

# MATTHEW COATES

[coates.mm@gmail.com](mailto:coates.mm@gmail.com) • [Google Scholar](#) • [PubMed](#)

## EDUCATION

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- PhD**, Epidemiology, University of California, Los Angeles • Los Angeles, CA Expected 2026  
Advisor: Onyebuchi A. Arah, MD DSc PhD MSc MPH  
Dissertation: Augmenting graphical tools for causal inference in non-communicable and infectious disease epidemiology: applications in cancer and vaccine effectiveness studies
- MPH**, Global Health – Health Metrics and Evaluation, University of Washington • Seattle, WA 2016  
Advisor: Haidong Wang, PhD MA  
Thesis: Quantifying selection bias from birth history estimates of child mortality
- BA**, Neurobiology, minor in Global Health and Health Policy, Harvard University • Cambridge, MA 2013  
Thesis: Association of socioeconomic status with prefrontal cortical thickness and subcortical volumes in children and adolescents

## RESEARCH EXPERIENCE

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- University of California, Los Angeles, Los Angeles, California  
*Graduate Student Researcher* 7-9/2023
- University of California, Los Angeles, Los Angeles, California  
*Graduate Student Researcher* 7-9/2022
- Brigham and Women's Hospital, Division of Global Health Equity, Remote in Los Angeles, California  
*Research Specialist* 9/2019 -
- Harvard Medical School, Department of Global Health and Social Medicine  
Program in Global Noncommunicable Disease and Social Change, Boston, Massachusetts  
*Associate* 10/2016 - 8/2019
- Institute for Health Metrics and Evaluation, Seattle, Washington  
*Post-Bachelor Fellow* 8/2013-8/2016
- University Teaching Hospital, University of Zambia, Lusaka, Zambia  
*MPH Practicum- Research Assistant* SUMMER 2015

## PUBLICATIONS

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46. Rowe SL, Sullivan SG, Munoz FM, **Coates MM**, Agnew B, Arah OA, & Regan AK. (2025). COVID-19 vaccination during pregnancy and major structural birth defects. *Pediatrics*, online first, e2024069778.
45. Rowe SL, Sullivan SG, Munoz FM, **Coates MM**, Arah OA, & Regan AK. (2025). Uptake of recommended vaccines during pregnancy among publicly- and privately-insured people in the United States, December 2020 – September 2022. *American Journal of Public Health*. online first, e1\_e10.
44. Regan AK, Rowe SL, Sullivan SG, **Coates MM**, Munoz FM, & Arah OA. (2025). COVID-19 antiviral medication use among pregnant and recently pregnant US outpatients. *Clinical Infectious Diseases*, ciae580.
43. Ferrari G, Boti M, Nakotwa D, Gomber A, **Coates MM**, et al. (2024). Clinical insights from a sub-study of a randomized control trial of continuous glucose monitor use in patients living with type 1 diabetes in rural

Malawi. *Journal of Endocrinology, Metabolism, and Diabetes of South Africa*, 29(3), 87-93.

42. **Coates MM**, Arah OA, Matthews TA, Sandler DP, Jackson CL, and Li J. (2024). Multiple forms of perceived job discrimination and hypertension risk among employed women: Findings from the Sister Study. *American Journal of Industrial Medicine*, 67(9):844-856.

41. Gomber A, Valeta F, **Coates MM**, et al. (2024). Feasibility of continuous glucose monitoring in patients with type 1 diabetes at two district hospitals in Neno, Malawi: a randomised controlled trial. *BMJ Open*, 14:e075554.

40. Adler AJ, Wroe EB, Atzori A, et al., including **Coates MM**. (2024). Protocol for an evaluation of the initiation of an integrated longitudinal outpatient care model for severe chronic non-communicable diseases (PEN-Plus) at secondary care facilities (district hospitals) in 10 lower-income countries. *BMJ Open*, 14: e074182.

39. Ahmed S, Cao Y, Wang Z, **Coates MM**, et al. (2024). Service readiness for the management of non-communicable diseases in publicly financed facilities in Malawi: findings from the 2019 Harmonized Health Facility Assessment census survey. *BMJ Open*, 14: e072511.

