

Fall 2009
DUKE UNIVERSITY
Department of Economics

Economics 357: Economics of Health

Monday 6:00 – 9:00 p.m. Social Sciences 113

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Office Hours:	By appointment	Tuesday and Thursday 2:00 – 3:00

1. **Course description.** This is a graduate level course in the Economics of Health. The emphasis will be on acquiring a set of tools and a framework within which to organize empirical analysis. In this course, we will focus on decisions made by household members and the market for health insurance. The course will also have relevance for students interested in broader empirical microeconomic research.
2. **Prerequisites:** A semester of graduate level microeconomics. Graduate econometrics, both theoretical and applied, will be highly useful.
3. **Required readings.** There is not a standard textbook, though we do include a non-technical volume that provides contextual background of the issues and literature, and North Holland Handbooks and *JEL* surveys will be useful. Rather, the course consists of 30 required readings, which each student is expected to cover thoroughly, with an eye to content, theory, model, and econometric technique. There are many papers by Nobel Laureates on the reading list.
4. **Honor code and course policies.** Failure to acknowledge assistance on an assignment, or to cite a source of information used in an assignment, or to represent the work of others as your own, constitutes a violation of the University's honor code. Any violations may result in failure of the assignment or the course, or expulsion from the University. Any exam missed for a non-legitimate reason will be accorded the grade of 0. Any exam missed for a legitimate reason will be made up with an oral exam as soon as it can be scheduled by EcoTeach. Late work will be penalized by 1/3 grade point per day late (excluding Sundays). Presentation notes must be posted on Blackboard at least 24 hours prior to the class at which the presentation will take place.
5. **Grading and assignments.** The grades will be determined as weighted averages of exams, presentations, and a 7-page research proposal:

Class participation	10%
In-class presentations and supporting notes (two per student)	20%
Research proposal	20%
Midterm examination	25%
Final examination	25%

To enhance the efficiency of class presentations, each presenter is expected to prepare a handout for distribution to the entire class. The handout should contain pertinent aspects of the formal presentation to avoid having to write out lots of equations in class. Even if you are not a presenter, you are expected to have read the article in detail before class. We will provide a list of questions on each article prior to class. These questions are designed to provide some guidance for your reading and will be discussed in class by all participants. Our hope is that the presenter will make critical analytical comments as well as simply presenting the paper, and that other students will be prepared to discuss the article. At times, we will provide brief background lectures on related literature.

Our intention is to provoke discussion, and for the presenter to discuss new techniques, modeling approaches, data sets, and findings, as well as to discuss shortcomings. At times, we will help by providing general background notes from earlier readings that can be incorporated, so that the presenters can emphasize critical points rather than slowly going through the model (and spending lots of time writing it up).

6. [Course readings](#)

Text: Frank Sloan and Hirschel Kasper, Eds., 2008, *Incentives & Choices in Health Care*. Cambridge, MA: MIT Press.

I. INTRODUCTION

- [1] Becker, Gary, Tomas Philipson, and Rodrigo Soares, 2005, “The quantity and quality of life and the evolution of world inequality,” *American Economic Review* **95**(1): 277-291. **August 24 (Becker)**

II. DEMAND FOR MEDICAL CARE

Text: Gilleskie, Donna, “Health capital: theory and empirical evidence” in Sloan & Kasper, Ch. 3. **August 24 (Sloan)**

Text: Newhouse, Joseph and Anna Sinaiko, “What we know and don’t know about the effects of cost-sharing on the demand for medical care – and so what?” in Sloan & Kasper, Ch. 4. **August 24(Sloan)**

- [2] Grossman, M. 1972, “On the concept of health capital and the demand for health,” *Journal of Political Economy* **82**: 233-255. **August 31**
- [3] Manning, W., J. Newhouse, N. Duan, E. Keeler, A. Leibowitz, and M. Marquis. 1987. “Health insurance and the demand for medical care: Evidence from a randomized experiment,” *American Economic Review* **77**: 251-277. **August 31**
- [4] Viscusi, K. and W. Evans. 1990. “Utility functions that depend on health status: Estimates and economic implications,” *American Economic Review* **80**: 353-374. **August 31**
- [5] Gilleskie, D. 1998. “A dynamic stochastic model of medical care and work absence,” *Econometrica* **66**: 1, 1-45. **Sept 7**

