

HCMG 903/HCMG 844 - THE ECONOMICS OF HEALTH CARE AND POLICY
Spring, 2003

Sean Nicholson
206 Colonial Penn Center
nicholss@wharton.upenn.edu

Office hours: Thursday, 2:30 - 4:00 or by appointment

Course Objectives

The purpose of this course is to use economics to analyze the health care market and health policies. The course begins with an analysis of the demand for health and the derived demand for medical care and health insurance. We will explore the implication of market failures such as adverse selection, moral hazard, externalities, and asymmetric information. In the second part of the course, we will examine the supply of medical care by physicians and hospitals, the diffusion of medical technology and its impact on the production of health, and the role of managed care organizations. In the third part of the course, we will examine various health policies, including Medicare, Medicaid, and assistance to the uninsured.

Prerequisites

Intermediate microeconomics.
Econometrics/statistics.

Readings

a) Required

Phelps, Health Economics, 2nd edition, 1997.

Starred (*) readings from the bulkpack. The bulkpack is available at Wharton Reprographics.

b) Recommended additional reading

Handbook of Health Economics.

Folland, Goodman, and Stano, The Economics of Health and Health Care.

Chapter 2 (microeconomics) and Chapter 3 (econometrics) of the Folland book for those who would like a review.

Non-starred articles on the syllabus.

Grades

The grade will be determined by a midterm exam (40% of the grade), a final exam (40%), and class participation (20%). All students should come to class prepared to discuss the required readings. One student will be designated as the "lead discussant" for each class session. During a class session, the lead discussant may be asked to summarize and critique the required readings, but will not give a formal presentation.

Class Schedule

* Denotes required reading.

January 13 Introduction to the Course; Overview of the Health Care Market

January 15 What's Different About Medical Care?

* Arrow, "Uncertainty and the Welfare Economics of Medical Care," AER 53(5), 1963: 941-973.

* Phelps, Chapter 1: pages 1-19; and Chapter 2.

Pauly, "Is Medical Care Different? Old Questions, New Answers," Journal of Health Politics, Policy and Law 13(2), 1988: 227-236.

January 20 No Class (MLK Day)

Part 1: The Demand for Medical Care and Health Insurance

January 22 The Demand for Medical Care: Theory

* Grossman, "On the Concept of Health Capital and the Demand for Health," JPE 80, 1972: 223-255.

* Dardanoni and Wagstaff, "Uncertainty, Inequalities in Health and the Demand for Health," JHE 6, 1987: 283-286 **only**. (A simpler version of the Grossman model is presented in this article. **You may want to read this article first**).

* Phelps, Chapter 4.

Muurinen, "Demand for Health," JHE 1(1), 1982: 5-28.

Chang, "Uncertainty and Investment in Health," JHE 15, 1996: 369-376.

Ellis, "Rational Behavior in the Presence of Coverage Ceilings and Deductibles," Rand Journal 17, Summer 1986.

Keeler, Newhouse and Phelps, "Deductibles and the Demand for Medical Care Services: A Theory of a Consumer Facing a Variable Price Schedule Under Uncertainty," Econometrica 45(3), 1977: 641-655.

January 27 The Transformation of Medical Care to Health

* McClellan, McNeil and Newhouse, "Does More Intensive Treatment of Acute Myocardial Infarction in the Elderly Reduce Mortality?" JAMA 272(11), 1994: 859-866.

* Phelps, Chapter 3: pages 61-78.

* Brook et al, "Does Free Care Improve Adults' Health?" NEJM 309(23), 1983: 1426-1433.

Hlatky *et. al*, "Medical Care Costs and Quality of Life After Randomization to Coronary Angioplasty or Coronary Bypass Surgery," NEJM 336(2), 1997: 92-99.

Corman and Grossman, "Determinants of Neonatal Mortality Rates in the U.S," JHE 4, 1985: 213-236.

Rosenzweig and Schultz, "Estimating a Household Production Function: Heterogeneity, The Demand for Health

Inputs and Their Effects on Birth Weight," JPE 91(5), 1983.

Russell, Educated Guesses, Univ of CA Press, 1994.

January 29 The Transformation of Medical Care to Health, Part 2

February 3 Health Insurance: Risk Pooling and Moral Hazard

* Pauly, "The Economics of Moral Hazard," AER 58(3), 1968: 531-537.

