

The Economics of Health Care

Spring 2020

Molly Schnell, schnell@northwestern.edu

Course description: This course provides an introduction to theoretical models and empirical applications in health economics. Topics include the provision and design of health insurance, causes and consequences of provider behavior, and competition in health care markets.

Course requirements: Students should read papers denoted with an asterisk in advance of each lecture; papers without an asterisk are recommended but not required. Students taking the course for credit will be asked to give a 30-minute, in-class presentation on one paper (papers and presentation dates to be assigned before the first class based on registration).

Course schedule: All lectures will take place online from 15:00 - 18:00 UTC/GMT+2.

Monday, May 25	Health Insurance
Wednesday, May 27	Physician Behavior
Monday, June 1	<i>German Holiday</i>
Wednesday, June 3	Competition in Health Care Markets
Monday, June 8	Pollution and Health (Hannes Schwandt)

Other notes:

- For general background, students are encouraged to consult the following textbook:
Bhattacharya, J., T. Hyde, and P. Tu. 2014. *Health Economics*. New York NY: Palgrave Macmillan.
- For broad coverage of topics in health economics, students can consult the following handbooks:
Culyer, A. and J. Newhouse (editors). 2000. *Handbook of Health Economics*, Volumes 1A and 1B. New York NY: Elsevier.
Pauly, M., T. Mcguire, and P. Barros (editors). 2011. *Handbook of Health Economics*, Volume 2. New York NY: Elsevier.

LECTURE 1: Health Insurance

i. Optimal Health Insurance

Papers Covered in Lecture

Aron-Dine, A., L. Einav, and A. Finkelstein. 2013. "The RAND Health Insurance Experiment, Three Decades Later." *Journal of Economic Perspectives*, 27(1): 1057-1106.

* Cutler, D. and R. Zeckhauser. 2000. "The Anatomy of Health Insurance," in *Handbook of Health Economics* Volume 1A, A. Culyer and J. Newhouse (editors), New York NY: Elsevier: 563-643.

Einav, L. and A. Finkelstein. 2011. "Selection in Insurance Markets: Evidence and Theory in Pictures." *Journal of Economic Perspectives*, 25(1): 115-138.

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

Additional Readings

Brot-Goldberg, Z., A. Chandra, B. Handel, and J. Kolstad. 2016. "What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics." *Quarterly Journal of Economics*, 132(3): 1261-1318.

Manning, W., J. Newhouse, N. Duan, E. Keeler, A. Leibowitz, and M.S. Marquis. 1987. "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment." *American Economic Review*, 77(3): 251-277.

ii. Health Effects of Health Insurance

Papers Covered in Lecture

Baicker, K., S. Taubman, H. Allen, M. Bernstein, J. Gruber, J. Newhouse, E. Schneider, B. Wright, A. Zaslavsky, A. Finkelstein, and the Oregon Group. 2013. "The Oregon Experiment – Effects of Medicaid on Clinical Outcomes." *New England Journal of Medicine*, 368(1): 1713-1722.

Finkelstein, A., S. Taubman, B. Wright, M. Bernstein, J. Gruber, J. Newhouse, H. Allen, and K. Baicker. 2012. "The Oregon Health Insurance Experiment: Evidence from the First Year." *Quarterly Journal of Economics*, 127(3): 1057-1106.

Goldin, J., I. Lurie, and J. McCubbin. 2019. "Health Insurance and Mortality: Experimental Evidence from Taxpayer Outreach." NBER Working Paper No. 26533.

Additional Readings

Card, D., C. Dobkin, and N. Maestas. 2009. "Does Medicare Save Lives?" *Quarterly Journal of Economics*, 124(2): 597-636.

Currie, J. and J. Gruber. 1996. "Saving Babies: The Efficacy and Cost of Recent Changes in the Medicaid Eligibility of Pregnant Women." *Journal of Political Economy*, 104(6): 1263-1296.

Miller, S., S. Altekruze, N. Johnson, and L. Wherry. 2019. "Medicaid and Mortality: New Evidence from Linked Survey and Administrative Data." NBER Working Paper No. 26081.

iii. Fictions in Insurance Demand

Papers Covered in Lecture

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

Additional Readings

Abaluck, J. and J. Gruber. 2011. "Choice Inconsistencies Among the Elderly: Evidence from Plan Choice in the Medicare Part D Program." *American Economic Review*, 101(4): 1180-1201.