III. HEALTH PRODUCTION

- [6] Adams, P, M. Hurd, D. McFadden, A. Merrill and T. Ribeirio. 2003. "Health, wealthy and wise? Tests for direct causal paths between health and socioeconomic status," *Journal of Econometrics* **112**, 3-56. **Sept 7**
- [7] Maccini, Sharon and Dean Yang, 2009, "Under the weather: health, schooling, and economic consequences of early-life rainfall," *American Economic Review* **99**(3): 1006-1026. **Sept 7**
- [8] Kremer, M. 1996. "Integrating behavioral choice into epidemiological models of AIDS." *Quarterly Journal of Economics* **111**(2): 549-573. **Sept 14**
- [9] Kremer, Michael and Miguel, Edward, 2007, "The illusion of sustainability," *Quarterly Journal of Economics* **122**(3): 1007-1065. **Sept 14**
- [10] Guilkey, David and Regina Riphahn, 1998, "The determinants of child mortality in the Philippines: estimation of a structural model," *Journal of Development Economics* **56**: 281-305. **Sept 21**
- [11] Jayanandran, Seema and Adriana Lleras-Muney, 2009, "Life expectancy and human capital investments: evidence from maternal mortality declines," *Quarterly Journal of Economics* **124**(1): 349-397. **Sept 21**

IV. HEALTH INSURANCE

- Text: Pauly, Mark, "Adverse selection and moral hazard: implications for health insurance markets" in Sloan & Kasper, Ch. 5. **Sept 21**
- Overview: Finkelstein, Amy, Erzo F. P. Luttmer, and Matthew J. Notowidigdo, 2009, "Approaches to estimating the health state dependence of the utility function." *American Economic Review*, **99**(2): 116–21. **Sept 21**
- [12] Rothschild, M. and F. Stiglitz. 1976. "Equilibrium in competitive insurance markets: An essay on the economics of imperfect information," *Quarterly Journal of Economics* **90**(4): 630-699. **Sept 28**
- [13] Vera-Hernandez, Marcos. 2003. "Structural Estimation of a Principal Agent Model: Moral Hazard in Medical Insurance," *Rand Journal of Economics*, **34**(4), pp. 670-693. **Sept 28**
- [14] Card, David, Carlos Dobkin, and Nicole Maestas, 2008, "The impact of nearly universal insurance coverage on health care utilization: evidence from Medicare," *American Economic Review* **98**(5): 2242-2258. **Sept 28**
- [15] Card, David, Carlos Dobkin, and Nicole Maestas, 2009, "Does Medicare save lives?" *Quarterly Journal of Economics* **124**(2): 597-636. **Oct 12**

October 5 **Fall Break**

- [16] Gertler, Paul and Jonathan Gruber. 2002. "Insuring consumption against illness," *American Economic Review* **92**(1): March 2002, 51-70. **Oct 12**
- [17] Fang, Hanming, Michael Keane, and Dan Silverman, 2008 (April), "Sources of advantageous selection: evidence from the Medigap insurance market," *Journal of Political Economy* **116**(2): 303-350. **Oct 12**
- [18a] Aizer, Anna, Janet Currie, and Enrico Moretti, 2007 (August), "Does Managed Care Hurt Health? Evidence from Medicaid Mothers," *Review of Economics & Statistics* **89**(3): 385-399. **Oct 19**
- [18b] Aizer, Anna, 2007 (August), "Public Health Insurance, Program Take-Up, and Child Health," *Review of Economics & Statistics* **89**(3): 400-415. **Oct 19**

MIDTERM EXAMINATION (TAKE-HOME) OCT 13-19

- [19] Finkelstein, Amy, 2007, "The aggregate effects of health insurance: evidence from the introduction of Medicare," *Quarterly Journal of Economics* **122**(1): 1-37. **Oct 19**
- [20] Philipson, T. J., and G. S. Becker, 1998, "Longevity and Mortality-Contingent Claims," *Journal of Political Economy*, 106(3): 551-73. **Oct 19**

