

**DUKE UNIVERSITY**  
**DEPARTMENT OF ECONOMICS**

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The Economics of Health and Development (ECON 390)  
Spring 2013

Professor: Erica Field  
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Office Hours: Social Sciences Building 319, Tues 3:00-5:00 pm and by appointment  
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Office Hours: Social Sciences Building 308E, Fri 1:30-3:30pm  
Class Time: TTH, 1.30p-2.45p in Social Sciences Building 112  
Recitation: TBA

**Overview:**

This is a course in applied economics that examines health issues in developing countries from the standpoint of applied microeconomic research. Specific topics include: identifying the effect of health on growth and development and the reciprocal relationships between income, poverty, and health. We will discuss structural problems in delivery and provider quality, the challenges of healthcare financing, and the tension between adopting "high-tech" care while delivering basic care to others. Much attention will be focused on the issues of poverty alleviation and the promise of foreign-aid, which are at the heart of debates about healthcare in developing countries. We will examine the empirical evidence in support of interventions affecting health including the success and failure of interventions that target infant mortality; diarrhea, worms; AIDS; and malaria. Where there is a paucity of evidence in a developing country context, we will study lessons from the American experience.

**Prerequisites:**

The undergraduate course will have the following prerequisites: Econ 201 (Intermediate Micro I) or PPS 303 (the public policy version of Intermediate Micro), Econ 208 (Econometrics) or PPS 604 (a public policy quantitative M course). **Doctoral or masters students, or undergraduates** without this background can enroll only by permission of the instructor. **We will assume fluency** with intermediate economic theory and econometrics—including consumer theory, income and substitution effects, producer theory, experimental design, instrumental variables, and difference-in-differences estimation. We will review some of these concepts in class, but this review will not provide sufficient background for someone who has never seen this material before. Graduate or undergraduate students who would like to review this material will have the opportunity to attend 1-3 recitation sessions (depending on student demand) led by the TA at the beginning of the course that will focus on the essential econometrics tools.

**Books and Readings:**

There are two books for this class, and several journal articles that can be downloaded from the Course Website. The books are (1) *Making Aid Work*, by Abhijit Banerjee, and (2) *Strong Medicine* by Rachel Glennerster and Michael Kremer.

**Class:**

For each class, bring copies of the assigned readings to class and expect to participate in a discussion.

**Grading:**

Two problem sets:	20 percent
One reading response:	10 percent
Class participation:	10 percent
Midterm Exam:	30 percent
Final Exam:	30 percent

Problem sets are due at the start of class on February 12 and April 2. The reading response is due at the start of class on April 16. In particular, for one of the two assigned books, you will submit a 4 page (double-spaced with 1 inch margins and 12 point Times Roman font) book review, executed in the style of a *New York Times* Book Review. The Review will summarize the broad themes of the book, comment on what you liked and learnt and where and why you disagreed with the author. You do not have to comment on each chapter.

