

# MICROECONOMIC THEORY OF THE HEALTH SECTOR (HS 236)

Winter 2006

Prof. Thomas Rice

## COURSE SYLLABUS

**COURSE OBJECTIVES:** The purposes of this course are: (1) to familiarize students with the theory of health economics; and (2) to apply these tools to current issues in health policy and health care management. Emphasis is placed on reading and analyzing recent and classic articles that have appeared in professional journals. The successful student will leave the course with the ability to analyze emerging health care issues using the perspective offered by the economic discipline.

A pre-requisite or co-requisite for HS 236 is intermediate-level microeconomic theory. It should include such topics as indifference curves, budget constraints, income and substitution effects, isoquants, cost curves, elasticities, competitive and monopolistic pricing, and externalities. These concepts will be covered in a concurrent laboratory that meets weekly. Students who have not met the pre-requisite requirements are expected to attend the laboratory.

Readings will be distributed. Also required is my book, *The Economics of Health Reconsidered* (Health Administration Press, 2<sup>nd</sup> edition Chicago, 2003). The reader for the laboratory will be the 7<sup>th</sup> edition of *Microeconomics* by Michael Parkin (Addison-Wesley, New York, 2004), available at the health sciences bookstore. However, feel free to use any intermediate microeconomics book that you like including an earlier version of Parkin.

**GRADING:** There will be two examinations, a midterm and a final, both of which will count for 45% of the grade. Class participation will constitute the remaining 10%. Each exam will have two components: a test on the readings (25% of grade), and a general test (75% of grade). The general test will be open-book and open-note. For the readings test, you are allowed to use three pages of notes (front and back).

## **I. OVERVIEW OF HEALTH ECONOMICS**

### **A. Application of Economics to Health**

Fuchs, V.R., *Who Shall Live?*, Basic Books, 2<sup>nd</sup> ed., New York City, John Wiley & Sons, 1983: 3-8 & 17-29.

### **B. Digression On Regression**

Freund, Deborah A., "Using Linear Regression in Health Policy Decision Making," in: *Cost Benefit, Cost Effectiveness, and Other Decision Making Techniques in Health Care Resources Allocation*, eds. B. Bloom and G. DeFriesse, New York City, Biomedical Information Corp., 1983.

Katz, M.H., *Multivariable Analysis: A Guide for Clinicians*, New York, Cambridge University Press, 1999: 127-133.

### **C. What's Different About Health?**

Rice, Chapter 1; Chapter 2, Sec. 2.1.4 (pp. 21-23).

### **D. Does More Medical Care Improve Health?**

Kenkel, D.S., "Should You Eat Breakfast?: Estimates from Health Production Functions," *Health Economics* 4, 1995: 15-29.

Fuchs, V.R., *Who Shall Live?*, Basic Books, 2<sup>nd</sup> ed., New York City, John Wiley & Sons, 1983: Chapter 2.

Hadley, J., "Medicare Spending and Mortality Rates of the Elderly," *Inquiry* 25(4), Winter 1988: 485-93.

Brook, R.H., et al., "Does Free Care Improve Adults' Health," *New England Journal of Medicine* 309(23), Dec. 8, 1983: 1426-34.

Lurie, N., et al., "Termination of MediCal: Does it Affect Health?," *New England Journal of Medicine* 311(7), Aug. 16, 1984: 480-4.

Baker, D.W., et al., "Loss of Health Insurance and the Risk for a Decline in Self-Reported Health and Physical Functioning," *Medical Care* 40(11), November 2002: 1126-31.

McWilliams, J.M., A.M. Zaslavsky, E. Meara, and J.Z. Ayanian, "Health Insurance Coverage and Mortality Among the Near-Elderly," *Health Affairs* 23(4), July/August 2004: 223-233.

Cutler, David M., and M. McClellan, "Is Technological Change in Medicine Worth It?," *Health Affairs* 20(5), September/October 2001: 11-29.

### **E. Introduction to Health Care Costs**

Gabel, J., et al., "Health Benefits in 2005: Premium Increases Slow Down, Coverage Continues to Erode," *Health Affairs* 24(5), September/October 2005: 1273-1280.

