

**CORE COURSE IN HEALTH POLICY 2019-2020
HEALTH POLICY 2000B/SUP958/HPM246****CLASS MEETINGS**

Tuesday & Thursday, 4:15-6:00pm
14 Story Street, 4th Floor Conference Room

INSTRUCTORS

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TEACHING FELLOW

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COURSE OVERVIEW

This yearlong seminar is required for doctoral candidates in health policy and is open to others by permission of the instructor. The course is intended to familiarize students with the health policy research literature and selected questions in the field.

The course is organized around lectures by faculty from the Faculty of Arts & Sciences, the Kennedy School of Government, the T.H. Chan School of Public Health, the Medical School, the Business School, and the Law School. Discussion sessions will be interspersed with the invited lectures and will examine the policy relevance, research methods, and technical details of many of the presented topics in more depth.

READINGS

Readings for the course will generally consist of journal articles assigned by the guest lecturer and should be read in advance of each lecture. When provided by the lecturers, the syllabus

includes an overview of the goals for the lecture and identifies key points for which to read in order to help you better prepare for class.

The majority of assigned readings are available electronically. Links are provided in the syllabus and on Canvas (under “Modules”), or students can search for the articles using the Harvard E-Research website: <http://e-research.lib.harvard.edu> or HOLLIS+: <http://hollis.harvard.edu>. Some readings are available on the course website. Where readings are not available electronically or on the course website, it is suggested that students use the Harvard Library’s Scan & Deliver service: <http://library.harvard.edu/scan-deliver>.

It is also suggested that you purchase the following books, which are available on reserve at the HKS Library:

- JP Newhouse and the Health Insurance Experiment Group. *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge: Harvard University Press, 1996.
- JP Newhouse. *Pricing the Priceless: A Health Care Conundrum*. Cambridge: The MIT Press, 2002.
- J Oberlander. *The Political Life of Medicare*. Chicago: University of Chicago Press, 2003.
- N Daniels. *Just Health: Meeting Health Needs Fairly*. Cambridge: Cambridge University Press, 2007.
- V Fuchs. *Who Shall Live? Health, Economics, and Social Choice (2nd Expanded Edition)*. Hackensack, NJ: World Scientific Publishing, 2011.
- W Shadish, Thomas D. Cook, Donald T. Campbell, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Boston: Houghton Mifflin, 2002.

COURSE REQUIREMENTS

Written Assignments: **67%**

Written assignments will include short essays, a literature review, critical appraisals of published research papers, and a 10-15 page research proposal that students will develop throughout the Spring semester. Due dates for the spring semester are as follows:

2-3-Paragraph Update on Research Proposal: 2/6

Article Critique/Essay #3 (Research Methods): 3/12

2-page Description of Study Design/Methods: 3/26

Essay #4 (Economics of Health Care): 4/16

Presentation of Research Proposal: 4/16 and 4/23 (6:00-8:00 pm)

Final Research Proposal: 5/5

The research proposal should be written in the form of an F31 predoctoral fellowship application to NIH or AHRQ. You should download the instructions for PHS form 398 at <http://grants.nih.gov/grants/funding/phs398/phs398.html>. Go to Section 5.5 “Content of Research Plan” and follow the instructions. Note that there is a human subjects section, which pertains to the next requirement.

To prepare for the final literature review assignment, there will be intermediate written deliverables, as written above. We will also have two optional but highly encouraged sessions after class to workshop your ideas throughout the semester. These two sessions will be

- February 4th from 6:00-7:30pm
- March 10th from 6:00-7:30pm

Attendance & Participation:

33%

This course meets twice per week. Students are expected to attend and participate in the 2-hour lecture and discussion sessions. This participation includes reading 3-4 relevant articles assigned by the lecturers prior to each class. If you are unable to attend a lecture, please let the teaching fellow know by email in advance of the session.

You will be expected to actively participate in each course session by listening attentively to your peers and constructively contributing to the conversation. The rubric below provides evaluation criteria for your class participation.

	Exemplary (90%-100%)	Proficient (80%-90%)	Developing (70%-80%)	Needs improvement (<70%)
Frequency of Participation	Student is always able to answer discussion questions when called on and initiates contributions in each class session.	Student is mostly able to answer discussion questions when called on and initiates contributions in most sessions.	Student is able to answer discussion questions when called on half of the time and occasionally initiates contributions in class sessions.	Student mostly is unable to answer discussion questions when called on and rarely initiates contributions in class sessions.
	Never dominates the conversation (preventing others from having an opportunity to contribute)	Rarely dominates the conversation (preventing others from having an opportunity to contribute)	Occasionally dominates the conversation (preventing others from having an opportunity to contribute)	Frequently dominates the conversation, (preventing others from having an opportunity to contribute)
Listening/ Attentiveness	Student listens attentively to both faculty and peers, and regularly offers comments that build on the class discussion and others'	Student is mostly attentive during class and offers comments that build on others' remarks.	Student is sometimes inattentive and rarely makes comments based on others' contributions.	Does not pay attention in class or make comments based on others' contributions.

	remarks (i.e. the student hears what others say and contributes to the dialogue).			
Quality of Comments	Student contributions always indicate careful attention to assigned readings and are always insightful and constructive.	Student contributions mostly indicate careful attention to assigned readings and are mostly insightful and constructive.	Comments are sometimes constructive and informed, with occasional signs of insight.	Comments do not reflect careful reading and are not constructive. Comments are not relevant to discussion.

Human Subjects Training:

To pass the Spring semester, students must complete an online Human Subjects Training Course and present verification by May 5th. The training can be accessed through the following link: <https://www.citiprogram.org/default.asp>. Students should do the Basic Course in the Protection of Human Subjects for Social and Behavioral Research Investigators. For affiliation, please select Harvard University (Cambridge/Allston Campus). Completed training certificates should be e-mailed to both Rebecca (gourevitch@g.harvard.edu) and to Colleen Yout (colleen_yout@harvard.edu).

Grades:

Grades will be assigned separately for the first semester and the second semester.

Academic Honesty:

Students must observe Harvard University rules regarding the citation of sources. Any sentences or paragraphs taken verbatim from the writing of any other person or persons, or from your own writing that has been published elsewhere, must be placed in quotation marks and their source must be clearly identified. Changing the wording of a sentence or passage slightly does not evade the requirement for citation. Indeed, whenever you are drawing an important argument or insight from someone else, even if you reword it into your own words, a reference to the source is required. Including material from others in the assignments without appropriate quotation marks and citations is regarded, as a matter of School and University policy, as a serious violation of academic and professional standards and can lead to a failing grade in the course, failure to graduate, and even expulsion from the University.

Please note that locations of readings are indicated in brackets beside each citation. Email the teaching fellow if you have any trouble accessing the readings.

SECTION VI: SPECIFIC POPULATIONS (SECTION LEADER: RICHARD FRANK)

1/28: Mental Health Policy (R. Frank)

In this session, we will discuss the evolution of mental health delivery in the U.S. We will review the history of mental health policy, recent improvements in delivery and the on-going challenges facing policy makers in the area. *Better but Not Well* (by Frank and Glied) provides a basic grounding in the history of successes and challenges in the behavioral health system over the past 50-60 years, and will give you important background on many of the key issues facing the system today.

