Advanced Health Economics & Policy Analysis II

HAD 6750
Winter 2025

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Class time and location: Fridays, 1pm-3pm. HSB 7**05. (155 College St)**

Office hours: Book appointments at calendly.com/Hoagland-office-hours/

- Thursdays 10:00am to 11:30am or by appointment.
- All appointments are by Zoom unless arranged otherwise in advance.
- Please note that I typically respond to emails and other class communication during normal "business hours," and not on evenings, weekends, or holidays.

Course Description: This is a seminar course focusing the tools of microeconomic theory in modeling individual and provider behavior using examples drawn from the health literature. The course introduces students to problems of unconstrained and constrained optimization. Additional topics considered include non-negativity constraints, questions concerning planning over multiple periods and the issues of uncertainty and unanticipated health shocks. Students are expected to develop their own theoretical model with testable predictions, which in most cases will serve as the basis for the theoretical chapter of their dissertation. Students must have completed Advanced Health Economics and Policy Analysis (HAD5760H) and be familiar with intermediate calculus.

Method of Instruction: There are lectures but the course is designed to foster a seminar atmosphere. Consequently, in-depth discussion of the theoretical economics literature as it pertains to health economics is expected. Course readings are assigned, and participants are expected to have read these prior to class.

Evaluation Criteria

- Presentation: 1 presentation, worth 30% of the final grade
- Referee Report: 1 referee report, worth 20% of the final grade
- Paper Proposal: worth 50% of the final grade.

Presentation: Each of you will prepare one presentation, based on one of the research papers indicated on the reading list (there are approximately three choices per topic). **The topics you choose for the presentation and referee report should be different.** Your presentation should convey (1) the motivation behind the paper, (2) its central contribution, (3) a walk-through of the model, (4) a summary of any empirical analyses or additional findings, and (5) your own thoughts on the paper's strengths and weaknesses. The emphasis of the presentation should be on your exposition and critical analysis of the economic modeling component of each paper. Each presentation should be roughly 20 minutes long (think 12 slides maximum). **Presentations will be given on the day the topic is covered in class.**

Referee Report: In addition to the presentation, each of you will prepare one referee report, based on one of the research papers indicated on the reading list (there are approximately three choices per topic). **The topics you choose for the presentation and referee report should be different.** Your referee report should be modeled after the templates included in the GitHub repo, and should include: (1) a brief summary of the paper; (2) major concerns you have, including any potential flaws or drawbacks you see in the modeling choices; and (3) minor concerns you have, including ideas for extensions and future research. You should focus on the theory as much as possible, although ideas for extensions and future research can include empirical research. Your referee report should be no more than 3 pages long. **Reports are due one week after the topic has been covered in class.** Late reports will be discounted by 10 percentage points per day late.

Paper Proposal: Finally, students will prepare a brief research proposal that is either purely theoretical or uses theory to ground empirical techniques. Your proposal should (1) pose an academic research question, (2) conduct a thorough literature review, (3) present a stylized model (note: you do not have to solve your model or incorporate all complexity), and (4) if applicable, carefully describe the ideal data and empirical strategy you would use for empirically testing your model. This proposal could become a part of your thesis or a publishable paper, so be sure to select something you are interested in and discuss it in advance with me and/or your advisors. There is no fixed length requirement, but think on the order of 10-15 double-spaced pages. **Proposals are due on the last day of class.** Late proposals will be discounted by 10 percentage points per day late. **You should also prepare a 15-20 minute presentation detailing your proposal,** which will be given during the last two lectures of the semester.

Grading scale: Courses taken for graduate credit are assigned a letter grade according to the School of Graduate Studies usage as follows. While course grades may be collectively "curved," no individual grades will be rounded.