* Zeckhauser, "Medical Insurance: A Case Study of the Trade-Off Between Risk Spreading and Appropriate Incentives," Journal of Economic Theory 2(1), 1970: 10-26.

* Phelps, Chapter 10.

Dowd and Feldman, "Premium Elasticities of Health Plan Choice," Inquiry 31, Winter 1994/1995: 438-444.

Laffont, "The Theory of Insurance," Ch. 8 in The Economics of Uncertainty and Information.

February 5 The Demand for Medical Care: Empirical Results

* Manning et al. "Health Insurance and the Demand for Medical Care" AER 77, 1987: 251-277.

* Phelps, Chapter 5: pages 138-158.

Wagstaff, "The Demand for Health: Some New Empirical Evidence," JHE 5(3), 1986: 195-233.

Wedig, "Health Status and the Demand for Health," JHE 7, 1988: 151-163.

Siu, et al., "Inappropriate Use of Hospitals in a Randomized Trial of Health Insurance Plans," NEJM 315, 1986: 1259-1266.

February 10 Employer-Sponsored Health Insurance

* Goldstein and Pauly "Group Health Insurance as a Local Public Good" in The Role of Health Insurance in the Health Services Sector, ed. Rosett, NBER 1976.

* Gruber, "The Incidence of Mandated Maternity Benefits," AER 84(3), 1994: 622-641.

Gruber and McKnight, "Why Did Employee Health Insurance Contributions Rise?" mimeo, 2002.

Pauly and Herring, Pooling Health Insurance Risks, AEI Press, 1999.

Olson, "Do Workers Accept Lower Wages in Exchange for Health Benefits?" Journal of Labor Economics 20(2): S91-S114.

February 12 Health Insurance: Asymmetric Information and Risk Selection

* Rothschild and Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," QJE 90(4), 1976: 629-650.

* Akerlof, "The Market for Lemons," QJE 84(3), 1970.

Neudeck and Podczeck, "Adverse Selection and Regulation in Health Insurance Markets," JHE 15(4), 1996: 387-408.

Pauly and Nicholson, "The Managed Care Backlash: Adverse Consequences of Adverse Selection," *Journal of Health Politics, Policy and Law* 24(5), 1999: 921-930.

February 17 Health Insurance and Risk Selection: Empirical Results

* Cutler and Zeckhauser, "The Anatomy of Health Insurance," in Handbook of Health Economics, 2000: 606-629 **only**.

* Frank, Glazer, and McGuire, "Measuring Adverse Selection in Managed Health Care," JHE 19(6), 2000: 829-854.

* Phelps, Chapter 11: pages 366-371.

Cardon and Hendel, "Asymmetric Information in Health Insurance: Evidence From the National Medical Expenditure Survey," RAND 32(3), 2001: 408-427.

Cao and McGuire, "Service-Level Selection by HMOs in Medicare" mimeo, 2002.

Altman, Cutler, and Zeckhauser, "Adverse Selection and Adverse Retention," AER, May 1998: 122-126.

Polsky and Nicholson, "Why Are Managed Care Plans Less Expensive: Risk Selection, Reimbursement, or Utilization?" *Journal of Risk and Insurance*, forthcoming.

Pauly, "Is Cream-Skimming a Problem for the Competitive Medical Market?," JHE 3, 1984: 88-95.

Cawley and Philipson, "An Empirical Examination of Information Barriers to Trade in Insurance," AER, 89(4), 1999: 827-846.

Newhouse, "Patients at Risk: Health Reform and Risk Adjustment," *Health Affairs* 13(1), 1994: 132-46.

Hill and Brown, "Biased Selection in the TEFRA HMO/CMP Program," *Mathematica Policy Research*, 1990, reference number: PR 90-35. Executive summary (pp. xi-xix) and Regression Analysis (pp. 85-96) **only**.

Newhouse, "Reimbursing Health Plans and Health Providers: Selection vs. Efficiency in Production," JEL34(3), 1996: 1236-1263.

Part 2: The Supply of Medical Care

February 19 The Supply of Physician Services: Asymmetric Information and Agency

* Dranove and White, "Agency and the Organization of Health Care Delivery," *Inquiry* 24, 1987: 405-415.

* Pauly, "Paying Physicians as Agents: Fee for Service, Capitation or Hybrids?" in T. Abbott, ed. Health Care Policy and Regulation, Kluwer, 1995: 163-174.

* Phelps, Chapter 6: pages 197-214.