- Frank, Richard G., Glied, Sherry A. *Better But Not Well: Mental Health Policy in the United States since 1950*. Baltimore: The Johns Hopkins University Press; 2006. [<https://muse-jhu-edu.ezp-prod1.hul.harvard.edu/books/9780801889103>]
- Huskamp, HA. Mental Health Insurance Parity – How full is the glass? [Courseweb]
- Frank RG, Glied SA. *Behavioral Health and the Individual Health Insurance Market: Preserving Key Elements of Reform*. Scattergood Foundation; 2017. [[https://www.scattergoodfoundation.org/wp-content/uploads/yumpu_files/Behavioral Health and the Individual Health Insurance Market_03.23.17.pdf](https://www.scattergoodfoundation.org/wp-content/uploads/yumpu_files/Behavioral_Health_and_the_Individual_Health_Insurance_Market_03.23.17.pdf)] Accessed January 9, 2020.
- Garfield R, Zur J. *The Current Medicaid Policy Debate and Implications for Behavioral Healthcare in the United States*. Scattergood Foundation; 2017. [https://www.scattergoodfoundation.org/wp-content/uploads/yumpu_files/The_Current_Medicaid_Policy_Debate.pdf]. Accessed January 9, 2020.

1/30: Aging and Long-Term Care (R. Katz)

Required readings:

- Favreault, Melissa. The Risk of Needing LTSS: DYNASIM Projections. *Urban Institute*, July 2015. [<https://aspe.hhs.gov/system/files/pdf/111361/LTCRisk.pdf>]
- Lepore, Michael. “Financing Long-Term Services and Supports: A Short Retrospective of US long-term care policy financing efforts: what lessons have we learned?” *Generations, American Society on Aging*, Spring 2019. [Courseweb]
- Reaves, E.L. and M.B. Musumeci. Medicaid and Long-Term Services and Supports: A Primer, *Kaiser Commission on Medicaid and the Uninsured, Kaiser Family Foundation*, Dec. 2015; [<https://www.kff.org/medicaid/report/medicaid-and-long-term-services-and-supports-a-primer/>]
- Stevenson, David G. The Future of Nursing Home Regulation: Time for a Conversation? *Health Affairs Blog*, August 23, 2018. [<https://www.healthaffairs.org/doi/10.1377/hblog20180820.660365/full/>]
- Stone, Robyn I. Developing a Quality Direct Care Workforce: Searching for Solutions. *Public Policy and Aging Report*, Volume 27, Issue 3,

2017. [<https://academic.oup.com/ppar/article/27/3/96/4037379?guestAccessKey=a1184047-5deb-4b8e-8090-42560d683aac>]

Addition Readings (optional):

- DuGoff, Eva H, William Buckingham, Amy J.H.Kind, Sandra Chao and Gerard Anderson. Targeting High Need Beneficiaries in Medicare Advantage: Opportunities to Address Medical and Social Needs. The Commonwealth Fund, February 11, 2019. [<https://www.commonwealthfund.org/publications/issue-briefs/2019/feb/targeting-high-need-beneficiaries-medicare-advantage>]
- Gleckman, Howard. Medicare Advantage Plans Are Expanding Personal Supports and Services for 2020. Forbes, October 7, 2019. [<https://www.forbes.com/sites/howardgleckman/2019/10/07/medicare-advantage-plans-are-expanding-personal-supports-and-services-for-2020/#8ece8925f1b1>]
- Iezzoni, Lisa, Naomi Gallopyn and Kezia Scales. Historical Mismatch Between Home-Based Care Policies and Laws Governing Home Care Workers. Health Affairs, June 2019. [<https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2018.05494>]
- Scales, Kezia. Envisioning the Future of Home Care: Trends and Opportunities in Workforce Policy and Practice. PHI. [<https://phinational.org/national-resource-center/resource/envisioning-the-future-of-home-care-trends-and-opportunities-in-workforce-policy-and-practice/>]
- Spetz, Joanne, Robyn Stone, Susan A. Chapman and Natasha Bryant. Home and Community-Based Workforce for Patients with Serious Illness Requires Support to Meet Growing Needs. Health Affairs, June 2019. [<https://www.healthaffairs.org/doi/10.1377/hlthaff.2019.00021>]
- How do Older Baby Boomers Envision Their Quality of Life if They Need Long-Term Care Services? LeadingAge, January 2019. [https://leadingage.org/sites/default/files/HOW%20DO%20OLDER%20BABY%20BOOMERS%20ENVISION_FINAL.pdf]
- Long-Term Care Insurance: The Market, Challenge, and Future Innovations. *National Association of Insurance Commissioners and The Center for Insurance Policy and Research*, May 2016. [https://www.naic.org/documents/cipr_current_study_160519_ltc_insurance.pdf]

General Resources (optional):

- Houser, A., Fox-Grage, W., and Ujvari, K. Across the States: Profiles of Long-Term Services and Supports, *AARP Public Policy Institute*, 2018. [<https://www.aarp.org/content/dam/aarp/ppi/2018/08/across-the-states-profiles-of-long-term-services-and-supports-full-report.pdf>]
- Federal Interagency Forum on Aging-Related Statistics. Older Americans: Key Indicators of Well-Being. *Federal Interagency Forum on Aging-Related Statistics*,

2016. [<https://agingstats.gov/docs/LatestReport/Older-Americans-2016-Key-Indicators-of-WellBeing.pdf>]

- Genworth Financial, Inc. Cost of Care Trends and Insights. 2019. [<https://www.genworth.com/aging-and-you/finances/cost-of-care.html>]

2/4: Disability (N. Maestas)

This lecture examines reasons for the rapid increase in disability insurance receipt over the last several decades, including the incidence of disabling health problems, treatment of pain, changes in health insurance policy, and moral hazard by workers and their employers.

Required Reading

- Maestas, Nicole (2019). "Identifying Work Capacity and Promoting Work: A Strategy for Modernizing the SSDI Program." *The ANNALS of the American Academy of Political and Social Science*, 686:93-120. [<https://journals-sagepub-com.ezp-prod1.hul.harvard.edu/doi/full/10.1177/0002716219882354>]
- Maestas Nicole, Mullen Kathleen J., Strand Alexander. "Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt." *American Economic Review* 2013. 103(5): 1797-1829. [<http://pubs.aeaweb.org.ezp-prod1.hul.harvard.edu/doi/pdfplus/10.1257/aer.103.5.1797>]
- Daly, Mary C. and Mark Duggan (2019). "When One Size Does Not Fit All: Modernizing the Supplemental Security Income Program." *The ANNALS of the American Academy of Political and Social Science*, 686: 229-249. [<https://journals-sagepub-com.ezp-prod1.hul.harvard.edu/doi/full/10.1177/0002716219884072>]

Optional Reading

- Morton, William R. (2014). "Primer on Disability Benefits: Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI)." [<https://www.fas.org/sgp/crs/misc/RL32279.pdf>]
- Liebman, Jeffrey B. "Understanding the Increase in Disability Insurance Benefit Receipt in the United States." *The Journal of Economic Perspectives* 29.2 (2015): 123-149. [https://www-aeaweb-org.ezp-prod1.hul.harvard.edu/jep/app/2902/29020123_corr.pdf]
- Case, Anne, and Angus Deaton. "Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century." *Proceedings of the National Academy of Sciences* 112.49 (2015): 15078-15083. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1073/pnas.1518393112?nosfx=y>]
- Maestas Nicole, Mullen Kathleen J., Strand Alexander. Disability Insurance and Health Insurance Reform: Evidence from Massachusetts. *American Economic Review Papers and Proceedings* 2014. 104(5): 329-335. [<http://pubs.aeaweb.org.ezp-prod1.hul.harvard.edu/doi/pdfplus/10.1257/aer.104.5.329>]
- Autor David, Maestas Nicole, Mullen Kathleen J., Strand Alexander. 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. [<http://www.nber.org/papers/w20840>]
- Maestas Nicole, Mullen Kathleen J., Strand Alexander. The Effect of Economic Conditions on the Disability Insurance program: Evidence from the Great Recession.

