# Jay P. Graham

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#### Education

*Ph.D.*, Environmental Health Sciences – Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland. 2007

M.B.A. – University of Texas at El Paso, Texas. 2002

M.P.H. – University of Texas Health Science Center, El Paso Satellite Campus, Texas. 2000

B.S., Biology - University of Arkansas, Fayetteville, Arkansas. 1994

### **Professional Experience**

Assistant Professor in Residence, University of California, Berkeley, CA. 2019-present

Research Director, Public Health Institute, Oakland, CA. 2016-2018

Professorial Lecturer, George Washington University, Washington, DC. 2016-2018

Assistant Professor and Director of the Graduate Program in Global Environmental Health, Department of Environmental and Occupational Health and Department of Global Health, Milken Institute School of Public Health, George Washington University, Washington, DC. 2011-2016

Senior Technical Advisor, University Research Co. USAID TRAction Project, Bethesda, MD. 2012-2016

*USAID Environmental Health Advisor*, Bureau for Global Health, United States Agency for International Development, Washington, DC. 2008-2011

*Post-Doctoral Fellow*, The Johns Hopkins Bloomberg School of Public Health Center for a Livable Future, Baltimore, MD. 2007-2008

*Graduate Research Assistant*, The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD. 2003-2007

**Program Manager**, The Center for Environmental Resource Management at the University of Texas at El Paso, El Paso, TX. 1999-2003

Graduate Research Assistant, The University of Texas Health Science Center, El Paso, TX. 1998-1999

Environmental Consulting Field Scientist, Entrix Inc., Houston, TX. 1994-1998

#### **Honors and Awards**

Excellence in Teaching Award – George Washington University, School of Public Health, 2013 NIH International Research Scientist Development Award, 2013-2017
American Association for the Advancement of Science Policy Fellowship, 2008-2010
Johns Hopkins University Center for a Livable Future Fellowship, 2006-2008
Johns Hopkins Community Service Award Winner, 2004
Texas Water Pollution Control Endowed Scholarship, 1999
University of Texas Health Science Center School of Public Health Traineeship, 1998-2000

#### **Current and Pending Grants**

**Awarded.** Antimicrobial resistance transmission associated with food-animal production in peri-urban communities of Quito, Ecuador (NIH NIAID R01, \$1,800,000, PI, 50% effort, 2018-2022).

**Pending.** Abundance and diversity of antimicrobial resistance genes in children exposed to small-scale poultry farming in rural Ecuador (NIH NIAID R01, \$2,490,000, Co-PI, 30% effort, 2019-2024).

#### **Grants Concluded**

2017-18	Household energy transitions and scale-up in Ecuador (PI: Graham)	NIH Implementation Science Network	\$28,500
2014-17	A Study of Enteropathogenic Bacteria Transmitted from Animals to Humans (PI: Graham)	NIH Fogarty International Center K01 (1K01TW009484)	\$680,000
2012-14	The effects of confined poultry feeding operations on discharges of antimicrobial-resistant pathogenic <i>E. coli</i> and nutrients from watersheds (co-PI: Graham)	GWU/Smithsonian Institution	\$40,000
2007	The Impact of poultry litter as fertilizer on the bacteriological quality of leafy vegetables (PI: Graham)	Johns Hopkins Center for a Livable Future	\$18,000
2005-07	Risks of Exposure to Antimicrobial Resistant Bacteria: The Role of Poultry Litter (PI: Graham)	Johns Hopkins Center for a Livable Future	\$100,000
2002	Ecological Sanitation for Low-Income, Peri-Urban Communities: An Analysis of Their Effectiveness and Safety (PI: Graham)	US EPA Environmental Research Center	\$75,000
2001	A Pilot Project to Test Low-Cost Alternative Sanitation Technologies: An Alternative to Pit Latrines (PI: Graham)	Center for Border Health Research	\$74,000
2001	Solar Water Purification Systems: Improving Health for US/Mexico Border Communities (co-PI: Graham)	Texas State Energy Conservation Office	\$125,000
2000	Environmental Health Program: A Community-based Approache to Increasing Awareness (co-PI: Graham)	Paso del Norte Health Foundation	\$61,000
1999-2000	Environmental Hazards in Peri-Urban Communities of Cd. Juarez, MX (co-PI: Graham)	US EPA	\$150,000
1999	Environmental Health Outreach Program (co-PI: Graham)	Johnson & Johnson	\$84,000