Ellis and McGuire, "Supply Side and Demand Side Cost Sharing in Health Care," *Journal of Economic Perspectives* 7(4), 1993: 135-151.

Arrow, "Agency and the Market," in Handbook of Mathematical Economics, eds. Arrow and Intrilligator, 1986: 1183-1194.

Farley, "Theories of the Price and Quantity of Physician Services: A Synthesis and Critique" JHE (5), 1986: 315-334.

Pauly, Doctors and Their Workshops, NBER, 1980: 1-24.

February 24 Optimal Supply-side and Demand-side Cost Sharing

* Ellis and McGuire, "Optimal Payment Systems for Health Services," JHE 9, 1990: 375-396.

Ellis and McGuire, "Provider Behavior Under Prospective Reimbursement," JHE 5, 1986: 129-151.

Gaynor and Gertler, "Moral Hazard and Risk Spreading in Partnerships," RAND 26(4), 1995: 591-613.

February 26 Physician-Induced Demand

* Phelps, Chapter 7.

* McGuire and Pauly, "Physician Response to Fee Changes With Multiple Payers," JHE 10(4), 1991: 385-410.

* Yip, "Physician Response to Medicare Fee Reductions: Changes in the Volume of Coronary Artery Bypass Graft (CABG) Surgeries in the Medicare and Private Sectors," JHE 17(6): 675-699.

McGuire, "Physician Agency," in Handbook of Health Economics, 2000.

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

Feldman and Sloan, "Competition Among Physician, Revisited," Journal of Health Politics, Policy and Law 13(2): 239-260.

Dranove and Wehner, "Physician-Induced Demand for Childbirths," JHE 13(1), 1994: 61-73.

Phelps, "Induced Demand - Can We Ever Know its Extent?," JHE 5, 1986: 355-365.

March 3 The Not-For-Profit Hospital

* Pauly and Redisch, "The Not-For-Profit Hospital as a Physicians' Co-operative," AER 63(1), 1973: 87-100.

* Newhouse, "Toward a Theory of Nonprofit Institutions: An Economic Model of a Hospital" AER 60(1), 1970: 64-74.

* Dranove, "Pricing by Non-Profit Institutions: The Case of Hospital Cost-Shifting" JHE 7(1), 1988: 47-57.

* Phelps, Chapter 8: pages 258-269.

Weisbrod, "Toward a Theory of the Voluntary Non-profit Sector in a Three-Sector Economy," in Altruism, Morality and Economic Theory, Russell Sage Foundation, NY, 1976.

Harris, "The Internal Organization of Hospitals: Some Economic Implications," Bell Journal of Economics 8, 1977: 467-482.

Sloan, Taylor, Picone, and Chou, "Hospital Ownership and the Cost and Quality of Care: Is There a Dime's Worth of a Difference?," 1998, Duke University working paper.

Frank and Salkever, "Nonprofit Organizations in the Health Sector," *Journal of Economic Perspectives* 8(4), 1994: 129-144.

Pauly, "Nonprofit Firms in Medical Markets," *AER*, 1987: 257-262.

March 5 Midterm Exam

March 17 Production and Cost Functions

* Gertler and Waldman, "Quality-adjusted Cost Functions and Policy Evaluation in the Nursing Home Industry," *JPE* 100(6), 1992: 1232-1256.

* Phelps, Chapter 8: pages 274-284.

Grannemann, Brown and Pauly, "Estimating Hospital Costs: A Multiple-Output Analysis," *JHE* 5(2), 1986.

Cowing, Holtmann and Powers, "Hospital Cost Analysis: A Survey and Evaluation of Recent Studies," in Advances in Health Economic Research 4: 257-303.

March 19 The Impact of Hospital Competition

* Kessler and McClellan, "Is Hospital Competition Socially Wasteful?" *QJE*, 2000: 577-615.

* Phelps, Chapter 9: pages 290-311.

* Dranove, Shanley and Simon, "Is Hospital Competition Wasteful?" *Rand Journal* 23(2), 1992: 247-262.

Melnick, Zwanziger, Bamezai, and Pattison, "The Effects of Market Structure and Bargaining Position on Hospital Prices," *JHE* 11, 1992: 217-233.

Pope, "Hospital Non-price Competition and Medicare Reimbursement Policy," *JHE* 8(2), 1989: 147-172.

Feldman and Dowd, "Is There a Competitive Market for Hospital Services?," *JHE* 5, 1986: 277-292.

