

Richard D. Rheingans

Environmental and Global Health
Center for African Studies
University of Florida
College of Public Health and Health Professions
University of Florida
Box 100188
101 S. Newell Dr, Suite 2150A
Tel: +1 352 294-5110

e-mail: rrheing@ufl.edu

Education

Yale School of Forestry and Environmental Studies

Doctor of Forestry and Environmental Studies, May 1996; September 1992 - May 1996

Yale University

Master of Arts in International Relations, May 1992; September 1990 - May 1992

Yale University

Bachelor of Arts in Political Science, May 1987; September 1983 - May 1987

Positions

Associate Professor, Department of Environmental and Global Health and Center for African Studies, University of Florida, July 2010-present

Impact Director, SHARE Research Consortium, London School of Hygiene and Tropical Medicine, London, UK; July 2011-present

Visiting Researcher, London School of Hygiene and Tropical Medicine, London, UK; May 2008-present

Associate Professor, Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA; September 2007-2010

Research Assistant Professor, Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA; March 2000-September 2007

Director, Global Environmental Health Program, Rollins School of Public Health, Emory University, Atlanta, GA; March 2001-2006

Acting Director, Center for Global Safe Water, School of Public Health, Emory University, Atlanta, GA; Jan 2004-June 2005

Health Economist, Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry, Atlanta, GA; March 1998-March 2000

Post-doctoral Fellow in Prevention Effectiveness, Centers for Disease Control and Prevention / Agency for Toxic Substances and Disease Registry, Atlanta, GA; July 1996-March 1998

Research

Research Interests

My research focuses on the economics of infectious diseases and environmental health hazards in developing countries, with an emphasis on diarrheal disease and its prevention. My applied research on water and sanitation focuses on three areas: 1) alternative strategies for delivering point of use water treatment, 2) the causes and effects of disparities in access to water and sanitation, and 3) identifying practical and sustainable strategies that can effectively reach large numbers of people. In 2006 we began a multi-year project to assess the effectiveness, sustainability and scalability of school-based water, sanitation and hygiene interventions in Kenya. This project will serve as a platform for develop multi-disciplinary research with local and international researchers on topics including household decision making regarding water and sanitation, ecology of water and sanitation related pathogens, disease transmission dynamics, and strategies for improving sustainability and equity of interventions and policies. Additional related applied research projects include studies of the mechanism for disparities in peri-urban water and sanitation; multi-country studies of disparities in access to socially marketed health products; and studies of the psychosocial impact of inadequate water and sanitation. My research also explores the impact and cost-effectiveness of vaccination for rotavirus diarrhea, focusing on the effect of disparities.

Published Articles

1. **Rheingans R**, Anderson JD, Luyendijk R, Cumming O. (In Press) Measuring disparities in sanitation access: Does the measure matter? Submitted to Tropical Medicine and International Health.
2. Verguet S, Murphy S, Anderson B, Johansson KA, Glass R, **Rheingans R**. (In press) Public finance of rotavirus vaccination in India and Ethiopia: an extended cost-effectiveness analysis. Vaccine.
3. Freeman MC, Clasen T, Brooker S, Akoko D, **Rheingans RD**. (In press) The impact of a school-based hygiene, water treatment, and sanitation intervention on reinfection with soil transmitted helminths in western Kenya: a cluster-randomized trial. American Journal of Tropical Medicine and Hygiene.
4. Vandermeer K, Dreibelbis R, Okoko DA, **Rheingans R**. (In press) Pot chlorination of shallow wells in a peri-urban community in Kenya: An effectiveness trial, Journal of Water, Sanitation and Hygiene for Sustainable Development.
5. Garn JV, Greene LE, Dreibelbis R, Saboori S, **Rheingans R**, Freeman M. (In press) A cluster-randomized trial assessing the impact of school water, sanitation, and hygiene improvements on pupil enrollment and gender parity in enrollment, Journal of Water, Sanitation and Hygiene for Sustainable Development.
6. Alexander K, Dreibelbis R, Freeman MC, Ojeny B, **Rheingans R**. (In press) Improving service delivery of water, sanitation, and hygiene in primary schools: a cluster-randomized trial in western Kenya, Journal of Water and Health.
7. Dreibelbis R, Freeman MC, Greene LE, Saboori S, **Rheingans R**. (In press) The impact of school-based water, sanitation, and hygiene improvements on diarrhea and clinic visits

