

CONTACT INFORMATION	Av. Javier Prado Oeste 1694 Lima 15073, Peru Tel: +51 969212422	E-mail: carlos.culquichicon@emory.edu culquichicon.github.io/culquichicon
BACKGROUND	‘William H. Foege’ Global Health Fellow enrolled in the Masters’ of Science in Public Health (MSPH) on Environmental Health and Epidemiology at the Rollins School of Public Health, Emory University. Focused on causal inference methods of arboviral diseases applied on population-level vector-control strategies.	
	PART I: Education and career	
EDUCATION	MSPH in Environmental Health and Epidemiology Rollins School of Public Health, Emory University, GA, USA.	May 2022
	MD Medical Doctor Universidad Nacional de Piura, Piura, Peru.	2017
HONORS AND AWARDS	2021 Awardee, Virtual Conference Scholarship, Society for Epidemiological Research, U.S.	
	2021 Scholarship, 13th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), University of Washington (UW), U.S. (5R25GM089694).	
	2020 Fellow, “William H. Foege” Global Health Fellowship endowed by the Bill & Melinda Gates Foundation, US (OPP19761). Full-tuition scholarship for MSPH in EH-EPI at Emory University.	
	2020 Awardee, Rollins Earn and Learn (REAL) Program. Rollins School of Public Health. Emory University.	
	2020 Presidential scholarship, Peruvian National Scholarship and Educational Program (PRONABEC) (RJ1705-2020). Living expenses scholarship for MSPH in EH-EPI at Emory University.	
	2020 Scholarship, 12th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), University of Washington, U.S. (5R25GM089694).	
	2020 Scholarship, Pan Lab, Population, Health and Environmental Research at Duke University. Funded by the NASA project “Malaria Early Warning System for the Amazon”, U.S. (NNX15AP74G).	
	2019 Scholarship, International scholarships program, XX Summer School of Public Health at Universidad de Chile, Chile.	
	2019 Top manuscript, Call for Criminological Phenomenon research. Peruvian Ministry of Justice and Human Rights.	
	2019 Scholarship, Pan Lab, Population, Health and Environmental Research at Duke University. Funded by CONCYTEC (E009-054-2019).	
	2019 Scholarship, XIX Summer School of Public Health at Universidad de Chile, Regional Geohealth- Hub, Fogarty International Center, National Institutes of Health (NIH), U.S. (U2RTW010114).	
	2018 Fellowship, Global Health Leadership Academy, University of Texas Medical Branch, Galveston, Texas, U.S. (PHS6097-304037).	
	2018 Scholarship, III Geohealth-Hub centered in Peru, Fogarty International Center, National Institutes of Health (NIH), U.S. (U2RTW010114).	
	2017 Outstanding Scientific Records, Universidad Nacional de Piura (216-D-2017-MH/UNP).	
SHORT COURSES AND WORKSHOPS	2021 E-values, Unmeasured Confounding, Measurement Error, and Selection Bias. Society for Epidemiological Research (SER), U.S.	
	2021 Introduction to parametric and semi-parametric estimators for causal inference. SER, U.S.	
	2021 Causal Mediation: Modern Methods for Path Analysis. SER, U.S.	
	2021 Causal inference for multiple time-point (longitudinal) exposures. SER, U.S.	
	2021 An introduction to directed acyclic graphs. SER, U.S.	
	2021 Confounding control for estimating causal effects. SER, U.S.	
	2021 Causal inference module, Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), University of Washington (UW), U.S. Lectured by Richardson T and Hudgens M.	

