## Darwin Del Castillo, MD, MPH

- Languages: English (proficient), Spanish (native)
- Programming languages: R, Python, SQL (MySQL), bash
- Other: Linux/Unix, HPC (Slurm), LATEX, Markdown, VSCode, Jupyter Notebooks, Quarto, Docker, Git, Shiny (R), REDCap, ArcGIS



#### **EDUCATION**

Master of Public Health (MPH) University of Washington, Seattle - USA Sep 2023 – Jun 2025

Medical Doctor (MD)

Mar 2013 – Dec 2020

Universidad Nacional Mayor de San Marcos, Lima - Peru

#### PROFESSIONAL EXPERIENCE

### Graduate Research Assistant Institute for Health Metrics and Evaluation University of Washington, Seattle (USA)

Jul 2024 - Current

- Modeling epidemiological data of lower respiratory tract infections due to human metapneumovirus from 2010 to 2023 using metaanalysis information in R and Bayesian meta-regression suites (DisMod-MR).
- Analyzed data from public sources using Bayesian methods and Monte Carlo simulation to estimate the overlap proportion between socially excluded groups in high-income countries using the packages rJAGS and rstan.
- Estimated population attributable fractions among substance drug abusers, prisoners, and people experiencing homelessness from 22 high-income countries using previously-calculated SMR as inputs.

### Graduate Research Assistant Department of Global Health University of Washington, Seattle (USA)

Jun 2024 - Mar 2025

- Synthesized clinical and research evidence into a scoping review to support the creation of indicators to guide mental health policy.
- Designed a mixed-method study protocol to assess the effectiveness of implementation strategies for pediatric burn care in a Peruvian healthcare setting.
- Crafted communication strategies with stakeholders to inform results from the mixed-methods study.

## Graduate Research Assistant Health Population Research Center University of Washington, Seattle (USA)

Sep 2023 - Mar 2024

- Gathered sociodemographic and utilization data as part of a clinical trial post-assesment survey.
- Translated IRB submission materials from Spanish to English for the Alzheimer's Disease Research Center.
- Synthesized early engagement and outreach data into visualisation tools and summary tables, enabling program managers to make adjustments to recruitment strategies.

## RWE Consultant Health Technology Assessment and Research Institute Social Security Health System, Lima (Peru)

Jan 2023 - Jan 2024

- Structured and consolidated multi-source health data (surveillance data, clinical studies) to generate data for health technology assessments.
- Conducted budget impact and cost-effectiveness assessments to prioritize funding for high-impact health interventions under national budgets.
- Presented data-driven recommendations and evidence summaries to policymakers and partners, supporting strategic purchasing decisions for the Social Security System.

# Research Assistant

Mar 2019 - Aug 2023

CRONICAS Center of Excellence in Chronic Diseases Universidad Peruana Cayetano Heredia, Lima (Peru)

- Led workshops and focus groups with participants and community healthworkers across four regions to co-design patient-centered interventions.
- Conducted real-world evidence synthesis and preliminary data analyses to support grant proposals for hypertension, diabetes, cancer, and multimorbidity studies.
- · Co-authored peer-reviewed manuscripts, communicating complex analytical findings for academic and policy audiences.

Professional Certificate in Clinical Research Universidad Peruana Cayetano Heredia, Lima - Peru Sep 2021 - Apr 2022

#### **PUBLICATIONS**

ORCID: 0000-0002-8609-0312

## Peer-reviewed publications

- Bazo-Alvarez, J.C., Del Castillo, D., Piza, L., Bernabe-Ortiz, A., Carrillo-Larco, R.M., Smeeth, L., Gilman, R.H., Checkley, W., Miranda, J.J. (2024) "Multimorbidity patterns, sociodemographic characteristics, and mortality: Data science insights from low-resource settings" Am J Epidemiol. kwae466: Online ahead of print. Available at: 10.1093/aje/kwae466
- Vidyasagaran, AL., Ayesha, R., Boehnke, JR., [...], Del Castillo Fernández, D., [...], Zavala, GA., Zhao, YW., Siddiqi, N. (2024) "Core outcome sets for trials of interventions to prevent and to treat multimorbidity in adults in low and middle-income countries: the COSMOS study" BMJ Glob Health. 9(8):e015120. Available at: 10.1136/bmjgh-2024-015120
- 3. Lapidaire, W., Proaño, A., Blumenberg, C., Loret de Mola, C., Delgado, CA., **Del Castillo, D.**, Wehrmeister, FC., Gonçalves, H., Gilman, RH., Oberhelman, RA., Lewandowski, AJ., Wells, JCK., Miranda, JJ. (2023) "Effect of preterm birth on growth and blood pressure in adulthood in the Pelotas 1993 cohort" **Int J Epidemiol.** 25;52(6):1870-1877. Available at: 10.1093/ije/dyad084
- 4. Del Castillo-Fernández, D., Brañez-Condorena, A., Villacorta-Landeo, P., Saavedra-García, L., Bernabé-Ortiz, A., Miranda, JJ. (2021) "[Advances in the investigation of chronic non-communicable diseases in Peru] (in Spanish)" <u>An Fac med.</u> 81(4): 444-452. Available at: 10.15381/anales.v81i4.18798

#### OTHER ACTIVITIES

Jan 2025 - current

**Lecturer: Introduction to Epidemiology.** Universidad Científica del Sur. I'm teaching fourth-year medical students basic concepts of clinical epidemiology with a focus on basic study designs and identification of bias.

#### **MEMBERSHIPS**

- International Epidemiological Association (2020 Current)
- Peruvian College of Physicians (2021 Current)
- Consortium of Universities for Global Health (2023 Current)
- America's Network for Chronic Disease Surveillance (2025 Current)