



**ECON 410 Economics of Health and
Healthcare**

(4 Units)

Fall 2022

Tues-Thurs 2-3:50pm

Instructor: Maria Prados

Office Hours: Fri 8amPT (Zoom)

Contact Info: prados@usc.edu (usually reply within two
business days)

TA: TBA

Course Description

The course is appropriate for junior and senior students who are familiar with microeconomic methods and basic calculus.

This course is an introduction to the field of health economics. Health economics is an active field of microeconomics with a large and growing literature. In the past three decades, some of the most controversial policies considered by state and federal governments have involved issues that have been analyzed by health economists. The COVID-19 pandemic brought health policy front and center. In this course, we will study topics like lack of health insurance and the Affordable Care Act (ACA), measures and determinants of health, health disparities and unhealthy behaviors. The goal of this course is twofold. One is to better understand the economic theory of health and healthcare. We will study several economic models in detail, including models of health, addiction, demand for healthcare and demand for insurance. The emphasis will be on key economic concepts that health economists use to analyze health and healthcare markets. The second goal of the class is to learn to evaluate and interpret empirical findings in health economics. We will read some of the papers to understand the findings reported in those papers.

Learning Objectives

By the end of the course, the students will be able to understand the economic principles behind the supply and demand of medical care, the components of the main health care systems around the world, and the challenges faced by health care policy. The students will be able to understand the main findings and basic methodology of research papers in health economics.

Prerequisite(s): Intermediate Microeconomics (ECON 303)

Recommended Preparation: If your recollection of intermediate microeconomics is rusty, I strongly recommend you read the chapters on consumer demand theory in any good intermediate microeconomics textbook (such as Hal Varian's *Intermediate Microeconomics: A Modern Approach*)

Course Notes

Copies of lecture slides and other class information will be posted on Blackboard. It is forbidden to repost this material in any way or form.

The material covered on the examinations will come from the lecture notes, problem sets and required readings. If a student requests that some question on an examination be re-graded, the professor will review the entire examination. Makeup exams will be offered only under extenuating circumstances (e.g. serious injuries, family deaths), so please plan accordingly.

Required Readings and Supplementary Materials

Main textbook (required): *Health Economics* by Bhattacharya, Hyde and Tu (2013) (BHT)

Supplementary textbook (optional): *The Economics of Health and Health Care*, by Folland, Goodman and Stano (2016)

Besides the main textbook (which students are encouraged to buy or rent) we will read some academic papers. These additional readings are listed under each weekly topic and will be available on Blackboard or online.

Adequately citing these papers in the exams, problem sets or class discussion will result in extra credit. For both the required and optional papers you should focus on the motivation behind the analysis and the main findings, as well as how they complement what we discuss in class. Skimming or skipping the more technical parts of these readings is fine.

Description and Assessment of Assignments

Assessment will take place in form of problem sets, in-class participation, student presentations, a midterm examination and a final examination.

Assignment Submission Policy: Problem sets must be submitted via email or in print before the end of the class on the due date. The solutions to the problem sets will be posted on Blackboard after class on the due date.

Class Presentation: The students are expected to form groups and prepare a presentation on one case study of their choosing. The suggested number of group members is four. The groups can prepare their presentations on one of the suggested topics (see page 5) or propose a new one (to be discussed with the professor). This is an opportunity to learn about a topic that the students find particularly interesting. It is also a way to apply economic principles to the analysis, understand the impact of health policy, the challenges faced when designing a policy measure and the tradeoffs involved. The presentation will take place during class at the end of the course. It should cover the following aspects:

1. Description of the situation/context. Explanation of the policy proposed.
2. What the policy aims to achieve/solve (Use economics and what we learned in class to explain the theoretical implications of the policy.)
3. Explain if the policy will likely have the intended effect. Who will be the agents benefited/hurt by the policy. (Use economic principles and what we learned in class to explain this.)
4. Public debate surrounding health policy measure (proponents, opponents); or Describe any research results measuring effects of policy.
5. Bonus: any interaction with other policies/reforms

So that, in a group of four, each student in the group should present one of the first 4 aspects.

