

Anna M. Stewart Ibarra

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EXPERTISE: social-ecological systems, climate and health, global public health, developing and leading international research teams, tropical infectious diseases, climate services, natural disasters, social vulnerability, urban community health, design and execution of ecological and epidemiological studies, epidemic forecasts, medical entomology, Latin America and the Caribbean region, geospatial and statistical modeling, qualitative methods and surveys, public administration and leadership, policy, environmental sciences

EDUCATION

Ph. D., Ecology. Department of Environmental and Forest Biology, State University of New York College of Environmental Science and Forestry. Dissertation: “A socio-ecological analysis of vulnerability to dengue fever in southern coastal Ecuador.” 2012.

Master of Public Administration. Maxwell School of Citizenship & Public Affairs, Syracuse University. 2012.

B.S. in Environmental Biology (Summa Cum Laude with Honors). Department of Biology, Syracuse University. Honors thesis: Root Production and Herbivory in an Upland Grassland Community in Yellowstone National Park. 2007.

PROFESSIONAL EXPERIENCE

Scientific Director. InterAmerican Institute for Global Change Research (IAI). Montevideo, Uruguay. September 2019 -.

Assistant Professor (voluntary faculty). Department of Medicine. SUNY UMU. Sept 2019 -

Assistant Professor. Department of Public Health and Preventative Medicine. State University of New York Upstate Medical University (SUNY UMU). Syracuse, NY, USA. Oct 2016 – August 2019.

Assistant Professor. Department of Medicine. SUNY UMU. Jan 2015 – August 2019.

Research Assistant Professor. Department of Microbiology & Immunology. SUNY UMU. 2014 - 2015

Director, Latin America and Caribbean Research Program. Institute for Global Health and Translational Science. SUNY UMU. Dec 2014 – Aug 2019.

Research Scientist & Latin America Research Program Coordinator. Center for Global Health and Translational Science. SUNY UMU. Dec 2012 – Dec 2014.

Visiting Researcher. National Service for the Control of Vector Borne Diseases of the Ministry of Health of Ecuador. Machala, El Oro Province, Ecuador. September 2010-2012.

Visiting Researcher. National Institute of Meteorology and Hydrology of Ecuador. Guayaquil, Guayas Province, Ecuador. June 2010-2012.

Visiting Researcher and Lecturer. Universidad de Especialidades Espíritu Santo, Department of Medical Science and Department of Environmental Science. Guayaquil, Guayas Province, Ecuador. June 2010-Feb 2011.

Laboratory and field technician on grassland ecology. Syracuse University. Syracuse, NY, and Yellowstone National Park. September 2004-October 2005.

Research internship on benthic aquatic ecology. Cornell University Biological Research Station. Bridgeport, NY, USA. May-August 2004.

PROJECTS AND FUNDING

ACTIVE STUDIES

Conduct of a Regional Health Audit of Climate and Vector Borne Diseases Data. Funded by the InterAmerican Development Bank via the University of West Indies. PI: Stephen Thomas. **Role: Investigator.** 2019 (\$136,000).

Scoping Study: Chronic Kidney Disease of Unknown Origin. Funded by Dialysis Clinic, Inc. **Role: co-PI.** PI: Sri Narsipur (SUNY UMU). 2019 (\$70k).

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- Mosquitos y Yo: Student Scientists in Ecuador. Funded by the UW-Madison Global Health Institute Seed Grants. Role: co-PI. PI: Lyric Bartholomay. July 1, 2019-June 30, 2020. (\$25k)
- Capacity Strengthening in Ecuador: Partnering to improve surveillance of febrile vector-borne diseases. Funded internally by SUNY Upstate Medical University. **Role: PI with Timothy Endy (SUNY UMU).** (2013-2023) (\$497,000 in FY2013, 2014 from GEIS; \$100,000 in 2016-2017 from Clinical Research Management).
- Nonlinear responses of vector-borne disease transmission to temperature. Funded by the National Science Foundation Emerging Infectious Diseases Program. **Role: Key personnel.** PI: Erin Mordecai (Stanford University). 2015-2019 (\$1,846,842).
- Fogarty Global Infectious Diseases Research Training Program. Funded by NIH Fogarty. **Role: Mentor.** PIs: Morse, Lindo and Endy (SUNY Buffalo and UMU). 2018-2023. (sub to SUNY: \$131k)
- Climate resilience in Duran: Designing adaptation strategies for hydro-climatic risks. Funded by the municipal government of Duran, Ecuador. **Role: Investigator.** PI: Mercy Borbor (ESPOL). 2017-2019 (\$106k)
- Experimental hut trials of dried attractive bait stations for the control of *Aedes aegypti*. Funded by Syracuse University Internal Seed Grant. **Role: co-PI.** PI: David Larsen (Syracuse University). 2018-2019 (\$30k).
- Supervision of the etiology of respiratory tract infections in children not hospitalized under 5 years of age in the urban areas of Machala, Guayaquil and Quito. Funded internally by SUNY Upstate Medical University. **Role: co-PI.** PI: Joseph Domachowske (SUNY UMU). 2018-2013.
- Predicting Dengue Transmission in a Changing Climate to Improve Mosquito Control. Funded by the Stanford Woods Institute for the Environment EVP Award. **Role: Key collaborator.** PI: Erin Mordecai and Desiree LaBeaud (Stanford University). July 1, 2016 – June 30, 2019 (\$200k).

UNDER REVIEW/IN PREPARATION

- Leveraging socio-ecological feedbacks between land use and dengue transmission to promote control. Funding request to National Science Foundation CNH2. **Role: key personnel.** PI: Erin Mordecai. 2020-2025 (\$1.6 million). LOI submitted. To be submitted in November 2019

SELECTED COMPLETED PROJECTS

- Insecticide Resistance in *Aedes aegypti* in a Zika transmission region of Ecuador. **Role: PI.** Funding provided by: Zika Emergency Funding from Centers for Disease Control and Prevention (CDC). 2017-2018. (\$149k)
- In-situ Vector Dynamics in a High Burden Region in Ecuador. NSF Zika RAPID. **Role: PI.** 2016- 2017. (\$200k)
- The development of a health-climate spatio-temporal modeling framework for the Caribbean. Funded by the United States Agency for International Development's (USAID) Programme for Building Regional Climate Capacity in the Caribbean (BRCCC Programme) through the Caribbean Institute for Meteorology and Hydrology (CIMH). **Role: PI.** 2017. (\$79k)
- Dry Attractive Bait Stations (DABS) for *Aedes aegypti* Control. Funded by the Deployed Warfighters Protection Program of the Pest Management Board. **Role: PI.** May 2015 – April 2016. (**\$200k**)
- Developing an operational research framework to assess local flood response capacities: A case study of a rural coastal community in Ecuador. **Role: PI.** Interamerican Institute for Global Change Research (IAI). 2014-2015. (\$24k)
- Capacity Strengthening in Ecuador: Partnering to improve surveillance of febrile vector-borne diseases. **Role: Co-PI and Project Lead.** PI: T. Endy (SUNY UMU). Funded by the Global Emerging Infections Surveillance and Response System (GEIS). FY 2013, 2014. (\$198k year 1, \$299k year 2)
- Evaluating the potential use of oceanographic information and remotely sensed algal blooms to predict risk of cholera and other climate and water-sensitive diseases. **Role: Co-PI.** PI: M. Polhemus (SUNY UMU). Funded by the Global Emerging Infections Surveillance and Response System (GEIS). FY 2014. (\$294k)

CONSULTING

- Flood risk management in highly vulnerable communities and neighborhoods. Pilot: community preparedness of vulnerable communities in Las Terrenas, Samaná province, Dominican Republic. Fundacion Plenitud. Funded by the United Methodist Charities. 2016.

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Geospatial analyses of socio-ecological risk factors for dengue for the project “Surveillance and climate modeling to predict dengue in urban areas (Guayaquil, Huaquillas, Zaruma, Portovelo; Machala).” National Institute of Meteorology & Hydrology of Ecuador (2012-2013). Funded by the National Secretary for Higher Education, Science, Technology & Innovation of Ecuador.

FELLOWSHIPS

Fellowship from the US Embassy and Fulbright Commission. Social-ecological risk factors associated with the spatiotemporal distribution of the Zika virus vector (*Aedes aegypti*) in the city of Córdoba, Argentina. March 21, 2018 to June 20, 2018.

PROMETEO Fellowship. U.S.-Ecuador collaboration to investigate the interactions between dengue and social-ecological factors in Guayaquil. In collaboration with the Escuela Superior Politecnica del Litoral (ESPOL) and Enfarma, EP. Funded by the National Secretary of Higher Education, Science, Technology and Innovation (SENESCYT) of Ecuador. 2014-2016.

Fulbright IIE Research Fellowship. A longitudinal field investigation of climate and social risk factors for dengue in two urban areas in southern coastal Ecuador. 2010-2011.

National Science Foundation Graduate S.T.E.M. (GK-12) Fellow. 2007-2009.

Other competitive funding that supported PhD research: SUNY ESF Pack Environmental Institute Grant (2012), Sigma Xi Grant-in-Aid of Research (2010), Syracuse University Program on Latin America and the Caribbean (PLACA) Summer Research Grant (2010), SUNY ESF Graduate Student Association Research in Need Grant (2010).

PUBLICATIONS (*Denotes a trainee)

PEER REVIEWED

Vitale M*, Lupone CD, Kenneson-Adams A, Jaramillo Ochoa R, Ordoñez T, Beltran-Ayala E, Endy TP, Rosenbaum P, **Stewart-Ibarra AM**. Comparison of Active and Passive Surveillance of Dengue in Machala, Ecuador. *In prep for BMC Infectious Diseases*.

Maljkovic Berry I, Rutvisuttinunt W, Sippy R*, Figueroa K, Srikanth A, **Stewart-Ibarra AM**, Endy TP, Jarman RG. Arboviral vulnerabilities of Ecuador: Chikungunya origins and novel dengue introductions following the increased influx of Venezuelan and Colombian citizens. *In review at BMC Evolutionary Biology*.

Estallo EL, Sippy R*, **Stewart-Ibarra AM**, Grech M, Benitez E, Ludueña-Almeida FF, Ainete M, Frias-Céspedes M, Robert M, Romero MM, Almiron WA. Dengue fever, *Aedes aegypti* and climate dynamics from the temperate city of Córdoba, Argentina, 2009-2017. *In review at PLOS NTDs*

Pollett S, Johansson M, Biggerstaff M, Morton LC, Bazaco S, Brett Major DM, **Stewart-Ibarra AM**, Pavlin JA, Mate S, Sippy R, Hartman LJ, Reich NG, Maljkovic Berry I, Chretien JP, Althouse BM, Meyer D, Viboud C, Rivers C. Identification and evaluation of epidemic prediction and forecasting reporting guidelines: a systematic review and a call for action. *In review at Epidemics*.

Lippi CA, **Stewart-Ibarra AM**, Romero M, Hinds AQJ, Lowe R, Mahon R, Van Meerbeeck CJ, Rollock L, Gittens-St. Hilaire, Trotman AR, Holligan D, Kirton S, Borbor-Cordova MJ, Ryan SJ. Spatiotemporal tools for emerging and endemic disease hotspots in small areas – an analysis of dengue and chikungunya in Barbados, 2013 – 2016. *In review at the American Journal of Tropical Medicine and Hygiene*.

Lippi CA, Mao L, **Stewart-Ibarra AM**, Heydari N*, Beltrán Ayala E, Burkett-Cadena ND, Blackburn JK, Ryan SJ. A Network Analysis Framework to Improve the Delivery of Mosquito Abatement Services in Machala, Ecuador. *In review at the International Journal of Health Geographics*.

