

David Contreras-Loya

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EDUCATION	University of California, Berkeley, California <i>PhD candidate, Health Policy, 2022</i> Advisors: Paul Gertler, Aprajit Mahajan, Stefano Bertozzi National Institute of Public Health (INSP), Mexico <i>MSc, Health Economics, 2015</i> Tecnológico de Monterrey, Mexico <i>BSc, Industrial and Systems Engineering, 2005</i>
RESEARCH AREAS	PRIMARY Development Economics, Health Economics SECONDARY Applied microeconomics, and Labor Economics
JOB MARKET PAPER	“The effect of management training on health care provider preferences, clinical decision-making, and business performance in the Kenyan private health care sector” (with Paul Gertler and Ada Kwan). <i>This paper studies how managerial training affects clinical decision-making and business outcomes of private-for-profit clinics in Kenya. We report experimental results of a large-scale management consulting intervention that featured social franchising, business improvement, and quality accreditation. Treatment clinics showed improvements in management practices and structural quality that translated into more clients, higher efficiency, and higher profitability. We find that the program made providers less altruistic. The program, however, significantly reduced correct clinical case management of patient care by 7.8% and increased prices by 27%. We show that the fall in quality did not register with clients and did not affect demand, consistent with demand being quality inelastic. We show that the effects on business performance are driven by changes in management, while changes in quality and prices are driven by changes in altruism. Our study contributes to understanding the trade-offs between quantity and quality in primary care in resource-constrained settings, and that interventions aimed at improving management practices must be coupled with accountability mechanisms and interventions to avoid crowding-out of intrinsic motivation.</i>
WORKING PAPERS	Chioda L, Contreras-Loya D, Gertler P, Carney D. “Making Entrepreneurs: Returns to Training Youth in Hard Versus Soft Business Skills” . National Bureau of Economic Research; 2021 May 24. <i>This paper investigates the medium-term effects of the Skills for Effective Entrepreneurship Development (SEED) program, an in-residence 3-week mini-MBA program for high school students, modeled after western business school curricula and adapted to the Ugandan context. We demonstrate that the training was effective in improving hard and soft skills after 3.5 years, but only soft skills were linked to improvements in self-efficacy, persuasion, and negotiation. The skill upgrade was rewarded in substantially higher earnings, most of which was generated through an increase in self-employment.</i> Contreras-Loya D, Pineda-Antúnez C, Bautista-Arredondo S. “Service delivery platforms as determinants of unit cost variation in four HIV interventions”. <i>This paper studies the variation in unit cost across different service delivery platforms for four HIV interventions, as part of the Global Health Cost Consortium (GHCC) initiative. Using Targeted learning methods and observational data, we estimated the difference in unit cost between a) clinics and hospitals; b) public and private facilities; c) urban and rural facilities. Our paper synthesizes multiple studies that are heterogeneous in scope and measurement, and aims to improve effective budgeting by informing</i>

program planners, policymakers, and funders.

RESEARCH PROJECTS

African Health Markets for Equity (AHME): Co-investigator for a social franchising experiment aimed at improving business management and delivery of care in private Kenyan health care clinics. Principal investigator: Paul Gertler. The project is in collaboration with the University of California, San Francisco and Innovations for Poverty Action and is funded by the Bill & Melinda Gates Foundation and FCDO (formerly UK DFID).

Skills for Effective Entrepreneurial Development Co-investigator for the 8-year follow-up of a youth entrepreneurship program implemented as an at-scale RCT in Uganda to study the impact of a three-week residential mini-MBA and the relative importance of hard and soft skills in shaping youth outcomes. Principal investigators: Paul Gertler, Laura Chioda, and Dana Carney.

Educate! Co-investigator for the 8-year follow-up of an experimental evaluation of a two year-long upper-secondary school-based social leadership intervention in Uganda called the Educate! Experience Program. Principal investigators: Paul Gertler, Laura Chioda, and Dana Carney.

Cost-effectiveness of multidisciplinary care for diabetes control in Mexico Co-investigator for the retrospective evaluation of clinical trajectories, health care costs, and economic benefits of a team-based primary care model implemented by the Mexican Ministry of Health. Lead investigators are Dr. Sandra Sosa-Rubí (INSP), and Virginia Molina (PAHO).

PUBLICATIONS

Pineda-Antunez C, Contreras-Loya D, Rodriguez-Atristain A, et al. “Characterizing health care provider knowledge: evidence from HIV services in Kenya, Rwanda, South Africa, and Zambia.” (Accepted for publication) Plos one, November 2021.

Sosa-Rubí SG, Bautista-Arredondo S, Chivardi-Moreno C, et al. “Efficiency, quality, and management practices in health facilities providing outpatient HIV services in Kenya, Nigeria, Rwanda, South Africa and Zambia”. *Health Care Manag Sc*, 2021;1-14. doi.org/10.1007/s10729-020-09541-1

Sosa-Rubí SG, Contreras-Loya D, Pedraza-Arizmendi D, et al. “Cost-effectiveness analysis of a multidisciplinary health-care model for patients with type-2 diabetes implemented in the public sector in Mexico: A quasi-experimental, retrospective evaluation.” *Diabetes Res Clin Pr* 167 (2020): 108336. doi.org/10.1016/j.diabres.2020.108336