- among young siblings of school-going children: results from a cluster-randomized trial. *American Journal of Public Health*.
8. Saboori S, Greene L, Moe CL, Freeman MC, Caruso BA, Akoko D and **Rheingans RD**. (In Press) Impact of regular soap provision to primary schools on hand washing and *E. coli* hand contamination among pupils in Nyanza Province, Kenya: A cluster-randomized trial. *American Journal of Tropical Medicine and Hygiene*.
 9. Freeman MC, Clasen T, Dreibelbis R, Saboori S, Greene LE, Brumback B, Muga R, **Rheingans R**. 2013. The impact of a school-based water supply and treatment, hygiene, and sanitation programme on pupil diarrhoea: A cluster-randomized trial. *Epidemiology and Infection*, available on CJO2013. doi:10.1017/S0950268813001118.
 10. Dreibelbis R, Greene LE, Freeman MC, Saboori S, Chase, R, **Rheingans R**. 2013. Water, sanitation, and primary school attendance: a multi-level assessment of determinants of household-reported absence in Kenya. *International Journal of Educational Development* 33:1.
 11. **Rheingans R**, Kukla M, Faruque ASG, Sur D, Zaidi A, Nasrin D, Farag T, Levine MM, Kotloff KL. 2012. Determinants of household costs associated childhood diarrhea in three South Asian settings. *Clinical Infectious Diseases* 55:S4: S317-326.
 12. **Rheingans R**, Kukla M, Adegbola R, Alonso P, Saha D, Sow SO, Nasrin D, Farag T, Levine MM, Kotloff KL. Exploring household economic impacts of childhood diarrheal illnesses in three African settings. *Clinical Infectious Diseases* 55:S4: S327-336.
 13. Greene L, Saboori S, Freeman M, Dreibelbis R, Caruso B and **Rheingans R**. 2012. Impact of school water, sanitation intervention on fecal hand contamination in western Kenya. *Am J Trop Med Hyg* 87(3):385-93.
 14. **Rheingans RD**, Anderson, JD and Atherly, D. 2012. Distributional impact of rotavirus vaccination in GAVI-eligible countries: Estimating disparities in benefits and cost-effectiveness. *Vaccine* 30(Supp1): pp. A15-A23.
 15. Atherly D, Parashar U, Tate J and **Rheingans, RD**. 2012. Projected health and economic impact of rotavirus vaccination in GAVI-eligible countries. *Vaccine* 30(Supp1): pp. A7-A14.
 16. Stevenson EGJ, Greene LE, Maes KC, Ambelu A, Tesfaye YA, **Rheingans RD** and Hadley C. Water insecurity in 3 dimensions: An anthropological perspective on water and women's psychosocial distress in Ethiopia. 2012. *Social Science & Medicine* 75(2012) pp. 392-400
 17. Freeman MC, Greene LE, Dreibelbis R, Saboori S, Muga R, Brumback B and **Rheingans RD**. 2012. A cluster-randomized trial assessing the impact of a school-based water treatment, hygiene program, and sanitation program on pupil absence in Nyanza Province, Kenya. *Tropical Medicine and International Health* 17(3) pp. 380-391.
 18. McMahon SA, Caruso BA, Obure AF, Okumu F and **Rheingans RD**. 2011. Anal cleansing practices and fecal contamination: a preliminary investigation of behaviors and conditions in schools in rural Nyanza province, Kenya. *Trop Med Int Health*. 2011 Sep 12. doi: 10.1111/j.1365-3156.2011.02879 pp.1536-1540
 19. McMahon SA, Winch PJ, Caruso BA, Obure AF, Ogutu EA, Ochari IA and **Rheingans RD**. 2011. The girl with her period is the one to hang her head' Reflections on menstrual management among schoolgirls in rural Kenya. *BMC Int Health Hum Rights*. 16;11 (1): 7.
 20. Saboori S, Mwaki A, Porter SE, Okech B, Freeman MC and **Rheingans RD**. 2011. Sustaining School Hand Washing and Water Treatment Programs: Lessons Learned and to be Learned. *Waterlines*. pp.298-311
 21. Smith ER, Rowlinson EE, Iniguez V, Etienne K, Rivera R, Mamani N, **Rheingans R** and