38. Boudreaux C, Salvi D, Adler A, Wroe EB, **Coates MM**, Olsen M, Jain Y, Mocumbi AO, & Bukhman G. (2023). Realigning noncommunicable disease monitoring with health systems priorities in the Africa region. *Health Promotion International*, 38(6).

37. Adler AJ, Drown L, Boudreaux C, **Coates MM**, Marx A, Akala O, Waqanivalu T, Xu H, & Bukhman G. (2023). Understanding integrated service delivery: a scoping review of models for noncommunicable disease and mental health interventions in low-and-middle income countries. *BMC Health Services Research*, 23(99).

36. Matthews S, **Coates MM**, Bukhman A, et al. (2022). Health system capacity to manage diabetic ketoacidosis in nine low-income and lower-middle income countries: A cross-sectional analysis of nationally representative survey data. *eClinicalMedicine*, 55: 101759.

35. Haakenstad A, **Coates M**, Bukhman G, McConnell M, & Verguet S. (2022). Comparative health systems analysis of differences in the catastrophic health expenditure associated with non-communicable vs communicable diseases among adults in six countries. *Health Policy and Planning*, 37(9): 1107-1115.

34. **Coates MM**, Ezzati M, Robles Aguilar G, et al. (2021). Burden of disease among the world's poorest billion people: An expert-informed secondary analysis of the Global Burden of Disease estimates. *PLoS ONE*, 16(8): e0253073.

33. Gupta N, Mocumbi A, Arwal SH, et al., including **Coates MM** (as part of NCDI Poverty Network Secretariat). (2021). Prioritizing health-sector interventions for noncommunicable diseases and injuries in low- and lower-middle income countries: National NCDI Poverty Commissions. *Global Health Science and Practice*, 9(3).

32. **Coates MM**, Sliwa K, Watkins DA, et al. (2021). An investment case for the prevention and management of rheumatic heart disease in the African Union 2021-30: a modelling study. *Lancet Global Health*, 9(7): E957-E966.

31. Mwangi KJ, Gathecha G, Nyamongo M, et al. including **Coates M**. (2020) Reframing non-communicable diseases and injuries for equity in the era of universal health coverage: findings and recommendations from the Kenya NCDI Poverty Commission. *Annals of Global Health*, 87(1): 3, 1-16.

30. Boudreaux, C, Noble C, **Coates MM**, et al. (2020). Noncommunicable disease (NCD) strategic plans in low- and lower-middle income Sub-Saharan Africa: framing and policy response. *Global Health Action*, 13(1): 1805165.

29. **Coates MM**, Kintu A, Gupta N, et al. (2020). Burden of noncommunicable disease from infectious risks in 2017: a modelling study. *Lancet Global Health*, 8(12): E1489-E1498.

28. Gupta N, **Coates MM**, Bekele A, et al. (2020). Low availability of equipment and medications for non-communicable diseases and injuries at public first-referral level hospitals in eight low-income countries. *BMJ Open*, 10: e038842.

