

Darwin Del Castillo, MD MPH

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EDUCATION

Master in Public Health (MPH)

Sep 2023 – May 2025

University of Washington, Seattle - USA

Thesis: "Cost-effectiveness analysis of a household salt substitute intervention on reducing community-wide blood pressure in Northern Peru"

Medical Doctor (MD)

Mar 2013 – Dec 2020

Universidad Nacional Mayor de San Marcos, Lima - Peru

Thesis: "Childhood Obesity and Its Effect on Academic Achievement: An Analysis of the Young Lives Study between 2009 and 2016"

PROFESSIONAL EXPERIENCE

Graduate Research Assistant

Jul 2024 - Current

Clinical Informatics Team, Institute for Health Metrics and Evaluation

University of Washington, Seattle (USA)

- Pooled epidemiological data of lower respiratory tract infections using the package meta in R and internal Python functions.
- Created cleaning pipelines for EHR data from Colombia using Python (pandas, pydantic, etc.).
- Estimated the overlap proportion between homelessness, substance drug abusers, and prisoners in high-income countries using Markov Chain Monte Carlo algorithms with R.

Graduate Research Assistant

Jun 2024 - Mar 2025

Department of Global Health

University of Washington, Seattle (USA)

- Conducted a scoping review protocol and performing evidence synthesis for mapping potential indicators for implementing mental health policy in data-limited settings.
- 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

Sep 2023 - Mar 2024

Health Population Research Center, Department of Health Systems and Population Health

University of Washington, Seattle (USA)

- Carried out on-phone interviews for the ReOpening Schools Safely and Educating Youth Study post-survey assessments.
- Facilitated the submission of materials in Spanish to the IRB for Alzheimer's Disease Research Center (ADRC).
- Conducted preliminary analyses for the Outreach, Engagement, and Recruitment module of the ADRC Clinical Core Study project.

Research Consultant

Jan 2023 - Jan 2024

Health Technology Assessment Direction, Health Technology Assessment and Research Institute

Social Security Health System, Lima (Peru)

- Elaborated policy documents of new pharmaceutical products for Peru's social health insurance using a mixture of real-world evidence and economic data.
- Conducted systematic reviews of anti-cancerous and immunosuppressant drugs regarding efficacy and economic impact.
- Evaluated the budget impact of introducing new pharmacological products in Peruvian social health insurance.

Clinical Sub-investigator

Mar 2022 - Mar 2023

Via Libre Association

Lima (Peru)

- Recruited patients identified as queer for clinical studies in STI and HIV prevention and treatment.
- Performed clinical procedures and activities associated with the normal operation of clinical trials funded by NIH and pharmaceutical companies.
- Participated and organized activities for community outreach and participant retention crafted for the queer community.

- Coordinated focus groups and on-field work across four Peruvian regions to co-design an intervention for patients with cognitive impairment and their caregivers.
- Contributed to research grant proposals in hypertension, diabetes, cancer, and multimorbidity projects by conducting systematic reviews and preliminary data analysis.
- Co-authored scientific manuscripts in the topics mentioned above which included longitudinal data analyses, meta-analyses, and unsupervised machine learning methods using Stata and R.

ADDITIONAL EDUCATION

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

Sep 2021 – Apr 2022

LICENSURE AND CERTIFICATION

Peruvian College of Physicians, Membership No. 94534

Aug 2021 – Aug 2026

National Registry of Investigators, RENACYT, Investigator Level VII (P0160977)

Feb 2024 – Feb 2026

CITI Program, Good Clinical Practice and ICH (GCP), Credential ID 65079238

Sep 2023 – Mar 2026

SKILLS

Technical skills:

- **Programming & Scripting** R, Python, bash
- **Statistical & Analytical Software:** Stata, SPSS
- **Data Visualization & GIS:** Shiny, ArcGIS
- **Databases & Query Languages:** SQL (MySQL)
- **Version Control & DevOps:** Git, GitHub, Bitbucket, Docker
- **Development Environments:** RStudio, VS Code, Jupyter Notebooks
- **Operating Systems & Platforms:** Linux/Unix, Windows (SSH)
- **Documentation & Collaboration:** LaTeX, Markdown, Confluence

Languages:

- English: Fluent
- Spanish: Native

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, 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.** 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, 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**

LEADERSHIP AND SERVICE

Professional Service

Feb 2025 - current	Member America's Network for Chronic Disease Surveillance (AMNET) Regional organization that promotes chronic disease monitoring, knowledge implementation, and public health capacity building throughout the Americas. AMNET fosters collaboration between governmental and non-governmental entities to improve health professional training in disease surveillance, prevention, and control.
Jan 2025 - current	Trainee Advisory Committee Member Consortium of Universities for Global Health, USA Collaborating with international co-trainees to address global health challenges and provide student perspectives on global health issues such as COVID-19, racial disparities, climate change, and research involvement of global health students.
Mar 2014 - current	Emeritus member and External advisor Association for the Development of Student's Research in Health Sciences (ADIECS), Lima - Peru Peruvian student association funded in 2008 by students from the Universidad Nacional Mayor de San Marcos to develop capacity of both hard (e.g., epidemiological study designs, data analysis) and soft skills (e.g., teamwork communication, problem-solving) for biomedical underserved students.

Mentoring

Undergraduate thesis

1. Fátima Sánchez Diaz and Nicole Ravines Layza, "Barriers and facilitators for mental health screening at family planning centers from low-and-middle income countries", Universidad Científica del Sur, Peru (2024 to Present).