Letter Grade	Grade Meaning	Numerical Marks (%)
A+	Excellent	90%-100%
A		85%-89.9%
A-		80%-84.9%
B+	Good	77%-79.9%
B		73%-76.9%
B-		70%-72.9%
FZ	Inadequate	0-69%

Course website: This course has a GitHub repository that contains all relevant materials; you can access the repo at https://github.com/alex-hoagland/HAD6750H. Materials will be updated and added throughout the semester.

This course is fully self-contained in the papers we will be discussing. However, some optional useful resources are:

- **Better Health Economics,** Tal Gross and Matthew Notowidigdo, 2024.
- Health Economics, Jay Battacharya, Timothy Hyde, and Peter Tu, 1st Edition, Palgrave Macmillan, 2013.

Selected Course Policies

Attendance Policy: This course is a fully in-person course and students are expected to attend all sessions that they are able to. While you do not need to excuse your absences with me in general, I reserve the right to reduce marks for students who are consistently absent from or do not participate in class.

Lectures are recorded conditional on classroom resources and feasibility; however, these recordings are not made publicly available or posted online, including on Quercus. Recordings may be shared upon request in order to make up for class absences or as an additional course resource; however, recordings may not be used as a replacement for in-person attendance. Please email me if you have any questions or are concerned about being recorded; otherwise, I will assume all students are okay being recorded.

Statement on Generative AI in Course Content and Materials: Students may use artificial intelligence tools, including generative AI, in this course as learning aids or inputs into assignments. However, students should be aware that AI models are tragically inept at either the art or the mechanics of mathematical modeling, and even worse for writing referee reports. Additionally, work that is clearly generated completely by generative AI will be deemed plagiarism, which will result in a grade of 0 for any assignment and a referral to the Academic Integrity office. **Students are ultimately accountable for the work they submit.**

Course Schedule

Session #	Date	Lecture / Readings Bolded items indicate models that will be covered in class; unbolded provide helpful context
1	Jan. 10	**What is Economics?** • **Grossman (1972).** "On the concept of capital and the demand for health" • Jacobson (2000). "The family as producer of health — an extended Grossman model"
2	Jan. 17	**Moral Hazard in Health Care** • **Zeckhauser (1970).** "Medical insurance: A study of the tradeoff between risk spreading and appropriate incentives" • **Ma & Riordan (2002).** "Health insurance, moral hazard, and managed care" • Cutler & Zeckhauser (2000). "The anatomy of health insurance" (chapter 3)
3	Jan. 24	**Adverse Selection** • **Rothschild & Stiglitz (1976).** "Equilibrium in competitive insurance markets: an essay on the economics of imperfect information" • **Einav & Finkelstein (2011).** "Selection in insurance markets: Theory and empirics in pictures" • **Geruso, Layton, McCormick, & Shepard (2019).** "The Two Margin Problem in Insurance Markets" *(if time permits)*
4	Jan. 31	**Models of Provider Payment** • **Ellis & McGuire (1986).** "Provider behavior under prospective reimbursement" • Ellis & McGuire (1990). "Optimal payment systems for health services" • **Currie, MacLeod, & Musen (2024).** "First do no harm? Doctor decision making and patient outcomes."
5	Feb. 7	**Patient-Physician Interactions** • **Dranove (1988).** "Demand Inducement and the physician/patient relationship" • **Chandra and Staiger (2006).** "Productivity spillovers in health care: Evidence from the treatment of heart attacks" • Chandra, Cutler, and Song. (2011). **"**Who ordered that? The economics of treatment choices in medical care" • Liu & Ma (2013). "Health insurance, treatment plan, and delegation to altruistic physician"
6	Feb. 14	**Competition and Markets in Health Systems** • **Asil, Ramos, Starc, and Wollmann (2024).** "Painful bargaining: Evidence from anesthesia rollups." • **Gaynor and Town (2012).** "Competition in health care markets" (Chapters 1-3) • **Gaynor, Ho, and Town (2015).** "The industrial organization of health care markets" • Ho and Lee (2017). "Insurer competition in health care markets"
	Feb. 17-21	**No class – <u>Winter Reading Week</u>**
7	Feb. 28	**Risk Adjustment & Quality Competition** ***Deadline to drop without academic penalty*** • **Ellis and Layton (2014).** "Risk selection and risk adjustment" • **Glazer and McGuire (2000).** "Optimal risk adjustment in markets with adverse selection: An application to managed care." • **Glazer and McGuire (2006)**. "Optimal quality reporting in markets for health plans."