Class Participation: Class discussion is important for both individual and collective learning. The following points characterize effective participation:

- Do comments draw on the text and materials from this and other courses?
- Do they show evidence of analysis?
- Does the student distinguish between opinion and well-supported analysis? Normative and positive issues?
- Are the points made substantive? Do they advance or deepen the discussion/analysis?
- Do comments clarify and highlight the important aspects of earlier comments and lead to a clearer statement of the concepts being considered? Is there an attempt to synthesize the discussion?

Grading Breakdown

Assignment	% of Grade
Problem Sets	20%
Class participation	5%
Presentation in class	15%
Midterm Exam	20%
Final Exam	40%
TOTAL	100%

Course Schedule: A Weekly Breakdown

	Topics/Daily Activities	Readings and Homework
Weeks 1 and 2	Introduction to Health Economics Some facts about health care spending Determinants of health and long run trends Economic models of health	<ul style="list-style-type: none"> • BHT, Ch. 1 • Fuchs, Victor R. "What is Health?" In <i>The Future of Health Policy</i>. Boston: Harvard University Press, pp. 27-40. • Cutler, D. M., & Ly, D. P. (2011). "The (paper) work of medicine: understanding international medical costs." <i>Journal of Economic Perspectives</i>, 25(2), 3-25. • Fuchs, Victor R. 2010. "Health Care Is Different—That's Why Expenditures Matter." <i>JAMA</i> 303.18: 1859-1860. • Aaron, H. and P. Ginsburg. 2009. "Is Health Spending Excessive? If So, What Can We Do About it?" <i>Health Affairs</i>, 28(5): 1260-1275. • BHT, Ch. 2
Week 3	Demand for health Health and SES	<ul style="list-style-type: none"> • BHT, Ch. 3 & 4 • Smith, James P. 1999. "Healthy Bodies and Thick Wallets: The Dual Relation Between Health and Economic Status." <i>Journal of Economic Perspectives</i>. 13(2):145-167.
Week 4	Health and SES (cont.) Supply of health care	<ul style="list-style-type: none"> • BHT Ch 4 & 5
Week 5	Supply of health care	<ul style="list-style-type: none"> • BHT Ch. 6
Week 6	Demand for insurance Adverse selection	<ul style="list-style-type: none"> • BHT Ch. 7 & 8
Week 7	Adverse selection	<ul style="list-style-type: none"> • BHT Ch. 9 & 10
Week 8	Review session Midterm exam (3/10)	<ul style="list-style-type: none"> • Ch. 1-9 • Midterm includes BHT Ch. 1-10
Week 9	Moral hazard Economics of health innovation	<ul style="list-style-type: none"> • BHT Ch. 11 • Krugman, Paul, "Health Economics 101," <i>New York Times</i>, November 14, 2005. • Gruber, Jonathan, "Why We Need the Individual Mandate," <i>Center for American Progress Report</i>, April 8, 2010. • BHT Ch. 12
Week 10	Innovation, technology and health care Health policy	<ul style="list-style-type: none"> • BHT Ch. 13 & 14 • Cutler and McClellan (2001) "Is Technological Change in Medicine Worth It?" <i>Health Affairs</i>, 20(5):11-29. • BHT Ch 15
Week 11	Health care systems	<ul style="list-style-type: none"> • BHT Ch. 16, 17 & 18 • Finkelstein, Amy, Sarah Taubman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, Katherine Baicker, and the Oregon Health Study Group. 2012. "The Oregon Health Insurance Experiment:

