

Darwin Del Castillo Fernandez, M.D.
Department of Global Health, University of Washington
Hans Rosling Center for Population Health
3980 15th Ave NE, Seattle, WA 98105
+1 (206) 605-5077 (USA) | +51 965-006-311 (Peru)
ddelcast@uw.edu
<https://www.darwindelcastillo.com>

Education

- Graduate** University of Washington, Seattle, US
Master in Public Health (M.P.H.), Global Health
Sep 2023 – June 2025
Thesis: “Cost-effectiveness analysis of a household salt substitute intervention on reducing community-wide blood pressure in Northern Peru”
- Undergraduate** Universidad Nacional Mayor de San Marcos, Lima, Peru
Medical Doctor (M.D.), Medicine
Mar 2013 – Aug 2021
Thesis: “Childhood Obesity and Its Effect on Academic Achievement: An Analysis of the Young Lives Study between 2009 and 2016”

Additional education

- Graduate** University of Washington, Seattle, US
Certificate in Global Health on Maternal and Child Health
Nov 2023 – June 2025
- Universidad Peruana Cayetano Heredia, Lima, Peru
Certificate in Clinical Research
Sep 2021 – Apr 2022

Licensure and certification

- 2021** Peruvian College of Physicians, Membership No. 94534
2024 National Registry of Investigators, RENACYT-CONCYTEC, Investigator Level VII (P0160977)

Professional Experience

- Nov 2024 - Present** Research Assistant
Department of Global Health
University of Washington, USA
- Designing a systematic review protocol for mapping potential indicators for the implementation of mental health policy in data-limited resources
 - Coordinating a expert group panel for developing a set list of indicators based in structured expert elicitation
 - Engaging with stakeholders for the implementation of the future list of proposed indicators in a later phase of the project

Aug 2024 - current

Research Intern
Cinical Informatics Team, Institute for Health Metrics and Evaluation
University of Washington, USA

- Estimated population attributable fractions and standardized mortality ratios for social excluded groups, i.e. people experiencing imprisonment, homelessness, and substance use disorders, in high-income countries.
- Analyzed data from public sources and a previous systematic review using Bayesian methods and Monte Carlo simulation to estimate the overlap proportion between social excluded groups in high-income countries.
- Collaborated in writing a R01 NIH research proposal to estimate the disease burden for social excluded groups in high-income countries.

Jul 2024 - Sep 2024

Research Assistant
Department of Global Health
University of Washington, USA

- Led the design of a mixed-method study to assess the effectiveness of implementation strategies for pediatric burn care in a Peruvian healthcare setting
- Collaborated with multidisciplinary teams at Seattle Children's Hospital and the Peruvian National Hospital for Children to align study objectives and methodologies
- Coordinated cross-cultural research efforts to ensure the study's relevance and applicability to both U.S. and Peruvian healthcare environments

Sep 2023 - Dec 2023

Research Assistant
Department of Health Systems and Population Health
University of Washington, USA

- Conducted on-phone interviews for the second post-survey assessment of the ReOpening Schools Safely and Educating Youth Study (ROSSEY Study)
- Supported submission of materials in Spanish for the IRB for the ADRC Clinical Core Study project
- Conducted preliminary analyses for the Outreach, Engagement, and Recruitment module of the ADRC Clinical Core Study project

Jun 2023 - Aug 2023

Research Assistant
CRONICAS Center of Excellence in Chronic Diseases
Universidad Peruana Cayetano Heredia, Peru

- Conducted semi-structured qualitative interviews for the NIHR-UK-supported IMPACT-DEMENTIA project, collaborating with researchers from Universidad Peruana Cayetano Heredia, Imperial College, and the University of Oxford
- Facilitated collaboration and communication between international research teams and local stakeholders to ensure effective project implementation
- Coordinated fieldwork with community health workers across diverse Lima, Iquitos, and Huancayo locations

Jan 2023 - Jan 2024

Research Consultant
Health Technology Assessment and Research Unit
Social Security Health System, Peru

- Assessed the benefits and drawbacks of purchasing pharmaceutical products for Peru's social health insurance through a systematic evaluation of the effectiveness and economic impact
- Conducted systematic reviews of anti-cancerous and immunosuppressant drugs regarding efficacy and economic impact
- Evaluated the budget impact of introducing new pharmacological products in the Social Security System