- Leon JS. 2011. Cost-effectiveness of rotavirus vaccination in Bolivia from the state perspective. *Vaccine*. pp 6704-6711
22. Saboori S, Mwaki A and **Rheingans RD**. 2010. Is Soapy water a viable solution for hand washing in schools? *Waterlines*, 29(4), pp. 329-336.
 23. Freeman MC, Quick R, Abbott D, Ogutu P and **Rheingans RD**. 2010. Increasing equity of access to point-of-use water treatment products through social marketing and entrepreneurship: A case study in Western Kenya. *Journal of Water and Health*. 7(3): pp. 527-534.
 24. **Rheingans RD**, Antil L, Dreibelbis R, Podewils LJ, Bresee JS and Parashar UD. 2009. Economic Costs of Rotavirus Gastroenteritis and Cost-Effectiveness of Vaccination in Developing Countries. *Journal of Infectious Diseases*;200: pp. S16–S27
 25. Atherly D, Dreibelbis R, Parashar UD, Levin C, Wecker J and **Rheingans RD**. 2009. Rotavirus Vaccination: Cost-Effectiveness and Impact on Child Mortality in Developing Countries. *Journal of Infectious Diseases*; 200: pp. S28–S38
 26. Tate JE, **Rheingans RD**, O'Reilly CE, Obonyo B, Burton DC, Tornheim JA, Adazu K, Jaron P, Ochieng B, Kerin T, Calhoun L, Hamel M, Laserson K, Breiman RF, Feikin DR, Mintz ED and Widdowson M. 2009. Rotavirus Disease Burden and Impact and Cost-Effectiveness of a Rotavirus Vaccination Program in Kenya. *Journal of Infectious Diseases*;200: pp. S76–S84
 27. Flem ET, Latipov R, Nurmatov ZS, Xue Y, Kasymbekova KT and **Rheingans RD**. 2009. Costs of Diarrheal Disease and the Cost-Effectiveness of a Rotavirus Vaccination Program in Kyrgyzstan. *Journal of Infectious Diseases* 2009;200: pp. S195–S202
 28. Constenla D, Velázquez FR, **Rheingans RD**, Antil L and Cervantes Y. 2009. Economic impact of a rotavirus vaccination program in Mexico. *Rev Panam Salud Publica*. 25(6): pp. 481-490.
 29. Constenla D, Linhares A, **Rheingans RD**, Antil L, Waldman EA and da Silva LJ. 2008. Economic impact of a rotavirus vaccine in Brazil. *J Health Popul Nutr*. 26(4): pp. 388-396.
 30. Constenla D, Ortega-Barría E, **Rheingans RD**, Antil L and Sáez-Llorens X. 2008. Impacto económico de la vacuna antirrotavirus en Panamá. *An Pediatr (Barc)*. 2008;68(2): pp.128-135.
 31. **Rheingans RD**, Constenla D, Antil L, Innis BL and Breuer T. 2007. Economic and Health Burden of Rotavirus Gastroenteritis in Latin America. *J Pan Am Health Org*, 21(4): pp. 192-204.
 32. **Rheingans RD**, Constenla D, Antil L, Innis BL and Breuer T. 2007. Cost-effectiveness of Vaccination for Rotavirus Gastroenteritis in Latin America. *J Pan Am Health Org*, 21(4): pp. 205-216.
 33. Goldman AS, Guisinger VH, Aikins M, Amarillo ML, Belizario VY, Garshong B, Gyapong J, Kabali C, Kamal HA, Kanjilal S, Kyelem D, Lizardo J, Malecela M, Mubyazi G, Nitiéma PA, Ramzy RM, Streit TG, Wallace A, Brady MA, **Rheingans R**, Ottesen EA, Haddix AC. 2007. National mass drug administration costs for lymphatic filariasis elimination. *PLoS Negl Trop Dis*. 2007 Oct 31;1(1):e67.
 34. Constenla D, Pérez-Schael I, **Rheingans RD**, Antil L, Salas H and Yarzabal JP. 2006. Evaluación del impacto económico y del costo-efectividad de la vacuna anti-rotavirus en Venezuela. *Rev Panam Salud Publica*, 20(4): pp. 213-222.
 35. Constenla D, Rivera M, **Rheingans RD**, Antil L and Vásquez ML. 2006. Evaluación económica de una eventual incorporación de la vacuna anti-rotavirus en el calendario de vacunación infantil

- en Honduras. *Rev Med Hond*, 74(1): pp. 19-28.
36. Isakbaeva ET, Musabaev E, Antil L, **Rheingans RD**, Juraev R, Glass RI and Bresee JS 2006. Rotavirus disease in Uzbekistan: Cost-effectiveness of a new vaccine. *Vaccine*, 25(2): pp. 373-380.
 37. Constenla D, O'Ryan M, Navarrete MS, Antil L and **Rheingans R**. 2006. Evaluación de costo-efectividad de la vacuna anti-rotavirus en Chile. *Revista Médica de Chile*, 134(6): pp. 679-688.
 38. **Rheingans RD**. 2006. Economic evaluation of rotavirus vaccination in Europe: What makes sense? *Journal of Pediatric Infectious Diseases*, 25(1S): pp. S48-S55.
 39. Moe C and **Rheingans RD**. 2006. Global challenges in water, sanitation and health. *Journal of Water and Health*, 4(S): pp. 41-57.
 40. **Rheingans RD**, Dreibelbis R and Freeman M. 2006. Beyond the Millennium Development Goals: Public Health Challenges in Water and Sanitation. *Global Public Health*, 1(1): pp. 31-48.
 41. Fischer T,K, Anh DD, Antil L, Cat NDL, Kilgore PE, Thiem VD, **Rheingans RD**, Tho LH, Glass RI and Bresee JS. 2005. Health Care Costs of Diarrheal Disease and Estimates of the Cost-Effectiveness of Rotavirus Vaccination in Vietnam. *Journal of Infectious Disease*, pp. 192: 1720-1726.
 42. Walker D and **Rheingans RD**. 2005. Cost-effectiveness of rotavirus vaccines. *Expert Review of Pharmacoeconomics and Outcomes Research*, 5(5): pp. 593-601.
 43. Beau de Rochars M, Kanjilal S, Direny A, Radday J, Lafontant J, Mathieu E, **Rheingans RD**, Haddix A, Streit T, Beach M, Addiss D and Lammie P. 2005. The Leogane, Haiti Demonstration Project: Decreased microfilaremia and program costs after three years of mass drug administration. *American Journal of Tropical Medicine and Health*, 73(5): pp. 888-894.
 44. Podewils LJ, Antil L, Hummelman E, Bresee J, Parashar UD and **Rheingans RD**. 2005. Projected cost-effectiveness of rotavirus vaccination of children in Asia. *Journal of Infectious Diseases*, 192(51): pp. S133-S45.
 45. **Rheingans RD**, Haddix AC, Messonnier ML, Meltzer M, Mayard G and Addiss DG. 2004. Willingness to pay for prevention and treatment of lymphatic filariasis in Leogane, Haiti. *Filarial Journal*, 3(2): pp. 1-11.
 46. Addiss DG, **Rheingans RD**, Twum-Danso NAY and Richards FO. 2003. A framework for decision-making for mass distribution of Mectizan in areas endemic for Loa loa. *Filarial Journal*, 2(S9): pp. 1-11.
 47. Haggard J, **Rheingans RD**, Arroyo P and Alvarado B. 2003. Benefits and costs of intercropping reforestation in the Atlantic lowlands of Costa Rica. *New Forests*, 25(1): pp. 41-48.
 48. McLaughlin SI, Radday J, Michel MC, Addiss DG, Beach MJ, Lammie PJ, Lammie J, **Rheingans RD** and LaFontant J. 2003. Frequency, severity, and costs of adverse reactions following mass treatment for lymphatic filariasis using Diethylcarbamazine and Albendazole in Leogane, Haiti, 2000. *American Journal of Tropical Medicine and Hygiene*, 68: pp. 568-573.
 49. Montagnini F, Gonzalez E, **Rheingans RD** and Porras C. 1995. Mixed and pure forest plantations in the humid neotropics: a comparison of growth, production and pest damage. *Commonwealth Forestry Review*. 74: pp. 306-314.
 50. Guariguata MR, **Rheingans RD** and Montagnini F. 1995. Patterns of understory woody invasion in plantations of native tree species in lowland Costa Rica: implications for restoration. *Restoration Ecology*. 3: pp. 252-260.