#### **Publications**

- a) Appearing in Refereed Journals (55 total; \*indicates senior authorship; †indicates student's first publication)
- **2) Graham J.P.,** Kaur M., Jeuland M., "Access to Environmental Health Assets across Wealth Strata: Evidence from 41 Low- and Middle-Income Countries" <u>PLOS ONE</u> (DOI: 10.1371/journal.pone.0207339)
  - Gould, C.F., Schlesinger, S., Toasa, A.O., Thurber, M., Waters, W.F., **J.P. Graham**, Jack, D.W., "Government policy, clean fuel access, and persistent fuel stacking in Ecuador" *Energy for Sustainable Development* (DOI: 10.1016/j.esd.2018.05.009)
  - Barrera, S. <sup>‡</sup>, **J.P. Graham**, P. Cardenas, G. Trueba, "Changes in dominant *Escherichia coli* and antimicrobial resistance after 24 hours in fecal matter" *MicrobiologyOpen* (DOI: 10.1002/mbo3.668)

- M. Hirai, Kelsey A.<sup>‡</sup>, Mattson K., Cronin A.A., Mukerji S., **J.P. Graham**\*, "Determinants of toilet ownership among rural households in six eastern districts of Indonesia" *Journal of Water, Sanitation and Hygiene for Development* (DOI: 10.2166/washdev.2018.010)
- S. Sarzosa, **J.P. Graham**, L. Salinas, G. Trueba., "Potential Zoonotic Transmission of *Giardia duodenalis* in semi-Rural Communities near Quito, Ecuador" *International Journal of Applied Research in Veterinary Medicine* 16 (1), 2018, pp. 1-6.
- **Graham, J.P.**, Eisenberg, J.N., Trueba, G., Zhang, L. and Johnson, T.J., "Small-Scale Food Animal Production and Antimicrobial Resistance: Mountain, Molehill, or Something in-between?" *Environmental Health Perspectives*, 2017, pp. 1-5. (DOI: 10.1289/EHP2116)
- Kaur, M., **J.P. Graham,** and J.N.S., Eisenberg, "Livestock Ownership among Rural Households and Child Morbidity and Mortality: An Analysis of Demographic Health Survey Data from 30 Sub-Saharan African Countries (2005–2015)." *The American Journal of Tropical Medicine and Hygiene*, 2017, pp.16-0664.
- Hirai M., Roess A., Huang C., **J.P. Graham**\*, "Exploring the link between handwashing proxy measures and child diarrhea in 25 countries in Sub-Saharan Africa: A cross-sectional study" <u>Journal of Water</u>, <u>Sanitation and Hygiene for Development</u> 7 (2), 2017, pp. 312-322.
