# Darwin Del Castillo Fernandez, M.D.

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#### Education

Graduate University of Washington, Seattle, US

Master in Public Health (M.P.H.), Global Health

 $\mathbf{Sep}\ \mathbf{2023}-\mathbf{June}\ \mathbf{2025}$ 

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**

Jul 2024 - Sep 2024 Research Assistant

Department of Global Health

University of Washington - Seattle, 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

#### Mar 2024 - Jun 2024

Teaching Assistant

Department of Biology

University of Washington - Seattle, USA

- Instructor for BIOL 200 Introduction to Biology during the Spring 2024 quarter.
- Instructed wet and dry laboratory practices for two sections with 25 undergrad students each.

## Sep 2023 - Dec 2023

#### Research Assistant

Department of Health Systems and Population Health University of Washington - Seattle, 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
- $\bullet$  Conducted systematic reviews of anti-cancerous and immunosuppressant drugs regarding efficacy and economic impact
- $\bullet$  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

#### Jan 2018 - Feb 2018

Teaching Assistant

Stanford Honors Academies Program

Eduexplora, Peru

- A Stanford University summer camp designed for high school students located in Peru.
- Adapted lectured materials and translated them from English to Spanish for the Bioscience class.
- Instructed laboratory practices using neurobiological samples.

# Jan 2014 - Aug 2021

Teaching Assistant

School of Medicine

Universidad Nacional Mayor de San Marcos, Peru

- Teaching assistant in Human Development (01/2014-01/2015) and Introduction to Biostatistics (04/2020-08/2020)
- In the Human Development course, I guided students in identifying embryological samples in the laboratory.
- During the Introduction to Biostatistics course, I gave review lectures to students in preparation for their final exam.

## **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 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," Peruvian University 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 Stats: Citations: 44 | h-index: 2 | i10-index: 1

#### **Databases**

Pokemón GO Study Cross-sectional study: Exploratory factorial analysis database

#### Submitted

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" **Am J Epidemiol.** Resubmitted under consideration.

## **Peer-Reviewed Publications**

- 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., Muliyala, 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
- Lapidaire, W., Proaño, A., Blumenberg, C., Loret de Mola, C., Delgado, CA., <u>Del Castillo, D.</u>, 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: 10.1088/1748-9326/ad3fce
- 3. 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

# **Pre-prints**

1. Moscoso, MG., Villarreal-Zegarra, D., <u>Del Castillo, D.</u>, Zavaleta E., Miranda JJ. (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

# Policy Statements, White Papers, Reports

- 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.