		• **Eggleston, Ellis, and Lu (2012)**. "Risk adjustment and prevention." • **Brekke, Gravelle, Siciliani, and Straume (2014)**. "Patient choice, mobility, and competition among health care providers." (*Note: only chapter 1 of textbook .pdf in Github repo)*
8	Mar. 7	**Health Equity and Discrimination** • **Balsa and McGuire (2001).** "Statistical discrimination in health care" • **Basla and McGuire (2003).** "Prejudice, clinical uncertainty and stereotyping as sources of health disparities" • **Lang and Lehmann (2012).** "Racial discrimination in the labor market: theory and empirics" • **Baicker, Chandra, and Skinner (2005).** "Geographic variation in health care and the problem of measuring racial disparities."
9	Mar. 14	**Models of Health Behavior** • **Becker and Murphy (1988).** "A theory of rational addiction." • **Abaluck and Gruber (2011).** "Choice inconsistencies among the elderly: Evidence from plan choice in the Medicare Part D program" • **Abaluck and Gruber (2016).** "Evolving choice inconsistencies in choice of prescription drug insurance" • **Oster, Shoulson, and Dorsey (2018).** "Optimal expectations and limited medical testing: Evidence from Huntington Disease"
10	Mar. 21	**Behavioral Health Economics** • **Chandra, Handel, and Schwarstein (2019).** "Behavioral economics and health care markets" • **Baicker, Mullainathan, and Schwarstein (2014).** "Behavioral hazard in health insurance" • **Handel (2013).** "Adverse selection and switching costs in health insurance markets: When nudging hurts" • **Handel and Kolstad (2015).** "Health insurance for 'humans': Information frictions, plan choice, and consumer welfare"
11	Mar. 28	**Innovation in Health Markets** • **Murphy and Topel (2006).** "The value of health and longevity" • **Chandra and Skinner (2012).** "Technology growth and expenditure growth in healthcare" • **Skinner and Stagier (2015). "**Technology diffusion and productivity growth in health care" • **Crawford and Shum (2005)**. "Uncertainty and learning in pharmaceutical demand"
	Apr. 4	**No class**
12	Apr. 11	**Student Presentations**

References

* indicates required reading

** indicates student presentation/referee report options

Lecture 1: What is health economics?

Darden, M. E., & Kaestner, R. (2022). Smoking, selection, and medical care expenditures. *Journal of Risk and Uncertainty, 64*(3), 251-285.

* Grossman, M. (1972). On the concept of health capital and the demand for health. *Journal of Political Economy, 80*(2), 223–255.

* Jacobson, L. (2000). The family as producer of health—An extended Grossman model. *Journal of Health Economics, 19*(5), 611–637.

Kaestner, R. (2013). The Grossman model after 40 years: A reply to Peter Zweifel. *The European Journal of Health Economics, 14*(2), 357–360.

Laporte, A. (2015). Should the Grossman model of investment in health capital retain its iconic status. Canadian Centre for Health Economics, University of Toronto.

Laporte, A., & Ferguson, B. S. (2007). Investment in health when health is stochastic. *Journal of Population Economics, 20*(2), 423–444.

Lleras-Muney, A. (2005). The relationship between education and adult mortality in the United States. *The Review of Economic Studies, 72*(1), 189–221.

Zweifel, P. (2012). The Grossman model after 40 years. *The European Journal of Health Economics, 13*(6), 677–682.

