Darwin Del Castillo, MD MPH

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Education

Master in Public Health (MPH)

Sep 2023 – May 2025

University of Washington, Seattle - USA

 $The sis: \hbox{``Cost-effectiveness analysis of a household salt substitute intervention on reducing community-wide blood pressure in Northern Peru"}$

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)

- Meta-analyzing data to estimate the incidence of lower respiratory tract infections due to human metapneumovirus globally and
 across all ages from 2010-2023.
- · Estimated population-attributable fractions and standardized mortality ratios for socially excluded groups in high-income countries.
- 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.

Graduate Research Assistant

Jun 2024 - Mar 2025

Department of Global Health

University of Washington, Seattle (USA)

- Designing a scoping review protocol and performing evidence synthesis for mapping potential indicators for implementing mental health policy in data-limited settings.
- Led the design of a mixed-method study to assess the effectiveness of implementation strategies for pediatric burn care in a Peruvian healthcare setting.
- Crafted communication strategies with stakeholders to implement later phases of the project.

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.

Research Assistant
CRONICAS Center of Excellence in Chronic Diseases

Mar 2019 - Aug 2023

Universidad Peruana Cayetano Heredia, Lima (Peru)

- 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.

Additional Education

Graduate Certificate Maternal and Child Health University of Washington, Seattle - USA

Nov 2023 – May 2025

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

Skills

Computer and programming skills:

- Programming languages: R, Python, bash
- Statistical software: Stata, SPSS, G*Power
- Data visualization and reporting: Shiny, ArcGIS, LATEX, Markdown,
- Data management and wrangling: SQL, REDCap
- Development tools: Git, GitHub, Docker, VSCode
- Computing environments: Linux/Unix, Windows, ssh

Languages:

English: Fluent Spanish: Native Portuguese: Working proficiency

Publications

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
- 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
- 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)" **An Fac med.** 81(4): 444-452. Available at: 10.15381/anales.v81i4.18798

Leadership and Service

Professional Service

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 -

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).