

SPRING 2010

INSTRUCTOR: NANCY BECKAGE

HNPG 012 - COURSE SYLLABUS

GLOBAL HEALTH, AGRICULTURE, AND ECONOMIC DEVELOPMENT

FOUR UNIT COURSE

COURSE REQUIREMENTS

Final grade will be determined by:

- in-class participation (15 per cent)
- in-class presentation (15 per cent)
- a midterm examination (25 per cent)
- a final examination (25 per cent)
- DISCUSSION SECTION - 1 HOUR WEEKLY - Discussion section participation (20 per cent)

GLOBAL HEALTH, AGRICULTURE, AND ECONOMIC DEVELOPMENT

Lecture Topic

Part One: Introduction and Definitions

1. Introduction: The Millennium Development Goals and impacts of global health on economic development, poverty, and deprivation in the developing and developed world
2. Links between global health, agriculture, technology, and economic development

Part Two: Global Health and the World Economy

3. Summary of the book: "Global Health: Why Cultural Perceptions, Social Representations, and Biopolitics Matter"
4. The impacts of parasites, pathogens and water-borne diseases on global health
5. Economic and social impact of HIV/AIDS, tuberculosis, and malaria
6. Child and adult malnutrition

Part Three: Foreign Aid Effectiveness

7. Factors limiting the effectiveness of foreign aid: Discussion of "The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It" by Paul Collier and why the World Bank and other aid programs have not been effective in Africa
8. Participatory process and community action in promoting bottom-up development: Summary of the writings of George Ayittey ("Africa Unchained: The Blueprint for Africa's Future" and other books)
9. Implementation of holistic approaches in the villages of Sanambele, Borko, and Zantiebougou in Mali, West Africa: New strategies to generate disease-free seed potatoes, how to improve women's shea butter cooperatives, and other means of producing income to improve health, agricultural productivity, and economy in subsistence farming communities in West Africa

10. MIDTERM EXAM

Part Four: Focus on Solutions

11. Improving neonatal and child survival in developing countries: How to reach this goal?
12. Water-borne diseases - transmission, causative agents, magnitude of the problem, and strategies for prevention
13. Insect-borne diseases - global significance and strategies for reducing rates of transmission of insect vector-borne diseases
14. The roles of technology and engineering in developing solutions to global poverty
15. Global impact of bio-fuels on human welfare and the environment
16. Application of science and engineering to enhance crop-based food production systems

Part Five: Health and Agriculture as Drivers for Economic Development

17. Agricultural development, malnutrition and poverty alleviation
18. Health as an engine of development and growth
19. What lessons can Africa learn from Asia?

20. CLASS FIELD TRIP

21. FINAL EXAM

DISCUSSION SECTION (20 points total, 1 hour per week)

Teaching Assistant will lead Discussion Section Analyses of Readings

“Focus Point” one-page succinct papers on announced topic due every other Friday

Gates Foundation 2-page Grant Proposal due at the end of the quarter

Student PowerPoint Presentations on topics each student has selected...may also use posters and/or other visual aids

READING LIST/FILMS

Students will discuss reading materials in class discussion sections and each student will make a PowerPoint presentation on reading assignments to their peers in the discussion sections.

Readings will be selected from the following materials:

CULTURE, HEALTH, AND POVERTY:

- Nichter, M. 2008. *Global Health: Why Cultural Perceptions, Social Representations, and Biopolitics Matter*. University of Arizona Press. Tucson, Arizona.
- Kassindja, F. 1998. *Do They Hear You When You Cry?* Delta Trade Paperbacks.
- Mortenson, G., and Relin, D.O. 2007. *Three Cups of Tea*. Penguin Books.

Murray, A.F. 2008. *From Outrage to Courage: Women Taking Action for Health and Justice*. Common Courage Press.

Kidder, T. 2003. *Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, A Man Who Would Cure the World*. Random House Trade Paperbacks.

Gender in Mali. Downloadable publication.

Household Energy in Mali. Downloadable publication.

POVERTY AND ECONOMIC DEVELOPMENT:

Collier, Paul. 2007. *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It*. Oxford University Press.

Sachs, Jeffrey D. 2005. *The End of Poverty: Economic Possibilities for Our Time*. Penguin Press, New York.