V. ADDICTION

- Text: Cawley, John, "Reefer Madness, Frank the Tank, or *Pretty Woman*: to what extent do addictive behaviors respond to incentives?" in Sloan & Kasper, Ch. 7. **Oct 26**
- [21] Becker, G. S. and K. Murphy. 1988. "A theory of rational addiction." *Journal of Political Economy* **96**, 675-700. **Oct 26**
- [22] Gruber, J. and B. Koszegi. 2001. "Is addiction "rational"? Theory and evidence," *Quarterly Journal of Economics* **116**(4): 1264-1303. **Oct 26**
- [23] Smith, VK, DH Taylor, FA Sloan, FR Johnson, and WH Desvouges. 2001. "Do smokers respond to health shocks?" *Review of Economics and Statistics* **83**(4): 675-87. **Nov 2**

VI. THE GREAT TRANSITIONS, PATTERNS OF HEALTH, AND THE IMPACT OF NUTRITION

- [24] Case, Ann and Christina Paxson, 2008 (June), "Stature and status: height, ability, and labor market outcomes," *Journal of Political Economy* **116**(3): 599-632. **Nov 2**
- [25] Akresh, Richard, Philip Verwimp, and Tom Bundervoet, forthcoming, "Health and civil war in rural Burundi," *Journal of Human Resources* **Nov 2**

- [26] Dow, William, Tomas Philipson, and Xavier Sala-i-Martin, 1999, “Longevity complementarities under competing risks,” *American Economic Review* **89**(5): 1358-1371. **Nov 9**
- [27] Galiani, Sebastian, Paul Gertler, and Ernesto Schargrodsky, 2005, “Water for life: the impact of privatization of water services on child mortality,” *Journal of Political Economy* **113**(1): 83-120. **Nov 9**
- [28] Bell, Clive, Shantayanan Devarajan, and Hans Gersbach, 2006, “The long-run economic costs of AIDS: a model with an application to South Africa,” *World Bank Economic Review* **20**(1): 55-89. **Nov 9**
- [29] Fortson, Jane, forthcoming, “HIV/AIDS and fertility,” *American Economic Journal: Applied Economics*. **Nov 9**
- [30a] Taryn Dinkelman, David Lam, and Murray Liebrandt, 2008, “Linking poverty and income shocks to risky sexual behaviour: Evidence from a panel study of young adults in Cape Town,” *South African Journal of Economics* **76**: S52-S74. **Nov 16**
- [30b] Oster, Emily, 2005 (May), “Sexually transmitted infections, sexual behavior, and the HIV/AIDS epidemic,” *Quarterly Journal of Economics* **120**(2): 467-515. **Nov 16**
- [30c] Habyarimana, James, Bekezela Mbakile, and Christian Pop-Eleches., 2007, “HIV/AIDS, ARV treatment, and worker absenteeism: evidence from a large African firm,” Cambridge, MA: Harvard University Center for International Development working paper **Nov 16**
- [31a] Qian, Nancy, 2008 (August), “Missing women and the price of tea in China: the effect of sex-specific earnings on sex imbalance,” *Quarterly Journal of Economics* **123**(3): 1251-1286. **Nov 16**
- [31b] Sen, Amartya, 1981, “Ingredients of famine analysis: availability and entitlements,” *Quarterly Journal of Economics* **96**(3): 433-464. **Nov 16**
- [31c] Das Gupta, Monica, 2008, “Can biological factors like Hepatitis B explain the bulk of gender imbalance in China? A review of the evidence,” *World Bank Research Observer* **23**(2): 201-217. **Nov 16**
- [31d] Lin, Ming-Jen and Ming-Ching Luoh, 2007, “Can Hepatitis B mothers account for the number of missing women? Evidence from three million newborns in Taiwan,” *American Economic Review* **98**(5): 2259-2273. **Nov 16**
- [32] Meng, Xin and Nancy Qian, 2006, “The long run health and economic consequences of famine on survivors: evidence from China’s great famine,” Canberra: Australian National University RSPAS working paper. **Nov 23**

VII. HEALTH & ECONOMIC DEVELOPMENT

- [33] Acemoglu, Daron and Simon Johnson, 2007 (December), “Disease and development: the effect of life expectancy on economic growth,” *Journal of Political Economy* **115**(6): 925-985. **Nov 23**
- [34] Hall, Robert and Charles Jones, 2007, “The value of life and the rise in health spending,” *Quarterly Journal of Economics* **122**(1): 39-72. **Nov 23**