Caldwell JM, LaBeaud AD, Lambin EF, **Stewart-Ibarra AM**, Anyamba A, Borbor-Cordova MJ, Damoah R, Gross-Soyster E, Krystosik, Mutuku F, Ndenga B, Beltran-Ayala E, Mejia R, Endy TP, Heras Heras F, Ryan SJ, Shah M, Sippy R, Suner G, Mordecai EA. Weather explains geographic and temporal variation in mosquito-borne disease dynamics. *In review at PLoS Biology*.

Bideaux, **Stewart-Ibarra AM** et al. Chronic Kidney Disease of Unknown Etiology: The two-hit hypotheses. *In review at Kidney International Reports*.

- Sippy R, Rivera G, Sanchez V, Heras Heras F, Morejon B, Beltran Ayala E, Hikida RS, Lopez-Latorre MA, Aguirre A, **Stewart Ibarra AM**, Larsen DA and Neira M. Ingested insecticide to control *Aedes aegypti*: Developing a novel dried attractive toxic sugar bait for intra-domiciliary control. *In press at Parasites and Vectors*.
- Anderson KB, **Stewart-Ibarra AM**, Buddhari D, Beltran Ayala EF, Iamsirithaworn S, Ryan SJ, Fernandez S, Jarman RG, Thomas SJ, Endy TP. Key findings and comparisons from analogous case-cluster studies for dengue virus infection conducted in Machala, Ecuador, and Kamphaeng Phet, Thailand. *In press at Frontiers in Public Health*
- Petrova D, Rodo X, Sippy R, Ballester J, Mejia R, Beltran-Ayala E, Borbor-Cordova MJ, Vallejo GM, Olmedo AA, **Stewart-Ibarra AM**, Lowe R. The 2018-2019 weak El Niño: predicting the risk of a dengue outbreak in Machala, Ecuador. *In review at the International Journal of Climatology*.
- Sippy S, Farrell DF, Lichtenstein D, Nightingale R, Harris M, Toth J, Hantztidiamantis P, Usher N, Cueva C, Barzallo Aguilar J, Puthumana A, Endy T, Ryan SJ, **Stewart Ibarra AM**. Severity Index for Suspected Arbovirus (SISA): machine learning for accurate prediction of hospitalization in subjects suspected of arboviral infection. *In press at PLOS Neglected Tropical Diseases*. Preprint: <https://www.biorxiv.org/content/10.1101/647206v2>
- Robert M, Tinunin D, Benitez E, Ludueña-Almeida F, Romero M, **Stewart-Ibarra AM**, Estallo E. Arbovirus emergence in temperate climates: the case of Cordoba, Argentina, 2009-2018. *Nature Scientific Data 6: Article number 276*.
- Michael Johansson, Karyn M. Apfeldorf, Scott Dobson, Jason Devita, Anna L. Buczak, Benjamin Baugher, Linda J. Moniz, Thomas Bagley, Steven M. Babin, Erhan Guven, Teresa K. Yamana, Jeffrey Shaman, Terry Moschou, Nick Lothian, Aaron Lane, Grant Osborne, Gao Jiang, Logan C. Brooks, David C. Farrow, Sangwon Hyun, Ryan J. Tibshirani, Roni Rosenfeld, Justin Lessler, Nicholas G. Reich, Derek A. T. Cummings, Stephen A. Lauer, Sean M. Moore, Hannah E. Clapham, Rachel Lowe, Trevor C. Bailey, Markel García-Díez, Marília Sá Carvalho, Xavier Rodó, Tridip Sardar, Richard Paul, Evan L. Ray, Krzysztof Sakrejda, Alexandria C. Brown, Xi Meng, Osonde Osoba, Raffaele Vardavas, David Manheim, Melinda Moore, Dhananjai M. Rao, Travis C. Porco, Sarah Ackley, Fengchen Liu, Lee Worden, Matteo Convertino, Yang Liu, Abraham Reddy, Eloy Ortiz, Jorge Rivero, Humberto Brito, Alicia Juarrero, Leah R. Johnson, Robert B. Gramacy, Jeremy M. Cohen, Erin A. Mordecai, Courtney C. Murdock, Jason R. Rohr, Sadie J. Ryan, **Anna M. Stewart-Ibarra**, Daniel P. Weikel, Antarpreet Jutla, Rakibul Khan, Marissa Poultney, Rita R. Colwell, Brenda Rivera-García, Christopher M. Barker, Jesse E. Bell, Matthew Biggerstaff, David Swerdlow, Luis Mier-y-Teran-Romero, Brett M. Forshey, Juli Trtanj, Jason Asher, Matt Clay, Harold S. Margolis, Andrew M. Hebbeler, Dylan George, and Jean-Paul Chretien. 2019. Advancing probabilistic epidemic forecasting through an open challenge: The Dengue Forecasting Project. *Proceedings of the National Academic of Sciences of the United States of America (PNAS)* 116 (48): 24268-24274.
- Tauzer E*, Borbor Cordoba MJ, Mendoza J, De La Cuadra J, Cunalata J, **Stewart-Ibarra AM**. 2019. A participatory community case study of periurban coastal flood vulnerability in southern Ecuador. *PLoS ONE. E 14(10): e0224171*.
- Stewart-Ibarra, A.M.**, Romero, M., Borbor-Cordova, M.J., Cox, A., Hinds, A.Q., Lowe, R., Mahon, R., Van Meerbeeck, C., Rollock, L., St. Ville, E.S., Ryan, S.J, Trotman, A. 2019. Co-developing climate services for public health: stakeholder needs and perceptions for the prevention and control of *Aedes*-transmitted diseases in the Caribbean. *PLoS Neglected Tropical Diseases 13 (10): e0007772*
- Finkelstein JL, Layden AJ, Colt S, Krisher JT, **Stewart-Ibarra AM**, Polhemus M, Beltran-Ayala E, Tedesco JM, Cardenas WB, Endy T, Mehta S. 2019. Micronutrients and dengue virus infection in coastal Ecuador: A nested case-control study in an infectious disease surveillance program. *The Journal of Infectious Diseases*. <https://doi.org/10.1093/infdis/jiz427>
- Farovitch L, Sippy R*, Beltrán-Ayala E, Endy TP, **Stewart-Ibarra AM**, Leydet B. Surveillance of Tick-borne Disease in Ecuador. 2019. *In press at the American Journal of Tropical Medicine and Hygiene*.
- Mordecai E, Caldwell J, Grossman M, Lippi C, Johnson L, Neira M, Rohr J, Ryan SJ, Savage V, Shocket M, Sippy R*, **Stewart-Ibarra AM**, Thomas M, Villena O. 2019. The thermal biology of vector-borne disease. *Ecology Letters* 22(10):1690-1708. <https://doi.org/10.1111/ele.13335>.

- Ryan SJ, Mundis S, Aguirre A, Lippi CA, Beltran E, Heras F, Borbor-Cordova MJ, Sippy R, **Stewart-Ibarra AM**, Neira M. 2019. Seasonal and geographic variation in insecticide resistance in *Aedes aegypti* in southern Ecuador. *PLoS Neglected Tropical Diseases*. 13(6): e0007448. <https://doi.org/10.1371/journal.pntd.0007448>.
- Lippi CA, **Stewart-Ibarra AM**, Bajaan-Loor MEF, Dueñas-Zambrano JE, Espinoza-Lopez NA, Blackburn JK, and Ryan SJ. 2019. Geographic shifts in *Aedes aegypti* habitat suitability in Ecuador using larval surveillance data and ecological niche modeling: Implications of climate change for public health vector control. *PLoS Negl Trop Dis* 13(3): e0007213. <https://doi.org/10.1371/journal.pntd.0007213>
- Ryan S, Lippi C, Nightingale R*, Hamerlinck G, Borbor-Cordova MJ, Cruz BM, Ortega F, Leon R, Basantes D, Waggoner E, **Stewart Ibarra AM**. 2019. Socio-ecological factors associated with dengue risk and *Aedes aegypti* presence in the Galápagos Islands, Ecuador. *The International Journal of Environmental Research and Public Health (IJERPH)* 26;16(5). pii: E682.
- Petrova D, Lowe R, **Stewart-Ibarra AM**, Ballester J, Koopman SJ, Rodo X. 2019. Sensitivity of large dengue epidemics in Ecuador to long-lead predictions of El Niño. *In press at Climate Services*.
- Jaramillo Ochoa R, Sippy R*, Farrell DF*, Cueva Aponte C, Beltran-Ayala E, Gonzaga JL, Ordoñez León T, Quintana FA, Ryan SJ, **Stewart-Ibarra AM**. 2019. Effects of Political Instability in Venezuela on Malaria Resurgence at Ecuador–Peru Border, 2018. *Emerging Infectious Diseases* 25(4). DOI: 10.3201/eid2504.181355
- Mita-Mendoza N, McMahon E*, Kenneson A, Barbachano-Guerrero A, Beltran-Ayala E, Cueva C, King CA, Lupone CD, Castro-Sesquen YE, Gilman RH, Endy TP, **Stewart-Ibarra AM**. 2018. Occurrence of Chagas disease and co-infections with dengue fever and chikungunya from a surveillance study in southern coastal Ecuador. *American Journal of Tropical Medicine and Hygiene*. doi: 10.4269/ajtmh.18-0441.
- Lowe R., Gasparrini A, Van Meerbeeck CJ, Lippi C, Mahon R, Trotman AR, Rollock L, Hinds AQJ, Ryan SJ, **Stewart-Ibarra AM**. Non-linear and delayed climate impacts on dengue risk in a Caribbean small island developing state. 2018. *PLoS Medicine Special Issue on Climate Change and Health*. 15(7): e1002613. <https://doi.org/10.1371/journal.pmed.1002613>
- Lippi CA; **Stewart-Ibarra AM**; Muñoz A; Borbor-Cordova MJ; Meija R; Rivero K; Cardenas W; Castillo K; Ryan SJ. 2018. The social and spatial ecology of dengue presence and burden during an outbreak in Guayaquil, Ecuador, 2012. *The International Journal of Environmental Research and Public Health* 23;15(4). pii: E827
- Diaz A* and **Stewart-Ibarra AM**. 2018. Zika virus infections and psychological distress following natural disasters. *Future Virology* 13(6). (invited commentary).
- Ryan SJ, **Stewart Ibarra AM**, Ordoñez E, Chu W, Finkelstein JL, King CA, Escobar LE, Lupone C, Heras F, Enriquez C, Tauzer E*, Waggoner E, James TG, Cardenas W, Polhemus M. 2018. Spatiotemporal variation in environmental cholera (*Vibrio cholerae*) in an estuary in southern coastal Ecuador. *The International Journal of Environmental Research and Public Health* 10;15(3). pii: E486
- Ryan SJ, Lippi CA, Carlson CJ, **Stewart-Ibarra AM**, Borbor-Cordova MJ, Romero MM, Cox S, Mahon R, Trotman A, Rollock L, Gittens-St. Hilaire M, King D, Daniel S. 2018. Zika Virus Outbreak, Barbados, 2015 – 2016. <https://www.ncbi.nlm.nih.gov/pubmed/29512482> *The American Journal of Tropical Medicine and Hygiene* 98(6):1857-1859
- Stewart-Ibarra AM**, Ryan SJ, Kenneson A, King CA, Abbott M, Barbachano-Guerrero A, Beltrán-Ayala E, Borbor-Cordova MJ, Cárdenas WB, Cueva C, Finkelstein JL, Lupone CD, Jarman RG, Maljkovic Berry I, Mehta S, Polhemus M, Silva M, and Endy TP. 2018. The burden of dengue fever and chikungunya in southern coastal Ecuador: Epidemiology, clinical presentation, and phylogenetics from the first two years of a prospective study. *The American Journal of Tropical Medicine and Hygiene*. 98(5): 1444–1459. doi: 10.4269/ajtmh.17-0762
- Farrell D*, Lupone C, Kenneson A, Cueva C, Heydari N, Barzallo Aguilera J, Polhemus M, Endy T, **Stewart-Ibarra AM**. 2018. An acute chikungunya infection and a recent secondary dengue infection in a peripartum case in Ecuador. *The American Journal of Tropical Medicine and Hygiene* 98(3):838-840
- Knesson A, Beltran-Ayala E, Borbor-Cordova MJ, Polhemus ME, Ryan SJ, Endy TP, **Stewart-Ibarra AM**. 2017. Social-Ecological Factors And Preventive Actions Decrease The Risk Of Dengue Infection At The

