

## Darwin Del Castillo, MD MPH

- **Languages:** English (proficient), Spanish (native)
- **Programming languages:** R, Python, SQL (MySQL), bash
- **Other:** Linux/Unix, HPC (Slurm), L<sup>A</sup>T<sub>E</sub>X, Markdown, VSCode, Jupyter Notebooks, Quarto, Docker, Git, Shiny (R), REDCap, ArcGIS

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### EDUCATION

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**Master in Public Health (MPH)**  
**University of Washington, Seattle - USA**

**Sep 2023 – May 2025**

**Medical Doctor (MD)**  
**Universidad Nacional Mayor de San Marcos, Lima - Peru**

**Mar 2013 – Dec 2020**

### PROFESSIONAL EXPERIENCE

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

**Jul 2024 - Current**

- Conducted a comprehensive meta-analysis of lower respiratory tract infection rates across 80 countries using the R meta package, then applied Bayesian regressions to model epidemiological measures
- 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.

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

**Jun 2024 - Mar 2025**

- Synthesized clinical and research evidence into actionable insights and reports to support evidence-based policy and program decisions regarding mental health.
- Analyzed pediatric clinical and outcome data to evaluate effectiveness of burn injury interventions and guide improvements in care protocols.
- 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 early engagement and outreach data into interactive dashboards and concise summary reports, enabling program managers to make timely 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, 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**  
**CRONICAS Center of Excellence in Chronic Diseases**  
**Universidad Peruana Cayetano Heredia, Lima (Peru)**

**Mar 2019 - Aug 2023**

- 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 grant proposals for hypertension, diabetes, and multimorbidity studies, informing funding decisions.
- Co-authored peer-reviewed manuscripts and technical reports, communicating complex analytical findings in clear, executive-ready summaries for academic and policy audiences.

## ADDITIONAL EDUCATION

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

Sep 2021 – Apr 2022

## PUBLICATIONS

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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, A.L., Ayesha, R., Boehnke, J.R., [...], **Del Castillo Fernández, D.**, [...], Zavala, G.A., Zhao, Y.W., 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, C.A., **Del Castillo, D.**, Wehrmeister, F.C., Gonçalves, H., Gilman, R.H., Oberhelman, R.A., Lewandowski, A.J., Wells, J.C.K., Miranda, J.J. (2023) "Effect of preterm birth on growth and blood pressure in adulthood in the Pelotas 1993 cohort" **Int J Epidemiol.** 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, J.J. (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)
5. **Del Castillo-Fernandez D.**, Bernabe-Ortiz, A., Sal Y Rosas, V. G., Ponce-Lucero, V., Cárdenas, M. K., Carrillo-Larco, R. M., Diez-Canseco, F., Pesantes, M. A., Sacksteder, K. A., Gilman, R. H., Miranda, J.J., Nugent R. (2025) "Cost-effectiveness analysis of a household salt substitute intervention on reducing community-wide blood pressure in Northern Peru" **Master Thesis**

## OTHER ACTIVITIES

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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

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- 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)