

HEALTH ECONOMICS
ECON 850
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
FALL 2021 SYLLABUS¹

LOGISTICS

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Gardner 101

Class Site:
<https://sakai.unc.edu/portal/site/econ850.fa21>

Department: Economics
Credit Hours: 3.0

Office Hours:
By appointment.
In person or via ZOOM at:
<https://unc.zoom.us/j/96640258339?pwd=K3JoYkI4WEJhRnE1S1creGY3SGxTUT09>
Passcode: he21fall0h

Lectures:
T/Th 3:30 - 4:45 PM
Gardner Hall - Rm 308

COURSE DESCRIPTION

This course focuses on the consumer side of health economics with an emphasis on dynamic behavior. Topics include health as human capital, demand for medical care, health insurance, health and labor supply interactions, risky and addictive behaviors and innovation and learning. The course has two main objectives. First, it aims to help students become familiar with a subset of economic research in the field as well as the methods employed. Second, it aims to foster critical understanding of health economics as students prepare to embark upon their own dissertation research.

ASSIGNMENTS AND GRADING

- Research proposal (54%)
 - Preliminary broad sketch (8%) [**September 7**]
 - Mid-point research proposal (8%) [**October 5**]
 - Research proposal for peer review (10%) [**November 16**]
 - Proposal presentation (8%) [**November 23, 30**]
 - Final research proposal (20%) [**December 4**]

¹This version was compiled on November 3, 2021. I will notify you of any updates to the syllabus.

- Peer review report: (8%) [**November 23, 30**]
- Paper presentation (8%) [**TBD**]
- Participation (30%)
 - In class participation (15%)
 - Paper summaries (15%) [**Every class based on a journal article or working paper**]

Research groups. Students are allowed and encouraged to work in groups of up to three authors. If a student would like to work with someone but does not have a partner they can submit their names to me (via an email) by **August 31** and I will pair you with other students looking to partner up, provided there is any.

Preliminary broad sketch. Extended abstract of topic(s) and research question(s). Try to make your research questions as sharp and delineated as possible. Length of broad sketch should be less than one page.

Specs: 1.5 spacing, 1 inch margins, 12pt Times New Roman or similar font. *****Same specs apply for ALL documents (summaries, proposals, peer reports, etc.)*****

Mid-point research proposal. The mid-point proposal should contain:

- Refined research question, stated as clearly and sharply as possible.
- Motivation: motivating your question and its importance. (2 paragraphs)
- How: brief abstract of how you intend to answer the question (e.g. an RD design, an IV strategy, a dynamic discrete-choice structural model, an equilibrium structural model). (1 paragraph)
- Related literature: this should include a focal paper (or papers) that you plan to use as a benchmark for your paper and how your work relates. (1 page at most)
- Data: brief description of data source, summary statistics of key variables, and one descriptive table that provides insight into your question of interest. (2 pages at most)
- Empirical model:
 - *Reduced-form proposals*: write down your empirical equation(s). What is your estimation strategy? How do you identify your causal effect of interest? What are potential confounders? (2 pages at most)
 - *Structural proposals*: Explain briefly how do you plan to estimate your model (e.g. ML, SMM). Explain how your data will allow you to identify the policy-invariant, deep parameters of interest. If possible, provide reduce-form evidence motivating the mechanisms in your model. (2 pages at most)

We will devote one or two classes to discuss mid-point research proposals. Be prepared to present your work. Time allocated to each group TBD.

Note: You are allowed to marginally change your topic from what you had declared in the initial broad sketch. If you would like a major change in your topic make sure to discuss the change with me.

Research proposal for peer review. It should be about 12-15 pages long and it should include:

- Abstract: 100 words or less (this can be single spaced).
- Introduction. The following questions should be answered concisely in (at most) the first three paragraphs of your introduction: What is your research question? What is the motivation for your research? Why do you think your research is a contribution to the literature?
- Literature Review: thorough but concise. You could make this part of the Intro or you could have it separate.
- Theoretical Model (if any): this surely applies for structural models and applies to reduced form models if testing a theory.
- Empirical Model: this mostly applies to reduced-form models, specially those that do not have a theoretical model.
- Data: describe the data set that you will use and provide and analyze summary stats that:
 - display that the data do not have anomalies (these are your standard summary stats, do not spend too much space here); and
 - motivate your research question (these are more targeted summary stats, more relevant for your analysis).
- Estimation Strategy: provide the econometric procedure that you intend to follow and briefly discuss why you selected it over other alternatives.
- Preliminary Results: this applies most strongly for reduced-form models. For structural proposals you may provide preliminary simulations of a basic version of your model; check with me about what constitutes acceptable preliminary results.
- Bibliography.

