## William M. Gardner

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#### Education

Columbia University
Doctor of Medicine
New York, NY
Expected 2026

University of Washington

MPH in Global Health: Health Metrics and Evaluation

Seattle, WA

2020

Thesis: Global, Regional, and National Estimates of Complete Coverage of Maternal Obstetric Care Interventions, 1990-2019 (Committee: Nicholas Kassebaum [chair] and Meagan Dirac)

Harvard University

B.A. Magna cum laude with Highest Honors in Sociology

Cambridge, MA
2017

Thesis: Institutions, Inequalities, and Infant Death: Understanding the Role of Health Care Decommodification in Latin America (Adviser: Jason Beckfield; Readers: Peter V. Marsden and Katherine Morris)

Minor: Global Health and Health Policy

# Experience

## Institute for Health Metrics and Evaluation

Researcher (2020 – present); Post-Bachelor Fellow (2017-2020)

Sep. 2017 - present Seattle, WA

Work on the Maternal and Child Health team as part of the Global Burden of Disease Study; Model disease burden due to neonatal infectious diseases, distribution of population hemoglobin levels and prevalence of anemia, burden of disease attributable to lead exposure and suboptimal breastfeeding, and a variety of maternal and child health interventions, including coverage of antenatal care, skilled birth attendance, caesarean section, and postnatal care.

# Department of Sociology, Harvard University

Research Assistant

June 2015-May 2017 Cambridge, MA

Worked under the direction of Professor Jason Beckfield on a project researching the effects of income inequality on population health in Latin America using cross-national economic and health data from the World Income Inequality Database, World Bank, and World Values Survey.

# Department of Global Health and Health Policy, Harvard University

Cordeiro Summer Research Fellow

May-August 2016 Cambridge, MA

Conducted research for individual project entitled "Evaluating Distributional Effects of the Welfare State on Health in Latin America," which culminated in my senior thesis; Duties included performing extensive literature reviews and cited reference searches, acquiring and cleaning relevant data sources, data modeling and statistical analysis, and manuscript writing.

## Child Family Health International

Urban and Rural Comparative Health Intern

June-August 2014 Quito and Chone, Ecuador

Observed and participated in clinical rotations in various specialty clinics and hospitals in the towns of Quito and Chone, Ecuador; Researched and reported on topics dealing with health disparities and inequalities between urban and rural healthcare systems; attended weekly lectures on topics in global health and health policy in Ecuador.

## Articles

**Gardner WM**, GBD 2020 Anaemia Collaborators, and Kassebaum NJ. Prevalence, years lived with disability, and trends in anaemia burden by severity and cause from 1990-2021: findings from the Global Burden of Disease Study 2021. Accepted at *The Lancet Haemotology*.

GBD 2021 Sickle Cell Disease Collaborators (*including Gardner WM*). Global, regional, and national prevalence and mortality burden of sickle cell disease, 2000-2021: a systematic analysis from the Global Burden of Disease Study 2021. *The Lancet Haematology* 2023. Advance online publication. <a href="https://doi.org/10.1016/S2352-3026(23)00118-7">https://doi.org/10.1016/S2352-3026(23)00118-7</a>

GBD 2019 Healthcare Access and Quality Collaborators (*including Gardner WM*). Assessing performance of the Healthcare Access and Quality Index, overall and by select age groups, for 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. *The Lancet Global Health* 2022; **10**: e1715-e1743. https://doi.org/10.1016/S2214-109X(22)00429-6

GBD 2019 LRI Collaborators (including Gardner WM). Age-sex differences in the global burden of lower respiratory infections and risk factors, 1990-2019: results from the Global Burden of Disease Study 2019. The Lancet Infectious Diseases 2022; 22: 1626-1647. https://doi.org/10.1016/S1473-3099(22)00510-2

Gonçalves BP, Procter SR, Paul P, Chandna J, et al. (including **Gardner WM**). Group B streptococcus infection during pregnancy and infancy: estimates of regional and global burden. The Lancet Global Health 2022; **10**: e807-e819. <a href="https://doi.org/10.1016/S2214-109X(22)00093-6">https://doi.org/10.1016/S2214-109X(22)00093-6</a>

Fitzgerald R, Manguerra H, Arndt MB, **Gardner WM**, *et al.* Current dichotomous metrics obscure trends in severe and extreme child growth failure. *Science Advances* 2022; **8**. <a href="https://doi.org/10.1126/sciadv.abm8954">https://doi.org/10.1126/sciadv.abm8954</a>

GBD 2019 Under-5 Mortality Collaborators (including Gardner WM). Global, regional, and national progress towards Sustainable Development Goal 3.2 for neonatal and child health: all-cause and cause-specific mortality findings from the Global Burden of Disease Study 2019. The Lancet 2021; 398: 870-905. https://doi.org/10.1016/S0140-6736(21)01207-1

Local Burden of Disease Exclusive Breastfeeding Collaborators (including **Gardner WM**). Mapping inequalities in exclusive breastfeeding in low- and middle-income countries, 2000-2018. Nature Human Behaviour 2021; 5: 1027-1045. <a href="https://doi.org/10.1038/s41562-021-01108-6">https://doi.org/10.1038/s41562-021-01108-6</a>

GBD 2019 Universal Health Coverage Collaborators (including **Gardner WM**). Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. The Lancet 2020; **396:** 1250-1284. https://doi.org/10.1016/S0140-6736(20)30750-9