Anderson, G.F., P.S. Hussey, B.K. Frogner, and .R. Waters, "Health Spending in the United States and the Rest of the Industrialized World," *Health Affairs* 24(4), July/August 2004: 903-914.

## **II. DEMAND FOR MEDICAL CARE**

### **A. Forecasting Physician Supply Requirements**

Schonfeld, H.K., J.F. Heston, and I.S. Falk, "Numbers of Physicians Required for Primary Medical Care," *New England Journal of Medicine* 286(11), March 16, 1972: 572-576.

Weiner, J.P., "Prepaid Group Practice Staffing and the U.S. Physician Supply: Lessons for Workforce Policy," *Health Affairs* Web Exclusive, 4 February 2004: W4-43 – W4-59.

Cooper, R.A., et al., "Economic and Demographic Trends Signal an Impending Physician Shortage," *Health Affairs* 21(1): January/February 2002: 140-54.

Blumenthal, D., "New Steam from an Old Cauldron – The Physician-Supply Debate," *New England Journal of Medicine* 350(17), April 22, 2004: 1780-1787.

### **B. A More Formal Look at Need vs. Demand**

Jeffers, J.R., M.F. Bognanno, and J.C. Bartlett, "On the Demand Versus Need for Medical Services and the Concept of 'Shortage'," *American Journal of Public Health* 61(1), January 1971: 46-63.

Boulding, Kenneth E., "The Concept of Need for Health Services," *Milbank Memorial Fund Quarterly* 14(4), Part 2, Oct. 1966: 202-20.

## **C. Demand Theory**

### **1. Traditional Demand Theory**

Rice, Chapter 2, Sec. 2.1.1 (pp. 9-14) & Chapter 3, Sec. 3.1 (pp. 67-74).

### **2. Assumptions of the Traditional Theory**

Rice, Chapter 3, Sec. 3.2 (pp. 74-97).

Cunningham, P.J., D. Denk, and M. Sinclair, "Do Consumers Know How Their Health Plans Works?" *Health Affairs* 20(2), March/April 2001: 159-66.

Mennemeyer, S.T., M.A. Morrissey, and L.Z. Howard, "Death and Reputation: How Consumers Acted Upon HCFA Mortality Information," *Inquiry* 34, Summer 1997: 117-128.

Goyal, M., et al., "Economics and Health Consequences of Selling a Kidney in India," *Journal of the American Medical Association* 288(13, October 2, 2002: 1589-93.

### **3. Pauly's Model of Welfare Loss & the Role of Price**

Rice, Chapter 3, Sec. 3.1.4 (pp. 73-74), 3.3.1 through 3.33 (pp. 97-118).

## **D. Empirical Studies of Demand**

Rice, Chapter 4, Sec. 4.3.2 (pp. 160-167).

Wong, M.D., et al., "Effects of Cost Sharing on Care Seeking and Health Status: Results from the Medical Outcomes Study," *American Journal of Public Health* 91(11), November 2001: 1889-94.

## **E. Demand and Health Behaviors**

Williams, J., "The Effects of Price and Policy on Marijuana Use: What Can be Learned from the Australian Experience?," *Health Economics* 13, 2004: 123-137. *Skim Only*

## **F. Physician-Induced Demand**

Rice, Chapter 4, Sec. 4.1 & 4.21 (pp. 129-143).

Bunker, J.P., and B.W. Brown, Jr., "The Physician-Patient as an Informed Consumer of Surgical Services," *New England Journal of Medicine* 290(19), May 9, 1974: 1051-1055.

Fuchs, V.R., "Physician-Induced Demand: A Parable," *Journal of Health Economics* 5(4), 1986, p. 367.

Shearer, L., "Doctors are Human," *Parade*, 1987.

Mehren, E., "Doctor is Suspended Over Errand," *Los Angeles Times*, August 9, 2002, p. A-12.

## **G. Selected Topics in Health Insurance**

### **1. Demand for Insurance**

Parkin text, pp. 439-440.