NBER Working Paper 25338. December 2018.

[<https://www.nber.org/papers/w25338.pdf>]

- Burkhauser, Richard V., and Mary Daly. “The Economic Status of People with Disabilities (Ch. 1),” in *The declining work and welfare of people with disabilities: What went wrong and a strategy for change*. AEI Press, 2011, 10-20. [Library]
- Autor, David and Mark Duggan, “The Rise in Disability Reciprocity and the Decline in Unemployment,” *Quarterly Journal of Economics*, 2003, 118(1), 157-206. [<https://doi-org.ezp-prod1.hul.harvard.edu/10.1162/00335530360535171>]

Optional Research Proposal Discussion Section I:

February 4 from 6:00 – 7:30pm

2/6: Disparities (M. Alegria)

This session will be concerned with disparities by race-ethnicity. Topics covered include: What is a “disparity” in health care? What of the differences in health care use we observe across populations indicates something unfair? How do disparities come about in a health care system where providers are oriented to provide health care treatment in response to patient’s need? Sources of discrimination -- bias, stereotyping and information-based discrimination – will be explained and discussed.

Required Reading:

- Lamont M, Beljean S, Clair M. “What is missing? Cultural processes and causal pathways to inequality”. *Soc. Econ Rev.* 2014; 12(3): 573-608. [<https://doi-org.ezp-prod1.hul.harvard.edu/10.1093/ser/mwu011>].
- Mackenbach J, Stirbu I, Roskan AJ, ... Kunst A. “Socioeconomic Inequalities in Health in 22 European Countries”. *NEJM.* 2008; 358(23): 2468-2481 [<https://www-nejm-org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMs0707519>].
- Bor J, Venkataramani A, Williams DR, Tsai A. “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. [<https://www-sciencedirect-com.ezp-prod1.hul.harvard.edu/science/article/pii/S0140673618311309>].
- Phelan JC, Link BG. “Is racism a fundamental cause of inequities in health?” *Annu. Rev. Sociol.* 2015; 41: 311-330. [<https://www-annualreviews-org.ezp-prod1.hul.harvard.edu/doi/10.1146/annurev-soc-073014-112305>]

Further readings of interest:

- Kreiger N. *Methods for the scientific study of discrimination and health: an eco-social approach.* *AJPH.* 2012; 102(5): 936-944. [<https://ajph-aphapublications-org.ezp-prod1.hul.harvard.edu/doi/10.2105/AJPH.2011.300544>].
- Sampson RJ, Morenoff JD, Raudenbush S. “Social anatomy of racial and ethnic disparities in violence.” *AJPH.* 2005; 95: 224-232. [<https://ajph-aphapublications-org.ezp-prod1.hul.harvard.edu/doi/10.2105/AJPH.2004.037705>]
- Williams DR, Mohammed SA. “Racism and health I: pathways and scientific evidence.” *Am. Behav. Sci.* 2013; 57(8): 1152-1173. [<https://journals-sagepub-com.ezp-prod1.hul.harvard.edu/doi/full/10.1177/0002764213487340>]

2/6 ASSIGNMENT DUE: 2-3 Paragraph Update on Research Proposal
(Reviewed by JN/RF/AZ)

SECTION VII: RESEARCH DESIGN AND METHODS (SECTION LEADER: ALAN ZASLAVSKY)**2/11: Quasi-Experimental Designs for Health Policy Research (L. Garabedian)**

In this session, we will (1) examine threats to internal validity that are common in health policy research, (2) evaluate different study designs on their ability to protect against these threats to internal validity, (3) introduce rigorous quasi-experimental research designs, including difference-in-differences, interrupted time series and regression discontinuity, and (4) discuss the conditions under which each quasi-experimental design is feasible and appropriate.

Required Readings:

The following readings are primers on difference-in-differences (DiD), interrupted time series (ITS) and regression discontinuity (RD):

- Dimick JB, Ryan AM. Methods for evaluating changes in health care policy: the difference-in-differences approach. *JAMA*. 2014;312(22):2401-2402. [<https://jamanetwork-com.ezp-prod1.hul.harvard.edu/journals/jama/fullarticle/2020357>]
- Bernal JL, Cummins S, Gasparrini A. Interrupted time series regression for the evaluation of public health interventions: a tutorial. *International Journal of Epidemiology*. 2017;348–355. [<https://academic-oup-com.ezp-prod1.hul.harvard.edu/ije/article/46/1/348/2622842>].
- Venkataramani AS, Bor J, Jena AB. Regression discontinuity in health care research. *BMJ*. 2016; 352:i1216. [<https://www-bmj-com.ezp-prod1.hul.harvard.edu/content/352/bmj.i1216>].
 - Primer on regression discontinuity.
- A brief summary of DiD and ITS that I created for HMS students. [Courseweb]

The following two articles, which we will discuss in class, apply these three study designs:

- Haffajee RL, Mello MM, Zhang F, Zaslavsky AM, Laroche MR, Wharam JF. States with overall robust prescription monitoring programs experienced reductions in opioids prescribed to commercially-insured individuals. *Health Affairs (Millwood)*. 2018 June; 37(6): 964-974. [<https://www-healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/10.1377/hlthaff.2017.1321>].
 - Plus skim Appendices A and B.
 - Policy evaluation that uses difference-in-differences and interrupted time series. Be prepared to discuss this article in detail.
- Wallace, J. and Z. Song (2016). Traditional Medicare Versus Private Insurance: How Spending, Volume, And Price Change At Age Sixty-Five. *Health Affairs (Millwood)*. 2016; 35(5): 864-872. [<https://www-healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/10.1377/hlthaff.2015.1195>].
 - Policy evaluation that uses regression discontinuity. Be prepared to discuss this article in detail.

Finally, this article uses health policy research cases to demonstrate common threats to validity and weak vs. robust study designs.

- Soumerai SB, Starr D, Majumdar SR. How Do You Know Which Health Care Effectiveness Research You Can Trust? A Guide to Study Design for the Perplexed. *Prev Chronic Dis* 2015;12:150187. [https://www.cdc.gov/pcd/issues/2015/15_0187.htm]

Optional:

- William R. Shadish, Thomas D. Cook, Donald T. Campbell, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Boston: Houghton Mifflin, 2002. [Library]
 - Review Internal Validity, pages 53 – 63.
 - Chapter 5 (Designs that Use Both Control Groups and Pretests)
 - Chapter 6 (Interrupted Time Series)
 - Chapter 7 (Regression Discontinuity)
- Angrist JD, Pischke J. *Mastering 'metrics: The path from cause to effect*. 2015. Oxford: Princeton University Press. [Courseweb]
 - Chapter 5 – Difference-in-Differences
- Wagner AK, Soumerai SB, Zhang F, Ross-Degnan D. Segmented regression analysis of interrupted time series studies in medication use research. *J Clin Pharm Ther*. 2002; 27(4):299-309. [<https://www.ncbi.nlm.nih.gov.ezp-prod1.hul.harvard.edu/pubmed/12174032>]

2/13: Study Designs Overview & Machine Learning (A. Zaslavsky & S. Rose)

Please note: The questions below are intended to stimulate your engagement with the discussion. Please consider which interest you the most, prepare your own thoughts, and speak up when the class meets.