- Household-Level: Results From A Prospective Dengue Surveillance Study In Machala, Ecuador. *PLoS Neglected Tropical Diseases*. 11(12): e0006150
- Stewart Ibarra AM**, Hargrave A*, Diaz A*, Kenneson A, Madden D, Romero MM, Molina JP, Macias Salto D. Psychological distress and Zika, dengue, and chikungunya symptoms following the 2016 earthquake in Bahía de Caráquez, Ecuador. 2017. *The International Journal of Environmental Research and Public Health Special Issue: "Public health and natural disasters"* 14(12). pii: E1516
- Ryan S; Lippi CA; Boersch-Supan PH; Heydari N; Silva M; Adrian J; Noblecilla LF; Beltran Ayala E; Encalada MD; Larsen DA; Krisher JT; Krisher L; Fregosi L; **Stewart Ibarra AM**. 2017. Quantifying Seasonal and Diel Variation in Anopheline and Culex Human Biting Rates in Southern Ecuador. *The Malaria Journal*. 16:479
- Sorenson C. Borbor-Cordova MJ, Calvellido-Hynes E, Diaz A*, Lemery J, **Stewart-Ibarra AM**. 2017. Climate variability, vulnerability and natural disasters: A case study of Zika Virus in Manabi, Ecuador following the 2016 Earthquake. *GeoHealth*, 1. doi.org/10.1002/2017GH000104. (Article featured on the cover)
- Johnson LR, Gramacy RB, Cohen J, Mordecai E, Murdock C, Rohr J, Ryan SJ, **Stewart-Ibarra AM**, Weikel D. 2017. Phenomenological forecasting of disease incidence: a dengue case study. *The Annals of Applied Statistics*, 12(1): 27-66.
- Ryan SJ, Carlson CJ, **Stewart-Ibarra AM**, Borbor-Cordova MJ, Romero MM, Cox S, Mahon R, Trotman A, St. Ville S, Ahmed S. 2017. Zika Virus Outbreak, Dominica, 2016. *Emerging Infectious Diseases*. 23(11).
- R Lowe, **Stewart-Ibarra AM**, Petrova D, Garcia-Diez M, Borbor-Cordova MJ, Mejia R, Regato M, Rodo X. 2017. Using climate forecasts to predict the 2016 dengue season in Machala, Ecuador. *The Lancet Planetary Health*. 1(4): e142–e151
- Muñoz AG, Thomson MC, **Stewart-Ibarra AM**, Vecchi G. Chourio X, Nájera P, Moran Z, Yang X. 2017. Could the recent Zika epidemic have been predicted? *Frontiers in Microbiology: Infectious Diseases*. <https://doi.org/10.3389/fmicb.2017.01291>
- Mordecai E., Cohen J., Evans MV, Gudapati P, Johnson LR, Miazgowicz K, Murdock CC, Rohr JR, Ryan SJ, Savage V, Shocket M, **Stewart-Ibarra AM**, Thomas MB, Weikel DB. 2017. Temperature determines Zika, dengue and chikungunya transmission potential in the Americas. *PLoS Neglected Tropical Diseases*. 11(4): e0005568.
- Ortiz-Prado E, Simbaña K, Gómez L, **Stewart-Ibarra AM**, Scott L, Cevallos G S. 2017. Abortion, an increasing public health concern in Ecuador, a 10-year population-based analysis. *Pragmatic and Observational Research*. 2017(8):129—135.
- Heydari N*, Larsen DA, Neira M, Beltrán Ayala E, Hernandez P, Adrian J, Rochford R, and **Stewart-Ibarra AM**. 2017. Household dengue prevention interventions, expenditures, and barriers to *Aedes aegypti* control in Machala, Ecuador. *The International Journal of Environmental Research and Public Health Special Issue: "Mosquito control innovations into the 21st century."* 14(2): 196
- Ortiz-Prado E, Ponce J, Cornejo-Leon F, **Stewart-Ibarra AM**, Rodrigo Henríquez Trujillo, Estefanía Espín, and Darío Ramírez. 2017. Analysis of Health and Drug Access Associated with the Purchasing Power of the Ecuadorian Population. *Global Journal of Health Science*. 9:1.
- Serrano Vicenti S, Reisancho Puetate A, Lizano Acevedo R, Borbor-Cordova M, and **Stewart-Ibarra AM**. 2016. Análisis de inundaciones costeras por precipitaciones intensas, cambio climático y fenómeno de El Niño. Caso de estudio: Machala. *La Granja: Revista de Ciencias de La Vida* 24(2). Cambio Climatico: 53–68.
- Krisher LK*, Krisher J*, Ambuludi M, Arichabala A, Beltrán-Ayala E, Navarrete P, Ordoñez T, Polhemus M, Quintana F, Rochford R, Silva M, Bazo J, **Stewart-Ibarra AM**. 2016. Successful malaria elimination in the Ecuador-Peru border region: epidemiology and lessons learned. *The Malaria Journal*. 15:573.
- Handel A*, Beltran, E, Borbor Cordova MJ, Fessler A., Finkelstein J., Robalino, R, Ryan SJ, **Stewart Ibarra AM**. 2016. Knowledge, attitudes, and practices regarding dengue infection among healthcare providers in Machala, Ecuador. *BMC Tropical Diseases, Travel Medicine and Vaccines*. 2:8.
- Herman HS, Mehta S; Cárdenas WB; **Stewart-Ibarra AM**; Finkelstein JL. 2016. Micronutrients and Leptospirosis: A Review of the Current Evidence. *PLoS Neglected Tropical Diseases*. 10(7): e0004652.

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- Ortiz-Prado E, **Stewart-Ibarra AM**, Ramirez D, Espín E, & Morrison A. 2016. Artificial Infant Formula Consumption and Breastfeeding Trends in Ecuador, A Population-Based Analysis from 2007 to 2014. *Global Journal of Health Science*. 8:11
- Escobar L*, Ryan SJ, **Stewart-Ibarra AM**, Finkelstein J, King CA, Qiao H, Polhemus M. 2015. A Global Map of Suitability for Coastal Cholera Under Current and Future Climate Conditions. *Acta Tropica*. 149 (2015) 202–211.
- Ortiz-Prado E, Ponce J, **Stewart-Ibarra AM**, Armijos L, Yockteng J, and Cárdenas WB. 2015. Rabies epidemiology and control in Ecuador. *Global Journal of Health Science*. 8:3.
- Stewart Ibarra AM**, Luzadis VA, Borbor Cordova MJ, Silva M, Ordoñez T, Beltrán Ayala E, Ryan SJ. 2014. A social-ecological analysis of community perceptions of dengue fever and *Aedes aegypti* in Machala, Ecuador. *BMC Public Health*. 14:1135.
- Stewart Ibarra AM**, Muñoz AG, Ryan SJ, Borbor MJ, Beltran Ayala E, Finkelstein JL, Mejía R, Ordonez T, Recalde Coronel GC, Rivero K. 2014. Spatiotemporal clustering, climate periodicity, and social-ecological risk factors for dengue during an outbreak in Machala, Ecuador, in 2010. *BMC Infectious Disease*. 14:610.
- Ahmed S, Finkelstein J, **Stewart AM**, Kenneth J, Polhemus M, Endy T, Cardenas W., Mehta S. 2014. Micronutrients and Dengue: A Review of the Current Evidence. *American Journal of Tropical Medicine and Hygiene* 14-0142.
- Stewart Ibarra AM**, Ryan S.J., Beltran E. Mejía R., Silva M., Muñoz A. 2013. Dengue vector dynamics (*Aedes aegypti*) influenced by climatic and social factors in Ecuador: implications for targeted control. *PLoS ONE* 8(11): e78263
- Stewart Ibarra AM** and Lowe, R. 2013. Climate and non-climate drivers of dengue epidemics in southern coastal Ecuador. *American Journal of Tropical Medicine and Hygiene*. 88(5): 971–981. DOI: 10.4269/ajtmh.12-0478
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PROCEEDINGS, CHAPTERS, TECHNICAL REPORTS

- Stewart-Ibarra AM**, Henderson R, Heydari N, Borbor-Cordova MJ, Bardosh KL. 2020. Chapter: Tracking *Aedes Aegypti* in a Hotter, Wetter, More Urban World: Capacity Building, Disease Surveillance and Epidemiological Labor in Ecuador. In: Locating Zika: Social Change and Governance in an Age of Mosquito Pandemics. Editor: Bardosh K. Routledge's Studies in Health and Medical Anthropology. New York, New York. Open access at: <https://www.taylorfrancis.com/books/e/9780429456558>
- Trotman T, Mahon R, Shumake-Guillemot J, Lowe R, **Stewart-Ibarra AM**. 2018. Strengthening climate services for the health sector in the Caribbean. *World Meteorological Bulletin* 67(2). <https://public.wmo.int/en/resources/bulletin/strengthening-climate-services-health-sector-caribbean>
- Stewart-Ibarra AM**, Romero M, Borbor-Cordova M. Chapter: Factores socio-ecologicos, variacion climatica y disastres naturales que modelen el riesgo de arbovirus en Ecuador. In: Factores eco-epidemiologicos y ambientales que favorecen las arbovirosis. Editor: Glenda Velasquez. *Anticipated 2019*.
- Ryan SJ, Bardosh KL, Frydenlund EF, Gaff HD, Heydari N, Wilson AJ, Lippi CA, **Stewart-Ibarra AM**. Chapter: Direct and indirect social drivers and impacts of vector borne diseases. In: Population Biology of Vector-borne Diseases. Editors: John Drake & Mike Strand. *Anticipated 2019*.
- Stewart-Ibarra AM**, Neira M, Ryan SJ. 2018. Insecticide Resistance in *Aedes aegypti* in a Zika Transmission Region of Ecuador. Final technical Report for the U. S. Centers for Disease Control and Prevention (CDC).
- Muñoz AG, Lowe R, **Stewart-Ibarra AM**, Shumake-Guillemot J, Thomson M. 2018. Vector-borne diseases: Zika in the Americas. In: World Meteorological Organization (WMO) Statement on the State of the Global Climate in 2017. Geneva, Switzerland. https://library.wmo.int/doc_num.php?explnum_id=4453
- Stewart Ibarra AM**, Ryan SJ, Borbor-Cordova MB, Romero M, Lowe R, Lippi C, Carlson C. A spatio-temporal modeling framework for *Aedes aegypti* transmitted diseases the Caribbean. Report for the Caribbean Institute for Meteorology and Hydrology. July 31, 2017.
- Tauzer E, Borbor-Cordova M, de la Cuadra T, Granado S, Franco C, Medina C, Mendoza C, Romero M, **Stewart-Ibarra AM**. A Vulnerability Research Framework for the Development of Early Warning Systems