- [35] Weil, David, 2007, "Accounting for the effect of health on economic growth," *Quarterly Journal of Economics* **122**(3): 1265-1306. **Nov 23**

REFERENCE/BACKGROUND (not covered in class)

- Acemoglu, D. and J. Angrist. (2001). "Consequences of employment protection? The case of the Americans with Disabilities Act" *Journal of Political Economy* **109**: 915-957.
- Alderman, Harold, Hans Hoogeveen, and Ariacristina Rossi, 2006, "Reducing child malnutrition in Tanzania," *Economics & Human Biology* **4**(1): 1-23.
- Appleton, Simon. 1998. "The impact of public services on health care and illness: A treatment effects model with sample selectivity." *Journal of African Economies* **7** (1): 1-33.
- Arrow, K. 1963. "Uncertainty and the economics of medical care," *American Economic Review* **53**: 941-973.
- Arora, Suchit, 2001, "Health, human productivity, and long-term economic growth," *Journal of Economic History* **61**(3): 699-747.
- Avery, R., D. Kenkel, D.R. Lillard, and A. Mathios, Private Profits and Public Health: Does Advertising of Smoking Cessation Products Encourage Smokers to Quit," *Journal of Political Economy* **115**(3): 447-481.
- Audibert, M. and J-F Etard. 1998. "Impact of Schistosomiasis on Rice Output and Farm Inputs in Mali." *Journal of African Economies* **7** (2): 185-207.
- Baird, Sarah, Jed Friedman, and Norbert Schady, 2007 (September), "Infant mortality over the business cycle in the developing world," Washington, DC: World Bank *policy research working paper 4346*.
- Baker, Michael, Joanthan Gruber, and Kevin Milligan, 2008, "Universal child care, maternal labor supply, and family well-being," *Journal of Political Economy* **116**(4).
- Becker, Charles and David Bloom, eds. 1998. "Special Issue: The demographic crisis in the Former Soviet Union." *World Development* **26** (11).
- Becker, Gary S., 2007, "Health as human capital: synthesis and extensions," *Oxford Economic Papers* **59**: 379-410.
- Becker, G. S., K. Murphy and M. Grossman and K. Murphy. 1994. "An Empirical Analysis of Cigarette Addiction." *American Economic Review* **84**, 396-418.
- Becker, Gary and Casey Mulligan, 1997, "The endogenous determination of time preference," *Quarterly Journal of Economics* **112**(3): 729-758.
- Behrman, Jere and Emmanuel Skoufias, 2004, "Correlates of determinants of child anthropometrics in Latin America," *Economics & Human Biology* **2**(2): 335-352.
- Benefo, Kofi and T. Paul Schultz, 1996 "Determinants of fertility and child mortality in Côte d'Ivoire and Ghana," *World Bank Economic Review* **10**(1): 123-158.
- Bhargava, Alok, Dean Jameson, Lawrence Lau, and Christopher Murray, 2001, "Modeling the effects of health on economic growth," *Journal of Health Economics* **20**: 423-440.
- Black, Sandra, Paul Devereux, and Kjell Salkvanes, 2007, "From the cradle to the labor market? The effect of birth weight on adult outcomes," *Quarterly Journal of Economics* **122**(1): 409-439.
- Bloom, DE and AS Mahal, 1997, "Does the AIDS epidemic threaten economic growth?" *Journal of Econometrics* **77**(1): 105-124.
- Bobadilla, J.L., J. Frank, R. Lozano, T. Frejka, and C. Stern, 1993, "The epidemiological transition and health priorities," in Dean T. Jamison, Ed., *Disease Control Priorities in Developing Countries*," Oxford: Oxford University Press, pp. 51-66.
- Buchmueller, Thomas and John DiNardo, 2002. "Did Community Rating Induce an Adverse Selection Death Spiral?" *American Economic Review* **92**(1): 280-94.
- Caldwell, John, 1976, "Toward a restatement of demographic transition theory." *Population & Development Review* (September/ December).