**Calendar:**

	<b>Health and the Link to Development</b>
January 10 <i>Overview</i>	<ul style="list-style-type: none"><li>• Daron Acemoglu &amp; Simon Johnson, 2007. "Disease and Development: The Effect of Life Expectancy on Economic Growth." <i>Journal of Political Economy</i>, 115(6): 925-985. <a href="http://www.jstor.org/stable/10.1086/529000">http://www.jstor.org/stable/10.1086/529000</a></li><li>• Preston, Samuel (1975). "The changing relationship between mortality and level of economic development." <i>Population Studies</i>, 29(2): 231-48. <a href="http://www.jstor.org/stable/2173509">http://www.jstor.org/stable/2173509</a></li><li>• Fogel, Robert W. (1994). "Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy." <i>American Economic Review</i>, 84(3):369-95. <a href="http://www.jstor.org/stable/2118058">http://www.jstor.org/stable/2118058</a></li></ul>
	<b>Returns to Health</b>
January 15 <i>Labor market returns to health</i>	<ul style="list-style-type: none"><li>• Thomas, Duncan, et al. (2006). "Causal effect of health on labor market outcomes: Experimental evidence." unpublished manuscript, UCLA. <a href="http://www.escholarship.org/uc/item/0g28k77w">http://www.escholarship.org/uc/item/0g28k77w</a></li></ul>
January 17 <i>Effect of Health on Cognition</i>	<ul style="list-style-type: none"><li>• Field, Erica, Omar Robles and Maximo Torero (2009). "Iodine deficiency and schooling attainment in Tanzania." <i>American Economic Journal: Applied Economics</i>, 1(4): 140-169. <a href="http://www.jstor.org/stable/25760185">http://www.jstor.org/stable/25760185</a></li></ul>
January 22 <i>Effect of Health on Schooling</i>	<ul style="list-style-type: none"><li>• Kremer, Michael, and Edward Miguel (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." <i>Econometrica</i>, 72(1): 159–217. <a href="http://www.jstor.org/stable/3598853">http://www.jstor.org/stable/3598853</a></li></ul>
January 24 <i>Life expectancy and schooling investment</i>	<ul style="list-style-type: none"><li>• Jayachandran, Seema and Adriana Lleras-Muney (2009). "Life Expectancy and Human Capital Investments: Evidence from Maternal Mortality Declines." <i>Quarterly Journal of Economics</i>, 124(1) 349-397. <a href="http://qje.oxfordjournals.org/content/124/1/349.abstract">http://qje.oxfordjournals.org/content/124/1/349.abstract</a></li></ul>
January 29 <i>Do Health Shocks Lead to Poverty Traps?</i>	<ul style="list-style-type: none"><li>• Mohanan, Manoj (2012). "Causal Effects of Health Shocks on Consumption and Debt: Quasi-Experimental Evidence from Bus Accident Injuries." <i>Review of Economics and Statistics</i>, forthcoming. <a href="http://www.mitpressjournals.org/doi/abs/10.1162/REST_a_00262">http://www.mitpressjournals.org/doi/abs/10.1162/REST_a_00262</a></li></ul>

February 7 <i>Intra-household inequality and health outcomes</i>	<ul style="list-style-type: none"> <li>Esther Duflo (2003). “Grandmothers and Granddaughters: Old-Age Pensions and Intra-household Allocation in South Africa.” World Bank Economic Review, 17(1): 1-25. <a href="http://wber.oxfordjournals.org/content/17/1/1.abstract">http://wber.oxfordjournals.org/content/17/1/1.abstract</a></li> </ul>
	<b>Demand for Health</b>
January 31 <i>Is health a ‘normal good’?</i>	<ul style="list-style-type: none"> <li>Case, Anne (2004). “Does money protect health status? Evidence from South African pensions.” Wise (ed.) Frontiers in Aging, University of Chicago. NBER Working Paper 8495. <a href="http://www.nber.org/chapters/c10346.pdf">http://www.nber.org/chapters/c10346.pdf</a></li> </ul>
February 5 <i>Gender discrimination</i>	<ul style="list-style-type: none"> <li>Qian, Nancy. “Missing Women and the Price of Tea in China: The Effect of Sex-Specific Earnings on Sex Imbalance.” Quarterly Journal of Economics, 123(3): 1251-1285. <a href="http://qje.oxfordjournals.org/content/123/3/1251.abstract">http://qje.oxfordjournals.org/content/123/3/1251.abstract</a></li> </ul>
February 12 <b>[PS 1 Due in Class]</b> <i>Maternal education and child health</i>	<ul style="list-style-type: none"> <li>Wolfe BL and JR Behrman (1987). “Women's schooling and children's health: Are the effects robust with adult sibling control for the women's childhood background?” Journal of Health Economics, 6(3):239-54. <a href="http://www.sciencedirect.com/science/article/pii/0167629687900117">http://www.sciencedirect.com/science/article/pii/0167629687900117</a></li> <li>Gakidou, Emmanuela, Krycia Cowling, Rafael Lozano, Christopher Murrari (2010). “Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: A systematic analysis.” The Lancet, 376( 9745): 959–974. <a href="http://www.sciencedirect.com/science/article/pii/S0140673610612573">http://www.sciencedirect.com/science/article/pii/S0140673610612573</a></li> </ul>
February 14 <i>Health information &amp; peer effects</i>	<ul style="list-style-type: none"> <li>Kremer, Michael and Edward Miguel (2007). “The Illusion of Sustainability.” Quarterly Journal of Economics, 122(3): 1007-1065. <a href="http://qje.oxfordjournals.org/content/122/3/1007.abstract">http://qje.oxfordjournals.org/content/122/3/1007.abstract</a></li> </ul>
February 21 <i>Spillovers: Case of Bednets in India</i>	<ul style="list-style-type: none"> <li>Tarozzi, Alessandro, Aprajit Mahajan, Brian Blackburn, Dan Kopf, Lakshmi Krishnan, and Joanne Yoong, “Micro-loans, bednets and malaria: Evidence from a randomized controlled trial in Orissa (India).” Working Paper, Duke University. <a href="http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1881075">http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1881075</a></li> <li>Lengeler C (2004). “Insecticide-treated bed nets and curtains for preventing malaria.” Cochrane Database of Systematic Reviews 2004. <a href="http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000363.pub2/pdf/standard">http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000363.pub2/pdf/standard</a></li> </ul>