- for Floods in Latin America. INESAD Working Paper. 02/2017. September 2017.
<http://www.inesad.edu.bo/web/en/2017/09/19/a-vulnerability-research-framework-for-the-development-of-early-warning-systems-for-floods/>
- Domachowske JB, **Stewart-Ibarra AM**, Domachowske ET, and Reddy-Asiago EA. 2017. Chapter 9 Global Health Clinical Competencies. In Principles of Global Child Health: Education and Research, 1st ed (editors: Danielle Laraque-Arena, MD, FAAP and Bonita Stanton, MD, FAAP). *In press*.
- Borbor-Cordova MJ, Santos J, **Stewart-Ibarra AM**, Cevallos, Morales, Quentin, Ponce. Evidence of climate change effects on health: current state of actions and research in Ecuador (in Spanish). Third National Communication of Ecuador for the UN Convention on Climate Change. Ministry of Environment. May 2017. <http://www.un.org.ec/?p=11529>.
- Invited article: **Stewart-Ibarra, AM**. “A social-ecological systems approach to dengue-chikungunya-zika in urban coastal Ecuador,” Urbanization and Global Environmental Change Viewpoints. September 13, 2016. <https://ugecviewpoints.wordpress.com/2016/09/13/a-social-ecological-systems-approach-to-dengue-chikungunya-zika-in-urban-coastal-ecuador/>
- Muñoz AG, Chourio X, Thomson MC, **Stewart A.**, Nájera P., Cousin R. Towards a ZIKV Climate-Health Service at the Latin American Observatory. Conference: 2016 Health and Climate Colloquium, At International Research Institute for Climate and Society, Earth Institute, Columbia University. New York., Volume: <http://iri.columbia.edu/healthclimate2016/poster-abstracts/> DOI: 10.13140/RG.2.1.1348.0560.
- del Granado S., **Stewart Ibarra A**. Borbor-Cordova M., Franco-Bellini C., Romero-Fernandez M., Tauzer E. Sistemas de Alerta Temprana para inundaciones: Analisis Comparativo de Tres Paises Latinoamericanos. Serie de Documentos sobre Desarrollo 03/2015. No. 20. Junio 2016. INESAD.
<http://www.inesad.edu.bo/web/wp-content/uploads/2016/08/Sistemas-de-Alerta-Temprana-para-Inundaciones-Analisis-Comparativo-de-Tres-Paises-Latinoamericanos.pdf>
- Borbor-Cordova MJ, Beltrán Ayala E, Cardenas WB, Endy T, Finkelstein JL, King CA, Leon R, Muñoz AG, Mejía R, Polhemus ME, Recalde Coronel GC, Ryan SJ. **Stewart-Ibarra AM**. “Case study: Vector-virus-microclimate surveillance system for dengue control in Machala, Ecuador” in *Climate Services for Public Health: Improving Public Health Decision Making in a New Climate*. Eds. J.Shumake-Guillemot and L. Fernandez-Montoya. Geneva: World Meteorological Organization and World Health Organization. <http://public.wmo.int/en/resources/library/climate-services-health-case-studies>
- Muñoz Á.G., **Stewart-Ibarra AM**, Ruiz-Carrascal D. 2013: Desarrollo de Modelos de Pronóstico Experimental: Análisis Socio Ecológico de Riesgo a Dengue y Análisis Estadístico de Patrones Climáticos, Entomológicos y Epidemiológicos en Modelos de Dengue. Technical Report. CLIDEN Project. National Institute of Meteorology and Hydrology (INAMHI) report for the National Secretary of Science, Technology and Higher Education (SENESCY). Quito. Ecuador.
- Stewart A**, McNeal K, and Godoy C. Integrating STEM content and research in the classroom; in “The Power of Partnerships: A Guide From The NSF Graduate Stem Fellows in K–12 Education (GK–12) Program.” Washington DC: NSF/AAAS. 2013. <http://www.gk12.org/2013/06/10/the-power-of-partnerships-a-guide-from-the-nsf-gk-12-program/>
- McNeal K, **Stewart A**, Brossman C, Plonski B, Godoy C, and Spuck T. The teacher-Fellow partnership. in “The Power of Partnerships: A Guide From The NSF Graduate Stem Fellows in K–12 Education (GK–12) Program.” Washington DC: NSF/AAAS. 2013. <http://www.gk12.org/2013/06/10/the-power-of-partnerships-a-guide-from-the-nsf-gk-12-program/>
- Castillo K, Körbl B, **Stewart A**, Gonzalez J, Ponce F. 2011. Application of spatial analysis to the examination of dengue fever in Guayaquil, Ecuador. Spatial Statistics 2011: Mapping Global Change in Procedia. Environmental Sciences. 7:(188-193).
- Stewart AM**, Borbor-Cordova MJ, Hayden MH. 2009. Social-ecological risk factors for dengue in Ecuador. 2009. U. S. Society for Ecological Economics (USSEE). Conference Proceedings.
- Stewart AM**, Bowman K., Buckley S., Graves M., Landis C., Patterson N., Rivera Y., and Werner N. (2009) The SUNY-ESF Research Guide for Students and Teachers. The Research Foundation of the State University of New York: Syracuse, NY. http://www.esf.edu/outreach/k12/documents/pagesfromresearchguide_nsf_gk12-2.pdf

PRESENTATIONS

CONFERENCE SYMPOSIA CHAIR

Chair, Symposium: Climate Change and Tropical Medicine. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.

Co-Chair. Symposium: Climate Services for Health: Improving Public Health Decision-Making in a New Climate. American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA

Co-chair. Symposia on: “Dengue: progress and challenges facing a global problem.” II Latin-American Network of Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases. (LAN MEEGID). Quito, Ecuador. July 2014

CONFERENCE PRESENTATIONS

Quandelacy TM, Lowe R, **Stewart-Ibarra AM**, Vincenti M, Ortiz Prado E, Munayco CV, Borbor-Cordova MJ, Rollock L, Figueroa L, Masis R, Rodriguez DM, Grillet M, Paz-Bailey G, Waterman S, Rodriguez-Barraquer I, Cummings D, Johansson MA. Dengue endemic synchrony across the Americas. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.

Sippy R, Sanchez V, Heras F, Beltran Ayala E, **Stewart-Ibarra AM**, Neira MV, Larsen DA. Semi-field trials of a low-cost, dried attractive bait station for adult *Aedes aegypti* control. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.

Ryan SJ, Mundis S, Aguirre A, Lippi C, Beltran Ayala E, Heras F, **Stewart-Ibarra AM**, Neira M. Revealing the rise of resistance: spatial and seasonal resistance to commonly used insecticides in *Aedes aegypti* among four cities in southern Ecuador. American Association of Geographers Annual Meeting. Washington DC. April 4, 2019.

Martin J, Ryan SJ, **Stewart-Ibarra AM**, Mordecai E, Heras F, Beltran-Ayala E. Socioecological Systems Analysis of Household *Aedes aegypti* risk in Huaquillas, Ecuador. American Association of Geographers Annual Meeting. Washington DC. April 4, 2019.

Lippi C, **Stewart-Ibarra AM**, Franklin Bajaan Loor ME, Dueñas Zambrano J, Espinoza Lopez N, Blackburn J, Ryan SJ. Geographic shifts in *Aedes aegypti* habitat suitability in Ecuador using larval surveillance data and ecological niche modeling: implications of climate change for public health vector control. American Association of Geographers Annual Meeting. Washington DC. April 4, 2019.

Stewart Ibarra AM. Malaria Elimination at the Ecuador-Peru Border. XI Jornadas Regionales Sobre Mosquitos. La Rioja, Argentina. September 27-28, 2018.

Stewart Ibarra AM. The burden of dengue fever and chikungunya in southern coastal Ecuador: Epidemiology, clinical presentation, and phylogenetics from the first two years of a prospective study. 5th International Meeting of Research in Infectious Diseases and Tropical Medicine. Pontifical Catholic University of Ecuador (PUCE). Quito, Ecuador. October 10-12, 2018.

Muñoz AG, Thomson MC, **Stewart-Ibarra AM**, Vecchi GA, Chourio X, Najera P, Moran Z, Yang X. Could the recent Zika epidemic have been predicted? Talk and poster presented by Stewart-Ibarra at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.

Ryan, S.J., Johnson, L.R., **Stewart Ibarra, A.M.** 2017. “Bayesian uncertainty of physiological temperature models for vectorborne disease: how do you map that?” Session 4141: Uncertainty in health research (Sponsored by: Uncertainty and Context in Geography and GIScience Featured Theme), Annual Meeting of the American Association of Geographers, April 5th-9th, 2017, Boston, MA.

Ángel G. Muñoz, Madeleine C. Thomson, **Anna M. Stewart-Ibarra**, Xandre Chourio, Gabriel Vecchi, Patricia Nájera, Zeldá Moran, Xiaosong Yang. Could the recent Zika epidemic have been predicted? 5th International Conference on Climate Services. Feb 28 – March 2, 2017. Cape Town, South Africa.

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- R Lowe, **Stewart-Ibarra AM**, Petrova D, Garcia-Diez M, Borbor-Cordova MJ, Mejia R, Regato M, Rodo X. Using climate forecasts to predict the 2016 dengue season in Machala, Ecuador. IECID 2017. 17-19 May 2017. Trieste, Italy.
- Muñoz AG, Thomson MC, Chourio X, **Stewart A.**, Nájera P., Cousin R. Towards a ZIKV Climate-Health Service at the Latin American Observatory. Eighth Conference in Climate and Health (8HEALTH). January 25, 2017. Seattle, WA, USA.
- Stewart Ibarra AM.** Developing an Ecuador-US translational research consortium for climate-sensitive infectious diseases in Machala, Ecuador. II Latin-American Network of Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases. (LAN MEEGID). Quito, Ecuador. July 2014.
- Stewart Ibarra AM.** Lessons from the field: Local research and surveillance of climate sensitive diseases in coastal Ecuador. International Conference on Climate Services (ICCS-4), Montevideo, Uruguay. December 2014.
- Stewart Ibarra AM.** El Niño-Southern Oscillation (ENSO) for Dengue Early Warning in Ecuador. Talk presented at the *Second National Meeting of Research on Infectious Diseases and Tropical Medicine*. Quito, Ecuador. June 2012.
- Stewart Ibarra AM.** Understanding Great Lakes Complexity through Social-Ecological Systems. Talk presented at the *Great Lakes Research Consortium Annual Conference*. Oswego, NY. March 2012.
- Stewart Ibarra AM.** The effect of climate on the distribution of the dengue fever vector, *Aedes aegypti*, in Ecuador. Talk presented at the *Ecological Society of American Annual Conference*. Albuquerque, NM. August 2009.
- Stewart Ibarra AM.** Developing an integrated socio-ecological model of dengue fever transmission. Talk presented at the *United States Society for Ecological Economics Bi-Annual Conference*. Washington, D.C. June 2009.
- Stewart Ibarra AM.** Climate change and infectious disease: an application of geographical modeling. Talk presented at the *New York State Geographical Information Systems Annual Conference*. Syracuse, NY. October 2008.

