

# MICROECONOMIC THEORY OF THE HEALTH SECTOR (HS 236)

Winter 2003

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 two hours per week. Students who have not met the pre-requisite requirements are expected to attend the laboratory.

The reader is available from Quinx Copy Co. (1-888-824-1441). Unless otherwise noted, all readings are required, although some are noted as "Skim." Also required is the second edition of my book, *The Economics of Health Reconsidered* (Health Administration Press, Chicago, 2003). The book for the laboratory will be the 6<sup>th</sup> edition of *Microeconomics* by Michael Parkin (Addison-Wesley, New York, 2003), also available at the biomedical bookstore. However, feel free to use any intermediate microeconomics book that you like.

**GRADING:** There will be two examinations, a midterm and a final, both of which will count for 50% of the grade. Each 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, pp. 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. DeFriese, New York City, Biomedical Information Corp., 1983.

Katz, M.H., *Multivariable Analysis: A Guide for Clinicians*, New York, Cambridge University Press, 1999, pp. 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, pp. 15-29.

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

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

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

Lurie, N., et al. "Termination of Medi-Cal Benefits: A Follow-up Study One Year Later," *New England Journal of Medicine* 314(19), May 8, 1986, pp. 1266-8.

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, pp. 1126-31.

Franks, P., C.M. Clancy, and M.R. Gold, "Health Insurance and Mortality: Evidence from a National Cohort," *Journal of the American Medical Association* 270(6), August 11, 1993, pp. 737-41.

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

Lichtenberg, F.R., "Are the Benefits of Newer Drugs Worth Their Cost? Evidence from the 1996 MEPS," *Health Affairs* 20(5), September/October 2001: 241-51.

E. Introduction to Health Care Costs

Levit, K.R., et al., "Inflation Spurs Health Spending in 2000," *Health Affairs* 21(1), January/February 2001, pp. 172-81. **SKIM**

Strunk, B.C., P.B. Ginsburg, and J.R. Gabel, "Tracking Health Care Costs: Growth Accelerates in 2001," *Health Affairs*, Web Exclusive, September 25, 2002: E. Introduction to Health Care Costs W299-310. **SKIM**

Anderson, G.F., and P.S. Hussey, "Comparing Health System Performance in OECD Countries," *Health Affairs* 20(3), May/June 2001, pp. 219-32. **SKIM**

## 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, pp. 572-576.

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

### 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, pp. 46-63.

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

Goldstein, E., and J. Fyock, "Reporting of CAHPS Quality Information to Medicare Beneficiaries," *Health Services Research* 36(3), July 2001, pp. 477-88.

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

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

McCormick, D., et al., "Relationship Between Low Quality-of-Care Scores and HMOs' Subsequent Public Disclosure of Quality-of-Care Scores," *Journal of the American Medical Association* 288(12), September 25, 2002: 1484-90.

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, pp. 1889-94.

E. Demand and Health Behaviors

Harris, J.E., and S.W. Chan, "The Continuum-of-Addiction: Cigarette Smoking in Relation to Price Among Americans Aged 15-29," *Health Economics*, 1999, pp. 81-6.

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, pp. 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.

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, pp. 405-39.

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

Shiels, J., and P. Hogan, "Cost of Tax-Exempt Health Benefits in 1998," *Health Affairs* 18(2), March/April 1999, pp. 176-81.

4. New-Style Health Plans

Gabel, J.R., A.T. Lo Sasso, and T., Rice, "Consumer-Driven Health Plans: Are They More than Talk Now?," *Health Affairs*, Web Exclusive, November 20, 2002: W395-407.

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

### III. HOSPITALS

#### A. Organizational Issues

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

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

Robinson, J.C., "The Dynamics and Limits of Corporate Growth in Health Care," *Health Affairs* 15(2), Summer 1996, pp. 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, pp. 259-271.

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

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, pp. 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, pp. 53-61.

#### C. Regionalization

Finkler, S.A., "Cost Effectiveness of Regionalization: The Heart Surgery Examples," *Inquiry*, Fall 1979, pp. 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, pp. 1094-1107.

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, pp. 105-107.

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

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, pp. 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, pp. 149-77.

Strung, B.C., and J.D. Reschovsky, "Kinder and Gentler: Physicians and Managed Care, 1997-2001," Tracking Report No. 5, Washington, DC, Center for Studying Health System Change, November 2002.

B. Miscellaneous Issues

Hooker, R.S., and L.F. McCaig, "Use of Physician Assistants and Nurse Practitioners in Primary Care, 1995-

1999,” *Health Affairs* 20(4), July/August 2001, pp. 231-238.

Weeks, W.B., et al., "A Comparison of the Educational Costs and Incomes of Physicians and Other Professionals," *New England Journal of Medicine* 330(18), May 5, 1994, pp. 1280-1286.

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, pp. 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, pp. 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, pp. 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, pp. 63-86.

## 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.

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.

VIII. INTERNATIONAL SYSTEMS

Rice, Chapter 6.