- Caldwell, John *et al.*, 1989, "The Social Context of AIDS in Sub-Saharan Africa," *Population & Development Review* 1989 (June) **15**:2.
- Castello-Climent, Amparo and Rafael Domenech, 2008 (April), "Human capital, inequality, life expectancy and economic growth," *Economic Journal* **118**(528): 653-677.
- Cigno, Alessandro, *Economics of the Family*. Oxford: Clarendon Press, 1991.
- Corno, Lucien and Damien de Walque, 2007, "The determinants of HIV infection and related sexual behaviors: evidence from Lesotho" Washington, DC: World Bank *Policy Research Working Paper 4421*.
- Das, Jishnu, Quy-Toan Do, Jed Friedman, and David McKenzie, 2008 (January), "Mental health patterns and consequences: results from survey data in five developing countries," Washington, DC: World Bank *policy research working paper 4495*.
- Dasgupta, Partha, 1991, "Nutrition, non-convexities and redistributive policies," *Economic Journal* **101**(404): 22-26.
- Deaton, Angus, 2003, "Health, inequality, and economic development," *Journal of Economic Literature* **41**(1): 113-158.
- DeCicca, Philip, Donald Kenkel, and Alan Mathios. 2002. "Putting out the fires: Will higher taxes reduce the onset of youth smoking?" *Journal of Political Economy* 110(1): February 2002: 144-69.
- Deolalikar, Anil, 1988, "Nutrition and labor productivity in agriculture: estimates for rural south India," *Review of Economics & Statistics* **70**(3): 406-413.
- Dixon, Simon, Scott McDonald, and Jennifer Roberts, 2001, "AIDS and economic growth in Africa: a panel data analysis," *Journal of International Development* **13**: 411-426.
- de Walque, Damien, 2006, "Who gets AIDS and how?" Washington, DC: World Bank *Policy Research Paper no. 3844*.
- de Walque, Damien, 2006, "Discordant couples: HIV infection among couples in Burkina Faso, Cameroon, Ghana, Kenya, and Tanzania?" Washington, DC: World Bank *Policy Research Paper no. 3956*.
- Duflo, Esther, 2000, "Child health and household resources in South Africa: Evidence from the old age pension program," Cambridge, MA: MIT Department of Economics, unpubl. ms.
- Eckstein, Z. and K. Wolpin, 1989, "The Specification and Estimation of Dynamic Stochastic Discrete Choice Models—A Survey," *Journal of Human Resources* **24**(4): 562-98.
- Ehrlich, Isaac and Gary Becker, 1972. "Market insurance, self-insurance, and self-protection," *Journal of Political Economy* **80**: 623-648.
- Ehrlich, Isaac and Hiroyuki Chuma, 1990, "A model of the demand for longevity and the value of life extension," *Journal of Political Economy* **98**(4): 761-782.
- Fogel, Robert W., 1994, "Economic growth, population theory and physiology: the bearing of long-term processes on the making of economic policy," *American Economic Review* **84**(3): 369-395.
- Fogel, Robert, and Dora Costa. 1997. "A theory of technophysio evolution, with some implications for forecasting population, health care costs, and pension costs." *Demography* **34**(1).
- Ford, Kathleen and Victoria Hosegood, 2005, "AIDS mortality and the mobility of children in KwaZulu Natal, South Africa," *Demography* **42**(4): 757-768.
- Foster, Andrew and Mark Rosenzweig, 1993, "Information, learning, and wage rates in low-income rural areas," *Journal of Human Resources* **28**(4): 759-790 (special issue on investments in women's human capital and development).
- Foster, Andrew and Mark Rosenzweig, 1994, "A test for moral hazard in the labor market: contractual arrangements, effort, and health," *Review of Economics & Statistics* **96**(2): 213-227.
- Frankenberg, Elizabeth, James P. Smith, and Duncan Thomas, 2003, "Economic shocks, wealth, and welfare," *Journal of Human Resources* **38**(2): 280-321.
- Galor, Oded and David Weil, 2000, "Population, technology, and growth: from Malthusian stagnation to the demographic transition and beyond," *American Economic Review* **90**(4): 806-828.
- Gertler, Paul, David Levina, and Minnie Ames, 2004, "Schooling and parental death," *Review of Economics & Statistics* **86**(1): 211-225.
- Gertler, Paul, Manisha Shah, and Stefano Bertozzi, 2005, "Risky business: the market for unprotected commercial sex," *Journal of Political Economy* **113**(3): 518-550.
- Glewwe, Paul and Hanan Jacoby, 1995, "An economic analysis of delayed primary school enrollment in a low