- Rosenthal, J., Balakrishnan, K., Bruce, N., Chambers, D., **J.P. Graham**, Jack, D., Kline, L., Masera, O., Mehta, S., Mercado, I.R. and Neta, G., 2017. Implementation science to accelerate clean cooking for public health. *Environmental health perspectives*, 125(1), p.A3.
- **Graham J.P.**, M. Hirai, and S.S. Kim, "An Analysis of Water Collection Labor among Women and Children in 24 Sub-Saharan African Countries" *PLOS ONE*, 11(6), 2016, pp. 1-14.
- Hirai M., **J.P. Graham**, Mattson K., Mukerji S., Kelsey A., Cronin A.A., "Exploring determinants of handwashing with soap in Indonesia: A quantitative analysis" *International Journal of Environmental Research and Public Health*, 13(9), 2016, pp. 1-15.
- Hirai M., Roess A., Huang C., **J.P. Graham**\* "Geographic distributions of high-risk water, sanitation, and hygiene practices and their association with child diarrhea in Uganda" *Global Health Action*, 9, 2016.
- **Graham J.P.**, K. Aguas-Vasco, G. Trueba, "Hyperendemic *Campylobacter jejuni* in guinea pigs (*Cavia porcellus*) raised for food in Ecuador" *Environmental Microbiology Reports*, 8(3), 2016, pp. 382-387.
- Lowenstein C., Waters W.F., Roess A., Leibler J.H., **J.P. Graham**\*, "Animal husbandry practices and perceptions of zoonotic infectious disease risks among livestock keepers in a rural parish of Quito, Ecuador" *American Journal of Tropical Medicine and Hygiene*, 95(6), 2016, pp. 1450–1458.
- Aguas-Vasco K., **J.P. Graham**, G. Trueba, "Detection of zoonotic enteropathogens in children and domestic animals in a semi-rural community in Ecuador" <u>Applied Environmental Microbiology</u>, 82(14), 2016, pp. 4218-4224.
- Seyoum S.<sup>‡</sup>, **J. P. Graham**<sup>\*</sup>, "Equity in Access to Water Supply and Sanitation in Ethiopia: An analysis of EDHS data (2000-2011)" *Journal of Water, Sanitation and Hygiene for Development*, 6(2), 2016, pp. 320-330.
- Applebaum KM, **Graham J.P.**, Gray GM, LaPuma P, McCormick SA, Northcross A, Perry MJ. "An Overview of Occupational Risks from Climate Change" *Current Environmental Reports*, 3(1), 2016, pp. 13-22.
- Hirai, M.<sup>‡</sup>, **J.P. Graham**, and J. Sandberg, "Understanding women's decision making power and its link to improved household sanitation: The case of Kenya" *Journal of Water, Sanitation and Hygiene for Development*, 6(1), 2016, pp. 151-160.