Lecture 2: Moral Hazard

Afoakwah, C., Byrnes, J., Scuffham, P., & Nghiem, S. (2022). Testing for selection bias and moral hazard in private health insurance: Evidence from a mixed public-private health system. *Health Economics*.

Alessie, R. J. M., Angelini, V., Mierau, J. O., & Viluma, L. (2020). Moral hazard and selection for voluntary deductibles. *Health Economics, 29*(10), 1251–1269.

Aron-Dine, A., Einav, L., Finkelstein, A., & Cullen, M. (2015). Moral hazard in health insurance: Do dynamic incentives matter?. Review of Economics and Statistics, 97(4), 725-741.

Arrow, K. J. (1963). Uncertainty and the welfare economics of medical care. *American Economic Review.*

Blomqvist, Å. (1997). Optimal non-linear health insurance. *Journal of Health Economics, 16*(3), 303–321.

Brot-Goldberg, Z. C., Chandra, A., Handel, B. R., & Kolstad, J. T. (2019). What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics. *The Quarterly Journal of Economics.*

** Campo, C. S. D. (2021). Dynamic Moral Hazard in Nonlinear Health Insurance Contracts. *Working Paper*. .

* Cutler, D. M., & Zeckhauser, R. J. (2000). "Chapter 11: The anatomy of health insurance." In *Handbook of Health Economics* (Vol. 1, pp. 563–643). Elsevier.

Ehrlich, I., & Becker, G. S. (1972). Market Insurance, Self-Insurance, and Self-Protection. *The American Economic Review.*

Einav, L., & Finkelstein, A. (2018). Moral Hazard in Health Insurance: What We Know and How We Know It. *Journal of the European Economic Association, 16*(4), 957–982.

** Einav, L., Finkelstein, A., Ryan, S. P., Schrimpf, P., & Cullen, M. R. (2013). Selection on moral hazard in health insurance. *American Economic Review, 103*(1), 178–219.

* Ma, C. A., & Riordan, M. H. (2002). Health Insurance, Moral Hazard, and Managed Care. *Journal of Economics & Management Strategy, 11*(1), 81–107.
* Zeckhauser, R. (1970). Medical insurance: A case study of the tradeoff between risk spreading and appropriate incentives. *Journal of Economic Theory, 2*(1), 10–26.

Lecture 3: Adverse Selection

** Azevedo, E. M., & Gottlieb, D. (2017). Perfect competition in markets with adverse selection. *Econometrica, 85*(1), 67–105.
Boyer, M., De Donder, P., Fluet, C., Leroux, M.-L., & Michaud, P.-C. (2017). Long-term care insurance: Knowledge barriers, risk perception and adverse selection. *Working Paper.*
Capatina, E. (2020). Selection in employer sponsored health insurance. *Journal of Health Economics, 71*.
De La Mata, D., Machado, M. P., Olivella, P., & Valdés, M. N. (2022). Asymmetric information with multiple risks: The case of the Chilean private health insurance market.
* Einav, L., & Finkelstein, A. (2011). Selection in Insurance Markets: Theory and Empirics in Pictures. *Journal of Economic Perspectives, 25*(1), 115–138.
Einav, L., Finkelstein, A., & Mahoney, N. (2021). "The IO of selection markets". In *Handbook of Industrial Organization* (Vol. 5, pp. 389–426). Elsevier.
Fang, H., & Wu, Z. (2018). Multidimensional private information, market structure, and insurance markets. *The RAND Journal of Economics, 49*(3), 751–787.
* Geruso, M., Layton, T. J., McCormack, G., & Shepard, M. (2019). The two-margin problem in insurance markets. *The Review of Economics and Statistics*.
Geruso, M., Layton, T., & Prinz, D. (2019). Screening in Contract Design: Evidence from the ACA Health Insurance Exchanges. *American Economic Journal: Economic Policy, 11*(2), 64–107.
** Kantarevic, J., & Kralj, B. (2016). Physician payment contracts in the presence of moral hazard and adverse selection: The theory and its application in Ontario. *Health Economics, 25*(10), 1326–1340.
** Kong, E., Layton, T., & Shepard, M. (2022). Adverse Selection Pricing and Unraveling of Competition in Insurance Markets.
Panhans, M. (2019). Adverse selection in ACA exchange markets: Evidence from Colorado. American Economic Journal: Applied Economics, 11(2), 1–36.
* Rothschild, M., & Stiglitz, J. (1976). Equilibrium in competitive insurance markets: An essay on the economics of imperfect information. *Quarterly Journal of Economics*.

