

ECON 40447

Health Economics

*Department of Economics and Econometrics
University of Notre Dame*

Fall 2009
MW, 11:45am – 1:00pm
229 Hayes-Healy Center

Bill Evans
Office: 437 Flanner
Phone: 574-631-7039

Class web page: <http://www.nd.edu/~wevans1/econ40565.html>

Text and Readings: There is no textbook for the class, but, if you are interested a basic health economics textbook, I recommend, Folland, Goodman and Stano, *The Economics of Health and Health Care*, Sixth Edition, Prentice Hall. ISBN 10: 0-13-608030-8. ISBN 13: 978-0-13-608030-5.

In lieu of using a textbook, I will assign mandatory readings of academic articles that highlight important topics in health economics. The readings are available for download in PDF format from the class web page. For download, the readings require your netid. Students are expected to have read the papers in advance and be able to substantively discuss the work in class.

Office Hours: Mondays, 3:00pm – 5:00pm, Tuesdays, 10:00am – 12:00 noon, and by appointment.

I am never far from email. If you have a question, please feel free to contact me at wevans1@nd.edu.

Course Rationale:

As the federal government once again grapples with the difficult problem of reforming the US health care system, we are presented with two different pictures of the US health care system. First, the US health care system is the model of innovation in the world. Advances in antiretroviral drugs have reduced annual mortality rates among HIV/AIDS patients by 70 percent, neonatal intensive care have saved the lives of many low weight births that in years past would have died shortly after birth, and effective treatments for heart attacks have in the past few decades helped boost the life expectancy among the elderly by large amounts. Prescription drugs have helped temper the mortality costs of high blood pressure and high cholesterol, assisted in eliminating many childhood diseases through vaccinations and helped reduce the suffering associated with depression and other mental disorders. Hip and knee replacements have helped damped the debilitating aspects of degenerative bone and joint conditions. Imaging techniques now allow the detection of tumors without invasive surgical procedures and many surgical techniques that used to require days of recovery in a hospital can be performed on an outpatient basis.

In contrast, it is easy to construct a case that the US health system is seriously flawed. Health care spending currently consumes over \$2.4 trillion dollars, about 17 percent of gross domestic product, making it one of the largest sectors of the economy. In 2006, per capita spending on health in the U.S. was \$6,714, 49 percent more than the next highest-spending country (Norway), more than twice the median value for OECD countries, about twice the value of Canada and nearly 2.5 times the value of the United Kingdom. Despite this spending, in 2005, the US ranked 25th of 29 countries in average life expectancy and the US had the fourth highest infant mortality rate of 28 countries reporting countries. Despite these spending amounts, currently 46 million Americans have no health insurance. The cost of medical care is increasing much faster than general inflation and it is estimated that two federal health insurance programs (Medicare and Medicaid) will consume 30 percent of the federal budget by 2030. The Dartmouth Atlas group estimates that roughly one third of Medicare spending is wasted on ineffective treatments and procedures.

At the same time, some estimates indicate that about 30 percent of the health care dollar is spent on administrative expenses.

Given the cost, financing and role of the federal government in health care, a careful, detailed economic analysis of this sector seems imperative.

Course Theme:

The course is designed to illustrate how economists analyze topics related to the production of health and the delivery of health care. In many cases, economists think very differently about topics than health care professionals and other social scientists. Economists have time and time again demonstrated the importance of incentives in decision making and throughout the semester, we will demonstrate how incentives play an important role in the structure, conduct and performance of the health care sector. For some, this will be an eye-opening experience and for others, you may feel uncomfortable about what economists have to say about a particular subject.

Course Objective:

The course is an advanced undergraduate course in economics and students are expected to have completed a course in intermediate micro economic theory. The course will focus on using the tools of intermediate micro in this particular subject area. The course will provide students with a broad overview of important topics in health care, indicate current gaps in research, and demonstrate successful research programs in the field. A number of the readings are empirical in nature and the course will stress how to test economic hypotheses.

Expectations:

Students are expected to attend class, to read the reading prior to class, to NOT be late to class, to participate in classroom discussions, to hand in assignments when due, to take tests when expected, and to NOT engage in academic dishonesty.

Evaluations:

Grades for the course will be based on a mid-term exam, (30 percent of the course grade), a cumulative final (40 percent of the grade), two précis which are short summaries of journal articles (5 percent each and 10 percent in total) and a paper (20 percent of the course grade).

Examinations: The mid-term examination will be held Tuesday, October 14th. The final exam for our class period is Wednesday, December 16th, from 8:00am til 10:00pm. Exams will be a mix of problems like those from the problem sets, and discussion-type questions.