Robinson and Luft, "The Impact of Hospital Market Structure on Patient Volume, Average LOS, and the Cost of Care" *JHE* 4(4), 1985: 333-356.

Dranove and Satterthwaite, "Monopolistic Competition When Price and Quality are Not Perfectly Observed," *Rand Journal* 23, 1992.

March 24 Managed Care: Organizational Structure and Incentives

* Cutler, McClellan, and Newhouse, "How Does Managed Care Do It?," *RAND* 31(3), 2000: 526-548.

* Phelps, Chapter 11: pages 378-392.

* Miller and Luft, "Managed Care Plan Performance Since 1980," *JAMA* 271(19), 1994: 1512-1519.

Glied, "Managed Care," in Handbook of Health Economics, 2000

Gable, "Ten Ways HMOs Have Changed During the 1990s," *Health Affairs*, May/June 1997: 134-145.

Welch et al., "Toward New Typologies for HMOs," *Millbank Quarterly* 68(2), 1990: 221-243.

Farley and Monheit, "Selectivity and the Demand for Health Insurance and Health Care," in *Advances in Health Economics and Health Services Research*, eds. Scheffler and Rossiter, 1985.

Baker and Cortis, "HMO Penetration and the Cost of Health Care: Market Discipline or Market Segmentation?," *AER* 86(2), 1996: 389-394.

March 26 Medical Technology

* Baumgartner, "The Interaction Between Forms of Insurance Contract and Types of Technical Change in Health Care," *Rand Journal* 22(1), 1991: 36-53.

* Baker, "Managed Care and Technology Adoption in Health Care: Evidence from Magnetic Resonance Imaging," *JHE* 20(3), 2001: 395-422.

Newhouse, "Medical Care Costs: How Much Welfare Loss?" *JEP* 6(3), 1992: 3-21.

Part 3: Health Policy and the Role of the Government

March 31 The Public Provision of Insurance: Medicare and Medicaid

* McClellan, "Medicare Reform: Fundamental Problems, Incremental Steps," *JEP* 14(2), 2000: 21-44.

* Phelps, Chapter 12: pages 403-420, pages 427-432, and pages 440-459.

Medicare Payment Advisory Commission, "Context for Recommendations," in *Report to the Congress: Medicare Payment Policy*, 1998.

Physician Payment Review Commission, "Medicaid: Spending Trends and the Move to Managed Care," in *Annual Report to Congress*, 1997: 413-438.

Granneman and Pauly, *Controlling Medicaid Costs: Federalism, Competition and Choice*, 1983, Washington, D.C.: AEI Press.

April 2 Hospital Prospective Payment: Theory and Predictions

* Dranove, "Rate-Setting by Diagnosis Related Groups and Hospital Specialization," *Rand Journal* 18(3), 1987: 417-427.

* Hodgkin and McGuire, "Payment Levels and Hospital Response to Prospective Payment," *JHE* 13(1), 1994: **1-8 only**.

Newhouse, "Two Prospective Difficulties with Prospective Payment of Hospitals," *JHE* 2, 1983: 269-274.

Pope, "Using Hospital-Specific Costs to Improve the Fairness of Prospective Reimbursement," *JHE* 9(3), 1990: 237-251.

Ellis and McGuire, "Insurance Principles and the Design of Prospective Payment Systems," *JHE* 7, 1988: 215-238.

Danzon, "Hospital Profits: The Effects of Reimbursement Policies," *JHE* 1(1), 1982: 29-52.

April 7 Effectiveness and Efficiency of Medicaid

- * Cutler and Gruber, "Does Public Insurance Crowd Out Private Insurance?" QJE 111(2), 1996: 391-430.
- * Currie and Gruber. "Saving Babies: The Efficacy and Cost of Recent Expansions of Medicaid Eligibility for Pregnant Women," JPE 104(6), 1996: 1263-1296.
- Currie, Gruber and Fischer, "Physician Payments and Infant Mortality: Evidence from Medicaid Fee Policy," AER 85(2), 1995: 106-11.
- Cutler and Gruber, "The Effect of Medicaid Expansions on Public Insurance, Private Insurance and Redistribution," AER 86(2), 1996: 378-83.

April 9 Economics of Smoking

- * Gruber and Koszegi, "Is Addiction 'Rational'? Theory and Evidence," QJE, 2001: 1261-1303.
- * Chaloupka and Warner, "The Economics of Smoking," in Handbook of Health Economics, 2000: 1539-1565 **only**.
- Gruber, "Tobacco At the Crossroads: The Past and Future of Smoking Regulation in the United States," JEP 15(2), 2001: 193-212.