SELECTED INVITED LECTURES

- Crisis in Venezuela driving the resurgence of infectious diseases in the Americas. Planetary Health Lecture Series. London School of Hygiene and Tropical Health.
- Investigación biomedica sobre los factores socio- ecológicos de riesgo para arbovirosis. Universidad Catolica Boliviana "San Pablo" Santa Cruz. Santa Cruz, Bolivia. May 30, 2019.
- Climate change and health. SUNY ESF Friends of Moon Library "Coffee with Friends" Lecture series. Syracuse, NY. April 18, 2019.
- Linking Land Use and Vector-borne Disease. Natural Capital Symposim. Stanford University. Serra Mall, CA. March 19, 2019.
- El clima y su impacto en la salud: experiencias en Ecuador. Ecuadorian Public Health Society. Quito, Ecuador. February 11, 2019.
- Cambio climatico y su impacto en la salud mental y enfermedades infecciosas. Universidad Tecnica de Machala. Machala, Ecuador. February 8, 2019
- Navigating global health and translational science (why we do what we do). Translational science graduate student retreat at the University of Rochester. October 7, 2018.
- Arboviruses and climate. 3rd International Climate Forum. Tucuman, Argentina. October 1-2, 2018.
- The results of cluster studies on dengue in Machala from 2014-2017. Symposium on Research Collaborations in Machala, Ecuador. Ministry of Health, Machala, Ecuador. June 27, 2018; Symposium on Climate and Vector Borne Diseases. Technical University of Machala, Machala, Ecuador. August 2, 2018.
- Climate services for *Aedes* transmitted diseases. Thai National Meteorological Department. Bangkok, Thailand. February 15, 2018.
- Ae. aegypti* and its diseases in hotter, more urban world: a synthesis of 10 years of research in Ecuador. Departmental seminar for the Department of Ecology, Evolution and Environmental Biology at Columbia University. New York, NY. January 16, 2018.

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Aedes and its diseases in a hotter, more urban world: A synthesis of 10 years of social-ecological research in Ecuador.

- National University of Cordoba, Argentina. May 28, 2018
- Armed Forces Research Institute of Medical Sciences (AFRIMS). Bangkok, Thailand. February 1, 2018
- KAVRU-AFRIMS Virology Research Unit. Kamphaeng Phet, Thailand, February 6, 2018
- PAVRU-AFRIMS Research Laboratory. Cebu, Philippines, February 12, 2018
- Seminar on Continuing Education on Infectious Tropical Diseases. Center for Research on Technology, Biomedicine and Environment. Universidad Nacional Mayor de San Marcos. Lima, Peru. October 23, 2017
- Second Research Congress. Department of Pharmaceutical Sciences and Biochemistry. Universidad Mayor de San Andres. La Paz, Bolivia. October 4, 2017
- Symposium on the Multiple Dimensions of Dengue. Organized by the Center for Interdisciplinary Studies, Sustainability and Development (CELFI-SD) of the Ministry of Science, Technology and Innovation of Argentina. Cordoba, Argentina. April 24-27, 2017
- Zika Frontiers Workshop 2017: Understanding Social Change and Governance in the Age of Mosquito Pandemics.
- Zika Anthropology Action Network. University of Florida. Gainesville, FL, USA. May 1-2, 2017.

Could the recent Zika epidemic have been predicted? Institute of Scientific Research and High Technology Services (INDICASAT) B3 Symposium. Panama City, Panama. November 15, 2017.

DENV/ZIKV data from Ecuador. MPE2013+ Workshop on Zika. Supported by NSF and the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) at Rutgers University. Held at the University of California, Berkeley, CA. December 5-6, 2016.

Social-ecological and participatory tools for the control of *Aedes aegypti* in Ecuador. UNICEF International Workshop on Agent of Change for the Prevention of Vector Borne Diseases. Bogota, Colombia. June 21-24, 2016.

Emerging Infectious Diseases in a Wetter, Hotter, and more Urban World. Aspen Global Change Institute: Health Impacts from Climate Change: The Importance of Public Health Partnerships. Aspen, CO, USA. Sept 11-16, 2016.

Current Status and Climate Drivers of Dengue and Zika in Ecuador. National Center for Atmospheric Research (NCAR). Boulder, CO. May 2016.

Panel Discussion on Scientists as Global Citizens. SUNY Upstate Medical University First Presidential Symposium on Genetics and Precision Medicine. Syracuse, NY, USA. October 29, 2016. Emerging Infectious Diseases in a Hotter, Wetter, More Urban World: Lessons Learned from Ecuador. School of Public Health and Center for Global Health. University of Colorado. Aurora, CO. May 2016.

Grand Rounds: Climate drivers of emerging infectious diseases -- Research Advances in Ecuador. Department Of Public Health & Preventive Medicine. College of Medicine. SUNY Upstate Medical University. Syracuse, NY. October 2015.

Lessons from the field: Research and surveillance of climate and social-ecological drivers of dengue and *Aedes aegypti* in Ecuador. First National Summit on Vector Borne Infectious Diseases and the 5th National Congress on Entomology. Cobija, Bolivia. November 2015.

Generating the evidence base for climate effects on human health in Latin America: dengue, cholera, and flooding in southern coastal Ecuador. Invited by the Vice Ministry of Science and Technology (MESCYT). XI Congreso Internacional de Ciencia y Tecnología. Santo Domingo, Dominican Republic. June 2015.

Climate and risk factors for dengue transmission in El Oro. Invited by the National Institute of Public Health Research (INSPI). Guayaquil, Ecuador. August 2015.

The role of climate and social-ecological factors in the transmission of dengue fever and chikungunya. Invited by the Vice Ministry of Science and Technology (MESCYT) and the Institute for Microbiology and Parasitology of the Department of Sciences. Universidad Autonomo de Santo Domingo. Santo Domingo, Dominican Republic. September 2014.

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- Social-ecological analyses for climate and water sensitive diseases. Ecuadorian Ministry of Environment Workshop on Ancestral Knowledge for Sustainable Management of Water Resources. Papallacta, Ecuador. March 2014.
- Developing a dengue early warning system in coastal urban Ecuador. Gund Institute. University of Vermont. Burlington, VT. September 2014; Falk College of Sport & Human Dynamics. Syracuse University. Syracuse, NY. September 2014.
- Developing an Ecuador-US Translational Science Consortium for Research and Surveillance of Climate-Sensitive Infectious Diseases in Machala, Ecuador. Department of Environmental Health, Rollins School of Public Health, Emory University. Atlanta, GA. March 2014.
- Developing a Dengue Early Warning System using Climate and Nonclimate Information – Experiences from Ecuador. International Research Institute for Climate and Society, Columbia University. New York, NY. Nov 2013.
- Social-Ecological Investigation of Dengue in El Oro Province. Seminar on research advances on vector-borne diseases: dengue and malaria. Universidad San Francisco de Quito. Quito, Ecuador. June 2012.
- Early Warning Systems for Infectious Diseases. Panel on Climate and Health at the National Summit of Mayors: Climate Pact. Quito, Ecuador. June 2011.
- The Integration of Health, Climate, and the Community to Prevent the Spread of Dengue in the Province of El Oro. VII National Climate Forum. Climate, Health, and Risk. Machala, Ecuador. June 2011.

CONFERENCE POSTERS

- Quandelacy TM, Lowe R, **Stewart-Ibarra AM**, Vincenti M, Ortiz Prado E, Munayco CV, Borbor-Cordova MJ, Rollock L, Figueroa L, Masis R, Rodriguez DM, Grillet M, Paz-Bailey G, Waterman S, Rodriguez-Barraquer I, Cummings D, Johansson MA. Dengue epidemic synchrony in the Americas. *Epidemics* 7 - International Conference on Infectious Disease Dynamics. December 3-6, 2019, Charleston, SC, USA.
- S. Pollett, M. Johansson, D. Brett-Major, N. Reich, A. Deshpande, **A. Stewart-Ibarra**, R. Sippy, I. Maljkovic Berry, C. Viboud, C. Rivers, The EPIFORGE initiative: development of an epidemic forecasting reporting guideline to standardize forecasting reporting, reproducibility and transparency. *Epidemics* 7 - International Conference on Infectious Disease Dynamics. December 3-6, 2019, Charleston, SC, USA.
- Hargrave AS, Sippy R, **Stewart-Ibarra AM**. Allergies, Obesity and Risk of Hospitalization for Suspected Arbovirus Infections. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.
- Estallo EL, Sippy R, **Stewart-Ibarra AM**, Grech M, Benitez E, Ludueña-Almeida FF, Ainete M, Frias-Cespedes M, Robert M, Romero MM, Almiron WA. Dengue fever, *Aedes aegypti* and climate dynamics from the temperate city of Córdoba, Argentina, during the time series of 2009-2017. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.
- Maljkovic Berry I, Rutvisuttinunt W, Sippy R, Figueroa K, Srikanth A, **Stewart-Ibarra AM**, Endy TP, Jarman RG Arboviral vulnerabilities of Ecuador: Chikungunya origins and novel dengue introductions following the increased influx of Venezuelan and Colombian citizens. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.
- Bideaux AE, Bhargava R, Sippy R, Narsipur SS, **Stewart-Ibarra AM**. Induction of epigenetic changes by agrochemicals - a possible explanation for chronic kidney disease of unknown etiology. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.
- Lippi CA, **Stewart-Ibarra AM**, Mao L, Ryan SJ. A network analysis framework for the evaluation of mosquito abatement service delivery in Machala, Ecuador. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.
- Sippy R, Heras F, **Stewart-Ibarra AM**, Ryan SJ, Mordecai E. Impact of Household Characteristics on *Aedes aegypti* Abundance in Rural Ecuador. 68th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH). Nov 20-24, 2019. National Harbor, MD, USA.

- Stewart-Ibarra, A.M.**, Romero, M., Borbor-Cordova, M.J., Cox, A., Hinds, A.Q., Lowe, R., Mahon, R., Van Meerbeeck, C., Rollock, L., St. Ville, E.S., Ryan, S.J, Trotman, A. Co-developing climate services for public health: stakeholder needs and perceptions for the prevention and control of *Aedes*-transmitted diseases in the Caribbean American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- Ryan, S.J., Mundis, S.J., Aguirre, A., Lippi, C.A., Beltrán, E., Heras, F., **Stewart-Ibarra, A.M**, Neira, M. 2018. Phenotypic and genotypic resistance to commonly used insecticides in *Aedes aegypti* among four cities in southern Ecuador. American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- Lippi, C.A., **Stewart-Ibarra, A.M.**, Trotman, A., Mahon, R., Rollock, L., Holligan, D., Kirton, S., Ryan, S.J. 2018. Hotspots for public health intervention: different tools for emerging and endemic diseases in small areas, a spatiotemporal analysis of dengue and chikungunya in Barbados, 2013 – 2016. American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- López-Rosero, A. **Stewart-Ibarra, A.M.**, Heras, F., Ryan, S.J., Mordecai, E.A., Neira, M. 2018. LB-5218 - Screening for Arboviral Infection in *Aedes aegypti* Populations from South-western Ecuador: Preliminary Results American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- Sippy, R, Heras, F., Mordecai, E., Ryan, S.J., **Stewart-Ibarra, A.M**. 2018. Impact of household characteristics on mosquito abundance in rural Ecuador. American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- Shocket, M.S, Johnson, L., **Stewart-Ibarra, A.M.**, Thomas, M., Rohr, J., Ryan, S.J., Savage, V., Mordecai, E.A. 2018. Comparing temperature-based R0 models across vector-borne diseases and a new model for Ross River virus. Population Biology of Vector-borne Diseases Symposium, Center for the Ecology of Infectious Diseases (CEID), February 24, 2018, Athens, GA
- Rivera GE, Larsen D, **Stewart-Ibarra AM** et al. Ingested insecticide to control *Aedes aegypti*: Developing a novel attractive toxic sugar bait device for intra-domiciliary control. The American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Mita N, McMahan E, Kenneson A, Barbachano-Guerrero A, Beltran-Ayala E, Cueva C, King CA, Lupone CD, Castro-Sesquen YE, Gilman RH, Endy TP, **Anna M. Stewart-Ibarra**. Chagas serology and co-infections with arboviruses in Ecuador. The American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Berry, I. M., **Stewart-Ibarra, A.M.**, Rutvisuttinunt, W., Beltrán-Ayala, E., Figueroa, K., Srikanth, A., Cárdenas, W.B., Cueva, C., Polhemus, M., Ryan, S.J., Endy, T.P., Jarman, R.G. 2018. Molecular epidemiology of chikungunya virus from Ecuador demonstrates two introductions in 2013 and the E1-K211E mutation, suggesting presence of enhanced fitness to *Aedes aegypti*. American Society for Tropical Medicine and Hygiene (ASTMH) Annual Meeting, October 28-November 1, 2018, New Orleans, LA
- Cueva Aponte C, Motte E, Santos Chanta C, Díaz Arce D, **Stewart-Ibarra AM**. Rapid diagnosis of Chikungunya via molecular techniques RT-PCR and RT-LAMP in febrile patients from Machala (Ecuador) and Tumbes (Perú). Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Spillane T, Abbott A, Lupone C, Heydari N, Cueva C, Beltran E, Polhemus M, Endy T, **Stewart-Ibarra AM**, Kmush BL. Hepatitis E Virus Seroprevalence in Ecuador and How it Relates to Age, Gender, and Diet. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28-November 1, 2018, New Orleans, LA, USA.
- Borbor-Cordova MJ, **Stewart-Ibarra AM**, Nolivos I, Rincon G, Casierra A, Johnson CA, Pezzoli A. Building urban climate resilience through public health: Identifying strategies for integrated public health governance in Duran, Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Farovitch L, **Stewart-Ibarra AM**, Beltran-Ayala E, Endy TP, Leydet B. Tick-borne disease in southern coastal Ecuador: Detection of antibodies to spotted fever group Rickettsia in febrile human individuals in 2014-2015

