

# Syllabus of Advanced Health Economics

## Autumn 2018

### Course Information

- 9:00 – 12:00 a.m. Monday
- Second Room at Wanzhong Building (朗润园万众楼一层第二教室)
- Instructor: Prof. Ling Li (李玲教授)
- Office: Room 201, National School of Development, PKU (朗润园 201 室)
- Email: [lingli@nsd.pku.edu.cn](mailto:lingli@nsd.pku.edu.cn)
- Office Hours: By Appointment
- TA: Xu Duo([xuduo\\_nsd@pku.edu.cn](mailto:xuduo_nsd@pku.edu.cn))

### Introduction

The increasing public policy interests in both developed and developing countries of improving population health while at the same time slowing the escalation of medical care spending have motivated substantial growth in empirical and theoretical research in health economics. Nowadays, health and healthcare have become the key political and economic issues across the world. While drawing its theoretical inspiration principally from traditional areas as an applied field of economics, the provision and production of health care have different characteristics and incentives from classical consumer goods, making health-related market a unique topic to study. This course is intended to introduce the field of Health Economics to graduate students, covering several topics on health and healthcare system.

### Prerequisites

Graduate level microeconomics, macroeconomics and econometrics.

Students need to know how to use Stata/R/MATLAB/Python to run regressions.

**Note: The workload of this course is heavy. Students taking this course should spend at least 6 hours per week on this course.**

### Suggested Texts

- Handbook of Health Economics, Vol. 1A and 1B, edited by Anthony J. Cuyler and Joseph P. Newhouse, North-Holland, Elsevier Science, 2000.
- Handbook of Health Economics, Vol. 2, edited by Mark V. Pauly, Thomas G. McGuire and Pedro P. Barros, North Holland, 2010.
- Folland S., A. C. Goodman, and M. Stano, The Economics of Health and Health Care, 5<sup>th</sup> edition.

### Grading

Grades will be based on three parts: class participation (30%), take-home assignments (30%) and a research paper (40%). Class-participation requires students to present one selected paper each week and discuss. There will be two take-home assignments including replication of published papers and a referee report. The research paper will be an empirical and/or theoretical research on a topic related to this course. The proposal of research paper will be presented at the end of this semester and the final manuscript will be submitted on Feb. 2, 2018.

## Advanced Health Economics: Tentative Schedule

### Health Economics

- Fri Sep. 21 (18:00-21:00, No change in Classroom)  
Introduction, Global Health and Health Capital
- Mon Sep. 24 Mid-autumn Festival: No class (take-home reading)
- Mon Oct. 1 National Day: No class (take-home reading)
- Mon Oct. 8 Determinants of Health
- Mon Oct. 15 Health and Development

### Healthcare Economics

- Mon Oct. 22 Healthcare System, Healthcare Expenditure
- Mon Oct. 29 Health Insurance I: Selection
- Mon Nov. 5 Health Insurance II: Moral Hazard
- Mon Nov.12 Health Insurance III: Welfare
- Mon Nov. 19 Physician Agency
- Mon Nov. 26 Ownership
- Mon Dec. 3 Hospital Competition
- Mon Dec. 10 Productivity Analysis

### Market Design

- Mon Dec.17 Organ Allocation
- Mon Dec.24 Healthcare exchanges
- Mon Dec.31 Presentation

**The schedule and reading lists may change, please pay attention to the WeChat group.**

# Advanced Health Economics: Reading List<sup>1</sup>

## Class 1.1: Introduction

### Supplemental readings:

1. Arrow, K. J., Uncertainty and the Welfare Economics of Medical Care, *American Economic Review*, 1963, 53(5), 941-973.
2. Fuchs, V. R., The Future of Health Economics, *Journal of Health Economics*, 2000, 19(2), 141-157.
3. Hsiao, W. C., "What Is a Health System? Why Should We Care?" Unpublished manuscript, Harvard School of Public Health, 2003, August.
4. Yip W, Hsiao W. Chinas health care reform: A tentative assessment. *China Economic Review*, 2009, 20(4):613-619.

## Class 1.2: Global Health and Health Capital

### Class discussion:

1. Cutler, D., Deaton, A., and Lleras-Muney, A., The Determinants of Mortality, *Journal of Economic Perspectives*, 2006, 20(3), 97-120.
2. M. Grossman, On the Concept of Health Capital and the Demand for Health, *Journal of Political Economy*, 80(2), 1972, 223-255.
3. Hall R E, Jones C I. The Value of Life and the Rise in Health Spending. *The Quarterly Journal of Economics*, 2007, 122(1): 39-72.

