Carlos Culquichicon

CONTACT INFORMATION

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BACKGROUND

Carlos is a PhD student in Epidemiology at the University of Washington School of Public Health, and research assistant at the Fred Hutchinson Center. Interested in causal inference methods applied on observational studies and randomized trials under time-variant settings. Currently applying causal inference methods on a cluster-randomized trial addressing PrEP initiation in Kenya.

PART I: Education and career

EDUCATION

PhD in Epidemiology   2022-Present
Department of Epidemiology, Universiy of Washington, WA, USA.

MSPH in Environmental Health and Epidemiology   2022
Rollins School of Public Health, Emory University, GA, USA.

MD Medical Doctor   2017
National University of Piura, Piura, Peru.

HONORS AND AWARDS

2022	Scholarship, Causal inference courses: learn from the experts. Harvard T.H. Chan School of Public Health, USA.
2022	Scholarship, **14th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), University of Washington (UW)**, USA. (5R25GM089694).
2021	Awardee, **Virtual Conference Scholarship, Society for Epidemiological Research, USA.**
2021	Scholarship, **13th SISMID - UW**, USA. (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 SISMID - UW USA.** (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", USA. (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), USA. (U2RTW010114).
2018	Fellowship, Global Health Leadership Academy, University of Texas Medical Branch, Galveston, Texas, USA. (PHS6097-304037).
2018	Scholarship, III Geohealth-Hub centered in Peru, Fogarty International Center, National Institutes of Health (NIH), USA. (U2RTW010114).
2017	Outstanding Scientific Records, National University of Piura (216-D-2017-MH/UNP).

PROFESSIONAL EXPERIENCE

2022–Present	Research assistant, Public Health Sciences Division, Fred Hutchinson Center, Seattle, USA.
2020–22	Research assistant, Prokopec Lab, Emory University, Atlanta, USA.
2019–20	Research associate, Division of Epidemiology, Institute for Health Technology Assessment and Research (IETSI), Social Health Security, Lima, Peru.
2019	Research associate, Division of Epidemiology, Peruvian National Institutes of Health, Lima, Peru.

	2018–20	Research associate, School of Health Sciences, National University of Piura, Piura, Peru.
	2016–20	Research assistant, Emerge, Emerging Diseases and Climate Change Research Unit, Cayetano Heredia University, Lima, Peru.
	2018	Epidemiologist, Division of Epidemiology, Peruvian Air Force Unit N° 7, Piura, Peru.
CLINICAL PRACTICE	2017-18	Physician, Peruvian Air Force Unit N° 7, Piura, Peru.
AFFILIATED POSITIONS	2020–	Affiliated investigator, Emerge, Emerging Diseases and Climate Change Research Unit, Cayetano Heredia University, Lima, Peru.
	2020–	Affiliated investigator, School of Health Sciences, National University of 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.
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", USA. (NNX15AP74G)
	2019	**Research scholar, Duke Global Health Institute, Duke University, NC, USA.** Funded by CONCYTEC Peru (E009-054-2019).
	2018	Fellow, Global Health Leadership Academy, University of Texas Medical Branch, TX, USA.
	2016-20	**Research fellow, Peru Infectious Diseases Epidemiology Research Training Consortium** (D43TW007393 NIH-Fogarty International Center), Cayetano Heredia University, Peru.
	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)

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, CommCare.

Geographic information systems: ArcGIS, QGIS, R.

Technical Softwares: LaTeX, Rmarkdown, Git.

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: Publications

PUBLISHED

16. Delahoy MJ, Hubbard S, Mattioli M, **Culquichicon C**, Knee J, Brown J, Cabrera L, Barr DB, Ryan PB, Lescano AG, Gilman RH, Levy K. 2022. High prevalence of chemical and microbiological drinking water contaminants in households with infants enrolled in a birth cohort — Piura, Peru, 2016. American Journal of Tropical Medicine and Hygiene [accepted].

15. Ayora-Talavera G, Kirstein OD, Puerta-Guardo H, Barrera-Fuentes GA, Ortegon-Abud D, Che-Mendoza A, **Culquichicon C**, et al. SARS-CoV-2 antibody prevalence in a pediatric cohort of unvaccinated children in Mérida, Yucatán, México. PLOS Global Public Health. 2022;2(6):e0000354.

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 modeling study. The Lancet HIV. 2021;8(6):e363-e75. doi: 10.1016/S2352-3018(21)00051-5. ***Culquichicon C** listed as a group-author.*

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. **_Culquichicon C listed as a group-author._**

12. Araujo-Castillo RV, **Culquichicon C**, Solis Condor R. Burden of disease due to hip, knee, and unspecified osteoarthritis in the Peruvian Social Health Security system (EsSalud), 2016. F1000Res. 2020;9:238. doi: 10.12688/f1000research.22767.2.