27. Bukhman G, Mocumbi AO, et al. including **Coates MM**. (2020). The *Lancet* NCDI Poverty Commission: bridging a gap in universal health coverage for the poorest billion. *The Lancet*, 396(10256), 991-1044.
26. Johansson KA, **Coates MM**, Økland J-M, Tsuchiya A, Norheim OF, Haaland Ø. (2020). Health by disease categories. In Cookson, R, Griffin, S, Norheim, O and Culyer, A. *Distributional Cost-Effectiveness Analysis: A Handbook of Equity-Informative Health Economic Evaluation*. Oxford University Press.
25. Johanssen KA, Økland J-M, Skaftun EK, Bukhman G, Norheim OF, **Coates MM**, Haaland Ø. (2020). Estimating health adjusted age at death (HAAD). *PLOS ONE* 15(7): e0235955.
24. **Coates MM**, Kamanda M, Kintu A et al. (2019). A comparison of all-cause and cause-specific mortality by household socioeconomic status across seven INDEPTH Network health and demographic surveillance systems in sub-Saharan Africa. *Global Health Action*, 12(1): 1608013.
23. Haakenstad A, **Coates M**, Marx A, Bukhman G, Verguet S. (2019). Disaggregating catastrophic health expenditure by disease area: cross-country estimates based on the World Health Surveys. *BMC Medicine*, 17: 36.
22. Liang J, Li X, Kang C, et al. including **Coates MM**. (2018). Maternal mortality ratios in 2852 Chinese counties, 1996-2015, and achievement of Millennium Development Goal 5 in China: a subnational analysis of the Global Burden of Disease Study 2016. *The Lancet*, 393(10168): 241-252.
21. Bui AL\*, **Coates MM\***, Matthay EC\*. (2018). Years of life lost due to encounters with law enforcement in the USA, 2015-2016. *Journal of Epidemiology and Community Health*, 72(8): 715-718.
20. Rabiee R, Agardh E, **Coates MM**, Allebeck P, Danielsson A-K. (2017). Alcohol-attributed disease burden and alcohol policies in the BRICS-countries during the years 1990-2013. *J Global Health*, 7(1): 010404.
19. Gething PW, Casey DC, Weiss DJ, et al. including **Coates MM**. (2016). Mapping *Plasmodium falciparum* malaria mortality in Africa between 1990 and 2015. *New England Journal of Medicine*, 375(25): 2435-2445.
18. GBD 2015 Risk Factors Collaborators including **Coates MM**. (2016). Global, regional and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 195 countries, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, 388(10053): 1659-1724.
17. GBD 2015 SDG Collaborators including **Coates MM**. (2016). Measuring the health-related Sustainable Development Goals in 188 countries: An analysis from the Global Burden of Disease Study 2015. *The Lancet*, 388(10053): 1813-1850.
16. GBD 2015 DALYs and HALE Collaborators including **Coates MM**. (2016) Global, regional, and national disability-adjusted life years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990-2015: a systematic analysis for the Global Burden of Diseases, Injuries, and Risk Factors (GBD) 2015 Study. *The Lancet*, 388(10053): 1603-1658.
15. GBD 2015 Maternal Mortality Collaborators including **Coates MM**. (2016). Global, regional, and national levels of maternal mortality, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, 388(10053): 1775-1812.
14. The Global Burden of Disease 2015 Child Mortality Collaborators including **Coates MM**. (2016). Global, regional, national and selected subnational levels of stillbirths, neonatal, infant, and under-5 mortality during 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, 388(10053): 1725-1774.
13. The Global Burden of Disease 2015 Mortality and Cause of Death Collaborators including **Coates MM**. (2016). Global, regional, and national life expectancy, all-cause and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*, 388(10053): 1459-1544.

12. Mokdad AH, Forouzanfar MH, Daoud F, et al. including **Coates MM**. (2016). Health in Times of Uncertainty: a systematic analysis for the Global Burden of Disease Study 2013 in the Eastern Mediterranean Region, 1990-2013. *Lancet Global Health*, 4(10): e704-13.
11. Agardh E, Danielsson A-K, Ramstedt M, et al. including **Coates MM**. (2016). Alcohol-attributed disease burden in four Nordic countries: A comparison using the Global Burden of Disease, Injuries and Risk Factors 2013 study. *Addiction*, 111(10): 1806-13.
10. Kellerborg K, Danielsson A-K, Allebeck P, **Coates MM**, and Agardh E. (2016). Alcohol attributed disease burden: How methodological advances in the GBD 2013 study have changed the estimates in Sweden. *Scandinavian Journal of Public Health*, 44(6): 604-610.
9. The Global Burden of Disease 2015 HIV Collaborators including **Coates MM**. (2016). Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980-2015: the Global Burden of Disease Study 2015. *The Lancet HIV*, 3(8) e361-e387.
8. Wang Y, Li X, Zhou M, et al., including **Coates MM**. (2016). Under-5 mortality in 2851 Chinese counties, 1996-2012: a subnational assessment of achieving MDG 4 goals in China. *The Lancet*, 387(10015): 273-283.
7. Zhou M, Wang H, Zhu J, et al., including **Coates MM**. (2016). Cause-specific mortality for 240 causes in China during 1990-2013: a systematic subnational analysis for the Global Burden of Disease Study 2013. *The Lancet*, 387(10015): 251-272.
6. Newton JN, Briggs ADM, Murray CJL, et al., including **Coates MM**. (2015). Changes in health in England with analysis by region and areas of deprivation: findings of the Global Burden of Disease Study 2013. *The Lancet*, 386(10010): 2257-2274.
5. GBD 2013 Risk Factors Collaborators, including **Coates MM**. (2015) Global, regional and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010): 2287-2323.
4. GBD 2013 DALYs and HALE Collaborators, including **Coates MM**. (2015). Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: quantifying the epidemiological transition. *The Lancet*, 386(10009): 2145-2191.
3. GBD 2013 Mortality and Causes of Death Collaborators, including **Coates MM**. (2014). Global, regional, and national levels of age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 385(9963):117-171.
2. Memish ZA, Jaber S, Mokdad AH, AlMazroa MA, Murray CJL, Al Rabeeah AA, and the Saudi Burden of Disease Collaborators, including **Coates MM**. (2014). Burden of Disease, Injuries, and Risk Factors in the Kingdom of Saudi Arabia, 1990–2010. *Preventing Chronic Disease*, 11, E169.
1. Wang H, Liddell CA, **Coates MM** et al. (2014). Global, regional, and national levels of neonatal, infant, and under-5 mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 384(9947):957-79.