- Deroo, L.<sup>‡</sup>, E. Walters, and **J.P. Graham**<sup>\*</sup>, "Monitoring and evaluation of WASH in schools programs: Lessons from implementing organizations" *Journal of Water, Sanitation and Hygiene for Development*, 4(2), 2015, pp. 1-10.
- Johnston, E.A., Teague, J., and **J.P. Graham**\*, "Challenges and Opportunities Associated with Neglected Tropical Disease (NTD) and Water, Sanitation and Hygiene (WASH) Intersectoral Collaboration Programs" <u>BMC Public Health</u>, 15, 2015, pp. 547-561.
- Barnes, B., J. Rosenbaum, S. Mehta, K. Williams, K. Jagoe, and **J.P. Graham**, "Behavior Change Communication: A Key Ingredient for Advancing Clean Cooking" Journal of Health Communication: International Perspectives, 20:sup, 2015, pp. 3-5
- Tobin, M.R., J.L. Goldshear, L.B. Price, **J.P. Graham**, and J.H. Leibler "Backyard poultry and infectious disease risk: A framework to reduce infectious disease risk from urban poultry in the United States" *Public Health Reports*, 130(4), 2015, pp. 380-391.
- Ahmed, L.<sup>‡</sup>, L.B. Price and **J.P. Graham**<sup>\*</sup>, "Dog park visits as a risk factor for exposure to extraintestinal pathogenic *E. coli* (ExPEC)" *BMC Research Notes*, 8(1), 2015, pp. 137-139.
- Williams, K.<sup>‡</sup>, A. Northcross, and **J.P. Graham**, "Health impacts of household energy use: Indicators of exposure to air pollution and other risks" Bulletin of the World Health Organization, 93, 2015, pp. 507-508.
- Summers, S.K.<sup>‡</sup>, Rainey, R., Kaur, M., and **J.P. Graham**\*, "CO<sub>2</sub> and H<sub>2</sub>O: Understanding different stakeholder perspectives on the use of carbon credits to finance household water treatment projects" *PLOS ONE*, 10(4), 2015, pp. 1-17.
- Mahmoudi, L.<sup>‡</sup>, J.L. Platt, and **J.P. Graham**\*, "The Integration of Water, Sanitation, and Hygiene Services into the U.S. President's Emergency Plan for AIDS Relief: A Qualitative Study" *Global Public Health*, 10(1), 2015, pp. 1-14.
- Sara, S.<sup>‡</sup> and **J.P. Graham**\*, "Ending Open Defecation in Rural Tanzania: Which Factors Facilitate Latrine Adoption?" *International Journal of Environmental Research and Public Health*, 11, 2014, pp. 9854-9870.
- Sigler, R.<sup>‡</sup>, L. Mahmoudi, and **J.P. Graham**<sup>\*</sup>, "Analysis of Behavioral Change Techniques in Community-Led Total Sanitation Programs" *Health Promotion International*, 30(1), 2014, pp. 16-28.
- Nelson, K.<sup>‡</sup>, J. Karver, C. Kullman, **J.P. Graham**\*, "User perceptions of shared sanitation among rural households in Indonesia and Bangladesh" <u>PLOS ONE</u>, 9(8), 2014, pp. 1-13.
- Teague, J., A.E. Johnston<sup>‡</sup> and **J.P. Graham**\*, "Water, sanitation, hygiene, and nutrition: Successes, challenges, and implications for integration" *International Journal of Public Health*, 59(6), 2014, pp. 913-921.
- Eagin, B.<sup>‡</sup> and **J.P. Graham**\*, "A study of water and sanitation access trends in Peru: Where do inequities persist?" *Journal of Water, Sanitation and Hygiene for Development*, 4(3), 2014, pp. 499-508.
- Quintanilla, W.<sup>‡</sup> and **J.P. Graham**<sup>\*</sup>, "Integration of WASH interventions into HIV/AIDS programs in Sub-Saharan Africa" *Waterlines*, 33(2), 2014, pp. 168-186.
- Hopewell, M.<sup>‡</sup> and **J.P. Graham**<sup>\*</sup>, "Trends in access to water supply and sanitation in 31 major sub-Saharan African cities: An analysis of DHS data from 2000 to 2012." <u>BMC Public Health</u>, 14, 2014. pp. 208.
- **Graham J.P.**, Polizzotto ML, "Pit Latrines and Their Impacts on Groundwater Quality: A Systematic Review." *Environmental Health Perspectives*, 121(5), 2013, pp. 521-530.
- Galan D.<sup>‡</sup>, S.S. Kim, and **J.P. Graham**<sup>\*</sup>, "Exploring Changes in Open Defection Prevalence in sub-Saharan Africa based on National Level Indices." *BMC Public Health*, 13, 2013, pp. 527.