Publications Under Review

1. **Rheingans R**, Anderson J, Anderson B, Chakraborty P. Modeling the effects of disparities in health risk and intervention access in low-income countries: A simulation experiment and empirical example. Submitted to *Journal of Epidemiology & Community Health*.
2. Orenstein EW, Orenstein LAV, Diarra K, Djiteye M, Sidibe D, Haideara FC, Doubia M, Diallo , Coulibaly F, Teguede I, Tapia M, Sow SO, Levine MM, **Rheingans R**. Under What Conditions would Maternal Influenza Immunization Prove Cost-Effective in Low-Income Countries? A Decision Analysis. Submitted to *Vaccine*.
3. Brumback B, He Z, Prasa M, Freeman M, **Rheingans R**. Using structural nested models to estimate the effect of cluster-level adherence on individual-level outcomes with a three-armed cluster-randomized trial. Submitted to *Statistics in Medicine*.
4. **Rheingans R**, Anderson J, Showalter J, Pazos C. Impact of disparities on the potential health impact of rotavirus vaccination in Nigeria: Results of an individual-based risk model. Submitted to *PLOS One*
5. Mason L, Nyothach E, Alexander KT, Odhiambo FO, Eleveld A Vulture J, **Rheingans R**, Laserson KF, Mohammed A, Phillips-Howard PA. 'We keep it secret so no one should know' - A qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural western Kenya. Submitted to *PLoS One*.

Refereed Proceedings

1. Haggard J, **Rheingans R**, Arroyo P, and Alvarado B. 1999. Integrating biological, economic and farmer evaluation of plantation intercropping in Costa Rica. In Multi-strata agroforestry systems with perennial crops. Proceedings of the International Symposium (CATIE, Turrialba, Costa Rica, February 22-27, 1999). Jiménez F, Beer J (Eds), Turrialba: CATIE, pp. 247-250.
2. Haggard J, Alvarado B and **Rheingans RD**. 1996. Proyecto Agroforestal Sarapiquí. In Memoria. Taller Nacional sobre Especies Forestales Nativas, Calvo J, Haggard J, and Arroyo P (Eds), Estación Biológica La Selva, Puerto Viejo, Sarapiquí, Costa Rica, November 2-3, 1995, Cartago: Instituto Tecnológico de Costa Rica, pp. 61-62.
3. Montagnini F, Gonzalez E, Porras C, **Rheingans RD** and Sancho F. 1994. Mixed-tree plantations in the humid tropics: Growth, litterfall and economics of experimental systems in Latin America. In IUFRO International Symposium on Growth and Yield of Tropical Forests. Fuchu, Tokyo Japan, September 26 - October 1, 1994, Tokyo: Tokyo University of Agriculture and Technology, pp.125-135.

Book Chapters

1. **Rheingans R**. 2005. Energy production, in Environmental Health: From local to global, Frumkin H (Ed), Josey Bass Publishers: San Francisco, pp. 362-86.
2. **Rheingans R**. 2003. Computer software for prevention effectiveness analysis, in Prevention Effectiveness, Haddix A, Teutsch S, Corso P (Eds), Oxford University Press: Oxford, pp. 214-16.

Dissertation

Rheingans, R. 1996. The ecological, economic and political effects of plantation intercropping on small farm forestry in the Atlantic lowlands of Costa Rica, Yale School of Forestry and

Environmental Studies, New Haven, CT.