Lecture 4: Provider Payment

** Brekke, K. R., Holmås, T. H., Monstad, K., & Straume, O. R. (2019). Competition and physician behaviour: Does the competitive environment affect the propensity to issue sickness certificates? *Journal of Health Economics, 66*, 117–135.
* Currie, J., MacLeod, W. B., & Musen, K. (2024). First do no harm? Doctor decision making and patient outcomes. *NBER Working Paper.*
** Einav, L., Finkelstein, A., Kluender, R., & Schrimpf, P. (2016). Beyond Statistics: The Economic Content of Risk Scores. *Working Paper.*
* Ellis, R. P., & McGuire, T. G. (1986). Provider behavior under prospective reimbursement. *Journal of Health Economics, 5*(2), 129–151.
* Ellis, R. P., & McGuire, T. G. (1990). Optimal payment systems for health services. *Journal of Health Economics, 9*(4), 375–396.
Ho, K., & Pakes, A. (2014). Physician Payment Reform and Hospital Referrals. *American Economic Review, 104*(5), 200–205.

Ma, C. A., & Mak, H. Y. (2019). Incentives in Healthcare Payment Systems. In C. A. Ma & H. Y. Mak, *Oxford Research Encyclopedia of Economics and Finance*. Oxford University Press.
Ma, C. A., & McGuire, T. G. (1997). Optimal health insurance and provider payment. *The American Economic Review*
Pines, J. M., Vats, S., Zocchi, M. S., & Black, B. (2019). Maryland's experiment with capitated payments for rural hospitals: Large reductions in hospital-based care. *Health Affairs*, *38*(4), 594–603.
** Zhang, X., & Sweetman, A. (2018). Blended capitation and incentives: Fee codes inside and outside the capitated basket. *Journal of Health Economics*, *60*, 16–29.

Lecture 5: Patient-Physician Interactions

Alexander, D. (2020). How do doctors respond to incentives? Unintended consequences of paying doctors to reduce costs. *Journal of Political Economy*, *128*(11), 4046–4096. https://doi.org/10.1086/710334
Almond, D., Jr, J. J. D., Kowalski, A. E., & Williams, H. (2010). Estimating marginal returns to medical care: Evidence from at-risk newborns. *The Quarterly Journal of Economics*.
** Chan, D. C. (2016). Teamwork and moral hazard: Evidence from the emergency department. *Journal of Political Economy*, *124*(3), 734–770.
* Chandra, A., Cutler, D., & Song, Z. (2011). Who ordered that? The economics of treatment choices in medical care. *Handbook of health economics*, 2, 397-432.
* Chandra, A., & Staiger, D. O. (2007). Productivity spillovers in health care: Evidence from the treatment of heart attacks. *Journal of Political Economy*, *115*(1), 103–140.
Choné, P., & Ma, C. A. (2011). Optimal Health Care Contract under Physician Agency. *Annals of Economics and Statistics*, *101/102*, 229.
Clemens, J., & Gottlieb, J. D. (2014). Do physicians' financial incentives affect medical treatment and patient health? *American Economic Review*, *104*(4), 1320–1349.
** Dickstein, M. J. (2022). Efficient provision of experience goods: Evidence from antidepressant choice. *Working Paper*.
** Dickstein, M. J. (*in press*). Physician vs. Patient incentives in prescription drug choice. *American Economic Journal: Economic Policy*
* Dranove, D. (1988). Demand inducement and the physician/patient relationship. *Economic Inquiry*, *26*(2), 281–298.
Dranove, D., Kessler, D., McClellan, M., & Satterthwaite, M. (2003). Is more information better? The effects of "report cards" on health care providers. *Journal of Political Economy*, 34.
Jack, W. (2005). Purchasing health care services from providers with unknown altruism. *Journal of Health Economics*, *24*(1), 73–93.
Johnson, E. M. (2014). Physician-Induced Demand. In *Encyclopedia of Health Economics* (pp. 77–82). Elsevier. https://doi.org/10.1016/B978-0-12-375678-7.00805-1
Johnson, E. M., & Rehavi, M. M. (2016). Physicians treating physicians: Information and incentives in childbirth. *American Economic Journal: Economic Policy*, *8*(1), 115-41.
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* Liu, T., & Ma, C. A. (2013). Health insurance, treatment plan, and delegation to altruistic physician. *Journal of Economic Behavior & Organization*, *85*, 79–96.