### Supplemental readings:

1. **Deaton, Angus, *The Great Escape: Health, Wealth, and the Origins of Inequality*, Princeton, NJ: Princeton University Press, 2013, Part I, 59-164. (You can find a Chinese version)**
2. Becker, G. S., Philipson, T. J., and Soares, R. R., The Quantity and Quality of Life and the Evolution of World Inequality, *American Economic Review*, 2005, 95(1), 277-291.

## Class 2: Determinants of Health

### Class discussion:

1. **(Education)** Cutler, D. and Lleras-Muney, A., Understanding Differences in Health Behavior by Education, *Journal of Health Economics*, 2010, 29(1), 1-28.
2. **(Income/ Social Status)** Sullivan, D., and Wachter, T. V., Job Displacement and Mortality: An Analysis Using Administrative Data, *Quarterly Journal of Economics*, 2009, 124(3), 1265-1306.
3. **(Fetal Origin Hypothesis)** Almond, D., Is the 1918 Influenza Pandemic Over? Long-Term Effects of In Utero Influenza Exposure in the Post-1940 Population, *Journal of Political Economy*, 2006, 114(4), 672-712.

### Supplemental readings:

1. Lleras-Muney, A., The Relationship Between Education and Adult Mortality in the U.S., *Review of Economic Studies*, 2005, 72(1), 189-221.

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<sup>1</sup> N. B.: The reading list may change every week.

2. Currie, J., and Moretti, E., Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings, *Quarterly Journal of Economics*, 2003, 118(4), 1495-1532.
3. Kemptner, D., Jürges, H., and Reinhold, S., Changes in Compulsory Schooling and the Causal Effect of Education on Health: Evidence from Germany, *Journal of Health Economics*, 2011, 30, 340-354.
4. Snyder, S. E., and Evans, W. N., The Effect of Income on Mortality: Evidence from the Social Security Notch, *The Review of Economics and Statistics*, 2006, 88(3), 482-495.
5. Chetty, R., Stepner, M., and Abraham, S., The Association Between Income and Life Expectancy in the United States, 2001-2014, *JAMA*, 2016, 315(6), 1750-1766.
6. Maccini, S., and Yang, D., Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall, *American Economic Review*, 2009, 99(3), 1006-1026.
7. Chen, Y., and Zhou, L., The Long-term Health and Economic Consequences of the 1959-1961 famine in China, *Journal of Health Economics*, 2007, 26, 659-681.
8. Yuksel, M. A., War During Childhood: The Long Run Effects of Warfare on Health, *Journal of Health Economics*, 2017, 53, 117-130.
9. Chari, A. V., et al., The Causal Effect of Maternal Age at Marriage on Child welling: Evidence from India.
10. Currie, J., Neidell, M., and Schmieder, J. F., Air Pollution and Infant Health: Lesson from New Jersey, *Journal of Health Economics*, 2009, 28, 688-703.
11. Brainerd, E., and Cutler, D.M., Autopsy on an Empire: Understanding Mortality in Russia and the Former Soviet Union, *Journal of Economic Perspectives*, 2005, 19(1), 107-130.
12. Aizer, A., et al., Do Low Levels of Blood Lead Reduce Children's Future Test Scores? *American Economic Journal: Applied Economics*, 2018, 10(1), 307-341.

### **Class 3: Health and Development**

#### **Class discussion:**

1. Acemoglu, Daron, and Simon Johnson, Disease and Development: The Effect of Life Expectancy on Economic Growth, *Journal of Political Economy*, 2007, 115(6), 925-985.
2. Bleakley, H., Disease and Development: Evidence from Hookworm Eradication in the American South, *Quarterly Journal of Economics*, 2007, 122(1), 73-177.
3. Dupas, P., Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya, *American Economic Journal: Applied Economics*, 2011, 3(1), 1-34.
4. Chetty, R., Hendren, N., and Katz, L., The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment, *American Economic Review*, 2016, 106(4), 855-902.

#### **Supplemental readings:**

1. Prinz, D., et al., Health and Economic Activity Over the Lifecycle: Literature Review, NBER Working paper, 2018, w24865.

