Econ 357\_Health Economics\_2010\_syl 10/27/10 9:16 AM

Fall 2010

Duke University

Department of Economics

Economics 357: Economics of Health

Tuesday 6:00 – 9:00 p.m. Social Sciences 111

Professors: Frank Sloan Charles Becker

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Office Hours: By appointment Tuesday 5:00 – 6:00 pm

 Wednesday & Friday 8:00-9:00 am

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 37 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 15-page research proposal:

 Class participation 10%

 In-class presentations and supporting notes (2-3 per student) 20%

 Research proposal 25%

 Midterm examination 20%

 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).

1. **Course readings**

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

1. 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 31 (Becker)

1. Demand for Medical Care

Text: Gilleskie, Donna, “Health capital: theory and empirical evidence” in Sloan & Kasper, Ch. 3. August 31 (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 31 (Sloan)

[2] Grossman, M. 1972, “On the concept of health capital and the demand for health,” *Journal of Political Economy* **82**: 233-255. September 7 (Zhou, Bo)

[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. September 7 (Aaron Kearsley)

[4] Viscusi, K. and W. Evans. 1990. “Utility functions that depend on health status: Estimates and economic implications,” *American Economic Review* 80: 353-374. September 14 (Brett Matsumoto)

 [5] Cohen, Jessica and Pascaline Dupas, 2010 (February), “Free distribution or cost-sharing? Evidence from a randomized malaria prevention experiment,” *Quarterly Journal of Economics* **125**(1): 1-45. September 14 (Riha Vaidya)

[6] DeNardi, M., E. French, and J.B. Jones, 2010, “Why Do the Elderly Save? The Role of Medical Expenses,” *Journal of Political Economy* **118**(1): 39-75. H September 14 (Julia Jia Yao)

## Health Production

 [7] Kremer, M. 1996. “Integrating behavioral choice into epidemiological models of AIDS.” *Quarterly Journal of Economics* **111**(2): 549-573. September 21 (Aleks Andreev)

[8] Kremer, Michael and Miguel, Edward, 2007, “The illusion of sustainability,” *Quarterly Journal of Economics* **122**(3): 1007-1065. September 21 (Ouyang, Fu)

[9] 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. September 28 (Forrest Spence)

[10] Almond, Douglas, Joseph Doyle, Jr., Amanda Kowalski, and Heidi Williams, 2010 (May), “Estimating marginal returns to medical care: evidence from at-risk newborns,” *Quarterly Journal of Economics* **125**(2): 591-634. September 28 **(Jeff Federspiel)**

[11] Chou, S-Y, J-T Liu, M. Grossman, and T. Joyce, 2010, “Parental Education and Child Health: Evidence from a Natural Experiment in Taiwan,” *American Economic Journal: Applied Economics.* **2**(1): 53-61. September 28 (Zhu Wenjia)

[12] Field, E., O. Robles, and M. Torero, 2009, “Iodine Deficiency and Schooling Attainment in Tanzania,” *American Economic Journal: Applied Economics* **1**(4): 140-169. September 28 (Didem Pekkumaz)

## Health Insurance

Text: Pauly, Mark, “Adverse selection and moral hazard: implications for health insurance markets” in Sloan & Kasper, Ch. 5. October 5

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. October 5

[13] 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. October 5 (Ouyang, Fu)

[14] 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. October 19 (Aleks Andreev)

October 12 Fall Break

 Midterm Examination (take-home) Oct 6-19 due in class Oct 19

[16] Gertler, Paul and Jonathan Gruber. 2002. “Insuring consumption against illness,” *American Economic Review* **92**(1): March 2002, 51-70. **October 19 (Frank Sloan)**

[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. **October 19 (Riha Vaidya)**

 [18] Finkelstein, Amy, 2007, “The aggregate effects of health insurance: evidence from the introduction of Medicare,” *Quarterly Journal of Economics* **122**(1): 1-37. **October 26** (Zhu Wenjia)

[19] Philipson, T. J., and G. S. Becker, 1998, “Longevity and Mortality-Contingent Claims, *Journal of Political Economy,* 106(3): 551-73. **October 26** (Aaron Kearsley)

[20] Chandra, A., J. Gruber, and R. McKnight, 2010, “Patient Cost Sharing and Hospitalization Offsets in the Elderly,” *American Economic Review* **100**(1): 193-213. **October 26 (Jeff Federspiel)**

## 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. November 2 **(Frank Sloan)**

[21] Becker, G. S. and K. Murphy. 1988. “A theory of rational addiction.” *Journal of Political Economy* 96, 675-700. November 2 (Ouyang, Fu)

[22] Gruber, J. and B. Koszegi. 2001. “Is addiction “rational”? Theory and evidence,” *Quarterly Journal of Economics* **116**(4): 1264-1303**.** November 2 (Julia Jia Yao)