Selected Talks and Lectures

1. **Rheingans R.** Impact and cost-effectiveness of rotavirus vaccination in India, International Symposium on Rotavirus Vaccines for India, New Delhi, India. May 15, 2013.
2. **Rheingans R.** Preliminary estimates of the impact and cost-effectiveness of rotavirus vaccination in India. Bill and Melinda Gates Foundation, Seattle, WA. February 24, 2013
3. **Rheingans R.** Distributional impact of rotavirus vaccination in GAVI eligible countries: Estimating disparities in benefits and cost-effectiveness. Sabin Vaccine Institute; 10th International Rotavirus Symposium, Bangkok, Thailand, September 2012.
4. **Rheingans R.** Really reaching the poor: disparities and distributional impacts of vaccines and other child health and development interventions, University of Washington, Department of Global Health, Seattle, WA, May 13, 2012.
5. **Rheingans R.** Impacts of improving sanitation for the poorest households. Sanitation and Water for All High Level Meeting, Pan American Health Organization, Washington, DC, April 19, 2012.
6. **Rheingans R,** Anderson J, Showalter J, Cumming O. Towards smarter sanitation: Exploring inequities in risk and impact. World Bank, Jan 24, 2012.
7. **Rheingans R,** Anderson J, Showalter J, Cumming O. Towards smarter sanitation: Exploring inequities in risk and impact. Bill and Melinda Gates Foundation, Jan 24, 2012.
8. **Rheingans R,** Anderson J, Showalter J, Cumming O. Towards smarter sanitation: Exploring inequities in risk and impact. UNICEF, Jan 23, 2012.
9. **Rheingans R,** Anderson J, Showalter J. Really reaching the poor: disparities and distributional impacts of vaccines and other child health and development interventions. UNICEF, Jan 23, 2012.
10. **Rheingans R,** Anderson J, Showalter J, Cumming O. Towards smarter sanitation: Exploring inequities in risk and impact. USAID, Jan 22, 2012.
11. **Rheingans R.** Measuring the impact of school water, sanitation and hygiene: the SWASH+ experience, Getting School Wash Right. Hosted by CARE International, Atlanta, GA, December 6, 2011.
12. **Rheingans R,** Anderson J, Showalter J. Really Reaching the Poor: Disparities and Distributional Impacts of Vaccines and Other Child Health and Development Interventions. Bill and Melinda Gates Foundation, Dec 1, 2011.
13. **Rheingans R.** Measuring immunization coverage and tracking progress, Vaccine Advocacy Partners Meeting sponsored by Bill and Melinda Gates Foundation, Nov 22, 2011.
14. **Rheingans R.** Heterogeneity in trial data: learning from difference, International Conference on Water and Health, University of North Carolina, Oct 31, 2011.
15. **Rheingans R.** Sanitation and Neglected Tropical Diseases: Rediscovering the link. International Society of Infectious Diseases – NTD Conference, July 31, 2011.
16. **Rheingans R.** What it takes to keep schools safe: Lessons from an innovative five year water, sanitation, and hygiene program in Kenya, Johns Hopkins University, School for Advanced International Studies, April 11, 2011.
17. **Rheingans R.** Water, women and development: Water scarcity and psychosocial stress in Ethiopia, Emory University, Atlanta, GA, April 4, 2011.
18. **Rheingans R,** Brumback B. Impact of school-based water sanitation and hygiene in Kenya:

- Randomized trial results. University of California Berkeley, Mar 31, 2011.
19. **Rheingans R**, Improving sanitation impact and equity through applied research, Stockholm World Water Week, Stockholm, Sweden, September 8, 2010.
 20. **Rheingans, R.** 2008. Disparities in use of household water treatment in Madagascar: Do markets work? London School of Hygiene and Tropical Medicine, London, UK, April 30, 2008.
 21. **Rheingans, R.** 2008. Evaluating water, sanitation and hygiene interventions: What you don't know can't hurt you, right? CORE Group Spring Meeting, Atlanta, GA, April 17, 2008.
 22. **Rheingans, R.** 2008. Evaluating impacts or evaluating for impact: School WASH in Kenya. IRC Round Table on Impact Evaluation of Governance Improvements in the Water and Sanitation Sector, Delft, The Netherlands, May 13-14, 2008
 23. **Rheingans, R.** 2007. Impact of delays in immunization timing and disparities in access on the effect and cost-effectiveness of rotavirus vaccination. International Health Economics Association Congress, Copenhagen, Denmark, July 8-11, 2007.
 24. **Rheingans, R.** 2007. Disparities in access – implications for vaccine cost-effectiveness. Fourth International Conference on Vaccines for Enteric Diseases. Lisbon, Portugal, April 27, 2007.
 25. **Rheingans, R.** 2007. Access to safe water – issues of rights and disparities. World Law Institute Conference. Atlanta, GA, March 30, 2007.
 26. **Rheingans, R.** 2006. Cost-effectiveness and vaccine introduction. Presented at PRO-VAC Workshop On Economic Analysis For Decision Making On Vaccine Introduction, Immunization Unit, PAHO. Washington, DC, Sept 5-8, 2006.
 27. **Rheingans, R.** 2006. Cost-effectiveness of rotavirus vaccines. Presented at Meeting on Economic Burden of Rotavirus Disease and Cost-effectiveness of Rotavirus Vaccination. World Health Organization, Geneva, Switzerland, March 23-24, 2006.
 28. **Rheingans, R.** 2005. Global water challenges and solutions. Presented at Bioneers Conference, Atlanta, Georgia, October 2005.
 29. **Rheingans, R.** 2005. Water and health: A global perspective. Presented at National Wildlife Federation Forum on Water, Atlanta, Georgia, April 2005.
 30. **Rheingans, R.** 2005. Water and foreign policy challenges. Presented at Great Decisions Lecture Series, Roswell, Georgia, March 2005.
 31. **Rheingans, R.** 2004. Equity, water and health, Presented at Green Lunch Seminar, Emory University, Atlanta, GA, September 20, 2004.
 32. **Rheingans, R.** 2004. Equity, water and health. Presented at Environmental Engineering Seminar, Georgia Institute of Technology, Atlanta, GA, September 15, 2004.
 33. **Rheingans, R.** 2004. Healthcare costs of rotavirus diarrhea and cost-effectiveness of vaccination in Latin America and the Caribbean. TAG Meeting, Pan-American Health Organization, Mexico City, November 5, 2004.
 34. **Rheingans, R.** 2004. Economic burden of rotavirus gastroenteritis and the cost-effectiveness of vaccination in Latin America: affordability and value. Presented at International Congress of Paediatrics, August 15- 20, 2004, Cancun, Mexico.
 35. **Rheingans, R.** 2004. Economic burden of rotavirus gastroenteritis and the cost-effectiveness of vaccination in Latin America. The 3rd International Conference on Vaccines for Enteric Diseases, April 28-30, 2004, Montego Bay, Jamaica.
 36. **Rheingans, R.,** Constenla, D. 2004. Policy implications of economic burden of rotavirus gastroenteritis and the cost-effectiveness of vaccination in Latin America” Sixth International