	2021	Spatial Statistics in Epidemiology, SISMID-UW, U.S.
	2020	Statistics and Modelling with Novel Data Streams, SISMID-UW, U.S.
	2020	Infectious Diseases, Immunology and Within-Host Models, SISMID-UW, U.S.
	2020	Simulation-based Inference for Epidemiological Dynamics, SISMID-UW, U.S.
	2020	Time series analysis for biomedical outcomes using R, Summer School of Public Health, Universidad de Chile, Chile.
	2020	Introduction to Bayesian analysis with health outcomes, Summer School of Public Health, Universidad de Chile, Chile.
	2019	Statistical analysis with missing data using multiple imputation , University College London and Universidad Peruana Cayetano Heredia, Peru.
	2019	Introduction to machine learning applied in health sciences, XX Summer School of Public Health, Universidad de Chile, Chile.
	2019	Clinical trials design, XX Summer School of Public Health, Universidad de Chile, Chile.
	2019	Impact evaluation using quasi-experimental designs , XX Summer School of Public Health, Universidad de Chile, Chile. Lectured by Jay S. Kaufman.
	2019	Introduction to Causal Inference , XX Summer School of Public Health, Universidad de Chile, Chile. Lectured by Enrique Schisterman.
	2018	An introduction to causal inference , Universidad San Ignacio de Loyola, Peru. Lectured by Miguel Hernan.
	2018	Global Burden of Disease, University of Washington and Universidad Peruana Cayetano Heredia, Peru.
	2018	Audited the Master's in Epidemiology, Universidad Peruana Cayetano Heredia.
	2017	Network Meta-analysis and indirect comparisons workshop, Cochrane Network and Center of Excellence CIGES, Chile.
	2017	XII Field Epidemiology Course, Universidad Peruana Cayetano Heredia, Peru.
	2017	International Course on Outbreak Investigation, Universidad Peruana Cayetano Heredia.
CAREER DEVELOPMENT	2020	Research scholar, Duke Global Health Institute, Duke University, NC, U.S. Funded by the NASA project “Malaria Early Warning System for the Amazon”, U.S. (NNX15AP74G)
	2019	Research scholar, Duke Global Health Institute, Duke University, NC, U.S. Funded by CONCYTEC Peru.
	2018	Fellow, Global Health Leadership Academy, University of Texas Medical Branch, TX, U.S.
	2015	Visiting scholar in Fungal Immunology, Universidade Católica de Brasília, Brazil.
CERTIFICATIONS	2019–	RENACYT scientist, Peruvian Council of Science, Technology, and Innovation (CONCYTEC) (ID: P0034512)
	2017–	Medical doctor, Peruvian Medical Association (ID: 78955)
PROFESSIONAL EXPERIENCE	2019–20	Research associate, Division of Epidemiology, Instituto de Evaluación de Tecnologías en Salud e Investigación (IETSI), Social Health Insurance, Lima, Peru.
	2019	Research associate, Division of Epidemiology, Peruvian National Institutes of Health, Lima, Peru.
	2018–20	Research associate, School of Health Sciences, Universidad Nacional de Piura, Piura, Peru.
	2016–19	Research assistant, Emerge, Emerging Diseases and Climate Change Research Unit, Universidad Peruana Cayetano Heredia, Lima, Peru.
	2018	Epidemiologist, Division of Epidemiology, Peruvian Air Force Unit N° 7, Piura, Peru.
AFFILIATED POSITIONS	2020–	Affiliated investigator, Emerge, Emerging Diseases and Climate Change Research Unit, Universidad Peruana Cayetano Heredia, Lima, Peru.
	2020–	Affiliated investigator, School of Health Sciences, Universidad Nacional de Piura, Piura, Peru.
	2015–19	Affiliated investigator, Public Health and Infection Lab, Universidad Tecnológica de Pereira, Colombia.
	2016	Trainee, Scientia Clinical and Epidemiological Research Institute, Trujillo, Peru.
SERVICE	2020	Member of review board, Kaelin Prize for Epidemiological Research, Peruvian Social Health Insurance, Peru.

	2017–	Member of advisory board, Scientific Society of Medical Students at UNP (SOCIEM-UNP).
	2017	Member of organization board, VII Latin American Conference of American Society of Tropical Medicine and Hygiene.
	2016	Member of Institutional Review Board, Santa Rosa General Hospital, Piura, Peru.
LANGUAGES	Spanish:	Fluent, native speaker.
	English:	Fluent, TOEFL IBT 91/120.
	Portuguese:	Fair.
COMPUTATIONAL SKILLS		Statistics and programming softwares: R Studio, Stata, Mata programming, and SAS. Multilevel analysis: github.com/culquichicon/2016-Peruvian-Prison-Census Nested models: github.com/culquichicon/Flu-vaccination-coverage Longitudinal analysis: github.com/culquichicon/El-Nino-amendment Latent class analysis: github.com/culquichicon/kap-biostats Data management: REDCap, Open Data Kit, Survey Monkey. Geographic information systems: ArcGIS, QGIS, R. Technical Softwares: L ^A T _E X, Rmarkdown, Git.
CLINICAL PRACTICE	2017-18	Physician, Peruvian Air Force Unit N° 7, Piura, Peru.
MEMBERSHIPS	2020–	Member, Society for Epidemiological Research (SER)
	2017-20	Member, American Society of Tropical Medicine and Hygiene (ASTMH).
	2017-19	Member, European Society of Clinical Microbiology and Infectious Diseases (ESCMID).
	2017-19	Member, International Epidemiological Association (IEA).

