ENRIQUE M. SALDARRIAGA

Health Economist

Prevention Effectiveness Fellow, Div. STD Prevention, CDC.

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Education

2022	**PhD in Health Economics.** The CHOICE Institute. University of Washington, USA
	<u>Dissertation</u>: The Value of using local data to allocate resources to fight the HIV Epidemic. Case of study in Atlanta, Georgia
	<u>Reading committee</u>: Anirban Basu (Chair), Ruanne Barnabas, Marita Zimmermann.
2015	**Master of Science in Epidemiology.** University of Cayetano Heredia, Perú
	<u>Thesis</u>: Income elasticity of the Body Mass Index in presence of Economic Wealth as effect modifier
2011	**Bachelor of Science in Economics.** University of the Pacific, Perú
	<u>Thesis</u>: Cost-benefit analysis of enhancing the Primary Health Care in Peru

Honors

2022	Schoolwide Outstanding Dissertation Award. School of Pharmacy, University of Washington
2022	3 Minute Thesis Competition Grand Prize Winner. University of Washington
2021	Lusted Award Winner for Outstanding Presentation in Quantitative Methods and Theoretical Developments, 43rd Annual Meeting of the Society for Medical Decision Making
2021	2021 Louis Sr. and Marilyn Garrison Endowed Prize in Health Policy and Economics. The CHOICE Institute, University of Washington
2021	Rubenstein Endowment Grant to support Dissertation research. School of Pharmacy, University of Washington
2019	Lusted Award Finalist for Outstanding Presentation in Health Services, Outcomes, and Policy Research, 41st Annual Meeting of the Society for Medical Decision Making
2018	Stergachis Endowed Fellowship for International Exchange Award. Department of Global Health, University of Washington
2015	Full-Tuition Scholarship to pursue a Master of Science in Epidemiology granted by the School of Public Health and Administration, University Cayetano Heredia.

Research Positions

	August 2022 – present
	Division of STD Prevention, Centers for Disease Control and Prevention (CDC)
Position	Prevention Effectiveness Fellow
Description	I work on economic and epidemiology evidence generation to inform decision making processes in design, adoption, and scale-up of STD prevention strategies. Current projects include comparative effectiveness of partnership algorithms for syphilis treatment and STI clinics organization.

	September 2017 – June 2022
	The CHOICE Institute and Department of Health Services, University of Washington
Position	Research Associate
Description	Worked in several research projects both as a leader under the guidance of faculty and as a team member in charge of specific components of the project. Projects included research in preferences elicitation, economic evaluation, methods for uncertainty assessment, decision modeling, econometrics, and disease modeling. I collaborated with researchers from the Departments of Global Health, Public Health, Epidemiology, and Statistics, University of Washington, and the Divisions of Vaccine and Infectious Diseases, and Public Health Sciences, Fred Hutch.
	April 2017 – August 2017
	Ministry of Health
Position	Analyst, Direction of Operations, Vice ministry of Healthcare and Insurance
Description	I led the development of a blueprint to implement an intelligence unit that aimed to monitor the operations, achievements, and deficiencies public healthcare facilities in Peru to predict the status of the provision of services and prevent shortcomings.
	July 2014 – March 2017
	School of Public Health, University Cayetano Heredia
Position	Researcher
Description	I conducted economic evaluation of novel technologies for screening and treatment of sexually transmitted diseases and public policy analysis.

Teaching

Jun 2020 – Jun 2022	The CHOICE Institute, University of Washington. Teaching Assistant in the Certificate in Health Economics and Outcomes Research
Jul 2015 – Jul 2016	School of Public Health and Administration, University Cayetano Heredia, PE. Lecturer in Economics
Mar 2010 – Jul 2014	Department of Economics, School of Economics. University of the Pacific, PE. TA in Macroeconomics and Econometrics

Training

Jun – Aug 2021	**Internship in Value and Access Strategy**. Xcenda, TX, USA
Jun 2021	**Global School on Empirical Research Methods (GSERM) – Bayesian Data Analysis.** St. Gallen University, Switzerland
Jul 2020	**12th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID).** University of Washington. Seattle, WA, USA
Aug – Nov 2019	**Internship in Health Economics.** Institute for Disease Modeling (IDM), Intellectual Ventures. Bellevue, WA, USA
May – Jun 2019	**Clinic on Meaningful Modeling of Epidemiological Data (MMED).** African Institute for Mathematical Sciences. Cape Town, South Africa
Jul 2014 – Jun 2015	**KUSKAYA: An Interdisciplinary Training Program for Innovation in Global Health**. Fogarty International Center, NIH. Lima, Peru
Jul – Aug 2016	**Summer School in Development Policy**. University of Bonn. Bonn, Germany
Jul – Aug 2015	**Economic Evaluation in Global Health.** University of Washington, USA
Feb – Sep 2012	**Evaluation of Public Investment Projects**. University of Pacific. Lima, Peru