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- plasma samples. The American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Vega Ocasio D, Morrell C, **Stewart Ibarra AM**, et al. Assessing the Interconnection between Psychosocial Distress, Immune Response, and Dengue Virus in Machala, Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Fletcher I, **Stewart-Ibarra AM**, Silva M, Beltran-Ayala E, Ordonez T, Adrian J, Jones K, Lowe R. Exploring the role of environmental and socio-political drivers of malaria incidence in El Oro province, Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Farrell DF*, Sippy R*, Nightingale R*, Lichtenstein D*, Harris M*, Toth J*, Hantzidiamantis P*, Cueva Aponte CK, Usher NT, Puthumana A*, Barzallo Aguilera JH, **Stewart-Ibarra AM**. Severity Index for Suspected Arbovirus (SISA): Machine Learning for Accurate Prediction of Hospitalization in Patients Suspected of Arboviral Infection from a Prospective Surveillance Study in Machala, Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Diaz A*, Stewart-Ibarra AM, Neira M, Macias D, Diuk-Wasser M. Assessing the impact of house abandonment on mosquito *Aedes aegypti*-transmitted-borne disease risk post two years after the 2016 earthquake in Bahía de Caráquez, Ecuador. The American Society for Tropical Medicine and Hygiene 65th Annual Meeting, October 28- November 1, 2018, New Orleans, LA, USA.
- Lippi, C.A., **Stewart-Ibarra AM**, Mao, L., Heydari N.*, Ryan, S.J. “Using a network analysis framework to discuss delivery of mosquito abatement services in Machala, Ecuador” Session: Geographic Research on Vector-borne Diseases I, Annual Meeting of the American Association of Geographers, April 10-14, 2018, New Orleans, LA, USA.
- B. L. Kmush, M. Abbott, C. Lupone, N. Heydari, C. Cueva, E. Beltran, M. Polhemus, T. Endy, **A. Stewart-Ibarra**. Seroprevalence of Hepatitis E Virus in Machala, Ecuador. Global Hepatitis Summit. Toronto, Canada. June 14 -17, 2018.
- Farrell D, Lupone CD, Kenneson-Adams A, Cueva C, **Stewart-Ibarra AM**. Benign course of peripartum chikungunya and dengue co-infection in Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Maljkovic-Berry I, **Stewart-Ibarra AM**, Rutvisuttinunt W, Beltran-Ayala E, Cardenas W, Cueva C, Polhemus M, Ryan SJ, Endy TP, Jarman RG. Spread of dengue 1 and 2 in Machala, Ecuador: Evidence of a dynamic epidemic genetically related to those of surrounding countries of Colombia, Venezuela, and Peru. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Ryan SJ, Lippi CA, Boersch-Supan PH, Heydari N, Silva M, Adrian J, Noblecilla LF, Beltran Ayala E, Encalada MD, Larsen DA, Krisher JT, Krisher L, Fregosi LN, **Stewart-Ibarra AM**. Quantifying Seasonal and Diel Variation in Anopheline and Culex Human Biting Rates in Southern Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Lowe R, **Stewart-Ibarra AM**, Petrova D, Garcia-Díez M, Borbor-Cordova MJ, Mejía R, Regato M, Rodo X. El Niño and dengue prediction in Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Geneva II, Kenneson-Adams A, Lupone CD, Ryan SJ, Borbor-Cordova MJ, Beltran-Ayala E, Polhemus M, Endy TP, **Stewart-Ibarra AM**. Knowledge, perceptions, and socioeconomic status driving dengue prevention practices in urban coastal Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Heydari N, Ryan SJ, Neira M, Rochford R, Lippi C, Geer J, Heras F, **Stewart-Ibarra AM**. The economic burden of household-level prevention to *Aedes aegypti* transmitted illnesses across low and high disease burden sites in southern coastal Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.

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- Diaz AR, **Stewart-Ibarra AM**, Hargrave A, Kenneson-Adams A, Molina JP, Gonzales A, Romero M, Madden D, Garcia R, Domachowske E. Psychological Distress and Zika, Dengue, and Chikungunya Infections Following 2016 Earthquake in Coastal Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Vital M, Kenneson Adams A, Lupone CD, Rosenbaum PF, Adrian J, **Stewart-Ibarra AM**. Comparison of Active and Passive Surveillance Systems for Dengue Fever in Machala, Ecuador in 2014 and 2015. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Kenneson A, Beltran-Ayala E, Borbor-Cordova M, Polhemus M, Ryan S, Endy T, **Stewart Ibarra AM**. Socio-Ecological Factors and Preventive Actions Associated with Dengue Infections at the Household-Level Identified in a Prospective Dengue Surveillance Study in Machala, Ecuador. Poster at the American Society for Tropical Medicine and Hygiene 65th Annual Meeting, November 5-9, 2017, Baltimore MD, USA.
- Nightingale R, Ryan SJ, Lippi C, Borbor-Cordova MJ, Cruz BM, Ortega F., Leon R, Waggoner E, **Stewart Ibarra AM**. Dengue fever and *Aedes aegypti* risk in the Galapagos Islands, Ecuador. Poster presented at IECID 2017. 17-19 May 2017. Trieste, Italy.
- Petrova D., Lowe R., **Stewart-Ibarra A**, Ballester J, Koopman SJ, Rodo X. Long-lead El Niño forecasts to inform public health decision support systems: application to predict dengue in El Oro, Ecuador. IECID 2017. 17-19 May 2017. Trieste, Italy.
- Lippi CL, Castillo KC, **Stewart-Ibarra AM**, Cárdenas WG, Mejía⁵, Borbor-Cordova MJ, Rivero K, Ryan SJ. The Social Ecology of Dengue Presence and Burden During an Outbreak in Guayaquil, Ecuador, 2012. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Puthumana AJ, Farrell DF, Nightingale RA, Kenneson-Adams A., Polhemus M., **Stewart Ibarra AM**, Endy TP. FDA Toxicity Grading Scales as a Predictive Tool for Dengue Severity. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Kenneson A, **Stewart Ibarra AM**, Beltrán-Ayala E, Cárdenas WB, Cueva CK, Lupone CD, Abbott M, Polhemus M, Endy TP. The Epidemiology of Dengue and the Emergence of Chikungunya in Machala, Ecuador, 2014-2015. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Mordecai E, Cohen J, Evans M, Johnson LF, Gudapati P, Miazgowicz K, Murdock CC, Rohr J, Ryan SJ, Savage V, **Stewart Ibarra AM**, Thomas MB, Shocket M, Weikel D. Effects of temperature on Zika, Dengue and Chikungunya transmission by *Aedes aegypti* and *Ae. Albopictus*. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Ortega F, Nightingale R, Leon R, Basantes D, Borbor-Cordova MJ, Cruz BM, Waggoner E, **Stewart Ibarra AM**. Dengue fever and *Aedes aegypti* risk in the Galapagos Islands, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Heydari N, **Stewart Ibarra AM**, Larsen DA, Neira M. Household Dengue Prevention Interventions, Expenditures, and Barriers to *Aedes aegypti* Control in Machala, Ecuador. Lecture presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Petrova D., Lowe R., **Stewart-Ibarra A**, Ballester J, Koopman SJ, Rodo X. Long-Lead El Niño Forecast Information to Support Public Health Decision Making. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Ryan SJ, **Stewart Ibarra AM**, Ordoñez E, Chu W, Finkelstein JL, King CA, Escobar LE, Lupone C, Heras F, Enriquez C, Tauzer E, Waggoner E, James TG, Cardenas W, Polhemus M. Cholera and environmental dynamics in an Ecuadorean estuarine system. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, November 13-17, 2016, Atlanta, GA, USA.
- Petrova D., Lowe R., **Stewart-Ibarra A**, Ballester J, Koopman SJ, Rodo X. Long-Lead El Niño Forecast Information to Support Public Health Decision Making. Poster presented at the Health and Climate