- income country: the role of early childhood nutrition,” *Review of Economics & Statistics* **77**(1): 156-169.
- Glick, Glick and David Sahn, 2008, “Are Africans practicing safer sex? Evidence from Demographic and Health Surveys for eight countries,” *Economic Development & Cultural Change* **56**(2): 397-439.
- Glomm, G. and M. Palumbo, 1993, "Optimal intertemporal consumption decisions under the threat of starvation" *Journal of Development Economics* **42**: 271-291.
- Goldin, Claudia and Lawrence F. Katz. 2002. “The Power of the Pill: Oral Contraceptives and Women’s Career and Marriage Decisions,” *Journal of Political Economy* **110**(4):730-70.
- Haddad, L. and J. Hoddinott, 1994, "Women's Income and Boy-Girl Anthropometric Status in Côte d'Ivoire." *World Development* **22**(4).
- Hammer, Jeffrey, 1993, "The Economics of Malaria Control," *World Bank Research Observer* 8(1): 1-22.
- Jamison, Dean, *et al.*, eds. 1993. *Disease Control Priorities in Developing Countries*. New York: Oxford University Press for the World Bank.
- Kambou, G., S. Devarajan and M. Over, 1992, "The Economic Impact of AIDS in an African Country." *Journal of African Economies* **1**:1.
- Kassouf, A. and B. Senauer. 1996. “Direct and indirect effects of parental education on malnutrition among children in Brazil: a full income approach.” *Economic Development & Cultural Change* **44**(4).
- Keeler, E., J. Newhouse and C. Phelps. 1977. “Deductibles and the Demand for Medical Care Services: The Theory of a Consumer Facing a Variable Price Schedule under Uncertainty.” *Econometrica* **45**, 641-655.
- Kochar, A. 1999 (April). “Evaluating family support for the elderly: The intrahousehold allocation of medical expenditures in rural Pakistan,” *Economic Development & Cultural Change* **47**(3).
- Lam, David. “Demographic Variables and Income Inequality,” in Mark R. Rosenzweig and Oded Stark, eds. 1997. *Handbook of Population and Family Economics*. Amsterdam: Elsevier North-Holland.
- Levitt, Steven D. and Jack Porter. 2001. “How Dangerous Are Drinking Drivers?” *Journal of Political Economy* **109**(6):1198-1237.
- Lee, Ronald and Michael Anderson, 2002, “Malthus in state space: macro economic-demographic relations in English history, 1540 to 1870,” *Journal of Population Economics* **15**: 195-220.
- Li, Hongbin, Mark Rosenzweig, and Junsen Zhang, 2008, “Altruism, favoritism, and guilt in the allocation of family resources: Sophie’s Choice in Mao’s mass send down movement,” New Haven: Yale University Department of Economics, *working paper no. 54*.
- Li, Nan and Ronald Lee, 2005, “Coherent mortality forecasts for a group of populations: an extension of the Lee-Carter method,” *Demography* **42**(3): 575-594.
- Luke, Nancy and Kaivan Munshi, 2007, “Social affiliation and the demand for health services: caste and child health in south India,” *Journal of Development Economics* **83**: 256-279.
- McNeill, William, *Plagues and Peoples*. New York: Doubleday, 1976.
- Miguel, Edward and Michael Kremer, 2004, “Worms: identifying impacts on education and health in the presence of treatment externalities,” *Econometrica* **72**(1): 159-217.
- Miller, Amalia, 2006, “The impact of midwifery-promoting public policies on medical interventions and health outcomes, *Advances in Economic Analysis & Policy* (Berkeley Electronic Press) **6**(1) article 6.
- Murthi, M., A-C Guio, and J. Dreze. 1995. “Mortality, fertility, and gender bias in India: a district level analysis.” *Population & Development Review* **21**(4): 745-782.
- Oster, Emily, Gang Chen, Xinsen Yu, and Wenyaoy Lin, 2008, “Hepatitis B does not explain male-biased sex ratios in China,” Chicago: University of Chicago Department of Economics, unpublished ms.
- Oster, Emily, 2008, “Exports and HIV infection in Sub-Saharan Africa,” Chicago: University of Chicago Department of Economics, unpubl. ms. <http://home.uchicago.edu/~eoster/hivexports.pdf>
- Oster, Emily, 2008, “HIV and sexual behavior change: why not Africa?” Chicago: University of Chicago Department of Economics, unpubl. ms. <http://home.uchicago.edu/~eoster/hivbehavior.pdf>
- Oster, Emily, 2005, “Hepatitis B and the case of the missing women,” *Journal of Political Economy* **113**(6): 1163-1216.
- Pritchett, Lant and Lawrence Summers, 1996, “Wealthier is healthier,” *Journal of Human Resources* **31**(4): 841-868.

