**RAMYA AMBIKAPATHI, MHS PhD**

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**EDUCATION**

**Johns Hopkins University** Baltimore, MD

Ph.D., Department of International Health, Program in Human Nutrition May 2017

Certificate in Public Health Economics

Dissertation: *Effects of El Niño Southern Oscillation and Seasonality on Food Prices, Dietary and Nutrient Intake: A Case Study in Iquitos, Peru*

Advisor: Prof. Laura Caulfield

National Science Foundation Water, Health, and Climate IGERT fellow, and Environment, Energy, Sustainability and Health Initiative Fellow

**Johns Hopkins University** Baltimore, MD

M.S., Department of International Health, Global Disease and Epidemiology Control May 2009

Thesis: *Community Based Health Intervention: Case Studies on community health fund and capacity building of community health workers & oversight committee in Rural Andhra Pradesh, India*

Advisor: Dr.William Pan

**University of Maryland, Baltimore County** Baltimore, MD

B.S., Environmental Science May 2007

Meyerhoff scholar and Environmental Protection Agency Greater Research Opportunity (GRO) undergraduate fellow

Advisor: Dr. Christopher Swan

**RESEARCH EXPERIENCE**

**Cornell University**

*Senior Research Associate, Department of Global Development* Ithaca, NY

 2022- present

**Purdue University** West Lafayette, IN

*Research Scientist, Department of Public Health* 2021 – 2022

*Research Fellow, Department of Public Health* 2018 – 2021

Principal Investigator for the Diet, Environment, and Choices of positive living (DECIDE study): Evaluating personal and external food environment influences on diets among PLHIV and families in Dar es Salaam, Tanzania study.

Co-investigator on Engaging Fathers for Effective Child Nutrition and Development in Tanzania (EFFECTS), cluster randomized study.

* *Developed a new tool and protocol on geo-spatial data collection on urban food environment in peri-urban Dar es Salaam.*
* *Developed a new tablet based 24-hour recall dietary intake tool to measure diets among Tanzanian adults and children, currently used by national nutrition organizations in Tanzania for dietary data collection (tool available free for research purposes).*
* *Oversee statistical analyses, data management, database testing, and quality assurance of survey data on child and parental nutritional and health outcomes.*
* *Generated automated reports on survey data, process evaluation and created geo-spatial maps of enrolled households.*
* *Conducted qualitative analysis of in-depth interviews and focus group discussions to examine factors affecting water and food insecurity in Mara, Tanzania.*
* *Mentored and trained undergraduate and graduate students on developing protocol, surveys, and codebook for qualitative analysis.*
* *Organized weekly writing and statistical analysis group.*

Collaborator on Impact of neighborhood food environments on obesity risk in coastal Ecuador (PI: Gwyneth Lee, University of Michigan Ann Arbor)

* *Provide expertise on participatory food system mapping and protocols.*
* *Contributing to the analysis and interpretation of a qualitative system dynamics model.*

Collaborator on Equitable Research Practices (ERP) in Agriculture, Nutrition, Health (Partner: London School of Tropical Medicine and Hygiene)

* *Co-design scoping review on equity issues and related solutions in research practices in ag-health-nutrition specific research.*
* *Provide oversight in the search and screening process for the systematic review on equitable research practices.*
* *Provide technical assistance for the development of the ERP working group and assist in dissemination of outputs from this working group.*
* *Aid in brainstorming blog and webinar development on this topic.*

Collaborator on Applied Nutrition Research and Capacity-Building in Laos (PI: Gerald Shively, Purdue University)

* *Provide curriculum review on graduate programs related to nutrition, public health, and food systems at University of Health Sciences and the Lao Tropical and Public Health Institute.*
* *Mentor small research grant teams on study design, data collection analyses, and dissemination of public health nutrition research.*

**Johns Hopkins University/ Food and Agriculture Organization**

*Research Consultant* 2021 – Present

* *Global estimation of employment in agriculture and agri-food system using existing household national survey datasets.*

**Harvard University** Boston, MA

*Research Fellow, Department of Global Health and Population*  Feb 2017 – 2018

* *Led analyses on three cluster randomized control trials: (1) Agriculture to Nutrition (ATONU) project in Ethiopia, and (2) Engaging Fathers For Effective Child Nutrition and Development in Tanzania (EFFECTS), (3) Home base delivery of antiretroviral therapy and nutritional interventions to increase adherence and retention to care in Tanzania.*
* *Led statistical analyses and manuscript analyzing the main outcomes of the ATONU study regarding household and community level factors affecting nutrition sensitive agriculture.*
* *Oversee data analysis of survey data on nutrition behavior and knowledge, utilization of health services, dietary diversity, market food surveys, farm profiles, and socio-economic indicators in three cluster randomized control trials in East Africa.*
* *Mentored doctoral and master’s students on longitudinal study design and statistical data analysis.*

**Management Systems International** Washington, DC

*Research Consultant, Nourish study in Cambodia*  2017

* *Conducted survey data analysis & data quality checks on baseline data collection on anthropometry, food frequency questionnaire, water and sanitation indicators, and socio economics status in the NOURISH project*

**Fogarty International Center, National Institute of Health** Baltimore, MD

*Research Analyst, Division of International Epidemiology and Population Studies* 2009 – 2017

* Nutrition research analyst on Malnutrition-Enteric Disease (MAL-ED) Global Child Health Project, eight country birth cohort study examining the impact of dietary intake and enteric infection on child growth and development.
* *Conducted longitudinal statistical analysis & quality assurance on nutritional aspects (including dietary recall, food frequency questionnaire, anthropometry) and vaccine response components of the MAL-ED eight country study.*
* *Developed protocols and questionnaires for an environmental epidemiology pilot study in Fortaleza, Brazil, and conducted site visits to India and Nepal MAL-ED sites.*
* *Analyzed and managed large data sets (~1 million observations) of nutritional surveillance for the MAL-ED project.*

**Global Obesity Prevention Center, Johns Hopkins University** Baltimore, MD

*Research Analyst* 2016

* *Conceptualized food supply models for the HERMES Agrifood project and collect data sources for evaluating food supply chains using discrete event modeling*