Required Readings:

- Roderick J. Little, Donald B. Rubin, “Causal Effects in Clinical and Epidemiological Studies Via Potential Outcomes: Concepts and Analytical Approaches” *Annual Review of Public Health* 2000; 21(1):121-45. [<http://www.annualreviews.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1146/annurev.publhealth.21.1.121>]
- William R. Shadish, Thomas D. Cook, Donald T. Campbell, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Boston: Houghton Mifflin, 2002. [Library]
 - Not necessary to do a close reading, but please review Chapters 1 & 2, and pages 246-269, 488-489
- Megan S. Schuler, Sherri Rose, Targeted Maximum Likelihood Estimation for Causal Inference in Observational Studies, *American Journal of Epidemiology*, Volume 185, Issue 1, 1 January 2017, Pages 65–73, [<https://doi-org.ezp-prod1.hul.harvard.edu/10.1093/aje/kww165>]
- Baiocchi M, Cheng J, & Small DS. Instrumental variable methods for causal inference. *Statistics in Medicine*, 2014; 33(13): 2297-2340. [<https://onlinelibrary-wiley-com.ezp-prod1.hul.harvard.edu/doi/abs/10.1002/sim.6128>].

Optional Reading:

- Alan Zaslavsky, “Notes on Research Design and Data Collection,” 1995. [Courseweb]

Discussion questions:

1. What are the defining characteristics of a “causal relationship” or a “causal statement”?
2. What limitations on causal research (regarding data used and/or scientific questions addressed) are implied by complete compliance with SUTVA?

2/18: Estimands, Strategies, and Methods (J. Zubizarreta)

In this session, we will discuss different causal estimands, identification strategies, and estimation methods for causal inference and program evaluation. We will discuss how regression and matching, as particular cases of weighting, approximate a template, randomized experiment. We will discuss doubly robust estimators, and explore the tension between study interpretability and design, and statistical efficiency and computation.

Required Readings:

- Imbens, Guido W. “Matching Methods in Practice: Three Examples.” *Journal of Human Resources* 50, no. 2 (March 2015): 373–419 [<https://muse-jhu-edu.ezp-prod1.hul.harvard.edu/article/581179>]
- Rosenbaum, Paul R. “Modern Algorithms for Matching in Observational Studies.” *Annual Review of Statistics and Its Application* 7, no. 1 (2020). [<https://www-annualreviews-org.ezp-prod1.hul.harvard.edu/doi/pdf/10.1146/annurev-statistics-031219-041058>]
- Visconti, Giancarlo, and Jose R Zubizarreta. “Handling Limited Overlap in Observational Studies with Cardinality Matching.” *Observational Studies* 4 (2018): 217–49. [https://obsstudies.org/wp-content/uploads/2018/07/elections_visconti_zubizarreta.pdf]

Optional Readings:

- Dahabreh IJ, Robertson SE, Stuart EA, & Hernan MA. Transporting inferences from a randomized trial to a new target population. arXiv preprint arXiv:1805.00550. [<https://arxiv.org/abs/1805.00550>].
- Baiocchi M, Cheng J, & Small DS. Instrumental variable methods for causal inference. *Statistics in Medicine*, 2014; 33(13): 2297-2340. [<https://onlinelibrary-wiley-com.ezp-prod1.hul.harvard.edu/doi/abs/10.1002/sim.6128>].
- Imbens GW, and Lemiaux T. Regression Discontinuity Designs: A Guide to Practice. *Journal of Econometrics*, 2008; 142(2): 615–635. [<https://www-sciencedirect-com.ezp-prod1.hul.harvard.edu/science/article/pii/S0304407607001091>].

2/20: Experimental Design: The RAND and Oregon Health Insurance Experiments (J. Newhouse)

Please send Prof. Newhouse (newhouse@hcp.med.harvard.edu) the answers to these three reflection questions by 10am on the day before class (2/19).

1. What in the reading or the slides did you find most interesting? Briefly say why.
2. What in the reading or the slides did you find most puzzling or do you want me to go over in class?

3. What policy issue or issues did you feel most worthy of discussion in class? How would you frame the question you want discussed?

Required Readings:

- Joseph P. Newhouse, *Free For All? Lessons from the Rand Health Insurance Experiment*, Harvard University Press, Cambridge, 1993. [Library]
 - Focus especially on chapters 1, 2, and Appendix B for 2/20. Results will be discussed more on 3/10.
- Amy Finkelstein, et al. The Oregon Health Insurance Experiment: Evidence from the First Year. *Q J Econ*, 2012; 127(3):1057-1106. [<http://ezp-prod1.hul.harvard.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=heh&AN=79311104&site=ehost-live&scope=site>]
 - Focus on methods in Appendix for 2/20; the results of the Oregon Experiment will be discussed on 3/10. Thus, for this class you only need to read through page 1071 of the article (Sections I-III) and the Appendix 1 and 2. There is a lot of detail in the Appendix that you can skim or skip altogether, but you should note the amount of documentation required in the event you run a field experiment.

Optional Reading:

- Joseph P. Newhouse, “The Design of the RAND Health Insurance Experiment: A Retrospective,” mimeo, available on the course website. [Courseweb]
 - This was an invited paper for publication, but a year later I haven’t even gotten referee comments back! That’s the mark of a poorly edited journal, but I enjoyed writing the paper anyway.

2/25: Impact Evaluation (J. Cohen)

Please read the Cohen & Dupas paper carefully as we will be discussing it in depth during class.

Required reading:

- Cohen J, Dupas P. “Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment.” *Quarterly Journal of Economics*. 2010; 125(1):1-45. [<https://academic-oup-com.ezp-prod1.hul.harvard.edu/qje/article/125/1/1/1880305>]
- Cohen J, Easterly W. 2009. “Introduction” from *What Works in Development? Thinking Big and Thinking Small*. Brookings Institution Press. [Courseweb]

Optional reading:

- Banerjee, A. 2007. Making Aid Work, Chapter 1. MIT Press. [Courseweb]
- Abdul Latif Jameel Poverty Action Lab Policy Briefcase. 2012. “A Balancing Act: Subsidizing Drugs and Diagnostics for Malaria.” [<http://www.povertyactionlab.org/publication/balancing-act>]
- Deaton, A. 2009. Instruments of Development: Randomization in the Tropics and the Search for the Elusive Keys to Economic Development. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.3386/w14690?nosfx=y>]
- Duflo, E. and M. Kremer. 2003. Use of Randomization in the Evaluation of Development Effectiveness. [<http://econ-www.mit.edu/files/2785>]
- Duflo, E., R. Glennerster, and M. Kremer. 2007. Using Randomization in Development Economics Research: A Toolkit. [<http://econ-www.mit.edu/files/806>]
- Easterly, W. 2006. The White Man’s Burden: why the West's efforts to aid the rest have done so much ill and so little good. Chapter 1 pp. 1-17. [Library]
- Rodrik, Dani. 2009. The New Development Economics: We Shall Experiment but How Shall we Learn? in *What Works in Development? Thinking Big and Thinking Small* Cohen J. and W. Easterly eds. Brookings Institution Press. [Library]

2/27: Observational Studies of the HRRP (D. Cutler)

The goal of this session is to compare and contrast different ways of addressing a health policy issue. The issue chosen is whether CMS’s Hospital Readmissions Reduction Program (HRRP) resulted in a real reduction in hospital readmissions among Medicare patients. I would like you to be prepared to compare and critique the different approaches. What are the methodological issues in looking at the offset problem? What do you do when different studies reach different conclusions?

