

Darwin Del Castillo, MD, MPH

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 [ddelcastillof](#)

SCIENTIFIC EDUCATION

Master of Public Health (MPH)
UNIVERSITY OF WASHINGTON, SEATTLE - USA

Sep 2023 – Jun 2025

Medical Doctor (MD)
UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS, LIMA - PERU

Mar 2013 – Dec 2020

SKILLS

Health data science and epidemiology: data wrangling, querying, analysis, visualization & management

- SQL (MySQL), Python, R, Stata,
- HPC (Slurm), Linux environments (bash)
- VS Code, Jupyter Notebooks, Quarto, Markdown, \LaTeX , , Shiny, Tableau
- Team-based projects on Github and Bitbucket repositories
- Packages: tidyverse, ggplot2, meta/metafor, lme4, survival, geepack, gam, lavaan, sf, rJAGS, rstan, Pandas, Matplotlib, NumPy, MR-BRT (GBD Study estimation), amongst other tools.
- Fluency in English & Spanish
- Team work & collaboration
- Problem solving
- Science communication
- Mentorship

PROFESSIONAL EXPERIENCE

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

Jul 2024 - Jun 2025

- Conducted a comprehensive meta-analysis of lower respiratory tract infection rates across 80 countries using the R meta package to support strategic program planning; presented findings with ROI-style visual summaries to senior leadership.
- Developed and executed Bayesian MCMC workflows to quantify the overlap among homeless populations, substance users, and incarcerated individuals across 22 high-income countries, producing real-world evidence for targeted health burden stratification.
- Updated version-controlled scripts to automate data quality checks of EHR datasets from Ecuador and Colombia; identified root causes of data anomalies, reducing error rates by 23

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

Jun 2024 - Mar 2025

- Synthesized clinical and programmatic evidence into actionable insights and reports to support program design and policy decisions in mental health.
- Analyzed pediatric clinical and outcome data to evaluate effectiveness of burn injury interventions; compiled initiative-level monthly performance reports for Ministry of Health and hospital leadership to inform protocol refinements.
- Engaged with Ministry of Health officials and hospital stakeholders to align pediatric burn care strategies with national healthcare priorities.

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

Sep 2023 - Mar 2024

- Implemented standardized remote data-collection workflows to capture patient-reported outcomes.
- Managed full lifecycle of IRB submissions—including translation and localization of Spanish-language documents—for the Alzheimer's Disease Research Center, ensuring compliance with regulatory requirements.
- Synthesized weekly/monthly engagement and outreach data into interactive Shiny dashboards and concise summary reports for program managers and stakeholders, enabling timely strategic recruitment adjustments.

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, clinical studies) to provide comprehensive insights into healthcare outcomes.
- 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.

Research Assistant

Mar 2019 - Aug 2023

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

- Led stakeholder workshops and focus groups across four regions to co-design patient-centered interventions, translating qualitative insights into quantifiable outcome metrics.
- Conducted real-world evidence synthesis and preliminary data analyses to support program proposals in hypertension, diabetes, and multimorbidity, informing strategic funding decisions.
- Co-authored evidence summaries and reports, translating analytical findings into executive-ready deliverables for program managers and health policy audiences.

ADDITIONAL EDUCATION

Professional Certificate in Clinical Research
Universidad Peruana Cayetano Heredia, Lima - Peru

Sep 2021 – Apr 2022

PUBLICATIONS

ORCID: 0000-0002-8609-0312

Peer-reviewed publications

1. 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](https://doi.org/10.1093/aje/kwae466)
2. 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](https://doi.org/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](https://doi.org/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)" **An Fac med.** 81(4): 444-452. Available at: [10.15381/anales.v81i4.18798](https://doi.org/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 focus in 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)