**Global Health Established Field Placement** Iquitos, Peru

*Research Assistant* 2013

* *Created, developed, analyzed, and validated a new food security tool for Iquitos, Peru among riparian households using mixed-methods approach.*
* *Reviewed, analyzed, and performed quality checks on 24-hour recall dietary recipes from infants enrolled in the Malnutrition-Enteric Disease birth cohort.*

**University of Venda, South Africa** Thohoyandou, South Africa

*Research Analyst* 2011 – 2012

* *Implemented quality control for nutritional surveillance and cognitive activities, trained project staff on data management and basic analysis using Stata, conducted anthropometry and edema training with field workers.*
* *Developed protocols for edema and breast milk collection and performed monthly data analysis of nutritional surveillance data.*

**Society** **for Elimination of Rural Poverty** Andhra Pradesh, India

*Research Intern, Health and Nutrition Division* 2011 – 2012

* *Developed process documentation for health & nutrition interventions in rural areas of Andhra Pradesh, developed protocol for data management of case studies, lessons learned and success stories, analyzed and published reports on two case studies on capacity building of community health workers and community-based health insurance in rural Andhra Pradesh, assisted in survey tool development and impact evaluation of the Health & Nutrition program.*
* *Developed partnerships to integrate Home Based Neonatal Care (Gadchiroli model) into Andhra Pradesh rural health care system.*

**University of Maryland, Baltimore County** Baltimore, MD

*Research Assistant, Swan Ecology Lab* 2003 – 2007

* *Conducted independent research study on the relationship between biodiversity of invasive species, and its effects on soil micro-organisms*

**Environmental Protection Agency** Corvallis, Oregon

*Research Intern, Western Ecology Division* 2006

* *Examined the phytotoxicity of carbon nanotubes on five plants species recommended by EPA for the seedling emergence test. Investigated the effects of nanotubes on key agricultural crops.*

**TEACHIING EXPERIENCE / GUEST LECTURES**

**Purdue University** West Lafayette, IN

*Guest Lecture, Department of Public health* October 2019-2021

* Guest lectures on “Climate change and public health” from 2019-2021 course on global public health.

**Johns Hopkins University** Online

*Guest Lecture, Department of Public health* April 2021

* Guest lecture on “Food System Resilience to Disasters: COVID-19, Climate Change and Beyond.”

**University of Michigan, School of Public Health** Online

*Guest Lecture, Department of Public health* October 2020

* Guest lecture on “Food systems Frameworks, Food environments, Agriculture to Nutrition interventions”.

**Harvard University** Boston, MA

*Guest Lecture, Department of Public health* August 2017

* Guest lecture on “Agriculture, Food Security and Climate Change: Conceptual framework, measurements, challenges, strategies for mitigation and adaptation”: Global Nutrition class.

**Johns Hopkins University** Baltimore, MD

*Teaching Assistant/Nutrition Epidemiology, Department of International Health* September-June 2016

* Assisted with grading and held office hours for lectures and homework.
* Teaching assistant for Spring (September 2016) and summer class (June 2016).

**Johns Hopkins University** Baltimore, MD

*Teaching Assistant/Nutrition Life Stages, Department of International Health* September 2015

* Assisted with course lectures, grading, and provided office hours.

**Johns Hopkins University** Baltimore, MD

*Teaching Assistant/Nutritional Assessments, Department of International Health* September 2015

* Assisted with course lectures, grading, and provided office hours

**PUBLICATIONS**

***In preparation***

1. **Ambikapathi R**, Kosek, M, Yori, P. P, Olortegui, M. P, Zaitchik, B, Lee, G. O, Bauck, A, & Caulfield, L. La Niña and seasonal impacts on children’s diets, nutrient intakes, and adequacies in the Peruvian Amazon. Target journal: Journal of Nutrition.
2. **Ambikapathi R**, Boncyk M, Gunaratna NS, Kanani J, Fawzi W, Leyna G, Killewo J, Kadiyala S, Patil C. Qualitative evidence synthesis of family food environment: expanding food environment framework within the context of chronic disease and nutrition -- case study of PLHIV. Target journal: Social Science Medicine
3. **Ambikapathi R,** Verissimo CK, Shively G, Froese SL, Itatiro J, Boncyk M , Mangana A, Karaithi V, Wandella M, Mwanyika-Sando M , Patil C , Leyna G, Gunaratna NS. Urban diets and the food environment: Validation of a new food purchase pattern tool with dietary intake from the DECIDE study in peri-urban Tanzania. Target journal: American Journal of Clinical Nutrition
4. Froese S, Gunaratna N, Kimenju S, **Ambikapathi R**. Food systems in Kenya: Spatial approach to identifying gaps and opportunities for optimal nutrition and health outcomes.
5. **Ambikapathi** R. Froese S, LyatuuI, Glavin L, Mosha D, Verissimo C, Jeong J, Mapundo F, Mwanyika-SandoM, Praygod.G, Kieffer M.P., Gunaratna NS. (2021) Independent and combined effects of engaging fathers and providing bundled nutrition and parenting package on knowledge and practices related to infant and child diets, water and sanitation, agriculture-market engagement outcomes: Results from EFFECTS, five arm cluster-randomized controlled trial. Target journal: Lancet Global Health.
6. Galvin L, Verissimo CK, **Ambikapathi R**, Gunaratna NS, Rudnicka P, Sunseri A, Jeong J, Yousafzai A, Froese SL, Kumalija E, Mwanyika-Sando M,Mosha D, Connolly H,Doran CE, Praygod G,Kieffer MP.Independent and combined effects of engaging fathers and bundling nutrition and parenting interventions on gender equality and women’s empowerment in Northern Tanzania: a 5-arm cluster-randomized trial. Target journal: Lancet Global Health.
7. **EFFECTS study investigators**. Effects of father engagement and a bundled parenting and nutrition package on infant and young child diets, morbidity, and nutritional status in rural Tanzania: A five-arm cluster-randomized controlled trial Target journal: Lancet Global Health.