- **Graham, J.P.,** Nachman, K.E., (2010). "Managing waste from confined animal feeding operations in the United States: The need for sanitary reform" *Journal of Water and Health*, 8(4), 2010, pp. 646-670.
- Silbergeld, E. Davis, M. Feingold, B. Goldberg, A. **Graham, J.P.** Leibler, J. Peterson, A. Price, L.B. "New infectious diseases and industrial food animal production." *Emerging Infectious Diseases*. 16(9), 2010, Pg. 1503
- **Graham J.P.**, S. Evans, L. Price and E. Silbergeld, "Fate of antimicrobial-resistant enterococci and staphylococci and resistance determinants in stored poultry litter" *Environmental Research*, 109(6), 2009, pp. 682-689.
- Leibler J., J. Otte, D. Roland-Holst, D. Pfeiffer, J. Rushton, **J.P. Graham**, E. Silbergeld, "Industrial Food Animal Production and Global Health Risks: Exploring the Ecosystems and Economics of Avian Influenza Export" *EcoHealth*, 6(1), 2009, pp. 58-70.
- **Graham J.P.,** L. Price, S. Evans, T. Graczyk and E. Silbergeld, "Antibiotic resistant enterococci and staphylococci isolated from flies collected near confined poultry feeding operation" <u>Science of the Total Environment</u>, 407(8), 2009, pp. 2701-10.
- **Graham J.P.,** J. Tuchmann, L. Price., J. Otte, D. Pfeiffer, T. Tiensin, and E. Silbergeld, "Animal-Human Interfaces and Industrial Food Animal Production: Rethinking Biosecurity" *Public Health Reports*, 123(3), 2008, pp. 282-299.
- Silbergeld E., **J.P. Graham**, L. Price, "Industrial Food Animal Production, Antimicrobial Resistance, and Human Health" *Annual Reviews of Public Health*, 29, 2008, pp. 151-169.
- **Graham J.P.** and E. Silbergeld, "The Cuyahoga is Still Burning" <u>Environmental Health Perspectives</u>, 116(4), 2008, pp. A150.
- Montoya, T., P. Gurian, G. Velásquez-Angulo, V. Corella-Barud, A. Rojo, and **J.P. Graham**, "Carbon Monoxide Exposure in Households in Ciudad Juárez, México" *International Journal of Hygiene and Environmental Health*, 211(1-2), 2008, pp. 40-49.
- Price L., **J.P. Graham**, L. Lackey, A. Roess, R. Vailes, and E. Silbergeld, "Elevated Risk of Carrying Gentamicin Resistant *Escherichia coli* among US Poultry Workers" *Environmental Health Perspectives*, 115(12), 2007, pp. 1738-1742.
- **Graham J.P.**, J. VanDerslice, "The effectiveness of large household storage tanks for protecting the quality of drinking water" *Journal of Water and Health*, 5(2), 2007, pp. 307-313.
- **Graham J.P.,** J. Boland, and E. Silbergeld, "Growth Promoting Antibiotics in Food Animal Production: An Economic Analysis" *Public Health Reports*, 122, 2007, pp. 79-87.
- Price L., Roess A., **J.P. Graham**, S. Baqar, R. Vailes, K. Sheikh, and E. Silbergeld, "Neurologic Symptoms and Neuropathologic Antibodies in Poultry Workers Exposed to *Campylobacter jejuni*" *Journal of Occupational and Environmental Medicine*, 49(7), 2007, pp. 748-755.
- **Graham J.P.,** V. Corella-Barud, R. Avitia and P. Gurian, "The In-Home Environment and Household Health: A Cross-Sectional Study of Informal Settlements in Northern Mexico" *International Journal of Environmental Research and Public Health*, 2(3), 2005, pp. 394-402.
- Nachman K., **J.P. Graham**, L. Price, E. Silbergeld, "Arsenic: a roadblock to potential animal waste management solutions" *Environmental Health Perspectives*, 113(9), 2005, pp. 1123-4.
- **Graham J.P.**, P. Gurian, V. Corella-Barud and R. Avitia, "Peri-Urbanization and in-home environmental health risks: The side effects of planned and unplanned growth" *International Journal of Hygiene and Environmental Health*, 207, 2004, pp. 447-454.
- Gomez J., **J.P. Graham**, "Community Participation in Dry Sanitation Projects" *Water Policy*, 6(3), 2004, pp.249-262.