Required Readings:

- Orzag P. “In Defense of the Federal Hospital Readmissions Reduction Program.” *NEJM Catalyst*. 24 Jan 2019. [<https://catalyst.nejm.org/defense-hospital-readmissions-reduction-program/>].
 - An overview of the HRRP and its associated literature.
- Zuckerman RB, Sheingold SH, Orav EJ, et al. “Readmissions, Observation, and the Hospital Readmissions Reduction Program. *NEJM*. 2016; 374(16): 1543-51. [<https://www-nejm-org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMsa1513024>].
- Ody C, Msall L, Dafny LS, Grabowski DC, Cutler DM. “Decreases in Readmissions Credited to Medicare’s Program to Reduce Hospital Readmissions Have Been Overstated.” *Health Affairs*. 2019; 38(1): 36-43. [<https://www-healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/10.1377/hlthaff.2018.05178>].
- Wadhwa RK, Joynt- Maddox KE, Wasfy JH, et al. “Association of the Hospital Readmissions Reduction Program with Mortality among Medicare Beneficiaries Hospitalized for Health Failure, Acute Myocardial Infarction, and Pneumonia.” *JAMA*. 2018; 320(24):2542-52. [<https://jamanetwork-com.ezp-prod1.hul.harvard.edu/journals/jama/article-abstract/2719307>].
- Dharmarajan K, Wang Y, Lin Z, et al. “Association of Changing Readmission Rates with Mortality Rates after Hospital Discharge.” *JAMA*. 2017;318(3):270-8. [<https://jamanetwork-com.ezp-prod1.hul.harvard.edu/journals/jama/fullarticle/2643762>].
- Gupta A, Allen LA, Bhatt DL, et al. “Association of the Hospital Readmissions Reduction Program Implementation with Readmission and Mortality Outcomes in Heart Failure.” *JAMA Cardiology*. 2018;3(1):41-53. [<https://jamanetwork-com.ezp-prod1.hul.harvard.edu/journals/jamacardiology/fullarticle/2663213>]

3/3: Study Designs Overview II (A. Zaslavsky)

Please note: The questions below are intended to stimulate your engagement with the discussion. Please consider which interest you the most, prepare your own thoughts, and speak up when the class meets.

Required readings:

- Sharon-Lise T. Normand, Mary Beth Landrum, Edward Guadagnoli, et al. “Validating angiography recommendations following acute myocardial infarction in the elderly: A matched analysis using propensity scores,” *Journal of Clinical Epidemiology*, 2001; 54(4):387-398. [<http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S0895435600003218>]
- Mark McClellan, Barbara J. McNeil, and Joseph P. Newhouse, “Does More Intensive Treatment of Acute Myocardial Infarction Reduce Mortality?” *Journal of the American Medical Association*, 1994; 272(11):859-866. [<http://jama.jamanetwork.com.ezp-prod1.hul.harvard.edu/article.aspx?articleid=379272>]
- Sanghavi P, Jena AB, Newhouse JP, Zaslavsky AM. Outcomes of Basic Versus Advanced Life Support for Out-of-Hospital Medical Emergencies. *Ann Intern Med*. 2015;163:681-690. doi:10.7326/M15-0557 [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.7326/M15-0557?nosfx=y>]; [*Please review the online supplements for this article as well: not in detail, just enough to*

understand what threat to validity each is intended to respond to.]

- Garabedian LF, Chu P, Toh S, Zaslavsky AM, Soumerai SB. “Potential bias of instrumental variable analyses for observational comparative effectiveness research.” *Ann Intern Med* 2014;161(2):131-138. [<http://annals.org.ezp-prod1.hul.harvard.edu/article.aspx?articleid=1887030>]

Optional:

- Li F, Morgan KL, Zaslavsky AM. Balancing covariates via propensity score weighting. *Journal of the American Statistical Association*. 2017 Nov 10:1-1. [<http://www-tandfonline-com.ezp-prod1.hul.harvard.edu/doi/pdf/10.1080/01621459.2016.1260466?needAccess=true>]
- Sharon-Lise T. Normand. “Some Old and Some New Statistical Tools for Outcomes Research,” *Circulation*; 2008; 118(8): 872-884 [<http://circ.ahajournals.org.ezp-prod1.hul.harvard.edu/content/118/8/872.full.pdf+html>]
- Krieger N, Davey Smith G. The tale wagged by the DAG: broadening the scope of causal inference and explanation for epidemiology. *International journal of epidemiology*. 2016 Dec 1;45(6):1787-808. [<https://academic-oup-com.ezp-prod1.hul.harvard.edu/ije/article/45/6/1787/2617188>]

Possible discussion questions:

1. What kinds of research questions are favored or disfavored by reliance on methods that depend on potential outcomes analysis under SUTVA? (You may refer to Krieger & Smith for some ideas.)
2. What are some kinds of average treatment effect (ATE) that might be relevant in drawing policy recommendations from a study? (See Li et al.)
3. What are some possible criticisms of the IV analyses in Sanghavi et al. and McClellan et al.? (Consider the objections raised by Garabedian et al.) Do the analyses adequately deal with them? What next steps should be taken in these analyses?
4. Rosenbaum (Sec. 3.1, 3.4) argues that competing theories are the best frames for empirical scientific investigations. Krieger & Smith (pp. 1790-1792) argue for “inference to the best explanation.” Are they talking about the same elephant?

SECTION VIII: ECONOMICS OF HEALTH CARE (SECTION LEADER: JOE NEWHOUSE)

3/5: Analysis and Applications: The RAND and Oregon Health Insurance Experiments (J. Newhouse)

Please send Prof. Newhouse (newhouse@hcp.med.harvard.edu) the answers to these three reflection questions by 10am on the day before class (3/4).

1. What in the reading or the slides did you find most interesting? Briefly say why.
2. What in the reading or the slides did you find most puzzling or do you want me to go over in class?
3. What policy issue or issues did you feel most worthy of discussion in class? How would you frame the question you want discussed?