**In review**

1. Ghosh U, Spiker M, Manohar S, Gunaratna N, Fanzo J, **Ambikapathi R**. For the people, for the planet: Role of climate safety net programs for optimal nutrition security and sustainable livelihoods. Bulletin WHO.
2. Boncyk M, **Ambikapathi** R. Mosha D, Patil C, Matangi E, Glavin L, Jeong J, Verissimo C, Froese S, Praygod.G, Kieffer M.P., Gunaratna NS. (2021) “Big Sister, Big Brother: Older Siblings’ Role in Infant and Young Child Feeding and Care in Rural Tanzania” . Public Health Nutrition.
3. Schneider K, Bellows A, Downs S, Bell W, **Ambikapathi R**, Masters W, Nordhagen S, Nugent R, Branca F, and Fanzo J. Structural inequities and constraints on access to healthy diets . Frontiers
4. Mahopo TC ; Nesamvuni CN; Nesamvuni AE; de Bruyn M; Van Niekerk J; **Ambikapathi R**. (2021) Perceptions Of Women Street Food Vendors On The Determinants Of Competitiveness Of The Street Food Enterprise In The Rural Towns Of Vhembe District, Limpopo Province. Agriculture & Food Security
5. **EFFECTS study investigators**. (2021). Engaging Fathers for Effective Child Nutrition and Development in Tanzania (EFFECTS): Study protocol for a five-arm, cluster-randomized trial. BMC Trials

