

# Darwin Del Castillo, MD, MPH

 [darwin-del-castillo](#)

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## SCIENTIFIC EDUCATION

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**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

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**Programming:** SQL (MySQL), Python, R, Stata

**Cloud Computing:** HPC (Slurm), Linux environments (bash) **Tools:** VS Code, Jupyter, Quarto, L<sup>A</sup>T<sub>E</sub>X, Git version control

**Languages:** English (fluent), Spanish (native)

**Core Competencies:** Data analysis, teamwork, problem solving, science communication, mentorship

**Packages:** tidyverse, ggplot2, meta/metafor, lme4, survival, geepack, gam, lavaan, sf, rJAGS, rstan, Pandas, Matplotlib, NumPy, MR-BRT (GBD Study estimation), amongst other tools.

**Core Competencies:** Data analysis, teamwork, problem solving, science communication, mentorship

## PROFESSIONAL EXPERIENCE

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**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

#### LICENSURE AND CERTIFICATION

<b>2021</b>	Peruvian College of Physicians, Membership No. 94534
<b>2023</b>	CITI Program, Good Clinical Practice and ICH, Credential ID 65079238
<b>2023</b>	CITI Program, Human Subjects Learners, Credential ID 65079240
<b>2023</b>	CITI Program, Biomedical Responsible Conduct of Research, Credential ID 65079239
<b>2024</b>	National Registry of Investigators, RENACYT-CONCYTEC, Investigator Level VII (P0160977)

#### 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](https://doi.org/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](https://doi.org/10.1136/bmjgh-2024-015120)
- 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)
- **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)
- **Del Castillo, D.**, Bernabe-Ortiz, A., Gilman, R.H., Sharma, M., Nugent, R., Miranda J.J. (2025) "Cost-effectiveness analysis of a household salt substitute intervention on reducing community-wide blood pressure in Northern Peru" **Lancet Reg Health Am.** Submitted under consideration.

##### Conference abstracts

- Valverde, N., Santivanez, M., Tello, M., and **Del Castillo, D.** (2025) "[Beyond abortion: A mixed methods study on the factors that condition access and use of post-abortion contraceptives in Peruvian women] (in Spanish)" **VII International Conference on Family Planning** The William H. Gates Sr. Institute for Population and Reproductive Health., Bogota, Colombia