[23] Currie, J., S. Della Vigna, E. Moretti, and V. Pathania, 2010. “The Effect of Fast Food Restaurants on Obesity and Weight Gain,” *American Economic Journal: Economic Policy* **2**(3): 32-63. November 9 (Forrest Spence)

[24] Carpenter, C. and C. Dobkin, 2009, “The Effect of Alcohol Consumption on Mortality: Regression Discontinuity Evidence from the Minimum Drinking Age,” *American Economic Journal: Applied Economics*. **1**(1): 164-182. November 9 (Brett Matsumoto)

## The Great Transitions, Patterns of Health, and the impact of nutrition

[25] Case, Ann and Christina Paxson, 2008 (June), “Stature and status: height, ability, and labor market outcomes,” *Journal of Political Economy* **116**(3): 599-632. November 9 (Didem Pekkumaz)

[15] Card, David, Carlos Dobkin, and Nicole Maestas, 2009, “Does Medicare save lives?” *Quarterly Journal of Economics* **124**(2): 597-636. **November 16 (Brett Matsumoto)**

[26] Dow, William, Tomas Philipson, and Xavier Sala-i-Martin, 1999, “Longevity complementarities under competing risks,” *American Economic Review* **89**(5): 1358-1371. November 16 (Aaron Kearsley)

[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. November 16 (Riha Vaidya)

 [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. November 23 (Aleks Andreev)

 [29] Johnston, Deborah, 2008, “Bias, not error: assessments of the economic impact of HIV/AIDS using evidence from micro studies in sub-Saharan Africa,” *Feminist Economics* **14**(4): 87-115. November 23 (Charles Becker) [reading not required]

 [30] 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. November 23 (Zhu Wenjia)

[31] Bleakley, H., 2010, “Malaria Exposure in the Americas: A Retrospective Analysis of Childhood Exposure,” *American Economic Journal: Applied Economics* **2(2):**1-45. November 23 (Julia Jia Yao)

[32] Jayachandran, S, A. Lleras-Muney, and K.V. Smith, 2010, “Modern Medicine and the Twentieth Century Decline in Mortality: Evidence on the Impact of Sulfa Drugs,” *American Economic Journal: Applied Economics* **2**(2): 118-146. November 30 (Didem Pekkumaz)

[33] Miller,G. and B. P. Urdinola, “Cyclicality, Mortality, and the Value of Time: The Case of Coffee Price Fluctuations and Child Survival in Columbia, *Journal of Political Economy*, **118**(1): 113-155. November 30 (Forrest Spence)

## Health & Economic Development

 [34] 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.

 [35] Hall, Robert and Charles Jones, 2007, “The value of life and the rise in health spending,” *Quarterly Journal of Economics* **122**(1): 39-72. November 30 (Jeff Federspiel)

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

[37] Lucas, A., 2010, “Malaria Eradication and Educational Attainment: Evidence from Paraguay and Sri Lanka,” *American Economic Journal: Applied Economics* **2**(2): 46-71.

Final Examination (take-home) due December 19, 10:00 p.m.

**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*, p*p. 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 Wenyao 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:

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.

Akresh, Richard, Philip Verwimp, and Tom Bundervoet, 2009, “Health and civil war in rural Burundi, *Journal of Human Resources* **44**(2): 536-563.

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.

Aizer, Anna, 2007 (August), "Public Health Insurance, Program Take-Up, and Child Health," *Review of Economics & Statistics* **89**(3): 400-415.

Alderman, Harold, John Hoddinott, and Bill Kinsey, 2006, “Long term consequences of early childhood malnutrition,” O*xford Economic Papers* **58**: 450-474.

Almond, Douglas, Lena Edlund, and Mårten Palme, 2009 (November), “Chernobyl’s subclinical legacy: prenatal exposure to radioactive fallout and school outcomes in Sweden,” *Quarterly Journal of Economics* **124**(4): 1729-1772.

Almond, Douglas and Bhashkar Mazumder, 2008 (October), “The effects of maternal fasting during Ramadan on birth and adult outcomes,” Cambridgae, 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.

Ashraf, Nava, James Berry, and Jesse Shapiro (forthcoming), “Can higher prices stimulate product use? Evidence from a field experiment in Zambia,” *American Economic Review*. <http://people.hbs.edu/nashraf/commit081408.pdf>

Bailey, M.J., 2010, “’’Momma’s Got the Pill: How Antony Comstock and Griswold *v.* Connecticut Shaped U.S. Childbearing,” *American Economic Review*. **100**(1): 98-129.

Beegle, Kathleen, Joachim De Weerdt, 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.

Bjoerman, M. and J. Svensson, 2009, “Power to the People: Evidence from a Randomized Field

Experiment on Community-Based Monitoring in Uganda,” *Quarterly Journal of Economics* (May): 735-769.

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