Makeup exams will only be given for students who have a valid University excuse, applied for in writing and adequately documented. I must receive documentation within 48 hours of the missed exam. Please familiarize yourself with student responsibilities concerning missed exams, missed assignments, etc.

Précis: A précis is a short synopsis. The key source of information for this class will be a series of academic articles on health economics. An important job market skill is being able to distill a large block of information into its key components so that is understandable for another person. During the semester, you will be required to write two précis (two pages, double spaced, 12 point type, one inch margins). The précis will be assigned about a week ahead of time. Once assigned, you must turn them in or you will get a zero for the assignment. A complete description of the assignment is on the class web page under assignments. The first précis is due next Monday – which is short—but remember – this is not a football weekend – so I would pick get one out of the way now.

Paper: I know I will regret this decision, but, an economic analysis paper will be due by 5:00pm Friday, December 11th (the first reading day). A more detailed description of the assignment will be distributed

right after the midterm break but you will be required to provide an economic analysis of the health care reform proposal that should be announced sometime in September. As we will discuss in class, reform plan must deal with a number of key concerns about the health care sector such as costs, access, tax equity, etc. You will be asked to analyze the likely economic impact of the proposal. Will it achieve its goals? What is the likely impact on prices, uninsurance rates, government expenditures, wages, access, costs, etc? What are some unintended consequences? Detailed graphs and tables are most likely a must. Since this is an economics class, I want you to analyze the proposals through an economic lens. Grades will be a function of the clarity and grammar, completeness, and quality of your economic arguments. The paper will be 10 pages, double spaced, 12 point type, 1 inch margins.

Please familiarize yourself with the Undergraduate Academic Code of Honor:
<http://www.nd.edu/~hnr/code/docs/handbook.htm>.

Problem sets:

Five problem sets will be assigned during the semester. These problem sets are designed to gauge your understanding of the concepts discussed in class. Collaboration and discussion are encouraged in your work. Problem sets will not be graded or collected but I will distribute detailed answer keys. The problem sets will be indicative of what I will ask on the exams.

Reading List Health Economics/Evans/Fall 2009

I. Introduction – How do economists think about health issues?

II. The production of health

a. An historical perspective

*McKeown, Thomas, *The Role of Medicine: Dream, Mirage or Nemesis*, London, England: Nuffield Provincial Hospitals Trust; 1976, pages 29-65.

*Fogel, Robert, *The Escape from Hunger and Premature Death, 1700-2100*, Cambridge, UK :Cambridge University Press, 2005, 1-42.

*Cutler, David and Grant Miller, “The Role of Public Health Improvements in Health Advances: The Twentieth-Century United States.” *Demography* 42(1), 2005, 1-22.

b. Modern correlates of health

Cutler, David. *Your Money or Your Life: Strong Medicine for America’s Health Care System*. Oxford University Press, 2004. pp. 1-9.

*Deaton, Angus, “Policy Implications of the Gradient on Health and Wealth,” *Health Affairs*, March/April 2002, 13-30.

*Marmot, Marmot, “The Influence of Income on Health: Views of an Epidemiologist” *Health Affairs*, March/April 2002, 31-45.

*Redelmeier, Donald and S.M. Singh, "Survival in Academy Award-Winning Actors and Actresses," *Archives of Internal Medicine*, May 15, 2001, 134(10), 955-965.

*Evans, William and Timothy Moore, “The Short-Term Mortality Consequences of Income Receipt.” Working Paper, Department of Economics and Econometrics, University of Notre

Dame, 2009.

III. The Government control of unhealthy behavior

a. Pigouvian taxes

Gruber, J., Chapter 6 of *Public Finance and Public Policy*, 2005, New York: Worth Publishers, p.144-168.

b. Do smokers and drinkers pay their way?

*Gruber, J, "Tobacco at the Crossroads: The Past and Future of Smoking Regulation in the United States" *Journal of Economic Perspectives*, 15, 2001, 193-212.

*Manning, WB, EB Keeler, JP Newhouse, EM Sloss, J Wasserman. The taxes of sin. Do smokers and drinkers pay their way? *JAMA* 1989 Mar 17, 261(11):1604-1609.

*Viscusi, W. Kip, "How to Value a Life." *Journal of Economics and Finance*, 32(2008): 311-323.

*Viscusi, W. Kip, "Value of Life." *The New Pelgrave Dictionary of Economics Online*

c. Explaining the rise on obesity

*Cutler, David, Edward Glaeser and Jesse Shapiro, "Why Have Americans Become More Obese?" *Journal of Economic Perspective*, 2003.