**Graham J.P.,** T. Redlinger, "Evaluation of water-less sanitation for hot-arid climates" *Waterlines*, 22(2), 2003, pp. 22-24.

Redlinger T., V. Corella-Barud, **J.P. Graham** and R. Avitia, "Hyper-endemic *Cryptosporidium* and *Giardia* in Households Lacking Municipal Sewer and Water on the US/Mexico Border" <u>American</u> <u>Journal of Tropical Medicine and Hygiene</u>, 66(6), 2002, pp. 794-798.

Redlinger T., **J.P. Graham**, V. Corella-Barud and R. Avitia, "Survival of Fecal Coliforms in Dry-Composting Toilets" *Applied and Environmental Microbiology*, 67(9), 2001, pp.4036-4040

#### a) Manuscripts under review

Loayza, M.F., **J.P. Graham**, Trueba, G., "Antimicrobial resistance associated with food-animals: The role of commensal *E. coli <u>EcoHealth</u>* (under review)

#### b) Chapters in Books

Hirai, M., **J.P. Graham** (2018) *Toward Universal Access to Basic and Safely Managed Drinking Water: Remaining Challenges and New Opportunities in the Era of Sustainable Development Goals* in Water and Sanitation Related Diseases and the Changing Environment: Challenges, Interventions and Preventive Measures (J. Selendy ed.) Wiley-Blackwell, Hoboken, NJ

Jain, A., **J.P. Graham** (2018) *The Human Right to Sanitation* in Water and Sanitation Related Diseases and the Changing Environment: Challenges, Interventions and Preventive Measures (J. Selendy ed.) Wiley-Blackwell, Hoboken, NJ

Jain, A., **J.P. Graham** (2018) *Sanitation Case Studies* in Water and Sanitation Related Diseases and the Changing Environment: Challenges, Interventions and Preventive Measures (J. Selendy ed.) Wiley-Blackwell, Hoboken, NJ

**Graham J.P.** (2011) *Sanitation & Hygiene: Taking Stock after Three Decades* in Water and Sanitation Related Diseases and the Environment: Challenges, Interventions and Preventive Measures (J. Selendy ed.) Wiley-Blackwell, Hoboken, NJ

**Graham J.P.** (2011) Successful Sanitation Programs: Case Studies from Southeast Asia in Water and Sanitation Related Diseases and the Environment: Challenges, Interventions and Preventive Measures (J. Selendy ed.) Wiley-Blackwell, Hoboken, NJ

Horrigan, L., McKenzie, S., and **J.P. Graham** (2010) *Antibiotic Drug Abuse: CAFOs Are Squandering Vital Human Medicines* in The CAFO Reader: The Tragedy of Industrial Animal Factories. Edited by D. Imhoff. Foundation for Deep Ecology, Sausalito, CA

#### c) Peer-Reviewed Reports

Otte J., D. Roland-Holst, D. Pfeiffer, R. Soares-Magalhaes, J. Rushton, **J.P. Graham** and E. Silbergeld, "Industrial Livestock Production and Global Health Risks" Pro-Poor Livestock Policy Initiative Research Report, 2007 (available at: <a href="http://www.fao.org/ag/AGAinfo/projects/en/pplpi/docarc/rep-hpai-industrialisationrisks.pdf">http://www.fao.org/ag/AGAinfo/projects/en/pplpi/docarc/rep-hpai-industrialisationrisks.pdf</a>)

#### d) Non-Peer Reviewed Reports

**J.P. Graham**, "Pew Commission on Industrial Farm Animal Production titled Antibiotic Resistance and Human Health" Senate Health, Education, Labor and Pensions Committee Hearing, June 24, 2008 (available at: <a href="http://help.senate.gov/Hearings/2008\_06\_24/Graham.pdf">http://help.senate.gov/Hearings/2008\_06\_24/Graham.pdf</a>)