2. Baranov, V., and Kohler, H.P., The Impact of AIDS Treatment on Saving and Human Capital Investment in Malawi, *American Economic Journal: Applied Economics*, 2018, 10(1), 266-306.
3. Bloom, D.E., and Canning, D., The Health and Wealth of Nations, *Science: New Series*, 2000, 287, 1207-1209.

## **Class 4: Health Care System, Health Care Expenditure**

### **Class discussion:**

1. Arrow, K. J., Uncertainty and the Welfare Economics of Medical Care, *American Economic Review*, 1963, 53(5), 941-973.
2. Cutler, D., Equality, Efficiency, and Market Fundamentals: The Dynamics of International Medical Care Reform, *Journal of Economic Literature*, 2002, 40(3), 991-906
3. Chandra, A., and Skinner, J., Technology Growth and Expenditure Growth in Health Care, *Journal of Economic Literature*, 2012, 50(3), 645-680.

### **Supplemental readings:**

1. Blumenthal, D., and Hsiao, W., Privatization and Its Discontents: The Evolving Chinese Health Care System, *New England Journal of Medicine*, 2005, 353(11), 1165-1170.
2. Blumenthal, D., and Hsiao, W., Lessons from the East-China's Rapidly Evolving Health Care System, *New England Journal of Medicine*, 2015, 372(14), 1281-1285.
3. Yip, W., and Hsiao, W., What Drove the Cycles of Chinese Health System Reform? *Health System and Reform*, 2015, 1(1), 52-61.
4. Roberts, M. J., et al., *Getting Health Reform Right*, Oxford University Press, 2002.
5. Lichtenberg, F., The Impact of New Drugs on U.S. Longevity and Medical Expenditure: 1990-2003, *American Economic Review*, 2007, 97(2), 438-443.

## **Class 5: Health Insurance I: Selection**

### **Class discussion:**

1. Einav, L., and Finkelstein, A., Selection in Insurance Market: Theory and Empirics in Pictures, *Journal of Economic Perspectives*, 2011, 25(1), 115-138.
2. Hackmann, Martin B., Jonathan T. Kolstad, and Amanda E. Kowalski. "Health reform, health insurance, and selection: Estimating selection into health insurance using the Massachusetts health reform." *American Economic Review* 102.3 (2012): 498-501.
3. Fang, H, Keane, M., and Silverman, D., Sources of Advantageous Selection: Evidence from the Medicaid Insurance Market, *Journal of Political Economy*, 2008, 116(2), 303-350.

### **Supplemental readings:**

1. Chang, T.Y., Huang, W., and Wang, Y., Something in the Air: Pollution and the Demand for Health Insurance, *Review of Economic Studies*, 2018, 85(3), 1609-1634.

## **Class 6: Health Insurance II: Moral Hazard**

### **Class discussion:**

1. Finkelstein, A. *Moral hazard in health insurance*. Columbia University Press, 2014.
2. Manning W G, Newhouse J P, Duan N, et al. Health insurance and the demand for medical care: evidence from a randomized experiment[J]. *The American economic review*, 1987: 251-277.
3. Finkelstein, A., et al., The Oregon Health Insurance Experiment: Evidence from the First Year, *Quarterly Journal of Economics*, 2012, 127(3), 1057-1106.
4. Shigeoka, H., The Effect of Patient Cost Sharing on Utilization, Health, and Risk Protection, *American Economic Review*, 2014, 104(7), 2152-84.

### **Supplemental readings:**

1. Chandra, A., Gruber, J., and McKnight, R., Patient Cost-sharing and Hospitalization Offsets in the Elderly, *American Economic Review*, 2010, 100(1), 1-24.
2. Brot-Glodberg, Z.C., et al., What does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics, *Quarterly Journal of Economics*, 2017, 132(3), 1261-1318.
3. Anderson, M., Dokin, C., and Gross, T., The Effect of Health Insurance Coverage on the Use of Medical Services, *American Economic Journal: Economic Policy*, 2012, 4(1), 1-27.
4. Clemens, J., The Effect of U.S. Health Insurance Expansions on Medical Innovation, NBER Working Paper, 2013, w19761.
5. Cabral, M., Geruso, M., and Mahoney, N., Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage, *American Economic Review*, 2018, 108(8), 2048-2087.
6. Einav, L., Finkelstein, A., and Schrimpf, P., The Response of Drug Expenditure to Non-Linear Contract Design: Evidence from Medicare Part D, *Quarterly Journal of Economics*, 2015, 130(2), 841-899.
7. Einav, L., et al., Selection on Moral Hazard in Health Insurance, *American Economic Review*, 2013,103(1), 178-219.