The proposal will be reviewed by one of your classmates. Each of you will provide detailed written comments to a proposal.

Proposal presentation. Depending on the number of research groups, we will devote several classes for authors to present their proposals. Time allocated to each group TBD.

Final research proposal. A final version of the research proposal with modifications after discussion and peer comments must be submitted. It still should be about 12-17 pages long.

Research proposal peer review. Provide detailed written comments to another research group's proposal. Be prepared to present and discuss your comments.

Paper presentation. Every student will lead at least one class during the semester with a paper chosen from a set of recent research papers (published, working papers, and job market papers). Find the collection of candidate papers for presentation in the link in the "Overview" tab in the class site on Sakai (link at top of syllabus). Students can also find themselves a paper they would like to present, I will then evaluate if the paper is suitable for the class.

In-class participation. Participation is critical for the success of the class. I expect you to come to each class having read the papers and prepared to discuss them. The more ready and willing you are to ask questions and provide your insight, the more you will learn. Being prepared for class, classroom attendance and participation will all be factored into the final in-class-participation grade. *Note:* I do ask questions to students in class but you should not think of this as a test, instead, it is an opportunity to make mistakes in a low-stakes environment. I hope to make my fair share of mistakes in our discussions.

Paper summaries. In order to provide a basic ground for discussion every student will create a summary of each paper we discuss in class. The summary must provide a brief (one or two sentence) responses to each of **questions 1 to 5 of the guidelines for reading papers** (see below), along with **1 critique** and **1 sharp, delineated research question** that occurred to you from reading the paper. Be ready to discuss your summary, criticism and research question in class. Bring a copy of your summary to class. Summaries should be no longer than 1 page. No summaries are needed for handbook chapters.

COURSE TOPICS OUTLINE

1. Introduction; 2. Demand for Medical Care; 3. Health Insurance; 4. Health and the Labor Market; 5. Consumption of Addictive Goods; 6. Other Topics (e.g. Innovation, Learning, Long-Term Care, Mental Health).

Tentative Schedule - Fall 2021

Week	Day	Date	Topic	Readings	Comments
1	Th	8/19	Intro	Arrow (1963); Pauly (1988); Garber and Skinner (2008); Papanicolas, Woskie, and Jha (2018)	
2	Tu	8/24	Demand for medical care	Jones (2000)	
2	Th	8/26	Demand for medical care	Jones (2000); Lewbel (2019) (Sections 1-6)	
3	Tu	8/31	Demand for medical care	Manning et al. (1987)	Partner request due
3	Th	9/2	Demand for medical care	Finkelstein et al. (2012)	
4	Tu	9/7	Demand for medical care	Grossman (1972b), Grossman (1972a)	Broad sketch due
4	Th	9/9	Demand for medical care	Grossman (1972b), Grossman (1972a)	
5	Tu	9/14	Health and labor market	Dynamic Discrete Choice Models	
5	Th	9/16	Health and labor market	Papageorge (2016)	
6	Tu	9/21	Health and labor market (Donna)	Gilleskie (1998)	
6	Th	9/23	Student presentation (Seungwhan)	Bermany (2020)	
7	Tu	9/28	Health and labor market (Donna)	Gilleskie (1998), Cronin (2019)	
7	Th	9/30	Student presentation (Aspacia)	Margaris and Wallenius (2020)	
8	Tu	10/5	Health insurance	Cutler and Zeckhauser (2000)	Mid-point proposal due
8	Th	10/7	Mid Point Presentations		
9	Tu	10/12	NO CLASS	NO CLASS	
9	Th	10/14	Student presentation (Cecilia)	Salvati (2020)	
10	Tu	10/19	Health insurance	Rothschild and Stiglitz (1976)	
10	Th	10/21	NO CLASS	NO CLASS	Fall Break
11	Tu	10/26	Student presentation (Daniel)	Abaluck et al. (2020)	
11	Th	10/28	Student presentation (Zhang)	Hackmann, Kolstad, and Kowalski (2015)	
12	Tu	11/2	Addictive goods	Becker, Grossman, and Murphy (1994), Darden (2017)	
12	Th	11/4	Other topics: Innovation	Hamilton et al. (2021), Gilleskie (1998)	
13	Tu	11/9	Student presentation (Samuel)	Hai and Heckman (2019)	
13	Th	11/11	Other topics: Innovation	Hamilton et al. (2021)	
14	Tu	11/16	Student presentation (Meagan)	Zhang (2020)	Proposal for peer review due
14	Th	11/18	Student presentation (Nick)	Aizawa and Fu (2021)	
15	Tu	11/23	NO CLASS		Peer report due
15	Th	11/25	NO CLASS		Thanksgiving Break
16	Tu	11/30	NO CLASS		
16	Wed	12/1	Student workshop		3:15PM - 6:30PM
	Sat	12/4	Final Proposal Due		Final proposal due

Note: The class schedule is subject to changes depending on how the class develops.