Service

2020 -	Reviewer: Journal of Biomedical Informatics, Value in Health Regional Issues, Journal of Infectious Diseases
2020 – 2022	Representative in the School of Pharmacy Diversity, Equity, and Inclusion Council (DEIC). Chair of the Recruitment, Retention, and Development Working group.
2020	Student representative in the CHOICE Institute PhD Admission Committee
2019 – 2020	President of the University of Washington's Student Chapter of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR)

Skills

Coding Languages. R, Stata, Python (Numpy, SciPy, Pandas), Stan, JAGS

Decision sciences. Probabilistic decision modeling, economic evaluation, preferences elicitation, uncertainty assessment, disease modeling

Data Analysis. Generalized linear models & methods for causal inference; Complex structures; Bayesian regression; Spatial analysis of epidemiological data; machine learning

Data Visualization. Use of data visualization and storytelling to better communicate complex information

Scientific communication. Understand the best way to take a scientific message across depending on the audience. Better understand the motivation and use of information of each stakeholder to improve messaging

Publications

Selected peer-reviewed

1. Ulrich AK, Adamson BJ, **Saldarriaga EM**, et al. *Finding and treating early-stage HIV infections: A cost-effectiveness analysis of the Sabes study in Lima, Peru.* The Lancet Regional Health - Americas. 2022 Aug 1;12:100281.

Shin MB, Garcia PJ, **Saldarriaga EM**, et al. *Cost of community-based human papillomavirus self-sampling in Peru: a micro-costing study.* The Lancet Regional Health - Americas. 2022 Apr;8:100160.

Saldarriaga, EM, Hauber, B., Carlson, J.J., Barthold, D., Veenstra, D.L., Devine, B. *Assessing payers' preferences for Real World Evidence in the United States: A Discrete Choice Experiment.* Value in Health. 2022 Mar 1;25(3):443–50.

Saldarriaga EM, Cárcamo CP, Babigumira JB, García PJ. *The Annual costs of treating genital warts in the Public Healthcare Sector in Peru*. BMC Health Services Research. 2021;21(1):1092. doi:10.1186/s12913-021-07120-w

Saldarriaga EM, Bravo-Zúñiga J, Hurtado-Roca Y, Suarez V. *Cost-effectiveness analysis of a strategy to delay progression to dialysis and death among chronic kidney disease patients in Lima, Peru*. Cost Eff Resour Alloc. 2021;19(1):70. doi:10.1186/s12962-021-00317-0

Saldarriaga EM. *HIV-Prevalence Mapping Using Small Area Estimation in Kenya, Tanzania, and Mozambique at the First Sub-National Level.* Annals of Global Health. 2021;87(1):93. doi:10.5334/aogh.3345

Motaze NV, Mthombothi ZE, Adetokunboh O, Hazelbag C, **Saldarriaga EM**, et al. *The Impact of Rubella Vaccine Introduction on Rubella Infection and Congenital Rubella Syndrome: A Systematic Review of Mathematical Modelling Studies.* Vaccines. 2021;9(2):84. doi:10.3390/vaccines9020084

Miller, M., **Saldarriaga, E. M.** & Jones-Smith, J. C. *Household socioeconomic status modifies the association between neighborhood SES and obesity in a nationally representative sample of first grade children in the United States.* Preventive Medicine Reports 20, 101207 (2020).

Bravo-Zúñiga J, **Saldarriaga EM**, Chavez-Gomez R, et al. *Effectiveness of adherence to a renal health program in a health network in Peru.* Revista de Saudé Pública. 2020;54(7)

Saldarriaga EM, Vodicka E, La Rosa S, Valderrama M, Garcia PJ. *Point-of-Care Testing for Anemia, Diabetes, and Hypertension: A Pharmacy-Based Model in Lima, Peru.* Annals of Global Health. March 2017;83(2):394-404.

Submitted and in preparation

Saldarriaga EM, Basu A. *Estimating HIV-prevalence point estimates and uncertainty bounds at the zip code level using existing data.* In review

Saldarriaga EM, Beima-Sofie K, Jhon-Stewart G, et al. *Costing analysis of implementing an Adolescent Transition Package (ATP) within the Adolescent Transition To Adult Care for HIV-infected adolescents in Kenya (ATTACH) clinical trial.* In review

Saldarriaga EM, Basu A. *Health Mass Index: Obesity Metrics to Reflect Health Rather Than Growth*. In preparation

Policy papers

Lescano A, Antiporta D, Luna A, **Saldarriaga EM**, et al. *Challenges and Priorities: Peruvian policy in adolescents and youth* Lima, PE: The United Nations System in Peru; 2018 Sep p. 82.