\* Contributed equally

## EDITORIALS AND LETTERS

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1. **Coates MM**, Wolock CJ, Arah OA. RE: Prediagnostic exposures and cancer survival: Can a meaningful causal estimand be specified? *Epidemiology*, *accepted*.

## MANUSCRIPTS UNDER REVIEW

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1. Ferrari G, Davies J, Thapa A, et al., including **Coates MM**. Prospective cohort study evaluating feasibility, acceptability, and clinical impact of diabetes self-management education in a PEN-Plus program in Southeastern Liberia.
2. **Coates MM**, Rowe SL, Sullivan SG, Munoz-Rivas FM, Arah OA, & Regan AK. Assessing the use of medical insurance claims and electronic health records to measure COVID-19 vaccination during pregnancy.
3. Arah OA & **Coates MM**. Making DAGs even more useful: Using augmented causal diagrams to depict counterfactual, study design, measurement, analytical, and interventional features.

## AWARDS, HONORS, AND FELLOWSHIPS

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### University of California, Los Angeles

National Cancer Institute Ruth L. Kirschstein National Research Service Award (T32)	2023-present
Ursula Mandel Scholarship	2023-2024
Celia and Joseph Blann Fellowship	2023-2024
Graduate Research Mentorship	2023-2024
Department Fellowship in Epidemiology	2021-2023
Graduate Dean's Scholar Award	2021-2023

### University of Washington

Distinguished Master's Thesis Award for Biology and Life Sciences	2017
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### Harvard University

High Honors, Undergraduate Thesis	2013
Cum Laude	2013
Robert C. Byrd Honors Scholarship, US Office of Postsecondary Education and Georgia Department of Education	2009

### Conference Awards

First Place Poster, Behavioral Research Advancements in Neuroscience (BRAIN) Summer Symposium, Center for Behavioral Neuroscience, Atlanta, GA,	2012
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## CONFERENCE PRESENTATIONS AND POSTERS

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\*Indicates presenter

12. **Coates MM\*** & Arah OA. Framing and extending immortal time bias with augmented causal diagrams and annotated causal estimands: immune time versus immune study population. **Oral presentation** at the Society for Epidemiologic Research Annual Meeting. Boston, MA, June 2025.
11. **Coates MM\***, Anukam D, Zhang ZF, & Arah OA. Collider bias in estimating the effects of pre-incident-cancer exposures on post-incident-cancer outcomes. **Poster presented** at the Society for Epidemiologic Research Annual Meeting. Boston, MA, June 2025.