PART II: Research experience

CURRENT RESEARCH	<p><i>Entomological impact of targeted indoor residual spraying on <i>Aedes aegypti</i> age structure and abundance</i></p> <p>Design: designed an ecological, and active surveillance study, grant writing of awarded proposal, protocol design and implementation. Methods and analysis: formal analysis of multilevel modeling with mixed effects for ordered outcomes. Implementation: conducted ovariole dissections using the Polovodova method for age grading of mosquito populations.</p> <p><i>Prevalence of SARS-CoV-2 exposure in a pediatric cohort of unvaccinated children in Merida, Yucatán, México</i></p> <p>Investigators: Kirsten OD, Culquichicon C, Ernest JT</p> <p>Methods and analysis: formal analysis of multilevel modeling with mixed effects for categorical outcomes.</p>	
COMPLETED RESEARCH	<p><i>Urban factors associated with high-constant <i>Aedes aegypti</i> density using remote sensing image classification</i> 2019–21</p> <p>Funded by: Call for research grants 2019, ULADECH – Universidad Católica Los Ángeles de Chimbote, Peru.</p> <p>Investigators: Lescano AG, Culquichicon C, Pan W.</p> <p>Total Budget: USD \$60,000 Role: Co-investigator.</p> <p>Design: designed an adult prospective cohort study to evaluate arboviral diseases incidence while integrating urban ecological measures with entomological indexes, grant writing of awarded proposal, protocol design and implementation. Methods and analysis: conducted baseline analysis and remote sensing tools implementation including unsupervised classification of impervious surfaces of neighborhoods in Piura. Implementation: supervise enrollment of participants, and human and entomological baseline evaluations.</p> <p><i>Real-world effectiveness of hydroxychloroquine, azithromycin, and ivermectin among hospitalized COVID-19 patients: results of a target trial emulation using observational data from a nationwide healthcare system in Peru</i> 2020</p> <p>Investigators: Soto P, Culquichicon C, Hurtado Y, Araujo RV</p> <p>Design: designed a retrospective cohort study using electronic clinical records, protocol design and implementation. Methods and analysis: co-conducted the formal analysis using propensity score matching and IPW for causal survival estimation following Hernan's protocol for a target trial emulation.</p>	

Persistent post-traumatic stress disorder and resilience on people affected by the 2017 Coastal El Niño in Piura and Lima, Peru 2019–20

Funded by: GloCal fellowship, Global Health Institute – University of California.

Investigators: Valladares-Garrido M, **Culquichicon C**, Grelotti D, Lescano AG.

Total Budget: USD \$15,000

Role: Co-investigator.

Skills learned:

Design: designed a longitudinal population survey protocol, grant writing of awarded proposal, and protocol write-up.

Methods and analysis: conducted formal analysis for multilevel modeling of static exposure using mixed effects models.

Melioidosis surveillance and laboratorial capacity building in Peru 2019–20

Funded by: Department of special pathogens, CDC - Centers for Disease Control and Prevention, USA.

Investigators: Lescano AG, **Culquichicon C**, Gavilán RG.

Total Budget: USD \$25,000 (PO3122)

Role: Co-investigator.

Design: designed an ecological, and active surveillance study, grant writing of awarded proposal, protocol design and implementation.

Methods and analysis: modeling of categorical outcomes in cross-sectional studies.

Implementation: supervise field operations of veterinarian and health teams.