Handel, B. 2013. "Adverse Selection and Inertia in Health Insurance Markets: When Nudging Hurts." *American Econ. Review*, 103(7): 2541-2682.

Ketchum, J., C. Lucarelli, and C. Powers. 2015. "Paying Attention or Paying Too Much in Medicare Part D." *American Economic Review*, 105(1): 204-233.

LECTURE 2: Physician Behavior

i. Theoretical Framework

Papers Covered in Lecture

* McGuire, T. 2000. "Physician Agency," in *Handbook of Health Economics* Volume 1A, Anthony Culyer and Joseph Newhouse (editors), New York NY: Elsevier: 461-536.

Schnell, M. 2019. "Physician Behavior in the Presence of a Secondary Market: The Case of Prescription Opioids." Working Paper.

ii. Supplier Induced Demand and Financial Incentives

Papers Covered in Lecture

Alexander, D. and M. Schnell. 2019. "The Impacts of Physician Payments on Patient Access, Use, and Health." NBER Working Paper No. 26095.

Currie, J., W. Lin, and W. Zhang. 2011. "Patient Knowledge and Antibiotic Abuse: Evidence from an Audit Study in China." *Journal of Health Economics*, 30(5): 933-949.

Additional Readings

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

Dranove, D. 1988. "Demand Inducement and the Physician-Patient Relationship." *Economic Inquiry*, 26(2): 281-298.

Dranove, D. and P. Wehner. 1994. "Physician-Induced Demand for Childbirths." *Journal of Health Economics*, 13(1): 61-73.

Fuchs, V. 1978. "The Supply of Surgeons and the Demand for Operations." *Journal of Human Resources*, 13 (Supplement): 35-56.

Gruber, J. and M. Owings. 1996. "Physician Financial Incentives and Cesarean Section Delivery." *RAND Journal of Economics*, 27(1): 99-123.

iii. Defensive Medicine

Papers Covered in Lecture

Currie, J. and W.B. MacLeod. 2008. "First Do No Harm? Tort Reform and Birth Outcomes." *Quarterly Journal of Economics*, 123(2): 795-830.

Kessler, D. and M. McClellan. 1996. "Do Doctors Practice Defensive Medicine?" *Quarterly Journal of Economics*, 111(2): 353-390.

iv. Diagnostic Skill

Papers Covered in Lecture

Currie, J. and B. MacLeod. 2019. "Understanding Doctor Decision Making: The Case of Depression Treatment." Forthcoming, *Econometrica*.

Additional Readings

Chan, D., M. Gentzkow, and C. Yu. 2019. "Selection with Variation in Diagnostic Skill: Evidence from Radiologists." NBER Working Paper No. 26467.

Currie, J. and B. MacLeod. 2017. "Diagnosing Expertise: Human Capital, Decision Making, and Performance among Physicians." *Journal of Labor Economics*, 35(1): 1-43.

LECTURE 3: Competition in Health Care Markets

* Gaynor, M., K. Ho, and R. Town. 2015. "The Industrial Organization of Health Care Markets." *Journal of Economic Literature*, 53(2): 235-284.

i. Hospitals: Competition and Antitrust

Papers Covered in Lecture

Bloom, N., C. Propper, S. Seiler, and J. Van Reenen. 2015. "The Impact of Competition on Management Quality: Evidence from Public Hospitals." *Review of Economic Studies*, 82(2): 457-489.

Dafny, L. 2009. "Estimation and Identification of Merger Effects: An Application to Hospital Mergers." *Journal of Law and Econ.*, 52(3): 523-550.

Kessler, D. and M. McClellan. 2000. "Is Hospital Competition Socially Wasteful?" *Quarterly Journal of Economics*. 115(2): 577-615.

Additional Readings

Capps, C., D. Dranove, and M. Satterthwaite. 2003. "Competition and Market Power in Option Demand Markets." *RAND Journal of Economics*, 34(4): 737-763.

Cooper, Z., S. Craig, M. Gaynor, and J. Van Reenen. 2019. "The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured." *Quarterly Journal of Economics*, 134(1): 51-107.

Town, R. and G. Vistnes. 2001. "Hospital Competition in HMO Networks." *Journal of Health Economics*, 20(5): 733-753.

ii. Health Insurers: Competition and Antitrust

Papers Covered in Lecture

Dafny, L. 2010. "Are Health Insurance Markets Competitive?" *American Economic Review*, 100(4): 1399-1431.