***Peer-Reviewed Publications***

1. Hawkes, C., **Ambikapathi, R**., Anastasiou, K., Brock, J., Castronuovo, L., Fallon, N., ... & Zorbas, C. (2022). From food price crisis to an equitable food system. *The Lancet*.
2. **Ambikapathi R,** Schneider K, Davis B, Herrero M, Winters P, Fanzo J. Global food systems transitions have enabled affordable diets but had less favourable outcomes for nutrition, environmental health, inclusion and equity. Nat Food 3, 764–779 (2022).
3. Boncyk M, Shemdoe A, **Ambikapathi R**, Mosha D, Froese SL, Verissimo CK, Mwanyika-Sando M, Killewo J, Leyna G, Gunaratna NS, Patil CL (2022). "Exploring drivers of food choice among PLHIV and their families in a peri-urban Dar es Salaam, Tanzania." BMC Public Health.
4. Mahopo TC ; Nesamvuni CN; Nesamvuni AE; de Bruyn M; Van Niekerk J; **Ambikapathi R**. (2021) Operational Characteristics of Women Street Food Vendors in Rural South Africa. Frontiers in Public Health
5. Passarelli A; Abdelmenan S; Tewahido D; Mulugeta Y; Abreham H; **Ambikapathi R;** Gunaratna NS; Berhane Y; Fawzi W. (2022) Nutrition-sensitive chicken production in Ethiopia: a qualitative evaluation " Agriculture and Human values.
6. **Ambikapathi** R, IremaI, LyatuuI, CaswellB, Mosha D, Nyamsangia S, KumalijaE, Galvin L, MangaraA, Boncyk M, Froese S, Edwards C, KazondaP, Fawzi W, KillewoK, Mwanyika-SandoM, Leyna G, PatilC, Gunaratna N. (2022). “Gender and age differences in meal structures, food away from home, chrono-nutrition, and nutrition intakes among adults and children in Tanzania using newly developed tablet-based 24-hour recall tool.” Current Developments in Nutrition.
7. Lai A, Velez I, **Ambikapathi** R, Seng K, Cumming O, Brown J. Risk factors for early childhood growth faltering in rural Cambodia". (2022) BMJ Global Health.
8. **Ambikapathi** R, Shively G, Leyna G, Mosha D, Mangana A, Patil C, Boncyk M, Froese S, Edwards C, Kazonda P, Killewo J, Mwanyika-Sando M, and Gunaratna NS. (2021) “Informal food environment is associated with household vegetable purchase patterns and dietary intake in the DECIDE study: Empirical evidence from food vendor mapping in peri-urban Dar es Salaam, Tanzania.” Global Food Security
9. Passarelli, S., **Ambikapathi, R**., Gunaratna, N. S., Madzorera, I., Canavan, C. R., Noor, R. A., ... & Fawzi, W. (2021). The role of chicken management practices in children’s exposure to environmental contamination: a mixed-methods analysis. *BMC public health*, *21*(1), 1-15.
10. Richard, S.A., McCormick, B.J., Murray‐Kolb, L.E., Patil, C.L., Chandyo, R.K., Mahopo, C., Maciel, B.L., Bose, A., Mahfuz, M., **Ambikapathi, R.** and Olortegui, M.P., (2021). Characteristics associated with the transition to partial breastfeeding prior to 6 months of age: Data from seven sites in a birth cohort study. *Maternal & Child Nutrition*, p.e13166.
11. **Ambikapathi**, R., Kosek, M., Yori, P. P., Olortegui, M. P., Zaitchik, B., Lee, G. O., Bauck, A., & Caulfield, L. (2020). 2011-2012 La Niña weather impacts dietary patterns and dietary diversity among children in the Peruvian Amazon. Public Health Nutrition, 1-11. doi:10.1017/S1368980020003705
12. **Ambikapathi, R**., Passarelli, S., Madzorera, I., Canavan, C. R., Noor, R. A., Abdelmenan, S., ... & Munthali, B. (2020). Men's nutrition knowledge is important for women's and children's nutrition in Ethiopia. *Maternal & Child Nutrition*, e13062.
13. Passarelli, S., **Ambikapathi, R**., Gunaratna, N. S., Madzorera, I., Canavan, C. R., Noor, A. R., ... & Munthali, B. (2020). A chicken production intervention and additional nutrition behavior change component increased child growth in Ethiopia: a cluster-randomized trial. *The Journal of Nutrition*.
14. Antiporta, D. A., **Ambikapathi, R.,** Bose, A., Maciel, B., Mahopo, T. C., Patil, C., ... & McCormick, B. J. J. (2020). Micronutrient intake and the probability of nutrient adequacy among children 9–24 months of age: results from the MAL-ED birth cohort study. *Public Health Nutrition*, 1-11.
15. Maciel, B. L., Costa, P. N., José Filho, Q., Ribeiro, S. A., Rodrigues, F. A., Soares, A. M., **Ambikapathi, R**.,... & Ahmed, T. (2020). Higher Energy and Zinc Intakes from Complementary Feeding Are Associated with Decreased Risk of Undernutrition in Children from South America, Africa, and Asia. *The Journal of Nutrition*.
16. Costa, P. N., Soares, A. M., Junior, F. S**., Ambikapathi, R**., McQuade, E. R., Guerrant, R. L., ... & Maciel, B. L. L. (2020). Dietary intake from complementary feeding is associated with intestinal barrier function and environmental enteropathy in Brazilian children from the MAL-ED cohort study. *British Journal of Nutrition*, *123*(9), 1003-1012.
17. **Ambikapathi, R.,** Gunaratna, N. S., Madzorera, I., Passarelli, S., Canavan, C. R., Noor, R. A., ... & Berhane, Y. (2019). Market food diversity mitigates the effect of environment on women’s dietary diversity in the Agriculture to Nutrition (ATONU) study, Ethiopia. *Public health nutrition*, *22*(11), 2110-2119.
18. McCormick, B. J., Murray-Kolb, L. E., Lee, G. O., Schulze, K. J., Ross, A. C., Bauck, A., ... & **Ambikapathi, R**. (2019). Intestinal permeability and inflammation mediate the association between nutrient density of complementary foods and biochemical measures of micronutrient status in young children: results from the MAL-ED study. *The American Journal of Clinical Nutrition*, *110*(4), 1015-1025.
19. **Ambikapathi, R.**, Rothstein, J. D., Yori, P. P., Olortegui, M. P., Lee, G., Kosek, M. N., & Caulfield, L. E. (2018). Food purchase patterns indicative of household food access insecurity, children’s dietary diversity and intake, and nutritional status using a newly developed and validated tool in the Peruvian Amazon. *Food security*, *10*(4), 999-1011.
20. Hanselman, B., **Ambikapathi. R.,** Mduma, E., Svensen, E., Caulfield, L.E., Patil, C. (2017). Associations of Land, Cattle and Food Security with Infant Feeding Practices among a rural population living in Manyara, Tanzania. BMC nutrition
21. **Ambikapathi**, R., Kosek, M. N., Lee, G. O., Mahopo, C., Patil, C. L., Maciel, B. L., Turab, A., Islam, M. M., Ulak, M., Bose, A., et al. (2016). How multiple episodes of exclusive breastfeeding impact estimates of exclusive breastfeeding duration: report from the eight-site MAL-ED birth cohort study. *Maternal & Child Nutrition*, *12*(4), 740–756. <http://doi.org/10.1111/mcn.12352>
22. Kelley, C., & **Ambikapathi**, R. (2016). Litter-Free Baltimore. Litter-Free Baltimore: A trash collection policy framework based on spatial analysis and social media. Abell Award in Urban Policy
23. Applegate, J. A., Fischer Walker, C. L., **Ambikapathi**, R., & Black, R. E. (2013a). Systematic review of probiotics for the treatment of community-acquired acute diarrhea in children. *BMC Public Health*, *13 Suppl 3*, S16. <http://doi.org/10.1186/1471-2458-13-S3-S16>
24. Cañas, J. E., Long, M., Nations, S., Vadan, R., Dai, L., Luo, M., **Ambikapathi**, R., Lee, E. H., & Olszyk, D. (2008b). Effects of functionalized and nonfunctionalized single‐walled carbon nanotubes on root elongation of select crop species. *Environmental Toxicology and Chemistry*, *27*(9), 1922–1931.
25. Caulfield, L. E., Bose, A., Chandyo, R. K., Nesamvuni, C., de Moraes, M. L., Turab, A., Patil, C., Mahfuz, M., **Ambikapathi**, R., & Ahmed, T. (2014b). Infant feeding practices, dietary adequacy, and micronutrient status measures in the MAL-ED study. *Clinical Infectious Diseases*, *59 Suppl 4*, S248–54. <http://doi.org/10.1093/cid/ciu421>
26. Colston, J. M., Peñataro Yori, P., Colantuoni, E., Moulton, L. H., **Ambikapathi**, R., Lee, G., et al. (2017a). A methodologic framework for modeling and assessing biomarkers of environmental enteropathy as predictors of growth in infants: an example from a Peruvian birth cohort. *American Journal of Clinical Nutrition*, *106*(1), 245–255. <http://doi.org/10.3945/ajcn.116.151886>
27. Haidari, L. A., Brown, S. T., Ferguson, M., Bancroft, E., Spiker, M., Wilcox, A., Ambikapathi, R., Sampath, V., Connor, D. L., & Lee, B. Y. (2016b). The economic and operational value of using drones to transport vaccines. *Vaccine*, *34*(34), 4062–4067. <http://doi.org/10.1016/j.vaccine.2016.06.022>
28. Hoest, C., Seidman, J. C., Pan, W., **Ambikapathi**, R., Kang, G., Kosek, M., Knobler, S., Mason, C. J., & Miller, M. (2014a). Evaluating associations between vaccine response and malnutrition, gut function, and enteric infections in the MAL-ED cohort study: methods and challenges. *Clinical Infectious Diseases*, *59*(suppl\_4), S273–S279.
29. Lee, G. O., McCormick, B. J. J., Seidman, J. C., Kosek, M. N., Haque, R., Olortegui, M. P., Lima, A. A. M., Bhutta, Z. A., Kang, G., **Ambikapathi**, R Samie, A., et al. (2017a). Infant Nutritional Status, Feeding Practices, Enteropathogen Exposure, Socioeconomic Status, and Illness Are Associated with Gut Barrier Function As Assessed by the Lactulose Mannitol Test in the MAL-ED Birth Cohort. *The American Journal of Tropical Medicine and Hygiene*, *97*(1), 281–290. <http://doi.org/10.4269/ajtmh.16-0830>
30. Lee, G., Olortegui, M. P., Rengifo, S., **Ambikapathi**, R., Yori, P. P., Kosek, M., & Caulfield, L. E. (n.d.). Infant feeding practices from 0-6 months in the Peruvian Amazon: Implications for programs to improve infant and young child feeding.
31. Mushaphi, L. F., Mahopo, T. C., Nesamvuni, C. N., Baloyi, B., Mashau, E., **Ambikapathi**, R., Richardson, J., et al. (2017). Recommendations for Infant Feeding Policy and Programs in Dzimauli Region, South Africa: Results From the MAL-ED Birth Cohort. *Food and Nutrition Bulletin*, 0379572117696662.
32. Patil, C. L., Turab, A., **Ambikapathi**, R., Nesamvuni, C., Chandyo, R. K., Bose, A., Islam, M. M., Ahmed, A. M. S., Olortegui, M. P., de Moraes, M. L., et al. (2015a). Early interruption of exclusive breastfeeding: results from the eight-country MAL-ED study. *Journal of Health Population and Nutrition*, *34*, 10. <http://doi.org/10.1186/s41043-015-0004-2>
33. Wimp, G. M., Murphy, S. M., Lewis, D., Douglas, M. R., **Ambikapathi**, R., Van-Tull, L., et al. (2013b). Predator hunting mode influences patterns of prey use from grazing and epigeic food webs. *Oecologia*, *171*(2), 505–515. <http://doi.org/10.1007/s00442-012-2435-4>