Lecture 6: Competition and Markets in Health Systems

* Asil, A., Ramos., P., Starc, A., & Wollman, T. G. (2024). Painful bargaining: Evidence from anesthesia rollups. *NBER Working Paper*.

Boone, J. (2019). Health provider networks with private contracts: Is there under-treatment in narrow networks? *Journal of Health Economics*, *67*, 102222.
** Chen, H., Qian, Q., & Zhang, A. (2015). Would Allowing Privately Funded Health Care Reduce Public Waiting Time? Theory and Empirical Evidence from Canadian Joint Replacement Surgery Data. *Production and Operations Management*, *24*(4), 605–618.
Cutler, D., Skinner, J. S., Stern, A. D., & Wennberg, D. (2019). Physician Beliefs and Patient Preferences: A New Look at Regional Variation in Health Care Spending. *American Economic Journal: Economic Policy*, *11*(1), 192–221.
Dunn, A., Gottlieb, J. D., Shapiro, A., Sonnenstuhl, D. J., & Tebaldi, P. (2021). A denial a day keeps the doctor away (No. w29010). *NBER Working Paper.*
Finkelstein, A. (2007). The aggregate effects of health insurance: Evidence from the introduction of Medicare. *The quarterly journal of economics*, *122*(1), 1-37.
Finkelstein, A., Gentzkow, M., & Williams, H. (2016). Sources of Geographic Variation in Health Care: Evidence from Patient Migration. *Quarterly Journal of Economics.*
** Finkelstein, A., & McKnight, R. (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.
Garber, A. M., & Skinner, J. (2008). Is American health care uniquely inefficient?. Journal of Economic perspectives, 22(4), 27-50.
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* Gaynor, M., & Town, R. J. (2012). Competition in Health Care Markets. In *Handbook of Health Economics* (Vol. 2, pp. 499–637). Elsevier.
** Gowrisankaran, G., Nevo, A., & Town, R. (2015). Mergers when prices are negotiated: Evidence from the hospital industry. American Economic Review, 105(1), 172-203.
Ho, K., & Lee, R. S. (2017). Insurer Competition in Health Care Markets. *Econometrica*, *85*(2), 379–417.
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Schoen, C., Osborn, R., Squires, D., Doty, M. M., Pierson, R., & Applebaum, S. (2010). How Health Insurance Design Affects Access To Care And Costs, By Income, In Eleven Countries. *Health Affairs*, *29*(12), 2323–2334.
Weil, A. R. (2020). The Affordable Care Act Turns 10: The Affordable Care Act Turns Ten. *Health Affairs*, *39*(3), 359–359.

