale Experiment on Immunization](#),” NBER Working Paper No. 28726, May 2021.

Factors in COVID Spread

Chen, M. Keith, Judith A. Chevalier, and Elisa F. Long, “[Nursing Home Staff Networks and COVID-19](#),” *Proceedings of the National Academy of Sciences*, 2021, 118(1), 2015455118-.

Safety Net

Bitler, Marianne, Hilary W. Hoynes, and Diane Whitmore Schanzenbach, “[The Social Safety Net in the Wake of COVID-19](#),” *Brookings Papers on Economic Activity*, 2020(2), 119-158.

Impact on Other Conditions

Bullinger, Lindsey Rose, Jillian B. Carr, and Analisa Packham, “[COVID-19 and Crime: Effects of Stay-at-Home Orders on Domestic Violence](#),” *American Journal of Health Economics*, 2021, 7(3), 249-280.

Woolf, Steven H, Derek A. Chapman, Roy T. Sabo et al., “[Excess Deaths From COVID-19 and Other Causes, March-July 2020](#),” *JAMA*. 2020;324(15):1562-1564.