MAL-ED CONSORTIUM PUBLICATIONS

1. Pendergast, L. L., Scharf, R. J., Rasmussen, Z. A., Seidman, J. C., Schaefer, B. A., Svensen, E., et al. (2014). Postpartum depressive symptoms across time and place: structural invariance of the Self-Reporting Questionnaire among women from the international, multi-site MAL-ED study. *Journal of Affective Disorders*, *167*, 178–186. <http://doi.org/10.1016/j.jad.2014.05.039>
2. Platts-Mills, J. A., Babji, S., Bodhidatta, L., Gratz, J., Haque, R., Havt, A., et al. (2015). Pathogen-specific burdens of community diarrhoea in developing countries: a multisite birth cohort study (MAL-ED). *The Lancet Global Health*, *3*(9), e564–75. [http://doi.org/10.1016/S2214-109X(15)00151-5](http://doi.org/10.1016/S2214-109X%2815%2900151-5)
3. Platts-Mills, J. A., McCormick, B. J. J., Kosek, M., Pan, W. K., Checkley, W., & Houpt, E. R. (2014). Methods of analysis of enteropathogen infection in the MAL-ED Cohort Study. *Clinical Infectious Diseases*, *59 Suppl 4*, S233–8. <http://doi.org/10.1093/cid/ciu408>
4. Richard, S. A., Barrett, L. J., Guerrant, R. L., Checkley, W., & Miller, M. A. (2014a). Disease surveillance methods used in the 8-site MAL-ED cohort study. *Clinical Infectious Diseases*, *59 Suppl 4*, S220–4. <http://doi.org/10.1093/cid/ciu435>
5. Rouhani, S., Peñataro Yori, P., Paredes Olortegui, M., Siguas Salas, M., Rengifo Trigoso, D., Mondal, D., Bodhidatta, L., Platts-Mills, J., Samie, A., Kabir, F., et al. (2016b). Norovirus Infection and Acquired Immunity in 8 Countries: Results From the MAL-ED Study. *Clinical Infectious Diseases*, *62*(10), 1210–1217. <http://doi.org/10.1093/cid/ciw072>
6. The MAL-ED study: a multinational and multidisciplinary approach to understand the relationship between enteric pathogens, malnutrition, gut physiology, physical growth, cognitive development, and immune responses in infants and children up to 2 years of age in resource-poor environments. (2014). The MAL-ED study: a multinational and multidisciplinary approach to understand the relationship between enteric pathogens, malnutrition, gut physiology, physical growth, cognitive development, and immune responses in infants and children up to 2 years of age in resource-poor environments. *Clinical Infectious Diseases*, *59 Suppl 4*, S193–206. <http://doi.org/10.1093/cid/ciu653>
7. Murray-Kolb, L. E., Rasmussen, Z. A., Scharf, R. J., Rasheed, M. A., Svensen, E., Seidman, J. C., et al. (2014). The MAL-ED cohort study: methods and lessons learned when assessing early child development and caregiving mediators in infants and young children in 8 low- and middle-income countries. *Clinical Infectious Diseases*, *59 Suppl 4*, S261–72. <http://doi.org/10.1093/cid/ciu437>
8. Houpt, E., Gratz, J., Kosek, M., Zaidi, A. K. M., Qureshi, S., Kang, G., et al. (2014). Microbiologic methods utilized in the MAL-ED cohort study. *Clinical Infectious Diseases*, *59 Suppl 4*, S225–32. <http://doi.org/10.1093/cid/ciu413>
9. Kosek, M., Guerrant, R. L., Kang, G., Bhutta, Z., Yori, P. P., Gratz, J., et al. (2014). Assessment of environmental enteropathy in the MAL-ED cohort study: theoretical and analytic framework. *Clinical Infectious Diseases*, *59 Suppl 4*, S239–47. <http://doi.org/10.1093/cid/ciu457>
10. Amour, C., Gratz, J., Mduma, E., Svensen, E., Rogawski, E. T., McGrath, M., Seidman, J. C., McCormick, B. J. J., Shrestha, S., Samie, A., et al. (2016a). Epidemiology and Impact of Campylobacter Infection in Children in 8 Low-Resource Settings: Results From the MAL-ED Study. *Clinical Infectious Diseases*, *63*(9), 1171–1179. http://doi.org/10.1093/cid/ciw542

**MENTORSHIP**

**Doctoral students (6)**

* Savannah Froese “Market Food Diversity and Access Drive Household Food Purchase Patterns and Diets in Rural Tanzania: The EFFECTS Study”. Purdue University.
* Cristiana Edwards. “Child food environment in Tanzania”. Purdue University.
* Simone Passarelli “Are Livestock Missing the Mark for Nutrition in Low-Income Settings? A Mixed-Methods approach in Ethiopia?” Harvard Chan.
* Isabel Madzorera “Women’s empowerment is associated with dietary diversity in Ethiopia”, Agriculture for Nutrition and Health conference. Kathmandu Nepal. Harvard Chan.
* Abdallah Noor “Household determinants of Anemia in rural Ethiopia”. Harvard Chan.
* Cloupas Mahopo “Dietary diversity and nutrient intake in Limpopo, South Africa”. University of Venda, South Africa.