### **Select Scholarly Presentations (\* indicates invited speaker)**

Nov, 2017	Water and Health 2017 Conference, Chapel Hill, North Carolina	Risk factors associated with the presence of zoonotic enteric pathogens in children
Oct, 2015	American Society of Tropical Medicine and Hygiene Annual Meeting, Philadelphia, PA	The animal-human interface and transmission of zoonotic pathogens in Quito, Ecuador
May, 2015	*Global Alliance for Clean Cookstoves Symposium: Evaluating the Adoption of Clean Cooking and Its Benefits, Lima, Peru	An analysis of behavioral change frameworks and models for the adoption of clean cookstoves
March, 2015	*Colorado Water, Sanitation and Hygiene Symposium, Boulder, Colorado	Understanding the Links between Water, Sanitation And Hygiene and Child Nutrition
April, 2014	*World Urban Forum: Urban Equity in Development, Medellín, Colombia	A Study of Urban Water and Sanitation Access Trends in Low-Income Countries
October, 2013	Water and Health 2013 Conference, Chapel Hill, North Carolina	A Comparative Analysis of Behavioral Change Theory Constructs Used in Total Sanitation Programs
October, 2012	Water and Health 2012 Conference, Chapel Hill, North Carolina	The Realities of Sanitation in sub-Saharan Africa: What Technologies Are Appropriate?
December, 2009	*World Toilet Summit, Singapore	Scaling up Sanitation: The Case of Rural Thailand
October, 2008	*The 2nd Session of the Codex ad hoc Intergovernmental Task Force on Antimicrobial Resistance, Seoul, Republic of Korea	Growth Promoting Antibiotics in Food Animal Production: An Economic Analysis
April, 2007	Partnerships for Preparedness: Future directions for schools of Public Health and Colleges of veterinary Medicine, Atlanta, Georgia	Animal-Human Interfaces and Industrial Food Animal Production: Rethinking Biosecurity

### **Professional Society Membership and Leadership**

#### 1) Editorial Peer Review Activities

Review Editor for the journal *EcoHealth*: <a href="https://ecohealth.net/journal-editors/">https://ecohealth.net/journal-editors/</a>

Recent peer-reviewed journal manuscript reviews: Environmental Science and Technology, American Journal of Tropical Medicine and Hygiene, Bulletin of the World Health Organization, Environmental Research, Journal of Environmental Quality, Journal of Health and Pollution, Journal of Water and Health, Journal of Water, Sanitation and Hygiene for Development, Microbial Ecology, PLOS ONE, Science of the Total Environment, Social Science & Medicine, Zoonoses and Public Health

Invited external peer reviewer of the "Water Supply, Sanitation, and Hygiene" chapter of the Disease Control Priorities, Third Edition for the Institute of Medicine, The National Academies (March 2015)

#### 2) External Activities/Partnerships

Member of the American Society of Tropical Medicine & Hygiene and member of the ASTMH Committee on Global Health (2014-2016)

Member of One Health Academy (2014-2016)

Member of the Advisory Council of the Global Alliance Against Cholera (2013-present)

Department of Energy, Small Business Innovation Research External Reviewer (2011-2015)

Safe Water & AIDS Project USAID DIV Grant Advisor (2011-2013)

### 3) Teaching

### a) Educational Program Leadership

2011-16 Director of the Global Environmental Health track of the Milken Institute SPH Master of Public Health

#### b) Courses Taught

### Global Environmental and Occupational Health – Milken Institute School of Public Health.

Master's level course that covers the environmental burden of disease, as well as the design, implementation, monitoring and evaluation of environmental health interventions in resource poor settings (Fall, 2011, 2012, 2013, 2014, 2015)

Environmental and Occupational Health in a Sustainable World – Milken Institute School of Public Health (Taught in Bangladesh & Kenya). Master's level course in basic environmental and occupational health sciences (Spring, 2012, 2013)

Water, Sanitation and Hygiene for Health and Development – Milken Institute School of Public Health. Master's level course on the design, implementation, monitoring and evaluation of water, sanitation and hygiene programs in resource poor settings (Fall, 2012, 2013)

*Introduction to Environmental Health Sciences – Berkeley Online Master of Public Health Program.*Master's level course in environmental and occupational health sciences (Spring, 2018)