OTHER INFORMATION

GUIDELINES FOR READING PAPERS

The first set of questions are geared toward helping you to make sure you have understood the main ideas of the paper. A good introduction should hit most (often all) of these points.

1. What is the primary question/issue/hypothesis that the author wanted to address?
2. Why is the question interesting or important? (This often includes a description of how the paper contributes to the literature.)
3. What data does the author use (if empirical paper)?
4. Give an intuitive description of the author's empirical or structural model. (This is key to making sure you are understanding the paper. If the details of the model are confusing, take a step back and try to think about the basic intuition.)
5. What are the main author's findings?

The second set of questions may help you to think critically about the paper.

6. Did you find the question interesting and relevant?
7. Are you convinced by the author's results/arguments? Why or why not?
8. Did they identify the effect they claimed to identify? Why or why not?
9. Did the results obtained justify the interpretation and conclusions? (Often this may include concerns about external validity or heterogeneous treatment effects.)
10. Were the findings well supported by economic theory? In the cases where the paper does not have a clear theoretical model, do you think a model would have been helpful or that the lack thereof might lead to erroneous conclusions?

SEMINARS

Students are encouraged to attend the seminars listed below. At this point in your graduate career these are great sources for ideas as you look for field paper and dissertation topics.

- Triangle Health Economics Workshop: <http://theweb.unc.edu>
- UNC Applied Micro: <https://econ.unc.edu/seminars/applied-microeconomics/>
- UNC Applied Micro (student workshop): TBD, email Donna Gilleskie to be included in the listserv.

- Electronic Health Economics Colloquium: <https://www.ehealthecon.org>

You may also be on the lookout for presentations at Duke and NC State.

OTHER RESOURCES

If you ever need assistance from a librarian, Nancy Lovas is the economics librarian. She is available to work with you on your research if you were to need it. You can email or meet with her to talk about developing a research question, identifying databases, how to search for information, literature reviews, finding datasets, and more. You can make an appointment with Nancy at <https://calendar.lib.unc.edu/appointments/business> or contact her via email at nancy64@email.unc.edu. In addition, Professor Gilleskie's old syllabus has a number of data sources you may find useful.

POLICIES AND EXPECTATIONS

Attendance. Following university policy: No right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences: Authorized University activities; disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC); significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the EOC. Instructors may work with students to meet attendance needs that do not fall within University approved absences.

Honor Code. All students are expected to follow the guidelines of the UNC honor code. In particular, students are expected to refrain from “lying, cheating, or stealing” in the academic context. If you are unsure about which actions violate that honor code, please consult honor.unc.edu.

Class Conduct. During class and office hours you shall refer to your fellow students and to your instructor with respect and civility—hopefully this applies throughout your life in general. No discriminatory language or behavior will be allowed in the class. I only answer unprofessional emails every sixth Friday of each month. So to increase your likelihood of me replying you should avoid improper treatment such as overly casual salutation words (e.g. “Buddy,” “Yo,” “Dude”).

Mask Use. This semester, while we are in the midst of a global pandemic, all enrolled students are required to wear a mask covering your mouth and nose at all times in our classroom. This requirement is to protect our educational community — your classmates and me – as we learn together. If you choose not to wear a mask, or wear it improperly, I will ask you to leave immediately, and I will submit a report to the Office of Student Conduct. At that point you will be disenrolled from this course for the protection of our educational community. Students who have an authorized accommodation from Accessibility Resources and Service have an exception. For additional information, visit Carolina Together.

Accessibility Resources and Services. UNC facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic

medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

Counseling and Psychological Services (CAPS). CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

Title IX Resources. Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <https://eoc.unc.edu/report-an-incident/>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim – titleixcoordinator@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