- Joseph P. Newhouse, *Free for All? Lessons from the Rand Health Insurance Experiment*, Harvard University Press, Cambridge, 1993. [Library]
 - Read whatever of the book you did not read for the session two weeks ago.
 - Chapter 4 is the most demanding technically. If you are having trouble you can skim it, although it has the important result that the effect of cost sharing appears to be primarily on the consumer's/patient's decision to initiate care.
 - Also be prepared to discuss how you would have designed the RAND experiment differently with the nature of hindsight; for thinking about this question you may want to review chapters 1 and 2.
 - Review the Finkelstein, et al. and Baicker, et al. papers on Oregon discussed in our prior session, and be prepared to discuss the differences in both the design and the conclusions of the RAND Experiment and the Oregon Experiment.
- Katherine Baicker, et al. The Oregon Experiment – Effects of Medicaid on Clinical Outcomes. *NEJM*, 2013; 368(18):1713-22. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMs1212321>]
- Read any parts of the Finkelstein *QJE* article assigned for the 2/15 class that you did not read earlier.
- Aron-Dine, A. and L. Einav, and A. Finkelstein. 2013. “The RAND Health Insurance Experiment, Three Decades Later.” *Journal of Economic Perspectives* 27(1): 197-222 (Winter). [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/jep.27.1.197?nosfx=y>]

3/10: Adverse Selection & Moral Hazard (T. Layton)

We will discuss two key phenomena affecting insurance markets -- moral hazard and adverse selection. The simple theory of optimal insurance with moral hazard is demand for one good with one price. There are a number of generalizations that are important, such as cross-price effects, mistakes in consumer preferences and others, covered in Section 2 of the McGuire review paper in the *Handbook* Vol. 2.

There are two major forms of adverse selection inefficiencies. The first is that given restrictions on premiums charged to consumers, people choose the wrong plan. The basic model for this is in Einav-Finkelstein. The second form is that plans distort their product to attract winners/deter losers. The theory of this “service-level selection” is presented in Layton et al. Alternative reading for Layton et al is Geruso and Layton.

Required Readings:

- T. McGuire, “Demand for Health Insurance” in Pauly, McGuire and Barros *Handbook of Health Economics* volume 2, Elsevier, 2012. Section 2 only, pages 338-360. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1016/B978-0-444-53592-4.00005-0?nosfx=y>]
- Liran Einav and Amy Finkelstein, “Selection in Insurance Markets: Theory and Empirics in Pictures,” *Journal of Economic Perspectives*, 25(1) 115-138, 2011. [<http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.25.1.115>]

- Michael Geruso and Timothy Layton, “Selection in Health Insurance Markets and Its Policy Remedies,” *Journal of Economic Perspectives*, 31(4): 23-50, 2017. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/jep.31.4.23?nosfx=y>]
- Geruso, Michael and Layton, Timothy J. and McCormack, Grace and Shepard, Mark, The Two Margin Problem in Insurance Markets (May 3, 2019). [<https://ssrn-com.ezp-prod1.hul.harvard.edu/abstract=3385492>]

Optional Readings:

- Richard Zeckhauser, “Medical Insurance: A Case Study of the Tradeoff Between Risk Spreading and Appropriate Incentives,” *Journal of Economic Theory*, Vol. 2, No. 1, pp. 10-26, 1970. [<http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/0022053170900104>]
- David Cutler and Richard Zeckhauser, “The Anatomy of Health Insurance,” Chapter 11 in *Handbook of Health Economics*, Eds. A.J. Culyer and J.P. Newhouse, North-Holland, 2000. [<http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S1574006400801705>]
 - o Focus on Sections 3 and 6
- David Cutler and Sarah Reber, “Paying for Health Insurance: The Tradeoff Between Competition and Adverse Selection,” *Quarterly Journal of Economics*, Vol. 113, No. 2, pp. 433-466, May 1998. [<http://www.jstor.org.ezp-prod1.hul.harvard.edu/stable/2586909>]
- J. Glazer and T. McGuire, “Optimal Risk Adjustment of Health Insurance Premiums: An Application to Managed Care,” *American Economic Review*, 90(4): 1055-71, 2000. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/aer.90.4.1055?nosfx=y>]
- Tim Layton, Randall Ellis, Thomas McGuire and Richard van Kleef, “Measuring Efficiency of Health Plan Payment Systems in Managed Competition Health Insurance Markets,” *Journal of Health Economics*, (56): 237-255, December 2017. [<https://doi-org.ezp-prod1.hul.harvard.edu/10.1016/j.jhealeco.2017.05.004>]
- Aron-Dine, A. and L. Einav, and A. Finkelstein. 2013. “The RAND Health Insurance Experiment, Three Decades Later.” *Journal of Economic Perspectives* 27(1): 197-222 (Winter). [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/jep.27.1.197?nosfx=y>]

Optional Research Proposal Discussion Section II:

March 10 from 6:00 – 7:30

3/12: Medicaid (B. Sommers)

This session explores the policy and economic underpinnings of Medicaid. Topics include understanding the history of the program prior to the Affordable Care Act; impacts of Medicaid on low-income beneficiaries’ access to care, financial resources, and health; the ACA’s large expansion in coverage that began in 2014; and potential reforms to the program in the coming years.

Required Reading:

1) Basic Overview of Medicaid

- Iglehart, J. K., & Sommers, B. D. (2015). Medicaid at 50--from welfare program to nation's largest health insurer. *N Engl J Med*, 372(22), 2152-2159. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/10.1056/NEJMhpr1500791>]

2) *Economic Analyses of Medicaid*

- Sommers BD, Baicker K, Epstein AM. (2012) Mortality and Access to Care Among Adults After State Medicaid Expansions. *N Engl J Med* 2012; 367:1025-1034. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMsa1202099>]
- Sommers, BD, & Oellerich, D. (2013). The poverty-reducing effect of Medicaid. *Journal of health economics*, 32(5), 816-832. [<https://www-sciencedirect-com.ezp-prod1.hul.harvard.edu/science/article/pii/S016762961300091X>]

3) *Proposed Reforms to Medicaid*

- “A Better Way: Health Care.” House G.O.P. Speaker’s Office -Health Care Policy Statement, 2016. **Pages 23-28.** [Courseweb]
- “Opportunities to Promote Work and Community Engagement Among Medicaid Beneficiaries.” Centers for Medicare & Medicaid Services, January 2018. <https://www.medicare.gov/federal-policy-guidance/downloads/smd18002.pdf>

4) *Background Reading from Prior Sessions (Skim/refresh your memory!):*

- Baicker, K., Taubman, S., Allen, H., Bernstein, M., Gruber, J., Newhouse, J. P., et al (2013). The Oregon Experiment - Effects of Medicaid on Clinical Outcomes. *N Engl J Med* 368(18), 1713-1722. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/10.1056/NEJMsa1212321>]
- Cutler, D.M., Gruber, J., (1996). Does Public Insurance Crowd Out Private Insurance? *Quarterly Journal of Economics*. 112, 391-430. [<https://doi-org.ezp-prod1.hul.harvard.edu/10.2307/2946683>]

3/12 Assignment DUE: Essay #3 Article Critique

3/14 – 3/22 SPRING RECESS

3/24: Economics of Medicare Payment and Financing (Z. Song)

This session focuses on key concepts in provider payment and financing in traditional Medicare and Medicare Advantage. We will first discuss the determination of provider prices for medical services, variation in prices by site of care and insurance, and implications for provider behavior. We will then discuss Medicare Advantage plan payment, plan behavior, and implications for beneficiaries. This session will help set up the subsequent sessions on payment and incentives.