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- Colloquium, At International Research Institute for Climate and Society, Earth Institute, Columbia University. June 8-10, 2016. New York, NY.
- Mordecai EA, Cohen J, Evans E, Johnson LF, Gudapati P, Miazgowicz K, Murdock CC, Rohr JR, Ryan SJ, Savage V, **Stewart Ibarra AM**, Thomas MB, Shocket M, Weikel DP. Temperature defines the fundamental risk of Zika, dengue, and chikungunya transmission. Poster presented at the Ecology of Emerging Infectious Diseases (EEID). Cornell University. June 3-5, 2016. Ithaca, NY.
- Ryan, S.J., **Stewart Ibarra, A.M.**, Ordonez, E., Chu, W., Finkelstein, J.L., King, C.A., Escobar, L.E., Lupone, C., Heras, F., Waggoner, E., Tauzer, E., Enriquez, K., James, T., Cardenas, W., Polhemus, M. 2016. "Spatial and seasonal dynamics of *Vibrio* spp. in an estuary in southern coastal Ecuador" Special Session 2562: Spatial and eco-epidemiological modeling (Sponsored by International Geography, GIScience, and Urban Health Theme, Health and Medical Geography Specialty Group). Talk presented at the Annual Meeting of the American Association of Geographers, March 29-April 2nd, 2016, San Francisco, CA.
- Tedesco JM, Mehta S, Beltrán-Ayala E., Cárdenas WB, Endy TP, Ryan SJ, **Stewart Ibarra AM**, Finkelstein JL. Anthropometry and Dengue Fever in Coastal Ecuador. Poster presented at Experimental Biology. April 2-6, 2016. San Diego, USA.
- Finkelstein JL, Layden AJ, Beltrán-Ayala E., Cárdenas WB, Endy TP, Ryan SJ, **Stewart Ibarra AM**, Mehta S. Micronutrients and Dengue Fever in Coastal Ecuador. Poster presented at Experimental Biology. April 2-6, 2016. San Diego, USA.
- D. Petrova, S.J. Koopman, R. Lowe, **A. Stewart-Ibarra**, X. Rodo. Long-Lead El Niño forecast information to support public health decision-making. Poster presented at the Annual Meeting & 12th European Conference on Applications of Meteorology (ECAM). September 7-11. Sofia, Bulgaria.
- McMahon E., **Stewart-Ibarra AM**, Barbachano-Guerro A, Kirchoff L, Beltrán-Ayala E., Borbor-Cordova MJ, Cueva CK, Finkelstein JL, King CA, Lupone CD, Mehta S, Ryan SJ, Silva M, Endy TP. The prevalence of Chagas disease and co-infections with dengue from a dengue surveillance study in Machala, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Stewart-Ibarra, A.M.**, CKing, C.A., Barbachano, A., Beltrán-Ayala, E., Borbor-Cordova, M.J., Cárdenas, W.B., Cueva, C., Finkelstein, J.L., Lupone, C.D., Mehta, S., Ryan, S.J., Silva, M., Endy, T.P. 2015. High Burden of Dengue Fever in Southern Coastal Ecuador: Epidemiology from a prospective study in Machala in 2014. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Handel, A., Beltran, E., Borbor Cordova, M.J., Espinoza, R.X.R., Ryan, S.J., **Stewart-Ibarra, A.M.** 2015. Knowledge, Attitudes, and Practices Regarding Dengue Infection Among Healthcare Providers in Machala, Ecuador. Poster presented at ID Week 2015, October 7-11, 2015, San Diego, CA.
- Fessler AG, Mehta S, Beltrán-Ayala E, Arichábala Wilches AL, **Stewart-Ibarra AM**, Finkelstein JL. HIV, Tuberculosis, and HIV/TB Co-infection in Machala, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Fessler AG, Mehta S, Beltrán-Ayala E, Arichábala Wilches AL, **Stewart-Ibarra AM**, Finkelstein JL. Reproductive Health: Burden of Sexually Transmitted Infections in Machala, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Borbor-Cordova, M.J., Torres, G., Bayot, B., Bermudez, R., Escobar, L.E., Hamilton, S., Pozo, M., Recalde, C., Ryan, S.J., **Stewart-Ibarra, A.M.** 2015. Exploring the impact of Harmful Algal Blooms (HABs) on the health of coastal communities in the Gulf of Guayaquil, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Fessler, A.G., Mehta, S., Beltra-Ayala, E., Arichabala Wilches, A.L., Endy, T.P., Polhemus, M., **Stewart-Ibarra, A.M.**, Ryan, S.J., Finkelstein, J.L. Burden of Tropical Diseases in Machala, Ecuador. Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA
- Chu, W., Ryan, S.J., Freire, W.B., **Stewart-Ibarra, A.M.**, Cardenas, W.B, Finkelstein, J.L. Burden and Distribution of Malnutrition in Guayaquil, Ecuador: Results from the Ecuadorian National Health and

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Nutrition Survey (ENSANUT-ECU). Poster presented at the American Society for Tropical Medicine and Hygiene 64th Annual Meeting, October 25-29, 2015, Philadelphia, PA

Stewart Ibarra AM, Muñoz AG, Ryan SJ, Beltrán Ayala E, Borbor MJ, Finkelstein JL, Mejía R, Ordoñez T, Recalde-Coronel GC, Rivero K. Spatiotemporal clustering, climate and social-ecological risk factors for dengue in Machala, Ecuador. Poster presented at the *American Society of Tropical Medicine and Hygiene Conference*. New Orleans, LA, USA. November 2014.

Krisher LK, Ambuludi M, Arichabala A, Beltrán E, Calle A, Krisher J, Navarrete P, Ordoñez T, Polhemus M, Quintana F, Rochford R, Silva M, Veintimilla M, **Stewart Ibarra AM**. A case study of malaria elimination in the Ecuador-Perú Border Region. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. New Orleans, LA, USA. November 2014.

Escobar L, Ryan SJ, **Stewart-Ibarra AM**, Finkelstein J, King C, Polhemus M. A Global Map of Suitability for Coastal Cholera under Current and Future Climate. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. New Orleans, LA, USA. November 2014.

Bayot B, Barahona M, **Stewart Ibarra AM**, Chavarrita J, Borbor M. Use of local oceanographic information to predict dengue in Ecuador. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. New Orleans, LA, USA. November 2014.

Stewart Ibarra AM, Luzadis VA, Borbor Cordova MJ, Silva M, Tania Ordoñez T, Beltran E, Ryan SJ. Community perceptions of emerging dengue in urban areas in southern coastal Ecuador. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. Atlanta, GA. November 2013.

Stewart Ibarra AM et al. Dengue Vector Dynamics Influenced by Interacting Climatic and Social Factors in Ecuador: Implications for Targeted Control. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. Atlanta, GA. November 2013.

Stewart Ibarra AM and Lowe R. Sea surface temperature monitoring for dengue early warning in Ecuador. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. Philadelphia, PA. December 2011.

Stewart Ibarra AM and Borbor-Cordova MJ. Climatic Gradients and Dengue Fever: Exploring the spatio-temporal distribution of *Aedes aegypti*. Conference on the Ecology and Evolution of Infectious Diseases. University of Georgia, Athens, GA. May 20-23, 2009.

Stewart Ibarra AM et al. Socio-ecological risk factors for dengue fever transmission in Guayaquil, Ecuador. Poster presented at the American Society of Tropical Medicine and Hygiene Conference. Washington, D.C. November 2009.

Stewart AM, Bowman KC, Buckley SM, Cray L, Graves M, Landis CL, Werner NA, Rivera Y, Patterson Jr N. Transforming students into scientists: Engaging high school students in ecological research through the NSF GK-12 program. Poster presented at the Ecological Society of American Annual Conference. Albuquerque, NM. Aug 2009.

Stewart Ibarra AM, Borbor-Cordova MJ, Hayden M, Mejia R. Predicting the spread of dengue fever: developing a spatio-temporal model of dengue transmission in Ecuador. Poster presented at the American Institute of Biological Sciences Annual Conference. Washington D.C. May 2008.

Searing KB, Werner NA, **Stewart AM**, Rivera Y, Brady M, Collins VB, Cray L, Patterson Jr N. ESF in the high school: Integrating scientific research into high school classrooms throughout New York State. Poster presented at the Ecological Society of American Annual Conference. Milwaukee, WI. Aug 2008.

TEACHING, MENTORSHIP, INTERNATIONAL WORKSHOPS

COURSES

Syracuse University HTW 633 - Spatial statistics for public health, Guest Lecturer (2019)

SUNY UMU: MPHP 652 Infectious Disease Epidemiology, Guest lecturer

SUNY UMU: GS647-001 Nanocourse on Emerging Infectious Diseases, Guest lecturer

SUNY ESF: EFB 217 Peoples, Plagues, and Pests (3) (2016-2018), Guest lecturer

University of Colorado: Climate Medicine 8010 (2019), Guest lecturer

EST 797: Social-ecological systems seminar, 2012, Co-instructor

EFB 497/797: Emerging disease of wildlife and humans seminar, 2012, Co-instructor

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EFB 497: Ecology and development in Costa Rica seminar, 2010, Co-instructor
EFB 120: The Global Environment & the Evolution of Human Culture, 2010, Head teaching assistant
ESF 300: Introduction to Geographic Information Technology, 2009, Teaching assistant
EFB 798: Resources, Development, and Policy in Latin America, 2008, Seminar coordinator
EFB 120: The Global Environment (co-taught in local high schools), 2007-2009, NSF GK-12 Fellow.

INTERNATIONAL WORKSHOPS/TRAININGS GIVEN AND/OR COORDINATED:

Webinar series on climate information for *Aedes aegypti* transmitted diseases and early warning systems in the Caribbean, for the Caribbean Institute of Meteorology and Hydrology. April-July 2017.
International Workshop: Experiences for the reduction of risk of flooding: Integrating technical components and community participation. ESPOL. Guayaquil, Ecuador. August 2015.
Dengue Day. Escuela Superior Politecnica del Litoral. Guayaquil, Ecuador. August 2015.
2nd International workshop on bioethics and research integrity. Quito, Ecuador. March 2015.
1st International workshop on bioethics and research integrity. Guayaquil and Machala, Ecuador. March 2014.
Dengue surveillance tools. Machala, Ecuador. July 2013
Dengue diagnostics tools. Machala, Ecuador. December 2013.
Workshop on clinical research for dengue vaccine development. Syracuse, NY. March 2013.
Geospatial tools for public health. Guayaquil and Machala, Ecuador. July 2014.
Vector surveillance for dengue fever. Galapagos, Ecuador. August 2014.

PHD CO-ADVISOR: Carola Soria. Dissertation: Knowledge and perceptions about dengue fever in a temperate city where dengue is an emerging epidemic disease. Department of Biology, National University of Cordoba, Argentina. 2018-present.

STUDENT COMMITTEE MEMBER:

Marie Jose Moubarak. Scholarship oversight committee member. Epidemiology of pediatric RSV in Ecuador. Fellow in Pediatric Infectious Diseases. SUNY Upstate Medical University. 2017-2019.
Avriel Diaz. Committee Member. Masters Thesis: Psychological distress and arboviral disease risk following natural disasters in Latin America and the Caribbean. Department of Ecology, Evolution and Conservation Biology at Columbia University, NY, NY, USA. 2017-2019.
Denisse Vega Ocasio. Committee Member. PhD Dissertation: Social and biological risk factors associated with HIV and Dengue (DENV) in the aftermath of a natural disaster. Translational Biomedical Sciences Doctoral program Infectious and Immunity: from Molecules to Population. University of Rochester, School of Medicine and Dentistry, Rochester, NY, USA. 2017-present.
Willy Dunbar. Committee Member. PhD Dissertation: Stigmatization and Discrimination Based On Sexual Orientation and HIV Infection: The Men Who Have Sex With Men's Experiences in Haiti. Université Libre de Bruxelles, Belgium. 2017-present.
Pallavi Amritha Kache. Committee Member. PhD Dissertation. Dengue epidemiology in Colombia. Department of Ecology, Evolution and Conservation Biology at Columbia University, NY, NY, USA. 2018-present.

OTHER RESEARCH TRAINEES IN ECUADOR:

C. Shea. Film: Undergraduate Honors Thesis: Dengue Fever: Infectious Hope. Syracuse University. An educational short film about dengue transmission in southern coastal Ecuador to be used by the Ministry of Health for community education and outreach. Research funded by Syracuse University Honors Program. 2011.
Andrew Handel. Medical student research from SUNY Upstate Medical University. Knowledge, Attitudes, and Practices of Dengue Infection Among Healthcare Workers in Machala, Ecuador.” Funded by IDSA ERF Medical Scholars Program. 2013.
Lyndsay Krisher: volunteer project manager on the project, “Capacity Strengthening in Ecuador: Partnering to improve surveillance of febrile vector-borne diseases.” Dec 2013 – Oct 2014.