Bautista-Arredondo S, Sosa-Rubi SG, Opuni M, Contreras-Loya D, et al. “Influence of supply-side factors on voluntary medical male circumcision costs in Kenya, Rwanda, South Africa, and Zambia”. PloS one, 2018;13(9):e0203121. doi.org/10.1371/journal.pone.0203121

Bautista-Arredondo S, La Hera-Fuentes G, Contreras-Loya D, et al. “Efficiency of HIV services in Nigeria: Determinants of unit cost variation of HIV counseling and testing and prevention of mother-to-child transmission interventions”. PloS one, 2018;13(9): e0201706. doi.org/10.1371/journal.pone.0201706

Rodríguez-Franco R, Serván-Mori E, Gómez-Dantés O, et al. “Old principles, persisting challenges: Maternal health care market alignment in Mexico in the search for UHC”. PloS one, 2018;13(7):e0199543. doi.org/10.1371/journal.pone.0199543

Bautista-Arredondo S, Colchero MA, Amanze OO, La Hera-Fuentes G, et al. “Explaining the heterogeneity in average costs per HIV/AIDS patient in Nigeria: The role of supply-side and service delivery characteristics”. PloS one, 2018;13(5):e0194305.

doi.org/10.1371/journal.pone.0194305

Galárraga O, Wamai RG, Sosa-Rubí SG, Mugo MG, et al. “HIV prevention costs and their predictors: evidence from the ORPHEA Project in Kenya”. *Health Policy Plann*, 2017;32(10):1407-16. doi.org/10.1093/heapol/czx121

Serván-Mori E, Contreras-Loya D, Gomez-Dantés O, et al. “Use of performance metrics for the measurement of universal coverage for maternal care in Mexico”. *Health Policy Plann*, 2017; 32(5):625-33. doi.org/10.1093/heapol/czw161

Bautista-Arredondo S, Sosa-Rubí SG, Opuni M, et al. “Costs along the service cascades for HIV testing and counselling and prevention of mother-to-child transmission”. *AIDS* 2016;30(16):2495. doi.org/10.1097%2FQAD.0000000000001208

Bautista-Arredondo S, Serván-Mori E, Silverman-Retana O, et al. “AIDS mortality in Mexico: an exploration of the role of supply constraints, management practices, training and experience”. *Salud Publica Mexico* 2015.

Cahuana-Hurtado L, Chilian-Herrera O, Bautista-Arredondo S, et al. “Correction of misclassification of deaths from AIDS in Mexico. Retrospective analysis of 1983-2012”. *Salud Publica Mexico* 2015.

Colchero MA, Contreras-Loya D, López-Gatell H, et al. “The costs of inadequate breastfeeding in Mexico”. *Am J Clin Nutr*, 2015;101(3): 579-586. doi.org/10.3945/ajcn.114.092775

Contreras-Loya D, Gómez-Dantés O, Puentes-Rosas E, et al. “Waiting times for surgical and diagnostic procedures in public hospitals in Mexico”. *Salud Publica Mexico* 2015;57(1): 29-37

Contreras-Loya D, Reding-Bernal A, Gómez-Dantés O, et al. “Supply of essential drugs in units specialized in the treatment of chronic diseases in Mexico in 2012”. *Salud Publica Mexico* 2014;55(6): 618-626

Book chapter: Saturno PJ, Gutiérrez JP, et al. Quality in primary care of State Health Services. Strategic diagnosis of the current situation. Cuernavaca, México: INSP 2014. ISBN: 978-607-511-136-0. <https://encuestas.insp.mx/calidad/publicaciones.php>

FELLOWSHIPS AND AWARDS

2016-2021 UC MEXUS-CONACYT Doctoral Fellowships for Mexican Students
2010-2012 CONACYT National Quality Postgraduate Program (MSc)
2005 CENEVAL: Third nationally in the exit exam of Industrial Engineering
2000-2005 Academic scholarship (BSc)

EMPLOYMENT

Research assistant

2016-2021 RA to Paul Gertler, UC Berkeley
2018-2021 Short-term consultant to Laura Chioda, World Bank Group
2018 Short-term consultant to Christel Vermeersch, World Bank Group
2012-2016 RA to Sergio Bautista-Arredondo, INSP (Mexico)

Industry experience

2008-2010 Head of quality projects, Hospital CIMA Chihuahua (Mexico)
2005-2008 Business consultant, Plexus Consultores (Mexico)

Teaching

Fall 2021 MBA200A Data Analytics (TA for J. Kolstad / P. Gertler)
Spring 2021 EW MBA217 Big Data, Better Decisions (TA for J. Kolstad / P. Gertler)
2012-2013 Mathematical Statistics (TA for Fernando Alarid, INSP)
2013-2014 Seminar of Health Economics (TA for Sandra-Sosa Rubí, INSP)

Professional activities

2021 Technical Secretary of the Ethics Committee, [CISIDAT](#) (Mexico)
2019 Mentor for the [EASST](#) program (GEGA, UC Berkeley)
2013-2017 Member of five dissertation committees (MSc Health Economics, INSP)

CONFERENCES

2021 PacDev, BREAD, NEUDC
2020 Empirical Management Conference
2019 iHEA
2017 iHEA
2015 iHEA
2014 SMDM, APHA, International AIDS Conference
2013 SMDM, IHME

**OTHER
INFORMATION**

Software skills: Proficient in Stata, R, and \LaTeX . Working knowledge: SurveyCTO, Python, Visual Basic.

Languages: Spanish (Native), English (fluent written and spoken)

Citizenship: Mexican

Last updated: November, 2021