February 19 <i>Should we charge money for health goods?</i>	<ul style="list-style-type: none"> <li>Ashraf, Nava, James Berry and Jesse Shapiro (2010). “Can Higher Prices Stimulate Product Use? Evidence from a Field Experiment in Zambia.” <i>American Economic Review</i>, 100(5): 2383-2413. <a href="http://www.jstor.org/stable/41038767">http://www.jstor.org/stable/41038767</a></li> <li>Cohen, Jessica and Pascaline Dupas (2010). “Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment.” <i>Quarterly Journal of Economics</i>, 125(1): 1-45. <a href="http://qje.oxfordjournals.org/content/125/1/1.full.pdf">http://qje.oxfordjournals.org/content/125/1/1.full.pdf</a></li> </ul>
February 26 <i>Effect of information on health behavior</i>	<ul style="list-style-type: none"> <li>Dupas, Pascaline (2011). “Do Teenagers Respond to HIV Risk Information? Evidence from a Field Experiment in Kenya.” <i>American Economic Journal: Applied Economics</i>, 3(1): 1-34. <a href="http://pubs.aeaweb.org/doi/pdfplus/10.1257/app.3.1.1">http://pubs.aeaweb.org/doi/pdfplus/10.1257/app.3.1.1</a></li> </ul>
February 28	<ul style="list-style-type: none"> <li>Thornton, Rebecca (2008). “The Demand for, and Impact of, Learning HIV Status.” <i>American Economic Review</i>, 98(5): 1829–1863. <a href="http://www.jstor.org/stable/29730154">http://www.jstor.org/stable/29730154</a></li> </ul>
March 5 <i>Asymmetric information within the household and health behavior</i>	<ul style="list-style-type: none"> <li>Ashraf, Nava, Erica Field and Jean Lee (2010). “Household Bargaining and Excess Fertility: An Experimental Study in Zambia.” Working paper, November 23 2010, Harvard University. <a href="http://people.hbs.edu/nashraf/Excess_Fertility.pdf">http://people.hbs.edu/nashraf/Excess_Fertility.pdf</a></li> </ul>
March 7	<b>MIDTERM EXAMINATION</b>
March 19	<b>CLASS CANCELED</b>
	<b>Supply of Health Care</b>
March 21 <i>Challenges to Delivery in Developing Countries</i>	<ul style="list-style-type: none"> <li>Duflo, Esther, A. Banerjee and A. Deaton (2004). “Wealth, health, and health services in rural Rajasthan.” <i>American Economic Review Papers and Proceedings</i>, 94(2): 326-330. <a href="http://www.jstor.org/stable/3592904">http://www.jstor.org/stable/3592904</a></li> <li>Das, Jishnu, Jeffrey Hammer and Kenneth Leonard (2008). “The Quality of Medical Advice in Low-Income Countries.” <i>Journal of Economic Perspectives</i>, 22(2): 93-114. <a href="http://www.jstor.org/stable/27648243">http://www.jstor.org/stable/27648243</a></li> </ul>