10. **Coates MM\***, Anukam D, Zhang ZF, & Arah OA. Identifying the effects of pre-diagnosis exposures on post-diagnosis outcomes among people with cancer. **Poster presented** at the University of California, Los Angeles Jonsson Comprehensive Cancer Center Annual Symposium. Los Angeles, CA, May 2025.
9. **Coates MM\***, Zhang ZF, & Arah OA. Collider bias in estimating the effect of cancer screening on post-incident outcomes. **Poster presented** at the American Society of Preventive Oncology Annual Meeting. Philadelphia, PA, April 2025.
8. **Coates MM\***, Rowe SL, Sullivan SG, Munoz FM, Arah OA, & Regan AK. Assessing the use of medical insurance claims and electronic health records to measure COVID-19 vaccination during pregnancy. **Poster presented** at the Society for Epidemiologic Research Mid-Year Meeting. Online, February 2025.
7. Regan AK\*, Rowe SL, Sullivan SG, Munoz F, Griffith J, **Coates M**, & Arah OA. Modification of the relationship between prenatal COVID-19 vaccination and ankyloglossia by insurance type. **Poster presented** at the Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting. Austin, TX, June 2024.
6. Rowe SL\*, Sullivan S, Munoz FM, Griffith J, **Coates M**, Arah OA, & Regan AK. Neonatal outcomes among people vaccinated against COVID-19 during pregnancy in the United States. **Poster presented** at the Society for Epidemiologic Research Annual Meeting. Austin, TX, June 2024.
5. Rowe SL\*, Sullivan S, Munoz FM, Arah O, **Coates M**, & Regan AK. Disparities in the uptake of recommended vaccines among publicly- and privately-insured pregnant people in the United States. **Poster presented** at the American Public Health Association Annual Meeting. Atlanta, GA, November 2023.
4. **Coates MM\***, Arah OA, Matthews TA, Sandler DP, Jackson CL, & Li J. (2023). Multiple forms of job discrimination and hypertension risk among employed women: Findings from the Sister Study. **Oral presentation** at the Society for Epidemiologic Research Annual Meeting 2023, Portland, OR, June 2023.
3. Bui AL\*, **Coates MM**, & Matthay EC. (2017). Quantifying years of life lost due to encounters with law enforcement in the United States, 2015-2016. **Poster presented** at California Medical Association Conference 2017, Anaheim, CA, October 2017.
2. Bui AL\*, **Coates MM**, & Matthay EC. (2017). Quantifying years of life lost due to encounters with law enforcement in the United States, 2015-2016. **Poster presented** at American College of Physicians Southern California 2017 Meeting. Marina del Rey, CA, September 2017.
1. Bommer CE\*, **Coates MM\***, Diaz MM\*, Pallis TT\*. (2011). Behavioral and neural plasticity following appendage loss in crayfish (*Procambarus clarkii*). **Poster presented** at Behavioral Research Advancements in Neuroscience (BRAIN) 2011 Research Symposium. Center for Behavioral Neuroscience. Atlanta, GA, July 2011.

## TEACHING AND MENTORSHIP

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- *Teaching Assistant*, Epidemiology M211: Statistical Methods for Epidemiology, UCLA, Winter 2024 (25% FTE)
- *Teaching Assistant*, Epidemiology M204: Logic, Causation, and Probability, UCLA, Fall 2024 (25% FTE)
- *Teaching Assistant*, Epidemiology M204: Logic, Causation, and Probability, UCLA, Fall 2023 (25% FTE)
- *Mentorship Committee Co-Chair*, Epidemiology Student Association, UCLA, 2023-2024 academic year
- *Mentor*, Epidemiology Student Association Mentorship Program, UCLA, 2022-2024
- *Lecturer*, Cardiovascular disease and global health equity, Continuing Medical Education course. Harvard Medical School, February 29, 2020.
- *Workshop instructor*, NCDI Poverty Commission Initiators Workshop. Dubai, December 5-8, 2018.

- *Lecturer*, Cardiovascular disease and global health equity, Continuing Medical Education course. Harvard Medical School, July 28, 2018.

## PROFESSIONAL MEMBERSHIPS

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- California Center for Population Research, Student Affiliate, UCLA, 2022-present
- Society for Epidemiologic Research, member, 2022-present

## PROFESSIONAL SERVICE

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### Manuscript Peer Review

- Advances in Public Health, 2025
- International Journal of Epidemiology, 2024-2025
- AIMS Public Health, 2024
- Global Health Action, 2020-2023
- The Lancet Global Health, 2022

## ADDITIONAL TRAINING

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- Modelers and Storytellers: Transdisciplinary Training to Advance Community Health Intervention Research, 3 week training program on systems science, data science, and community health science, UCLA, July 2023

## COMPUTER SKILLS

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- **Programming:** *Advanced Experience:* Stata, R *Intermediate Experience:* Bash (using computing cluster), RMarkdown/Knitr, *Some Experience:* SAS, Python, SQL, VBA in Excel, QGIS
- **Code Management and Version Control:** Git (GitHub, SourceTree/Bitbucket)
- **Microsoft Office:** PowerPoint, Word, Excel, Outlook, Access