Required Readings

- Berenson RA, Ginsburg PB. Improving The Medicare Physician Fee Schedule: Make It Part Of Value-Based Payment. *Health Affairs*. 2019 Feb;38(2):246-252. [[https://www-healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/10.1377/hlthaff.2018.05411](https://www.healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/10.1377/hlthaff.2018.05411)].
 - A concise review of RBRVS and current considerations for improving value.
- Trish E, Ginsburg P, Gascue L, Joyce G. Physician Reimbursement in Medicare Advantage Compared With Traditional Medicare and Commercial Health Insurance. *JAMA Internal Medicine*. 2017 Sep 1;177(9):1287-1295. [<https://jamanetwork-com.ezp-prod1.hul.harvard.edu/journals/jamainternalmedicine/fullarticle/2643349>]
 - Helpful comparison of unit prices between these three segments of insurance.
- McGuire TG, Newhouse JP, Sinaiko AD. An economic history of Medicare part C. *Milbank Quarterly*. 2011 Jun;89(2):289-332. [<https://onlinelibrary-wiley-com.ezp-prod1.hul.harvard.edu/doi/abs/10.1111/j.1468-0009.2011.00629.x>]
 - A great overview of the introduction and evolution of private plans in Medicare.
- Song Z, Landrum MB, Chernew ME. Competitive bidding in Medicare Advantage: effect of benchmark changes on plan bids. *Journal of Health Economics*. 2013 Dec;32(6):1301-12. [<https://www-sciencedirect-com.ezp-prod1.hul.harvard.edu/science/article/pii/S0167629613001112>]
 - A review of competitive bidding in Medicare Advantage and plan behavior.

3/26: Provider Payment and Risk Adjustment (T. McGuire)

The purpose of this session is to introduce some ideas around the design of provider payment and contracting policy.

Required Readings

- Joseph P. Newhouse. *Pricing the Priceless: A Health Care Conundrum*. MIT Press, 2002. [Library]
 - Introduction
 - Chapter 1: Fee-for Service Medicine and Its Discontents
 - These parts of Newhouse review some of the problems with fee-based regulation.
- Thomas McGuire, 2011, “Physician Agency and Payment for Primary Medical Care.” *The Oxford Handbook of Health Economics*, Glied S and Smith P, eds. pp 602-23. [Courseweb]
 - In paying physician groups (medical homes), a “mix” in payment with some prospective element is a good thing.
- Clemens, Jeffrey, and Joshua D. Gottlieb. "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" *American Economic Review* 104, no. 4 (2014): 1320-349. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/aer.104.4.1320?nosfx=y>]

Optional Readings

- Garthwaite, Craig L. "The Doctor Might See You Now: The Supply Side Effects of Public Health Insurance Expansions." *American Economic Journal: Economic Policy* 4,

no. 3 (2012): 190-215. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1257/pol.4.3.190?nosfx=y>]

- Einav, Liran, Amy Finkelstein, and Neale Mahoney. “Provider Incentives and Healthcare Costs: Evidence from Long-Term Care Hospitals.” *Econometrica* 86, no. 6 (2018): 2161–2219. [<https://economics.mit.edu/files/16464>].
- Richards, Michael R., and D. Sebastian Tello Trillo. Keeping the Doctor Away? Commercial Insurer Network and Pricing Effects on Physician Labor Supply and Behavior. Working Paper, 2017. [https://www.kellogg.northwestern.edu/~media/Files/Departments/hema/Conferences/2017/Final-RichardsWP_TelloTrillo_HCMarkets2017.ashx]
- Hackmann, Martin B. Incentivizing Better Quality of Care: The Role of Medicaid and Competition in the Nursing Home Industry. NBER Working Paper 24133, 2017. [<http://www.nber.org.ezp-prod1.hul.harvard.edu/papers/w24133.pdf>]

3/26 ASSIGNMENT DUE: 2-page Description of Study Design/Methods
(Reviewed by JN/RF/AZ)

3/31: Payment Systems & Provider Incentives (A. Sinaiko)

In this session we will discuss using provider payment as a tool for optimizing quality, efficiency and other intermediate delivery system goals. The focus here will be on the practical and empirical experience of provider payment as implemented in a variety of real-world contexts.

- Robinson JC. The Theory and Practice of Physician Payment Incentives. *Milbank Quarterly*; May 2001, Vol. 79 Issue 2. [<http://ezp-prod1.hul.harvard.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=4518586&site=ehost-live&scope=site>]
 - Read p149-156. Remainder of article may be of interest, but is optional.
- Eijkenaar, F., Emmert, M., Scheppach, M. and Schöffski, O., 2013. Effects of pay for performance in health care: a systematic review of systematic reviews. *Health policy*, 110(2), pp.115-130. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1016/j.healthpol.2013.01.008?nosfx=y>]
- Scott A, Sivey P, Ait OD, Willenberg L, Naccarella L, Furler J, Young D. “The effect of financial incentives on the quality of health care provided by primary care physicians.” Cochrane Database of Systematic Reviews: Reviews 2011 Issue 9 John Wiley & Sons, Ltd Chichester. [Courseweb]
- Cutler DM, McClellan M, Newhouse JP. How Does Managed Care Do It? *RAND Journal of Economics* 31(3), Autumn 2000 p 526-548. [<http://www.jstor.org.ezp-prod1.hul.harvard.edu/stable/2600999>]
- Sinaiko AD, Landrum MB, Chernew ME. Enrollment In A Tiered Provider Network Health Plan Decreased Medical Spending By 5 Percent. *Health Affairs* 2017; 36(5):870-875. [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.2016.1087>]

4/2: Pharmaceuticals (A. Jena)

- Congressional Budget Office. “Research and Development in the Pharmaceutical Industry.” October 2006. [<http://cbo.gov/publication/18176>]
- Berndt, ER and JP Newhouse. Pricing and Reimbursement in U.S. Pharmaceutical Markets. NBER Working Paper No. 16297. Issued Aug. 2010. [<http://www.nber.org/papers/w16297>]
- Jena AB, Tomas Philipson. Cost effectiveness Analysis and Innovation. *Journal of Health Economics* 27 (2008), 1224–1236. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1016/j.jhealeco.2008.05.010?nosfx=y>]

4/7: Antitrust and the Industrial Organization of Health Care (M. Shepard)

This class introduces the economics underlying competition in health care markets. A key concern with market competition is that large firms will exercise their market power to raise prices and/or underinvest in quality. Industrial organization (IO) is the field of economics that studies market power and competition, and antitrust regulation is its main policy application.

This class focuses on basic economic models of market power, with an application to health insurance markets. It also discusses the use of market design policies to shape outcomes in imperfectly competitive insurance markets.

Readings:

- Dafny, Leemore (2015). “Health Insurance Industry Consolidation.” Testimony before the Senate Judiciary Committee. [<https://www.judiciary.senate.gov/imo/media/doc/09-22-15%20Dafny%20Testimony%20Updated.pdf>]
 - Please read to the end of section 2 (through page 12)]
- Layton, Timothy, Alice K. Ndikumana and Mark Shepard. Health Plan Payment in Medicaid Managed Care: A Hybrid Model of Regulated Competition. NBER Working Paper No. 23518. Issued June 2017. [<http://www.nber.org/papers/w23518>]

Optional classic reading:

- Enthoven, Alain C. “The history and principles of managed competition.” *Health Affairs* 12.suppl 1 (1993): 24-48. [https://www.healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.12.suppl_1.24]

4/9: Health Insurance Markets and Market Design (V. Curto)

This class discusses the rise of “regulated competition” in various contexts in the U.S. healthcare system, such as Medicare Advantage, the ACA marketplaces, and Medicaid managed care. We will consider the problems that can arise in health insurance marketplaces. We will discuss the tools available to regulators to address these problems. Finally, we will examine how economic models can be used to inform market design in these settings.