**Masters’ students**

* Morgan Boncyk. “‘What he likes depends on what is available’: Food Choices of PLHIV in Peri-Urban Tanzania”. Purdue University.
* Dalia AboAlsafa. “Mental health and food security among PLHIV in the DECIDE study”. Purdue University.
* CheKenna Fletcher. “Food security among graduate students in Purdue University”. Purdue University

**Doctoral Thesis Committee as an external examiner**

* Cloupas Mahopo “Development of an Agricultural Food Enterprise Model in Rural Towns in Limpopo, South Africa”. University of the Free State, South Africa. (2021-current)

**RELEVANT COURSEWORK**

Epidemiology methods series, Biostatistics series, Time Series Analysis, Longitudinal Data Analysis, Geo-Spatial Statistics, Econometrics, Economic Evaluation, Psychosocial Statistics, Nutrition Epidemiology, International Nutrition, International Health, Nutrition & Life Stages, Assessment of Nutritional Status, Present and Future Climate, Geography of Health and Disease, Cultural Ecology, Field Ecology, Geography of Economic Development, and Biogeography.

**EDITORIAL DUTIES**

Reviewer: *Journal of Nutrition (2014-present)*

Reviewer: *Public Health Nutrition* (2016-present)

Reviewer: *American Journal of Clinical Nutrition (2020-prsent)*

Reviewer: *Maternal Child and Nutrition (2017-present)*

Reviewer*: Global Food Security (2020-present)*

Reviewer: *Ecology of Food and Nutrition (2014-present)*

Reviewer: *Food Security (2017-present)*

**LANGUAGES**

English—Fluency, both written and oral

Tamil—Fluency, both written and oral

Spanish —Basic

**SKILLS**

Software: Stata, R, MAXQDA, Nvivo, Geoda, and QGIS

**PROFESSIONAL AFFILIATIONS**

Agriculture, Nutrition, Health Academy 2017-Present

American Society of Nutrition 2012- 2021

Ecological Society of America 2005-2007

**NATIONALITIES**

United States of America, and

Overseas citizen of India

**SELECTED PRESENTATIONS**

1. **Ambikapathi R,** Shively G, Leyna G, Mosha D, Mangana A, Patil C, Boncyk M, Froese S, Edwards C, Kazonda P, Killewo J, Mwanyika-Sando M, and Gunaratna NS**.** (2021) Within-day and between-day variation in urban food environments in Dar es Salaam, Tanzania: Results from the DECIDE study . Poster presentation at the Agriculture, Nutrition and Health (2021).
2. **Ambikapathi** R, Shively G, Leyna G, Mosha D, Mangana A, Patil C, Boncyk M, Froese S, Edwards C, Kazonda P, Killewo J, Mwanyika-Sando M, and Gunaratna NS. (2020) “How does the food environment influence household food purchase patterns and nutritional status? Empirical evidence from food vendor mapping in peri-urban Dar es Salaam, Tanzania.” Oral presentation at the Agriculture, Nutrition and Health (2020).
3. **Ambikapathi**, R., Irema, I., Lyatuu, I., Mosha, D., Nyamsangi, S., Kajuna, D., Kumalija, E., Galvin, L., Caswell, B., Kazonda, P., Leyna, G., Killewo, J., Patil, Crystal., Mwanyika-Sando, M., Gunaratna, N. (2019). “Development and feasibility of tablet-based 24-hour recall for dietary intake and recipe collection among adults and children in Tanzania”. American Society of Nutrition (2019).
4. **Ambikapathi**, R., Galvin, L., Jeong, J., Boncyk, M., Sultan, R., Mosha, D., Kajuna, Deus., Kumalija, Elfrida., Kieffer, M.P., Mwanyika-Sando, M., Yosafzai, A., Gunaratna, N.(2019). “Nexus of Food, Gender, and Agriculture: Social and Structural Barriers to Optimal Nutrition from the EFFECTS Trial, Mara, Tanzania”. Agriculture, Nutrition, Health (2019).
5. **Ambikapathi R.** Webinar on "Diet, Environment, and Choices of Positive Living (DECIDE Study) : Evaluating Personal and External Food Environment influences on Diets among PLHIV and Families in Dar Es Salaam, Tanzania" (2019).
6. **Ambikapathi**, R., Madzorera, I., Passarelli, S., Canavan, Chelsey., Noor, A., Madzivhandila, T., Sibanda, S., Abdelmenan, S., Worku, A., Berhane, Y., Sibanda, L.M., Fawzi W and Gunaratna, N.. “Fathers’ nutrition knowledge is associated with household’s, women’s, and child’s dietary diversity in the Agriculture to Nutrition Study in Ethiopia.” Agriculture, Nutrition, Health (2018).