<p>March 26</p> <p><i>Provider Absenteeism</i></p>	<ul style="list-style-type: none"> <li>Abhijit V. Banerjee, Esther Duflo, Rachel Glennerster (2008). "Putting a Band-Aid on a Corpse: Incentives for Nurses in the Indian Public Health Care System," <i>Journal of the European Economic Association</i>, 6(2-3): 487-500. <a href="http://www.jstor.org/stable/40282658">http://www.jstor.org/stable/40282658</a></li> <li>Banerjee, Abhijit, and Esther Duflo. 2006. "Addressing Absence." <i>Journal of Economic Perspectives</i>, 20(1): 117–132. <a href="http://www.jstor.org/stable/30033636">http://www.jstor.org/stable/30033636</a></li> </ul>
<p>March 28</p> <p><i>Community Monitoring</i></p>	<ul style="list-style-type: none"> <li>Martina Bjorkman and Jakob Svensson (2009). "Power to the People: Evidence from a Randomized Experiment on Community-Based Monitoring in Uganda." <i>Quarterly Journal of Economics</i>, 124(2): 735-769. <a href="http://qje.oxfordjournals.org/content/124/2/735.abstract">http://qje.oxfordjournals.org/content/124/2/735.abstract</a></li> <li>Priyanka Pandey; Ashwini R. Sehgal; Michelle Riboud; David Levine; Madhav Goyal (2007). "Informing Resource-Poor Populations and the Delivery of Entitled Health and Social Services in Rural India: A Cluster Randomized Controlled Trial." <i>JAMA</i>, 298(16): 1867-1875. <a href="http://jama.jamanetwork.com/article.aspx?articleid=209274">http://jama.jamanetwork.com/article.aspx?articleid=209274</a></li> </ul>
<p>April 2 <b>[PS 2 Due in Class]</b></p> <p><i>Public health provision</i></p>	<ul style="list-style-type: none"> <li>Cutler, David M. and Miller (2005). The Role of public health improvements in health advances: The Twentieth-century United States. <i>Demography</i> 42(1): 1-22. <a href="http://www.jstor.org/stable/1515174">http://www.jstor.org/stable/1515174</a></li> <li>Edward Miguel, Michael Kremer, Jessica Leino and Alix Peterson Zwane (2011). "Spring Cleaning: Rural Water Impacts, Valuation, and Property Rights Institutions." <i>Quarterly Journal of Economics</i>, 126(1): 145-205. <a href="http://qje.oxfordjournals.org/content/126/1/145.full.pdf">http://qje.oxfordjournals.org/content/126/1/145.full.pdf</a></li> <li>David Cutler, Winnie Fung, Michael Kremer, Monica Singhal and Tom Vogl (2010). "Early-Life Malaria Exposure and Adult Outcomes: Evidence from Malaria Eradication in India." <i>American Economic Journal: Applied Economics</i>, 2(2): 72-94. <a href="http://www.jstor.org/stable/25760206">http://www.jstor.org/stable/25760206</a> Web Appendix: <a href="http://www.aeaweb.org/aej/app/app/2007-0058_app.pdf">http://www.aeaweb.org/aej/app/app/2007-0058_app.pdf</a></li> </ul>