Mental health disorders among front-line health personnel during COVID-19 emergency response in Piura and Lambayeque, 2020 2020

Funded by: Call for COVID-19 emergency research, IETSI – Instituto de Evaluación de Tecnologías Sanitarias e Investigación.

Investigators: Diaz C, Sanchez-Reto M, Valladares-Garrido MJ, **Culquichicon C**, Grelotti D.

Total Budget: USD \$12,000

Role: Co-investigator.

Design: designed a longitudinal study, grant writing of awarded proposal, and protocol design.

Methods and analysis: conducted an interim longitudinal analysis of a time static exposure using multilevel mixed effect models.

Arboviral diseases seroprevalence among pregnant during El Niño events in Piura: a nested case control into El Niño cohort study 2017

Funded by: Fogarty International Center, Global Infectious Diseases. Peru Infectious Diseases Epidemiology Research Training Consortium.

Investigators: **Culquichicon C**, Zapata-Castro LE, Neyra K, Lescano AG.

Total Budget: USD \$5,000

Role: Investigator.

Design: designed a nested case control within El Niño cohort study and protocol implementation.

Methods and analysis: longitudinal modeling of categorical outcomes with static exposure.

Implementation: enrolled pregnant women into El Niño cohort study, collected blood samples, and surveyed for baseline evaluations.

Post-traumatic stress disorder, food insecurity, and social capital after the 2017 coastal El Niño flooding among mothers from Piura, Peru: a mixed method study 2017

Funded by: Fogarty International Center, Global Infectious Diseases. Peru Infectious Diseases Epidemiology Research Training Consortium.

Investigators: **Culquichicon C**, Gilman RH, Levy K, Lescano AG.

Total Budget: USD \$5,000

Role: Investigator.

Design: designed a panel study and protocol implementation.

Methods and analysis: clustered analysis of continuous and categorical outcomes with bootstrapping.

Implementation: conducted and supervised field operations for 3 years of the cohort study.

Before, during and after El Niño Phenomenon: an infant cohort study in northern Peru addressing impact on nutritional status 2015–20

Funded by: Fogarty International Center, Global Infectious Diseases. Peru Infectious Diseases Epidemiology Research Training Consortium.

Investigators: Gilman R, Lescano A, Miranda JJ, Gonzales R.

Total Budget: USD \$32,000

Role: Fellow and coordinator of Piura field operations.

Design: writing of amendments to the original protocol and their implementation.

Methods and analysis: longitudinal modeling of continuous and categorical outcomes with static exposure.

Implementation: conducted and supervised field operations for 3 years of the cohort study.

Research training and outbreak assessment among primary-care physicians to improve Zika surveillance in two Peruvian endemic areas 2017

Funded by: Zika Preparedness and Response Field Epidemiology Projects, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET).

Investigators: Maguiña JL, Munayco C, **Culquichicon C**, Lescano AG.

Total Budget: USD \$10,000

Role: Co-investigator.

Implementation: delivered a module of epidemiological research concepts .

Enhancing guidelines and educational tools for health caregivers during the age of Zika 2017

Funded by: Zika Preparedness and Response Field Epidemiology Projects, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET).

Investigators: Soto-Becerra P, Rusu C, **Culquichicón C**, Lescano AG.

Total Budget: USD \$10,000

Role: Co-investigator.

Implementation: surveyed primary care health personnel and conducted in-depth interviews.

Post-traumatic stress disorder, infectious diseases and social capital level on farmworkers affected by the Hurricane Florence: a cross-sectional study in the Robeson County, North Carolina 2018

Funded by: Hurricane Florence – A Special Call for Quick Response Grant Proposals, Natural Hazards Center, University of Colorado Boulder.

Investigators: Arcury T, Sanders J, **Culquichicon C**, Mora D, Flores EC, Ferradas C, Lescano AG.

Total Budget: USD \$5,000

Role: Co-investigator.

Design: designed a cross-sectional population-based study, writing of awarded proposal, protocol design.

Methods and analysis: conducted formal modeling of continuous, and categorical with interaction assessment.