- Rotavirus Symposium, Mexico City, Mexico, July 8, 2004.
37. **Rheingans, R.** 2003. Estimating the cost of rotavirus gastroenteritis in Asia. Annual Meeting of the Rotavirus Surveillance Network, November 2003, Manila, The Philippines.
 38. **Rheingans, R.** 2003. Economics of rotavirus diarrhea in Latin America. Regional Meeting on Implementation of Rotavirus Surveillance, September 4-5, 2003, Lima-Peru.
 39. **Rheingans, R.** 2003. Methods for assessing cost rotavirus diarrhea and the cost-effectiveness of vaccination” Asia Rotavirus Surveillance Network, Hong Kong, March 2003.
 40. **Rheingans, R.** 2002. Economics: A new policy driver for rotavirus. World Congress of Pediatric Infectious Diseases, Santiago, Chile. November 2002.
 41. **Rheingans, R.** 2002. Cost of rotavirus diarrhea and the cost-effectiveness of vaccination in Asia. Asia Rotavirus Surveillance Network, Bangkok Thailand, March 2002.
 42. **Rheingans, R.** 2001. Using decision analysis to assess vaccine safety. Presented at National Research Council, Institute of Medicine, Washington, D.C., January 11, 2001.

Externally Funded Research:

Principal Investigator: Richard Rheingans
Title of Project: SHARE: Sanitation and Hygiene Applied Research for Equity
Funding Agency: UK Department for International Development (DfID); London School of Hygiene and Tropical Medicine (LSHTM)
Period: 2010-2015

Principal Investigator: Richard Rheingans
Title of Project: Impact And Cost-Effectiveness Of Rotavirus Vaccination In India
Funding Agency: PATH / Bill and Melinda Gates Foundation
Period: 2013 - 2014

Principal Investigator: Richard Rheingans
Title of Project: Formative Research on Menstrual Hygiene Management in Bihar, India
Funding Agency: UK Department for International Development (DfID); London School of Hygiene and Tropical Medicine (LSHTM)
Period: 2013-2014

Principal Investigator: Richard Rheingans
Title of Project: Measuring Disparities In Sanitation Related Exposures And Risks
Funding Agency: UK Department for International Development (DfID); London School of Hygiene and Tropical Medicine (LSHTM)
Period: 2012-2013

Principal Investigator: Babbete Brumback

Title of Project: Adjusting for Unmeasured Confounding due to Clusters in Complex Survey Design
Funding Agency: National Science Foundation
Period: 2011-2013

Principal Investigator: Richard Rheingans
Title of Project: Assessing Disparities in Immunization Access and Benefits: Identifying Opportunities for Improving Impact and Value for Money
Funding Agency: Bill and Melinda Gates Foundation
Period: 2011-2012

Principal Investigator: Richard Rheingans
Title of Project: Sustaining and Scaling School Water, Sanitation, and Hygiene Plus Community Impact (SWASH+)
Funding Agency: CARE, Bill and Melinda Gates Foundation
Period: 2006-2012

Principal Investigator: Richard Rheingans
Title of Project: Impact and cost-effectiveness of rotavirus vaccination in GAVI eligible countries: Updated estimates and distributional effects.
Funding Agency: PATH
Period: 2011

Principal Investigator: Richard Rheingans
Title of Project: Disparities in Water, Sanitation and Hygiene in Peri-Urban Areas of Madagascar and Mozambique
Funding Agency: Water and Sanitation for the Urban Poor, Bill and Melinda Gates Foundation
Period: 2009-2010

Principal Investigator:
Co-Investigators: Damian Walker (Johns Hopkins University)
Title of Project: Economic Burden of Severe Diarrhea in Low-income Countries
Funding Agency: University of Maryland, Bill and Melinda Gates Foundation
Period: 2006-2010

Principal Investigator: Richard Rheingans
Title of Project: Monitoring and Evaluating School Water, Sanitation and Hygiene Interventions
Funding Agency: Global Water Challenge
Period: 2008-2010