Gilmer, T., and R. Kronick, "It's the Premiums, Stupid: Projections of the Uninsured Through 2013," *Health Affairs* We Exclusive, 5 April 2005: 143-151.

### **2. Selection Bias & Risk Adjustment**

Hellinger, F.J., and H.S. Wong, "Selection Bias in HMOs: A Review of the Evidence," *Medical Care Research and Review* 57(4), December 2000: 405-39. *Skim Only*

### **3. The "Tax Break" for Employer-Sponsored Coverage**

Shiels, J., and R. Haught, "The Cost of Tax-Exempt Health Benefits in 2004," *Health Affairs* Web Exclusive, 25 February 2004: W4-106 – W4-112.

### **4. New-Style Health Plans**

Rice, Ch. 3, Sec. 3.3.4 (pp. 119-128).

U.S. Department of the Treasury, "Health Savings Accounts," April 2005:  
[http://www.treas.gov/offices/public-affairs/hsa/pdf/hsa\\_tri-fold\\_brochure.pdf](http://www.treas.gov/offices/public-affairs/hsa/pdf/hsa_tri-fold_brochure.pdf)

### **5. Case Study: Aetna**

Robinson, J.C., "From Managed Care to Consumer Health Insurance: The Fall and Rise of Aetna," *Health Affairs* 23(2), March/April 2004: 43-55.

## **III. HOSPITALS**

### **A. Organizational Issues**

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

Robinson, J.C., "The Changing Boundaries of the American Hospital," *Milbank Quarterly* 72(2), 1994: 259-275.

Robinson, J.C., "The Dynamics and Limits of Corporate Growth in Health Care," *Health Affairs* 15(2), Summer 1996: 155-169.

### **B. Miscellaneous Issues**

Hornbrook, M.C., and A.C. Monheit, "The Contribution of Case-Mix Severity to the Hospital Cost- Output Relation," *Inquiry* 22, Fall 1985: 259-271.

Melnick, G., E. Keeler, and J. Zwanziger, "Market Power and Hospital Pricing: Are Nonprofits Different?," *Health Affairs* 18(3), May/June 1999: 167-177.

Horwitz, J.R., "Making Profits and Providing Care: Comparing Nonprofit, For-Profit, and Government Hospitals," *Health Affairs* 24(3), May/June 2005: 790-801.

Fisher, E.S., et al., "Associations Among Hospital Capacity, Utilization, and Mortality of U.S. Medicare Beneficiaries, Controlling for Sociodemographic Factors," *Health Services Research* 34(6), February 2000: 1351-62.

Phillip, P. J., R. Mullner, and S. Andes, "Towards a Better Understanding of Hospital Occupancy Rates," *Health Care Financing Review* 5(4), Summer 1984: 53-61.

### **C. Regionalization**

Finkler, S.A., "Cost Effectiveness of Regionalization: The Heart Surgery Examples," *Inquiry*, Fall 1979: 264-70.

Hannan, E.L., et al., "Coronary Artery Bypass Surgery: The Relationship between Inhospital Mortality Rate and Surgical Volume After Controlling for Clinical Risk Factors," *Medical Care* 29(11), Nov. 1991: 1094-1107.

Ward, M.M., et al., "What Would Be the Effect of Referral to High-Volume Hospitals in a Largely Rural State?," *Journal of Rural Health* 20(4), Fall 2004: 344-354.

Rice, Chapter 4, Sec. 4.3.3. (pp. 167-168).

### **D. Hospital Payment**

Levine, E., and F.G. Abdellah, "DRGs: A Recent Refinement to an Old Method," *Inquiry* 21, Summer 1984: 105-107.

Chulis, G.S., "Assessing Medicare's Prospective Payment System for Hospitals," *Medical Care Review* 48(2), Summer 1991: 167-206. *Skim only*

## IV. PHYSICIANS

### A. Physician Payment

Showstack, J.A., et al., "Fee-for-Service Physician Payment: Analysis of Current Methods and Their Development," *Inquiry* 16(3), Fall 1979: 230-246.

