

UC San Diego
Spring 2005
Class: M 8:00– 10:50 AM

Associate Adjunct Professor Frank Papatheofanis
fpapath@ucsd.edu; 619–543–1986
OH: M 11:00– 12:00 AM

Economics: 182
Economy and Economics of Health Technology and Services

Goals

The course aims to prepare students with significant research interests for understanding the economic causes and consequences of technological change in the health care system.

Requirements

The class will consist of a mixture of lectures and discussion of text assignments and research papers in the field, with an emphasis on active research issues. Active participation in the discussion of papers will be strongly encouraged, and class participation is important and valuable.

The prerequisite is Economics of Health, EC 138A and EC 138B.

Reading Assignments

There is no adequate upper level textbook for this subject. Consequently, the required and recommended readings for the course consist primarily of journal articles and other readings from the required text.

The primary required text for the course is Cohen and Hanft, **Technology in American Health Care** [University of Michigan Press, 2004]. Reading assignments for the text are listed below. You should not depend solely on the textbook, because it does not present some material that is required for the course. Supplemental readings are listed below in the syllabus. Outstanding (but not required) texts that provide general insight about health economics and the U.S. health care system include Victor Fuchs, *Who Shall Live?* and *The Future of Health Policy* (especially the early and late chapters), and for a somewhat different perspective, JD Kleinke, **Bleeding Edge** and JD Howell, **Technology in the Hospital**.

Evaluation

Classroom participation in the critical analysis of research papers counts for 20% of the course grade. A one-day “take home” open-book final examination counts 40% of the course grade, and a term paper counts for the remaining 40%.

The reading assignments in class are designed to help you become familiar with important health care institutions and their economics. As the reading list suggests, many other reading sources besides economics journals are helpful for doing this.

Journals

Health Policy
Health Affairs
Health Care Financing Review
Health Policy, Politics, and Law
Health Services Research
Inquiry
Medical Care
Medical Journals (with high policy/economic content):
Journal of the American Medical Association
New England Journal of Medicine
Health Economics
Major economics journals
Journal of Health Economics
Journal of Human Resources
Health Economics

Further Interests

Health economics is a vast and unwieldy field, touching on issues ranging from the aging population and retirement to the value of sophisticated new medical technologies. A brief course can do little more than introduce the most important concepts in the field, and help you develop the economic tools for approaching the issues that may interest you in your career. Because economic and financial considerations have become prominent in virtually all aspects of health and health care, many specialists in other fields -- such as biology, clinical medicine, public health, demography, and management -- are increasingly incorporating some awareness of health economics into their work. Indeed, many of the important research contributions in health economics have been and will be made by noneconomists. If you have interests in particular issues related to health economics, or if you are interested in pursuing

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research related to health economics, please feel free to discuss these with the instructor.

If you have particular interests in the economics of medical care, some knowledge of the details of diseases and their treatments can be a helpful complement to the analytic skills you will develop in this course. There are many good reference books on the details of health problems and their treatments for interested nonphysicians, such as the AMA Guide to Family Health or similar books by Harvard, Mayo, Redbook, etc. Those desiring a more sophisticated introduction to diseases and their treatment in developed countries -- and who aren't planning to go to medical school to get it -- might consider purchasing Boyd, Introduction to the Study of Disease (Philadelphia: Lea & Febiger).

Countless publications exist that can provide more detailed information on all the topics covered and not covered in the course. Health Affairs is a very readable, nontechnical journal that publishes articles on current issues and concerns in health policy and health economics. Major medical journals, including Journal of the American Medical Association and the New England Journal of Medicine, routinely publish readable articles on issues related to health economics and policy. If you are interested in more technical research papers in the field of health economics, just undertake a literature search of major economics journals and working-paper archives (using EconLit, the working-paper search facility on the WWW page of the National Bureau of Economic Research at www.nber.org, or other suitable browser). Numerous Federal and state reports deal with current issues in health policy and health economics. The Congressional Budget Office evaluates all substantial health care reforms proposed in Congress. The General Accounting Office publishes a large number of reports with detailed background information on Federal policy issues. The National Institutes of Health and the Agency for Health Care Policy Research publish reports on the studies that they fund, and the Bureau of Labor Statistics reports on health insurance and employment (see also the reports published regularly by the Employee Benefits Research Institute). The Prospective Payment Assessment Commission and the Physician Payment Review Commission summarize current financing problems and reform options for the Medicare program. All of these reports are available for free or virtually free from the commissions themselves, and copies of most of them are available in the UCSD Library. The National Center for Health Statistics publishes reports regularly on the health, health care, health insurance, and health behavior of the U.S. population; one good "snapshot" annual report is Health United States. Useful web sites for finding relevant government documents include the Government Printing Office at <http://www.access.gpo.gov> and the Center for Disease Control and Prevention (which includes the NCHS) at <http://www.cdc.gov>.