Lecture 7: Quality Competition

** Bijlsma, M., Boone, J., & Zwart, G. (2014). Competition leverage: How the demand side affects optimal risk adjustment. *The RAND Journal of Economics*, *45*(4), 792–815.
** Bisceglia, M., Cellini, R., & Grilli, L. (2018). Regional regulators in health care service under quality competition: A game theoretical model: Regional regulators in healthcare service. *Health Economics*, *27*(11), 1821–1842.
Bloom, N., Propper, C., Seiler, S., & Van Reenen, J. (2015). The impact of competition on management quality: evidence from public hospitals. *The Review of Economic Studies*, *82*(2), 457-489.
Brekke, K. R., Siciliani, L., & Straume, O. R. (2018). Can competition reduce quality? *Working Paper.*
** Brosig-Koch, J., Hehenkamp, B., & Kokot, J. (2022). *Who benefits from quality competition in health care? A theory and a laboratory experiment on the relevance of patient characteristics* (No. 2022/27). HCHE Research Paper.

** Chen, M., & Serfes, K. (2012). Minimum quality standard regulation under imperfect quality observability. *Journal of Regulatory Economics*, *41*(2), 269–291.
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Sojourner, A. J., Frandsen, B. R., Town, R. J., Grabowski, D. C., & Chen, M. (2014). Impacts of Unionization on Quality and Productivity: Regression Discontinuity Evidence from Nursing Homes. *SSRN Electronic Journal*.

Lecture 8: Health Equity and Discrimination

** Alsan, M., Durvasula, M., Gupta, H., Schwartzstein, J., & Williams, H. (2022). Representation and extrapolation: Evidence from clinical trials. *NBER Working Paper.*
Alsan, M., Garrick, O., & Graziani, G. (2019). Does diversity matter for health? Experimental evidence from Oakland. *American Economic Review, 109*(12), 4071-4111.
Alsan, M., & Wanamaker, M. (2018). Tuskegee and the health of black men. *The Quarterly Journal of Economics, 133*(1), 407-455.
Angerer, S., Waibel, C., & Stummer, H. (2019). Discrimination in Health Care: A Field Experiment on the Impact of Patients' Socioeconomic Status on Access to Care. *American Journal of Health Economics*, *5*(4), 407–427.
* Baicker, K., Chandra, A., & Skinner, J. (2005). Geographic Variation in Health Care and the Problem of Measuring Racial Disparities. *Perspectives in Biology and Medicine*, *48*(1), 42-S53.
* Balsa, A. I., & McGuire, T. G. (2001). Statistical discrimination in health care. *Journal of Health Economics*, *20*(6), 881–907.
* Balsa, A. I., & McGuire, T. G. (2003). Prejudice, clinical uncertainty and stereotyping as sources of health disparities. *Journal of Health Economics*, *22*(1), 89–116.
Balsa, A. I., McGuire, T. G., & Meredith, L. S. (2005). Testing for Statistical Discrimination in Health Care. *Health Services Research*, *40*(1), 227–252.
Button, P., Dils, E., Harrell, B., Fumarco, L., & Schwegman, D. (2020). Gender Identity, Race, and Ethnicity Discrimination in Access to Mental Health Care: Preliminary Evidence from a Multi-Wave Audit Field Experiment. *NBER Working paper w28164.*

Currie, J., & Stabile, M. (2002). *Socioeconomic Status and Health: Why is the Relationship Stronger for Older Children?* (No. w9098; p. w9098). National Bureau of Economic Research.
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Feir, D., & Akee, R. (2019). First Peoples lost: Determining the state of status First Nations mortality in Canada using administrative data. *Canadian Journal of Economics/Revue Canadienne d'économique*, *52*(2), 490–525.
** Galama, T. J., & van Kippersluis, H. (2019). A Theory of Socio-economic Disparities in Health over the Life Cycle. *The Economic Journal*, *129*(617), 338–374.
Hoagland, A. (2022). Who Do Innovations Reach? The Influence of Training on Mental Health Treatments. *Working Paper*.
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