Principal Investigator: Richard Rheingans
Title of Project: Monitoring and Evaluation of the PATH Safe Water Project in India
Funding Agency: PATH, Bill and Melinda Gates Foundation

Period: 2007-2008

Principal Investigator: Richard Rheingans

Title of Project: Plan for evaluating the impact of improved governance in water and sanitation

Funding Agency: International Reference Center for Water and Sanitation (IRC), Bill and Melinda Gates Foundation

Period: 2008

Principal Investigator: Richard Rheingans

Title of Project: MWA-CGSW Data for Decision-making Partnership

Funding Agency: Millennium Water Alliance, CARE

Period: 2008

Principal Investigator:

Title of Project: Rotary Safe Water Project Evaluation

Funding Agency: Charitable Foundation of the Atlanta Rotary Club

Period: 2005-2007

Principal Investigator:

Co-Investigators: Deborah McFarland, Lance Waller

Title of Project: Disparities in Access to Household Water Treatment in Madagascar

Funding Agency: USAID / GH TECH

Period: 2007

Principal Investigator:

Title of Project: Sustainability of Community Water Systems in Honduras

Funding Agency: Water Partners International

Period: 2006

Principal Investigator:

Title of Project: Global Economic Burden of Rotavirus Diarrhea and the Cost-Effectiveness of Vaccination

Funding Agency: PATH/Rotavirus Vaccine Program

Period: 2003-2006

Principal Investigator:

Co-Investigators: Christine Moe, Rafael Flores

Title of Project: Developing A Plan To Improve Drinking Water Access Through The Global Water Initiative Of The Coca Cola Company

Funding Agency: The Coca Cola Company

Period: 2005-2006

Principal Investigator:

Co-Investigators: Anne Haddix

Title of Project: Economic Burden of Rotavirus Diarrhea in Latin America and the

Cost-Effectiveness of Vaccination
 Funding Agency: GSK Biologicals
 Period: 2001-2005

Principal Investigator:
 Co-Investigators: Anne Haddix
 Title of Project: Economic Evaluation of LF Elimination Efforts in Haiti
 Funding Agency: University of Notre Dame, Bill and Melinda Gates Foundation
 Period: 2001-2004

Principal Investigator: Anne Haddix
 Co-Investigators:
 Title of Project: Lymphatic Filariasis Support Center at Emory
 Funding Agency: Glaxo-Smith Kline
 Period: 2000-2004

Principal Investigator:
 Co-Investigators: Anne Haddix
 Title of Project: Cost and Cost-effectiveness of Alternative Strategies for Treating MDR-TB in Peru
 Funding Agency: Parters in Health, Task Force for Child Survival, Bill and Melinda Gates Foundation
 Period: 2001-2003

Teaching

Courses taught:

- 2012- Seminar in Environmental and Global Health, University of Florida
- 2010- Health and Development I. Masters in Development Practice Program, University of Florida
- 2010- Health and Development II. Masters in Development Practice Program, University of Florida
- 2008-10 Monitoring and Evaluation of International Health Programs (GH 560), Department of Global Health, Emory University.
- 2006-7 Global Environmental and Occupational Health (EOH 501), Department of Environmental and Occupational Health, Emory University.
- 2004-6 Water and Sanitation in Developing Countries (GH590), Department of Global Health, Emory University.
- 2005 Global Environmental Health (EOH/GH 591U), Department of Global Health, Emory University.
- 2003-4 Global Environmental Health Seminar (GH590), Department of Global Health, Emory University.
- 2003-4 Environment, Health and Development (GH591/ENVS385), Department of Global Health, Department of Environmental Studies, Emory University.
- 2002-4 Environmental Health Perspectives (International) (EOH 500), Department of

- Environmental and Occupational Health, Emory University.
1998-2002 Risk Assessment (EOH 524), Department of Environmental and Occupational Health, Emory University.
2000 Environmental Health Perspectives (Domestic) (EOH 500), Department of Environmental and Occupational Health, Emory University.

Guest Lecturer

- 2010- LAS 6943: Development Theory and Practice in Latin America and Practice
2010- LAS 6940: Sustainable Development Practice
2010- AFS 6905: Conservation and Development Practice,
2010 Latin 6933: Roman Agriculture and Modern Sustainability
2010-11 Public Health Concepts
2011 Seminars in Global Health
2011 Soils and Public Health
2010- Water and Health
2001-7 Perspectives in Environmental Health (Domestic) (EOH 500), Department of Environmental and Occupational Health Emory University.
2002-7 Monitoring and Evaluation (GH 590), Department of Global Health, Emory University.
2007-9 Water and Sanitation in Developing Countries (GH590), Department of Global Health, Emory University.
2007 Introduction to Global Health, Department of Anthropology, Emory University.
2007 Science and Sound of Water, Department of Environmental Studies, Emory University.
2005 Anthropological Perspectives in Health (GH 557), Department of Global Health, Emory University.
2005 Water: Interdisciplinary Perspectives on a Vital Element, Institute for Liberal Arts, Department of Environmental Studies, Department of Philosophy, Emory University.
2005 Ecological Economics (ENVS 324), Department of Environmental Studies, Emory University.
2005 Introduction to Human and Natural Ecology (ENVS 120), Department of Environmental Studies, Emory University.
2003-4 Risk Assessment (EOH 524), Department of Environmental and Occupational Health, Emory University.
2002-4 Toxicology (IBS 538), Department of Pharmacology, Emory University.
2001-2 International Health Policy (IH 501), Department of Global Health, Emory University.
1996-7 Introduction to Human and Natural Ecology (ENVS 120), Department of Biology, Emory University.