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Course Outline

Week 1. Introduction Cohen Chapters 1, 2;

Warner, Kenneth. "A 'Desperation–Reaction' Model of Medical Diffusion," Health Services Research 1975; 10:369–383.

Barnes, Benjamin. "Discarded Operations: Surgical Innovation by Trial and Error," In Costs, Risks and Benefits of Surgery ed. Bunker et al. New York: Oxford University Press, 1977.

Steinberg, Earl et al. "X–ray, CT and Magnetic Resonance Imagers: Diffusion Patterns and Policy Issues," New England Journal of Medicine 1985; 313(14):859–61.

Weisbrod, Burton. "The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care, and Cost Containment," Journal of Economic Literature June 1991; 21: 523–552.

Week 2 Innovation & Development Cohen Chapter 3;

Week 3 Diffusion Cohen Chapter 4;

Week 4 Adoption Cohen Chapter 5;

Week 5 Evaluation Cohen Chapters 6 and 7;

Pauker, Stephen and Jerome Kassierer. "Decision Analysis," New England Journal of Medicine 1987;316(5):250–258.

Beck, Robert and Stephen Pauker "The Markov Process in Medical Prognosis," Medical Decision Making 1983; 3(4):421–458.

Detsky, Allan and Naglie, Gary. "A Clinician's Guide to Cost–Effectiveness Analysis." Annals of Internal Medicine 15 July 1990; 113 (2): 147–154.

Phelps, Charles and Stephen Parente. "Priority Setting in Medical Technology and Medical Practice Assessment," Medical Care 1990; 28(8):703–723.

Eddy, David. "The Economics of Cancer Prevention and

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Detection: Getting More for Less," Cancer 1981;47:1200–1209.

Week 6	Evaluation	Cohen Chapters 8 and 9; Mandelblatt, Jeanne and Marianne Fahs. "The Cost–effectiveness of Cervical Cancer Screening for Low–Income Elderly Women," Journal of the American Medical Association 1988; 259(16): 2409–2413. Fuchs, Victor and Alan Garber. "The New Technology Assessment," New England Journal of Medicine 1990: 323(10):673–677. Garber, Alan. "Can Technology Assessment Control Health Spending?" Health Affairs 1994: 13 (3): 115–126. Meltzer, David. "Accounting for Future Costs in Medical Cost–Effectiveness Analysis." National Bureau of Economic Research Working Paper; February, 1997. Torrence, George. "Measurement of Health State Utilities for Economic Appraisal," Journal of Health Economics 1986; 5: 1–30.
Week 7	Quality	Cohen Chapters 10 and 11;
Week 8	Cost	Cohen Chapters 12 and 13; Pauly, Mark. "Taxation, Health Insurance and Market Failure in the Medical Economy," Journal of Economic Literature 1986; 24:629–675. Woolhandler, Steffie and David Himmelstein et al. "The Deteriorating Administrative Efficiency of the U.S. Health Care System," New England Journal of Medicine 1989; 320(2):102–108.
Week 9	Insurance & Payment	Cohen Chapters 14 and 15; Rothschild, Michael and Joseph Stiglitz. "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," Quarterly Journal of Economics 1976;

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90:629–650.

Cutler, David and Sarah Reber. "Paying for Health Insurance:
The Tradeoff between Competition and Adverse Selection,"
NBER Working Paper #5796; October 1996.

Pauly, Mark and John Goodman. " Tax Credits for Health
Insurance and Medical Savings Accounts," Health Affairs 1995:
14 (1): 126–139.

Week 10

Working papers due