*#Gelbach, Jonah, Jonathan Klick and Thomas Stratmann, "Cheap Donuts and Expensive Broccoli: The Effects of Relative Prices on Obesity." Florida State University Law School Working Paper, 2007.

*#Goldman, Dana, Darius Lakdawalla and Yuhui Zheng, "Food Prices and the Dynamics of Body Weight." *NBER Working Paper* 15096, 2009.

*#Schanzenbach, D.W., "Do School Lunches Contribute to Childhood Obesity," University of Chicago, Harris School Working Paper, 05.13.

II. Health insurance and the demand for medical care

a. Choices under uncertainty and the role of insurance

Nicholson, Walter, *Microeconomic Theory: Basic Principles and Extensions*, 7th edition, Dryden press, 1998. Chapters 8 and 10, p 209-259.

b. Adverse selection

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

Akerlof, George A., "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics*, 84, 1970, 488-500. Read pages 488-490 only.

*#Cutler, David M., and Sarah J. Reber, "Paying for Health Insurance: The Tradeoff Between Competition and Adverse Selection," *Quarterly Journal of Economics*, 113(2), May 1998, pp. 433-466.

*#Simon, Kosali, "Adverse Selection in Health Insurance Markets? Evidence from State Small-Group Health Insurance Reforms," *Journal of Public Economics*, 89, 2005, 1865-1877.

*#Buchmueller, T., and J Dinardo, "Did Community Rating Induce an Adverse Selection Death Spiral? Evidence from New York, Pennsylvania and Connecticut," *American Economic Review*, 92(1), 2002, 280-294.

c. Moral hazard

Folland, Goodman and Stano, *The Economics of Health and Health Care*, Sixth Edition, Prentice Hall. 2010, Chapter 8, pages 143-166.

*Newhouse, Joseph, *Free for All*, Cambridge, MA: Harvard University Press, 1993, p. 3-28, 31-49, 338-345.

d. Employer-provided health insurance

For this section, it might be useful for you to review your class notes from intermediate micro economics on income and substitution effects.

*Thomasson, Melissa. "From Sickness to Health: The 20th Century Development of US Health Insurance." *Explorations in Economic History*, 39(3), 2002, 233-253. Focus on Pages 233-241.

*Shiels, J., Haught, R., "The Cost of Tax-Exempt Health Benefits in 2004," *Health Affairs*, Web exclusive, February 24, 2004.

*Reinhardt, Uwe, "Employer-Based Health Insurance: A Balance Sheet," *Health Affairs*, 1999, 18(6), 124-132.

e. Medicare and Medicaid

Moon, Marilyn, "Health Policy 2001: Medicare." *New England Journal of Medicine*, 344(12), March 22, 2001, 928-931.

Rosenbaum, "Health Policy Report: Medicaid," *New England Journal of Medicine*, 346(8), February 21, 2002, 635-639.

*#Card, David, Carlos Dobkin, Nicole Maestas, "Does Medicare Save Lives." *Quarterly Journal of Economics*, 124(2), May 2009, 597-636.

*#Finkelstein, Amy, and Robin McKnight, "What Did Medicare Do? The Initial Impact of Medicare on Mortality and out of Pocket Spending." *Quarterly Journal of Economics*, 92 (2008), 1644-1668.

*#Cutler, D., "The Incidence of Adverse Medical Outcomes under Prospective Payment," *Econometrica*, 63, 1995, 29-50. Please read pages 29-33.

*#Rogers, William H., et al. "Quality of Care Before and After Implementation of the DRG-Based Prospective Payment System: A Summary of Effects," *JAMA*, 264(15), October 17, 1990, 1989-1994.

*#Dafny, L., "How do Hospitals Respond to Price Changes," *American Economic Review*, 95(5), December 2005, 1525-1547.

*#Cutler, David, Jonathan Gruber, "Does Public Insurance Crowd Out Private Insurance," *Quarterly Journal of Economics*, 111, 1996, 391-430.

III. Health Care Reform (Right now, this section is tentative. The readings may change based on whether a reform bill is passed.)

a. A general outline of the problem: Costs and coverage

Council of Economic Advisors, Executive Office of the President, *Economic Report of the President*, January 2009. Chapter 7.

Bureau of Labor Statistics, "Income Poverty and Health Insurance Coverage in the United States: 2007." *Current Population Reports*, P60-235. August 2008.

*Newhouse, Joseph, "Medical Care Costs: How Much Welfare Loss?" *Journal of Economic Perspectives*, 6(3), 1992, 3-31.

Pauly, Mark. "Should We Be Worried About High Real Medical Spending Growth in the US?" *Health Affairs*, Web Exclusive, Jan 8, 2003, w3-15.