<p>April 4</p> <p><i>Competing Risks</i></p>	<ul style="list-style-type: none"> <li>Field, Erica, Rachel Glennerster and Reshmaan Hussam. "Throwing the Baby out with the Drinking Water: Unintended Consequences of a National Arsenic Mitigation Campaign in Bangladesh." February 2011. Working paper, Harvard University. <a href="http://scholar.harvard.edu/files/arsenic_infantmortality_feb10_0.pdf">http://scholar.harvard.edu/files/arsenic_infantmortality_feb10_0.pdf</a></li> <li>Argos, M., T. Kaira, P. Rathouz, Y. Chen, B. Pierce, F. Parvez, T. Islam, A. Ahmed, M. Rakibuz-Zaman, R. Hasan, G. Sarwar, V. Slavkovich, A. van Geen, J. Graziano, and H. Ahsan (2010). "Arsenic exposure from drinking water, and all-cause and chronic-disease mortalities in Bangladesh (HEALS): A prospective cohort study." <i>The Lancet</i>, 376(9737): 252-258. <a href="http://www.sciencedirect.com/science/article/pii/S0140673610604813">http://www.sciencedirect.com/science/article/pii/S0140673610604813</a></li> </ul>
<p>April 9</p> <p><i>Providing Insurance for the Poor</i></p>	<ul style="list-style-type: none"> <li>Gary King, et al (2009). "Public Policy for the Poor? A Randomised Assessment of the Mexican Universal Health Insurance Programme." <i>The Lancet</i>, 373(9673): 1447-1454. <a href="http://www.sciencedirect.com/science/article/pii/S0140673609602397">http://www.sciencedirect.com/science/article/pii/S0140673609602397</a></li> <li>Thornton, R. L., Hatt, L. E., Field, E. M., Islam, M., Solís Diaz, F. and González, M. A. (2010). "Social security health insurance for the informal sector in Nicaragua: a randomized evaluation." <i>Health Economics</i>, 19(S1): 181–206. <a href="http://onlinelibrary.wiley.com/doi/10.1002/hec.1635/abstract">http://onlinelibrary.wiley.com/doi/10.1002/hec.1635/abstract</a></li> </ul>
<p>April 11</p> <p><i>Challenges to Technology Adoption</i></p>	<ul style="list-style-type: none"> <li>Esther Duflo, Michael Greenstone and Rema Hanna (2008). "Indoor air pollution, health and economic well-being." Working paper, February 2008, Poverty Action Lab. <a href="http://poverty-action.org/sites/default/files/IAP_health_0208.pdf">http://poverty-action.org/sites/default/files/IAP_health_0208.pdf</a></li> <li>Janet Currie &amp; Matthew Neidell (2005). "Air Pollution and Infant Health: What Can We Learn from California's Recent Experience?," <i>The Quarterly Journal of Economics</i>, 120(3): 1003-1030. <a href="http://qje.oxfordjournals.org/content/120/3/1003.abstract">http://qje.oxfordjournals.org/content/120/3/1003.abstract</a></li> </ul>

	<b>GLOBAL HEALTH POLICY</b>
<p>April 16</p> <p><i>Private sector incentives to develop health technologies for developing countries</i></p>	<ul style="list-style-type: none"> <li>• Glennerster, Rachel and Michael Kremer. “Strong Medicine: Creating Incentives for Pharmaceutical Research on Neglected Diseases”, Princeton University Press (2004).</li> </ul>
<p>April 18</p> <p><i>Foreign Aid</i></p>	<ul style="list-style-type: none"> <li>• Jeffrey Sachs. The End of Poverty. TIME, March 2006. Available at: <a href="http://www.time.com/time/magazine/article/0,9171,1034738,00.html">http://www.time.com/time/magazine/article/0,9171,1034738,00.html</a></li> <li>• Easterly, William 2009. “Can the West Save Africa?” Journal of Economic Literature, 47(2): 373–447. <a href="http://www.aeaweb.org/articles.php?doi=10.1257/jel.47.2.373">http://www.aeaweb.org/articles.php?doi=10.1257/jel.47.2.373</a></li> <li>• Abhijit Banerjee. Making Aid Work. Boston Review Books. 2007.</li> </ul>
<p>April 23:</p> <p><i>Setting Global Health Objectives</i></p>	<ul style="list-style-type: none"> <li>• Grépin, Karen (2012). “HIV Donor Funding Has Both Boosted And Curbed The Delivery Of Different Non-HIV Health Services In Sub-Saharan Africa.” Health Affairs, 31(7): 1406-1414. <a href="http://content.healthaffairs.org/content/31/7/1406.abstract">http://content.healthaffairs.org/content/31/7/1406.abstract</a></li> <li>• Attaran, Amir (2005). “An immeasurable crisis? A criticism of the Millennium Development Goals and why they cannot be measured.” PLoS Medicine, 2(10) e138. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1201695/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1201695/</a></li> <li>• McArthur, John W., Jeffrey Sachs, Guido Schmidt-Traub (2005). “Response to Amir Attaran.” PLoS Medicine, 2(11) e379. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297542/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297542/</a></li> <li>• Attaran, Amir (2005). “Author’s Reply.” PLoS Medicine, 2(11) e405. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297559/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1297559/</a></li> </ul>