Sachs, J. 2008. *Common Wealth Economics for a Crowded Planet*. Penguin Books.

Easterly, William. 2006. *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good*. Penguin Press, London.

Calderisi, Robert. 2006. *Trouble with Africa: Why Foreign Aid Isn't Working*. Palgrave, Macmillan.

Ayittey, George. 2005. *Africa Unchained: The Blueprint for Africa's Future*. Palgrave, Macmillan.

Theroux, P. 2003. *Dark Star Safari: Overland from Cairo to Cape Town*. Mariner Books.

Polak, P. 2008. *Out of Poverty: What Works When Traditional Approaches Fail*. Berret-Koehler Publishers, Inc.

GLOBAL HEALTH:

Students will read papers featured on listserv Malaria World and also follow weekly developments at the World Bank, World Health Organization, US State Department, Centers for Disease Control, and Gates Foundation.

Barry, J.M. 2004. *The Great Influenza*. Penguin Books.

Hotez, P.J. 2008. *Forgotten People, Forgotten Diseases*. American Society of Microbiology Press.

Feachem, R.G.A., Targett, G.A., and Targett, G.A. 2009. *Shrinking the Malaria Map: A Prospectus on Malaria limination*. University of California-San Francisco Press.

Sherman, I.W. 2009. *The Elusive Malaria Vaccine*. American Society of Microbiology Press.

Sherman, I.W. 2006. *The Power of Plagues*. American Society of Microbiology Press.

WHO. 2006. *World Health Report 2007*. WHO, Geneva. (available for download at http://www.who.int/whr/2007/whr07_en.pdf)

Reports from the website of the USAID (Agency for International Development) www.usaid.gov on HIV/AIDS and other topics

Students will visit the website of the Commission of Macroeconomics and Health (WHO) website to obtain reports on health and development for several countries in Asia, Africa and Latin America. These reports are available at their website: <http://www.who.int/macrohealth/en/>

BBC Discovery Film: "Eaten Alive: Parasites and Their Human Hosts."

Kidder, T. 2003. *Mountains Beyond Mountains: The Quest of Dr. Paul Farmer*.

Poole, R. M. 2007. The Ethiopia campaign. *Smithsonian Magazine*. June 2007. Pp. 86-96.

Glausiusz, J. 2007. To DDT or not: Can a maligned pesticide save lives? *Discover Magazine*. September 2007.

Greg W Fegan, Abdisalan M Noor, Willis S Akhwale, Simon Cousens and Robert W Snow, Effect of expanded insecticide-treated bednet coverage on child survival in rural Kenya: a longitudinal study. *The Lancet*, Volume 370, Issue 9592, 22 September 2007-28 September 2007, Pages 1035-1039

Roberts, L. 2007. Battling over bed nets. *Science* 318: 556-559.

- Enserink, M. 2007. Malaria treatment: ACT two. *Science* 318: 560-563.
- Catteruccia, F. 2007. Malaria vector control in the third millennium: progress and perspectives of molecular approaches. *Pest Management Science* 63: 634-40.
- Sommerfeld, J., and Oduola, A.M. 2007. Health-related biotechnologies for infectious disease control in Africa: Ethical, Legal and Social Implications (ELSI) of transfer and development. *African Journal of Medical Science* 36: Suppl: 1-5.
- Mfutso-Bengo, J.M. and Muula, A.S. 2007. Potential benefits and harm of biotechnology in developing countries: the ethics and social dimensions. *African Journal of Medical Science* 36: Suppl. 63-67.
- Maier, R. M., I. L. Pepper, and C. P. Gerba. 2000. *Environmental Microbiology*. Academic Press Inc.
- Mara, D. and H. Nigel. 2003. *The Handbook of Water and Wastewater Microbiology*. Academic Press Inc.
- Percival, S. L., M. Embrey, P. Hunter, R. Chalmers, J. Sellwood, and P. Wyn-Jones. 2004. *Microbiology of Waterborne Diseases*. Academic Press Inc.
- UNICEF. 2006. *The State of the World's Children 2007*. UNICEF House, New York. (Available for download at <http://www.unicef.org/sowc07/docs/sowc07.pdf>)
- Andy Haines, David Sanders, Uta Lehmann, Alexander K Rowe, Joy E Lawn, Steve Jan, Damian G Walker and Zulfiqar Bhutta, Achieving child survival goals: potential contribution of community health workers. *The Lancet*, Volume 369, Issue 9579, 23 June 2007-29 June 2007, Pages 2121-2131
- Bloom, D. and Canning, D. "The Health and Wealth of Nations." *Science*, vol. 287, Feb. 18, 2000.