11. **Culquichicon C**, Ramos-Cedano E, Helguero-Santin LM, Niño-Garcia 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. Rodriguez-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 Rodriguez-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

4. **Culquichicon C**, Astudillo-Rueda D, Niño R, Martinez 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. Silman AK, Chhabria R, Hafzalla G, Griffin L, Kucharski K, Myers K, **Culquichicon C**, Montero-Trujillo S, Lescano AG, Vega CM, Fernandez L, Silman MR, Kane MJ, Sanders JW. Artisanal and Small-Scall Gold Mining (ASGM) Related Environmental and Health Problems. International Journal of Environmental Research and Public Health. 2022.

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 JA, Martínez-Pulgarín DF, **Culquichicon C**, Rodríguez-Morales AJ. 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 III: Research experience

Peer PrEP Referral + HIV Self-test Delivery for PrEP Initiation in Kenya (Peer-PrEP trial)

Supervisor: Dr. Katrina F. Ortblad.

> Methods and analysis: data wrangling of complex longitudinal queries, and data analysis of cluster longitudinal data.

Entomological impact of targeted indoor residual spraying on Aedes aegypti age structure and abundance

Thesis advisors: Drs. Gonzalo Vazquez-Prokopec and Betz Halloran.

> Design: designed an secondary entomological endpoint evaluation of a cluster-randomized efficacy trial.
> Methods and analysis: formal analysis of cluster longitudinal data.
> Implementation: conducted ovariole dissections using the Polovodova method for age grading of mosquito populations.

COMPLETED RESEARCH	**_Urban factors associated with high-constant Aedes aegypti density using remote sensing image classification_**

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COMPLETED RESEARCH

Urban factors associated with high-constant Aedes aegypti density using remote sensing image classification 2019–21

Funded by: Call for research grants 2019, ULADECH – Universidad Católica Los Ángeles de Chimbote, Peru.

Investigators: Lescano AG, **Culquichicon C**, Pan W.

Total Budget: USD $60,000   Role: Co-investigator.

> 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.

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 2020

Investigators: Soto P, **Culquichicon C**, Hurtado Y, Araujo RV

> 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 doubly robust estimates for causal survival effects following Hernan's protocol for a target trial emulation.**

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 pregnants 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 bootstraping.

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 categorial 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

2018	**Case report of the current dengue surveillance system in Peru. Merck & Co.**
2018	Internal validity and sensitivity analysis of the Peruvian Nutrition 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.

SERVICE

	2020	Member of review board, Kaelin Prize for Epidemiological Research, Peruvian Social Health Security, Peru.
	2017-20	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.
SHORT COURSES AND WORKSHOPS	2021	**E-values, Unmeasured Confounding, Measurement Error, and Selection Bias**. Society for Epidemiological Research (SER), USA.
	2021	**Introduction to parametric and semi-parametric estimators for causal inference**. SER, USA.
	2021	**Causal Mediation: Modern Methods for Path Analysis**. SER, USA.
	2021	**Causal inference for multiple time-point (longitudinal) exposures**. SER, USA.
	2021	**An introduction to directed acyclic graphs**. SER, USA.
	2021	**Confounding control for estimating causal effects**. SER, USA.
	2021	**Causal inference module**, Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID), University of Washington (UW), USA.
	2021	Spatial Statistics in Epidemiology, SISMID-UW, USA.
	2020	Statistics and Modeling with Novel Data Streams, SISMID-UW, USA.
	2020	Infectious Diseases, Immunology and Within-Host Models, SISMID-UW, USA.
	2020	Simulation-based Inference for Epidemiological Dynamics, SISMID-UW, USA.
	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 Cayetano Heredia University, 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 with quasi-experimental designs**, XX Summer School of Public Health, Universidad de Chile, Chile.
	2019	**Introduction to Causal Inference**, XX Summer School of Public Health, Universidad de Chile, Chile.
	2018	**An introduction to causal inference**, Universidad San Ignacio de Loyola, Peru.
	2018	Global Burden of Disease, University of Washington and Cayetano Heredia University, Peru.
	2018	**Audited the Master's in Epidemiology, Cayetano Heredia University**.
	2017	Network Meta-analysis and indirect comparisons workshop, Cochrane Network and Center of Excellence CIGES, Chile.
	2017	XII Field Epidemiology Course, Cayetano Heredia University, Peru.
	2017	International Course on Outbreak Investigation, Cayetano Heredia University.

PART IV: Teaching and editorial experience

TEACHING	2022	Teaching assistant, **EPI 504D "Fundamentals of Epidemiology", Emory University, USA**.
	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, Cayetano Heredia University, Peru.
	2018-19	Teaching assistant, Epidemiological Applications course, Masters and Doctoral Program in Epidemiological Research, Cayetano Heredia University, Peru.
	2017-18	Lecturer, Epidemiologic concepts course, School of Health Sciences, National University of 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, PeerJ.*

PART V: References

REFERENCES

Dr. Katrina F. Ortblad
Assistant professor
Public Health Sciences Division
Fred Hutchinson Cancer Research Center, USA.
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Dr. Gonzalo Vazquez-Prokopec
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Emory University, USA.
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Dr. Karen Levy
Associate professor
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Dr. Andres G. Lescano
Associate professor
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Dr. Jay S. Kaufman
Professor
Department of Epidemiology, Biostatistics, and Occupational Health
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