**INVITED TALKS**

Invited virtual talk for Nutrition Society of India, Chennai Chapter on “Climate change on health and nutrition”. Women’s Christian College (Chennai, India). 2021

Invited virtual talk for joint global health and nutrition on “Evaluation of food choice, diets, and food environment in urban East African settings: Results from the DECIDE study”. Milken Institute School of Public Health George Washington University (Washington DC, USA). 2021

Invited virtual talk for Annual Nutrition week seminar on “COVID-19 Impacts on Food system” November 2020. Universidade Federal do Rio Grande do Norte (Natal, Brazil). 2021

Invited virtual talk for 2nd Scientific Exhibition of the Graduate Program in Nutrition on “COVID-19 Impacts on Food system” September 2020. Women’s Christian College (Chennai, India). 2020

Invited talk for a nutrition seminar “Evaluation of food choice, diets, and food environment in urban East African settings: Results from the DECIDE study” January 2020. Johns Hopkins, Bloomberg School of Public Health. (Baltimore, Maryland, USA). 2021

Invited talk on “Evaluation of food choice, diets, and food environment in urban East African settings: study results from the DECIDE study” November 2019. Tanzania Food and Nutrition Center (Dar es Salaam, Tanzania). 2019

**HONORS & AWARDS**

National Institute of Health, Student Loan Repayment Program (NIDDK - $51,096). 2021-2023

First place in GAIN and JHU’s Food system Dashboard competition evaluating, and ranking countries adaptive capacity of countries affected by El Nino Southern Oscillation ($1000). 2020

Best poster at the 3rd Agriculture, Nutrition & Health (ANH) Academy Week this summer in Accra, Ghana on “Fathers’ nutrition knowledge is associated with household’s, women’s, and child’s dietary diversity in the Agriculture to Nutrition Study in Ethiopia.” 2018

Finalist for Emerging Leaders in Nutrition Science Poster Competition at American Society of Nutrition, Chicago. 2017

Abell Award in Urban Policy for Baltimore City – “Litter-Free Baltimore: A trash collection policy framework based on spatial analysis and social media” ($5000). 2016

Environment, Energy, Sustainability and Health Initiative Fellow ($25,000). 2015-2016

Finalist for Emerging Leaders in Nutrition Science Poster Competition at American Society of Nutrition, Boston “Mixed methods approach to characterize longitudinal food insecurity and coping strategies in the Peruvian Amazon.” 2015

Richard Hall Award, Department of International Health, Johns Hopkins University. 2015-2017

National Science Foundation Integrated Graduate Research Experience Fellow: Water, Climate, Health Fellowship for Graduate Training. Johns Hopkins University. 2013-2015

Nutritional Epidemiology Poster competition award – 1st place at Experimental Biology, San Diego "High-resolution longitudinal analysis to evaluate the timing, duration and dynamics of exclusive breastfeeding in the Peruvian Amazon.” 2014

Harry J. Prebluda Fellowship in Nutritional Biochemistry, Department of International Health, Johns Hopkins University. 2014

Travel Award to Experimental Biology, Department of International Health, Johns Hopkins University. 2014

Global health grant recipient for established field placement in Peru, Department of International Health, Johns Hopkins University 2013

Meyerhoff Scholar, nationally recognized program that produces largest number of underrepresented minorities in STEM program, University of Maryland, Baltimore County. 2003-2007

Environmental Protection Agency undergraduate Greater Research Opportunity fellow, University of Maryland, Baltimore County ($40,000). 2005-2007

Research Experience for Undergraduate 2005

Second place in Future Farmers of America, Maryland State Dairy Foods contest. 2002

**GRANTS**

**Co-Pi, Indiana Latino Farmworker Youth: Labor Demands, Basic Needs, Resources, and Opportunities** *Total costs: $50,000. (2022-2023)*

In the United States, youth as young as ten years old can be employed as agricultural labor in the US, and these children and youth face a substantially elevated risk of injuries, heat stress, pesticide exposure, psychological stress, and educational deprivation. The situation is nuanced by the fact that many young farmworkers are migrant and seasonal Latino migrant farmworkers [LFW youth], who are often not represented in statistics and are more vulnerable, given mobility and marginalization. Recently, investigators from Purdue University have embarked on a longitudinal cohort study exploring how family context, given migration and other vulnerabilities, affects LFW youth's mental and physical health. However, the effects of workplace factors (farm-level characteristics and labor demands) and access to community-level resources (which support adequate healthcare and healthy diets) on LFW youth wellbeing are not explored. This project aims to quantify demands for LFW youth labor, develop a gap map of resources in Indiana, and identify specific needs and barriers faced by LFW youth. We do this by using national and regional agricultural surveys, geo-spatial mapping of county-level crop commodities, commodity associated labor intensity, and health resources in Indiana, and finally with qualitative interviews with LFW youth. Ultimately, the goal of this project is to identify services and interventions that can be nested within extension programs that can improve health, food security, and diets for LFW youth and their families in rural Indiana.

**Co-Investigator, Engaging Fathers For Effective Child Nutrition in Tanzania (EFFECTS)**

*Total costs: $ 1,149,792. (2017-2021)*

EFFECTS trial evaluates the impact achieved by innovatively engaging fathers as partners in behavior change with unique needs, preferences, and roles, empowering them to be agents of change within their own households to improve child nutrition. The innovation of the father groups will enable EFFECTS to address household power dynamics and decision-making about food choices, empower women to access more nutrition foods, and change key household behaviors that impact nutrition.

**Principal Investigator, “Diet, Environment, and Choices of positive living (DECIDE study): Evaluating personal and external food environment influences on diets among PLHIV and families in Dar es Salaam, Tanzania”**

*Total costs: $270,000. (2018-2020)*

People living with HIV (PLHIV) face high food insecurity and double disease burden because food insecurity leads to lower adherence to treatment and poor health outcomes, while long-term treatment puts them at a higher risk of obesity and dyslipidemia. Caregiving and social structures of food culture further marginalize women in these contexts. New research shows that there are strong gender dimensions to dietary intake, adequacy, and survival rates among PLHIV. However, a gap remains in documenting the various domains in which these differences emerge, including capacity to procure food, bargaining power, social norms, and appetite since diagnosis. Further, little is known about how an HIV diagnosis affects the dietary patterns of uninfected family members. In this “Diet, Environment, and Choices of positive living” - DECIDE study, gender lens is used to explore and characterize the drivers of food choice, food environment, and dietary adequacy among PLHIV and their families in Dar es Salaam, Tanzania. Using multiple-method approach, study findings will provide a robust understanding of the underlying motivations behind dietary choices and patterns among PLHIV and their families.