PPRC Basics, Numbers 6,5,7 & 8, Washington DC, Physician Payment Review Commission, April 1997.

Robinson, J.C., "Theory and Practice in the Design of Physician Payment Incentives," *Milbank Quarterly* 79(2), 2001: 149-77.

Gold, M., et al., "Financial Risk Sharing with Providers in Health Maintenance Organizations," 1999," *Inquiry* 39, Spring 2002: 34-44. **Just look at tables.**

### B. Miscellaneous Issues

Lenz, E.R., et al., "Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians: Two-Year Follow-Up," *Medical Care Research and Review* 61(3), Sept. 2004: 332-351.

Heyes, A., "The Economics of Vocation or 'Why is a Badly Paid Nurse a Good Nurse'," *Journal of Health Economics* 24, 2005: 561-569. **Skip Sec. 2 & ignore math.**

Weeks, W.B., et al., "The More Things Change: Revisiting a Comparison of Educational Costs and Incomes of Physicians and Other Professionals," *Academic Medicine* 77(4), April 2002, pp. 312-319.

Friedman, M., "Occupational Licensure," in *Capitalism and Freedom*, Univ. of Chicago Press, 1962, pp, 137-160.

Perloff, J.D., P. Kletke, and J.W. Fossett, "Which Physicians Limit Their Medicaid Participation, and Why?," *Health Services Research* 30(1), April 1995: 7-26.

## V. HEALTH MAINTENANCE ORGANIZATIONS

Rice, Chapter 4, Sec. 4.3.1 (pp. 150-160).

Lesser, C., and P.B. Ginsburg, "Update on the Nation's Health Care System: 1997-1999," *Health Affairs* 19, November/December 2000: 206-216.

Ware, J.E., Jr., et al., "Differences in 4-Year Health Outcomes for Elderly and Poor, Chronically Ill Patients Treated in HMO and Fee-for-Service Systems: Results from the Medical Outcomes Study," *Journal of the American Medical Association* 276, 1996: 1039-1047.

Miller, R.H., and H.S. Luft, "HMO Plan Performance Update: An Analysis of the Literature, 1997-2001," *Health Affairs* 21(4), July/August 2002: 63-86. **Skim tables only.**

Hurley, R.E., B.C. Strunk, and J.S. White, "The Puzzling Popularity of the PPO," *Health Affairs* 23(2), March/April 2004: 56-68. **Skim only.**

## **VI. COMPETITION & REGULATION**

### **A. Theory**

Rice, Chapter 2, Secs. 2.1 & 2.2 (pp. 9-50).

Enthoven, A., "Consumer Choice Health Plan," *New England Journal of Medicine* 298(12 & 13), March 23 & 30, 1978.

Enthoven, A., and R. Kronick, "A Consumer-Choice Health Plan for the 1990s," *New England Journal of Medicine* 320(1), 29-37, 1989.

### **B. Evidence**

Altman, D.E., and L. Levitt, "The Sad History of Health Care Cost Containment as Told in One Chart," *Health Affairs*, Web Exclusive, January 23, 2002: W83-4.

Cooper, R., and T.E. Getzen, "Health Care Spending in One Chart: Letter to the Editor," *Health Affairs* 21(3), May/June 2002: 279.

Rice, Chapter 2, Sec. 2.3 (pp. 50-65); Chapter 4, Sec. 4.2.2 (pp. 143-146).

Zwanziger, J., G.A. Melnick, and A. Bamezai, "The Effect of Selective Contracting on Hospital Costs and Revenues," *Health Services Research* 35(4), October 2000, pp. 849-67.

## **VII. EQUITY & THE UNINSURED**

Rice, Chapters 5 & 7.

Reinhardt, U.E., "Is There Hope for the Uninsured?," *Health Affairs* Web Exclusive, 27 August 2003: W3-376 – W3-390.

## **VIII. INTERNATIONAL SYSTEMS**

Rice, Chapter 6.

Hussey, P.S., et al., "How Does the Quality of Care Compare in Five Countries?," *Health Affairs* 23(3), May/June 2004: 89-99.