Dafny, L., M. Duggan, and S. Ramnarayanan. 2012. "Paying a Premium on Your Premium? Consolidation in the U.S. Health Insurance Industry." *American Economic Review*, 102(2):1161-1185.

iii. Insurer-Provider Negotiations

Papers Covered in Lecture

Gowrisankaran, G., A. Nevo, and R. Town. 2015. "Mergers when Prices are Negotiated: Evidence from the Hospital Industry." *American Economic Review*, 105(1): 172-203.

Additional Readings

Dafny, L., K. Ho., and R. Lee. 2019. "The Price Effects of Cross-Market Hospital Mergers." *RAND Journal of Economics*, 50(2): 286-325.

Ho, K. 2006. "The Welfare Effects of Restricted Hospital Choice in the US Medical Care Market." *Journal of App. Econometrics*, 21(7): 1039-1079.

Ho, K. 2009. "Insurer-Provider Networks in the Medical Care Market." *American Economic Review*, 99(1): 393-430.

Ho, K. and R. Lee. 2017. "Insurer Competition in Health Care Markets." *Econometrica*, 85(2): 379-417.

LECTURE 4: Pollution and Health (Hannes Schwandt)

i. General Trends and Correlational Evidence

Papers Covered in Lecture

Dockery, D., C. Pope, X. Xu, J. Spengler, J. Ware, M. Fay, B. Ferris Jr., and F. Speizer. 1993. "An Association Between Air Pollution and Mortality in Six US Cities." *New England Journal of Medicine*, 329(24): 1753-1759.

Landrigan, P., R. Fuller, N. Acosta, O. Adeyi, R. Arnold, A. Baldé, R. Bertollini, S. Bose-O'Reilly, J. Boufford, P. Breyse, and R. Chiles. 2018. "The Lancet Commission on Pollution and Health." *The Lancet*, 391(10119): 462-512.

Pope, C., R. Burnett, M. Thun, E. Calle, D. Krewski, K. Ito, and G. Thurston. 2002. "Lung Cancer, Cardiopulmonary Mortality, and Long-Term Exposure to Fine Particulate Air Pollution." *Journal of the American Medical Association*, 287(9): 1132-1141.

Additional Readings

Samet, J., T. Burke, and B. Goldstein. 2017. "The Trump Administration and the Environment—Heed the Science." *New England Journal of Medicine*, 376(12): 1182.

ii. Health Effects of General Air Pollution

Papers Covered in Lecture

Chay, K. and M. Greenstone. 2003. "The Impact of Air Pollution on Infant Mortality: Evidence from Geographic Variation in Pollution Shocks Induced by a Recession." *Quarterly Journal of Economics*, 118(3): 1121-1167.

* Deryugina, T., G. Heutel, N. Miller, D. Molitor, and J. Reif. 2019. "The Mortality and Medical Costs of Air Pollution: Evidence from Changes in Wind Direction." *American Economic Review*, 109(12): 4178-4219.

Isen, A., M. Rossin-Slater, and W.R. Walker. 2017. "Every Breath You Take—Every Dollar You'll Make: The Long-Term Consequences of the Clean Air Act of 1970." *Journal of Political Economy*, 125(3): 848-902.

Additional Readings

Anderson, M. 2019. "As the Wind Blows: The Effects of Long-Term Exposure to Air Pollution on Mortality." *Journal of the European Economic Association*, forthcoming.

Currie, J. and M. Neidell. 2005. "Air Pollution and Infant Health: What Can We Learn from California's Recent Experience?" *Quarterly Journal of Economics*, 120(3): 1003-1030.

iii. Health Effects of Car Pollution

Papers Covered in Lecture

Alexander, D. and H. Schwandt. 2019. "The Impact of Car Pollution on Infant and Child Health: Evidence from Emissions Cheating." Federal Reserve Bank of Chicago Working Paper No. 2019-04.

Currie, J. and R. Walker. 2011. "Traffic Congestion and Infant Health: Evidence from E-ZPass." *American Economic Journal: Applied Economics*, 3(1): 65-90.

Knittel, C., D. Miller, and N. Sanders. 2016. "Caution, Drivers! Children Present: Traffic, Pollution, and Infant Health." *Review of Economics and Statistics*, 98(2): 350-366.

Additional Readings

Margaryan, S. 2019. "Low Emission Zones and Population Health." HCHE Research Paper.

He, J., N. Gouveia, and A. Salvo. 2019. "External Effects of Diesel Trucks Circulating Inside the Sao Paulo Megacity." *Journal of the European Economic Association*, 17(3): 947-989.