CONSULTING

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| 2018 | Case report of the current dengue surveillance system in Peru. Merck & Co. |
| 2018 | Internal validity and sensitivity analysis of the Peruvian Nutritional Status Surveillance System, Peruvian National Institute of Health. |
| 2018 | Epidemiological surveillance on public health course. Peruvian Ministry of Health. |
| 2018 | Evaluation and monitoring of health interventions course. Peruvian Ministry of Health. |
| 2017-18 | Systematic review on multi-sectoral approaches for prevention and control of vector-borne diseases. Pan American Health Organization in Peru. |

PART III: Teaching and editorial experience

TEACHING

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| 2021 | Teaching assistant, EPI 536 “Applied data analysis”, Emory University, USA. |
| 2021 | Teaching assistant, EH 593R “Data analysis in environmental health”, Emory University, USA. |
| 2018-19 | Field instructor, Field Epidemiology course, Universidad Peruana Cayetano Heredia, Peru. |
| 2018-19 | Teaching assistant, Epidemiological Applications course, Masters and Doctoral Program in Epidemiological Research, Universidad Peruana Cayetano Heredia, Peru. |
| 2017-18 | Lecturer, Epidemiologic concepts course, School of Health Sciences, Universidad Nacional de Piura, Piura, Peru. |
| 2016-17 | Teaching assistant, Scientia Clinical and Epidemiological Research Institute Training Program. |

PEER

REVIEWER

Publons Profile: <https://publons.com/author/805745/carlos-culquichicon#profile>

Journals: *Annals of Clinical Microbiology and Antimicrobials*, *Cureus*, *International Archives of Medicine*, *Oncotarget*, *Revista de la Facultad de Medicina*, *Travel Medicine and Infectious Disease*, *Pan American Journal of Public Health*, *F1000Research*, *Journal of Medical Virology*, *Peruvian Journal of Experimental Medicine and Public Health*.

PART IV: Publications

PUBLISHED

14. Local Burden of Disease HIV Collaborators. Subnational mapping of HIV incidence and mortality among individuals aged 15–49 years in sub-Saharan Africa, 2000–18: a modelling study. *The Lancet HIV*. 2021;8(6):e363-e75. doi: 10.1016/S2352-3018(21)00051-5
13. Local Burden of Disease Diarrhoea Collaborators. Mapping geographical inequalities in oral rehydration therapy coverage in low-income and middle-income countries, 2000-17. *The Lancet Glob Health*. 2020;8(8):e1038-e1060. doi: 10.1016/S2214-109X(20)30230-8

12. Araujo-Castillo RV, **Culquichicon C**, Solis Condor R. Burden of disease due to hip, knee, and unspecified osteoarthritis in the Peruvian social health insurance system (EsSalud), 2016. F1000Res. 2020;9:238. doi: 10.12688/f1000research.22767.2.
11. **Culquichicon C**, Ramos-Cedano E, Helguero-Santin LM, Niño-García R, Rodríguez-Morales AJ. Research trends in Carrion's disease in the last 60 years: A bibliometric assessment of Latin American scientific production. Infez Med. 2018. Infez Med. 2018; 26(1):28-36.
10. Yepes-Echeverri MC, Acevedo-Mendoza WF, Marín-Rincón H, **Culquichicon C**, Cardona-Ospina JA, Rodríguez-Morales AJ. Mapping the residual incidence of taeniasis and cysticercosis in Colombia, 2009–2013, using geographical information systems: Implications in public health and travel medicine. Travel Med Infect Dis. 2018;22:51-7. doi: 10.1016/j.tmaid.2017.12.006
9. Ortega-Loubon C, **Culquichicon C**, Correa R. The Importance of Writing and Publishing Case Reports During Medical Training. Cureus. 2017; 9(12): e. doi:10.7759/cureus.
8. **Culquichicon C**, Helguero-Santin LM, Labán-Seminario LM, Cardona-Ospina JA, Aboshady O, Correa R. Massive open online courses in health sciences from Latin American institutions: A need for improvement?. F1000Research. 2017; 6:940. doi: 10.12688/f1000research.11626.1
7. **Culquichicon C**, Hernández-Pacherres A, Labán-Seminario M, Cardona-Ospina JA, Rodríguez-Morales AJ. Where we are after 60 years of Paragonimus research? A bibliometric assessment. Infez Med. 2017; 25(2):142-149.
6. Rodríguez-Morales AJ, **Culquichicon C**. The need for enhancing the message: Screening for Zika, STORCH, and other agents and co-infections should be considered and assessed. Am J Reprod Immunol.e12688-n/a. doi: 10.1111/aji.12688
5. **Culquichicon C**, Cardona-Ospina JA, Patiño-Barbosa AM and Rodríguez-Morales AJ. Bibliometric analysis of Oropouche research: impact on the surveillance of emerging arboviruses in Latin America. F1000Research. 2017, 6:194. doi: 10.5256/f1000research.10936.d152949
4. Rodríguez-Morales AJ, **Culquichicon-Sanchez C**, Gil-Restrepo AF. Baja producción científica de decanos en facultades de medicina y salud de Colombia: ¿una realidad común en Latinoamérica? Salud Publica Mex.2016;58:402-3. doi: 10.21149/spm.v58i4.7809
3. **Culquichicon-Sanchez C**, Ramos-Cedano E. Becas de iniciación científica: un modelo integral de desarrollo en investigación para Latinoamérica. Rev Med Chil. 2016;144:683-4. doi: 10.4067/S0034-98872016000500022
2. **Culquichicon-Sanchez C**, Correa R, Flores-Guevara I, Espinoza Morales F, Mejia CR. Immune Thrombocytopenic Purpura and Gastritis by H. pylori Associated With Type 1 Diabetes Mellitus. Cureus. 2016;8(2):e512. doi: 10.7759/cureus.512
1. **Culquichicon-Sanchez C**, Ramos-Cedano E, Chumbes-Aguirre D, Araujo-Chumacero M, Díaz Vélez C, Rodríguez-Morales AJ. Tecnologías de la Información y la Comunicación (TICs) en la vigilancia, prevención y control del dengue. Rev Chilena Infectol. 2015;32:363-4. doi: 10.4067/S0716-10182015000400019