		<p>Evidence from the First Year.” Quarterly Journal of Economics. 127(3): 1057-1106.</p> <ul style="list-style-type: none"> • Kaiser Family Foundation, April 2013. “Summary of the Affordable Care Act”
Week 12	Aging	<ul style="list-style-type: none"> • BHT Ch. 19 • Vaupel, James W. 2010. Biodemography of human ageing. Nature. 464: 537-541.
Week 13	Health externalities Epidemiology	<ul style="list-style-type: none"> • BHT Ch. 20, • Chay, Kenneth and Greenstone, Michael. “The Impact of Air Pollution on Infant Mortality: Evidence from Geographic Variation in Pollution Shocks Induced by a Recession,” August 2003, Quarterly Journal of Economics, 118(3) • Currie, Janet, Michael Greenstone and Enrico Moretti “Superfund Cleanups and Infant Health.” The American Economic Review: Papers and Proceedings, 101, May 2011: 435-441 • Miguel, Edward, and Michael Kremer (2004). “Worms: Identifying Impacts on Education and Health the Presence of Treatment Externalities”, Econometrica, 72(1), 159-217. • BHT Ch 21
Week 14	Behavioral economics of health Review Session	<ul style="list-style-type: none"> • BHT, Ch. 23 & 24 • Royer, Heather, Mark Stehr, and Justin Sydnor. "Incentives, Commitments and Habit Formation in Exercise: Evidence from a Field Experiment with Workers at a Fortune-500 Company." American Economic Journal: Applied, 2015, 7(3): 51–84 • Bhargava, Saurabh, George Loewenstein, and Justin Sydnor. “Do Individuals Make Sensible Health Insurance Decisions? Evidence from a Menu with Dominated Options.” No. 21160. National Bureau of Economic Research, Inc, 2015.
Week 15	Student presentations	
OFFICIAL FINAL EXAM DATE	Dec 8th, 2-4pm PT. (In accordance with the USC <i>Schedule of Classes</i> at https://classes.usc.edu/term-20223/finals/)	

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/student/scampus/part-b>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Discrimination, sexual assault, intimate partner violence, stalking, and harassment are prohibited by the university. You are encouraged to report all incidents to the *Office of Equity and Diversity/Title IX Office* <http://equity.usc.edu> and/or to the *Department of Public Safety* <http://dps.usc.edu>. This is important for the health and safety of the whole USC community. Faculty and staff must report any information regarding an incident to the Title IX Coordinator who will provide outreach and information to the affected party. The sexual assault resource center webpage <http://sarc.usc.edu> fully describes reporting options. Relationship and Sexual Violence Services <https://engemannshc.usc.edu/rsvp> provides 24/7 confidential support.

Support Systems

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. engemannshc.usc.edu/counseling

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/ssa

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.

Provides overall safety to USC community. dps.usc.edu

List of optional readings by topic

Introduction to Health Economics

Baker, M., Stabile, M., and Deri, C. “What Do Self-Reported Objective Measures of Health Measure?” *Journal of Human Resources*, 39(4), pp.1067-1093

De Lew, Nancy; Greenberg, George; and Kinchen, Kraig. 1992. “A Layman's Guide to the U.S. Health Care System,” *Health Care Financing Review* 14(1, Fall): 151-169.

Fuchs (1996) “Economics, Values, and Health Care Reform,” *American Economic Review* 86(1):1-24

NIHCM Data Brief, July 2012. The Concentration of Health Care Spending.

Kaiser Family Foundation, May 2012. Health Care Costs: A Primer.

Health determinants and long run trends

Cutler, David, Angus Deaton and Adriana Lleras-Muney, “The Determinants of Mortality,” *Journal of Economic Perspectives*, Vol 20, Number 3, 2006.

Angus Deaton. 2013. *The Great Escape*, Princeton University Press. Chapter 1.

Economic Models of Health

Becker, Gary S., Tomas J. Philipson, and Rodrigo R. Soares. 2005. The Quantity and Quality of Life and the Evolution of World Inequality. *American Economic Review*. 95(1): 277-91.

Heckman, James J. 2007. The economics, technology, and neuroscience of human capability formation. *Proceedings of the National Academy of Sciences, USA*. 104(33):13250-5. Epub 2007 Aug 8. (for a summary, see also <https://www.aft.org/sites/default/files/periodicals/Heckman.pdf>)

Grossman, Michael. 1972. On the Concept of Health Capital and the Demand for Health. *Journal of Political Economy* 80 (2): 223–255.

Health and SES

Case, Anne, Darren Lubotsky, and Christina Paxson. 2002. “Economic Status and Health in Childhood: The Origins of the Gradient.” *American Economic Review*. 92(5): 1308-34.

Chetty, Raj; Michael Stepner, Sarah Abraham, Shelby Lin, Benjamin Scuderi, Nicholas Turner, Augustin Bergeron and David Cutler "The Association Between Income and Life Expectancy in the United States, 2001-2014." JAMA, 2016

Deaton, Angus and Darren Lubotsky "Mortality, inequality and race in American cities and states." Social Science & Medicine 56 (2003) 1139–1153

Strauss, John. "Does better nutrition raise farm productivity?" The Journal of Political Economy (1986): 297-320.