## **Class 7: Health Insurance III: Welfare**

### **Class discussion:**

1. Card, D., Carlos, D., and Maestas, N., Does Medicare Save Lives? *Quarterly Journal of Economics*, 2009, 124(2), 597-636.
2. Finkelstein, A., The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare, *Quarterly Journal of Economics*, 2007, 122(1), 1-37.
3. Finkelstein, A., Hendren, N., and Luttmer, E. F.P., The Value of Medicaid: Interpreting Results from the Oregon Health Insurance Experiment, 2018, forthcoming.
4. Einav, L., Finkelstein, A., and Cullen, M.R., Estimating Welfare in Insurance Markets Using Variance in Prices, *Quarterly Journal of Economics*, 2010, 125(3), 877-921.

## **Class 8: Physician Agency**

### **Class discussion:**

1. McGuire, T.G., Physician Agency, Handbook of Health Economics, 2000, Vol.1A, 461-536.
2. Dafny, L., How Do Hospitals Respond to Price Changes? American Economic Review, 2005, 95, 1525-1547.
3. Clemens, J., and Gottlieb, J. D., Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health? American Economic Review, 2014, 104(4), 1320-1349.
4. Kesternich, I., Schumacher, H., and Winter, J., Professional Norms and Physician Behavior: Homo Oeconomicus or Homo Hippocraticus? Journal of Public Economics, 2015, 13, 1-11.
5. Dranove, D., et al., Is More Information Better? The Effects of Report Cards on Health Care Providers, Journal of Political Economy, 2003, 111(3), 555-588.

## **Class 9: Ownership**

### **Class discussion:**

1. Duggan, M., Hospital Ownership and Public Medical Spending, Quarterly Journal of Economics, 2000, 115(4), 1343-1373.
2. Sloan, F., Not-for-Profit Ownership and Hospital Behavior, Handbook of Health Economics, 2010, Vol. 2.
3. Horwitz, J., Making Profits and Providing Care: Comparing Non-profit, For-profit, and Government Hospitals, Health Affairs, 2005, 23(3), 790-801.

### **Supplemental readings:**

1. Baicker, K., and Staiger, D., Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality, Quarterly Journal of Economics, 2005, 120(1), 345-386.
2. Garthwaite, C., Gross, T., and Notowidigdo, M. J., Hospitals as Insurers of Last Resort, American Economic Journal: Applied Economics, 2018, 10(1), 1-39.

## **Class 10: Hospital Competition**

### **Class discussion:**

1. Gaynor, M., Propper, C., and Seiler, S., Free to Choose? Reform, Choice, and Consideration Sets in the English National Health Service, American Economic Review, 2016, 106(11), 3521-3557.
2. Bloom, N., et al., The Impact of Competition on Management Quality: Evidence from Public Hospitals, NBER Working Paper, 2010, w16032.
3. Colla, C., et al., Hospital Competition, Quality, and Expenditures in the U.S. Medicare Population, NBER Working Paper, 2016, w22826
4. Dafny, L., Are Health Insurance Markets Competitive? NBER Working Paper, 2008, w14572.

### **Supplemental readings:**

1. Gaynor, M., and Vogt, W., Antitrust and Competition in Health Care Market, Handbook of Health Economics, 2000, Vol.1A.

2. Gaynor, M., et al., The Industrial Organization of Health Care Market, *Journal of Economic Literature*, 2015, 53(2), 235-84.

## **Class 11: Productivity Analysis**

### **Class discussion:**

1. Chandra, a., et al., Health Care Exceptionalism? Performance and Allocation in the US Health Care Sector, *American Economic Review*, 2016, 106(8), 2110-2144.
2. Chandra, A., and Staiger, D. O., Productivity Spillovers in Health Care: Evidence from the Treatment of Heart Attacks, *Journal of Political Economy*, 2007, 115(1), 103-140.
3. Finkelstein, A., Gentzkow, M., and Williams, H., Sources of Geographic Variation in Health Care: Evidence from Patient Migration, *Quarterly Journal of Economics*, 2016, 131(4), 1681-1726.
4. Grieco, P.L.E., and McDevitt, R.C., Productivity and Quality in Health Care: Evidence from the Dialysis Industry, *Review of Economic Studies*, 2017, 84(3), 1-71-1105.