Mar 2022 - Mar 2023

Clinical Sub-investigator
Clinical Research Unit
Via Libre Association, Peru

- Via Libre is a Clinical Research Site for studies in STI and HIV prevention and treatment in queer population
- Performed clinical procedures and assessed clinical trial participants from the HVTN and the HPTN networks
- Participated and organized didactical activities in community outreach and participant retention crafted for the queer community

Jun 2021 - Aug 2021

Research Consultant
Health Technology Assessment and Research Unit
Social Security Health System, Peru

- Managed and validated all data inputs using REDCap from two clinical studies related to COVID-19 vaccinations
- Contributed to a randomized controlled trial assessing the efficacy and safety of convalescent plasma therapy in COVID-19-infected patients
- Conducted data analysis from an observational study on vaccination hesitancy among healthcare workers using Stata and R statistical packages

Mar 2019 - Jun 2021

Research Assistant
CRONICAS Center of Excellence in Chronic Diseases
Universidad Peruana Cayetano Heredia, Peru

- Conducted a systematic review with the COSMOS initiative to develop a core set of outcomes for designing multimorbidity clinical trials.
- Participated in the data handling and the writing phase of a research manuscript to understand the impact of preterm birth on the development of hypertension in offspring at age 22.
- Collaborated in the study design and manuscript preparation of other research interim products, including peer-reviewed research articles

Academic Honours and Awards

2018

- Scholarship for the Young Lives Study's Methodological Workshop, GRADE Research Group. A workshop to receive advanced training in data wrangling and longitudinal data analysis applied to the Young Lives Study.

2021

- Graduated with Honours (*Cum Laude*), School of Medicine, Universidad Nacional Mayor de San Marcos. Grade of 17/20
- Scholarship to study the Diplomate in Clinical Research at Universidad Peruana Cayetano Heredia. Funded by the training program NIH/FIC 2D43TW001140-21 “Training in Infectious Disease in Peru – Time for Implementation Research,” Universidad Peruana Cayetano Heredia

2024

- Department of Global Health Endowed Fellowship for Global Health Excellence, Equity and Impact, University of Washington

Skills

Computer and programming skills: Advanced skills in R, Stata, and SPSS for statistical analysis, data visualization, decision-making analyses, and genetic epidemiology. Intermediate skills in Python for genomic data science, epidemiologic data analysis, and data wrangling. Certificates in data management, causal inference, and machine learning applied to healthcare.

Intermediate skills in qualitative data analysis, thematic coding, content analysis, and experience with the software Dedoose.

Competencies in Microsoft Office Suite (Word, PowerPoint, Excel), G*Power, and REDCap.

Languages: Spanish (native), English (fluent), French (basic)

Publications

[Google Scholar Profile](#)

ORCID: [0000-0002-8609-0312](#)

Google Scholar Stats: Citations: 42 | h-index: 2 | i10-index: 1

Databases

Pokémon GO Study [Cross-sectional study: Exploratory factorial analysis database](#)

Submitted Articles

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, social determinants, and mortality: Data science insights from low-resource settings” Submitted to **Am J Epidemiol**. Resubmitted under consideration.

Peer-Reviewed Publications

1. Vidyasagaran, AL., Ayesha, R., Boehnke, JR., Kirkham, J., Rose, L., Hurst, JR., Miranda, JJ., Rana, RZ., Vedanthan, R., Faisal, MR., Afaq, S., Agarwal, G., Aguilar-Salinas, CA., Akinroye, K., Akinyemi, RO., Ali, SR., Aman, R., Anza-Ramirez, C., Appuhamy, KK., Baldew, S., Barbui, C., Batista, SRR., Caamaño, MC., Chowdhury, AH., Teixeira de Siqueira-Filha, NT., **Del Castillo Fernández, D.**, Downey, L., Flores-Flores, O., García, OP., García-Ulloa, AC., Holt, RIG., Huque, R., Kabukye, JK., Kanan, S., Khalid, H., Koly, KN., Kwashie, JS., Levitt, NS., Lopez-Jaramillo, P., Mohan, S., Muliya, KP., Naz, Q., Odili, AN., Oyeyemi, AL., Pacheco-Barrios, NV., Praveen, D., Purgato, M., Ronquillo, D., Siddiqi, K., Singh, R., Tran, PB., Tufail, P., Uphoff, EP., van Olmen, J., Verhey, R., Wright, JM., Zafra-Tanaka, JH., 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](#)
2. 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](#)