#### c) Students and Trainees (\* indicates final project was published in a peer-reviewed journal)

#### Master's Thesis Advisor

Name and Degree Awarded	Degree Track	Year of Graduation
1. Deise Galan, MPH*	Environmental Health Science & Policy	2012
2. Brynne Wilson, MPH	Environmental Health Science & Policy	2012
3. Lubna Ahmed, MPH*	Environmental Health Science & Policy	2012
4. Alicia Sherrell, MPH	Epidemiology and Biostatistics	2012
5. Kali Nelson, MPH*	Epidemiology and Biostatistics	2013
6. Kishana Williamson, MS	Epidemiology and Biostatistics	2013
7. Stephen Sara, MPH*	Global Environmental Health	2013
8. Betsy Eagin, MPH*	Global Health	2013
9. Rachel Sigler, MPH*	Global Health	2013
10. Leslie Deroo, MPH*	Global Health	2013
11. Lyana Mahmoudi, MPH*	Global Health	2013
12. Wilbert Quintanilla, MPH*	Global Environmental Health	2013
13. Mike Hopewell, MPH*	Global Environmental Health	2013
14. Amalia Benke, MPH	Global Health	2013
15. Rachel Rath, MPH	Global Health	2013
16. Ashley Kalkaral, MPH	Global Health	2014

17.	Krista Mizenko, MPH	Global Health	2014
18.	Sarah Summers, MPH*	Global Health	2014
19.	Oumarou Diallo, MPH	Prevention and Community Health	2014
20.	Tiffany Bailey, MPH	Global Health	2014
21.	Jordan Teague, MPH*	Global Environmental Health	2014
22.	Nora Wong, MPH	Environmental Health Science & Policy	2014
23.	Lauren Bailey, MPH	Global Environmental Health	2014
24.	Elizabeth Johnston, MPH	Global Health	2014
25.	Elsa Parra, MPH	Global Environmental Health	2015
26.	Selam Seyoum, MPH*	MPH	2015
27.	Andrea Kelsey, MPH	Global Environmental Health	2015
28.	Rahul Mitra, MS	Global Human Development, Georgetown	2015
29.	Linda Nguyen, MPH	Global Environmental Health	2015
30.	Karla Vasco, MS*	Microbiology, USFQ	2015
31.	Nicole Grable, MPH	Global Health	2015
32.	Andrew Jahier, MPH	Global Environmental Health	2015
33.	Andrew Jasumback, MPH	Global Environmental Health	2015
34.	Rachel Burnette, MPH	Global Health	2015
35.	Jason Lopez, MPH	Global Environmental Health	2016
36.	Yonathan Kefelegn, MPH	Global Environmental Health	2016
37.	Emily Hsu, MPH	Environmental Health Science & Policy	2016
38.	Irene Neequaye, MPH	Global Environmental Health	2016
39.	Elizabeth Manfredini, MPH	Global Environmental Health	2016
40.	Amanda Quintana, MPH	Global Environmental Health	2016
41.	Amanda Jensen, MPH	Global Environmental Health	2016
42.	Nasima Afsari, MPH	Global Environmental Health	2016
43.	Ryan Mesch, MPH	Global Environmental Health	2016
44.	Lucrece Eteki, MPH	Global Environmental Health	2017
45.	Christine Guppenberger, MPH	Global Environmental Health	2017
46.	Soledad Sarzosa, MS*	Microbiology, USFQ	2017
47.	Sofia Barrera, MS	Microbiology, USFQ	2017
48.	Liseth Salinas, MS	Microbiology, USFQ	2017

#### **Doctoral Thesis Advisor**

Name	Degree Track	y ear oi Graduation
1. Mitsuaki Hirai*	DrPH, Global Health	2016

### **Public Health Practice Portfolio**

### a) Participation on Advisory Panels

Advisory Board Member, Global Alliance Against Cholera (http://www.choleraalliance.org/)

### b) Consultations

University Research Co: Environmental Health Technical Advisor for the Translating Research to Action USAID-funded project (TRAction) (2012-Present)

Berkeley Air Monitoring Group: Expert review of Sustainable Deployment of the LifeStraw Family in Rural Kenya (2013)

## c) Testimony (Not Related to Government Service)

Testimony before the Senate Health, Education, Labor and Pensions Committee on the Emergence of the Superbug: Antimicrobial Resistance in the U.S. (June, 2008)