PRE-PRINTS

1. Soto-Becerra P, **Culquichicon C**, Hurtado-Roca Y, Araujo-Castillo RV. Real-world effectiveness of hydroxychloroquine, azithromycin, and ivermectin among hospitalized COVID-19 patients: results of a target trial emulation using observational data from a nationwide healthcare system in Peru. medRxiv; doi: 10.1101/2020.10.06.20208066

UNDER REVIEW

5. Ayora-Talavera G, Kirstein OD, Puerta-Guardo H, Barrera-Fuentes G, Ortegón-Abud D, Che-Mendoza A, Parra M, **Culquichicon C**, Pavia-Ruz N, Beheshti A, Trovão NS, Granja-Pérez P, Manrique-Saide P, Vazquez-Prokopec GM, Earnest JT. Prevalence of SARS-CoV-2 exposure in a pediatric cohort of unvaccinated children in Merida, Yucatán, México. The Lancet Global Health. 2021
4. **Culquichicon C**, Astudillo-Rueda D, Niño R, Martínez R, Merino-Tsui N, Levy K, Lescano AG. Post-traumatic stress disorder, food insecurity and social capital among mothers after the 2017 Coastal El Niño flooding in Piura, Peru: a mixed method study. Disaster Medicine and Public Health Preparedness. 2021.
3. **Culquichicon C**, Zapata-Castro L, Soto-Becerra P, Konda KA, Silva-Santisteban A, Lescano AG. Self-reported HIV in Peruvian inmates: results of the 2016 prison census. PLoS. 2021.
2. Delahoy MJ, Hubbard S, Mattioli M, **Culquichicon C**, Knee J, Brown J, Cabrera L, Barr DB, Ryan PB, Lescano AG, Gilman RH, Levy K. Chemical and microbiological drinking water risks for infants in coastal Peru. American Journal of Tropical Medicine and Hygiene. 2021.
1. Valladares-Garrido M, Araujo-Chumacero M, Cordova-Augurto J, **Culquichicon C**. Associated factors with scientific publication during medical training: evidence from 40 medical schools surveyed in Latin America and the Caribbean. F1000R. 2021.