Readings:

- Curto, Vilsa, Liran Einav, Jonathan Levin, and Jay Bhattacharya. 2018. “Can Health

Insurance Competition Work? Evidence from Medicare Advantage.” [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.3386/w20818?nosfx=y>]

- Ericson, Keith, and Amanda Starc. 2015. “Pricing Regulation and Imperfect Competition on the Massachusetts Health Insurance Exchange.” *Review of Economics and Statistics*, 97(3):667-682. [http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1162/REST_a_00514?nosfx=y]

4/14: Antitrust (L. Dafny)

This class discusses the role of antitrust enforcement in preventing anticompetitive conduct and thereby promoting and preserving competition. We will focus on the case history and economic frameworks utilized in the past and present to evaluate and challenge same-market “horizontal” hospital mergers.

Readings:

- “Health Reform and Market Competition: Opportunities and Challenges,” *Health Law Reporter*, 19 (395), 3/18/2010. (Summarizes key antitrust issues). [Courseweb]
- Japsen B. “FTC ruling on hospitals may raise mergers bar.” *Chicago Tribune*, August 7, 2007. [Courseweb]
- Gaynor M, Ho K, and Town RJ, “The Industrial Organization of Health-Care Markets.” [https://www-jstor-org.ezp-prod1.hul.harvard.edu/stable/24433982?seq=1#metadata_info_tab_contents]
 - Read subsection 5.3.2 and skim subsection 5.3.3. Note 5.3.3 references notation in sections that are not assigned; it’s ok to skip the formulae.
- Ramirez, Edith. “Antitrust Enforcement in Health Care — Controlling Costs, Improving Quality,” *New England Journal of Medicine*; 371: 2245-2247. December 11, 2014. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMp1408009>]
- Dafny, Leemore. “Hospital Industry Consolidation — Still More to Come?” *New England Journal of Medicine*; 370: 198-199. January 16, 2014. [<http://www.nejm.org.ezp-prod1.hul.harvard.edu/doi/full/10.1056/NEJMp1313948>]
- McCluskey, Priyanka. “With Beth Israel-Lahey merger, state charts new course on health care.” *Boston Globe*. December 2, 2018. [Courseweb]

4/16 ASSIGNMENT DUE: Essay #4 (Economics of Health Care)

4/16: PRESENTATION OF RESEARCH PROPOSALS, Group 1 (6:00-8:00PM)

4/16: Behavioral Economics and Global Health (M. McConnell)

- Datta, S. and Mullainathan, S. “Behavioral Design: A New Approach to Development Policy,” CGD Policy Paper 016, November 2012. [https://www.cgdev.org/sites/default/files/Datta_Mullainathan_Behavioral_Design.pdf]
- Chapters 8 and 11 from: World Bank. 2015. *World Development Report 2015: Mind, Society, and Behavior*. Washington, DC: World Bank. doi: 10.1596/978-1-4648-0342-0. License: Creative Commons Attribution CC BY 3.0 IGO. [<http://www.worldbank.org/content/dam/Worldbank/Publications/WDR/WDR%202015/WDR-2015-Full-Report.pdf>]

4/21: Benefit Design (M. Chernew)*Reference Pricing:*

- Robinson and Brown. 2013. “Increases in Consumer Cost-Sharing Redirect Patient Volumes and Reduce Hospital Prices for Orthopedic Surgery.” *Health Affairs* 32(8). [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.2013.0188>]

VBID:

- Chernew et al. 2008. Impact of Decreasing Copayments on Medication Adherence Within a Disease Management Environment. *Health Affairs* 27(1):103-112. [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.27.1.103>]
- Reed et al. 2017. Value-Based Insurance Design Benefit Offsets Reductions In Medication Adherence Associated With Switch To Deductible Plan. *Health Affairs* 36(3):516-523. [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.2016.1316>]

Tiered Networks:

- Frank et al. 2015. “The Impact of a Tiered Network on Hospital Choice.” *Health Services Research* 50(5). [<http://onlinelibrary.wiley.com.ezp-prod1.hul.harvard.edu/doi/10.1111/1475-6773.12291/full>]

HDHPs:

- Brot-Goldberg et al. 2015. “What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics.” NBER Working Paper No. 21632. <http://www.nber.org/papers/w21632.pdf>

Optional

- Robinson et al. 2017. Reference Pricing Changes the ‘Choice Architecture’ of Health Care for Consumers. *Health Affairs* 36(3):524-530. [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.2016.1256>]
- Chernew et al. 2007. “Value-Based Insurance Design.” *Health Affairs* 26(2). [<https://www.healthaffairs.org.ezp-prod1.hul.harvard.edu/doi/abs/10.1377/hlthaff.26.2.w195>]
- Delbanco et al. 2016. “Tiered Networks - Payment Methods and Benefit Designs: How They Work and How They Work Together to Improve Health Care.” Urban Institute. http://www.urban.org/sites/default/files/03_tiered_networks.pdf
- Sinaiko, A., A. Mehrotra, and N. Sood. 2016. Cost-Sharing Obligations, High-Deductible Health Plan Growth, and Shopping for Health Care: Enrollees With Skin in the Game. *JAMA Internal Medicine* 176(3):395-7. [<http://ezp-prod1.hul.harvard.edu/login?url=http://dx.doi.org/10.1001/jamainternmed.2015.7554?nosfx=y>]

4/23: PRESENTATION OF RESEARCH PROPOSALS, Group 2 (6:00-8:00PM)**4/23: Behavioral Economics and Health Care (R. Zeckhauser)**

- David Cutler and Richard Zeckhauser, “The Anatomy of Health Insurance,” Chapter 11 in Handbook of Health Economics, Eds. A.J. Culyer and J.P. Newhouse, North-Holland, 2000. [<http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S1574006400801705>]
- Custom-Made Versus Ready-to-Wear Treatments: Behavioral Propensities in Physicians' Choices," with Richard G. Frank, *Journal of Health Economics* 26(6), 2007, 1101-1127. [http://www.hks.harvard.edu/fs/rzeckhau/custom-made_vs_ready-to-wear_tx.pdf]

4/28: Health Policy and the Labor Market - an Overview (R. Frank and J. Newhouse)

- Lawrence H. Summers, “Some Simple Economics of Mandated Benefits,” *American Economic Review*, 79(2): 177-183, May 1989. [<http://www.jstor.org.ezp-prod1.hul.harvard.edu/stable/1827753>]
- CBO, The Budget and Economic Outlook 2014 to 2024 Appendix B and C (Feb 4, 2014) [<https://www.cbo.gov/publication/45010>]
- Garrett B., R Kaestner, A Gangopadhyaya, Recent Evidence on the ACA and Employment: Has the ACA Been a Job Killer? 2016 Update Urban Institute February 2017 [<http://www.urban.org/research/publication/recent-evidence-aca-and-employment-has-aca-been-job-killer-2016-update>]
- Garthwaite C, T Gross, M Notowidigdo, “Public Health Insurance, Labor Supply, and Employment Lock,” *Quarterly J Economics*, 129(2): 653–696, 2014. [<https://doi-org.ezp-prod1.hul.harvard.edu/10.1093/qje/qju005>]

4/30-5/6 SPRING READING PERIOD**5/5 at 11:59 PM ASSIGNMENT DUE: Research Proposal****5/7-5/16 SPRING EXAM PERIOD**