LUCAS GODOY GARRAZA

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EDUCATION

Ph.D. Biostatistics, University of Massachusetts Amherst, 2025

Dissertation: *Approaches to causal inference using Bayesian machine learning and nonparametric methods with applications to the assessment of effects of family planning programming.*

Advisor: Leontine Alkema

M.A. Quantitative Methods in the Social Sciences, Columbia University, 2007

M.A. Public Policy and Management, Universidad de Chile, Santiago, Chile, 2000

B.A. Political Science, Universidad del Salvador, Buenos Aires, Argentina, 1997

RESEARCH INTERESTS

Causal inference for policy evaluation; endogeneity and effect heterogeneity; staggered adoption and quasi-experimental designs; interpretation of local effects and transportability; Bayesian and machine-learning-based methods.

PUBLICATIONS

Peer-reviewed publications

Godoy Garraza L, Cardona C, Gichangi P, Thiongo M, Anglewicz, P, & Alkema L (2025). Using balancing weights to compare performance across facilities providing family planning services in Kenya. *Health Serv Outcomes Res Method* 25, 328–359. https://doi.org/10.1007/s10742-025-00342-z

Balzer LB, Cai E, Godoy Garraza L, Amaranath P. (2024) Adaptive selection of the optimal strategy to improve precision and power in randomized trials. *Biometrics.* 29;80(1):ujad034. https://doi.org/10.1093/biomtc/ujad034

Tevendale HD, Garraza LG, Brooks MAM, et al. (2024) Effects of Community-Wide Teen Pregnancy Prevention Initiatives on Local Teen Birth Rates in the United States: A Synthetic Control Approach. *Prev Sci.* https://doi.org/10.1007/s11121-024-01663-0

Hickey MD, Wafula E, Ogachi SM, Ojwando H, Orori G, Adede RO, Godoy Garraza L, Petersen ML, Havlir DV, Balzer LB & Ayieko J (2023). Weight change following

switch to dolutegravir for HIV treatment in rural Kenya during country roll-out. *J Acquir Immune Defic Syndr* 93(2):154-161. https://doi.org/10.1097/QAI.0000000000003173 .

Godoy Garraza L, Campos S, & Walrath C (2021). Using a spatiotemporal model to estimate the impact of suicide prevention in small areas. *Health Serv Outcomes Res Method*, 21(4), 510–526. https://doi.org/10.1007/s10742-021-00242-y

Godoy Garraza L, Tobar F, Rodríguez Bernate I (2020). Out-of-pocket spending for contraceptives in Latin America. *Sex Reprod Health Matters*; 28. https://doi.org/10.1080/26410397.2020.1833429

Godoy Garraza L, Kuiper N, Cross WF, Hicks B & Walrath C (2020). The Effectiveness of Active Learning Strategies in Gatekeeper Training on Behavioral Outcomes. *Crisis* 1-9. https://doi.org/10.1027/0227-5910/a000733

Latzmana NE, Lokey C, Lesesne C, Klevens J, Cheung K, Condron S, Godoy Garraza L (2019). An evaluation of welfare and child welfare system integration on rates of child maltreatment in Colorado. Child Youth Serv Rev 96:386-395. https://doi.org/10.1016/j.childyouth.2018.12.009

Condron S, Godoy Garraza L, Kuiper N, et al (2018). Comparing the Effectiveness of Brief Versus In-Depth Gatekeeper Training on Behavioral Outcomes for Trainees. *Crisis*, 15:1-10. https://doi.org/10.1027/0227-5910/a000539.

Tevendale HD, Condron DS, Godoy Garraza L, et al. (2017) Practical Approaches to Evaluating Progress and Outcomes in Community-Wide Teen Pregnancy Prevention Initiatives. *J Adolesc Health* 60(3):S63–S68. https://doi.org/10.1016/j.jadohealth.2016.09.018

Godoy Garraza L, Peart Boyce S, Walrath C, Goldston, DB and McKeon R (2016), An Economic Evaluation of the Garrett Lee Smith Memorial Suicide Prevention Program. *Suicide Life Threat Behav* 48(1): 3-11. https://doi.org/10.1111/sltb.12321

Liao Y, Siegel PZ, Godoy Garraza L, et al. (2016) Reduced Prevalence of Obesity in 14 Disadvantaged Black Communities in the United States: A Successful 4-Year Place-Based Participatory Intervention. *Am. J. Public Health* 106(8):1442-8. https://doi.org/10.2105/AJPH.2016.303253

Godoy Garraza L, Walrath C, Goldston DB, et al. (2015). Effect of the Garrett Lee Smith Memorial Suicide Prevention Program on Suicide Attempts among Youths. *JAMA Psychiatry*, 72(11):1143-9. https://doi.org/10.1001/jamapsychiatry.2015.1933.