11. **Culquichicon C**, Lescano AG. Post-traumatic stress disorder, food insecurity and social capital among mothers after the 2017 Coastal El Niño floods in Piura, Peru: a mixed method assessment. 2019-20 Seminar series of the Center for Global Safe WASH. Emory University; Atlanta, US. 2019.
10. **Culquichicon C**, Lescano AG. Impacts on nutritional status of infants before, during, and after the 2017 El Niño events. Peruvian National Academy of Science. El Niño scientific meeting; Piura, Peru, 2018. (Oral presentation)
9. Lescano AG, **Culquichicon C**. Post-traumatic stress disorder, food insecurity and social capital among mothers after the 2017 Coastal El Niño floods in Piura, Peru: a mixed method assessment. Peruvian National Academy of Science. El Niño scientific meeting; Piura, Peru, 2018. (Oral presentation)
8. Delahoy MJ, Mattioli M, Knee J, Altherr F, Hodge R, Jaramillo-Ramírez MR, Zevallos-Concha A, D'Souza PE, Panuwet P, **Culquichicon C**, Cabrera L, Barr DB, Ryan PB, Lescano AG, Brown J, Gilman RH, Levy K. Chemical and Microbiological Contamination of Drinking Water in Peruvian Households with Infants. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; New Orleans, US. 2018. (Poster presentation)
7. Vasquez-Mejia A, Arica-Gutierrez JA, Pozo EJ, Villegas-Tirado S, Melendez-Maron M, **Culquichicon C**, Lescano AG. Constant spatial patterns of high density *Aedes aegypti* eggs and their correlation with surrounding roofed area obtained from satellite images. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; New Orleans, US. 2018. (Poster presentation)
6. Soto-Becerra P, Pezo A, **Culquichicon C**, Rusu C, Saona-Ugarte P. Caregivers' barriers about Zika risks communication to fertile women and pregnant in Piura-Peru, 2017. 10th TEPHINET Regional Scientific Conference of the Americas. Cartagena, Colombia, May15-18, 2018. (oral presentation)
5. Cardona-Ospina JA, Martinez-Pulgarin DF, **Culquichicon C**, Rodriguez-Morales AJ. Role of tetracycline in dengue immunomodulation a systematic and meta-analysis of clinical trials on IL-6 and TNF. 18th International Congress of Infectious Diseases. Buenos Aires, Argentina, March 1-5, 2018. (Poster presentation)
4. **Culquichicon C**, Soto-Becerra P, Konda KA, Carcamo CC, Lescano AG. Self-reported tuberculosis, sexually transmitted diseases and HIV prevalence rates among Peruvian inmates: results from the 2016 prison census. IEA 21st World Congress of Epidemiology. Saitama, Japan, August 19-22, 2017. (Oral Presentation)
3. Cardona-Ospina J. A., Martínez-Pulgarín D. F., **Culquichicon C**, Rodríguez-Morales A. J. Tetracycline and doxycycline treatment for arboviruses infection: A systematic review and metanalysis. International Meeting on Emerging Diseases and Surveillance. Vienna, Austria, November 4-7, 2016. (Poster Presentation)
2. **Culquichicon C**, Cardona-Ospina J, Patiño-Barbosa A, Rodriguez-Morales A. Bibliometric analysis of Oropouche research: impact on the surveillance of emerging arboviruses in Latin America. IV Latin American Congress of Travel Medicine (SLAMVI). Buenos Aires, Argentina, October 6-7, 2016. (Oral Presentation)
1. **Culquichicon C**, Cardona-Ospina J, Patiño-Barbosa A, Rodriguez-Morales A. Bibliometric analysis of Oropouche research: impact on the surveillance of emerging arboviruses in Latin America. XI Encuentro Nacional de Investigación en Enfermedades Infecciosas de la ACIN. Medellín, Colombia, Noviembre 17-19, 2016. (Poster Presentation)

PART V: References

- REFERENCES
- Dr. Gonzalo Vazquez-Prokopec*
Associate professor
Department of Environmental Sciences
Emory University, US.
E-mail: gmvazqu@emory.edu
- Dr. William Pan*
Associate professor
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Duke University, US.
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- Dr. Karen Levy*

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University of Washington, US.
E-mail: klevyx@uw.edu

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Dr. Kyle Steenland

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Emory University, US.
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Universidad Peruana Cayetano Heredia, Peru.
E-mail: andres.lescano.g@upch.pe