Lleras-Muney, Adriana. 2005. "The Relationship between Education and Adult Mortality in the United States," Review of Economic Studies, 72(1): 189-221.

Clark, Damon, and Heather Royer. "The effect of education on adult mortality and health: Evidence from Britain." The American Economic Review 103.6 (2013): 2087-2120.

Supply of Healthcare

McClellan and Kessler (2000) "Medical Liability, Managed Care, and Defensive Medicine," National Bureau of Economic Research Working Paper #7537

Bhattacharya (2005) "Specialty Selection and Lifetime Returns to Specialization within Medicine" Journal of Human Resources 40(1):115-43.

Pharmaceuticals and Technological Innovation

Weisbrod, Burton A. 1991. "The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment." Journal of Economic Literature, 29 (1991): 523-552.

Fisher, Elliot, Jonathan Skinner and Douglas Staiger, "Is Technological Change in Medicine Always Worth It? The Case of Acute Myocardial Infarction," Health Affairs, Web Exclusive, February 7, 2006.

Kremer, Michael, "Pharmaceuticals and the Developing World," Journal of Economic Perspectives, 16(4): 67–90, 2002.

Health insurance and Moral Hazard

Manning, Willard; Newhouse, Joseph; Naihua, Duan; Keeler, Emmett; and Leibowitz, Arleen. "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment." American Economic Review, 77 (June, 1987): 251-277.

Aron-Dine, Aviva, Liran Einav, and Amy Finkelstein. "The RAND Health Insurance Experiment, Three Decades Later." The Journal of Economic Perspectives 27.1 (2013): 197-222.

Cutler and Zeckhauser (1999) "The Anatomy of Health Insurance" NBER Working Paper #7176

Adverse Selection in Health Insurance

Cutler, D. and Reber, S. "Paying for Health Insurance: The Trade-Off Between Competition and Adverse Selection," Quarterly Journal of Economics, May 1998:434-466.

Cochrane (1995) "Time-Consistent Health Insurance," Journal of Political Economy, 103(3):445-473.

Akerlof, George. "The Market for Lemons," *The Quarterly Journal of Economics*, 84, August 1970: 488-500.

Pauly, Mark. "Overinsurance and Public Provision of Insurance: The Roles of Moral Hazard and Adverse Selection." *The Quarterly Journal of Economics*, 88, Feb., 1974: 44-62

Michael Rothschild and Joseph Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," *Quarterly Journal of Economics*, 90 (4), November 1976, pp. 630-649.

Public Insurance: Medicaid and Medicare

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(7): 1644-1668.

Barcellos, Silvia Helena and Mireille Jacobson. 2015. "The Effects of Medicare on Medical Expenditure Risk and Financial Strain." *American Economic Journal: Economic Policy*.

Iglehart (1999) "The American Health Care System: Medicaid," *New England Journal of Medicine* 340(5): 403-8

Currie, Janet and Gruber, Jonathan. "Saving Babies: The Efficacy and Cost of Recent Changes in the Medicaid Eligibility of Pregnant Women," *Journal of Political Economy*, 104, (6), December 1996.

Finkelstein, Amy, "The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare," *Quarterly Journal of Economics*. February 2007.

Wherry, Laura, Sarah Miller, Robert Kaestner, and Bruce Meyer "Childhood Medicaid Coverage and Later Life Health Care Utilization." 2015, NBER Working Paper No. 20929

The uninsured and the Affordable Care Act

Baicker, Katherine and Chandra, Amitabh, 2008. "Myths and Misconceptions about U.S. Health Insurance," *Health Affairs*, Web Exclusive: w533-w543.

Barcellos, Silvia Helena, et al. "Preparedness of Americans for the Affordable Care Act." *Proceedings of the National Academy of Sciences* 111.15 (2014): 5497-5502.

Gruber, Jonathan, 2008. "Covering the Uninsured in the United States," *Journal of Economic Literature*, 46(3): 571-606.