References

- Abaluck, Jason, Mauricio M. Caceres Bravo, Peter Hull, and Amanda Starc. 2020. “Mortality Effects and Choice across Private Health Insurance Plans.” Working Paper, NBER WP 27578.
- Aizawa, Naoki and Chao Fu. 2021. “Interaction of the Labor Market and the Health Insurance System: Employer-Sponsored, Individual, and Public Insurance.” Working Paper, NBER WP 26713.
- Arrow, K.J. 1963. “Uncertainty and the Welfare Economics of Medical Care.” *The American Economic Review* 53 (5):941–973.
- Becker, Gary S., Michael Grossman, and Kevin M. Murphy. 1994. “An Empirical Analysis of Cigarette Addiction.” *The American Economic Review* 84 (3):396–418.
- Bermany, Jacob. 2020. “Can Income Buy Health? Evidence from Social Security Benefit Discontinuities and Medicare Claims.” Working Paper, UCLA.
- Chan, T.Y. and B.H. Hamilton. 2006. “Learning, Private Information, and the Economic Evaluation of Randomized Experiments.” *Journal of Political Economy* 114 (6):997–1040.
- Cronin, Chris. 2019. “Insurance-Induced Moral Hazard: A Dynamic Model of Within-Year Medical Care Decision Making Under Uncertainty.” *International Economic Review* 60 (1):187–218.
- Cutler, David M. and Richard J. Zeckhauser. 2000. “The Anatomy of Health Insurance.” In *Handbook of Health Economics*, vol. 1A, edited by Anthony J. Culyer and Joseph P. Newhouse, chap. 11. Elsevier, North-Holland, 563–643.
- Darden, Michael. 2017. “Smoking, Expectations, and Health: A Dynamic Stochastic Model of Lifetime Smoking Behavior.” *Journal of Political Economy* 125 (5):1465–1522.
- Finkelstein, Amy, Nathaniel Hendren, and Erzo F. P. Luttmer. 2019. “The Value of Medicaid: Interpreting Results from the Oregon Health Insurance Experiment.” *Journal of Political Economy* 127 (6):2836–2874.
- Finkelstein, Amy, Sarah Taubman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, Katherine Baicker, and Oregon Health Study Group. 2012. “The Oregon Health Insurance Experiment: Evidence from the First Year.” *The Quarterly Journal of Economics* 127 (3):1057–1106.
- Garber, Alan M. and Jonathan Skinner. 2008. “Is American Health Care Uniquely Inefficient?” *The Journal of Economic Perspectives* 22 (4):27–50.
- Gilleskie, Donna. 1998. “A Dynamic Stochastic Model of Medical Care Use and Work Absence.” *Econometrica* 66 (1):1–45.
- Grossman, Michael. 1972a. *The Demand for Health: A Theoretical and Empirical Investigation*. New York: Columbia University Press.

- . 1972b. “On the Concept of Health Capital and the Demand for Health.” *The Journal of Political Economy* 80 (2):223–255.
- Hackmann, Martin B., Jonathan T. Kolstad, and Amanda E. Kowalski. 2015. “Adverse Selection and an Individual Mandate: When Theory Meets Practice.” *American Economic Review* 105 (3):1030–1066.
- Hai, Rong and James J. Heckman. 2019. “A Dynamic Model of Health, Addiction, Education, and Wealth.” Working Paper, University of Miami, University of Chicago.
- Hamilton, Barton, Andrés Hincapié, Robert Miller, and Nicholas Papageorge. 2021. “Innovation and Diffusion of Medical Treatment.” *International Economic Review* 62 (3):953–1009.
- Jones, Andrew M. 2000. “Health Econometrics.” In *Handbook of Health Economics*, vol. 1A, edited by Anthony J. Culyer and Joseph P. Newhouse, chap. 6. Elsevier, North-Holland, 265–344.
- Lewbel, Arthur. 2019. “The Identification Zoo: Meanings of Identification in Econometrics.” *Journal of Economic Literature* 57 (4):835–903.
- Manning, Willard G., Joseph P. Newhouse, Naihua Duan, Emmett B. Keeler, and Arleen Leibowitz. 1987. “Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment.” *The American Economic Review* 77 (3):251–277.
- Margaris, Panos and Johanna Wallenius. 2020. “Can Wealth Buy Health? A Model of Pecuniary and Non-Pecuniary Investments in Health.” Working Paper, Concordia University, Stockholm School of Economics.
- Papageorge, Nicholas W. 2016. “Why Medical Innovation is Valuable: Health, Human Capital, and the Labor Market.” *Quantitative Economics* 7 (3):671–725.
- Papanicolas, Irene, Liana R. Woskie, and Ashish K. Jha. 2018. “Health Care Spending in the United States and Other High-Income Countries.” *JAMA* 319 (10):1024–1039.
- Pauly, Mark V. 1988. “Is Medical Care Different? Old Questions, New Answers.” *Journal of Health Politics, Policy and Law* 13 (2):227–237.
- Rothschild, Michael and Joseph Stiglitz. 1976. “Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information.” *The Quarterly Journal of Economics* 90 (4):629–649.
- Salvati, Francesca. 2020. “Health Inequality, Labor Supply and Retirement Policies.” Working Paper, University College London.
- Zhang, Karen. 2020. “Cost-Sharing Reduction Subsidy: Who Benefits and How It Should be Financed. Evidence from the California Health Exchange.” Working Paper, The Wharton School.