### **Supplemental readings:**

1. Almond, D., et al., Estimating Marginal Return to Medical Care: Evidence from At-risk Newborns, *Quarterly Journal of Economics*, 2010, 125(2), 591-634.
2. Chandra, A., and Staiger, D., Identifying Allocative Inefficiency in Health Care, *mimo*, 2015.
3. Chernew, M., et al., Are Health Care Services Shoppable? Evidence from the Consumption of Lower-limb MRI Scans, *NBER Working Paper*, 2018.

## **Class 12: Organ Allocation**

### **Class discussion:**

1. Rees, Michael A., et al. "Kidney exchange to overcome financial barriers to kidney transplantation." *American Journal of Transplantation* 17.3 (2017): 782-790.
2. Wiseman, A. C., and J. S. Gill. "Financial incompatibility and paired kidney exchange: Walking a tightrope or blazing a trail?" *American Journal of Transplantation* 17.3 (2017): 597-598.
3. Slonim, Robert, Carmen Wang, and Ellen Garbarino. "The market for blood." *Journal of Economic Perspectives* 28.2 (2014): 177-96.

### **Supplemental readings:**

1. Roth, Alvin E., Tayfun Sönmez, and M. Utku Ünver. "Kidney exchange." *The Quarterly Journal of Economics* 119.2 (2004): 457-488.
2. Roth, Alvin E., Tayfun Sönmez, and M. Utku Ünver. "Efficient kidney exchange: Coincidence of wants in markets with compatibility-based preferences." *American Economic Review* 97.3 (2007): 828-851.
3. Ünver, M. Utku. "Dynamic kidney exchange." *The Review of Economic Studies* 77.1 (2010): 372-414.
4. Akbarpour, Mohammad, Shengwu Li, and Shayan Oveis Gharan. "Dynamic matching market design." *arXiv preprint arXiv:1402.3643* (2014).
5. Chen, Yan, and Onur Kesten. "Chinese college admissions and school choice reforms: A theoretical analysis." *Journal of Political Economy* 125.1 (2017): 99-139.



6. Roth, Alvin E. "The economist as engineer: Game theory, experimentation, and computation as tools for design economics." *Econometrica* 70.4 (2002): 1341-1378.
7. Chen, Yan, and Onur Kesten. "Chinese college admissions and school choice reforms: An experimental study." Unpublished manuscript (2016).
8. Gale, David, and Lloyd S. Shapley. "College admissions and the stability of marriage." *The American Mathematical Monthly* 69.1 (1962): 9-15.
9. Roth, Alvin E. "What have we learned from market design?" *Innovations: Technology, Governance, Globalization* 3.1 (2008): 119-147.

## **Class 13: Healthcare Exchanges**

### **Class discussion:**

1. Agarwal, Nikhil. "An empirical model of the medical match." *American Economic Review* 105.7 (2015): 1939-78.
2. Ericson, Keith Marzilli, and Amanda Starc. "Heuristics and heterogeneity in health insurance exchanges: Evidence from the Massachusetts connector." *American Economic Review* 102.3 (2012): 493-97.
3. Ericson, Keith M. Marzilli, and Amanda Starc. "Pricing regulation and imperfect competition on the Massachusetts health insurance exchange." *Review of Economics and Statistics* 97.3 (2015): 667-682.

### **Supplemental readings:**

1. Ericson, Keith M. Marzilli, and Amanda Starc. "Designing and regulating health insurance exchanges: Lessons from Massachusetts." *INQUIRY: The Journal of Health Care Organization, Provision, and Financing* 49.4 (2012): 327-338.

## **Top Journals of Health Econ**

### **General Interest Journals**

- The Quarterly Journal of Economics <https://academic.oup.com/qje>
- Journal of Political Economy <http://www.journals.uchicago.edu/toc/jpe/current>
- *Econometrica*  
<https://www.econometricsociety.org/publications/econometrica/browse>
- American Economic Review <https://www.aeaweb.org/journals/aer>
- Journal of Economic Perspectives <https://www.aeaweb.org/journals/jep>

### **Field Journals**

- Journal of Health Economics  
<http://www.sciencedirect.com/science/journal/01676296/54?sdc=1>
- Health Affairs <http://content.healthaffairs.org/content/by/year>
- Health Economics  
[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-1050](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1050)

### **Medical Journals**

- JAMA <http://jamanetwork.com/journals/jama/currentissue>
- The Lancet <http://www.sciencedirect.com/science/journal/01406736?sdc=1>
- The New England Journal of Medicine <http://www.nejm.org>