- Rosenzweig, M. and T. P. Schultz. 1983. "Estimating a Household Production Function: Heterogeneity, the Demand for Health Inputs, and Their Effects on Birth Weight." *Journal of Political Economy* **91**, 723-46.
- Rosenzweig, M. and K. Wolpin. 1995. "Sisters, Siblings, and Mothers: The Effect of Teenage Childbearing on Birth Outcomes in a Dynamic Family Context." *Econometrica* **63**: 303-326.
- Rust, J. and C. Phelan. 1997. "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets." *Econometrica* **65(4)**: 781-831.
- Sahn, David, 1994, "The Contribution of Income to Improved Nutrition in Côte d'Ivoire," *Journal of African Economies* **3(1)**: 29-61.
- Schultz, T. Paul, 2003, "Wage rentals for reproducible human capital: evidence from Ghana and the Ivory Coast," *Economics & Human Biology* **1(3)**: 331-366.
- Schultz, T. Paul, 1997, "Assessing the productive benefits of nutrition and health: an integrated human capital approach," *Journal of Econometrics* **77**: 141-158.
- Sen, Amartya, *Poverty and Famines*. Oxford: Clarendon Press, 1981.
- Sen, Amartya, 1998, "Mortality as an indicator of economic success and failure," *Economic Journal* **108(446)**: 1-25.
- Thomas, Duncan, and John Strauss, 1997, "Health and wages: evidence on men and women in urban Brazil," *Journal of Econometrics* **77**: 159-185.
- Van Zon, Adriaan and Joan Muysken, 2001, "Health and endogenous growth," *Journal of Health Economics* **20**: 169-185.
- Zhang, Junsen, Jie Zhang, and Ronald Lee, 2001, "Mortality decline and long-run economic growth," *Journal of Public Economics* **80**: 485-507.

THE LAST CUTS ON THE FINAL LIST....THAT IS, PAPERS VERY MUCH WORTH READING:

- Alderman, Harold, John Hoddinott, and Bill Kinsey, 2006, "Long term consequences of early childhood malnutrition," *Oxford Economic Papers* **58**: 450-474.
- Almond, Douglas and Bhashkar Mazumder, 2008 (October), "The effects of maternal fasting during Ramadan on birth and adult outcomes," Cambridge, MA: NBER *working paper 14428*.
- Ananat, Elizabeth Oltmans, Joathan Gruber, Philip Levine, and Douglas Steiger, 2009 (February), "Abortion and selection," *Review of Economics & Statistics* **91(1)**: 124-136.
- Angelucci, Manuela, 2008, "Love on the rocks: domestic violence and alcohol abuse in rural Mexico," *B.E. Journal of Economic Analysis & Policy* **8(1)**: article 43.
- Beegle, Kathleen, Joachim De Weerd, and Stefan Dercon, 2008, "Adult mortality and consumption growth in the age of HIV/AIDS," *Economic Development & Cultural Change* **56(2)**: 299-326.
- Bhargava, Alok and Frederic Docquier, 2008, "HIV pandemic, medical brain drain, and economic development in sub-Saharan Africa," *World Bank Economic Review* **22(2)**: 345-366.
- Block, Steven, 2007, "Maternal nutrition knowledge versus schooling as determinants of child micronutrient status," *Oxford Economic Papers* **59**: 330-353.
- Cardon, J.H. and I. Hendel. 2001. "Asymmetric information in health insurance: Evidence from the National Medical Expenditure Survey," *Rand Journal of Economics* **32(3)**: 408-27