GBD 2019 Risk Factors Collaborators (including Gardner WM). Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. The Lancet 2020; **396:** 1223-1249. <a href="https://doi.org/10.1016/S0140-6736(20)30752-2">https://doi.org/10.1016/S0140-6736(20)30752-2</a>

GBD 2019 Diseases and Injuries Collaborators (including Gardner WM). Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. The Lancet 2020; **396:** 1204-1222. <a href="https://doi.org/10.1016/S0140-6736(20)30925-9">https://doi.org/10.1016/S0140-6736(20)30925-9</a>

GBD 2019 Viewpoint Collaborators (including Gardner WM). Five insights from the Global Burden of Disease Study 2019. The Lancet 2020; **396**: 1135-1159. https://doi.org/10.1016/S0140-6736(20)31404-5

India State-Level Disease Burden Initiative Child Mortality Collaborators (*including Gardner WM*). Subnational mapping of under-5 and neonatal mortality trends in India: the Global Burden of Disease Study 2000-17. *The Lancet* 2020; **395:** 1640-1658. <a href="https://doi.org/10.1016/S0140-6736(20)30471-2">https://doi.org/10.1016/S0140-6736(20)30471-2</a>

GBD 2017 LRI Collaborators (including **Gardner WM**). Quantifying risks and interventions that have affected the burden of lower respiratory infections among children younger than 5 years: an analysis for the Global Burden of Disease Study 2017. The Lancet Infectious Diseases 2020; **20:** 60-79. <a href="https://doi.org/10.1016/S1473-3099(19)30410-4">https://doi.org/10.1016/S1473-3099(19)30410-4</a>

GBD 2017 Diarrhea Collaborators (*including Gardner WM*). Quantifying risks and interventions that have affected the burden of diarrhoea among children younger than 5 years: an analysis of the Global Burden of Disease Study 2017. *The Lancet Infectious Diseases* 2020; **20:** 37-59. <a href="https://doi.org/10.1016/S1473-3099(19)30401-3">https://doi.org/10.1016/S1473-3099(19)30401-3</a>

India State-Level Disease Burden Initiative Malnutrition Collaborators (including Gardner WM). The burden of child and maternal malnutrition and trends in its indicators in the states of India: the Global Burden of Disease Study 1990-2017. The Lancet Child & Adolescent Health 2019; 3: 855-870. https://doi.org/10.1016/S2352-4642(19)30273-1

Bhattacharjee N, Schaeffer L, Marczak L, Ross J, Swartz S, Albright J, **Gardner WM**, Shields C, *et al.* Mapping exclusive breastfeeding in Africa between 2000 and 2017. *Nature Medicine* 2019; **25:** 1205-1212. <a href="https://doi.org/10.1038/s41591-019-0525-0">https://doi.org/10.1038/s41591-019-0525-0</a>

Lozano R, Fullman N, Abate D, et al. (including **Gardner WM**). Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018; **392**: 2091–138. <a href="https://doi.org/10.1016/S0140-6736(18)32281-5">https://doi.org/10.1016/S0140-6736(18)32281-5</a>

Stanaway JD, Afshin A, Gakidou E, *et al. (including Gardner WM)*. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018; **392**: 1923–94. <a href="https://doi.org/10.1016/S0140-6736(18)32225-6">https://doi.org/10.1016/S0140-6736(18)32225-6</a>

James SL, Abate D, Abate KH, et al. (including Gardner WM). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet 2018; 392: 1789–858. <a href="https://doi.org/10.1016/S0140-6736(18)32279-7">https://doi.org/10.1016/S0140-6736(18)32279-7</a>

Kyu HH, Abate D, Abate KH, *et al. (including Gardner WM)*. Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018; 392: 1859–922. <a href="https://doi.org/10.1016/S0140-6736(18)32335-3">https://doi.org/10.1016/S0140-6736(18)32335-3</a>

Roth GA, Abate D, Abate KH, *et al. (including Gardner WM)*. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018; **392**: 1736–88. <a href="https://doi.org/10.1016/S0140-6736(18)32203-7">https://doi.org/10.1016/S0140-6736(18)32203-7</a>

### **Conference Presentations**

**Gardner WM** and Kassebaum NJ. 2020. "Global, Regional, and National Prevalence of Anemia and Its Causes in 204 Countries and Territories, 1990-2019." American Society for Nutrition 2020 Annual Conference (Finalist for Emerging Leaders in Nutrition Science Award)

**Gardner WM** and Kassebaum NJ. 2020. "Global, Regional, and National Prevalence and Trends in Infant Breastfeeding Status in 204 Countries and Territories, 1990-2019." American Society for Nutrition 2020 Annual Conference

**Gardner WM** and Kassebaum NJ. 2019. "Global, Regional, and National Coverage of Maternal Care Interventions." Society for Pediatric and Perinatal Epidemiology 2020 Annual Conference

# **Professional Organizations**

Society for Pediatric and Perinatal Epidemiology	2019 – Present
American Society for Nutrition	2019 – Present
WHO Scientific Advisory Group for Group B Streptococcus vaccine value proposition	2019 - 2022
Honors and Awards	
Emerging Leaders in Nutrition Science, American Society of Nutrition (finalist)	2020
Phi Beta Kappa	2017
David McCord Prize (Harvard University)	2017
John Harvard Scholar	2016 - 2017
Cordeiro Health Policy Summer Research Fellowship	2016
Sales Prize for Best Undergraduate Composition in Spanish (Harvard University)	2016