Journal papers are shown below. Note that all of these are available in electronic format from <http://www.jstor.org>, to which we have free access at UCR.

- A. K. Sen, "Ingredients of Famine Analysis: Availability and Entitlements," *Quarterly Journal of Economics* 96(3), 1981: 433- 464.
- Simon Szreter, "Economic Growth, Disruption, Deprivation, Disease, and Death: On the Importance of the Politics of Public Health for Development," *Population and Development Review*, Vol. 23, No. 4. (Dec., 1997), pp. 693-728.
- Norman Weatherby, Charles Nam and Larry Isaac, "Development, Inequality, Health Care, and Mortality at the Older Ages: A Cross-National Analysis," *Demography*, Vol 20, No 1, February 1983.
- Samuel H. Preston, "The Changing Relation between Mortality and Level of Economic Development," *Population Studies*, Vol. 29, No. 2. (Jul., 1975), pp. 231-248.
- T. Paul Schultz, "Health and Schooling Investments in Africa," *The Journal of Economic Perspectives*, Vol. 13, No. 3 (Summer, 1999), pp. 67-88.
- Ian M. Timæus; Momodou Jasseh, "Adult Mortality in Sub-Saharan Africa: Evidence from Demographic and Health Surveys," *Demography*, Vol. 41, No. 4 (Nov., 2004), pp. 757-772
- Brian Goesling; Glenn Firebaugh, "The Trend in International Health Inequality," *Population and Development Review*, Vol. 30, No. 1 (Mar., 2004), pp. 131-146

AGRICULTURE:

- National Geographic Magazine Special Issue: Where Food Begins. September 2008.
- Science Magazine Special Issue: Food Security. 12 February 2010.
- World Bank Publication: Gender and Agriculture. 2008.
- USAID Publication. Addressing Water Challenges in the Developing World. 2008.
- CIGAR Annual Report 2008. Global Recommitment to Agriculture.
- CIGAR News Special Issue. Climate Change. October 2009.
- Royal Society Publication. Reaping the Benefits: Science and the Sustainable Intensification of Global Agriculture. October 2008.

- Weber, K. (Editor) 2009. Food, Inc.: How Industrial Food is Making Us Sicker, Fatter, and Poorer - And What You Can Do About It. Public Affairs-Persus Books Group
- Hawkes, C. and Ruel, M. 2006. The links between agriculture and health: an intersectoral opportunity to improve the health and livelihoods of the poor. *Bulletin of the World Health Organization* 84: 984-990.
- Paarlberg, R. 2008. *Starved for Science: How Biotechnology is Being Kept Out of Africa*. Harvard University Press.
- Hawkes, C., Ruel, M., and Babu, S. 2007. Agriculture and health: overview, themes, and moving forward. *Food Nutr. Bull.* 28:S221-226.
- Borlaug, Norman 2007. Editorial: Feeding a hungry world. *Science* 318: 359.
- Charles, Dan. 2002. *Lords of the Harvest: Biotech, Big Money, and the Future of Food*. NOVA/Frontline Video: "Harvest of Fear".
- Reports from the Pew Initiative on Food and Biotechnology (available online).
- Aerni, P. 2007. Agricultural biotechnology and its contribution to the global knowledge economy. *Advances in Biochemical Engineering/Biotechnology* 107: 69-96.
- Borlaug, Norman. 2004. International agricultural research. *Science* 2303:1137-1138.
- Rathinam, X., Kota, R., and Thiyagar, N. 2005. Farmers and formulations-rural health respective. *Medical Journal of Malaysia* 60: 118-124.
- Kaile, M. 2005. Weather patterns, food security and humanitarian response in sub-Saharan Africa. *Philosophical Transactions of the Royal Society London Series B Biological Sciences* 360: 2169-2182.
- Verdin, J., Funk, C., Senay, G., and Choularton, R. 2005. Climate science and famine early warning. *Philosophical Transactions of the Royal Society London. Series B Biological Sciences* 60-: 2155-2168.