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- Jesse Krisher: volunteer project manager on the project, “Capacity Strengthening in Ecuador: Partnering to improve surveillance of febrile vector-borne diseases.” Dec 2013 – Oct 2014.
- Erica Tauzer: volunteer project manager on the project, “Developing an operational research framework to assess local flood response capacities: A case study of a rural coastal community in Ecuador.” June 2014 – Jan 2015.
- Regan Deming: volunteer project manager on the project, “Capacity Strengthening in Ecuador: Partnering to improve surveillance of febrile vector-borne diseases.” June – Aug 2015.
- Egan Waggoner: volunteer project manager on the project, “Evaluating the potential use of oceanographic information and remotely sensed algal blooms to predict risk of cholera and other climate and water-sensitive diseases” and on the project “Exploratory comparative study of risk factors for dengue transmission on Santa Cruz and San Cristobal, Galapagos Province.” January – Sept 2015.
- Claire Chanatry. Undergraduate student researcher. Funded by a scholarship from Bucknell University. June – Aug 2015.
- Abigail Fessler. Fulbright IIE Scholar. Nutrition and Hepatitis B Infection in Ecuador. Adviros: J. Finkelstein at Cornell University. 2014-2015.
- Winnie Chu. 2014. Student researcher from Cornell University. Evaluating the potential use of oceanographic information and remotely sensed algal blooms to predict risk of cholera and other climate and water-sensitive diseases. Advisor: J. Finkelstein at Cornell University. June – October 2014.
- Ryan Nightingale. Medical student research from SUNY Upstate Medical University. Dengue fever clinical chart review from a prospective study in Machala, Ecuador. Funded by the Benjamin Kean Travel Fellowship from the American Society of Tropical Medicine and Hygiene. 2016.
- Daniel Farrell. Medical student research from SUNY Upstate Medical University. Dengue fever clinical chart review from a prospective study in Machala, Ecuador. 2016.
- Anthony Puthumana. Medical student research from SUNY Upstate Medical University. Dengue fever clinical chart review from a prospective study in Machala, Ecuador. Funded by the Benjamin Kean Travel Fellowship from the American Society of Tropical Medicine and Hygiene. 2016.
- Elizabeth McMahan. Undergraduate honors thesis: The prevalence of Chagas disease and co-infections with dengue from a dengue surveillance study in Machala, Ecuador. Research funded by Syracuse University Honors Program and by summer research scholarship by S.U. 2015.
- Kathleen Mulligan. Undergraduate honors thesis at Princeton University. *Aedes aegypti* ecology from a prospective study in Machala, Ecuador. Funded by Princeton University. Jointly mentored with SJ Ryan. Advisor: A. Dobson. 2016.
- Annie Hargrave. Global health capstone research: Dengue fever and Post-traumatic stress syndrome following an earthquake in Ecuador. University of California at San Francisco. 2016-2017.
- Lorne Farovitch, PhD student at University of Rochester. Dissertation: tick borne disease and public health outreach to the deaf and hard of hearing community. 2018-present
- Rachel Sippy, PhD. Postdoctoral researcher and project manager. Co-advised with Sadie Ryan. April 2018-2020.

MASTERS IN PUBLIC HEALTH PRACTICUMS IN ECUADOR:

- Naveed Heydari, Colorado University School of Public Health. 2015.
- Reese Garcia. Colorado University School of Public Health. 2016.
- Keith Suter. Colorado University School of Public Health. 2016.
- Jiayi Liew, Colorado University School of Public Health. 2016.
- Melissa Vitale, SUNY Upstate Medical University. 2016.
- Juliana Jeremiah, SUNY Upstate Medical University. 2018

ACADEMIC SERVICE & OUTREACH

JOURNAL REVIEWER: Acta Tropica, International Journal of Environmental Research and Public Health, Emerging Microbes and Infections –Nature, PLoS Neglected Tropical Diseases, PLoS ONE, American Journal of Tropical Medicine and Hygiene, Population and Environment (POEN), BMC Public Health, BMC Infectious Diseases, EcoHealth, Biomedical and Environmental Sciences (BES), Pathogens and Global Health,

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Environmental Research (ER), F1000, Malaria Journal, Epidemics, The Science of the Total Environment, Journal of Medical Entomology, Tropical Medicine and Infectious Disease, Clinical Infectious Diseases (CID), PeerJ, Transactions of the Royal Society of Tropical Medicine and Hygiene, Artificial Intelligence in Medicine

GRANT REVIEWER:

Technical Review Panel (TRP) for the Imagine NO Malaria grants of the United Methodist Charities (2015-2016)
National research grants awarded by the Ministry of Science and Technology (MESCYT) of the Dominican Republic (2016)
Antwerp Institute of Tropical Medicine Evaluation of Assistant Academic Track Mandates for pre-doctoral candidates (2016)
Wellcome Trust Sir Henry Dale Fellowship Applications (2018)

PROFESSIONAL SERVICE

Board of directors, Walking Palms Global Health, Bahia de Caraquez, Ecuador (2019-present)
Member, Climate and Health Consortium of Colorado University (2016-present)
Chair, Scientific Advisory Committee, Colorado School of Public Health and Pantaleon. Chronic Kidney Disease and Heat Stress in Sugar Cane Workers in Guatemala. (2016-present)
Climate and Health coordinator for the Latin American Observatory:
http://datoteca.ole2.org/maproom/Sala_de_Salud-Clima/index.html.es (2015-present)
Member of Executive committee and Implementation Task Force for the SUNY Global Health Institute. (2013 – present)
Executive Board Member, CEDEI Foundation: Centers for Interamerican Studies. (2015 – present).
President (2009-2010) & Vice President (2008-2009) of the SUNY College of Environmental Science and Forestry Graduate Student Association.
SUNY College of Environmental Science and Forestry Middle States Reaccreditation Self-Study Steering Committee Member. 2009-2011
Graduate Program Advisory Committee. Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry. 2009-2010.
Search Committee Member for the Assistant Dean of Instruction & Graduate Studies at SUNY College of Environmental Science and Forestry. 2009.
Graduate Student Advisory Committee Member, Dean of Instruction & Graduate Studies SUNY College of Environmental Science and Forestry. 2009.
Teaching Fellow. SUNY College of Environmental Science and Forestry. Colloquium on Teaching and Learning. 2007-2009

ADDITIONAL TRAINING

Graduate Certificate in One Health. University of Florida. Gainesville, FL. 2013.
Mathematical Models of Climate Variability, Environmental Change and Infectious Diseases. International Centre for Theoretical Physics, Trieste, Italy. 8-16 May 2017.
Colloquium on Governance and Knowledge Integration at the Science-Policy Interface. National Center for Atmospheric Research (NCAR) and the InterAmerican Institute for Global Change Research (IAI) held in Quito, Ecuador. April 2013
Quantitative Landscape and Environmental Sustainability Workshop. DIMACS/MBI US-African BioMathematics Initiative. Durban, South Africa. July 2012.
Mathematical modeling of disease dynamics and spatial analyses of disease risk. EcoHealthNet Workshop. Johns Hopkins University, Baltimore, MD. June 2011.
Climate Information for Public Health Summer Institute. International Research Institute for Climate and Society at Columbia University. New York, New York. May 2011.
International training institute on urban responses to climate change: Politics, strategies and instruments for Latin America and Caribbean. Inter-American Institute for Global Change Research and the U.N. Economic Commission for Latin America and Caribbean. Santiago, Chile. November 2010.

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Colloquium on Knowledge Innovation at the Science-Policy Interface. Inter-American Institute for Global Change Research and the National Center for Atmospheric Research. San Jose, Costa Rica. April 2010.
Ecology of Emerging Infectious Disease Modeling Workshop hosted by the University of Georgia. Athens, GA. May 2009.

PATENT

Dried attractive lure and kill stations for the control of *Aedes aegypti*. The United States Patent and Trademark Office filing number 62/511,461. Jointly filed with David Larsen (Syracuse University) and Marco Neira (Catholic University of Ecuador – PUCE).

PROFESSIONAL MEMBERSHIPS

American Society of Tropical Medicine and Hygiene (subgroups: ACME Medical Entomology, ACAV Arbovirology)
Sigma Xi: The Scientific Research Society
CHANS-Net
Vector Behavior in Transmission Ecology Research Coordination Network – VectorBiTE RCN
Ecuadorian Public Health Society

SELECTED HONORS

Outstanding PhD Student. Department of Environmental and Forest Biology. SUNY College of Environmental Science and Forestry. 2013.
SUNY College of Environmental Science and Forestry. Alumni Memorial Scholar. 2011 (honorable mention in 2010).
Best Poster, Climate Information for Public Health Summer Institute. Columbia University. 2011.
International Student Leadership Award of the International Center of Syracuse. 2010.
SUNY College of Environmental Science and Forestry. Leroy C. Stegeman Award in Invertebrate Ecology. 2010.
Honorable Mention, National Science Foundation Graduate Research Fellowship Program. 2009.
Emerging Public Policy Leader Award, American Institute of Biological Sciences. 2009.
Outstanding Student Research in Ecology Award, Ecological Society of America. 2009.
Best Poster, American Institute of Biological Sciences Annual Conference on “Climate, Environment and Infectious Diseases.” 2008.

OTHER SKILLS

Language: Native fluency in English and Spanish; experienced in English-Spanish simultaneous translation
Experienced in S.T.E.M. science education, pedagogy and outreach to high school students, group facilitation and participatory processes for research and capacity strengthening with public health and other governmental and community actor.

SOCIAL MEDIA/PRESS

SOCIAL MEDIA

Ecuador project Facebook page: <https://www.facebook.com/denguemachala/>
Blog by U.S. students who have done research and service at the field site in Ecuador
<http://blogs.upstate.edu/cgh-ecuador/>

SELECTED PRESS RELEASES AND INTERVIEWS

Upstate-led study finds resurgence of malaria cases at the Ecuador-Peru border linked to Venezuelan crisis
<http://upstateonline.info/static/March21-March282019/blog/story-2/index.html>
Upstate is part of research team looking at how weather data can predict dengue fever outbreak. August 2018.
<http://upstateonline.info/static/July19-July262018/blog/story-1/index.html>
Ecuador Earthquake Linked to Zika and Stress: New Study. December 9, 2017.

A. M. Stewart Ibarra (last updated: 06 Jan 2020)

<https://www.telesurtv.net/english/analysis/Ecuador-Earthquake-Linked-to-Zika-and-Stress-New-Study-20171207-0018.html>

Combination of El Niño and 2016 Ecuador Earthquake Likely Worsened Zika Outbreak. American Geophysical Union Press Release. October 12, 2017. <https://news.agu.org/press-release/combination-of-el-nino-and-2016-ecuador-earthquake-likely-worsened-zika-outbreak/>

Research Highlights Ideal Temperature for Spread of Mosquito-Borne Diseases. May 26, 2017
<http://newswise.com/articles/upstate-medical-university-is-part-of-research-team-to-highlight-ideal-temperature-for-spread-of-mosquito-borne-diseases>

Upstate study highlights key principles of a successful malaria elimination program: <http://upstateonline.info/static/Feb2-Feb92017/blog/story-2/index.html>

Upstate awarded nearly \$200K from National Science Foundation for Zika virus research: <http://upstateonline.info/static/May19-May262016/blog/story-2/index.html>

Seeking Zika: Where and when will Zika-carrying mosquitoes strike next? National Science Foundation News Release. February 18, 2016. https://www.nsf.gov/news/news_summ.jsp?cntn_id=137712

Malaria outbreaks among ways Venezuelan crisis is straining Latin America's health care systems
<http://blogs.upstate.edu/healthlinkonair/2019/02/22/malaria-outbreaks-among-ways-venezuelan-crisis-is-straining-latin-americas-health-care-systems/>

Using climate data to predict mosquito-borne diseases
<http://blogs.upstate.edu/healthlinkonair/2018/09/14/using-climate-data-to-predict-mosquito-borne-diseases/>

Research findings will help in the fight against dengue fever
<http://blogs.upstate.edu/healthlinkonair/2014/01/08/research-findings-will-help-in-the-fight-against-dengue-fever/>

Research aims to combat dengue, Zika and other mosquito-borne diseases
<http://blogs.upstate.edu/healthlinkonair/2016/09/23/research-aims-to-combat-dengue-zika-and-other-mosquito-borne-diseases/>

Disaster delivers unexpected, but possibly hopeful, lessons to researchers
<http://blogs.upstate.edu/healthlinkonair/2016/09/23/disaster-delivers-unexpected-but-possibly-hopeful-lessons-to-researchers/>