Walrath C, Godoy Garraza L, Reid H, et al. (2015). Impact of the Garrett Lee Smith Youth Suicide Prevention Program on Suicide Mortality. *Am. J. Public Health*. 105(5):986-993. https://doi.org/10.2105/AJPH.2014.302496

Susanne, CD, Godoy Garraza L, Walrath CM, et al. (2015). Identifying and Referring Youths at Risk for Suicide Following Participation in School-Based Gatekeeper Training. *Suicide Life Threat Behav.* (4):461-76. https://doi.org/10.1111/sltb.12142

Riehman KS, Kakietek J, Manteuffel BA, et al. (2013). Evaluating the effects of community-based organization engagement on HIV and AIDS-related risk behavior in Kenya. *AIDS Care*, 25(1): S67-S77. https://doi.org/10.1016/j.jadohealth.2016.09.018

Kutash K, Godoy Garraza L, Ferron J, Duchnowski A, et al. (2013). The Relationship Between Family Education and Support Services and Parent and Child Outcomes Over Time. *J Emot Behav Disord*. 21(4):264–276. https://doi.org/10.1177/1063426612451329

Rodi, M S, Godoy Garraza L, Walrath C M, Stephens R L, Condron D, Brewer B, et al. (2012). Referral patterns of youth identified at risk for suicide by trained gatekeepers. *Crisis*, 33(2):113–9. https://doi.org/10.1027/0227-5910/a000114

Azur M, Godoy Garraza L, Goldweber A (2011). Violent and nonviolent delinquent behavior among Caucasian and Hispanic youth in mental health systems-of-care programs. *Youth Violence Juv*. Justice., 9(2): 134–149. https://doi.org/10.1177/1541204010374460

Godoy Garraza L, Walrath CL, Stephens R & Azur M. (2011). Gender differences in patterns of child risk across programmatic phases of the CMHI: A multiple group latent class analysis (LCA). *J Behav Health Serv Res* 38(2): 265–277. https://doi.org/10.1007/s11414-010-9219-6.

Walrath C, Godoy Garraza L, Stephens R, Azur M, Miech R & Leaf P (2009). Trends in characteristics of children served by the Children's Mental Health Initiative: 1994–2007. Mental Health Services Research, 36(6), 361–373. https://doi.org/10.1007/s10488-009-0231-1

Manuscripts under revision

Godoy Garraza L, Speizer I, & Alkema L (2025). Combining BART and Principal Stratification to estimate the effect of intermediate variables on primary outcomes with application to estimating the effect of family planning on employment in Nigeria and Senegal (No. arXiv:2412.16320). Revise and resubmit at Statistics and Public Policy. https://doi.org/10.48550/arXiv.2412.16320

Working papers

Godoy Garraza L & Alkema L (2025). Does fertility affect woman's labor force participation in low- and middle-income settings? Findings from a Bayesian nonparametric analysis (No. arXiv:2508.10787). arXiv. https://doi.org/10.48550/arXiv.2508.10787

STATISTICAL SOFTWARE

`princeBART` — R package for instrumental variable and encouragement designs with noncompliance, providing Bayesian estimation of complier-specific causal effects, effect heterogeneity, and tools for assessing and implementing generalization to external populations under explicit transportability assumptions, including sensitivity analyses. https://alkemalab.github.io/prince_BART/

GRANTS & FUNDED RESEARCH

National Institute of Mental Health (R03MH123905), *Assessing the Impact of a Youth Suicide Prevention Program in Small Communities*, PI: Christine Walrath - Project statistician

- Led statistical analysis for evaluation of a youth suicide prevention program using observational and quasi-experimental methods.

Bill & Melinda Gates Foundation (OPP10709004; INV-00844), PI: Leontine Alkema - Doctoral researcher; analysis lead for dissertation chapter

- Supported methodological and applied research on facility-level performance evaluation, resulting in a peer-reviewed publication.

Bill & Melinda Gates Foundation (INV-018349) and Children's Investment Fund Foundation (2012-05769), *Family Planning Impact Consortium* (Grant recipient: Guttmacher Institute); Project lead: Leontine Alkema - Doctoral researcher

- Contributed to methodological development and analysis for research on the causal effects of family planning programs, resulting in a manuscript under revise-and-resubmit at Statistics and Public Policy.

ACADEMIC RESEARCH AND TEACHING EXPERIENCE

Research Assistant — Alkema Lab, University of Massachusetts Amherst, 2022–2024

- Developed causal inference methods for observational and quasi-experimental studies, with emphasis on endogeneity, effect heterogeneity, and interpretation of local effects.

Research Assistant — Balzer Lab, University of Massachusetts Amherst, 2021–2022

- Contributed to methodological research on causal machine learning and doubly robust estimation using flexible prediction models.

Teaching Assistant — Special Topics in Causal Inference, University of Massachusetts Amherst, 2022

- Supported graduate-level instruction in modern causal inference methods.

PROFESSIONAL RESEARCH EXPERIENCE

Statistical Consultant — ICF; UNFPA; Avenir Health; Aptive, 2014–*Present*

- Conduct methodological and applied research for large-scale health policy and program evaluations using observational and quasi-experimental data.
- Develop and implement causal inference and machine-learning-based methods, including flexible outcome models and design-informed analyses.
- Lead statistical analysis plans and contribute to peer-reviewed manuscripts, policy reports, and methodological documentation, with an emphasis on reproducibility.

Senior Technical Specialist — ICF, New York, USA, 2007–2014

- Led quantitative and methodological components of health research projects, with responsibility for study design, causal analysis, and interpretation.
- Mentored analysts in statistical programming and causal inference workflows, including reproducible analysis in R.

Earlier Research and Policy Roles, 1998–2009

- Research and statistical roles in academic and government settings, including the HOPE Program and the Ministries of Health and Economy (Argentina), focused on survey analysis, administrative data, and policy-relevant evaluation.