April 14 Health Disparities and Statistical Discrimination

- * Balsa and McGuire, "Statistical Discrimination in Health Care," JHE 20(6), 2001: 881-908.

April 16 Performance of the U.S. Health Care System: Health and Costs

- * Cutler and Richardson, "The Value of Health," AER, May 1998: 97-100.
- * Berndt, Bir, Busch, Frank, and Normand, "The Medical Treatment of Depression, 1991-1996: Productive Inefficiency, Expected Outcomes Variations, and Price Indexes," JHE 21(3), 2002: 373-396.
- Cutler, McClellan, Newhouse, and Remler, "Are Medical Prices Declining?," QJE 113(4), 1998: 991-1024.

The class will determine the topics we will cover for the final 2 sessions, from among the following 6 choices (a-f):

April 21

April 23

- a) Sorensen, "Insurer-Hospital Bargaining: Negotiated Discounts in Post-Deregulation Connecticut," mimeo, 2001.
- b) Gaynor, Rebitzer, and Taylor, "Incentives in HMOs," NBER Working Paper 8522, 2001.
- c) Smith, Taylor, Sloan, Johnson, and Desvousges, "Do Smokers Respond to Health Shocks?," Review of Economics and Statistics 83(4): 675-687.
- d) Duggan, "Hospital Ownership and Public Medical Spending," QJE, 2000: 1343-1373.
- e) Health Insurance: Risk Pooling and Moral Hazard

- * Feldstein, "The Welfare Loss from Excess Health Insurance" JPE 81(2), 1973: 251-277.
 - * Feldman and Dowd, "New Evidence on the Welfare Loss of Excess Health Insurance," AER 81, 1991: 297-301.
- Gruber and Poterba, "Fundamental Tax Reform and Employer-Provided Health Insurance," in Economic Effects of Fundamental Tax Reform, edited by Garon and Gale, Washington, D.C.: Brookings Institution.
- Gruber and Poterba, "Tax Incentives and the Decision to Purchase Insurance: Evidence from the Self-Employed," QJE , 1994: 701-733.
- Pauly, "Taxation, Health Insurance and Market Failure in the Medical Economy" JEL June 1986: 629-675.
- Manning and Marquis, "Health Insurance: The Tradeoff Between Risk Pooling and Moral Hazard," JHE 15, 1996: 609-639.
- McGuire, "Paralyzing Medicare's Demand-Side Policies," in Regulating Doctors' Fees, ed. Frech, Washington, D.C.: American Enterprise Institute, 1991: 174-192.

f) Medical Malpractice

- * Danzon, "Liability for Medical Malpractice," in Handbook of Health Economics, 2000: 1341-1364 **only**.
 - * Phelps, Chapter 14: pages 468-492.
 - * Kessler and McClellan, "Do Doctors Practice Defensive Medicine?," QJE 111: 353-390.
- Danzon, "Liability for Medical Malpractice," Journal of Economic Perspectives 5(3), 1991: 51-69.
- Danzon, Liability for Medical Malpractice," in Handbook of Health Economics, 2000.
- Shavell, "Strict Liability vs. Negligence," Journal of Legal Studies 9(9), 1980: 1-25.
- Danzon, "Medical Malpractice: A Minefield for Managed Care?," Journal of Legal Studies.
- Harvard Medical Malpractice Study, Patients, Physicians, Lawyers: Medical Injury, Malpractice Litigation, and Patient Compensation in New York, Cambridge, MA: Harvard University Press, 1990.
- Danzon, "Liability and Liability Insurance for Medical Malpractice," JHE 4(4), 1985: 293-391.
- Leland, "Quacks and Lemons and Licensing: A Theory of Minimum Quality Standards," JPE 87(61), 1979.

Journal Abbreviations

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| JHE | Journal of Health Economics |
| JPE | Journal of Political Economy |
| AER | American Economic Review |
| JEL | Journal of Economic Literature |
| JEP | Journal of Economic Perspectives |
| QJE | Quarterly Journal of Economics |
| NEJM | New England Journal of Medicine |
| JAMA | Journal of the American Medical Association |
| HSR | Health Services Research |
| NBER | National Bureau of Economic Research |
| RAND | RAND Journal of Economics |