*Cutler, D., M. McClellan, "Is Technological Change in Medicine Worth it?" *Health Affairs*, 20(5), 2001, 11-29.

AHRQ, "The High Concentration of US Health Care Expenditures," *Research in Action*, #19, June 2006. www.ahrq.gov/research/ria19/expendria.pdf

Thorpe, Kenneth, Curtis Florence, Peter Joski, "What Medical Conditions Account for the Rise in Health Care Spending?" *Health Affairs*, 2004. Jul-Dec, Web Exclusives, W4-437-45.

Cohen, Joshua, et al. "Does Preventive Care Save Money? Health Economics and the Presidential Candidates." *New England Journal of Medicine*. 358(February 14, 2008), pp. 661-663.

Congressional Budget Office, Letter to Representative Nathan Deal, August 7, 2009, "The Budgetary Effects of Expanding Governmental Support Services for Preventive Care and Wellness Services,

b. Some general comments on full scale reform

Cutler, David. *Your Money or Your Life: Strong Medicine for America's Health Care System*. Oxford University Press, 2004. pp. 100-123.

Dranove, David. *Code Red: An Economist Explains How to Revive the Healthcare System without Destroying It*. Princeton: Princeton University Press. 2008. 205-234.

c. The economics of employer mandates

Summers, Lawrence, "Some Simple Economics of Mandated Benefits," *American Economic Review*, May 1989, 177-183.

Krueger, Alan, and Uwe Reinhart, "The Economics of Employer versus Individual Mandates," *Health Affairs*, Spring (II) 1994, 34-53.

*#Gruber, J., "The Incidence of Mandated Maternity Benefits," *American Economic Review*, 84(3), 1994, 622-641.

*#Burkhauser, Richard, and Kosali Simon, "Who Gets What from Employer Pay or Play Mandates." NBER Working Paper # 13578, November 2007.

d. The Massachusetts experiment

Kaiser Family Foundation, Massachusetts Health Care Reform: An Update, June 2007.
<http://www.kff.org/uninsured/upload/7494-02.pdf>

Kaiser Family Foundation, Massachusetts Health Care Reform: Two Years Later, June 2009.
<http://www.kff.org/uninsured/upload/7777.pdf>

*Gruber, Jonathan, "Massachusetts Health Care Reform: The View from One Year Out," *Risk management and Insurance*, 11(1), 2008; 51-63.

*#Long, Sharon, Karen Stockley, and Alyshadye Yemane, "Another Look at the Impacts of health Reform in Massachusetts: Evidence Using New Data and a Stronger Model." *American Economic Review Papers and Proceedings*

e. The Economist's Dream: Medical Savings Accounts

Pauly, Mark and John Goodman, "Incremental Steps Toward Health System Reform." *Health Affairs*, Spring 1995, 125-139.

*McKinsey&Company, North American Payor Provider Practice, "Consumer-Directed Health Plan Report—Early Evidence is Promising." June 2005.

Robinson, James and Paul Ginsburb, "Consumer-Driver Health Care: Promise and Performance." *Health Affairs*, Web Exclusive, w272-281, January 27, 2009

*American Academy of Actuaries, "Emerging Data on Consumer-Driven Health Plans." A Public Policy Monograph, May 2009.

f. Practice patterns and health care costs

Please check out the Dartmouth Atlas, <http://www.dartmouthatlas.org/>, which is a fascinating graphical presentation of small-area variation. If you do not waste 3 hours looking at these graphs,

you are not interested in health economics.

*Hillman, B.J., et al., "Frequency and Costs of Diagnostic Imaging in Office Practices—A comparison of Self-Referring and Radiologist Referring Physicians," *New England Journal of Medicine*, 323, December 6, 1990, 1604-1608.

*Fisher, Elliott S., et al., "The Implications of Regional Variations in Medicare Spending. Part 1: The Content, Quality, and Accessibility of Care," *Annals of Internal Medicine*, 138(4), February 18, 2003, pp. 273-287.

*Fisher, Elliott S., et al., "The Implications of Regional Variations in Medicare Spending. Part 2: Health Outcomes and Satisfaction with Care," *Annals of Internal Medicine*, 138(4), February 18, 2003, pp. 288-298.

*Gruber, Jonathan and Maria Owings, "Physician Incentives and Cesarean Section Delivery," *RAND Journal of Economics*, 27(1), Spring 1996, 99-123.

Thorpe, K.E., "The Medicinal Malpractice 'Crisis': Recent Trends and the Impact of State Laws," *Health Affairs Web Exclusive*, January 21 2004.

Miller, Robert and Harold Luft, "HMO Plan Performance Update: An Analysis of the 1997 - 2001 Literature," *Health Affairs*, November/December 1999.