Ongoing projects

Cost-effectiveness analysis of various ways to allocate healthcare resources at the local level using prevalent cases of HIV as a proxy for needs. Case of study in Atlanta, Georgia.

Quantify the expected value of perfect and partial information of reducing decision uncertainty when using local HIV-prevalence estimates at the zip code level. Case of study in Atlanta, Georgia.

Predictors of COVID-19 vaccine hesitancy in the US. Supervised machine learning algorithms to find the best predictors for vaccines hesitancy using community-level sociodemographic data and a proxy of political affiliation.

Discrete Choice Experiment to better understand the acceptability drivers of long-acting antiretroviral therapy products in Seattle and Atlanta.

Evaluation of client preferences for an online-based pre-exposure prophylaxis delivery model in Kenya.

Impact of the COVID-19 pandemic in the access to healthcare services among children between 2 and 12 years of age, diagnosed with down syndrome, in Lima, Peru

Analysis and trade-off quantification of provider preferences toward Treatment Response Scores to guide therapy decisions in Advance Lung Cancer

Selected presentations

Conferences

Saldarriaga EM, Barnabas R, Zimmerman M, et al. *Cost-Effectiveness Analysis using zip-code-level data on HIV diagnoses to inform resource allocation for HIV-related services: Case study in Atlanta*. In SMDM 2022; Oct 26, 2022, Seattle, WA. *Podium*

Saldarriaga EM. *Identification COVID-19 Vaccine Hesitancy Predictors*. In ISPOR2022; May 16, 2022, Washington D.C. *Podium*

Saldarriaga EM, Basu, A. *Using passive surveillance data to estimate HIV prevalence at the zip code level*. Case of study in Atlanta, GA. In SMDM2021; 2021 Oct, Virtual. *Podium*

Saldarriaga EM, Hauber B, Carlson J, et al. *Assessment of Payers' Preferences for Real World Evidence: A Discrete Choice Experiment*. In iHEA 2021; 2021 Jul, Virtual. *Podium*

Saldarriaga EM, Basu A. *Health Mass Index: Obesity Metrics to Reflect Health Rather Than Growth*. In SMDM 2019; 2019 Oct, Portland, Oregon. *Student Award Finalist*

Saldarriaga EM, Ulrich AK, Adamson BJ, Duerr A. *SABES: A cost effective Treatment as Prevention intervention to identify and treat recent HIV infections*. MMED 2019; 2019 Jun; Cape Town, South Africa. *Podium.*

Saldarriaga EM, Carcamo C. C. *Income-Elasticity of the Body Mass Index. Results from a Peruvian Household Survey*. ISPOR 2019; 2019 May; New Orleans. *Poster*

Talks and Seminars

Saldarriaga EM. *The use of Bayesian prediction models to correct for data incompleteness*. Virtual, Investigation Centre (CIUP), University of the Pacific, Peru. Nov 2021

Saldarriaga EM, Devine B. *Assessment of payers' preferences for Real World Evidence: A Discrete Choice Experiment*. Virtual, Patient Preferences Group, Pfizer. Nov 2021

Saldarriaga EM. *Using passive surveillance data to estimate HIV prevalence at the zip code level. Case of Study in Atlanta, Georgia*. Virtual, CRONICAS, University Cayetano Heredia. Oct 2021

Saldarriaga EM. *The value of reducing uncertainty of HIV-prevalence estimates at the zip code level. Case of study in Atlanta, Georgia*. Virtual, S. Verguet Team Seminar, TH Chan School of Public Health, Harvard. May 2021

Saldarriaga EM, Devine B. *Assessment of payers' preferences for Real World Evidence: A Discrete Choice Experiment*. Virtual, Genentech Evidence for Access (E$A). Apr 2021

Saldarriaga EM. *The value of reducing uncertainty of HIV-prevalence estimates at the zip code level. Case of study in Atlanta, Georgia*. Virtual, Institute for Disease Modelling (IDM), Seattle, USA. Apr 2021

Saldarriaga EM, Devine B. *Assessment of payers' preferences for Real World Evidence: A Discrete Choice Experiment*. Virtual, Program in Health Economics and Outcomes Methodology (PHEnOM), University of Washington. Dec 2020

Saldarriaga EM. *Methods for costing data collection. Theory and lessons learned.* Applied Epidemiology Group, Department of Global Health, Seattle, USA. Jan 2020

Saldarriaga EM, Basu A. *Health Mass Index (HMI): Obesity Metrics to Reflect Health Rather Than Growth*. The CHOICE Seminar, Seattle, USA. May 2019

Saldarriaga EM. Peruvian Health System: Structure and Challenges. MB Program, University of Quinnipiac. Lima, Peru. Jun 2017