3. **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)

Pre-prints

1. Moscoso, MG., Villarreal-Zegarra, D., **Del Castillo, D.**, Zavaleta E., Miranda J.J. (2022) “Personality profiles and engagement with the augmented reality game Pokémon GO: a cross-sectional study [version 1; peer review: 1 approved with reservations]” **Wellcome Open Res.** 7:264. Available at: [10.12688/wellcomeopenres.18397.1](https://doi.org/10.12688/wellcomeopenres.18397.1)

Policy Statements, White Papers, Reports

1. **Del Castillo-Fernández D.** (2023) “Efficacy and safety of liraglutide in the management of patients older than 18 years with moderate obesity without comorbidities and mild obesity associated with comorbidities. Health Technology Assessment – Preliminary Version” IETSI – EsSalud.
2. **Del Castillo-Fernández D.** (2023) “Efficacy and safety of ceftazidime-avibactam for treating adult patients with bacteremia due to surgical wound infection by carbapenemase-producing Enterobacteriaceae. Health Technology Assessment – Preliminary Version.” IETSI – EsSalud.
3. **Del Castillo-Fernández D.** (2023) “Efficacy and Safety of Cladribine for the Treatment of Adult Patients With Relapsing-Remitting Multiple Sclerosis. Health Technology Assessment – Short Version.” IETSI – EsSalud.

Theses

1. **Del Castillo-Fernandez D.** (2021) “Childhood Obesity and Its Effect on Academic Achievement: An Analysis of the Young Lives Study Between 2009 and 2016” M.D. Thesis. Universidad Nacional Mayor de San Marcos, Perú.

Teaching Experience

Courses taught at the college level

Courses taught at Universidad Nacional Mayor de San Marcos

Sem.	Course	Role	Level	N. Resp. / N. Enrolled	Instr. CE* / Dept Mean
Sum14	MH0416: Embryology and Genetics	TA	UGrad	19 / 33	14.5 / 14.7
Aut14	MH0416: Embryology and Genetics	TA	UGrad	56 / 90	14.6 / 14.3
Aut20 [†]	MO009: Biostatistics and Demography	TA	UGrad	NA / 90	NA / NA

* Course Evaluations (FCE) were scored by students (0 = worst, 20 = best).

[†] No course evaluations were recorded in 2020 due to the COVID-19 pandemic.

Courses taught at University of Washington

Sem.	Course	Role	Level	N. Resp. / N. Enrolled	Instr. CE / Dept Mean
Spr24*	BIOL200: Introduction to Biology	TA	UGrad	NA / 50	NA / NA

* Couldn't send course evaluations due to health issues

Other teaching experience

Seminars

1. “Introduction to Stata for Biomedical Researchers”. General Office of Research and Technologic Transference, Peruvian National Institute of Health. Lima, Peru. Aug 09, 2021.
2. “Analysis of Categorical Data”. General Office of Research and Technologic Transference, Peruvian National Institute of Health. Lima, Peru. Aug 06, 2021.

Advising

Undergraduate Students - Current

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).

Leadership, Volunteer, and Community Activities

- Emeritus member and External advisor, [Association for the Development of Student’s Research in Health Sciences \(ADIECS\)](#), Peru: Peruvian student association funded in 2008 by students from the Universidad Nacional Mayor de San Marcos with the aim of developing capacity of both hard (e.g., epidemiological study designs, data analysis) and soft skills (e.g., teamwork communication, problem-solving) for biomedical underserved students (Mar 2014-current).
- Medical volunteer, Healing the Children Northeast, Peru: Medical translator during plastic surgery clinical rounds after surgery for cleft palate and cleft lip repairment in underserved populations (Jan 2019).
- Medical volunteer, Healing the Children Rocky Mountains, Peru: Shadowed ENT attendings before and after cochlear implant surgery in pediatric patients. Also helped as medical translator during clinical rounds (Nov 2019).

Memberships in Professional Organizations

- International Epidemiological Association (2020 — Current)
- Peruvian College of Physicians (2021 — Current)