Fredric Blavin, Stephen Zuckerman, and Michael Karpman, 2014. "Who Has Been Looking for Information in the ACA Marketplaces? Why? And How?" *Urban Institute Health Reform Monitoring Survey Brief*.

Aaron, Henry J. and Kevin W. Lucia, 2013. "Only the Beginning — What's Next at the Health Insurance Exchanges?" *New England Journal of Medicine* 369:1185-1187

Jonathan Gruber (1994) "The Incidence of Mandated Maternity Benefits," *American Economics Review* 84(3):622-41.

David Cutler (2010) "How Health Care Reform Must Bend the Cost Curve" *Health Affairs* 29(6): 1131-35.

Douglas Holtz-Eakin and Michael J. Ramlet (2010) "Health Care Reform is Likely to Widen Federal Budget Deficits, Not Reduce Them" *Health Affairs* 29(6):1136-41.

Health Policy

Ashenfelter, Orley and Michael Greenstone, "Using Mandated Speed Limits to Measure The Value of a Statistical Life," *Journal of Political Economy*, vol 112, no. S1, February 2004.

Sen, Amartya "The Discipline of Cost-Benefit Analysis," *The Journal of Legal Studies*, Vol 29, No.2 June 2000, pp. 931-952.

Externalities and Public Health

Cutler, David M. and Grant Miller. 2005. "The Role of Public Health Improvements in Health Advances: The Twentieth-Century United States." *Demography*. 42(1): 1-22.

Almond D, B Mazumder. 2005. "The 1918 influenza pandemic and subsequent health outcomes: An analysis of SIPP data." *American Economic Review: Papers and Proceedings*. 95: 258-262.

Currie, Janet and Reed Walker. "Traffic Congestion and Infant Health: Evidence from E-ZPass." *American Economic Journal: Applied Economics*, 3, January 2011:65-90

Economic Epidemiology

Ahituv et al. (1996) "The Responsiveness of the Demand for Condoms to the Local Prevalence of AIDS," *Journal of Human Resources*, 31(4):869-897.

Philipson, (1996) "Private Vaccination and Public Health: An Empirical Examination for U.S. Measles," *Journal of Human Resources*, 31(3): 611-630.

Philipson (1999) "Economic Epidemiology and Infectious Diseases," NBER Working Paper #7037.

Philipson and Posner (1995) "A Theoretical and Empirical Investigation of The Effects of Public Health Subsidies for STD Testing," *Quarterly Journal of Economics*, 110(2):445-474.

Geoffard and Philipson (1996) "Rational Epidemics and Their Public Control," *International Economic Review*, 37(3):603-624.

Geoffard and Philipson (1997) "Disease Eradication: Private versus Public Vaccination," *American Economic Review*, 87(1): 222-230.

Dow et al. (1995) "Disease Complementarities and the Evaluation of Public Health Interventions," NBER Working Paper #5216.

Goldman, Lakdawalla, and Sood (2004) "HIV Breakthroughs and Risky Sexual Behavior," NBER Working Paper #10516

Unhealthy Behavior: Evidence and Policy Issues

Fenelon, Andrew and Samuel H. Preston. 2012. "Estimating Smoking-Attributable Mortality in the United States." *Demography*. 49: 797-818.

Becker, Garry S. and Murphy Kevin M., "A Theory of Rational Addiction," *Journal of Political Economy*, 1988; 96(4):675-700.

Manning W. G., E.B. Keeler, J. P. Newhouse, E. M. Sloss and J. Wasserman, "Taxes of Sin: Do smokers and Drinkers pay their way?" *Journal of the American Medical Association* 261(11), 1989

Bhattacharya J and Sood N (2010) "Who Pays for Obesity" *Journal of Economic Perspectives*

The Behavioral Economics of Health

Gruber and Kosegi (2001) "Is Addiction 'Rational'? Theory and Evidence," *Quarterly Journal of Economics* 116(4):1261-1303

Bhattacharya J, Goldman D, and Sood N, "Market Evidence of Misperceived Prices and Mistaken Mortality Risks," (2009) *Journal of Economics, Behavior, and Organization*.

Wang, Yang "Dynamic Implications of Subjective Expectations: Evidence from Adult Smokers." *American Economic Journal: Applied Economics*, 2014, 6(1): 1–37