Professional Service and Consultations

- 2007 Consultation with the World Health Organization and PATH on developing guidelines for the economic evaluation of vaccines.
- 2006 Consultation with the Pan-American Health Organization PRO-VAC Initiative on the measurement and use of economic information relating the burden of rotavirus diarrhea in Latin America and the cost-effectiveness of vaccination.
- 2006- Consultation with the Global Water Challenge to develop an evaluation and monitoring task force.
- 2006 Chaired the Global Water Challenge Kenya Working Group Meeting, Kisumu, Kenya
- 2006- Consultation with the Global Water Challenge to develop a plan and proposal for scaling up school water sanitation and hygiene programs in Kenya.
- 2006 Consultation with CARE to evaluate the sustainability of water supply interventions in Mozambique.
- 2006 Consultation with Water Partners International to assess the sustainability of their water supply interventions in Honduras.
- 2005- Consultation with the Coca-Cola Corporation to develop a strategy to expand access to safe drinking water in the communities where they work.
- 2004- Collaboration with the Atlanta Rotary’s Safe Water for Kenya Project, to provide coordination and evaluation of their project components.
- 2005-6 Reviewer of USEPA document on “Economic Burden of Water-borne Disease in the United States”.
- 2003-6 Consultation with the PATH Rotavirus ADIP to evaluate the evidence base of the economic burden of rotavirus and the cost effectiveness of vaccination in developing countries and to develop an “Investment Case” for the Global Alliance for Vaccines and Immunization (GAVI).
- 2003-5 Consultation with the Rotavirus ADIP (WHO, CDC, PATH) to develop a generic protocol and data collection instruments for the estimation of the costs of rotavirus diarrhea in developing countries. Published as “Guidelines for Estimating the Economic Burden of Diarrhoeal Disease” by World Health Organization.
- 2004 Facilitator for Safe Water Symposium, Nairobi, Kenya.
- 2003-4 Consultation to Partners in Health, Centers for Disease Control and Prevention, Task Force for Child Survival, and the Peruvian National Tuberculosis Program on estimating the cost and cost-effectiveness of alternative strategies for treating multi-drug resistant tuberculosis.
- 2002-4 Reviewer for Institute of Medicine Reports of the Immunization Safety Review Committee.
- 2002-4 Consultation, presentation, and workshop for Asia Network on Rotavirus Surveillance, on the measurement and use of economic information relating the burden of rotavirus diarrhea in Asia and the cost-effectiveness of vaccination.
- 2002-3 Consultation to Lymphatic Filariasis elimination programs in Haiti (Ministry of Health, University of Notre, Centers for Disease Control and Prevention) on estimating the cost and cost-effectiveness of alternative LF interventions.
- 2002-3 Consultation to Lymphatic Filariasis elimination programs in the Dominican Republic (Ministry of Health) on estimating the cost and cost-effectiveness of

alternative LF interventions.

1998-2001 Consultation with the US EPA on the development of a comparative risk framework for balancing microbial and disinfection byproduct risks.

1993-5 Research coordinator for Centro Agrícola Cantonal de Sarapiquí, Puerto Viejo de Sarapiquí, Costa Rica.

Publication Review

Reviewer for Lancet

Reviewer for Tropical Medicine and International Health

Reviewer for PLoS One

Reviewer for PLoS NTD

Reviewer for British Medical Journal

Reviewer for Social Science and Medicine

Reviewer for Vaccine

Reviewer for Science

Reviewer for Filaria Journal

Reviewer for American Journal of Public Health

Reviewer for American Journal of Tropical Medicine and Hygiene

Reviewer for Journal of Epidemiology

Awards and Fellowships

2012 University of Florida International Educator of the Year

2003 University Teaching Fund Award

2003 Piedmont Project Environmental Teaching Award

2002 University Teaching Fund Award

2001 Research Employee of the Year, Agency for Toxic Substances and Disease Registry.

1998 ATSDR Data Outcomes Award, Agency for Toxic Substances and Disease Registry.

1997 Special Act or Service Award, Agency for Toxic Substances and Disease Registry.

1992-6 Yale School of Forestry and Environmental Studies, Doctoral Fellowship.

1993-5 Inter-American Foundation, Doctoral Field Research Fellowship.

1993-4 Organization for Tropical Studies, Pew Charitable Trust Dissertation Research Fellowship.

1993-4 Yale Center for International and Area Studies, Hart-Rice Advanced Research Fellowship.

1993 Agrarian Studies Center at Yale, Pre-dissertation Research Grant.

1993 Yale University Latin American Studies Council, Pre-dissertation Research Grant.

1992 Agrarian Studies Center at Yale, Summer Research Grant.

1992 Yale University Latin American Studies Council, Summer Travel Research Grant.

1990-2 Yale University, Graduate Fellowship.

Special Training and Skills

Languages: Native fluency in Spanish; Basic fluency in Portuguese