- Chapoto, Anthony, and T.S. Jayne, 2008, "Impact of AIDS-related mortality on farm household welfare in Zambia," *Economic Development & Cultural Change* **56**(2): 327-374
- Chou, Shin-Yi, Jin-Tan Liu, Michael Grossman, and Theodore Joyce, 2007 (October), "Parental education and child health: evidence from a natural experiment in Taiwan," Cambridge, MA: NBER *working paper 13466*.
- Coppejans, Mark, Donna Gilleskie, Holger Seig, and Koleman Strumpf, 2007 (August), "Consumer demand under price uncertainty: empirical evidence from the market for cigarettes," *Review of Economics & Statistics*, **89**(3): 510-521.
- Coetzee, Celeste, 2008, "The impact of highly active antiretroviral treatment (HAART) on employment in Khayelitsha," *South African Journal of Economics* **76**: S75-S85.
- Cutler, David, Winnie Fung, Michael Kremer, and Monica Singhal, 2007 (October), "Mosquitoes: the long-term effects of malaria eradication in India," Cambridge, MA: NBER *working paper no. 13539*
- Dafny, Leemore and David Dranove, 2008, "Do report cards tell consumers anything they don't already know? The case of Medicare HMOs," *Rand Journal of Economics* **39**(3): 790-821.
- Das, Jishnu, Jeffrey Hammer, and Kenneth Leonard, 2008 (January), "The quality of medical advice in low-income countries," Washington, DC: World Bank *policy research working paper 4501*.
- Dolan, Paul and Daniel Kahneman, 2008, "Interpretations of utility and their implications for the valuation of health," *Economic Journal* **118**(525): 215-234.
- Fang, Hanming and Alessandro Gavazza, 2007 (September), "Dynamic inefficiencies in employment-based health insurance system: theory and evidence," Cambridge, MSA: NBER *working paper 13371*.
- Field, Erica and Attila Ambrus, 2008 (October), "Early marriage, age of menarche, and female schooling attainment in Bangladesh," *Journal of Political Economy* **116**(5).
- Friedman, Jed and Duncan Thomas, 2007 (November), "Psychological health before, during, and after an economic crisis: results from Indonesia, 1993-2000," Washington, DC: World Bank *policy research working paper 4386*.
- Gauthier, Bernard and Waly Wane, 2007, "Leakage of public resources in the health sector: an empirical investigation of Chad," Washington, DC: World Bank *Policy Research Working Paper 4351*.
- Glewwe, Paul, Hanan Jacoby, and Elizabeth King, 2001, "Early childhood nutrition and academic achievement: a longitudinal analysis," *Journal of Public Economics* **81**: 345-368.
- Harris, K. and M. Keane, 1999, "A model of health plan choice: Inferring preferences and perceptions from a combination of revealed preferences and attitudinal data," *Journal of Econometrics* **89**: 131-157.
- Ho, Katherine, 2009, "Insurer-provided networks in the medical care market," *American Economic Review* **99**(2): 393-430.

- Lachaud, Jean-Pierre, 2007, "HIV prevalence and poverty in Africa: Micro- and macro-econometric evidences applied to Burkina Faso," *Journal of Health Economics* **26**: 483-504.
- Meyerhoefer, Chad, David Sahn, and Stephen Younger, 2007, "The joint demand for health care, leisure, and commodities: implications for health care finance and access in Vietnam," *Journal of Development Studies* **43**(8): 1475-1500
- Miller, Grant, 2008 (August), "Women's suffrage, political responsiveness, and child survival in American history," *Quarterly Journal of Economics* **123**(3): 1287-1327.
- Pradhan, Menno, Fadia Saadah, and Robert Sparrow, 2007, "Did the health card program ensure access to medical care for the poor during Indonesia's economic crisis?" *World Bank Economic Review* **21**(1): 125-150.
- Propper, Carol, Simon Burgess, and Denise Gossage, 2008, "Competition and quality: evidence from the NHS internal market 1991-9," *Economic Journal* **118**(525): 138-170.
- Sharma, Rajov, Miron Stano, and Renu Gehring, 2008, "Short-term fluctuations in hospital demand: implications for admission, discharge, and discriminatory behavior," *Rand Journal of Economics* **39**(2): 586-606.
- Yamauchi, Futoshi, Thabani Buthelezi, and Myriam Velia, "Impacts of prime-age adult mortality on labour supply: evidence from adolescents and women in South Africa," *Oxford Bulletin of Economics & Statistics* **70**(3): 375-398.