**Co-investigator, Rapid Assessment of Impact of the COVID-19 Pandemic Response on Food Systems in Kenya**

*Total costs: $10,000. (2020)*

As the COVID-19 pandemic disrupts food systems and livelihoods globally, food and nutrition insecurity increases, resulting in poor long-term health outcomes. Kenya’s high and increasing rates of COVID-19 infection, compounded with existing challenges to food and nutrition security, can lead to changes in food supply chains, diets, and health in an already vulnerable population. To develop timely interventions, it is imperative to identify changes occurring in rural communities and among farmers, who are key actors in food supply chains, as their decisions influence the food supply, diets, and ultimately the nutrition and health of the larger population. This study will use qualitative methods to identify pandemic effects on food systems, rural economies, and families in Kenya using a representative sample of communities. Specifically, this study aims (1) to identify farmers’ reasoning behind changes to crop decisions, market access, and agricultural services, and (2) to determine changes in livelihoods, food prices and accessibility, social and family relationships, mental health, concerns about the pandemic response, and access and utilization of health and other services in rural Kenya.

**Co-Investigator, Fostering Food Security, Health, and Resilience in Graduate Education at Purdue**

*Total costs: $20,000. (2020)*

The COVID-19 pandemic is likely increasing food insecurity, worsening mental health, and decreasing physical activity among Purdue graduate students, negatively impacting their academic performance and potential for success. We conducted a survey to quantify the impact of COVID-19 on Purdue graduate students' academic performance by examining the effect of the pandemic on food security, mental health, and physical activity, and in the process, we identify structural and individual factors that may mitigate these negative effects. The FORGE-Purdue study will provide recommendations for on-campus actions to improve graduate students’ wellbeing, while generating evidence to inform future intervention research that targets graduate students’ resilience and coping skills.

**SUBMITTED**

**Lead M-PI, developing family-based dietary intervention for PLHIV and their families for non-communicable disease (DEFINED) in urban Tanzania (NIH R21).**

*Total costs: $389,086. (2022-2024)*

People living with HIV (PLHIV) are exceptionally vulnerable to cardiometabolic diseases as antiretroviral therapy (ART) increases central adiposity, a well-known risk factor for cardiometabolic diseases. Dietary risk factors for cardiometabolic diseases are rising globally and rapidly in Eastern African countries like Tanzania. In Tanzania, rapid changes in the food environment have increased the availability of convenient, ultra-processed, and energy-dense food that is salty and sugary. Therefore, PLHIV face an exceptionally high vulnerability to cardiometabolic diseases, given both pre-disposition and rapid shifts in the food environment. Although dietary management guidance for these cardiometabolic diseases is similar between HIV and the background population, adherence to the recommended diet is critical for optimal outcomes among PLHIV due to existing interactions between ARTs and drugs taken for cardiometabolic diseases. One of the significant risk factors for HIV-related cardiometabolic diseases is family history. Historically, family support has played a critical role in the chronic treatment and management of HIV, and family also plays a prominent role in the PLHIV food environment. Collectively, family decision-making determines food choices, suggesting that family unit interventions could effectively support the uptake of healthy eating behaviors among PLHIV as well as the other family members. However, nearly all PLHIV dietary interventions ignore family-based approaches. This is a major oversight that, if bridged, can reduce dietary factors for NCDs for all family members while supporting the health of PLHIV. **The goal of this R21 is to develop a family-based mobile health dietary intervention to target the eating behaviors associated with risk factors for NCDs to be used by PLHIV and their family members that can be tested in a larger effectiveness study.**

**Co-Principle Investigator, EFESS study: Development of External Food Environment Surveillance Systems Using a Tele-cohort of Informal and Formal Food Vendors in Two Secondary Cities in Kenya. (IMMANA grant, selected for full proposal submission)**

*Total costs: £250,000. (2023-2025)*

EFESS project’s overarching goal is to develop and test a methodology to establish, maintain, and utilize an external food environment surveillance system (EFESS) to monitor changes and responses to stressors and shocks in a food environment (Bene, 2020). EFESS will be a longitudinal cohort of food vendors, similar to a demographic surveillance system, from which we will gather data remotely (i.e., a “tele-cohort”). This platform can be used in diverse environments, particularly where the informal food sector is important. In addition to capturing resilience within the food environment and its actors, we will pilot the use of an EFESS to conduct research and data collection and to serve as a participatory mechanism to elicit input from food vendors, particularly semi-formal and informal food vendors, who often lack voice in policy formulation.

**Co- Investigator, FAST toolkit: Development of the FAST toolkit, Formative Assessment of Policy Environments for Inclusive Study Design for researchers in agriculture, nutrition, and health. FAST toolkit will be tested and developed in Sundarbans, India. (IMMANA grant, selected for full proposal submission)**

*Total costs: £250,000. (2023-2025)*

The aim of FAST project is to develop a toolkit that researchers without policy expertise can use to rapidly (i.e., over the course of 4-8 weeks) assess policy environments prior to the development of innovative tools, metrics, and methods (henceforth: tools) in the context of agriculture, nutrition, and health. Such formative assessments are crucial when the purpose of the tool is to alleviate food and nutrition security among those who are most vulnerable and whose geographical positioning lends their communities to shared governance. This is the case with communities who reside in the Indian Sundarbans, one of the most important wetlands globally and a uniquely biodiverse ecosystem.

**REFERENCES**

1. Mario Herrero, Professor in Department of Global Development at Cornell University.
2. Nilupa Gunaratna, Associate Professor in the Department of Public Health at Purdue University, gunaratna@purdue.edu.
3. Jessica Fanzo, Professor of Global Food Policy and Ethics at Johns Hopkins University, jfanzo1@jhu.edu.
4. Laura E. Caulfield, Professor in the Program of Human Nutrition at Johns Hopkins School of Public Health, lcaulfi1@jhu.edu.
5. Crystal Patil, Professor and Chair of Women, Children and Family Health Science, University of Illinois at Chicago, cpatil@uic.edu.
6. Wafaie Fawzi, Professor and Chair of Global Health and Population at the Harvard School of Public Health, mina@hsph.harvard.edu.
7. Benjamin Zaitchik, Professor in the Department of Earth and Planetary Sciences at Johns Hopkins University, zaitchik@jhu.edu.