Marissa B. Reitsma
Stanford University Department of Health Policy
MREITSMA@STANFORD.EDU

EDUCATION

Stanford University   September 2019 - Present
PhD Student in Health Policy
Knight-Hennessy Scholar, NSF Graduate Research Fellow, Stanford Data Science Scholar
Advisors: Joshua Salomon, Jeremy Goldhaber-Fiebert, Sherri Rose

Brown University   September 2010 - May 2014
Sc.B Biology (Immunology)
Honors, Magna Cum Laude

FELLOWSHIPS AND GRANTS

Stanford Data Science Scholars Program   2021-2023
50% Scholarship Funding - 2 years
Stanford University

NSF Graduate Research Fellowship Program   2021-2024
Full scholarship funding - 3 years
National Science Foundation

Spectrum Early Career Pilot Grant   2021
Title: Prioritizing effective interventions to eliminate disparities in COVID-19 outcomes among marginalized populations
Stanford University Center for Population Health Sciences

Knight-Hennessy Scholarship   2019-2022
Full scholarship funding - 3 years
Stanford University

Post-Bachelor Fellowship   2014-2016
Institute for Health Metrics and Evaluation

Brown International Scholars Program Fellowship   2013-2014
Brown University

Laura W. Bush Traveling Fellowship   2013
US Department of State / UNESCO

Awards

Lee B. Lusted Student Award (Health Services, Outcomes, and Policy Research)   2021
Society for Medical Decision Making

Community Builder Award   2019
Institute for Health Metrics and Evaluation

Jeremiah and Rose Stamler Research Award for New Investigators   2018
American Heart Association

Undergraduate Teaching and Research Award   2012
Brown University

Selected Publications

A complete list of publications is available on Google Scholar.

25. Joshua A. Salomon, ...**Marissa B. Reitsma**, ... Ryan J. Tibshirani. The US COVID-19 Trends and Impact Survey: Continuous real-time measurement of COVID-19 symptoms, risks, protective behaviors, testing, and vaccination. December 2021. *PNAS.*

24. **Marissa B. Reitsma**, Jeremy D. Goldhaber-Fiebert, Joshua A. Salomon. Quantifying and Benchmarking Disparities in COVID-19 Vaccination Rates by Race and Ethnicity. October 2021. *JAMA Network Open.*

23. Fernando Alarid-Escudero, Valeria Gracia, Andrea Luviano, Jorge Roa, Yadira Peralta, **Marissa B. Reitsma**, Anneke L. Claypool, Joshua A. Salomon, David M. Studdert, Jason R. Andrews, Jeremy D. Goldhaber-Fiebert. Dependence of COVID-19 Policies on End-of-Year Holiday Contacts in Mexico City Metropolitan Area: A Modeling Study. October 2021. *MDM Policy Practice.*

22. **Marissa B. Reitsma***, Anneke L. Claypool*, Jason Vargo, Priya B. Shete, Ryan McCorvie, William H. Wheeler, David A. Rocha, Jennifer F. Myers, Erin L. Murray, Brooke Bregman, Deniz M. Dominguez, Alyssa D. Nguyen, Charsey Porse, Curtis L. Fritz, Seema Jain, James P. Watt, Joshua A. Salomon, Jeremy D. Goldhaber-Fiebert. Racial/Ethnic Disparities in COVID-19 Exposure Risk, Testing, and Cases at the Subcounty Level in California. May 2021. *Health Affairs.*
*Co-first author

21. **Marissa B. Reitsma**, Parkes J. Kendrick, GBD 2019 Tobacco Collaborators, Emmanuela Gakidou. Spatial, temporal, and demographic patterns in prevalence of smoking tobacco use and attributable disease burden in 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. May 2021. *The Lancet.*

20. Parkes J. Kendrick, **Marissa B. Reitsma**, GBD 2019 Tobacco Collaborators, Emmanuela Gakidou. Spatial, temporal, and demographic patterns in prevalence of chewing tobacco use in 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. May 2021. *The Lancet Public Health.*

19. **Marissa B. Reitsma**, Luisa S. Flor, Erin C. Mullany, Vin Gupta, Simon I. Hay, Emmanuela Gakidou. Spatial, temporal, and demographic patterns in smoking prevalence and initiation among young people in 204 countries and territories, 1990-2019. May 2021. *The Lancet Public Health.*

18. **Marissa B. Reitsma**, Joshua A. Salomon, Jeremy D. Goldhaber-Fiebert. Mapping Inequality in SARS-CoV-2 Household Exposure and Transmission Risk in the USA. February 2021. *Journal of General Internal Medicine.*

17. Luisa S. Flor, **Marissa B. Reitsma**, Vin Gupta, Marie Ng, Emmanuela Gakidou. Assessing the impact of tobacco control policies on global smoking prevalence. February 2021. *Nature Medicine.*

16. **Marissa B. Reitsma**, Parkes Kendrick, Jason Anderson, Nicholas Arian, Rachel Feldman, Emmanuela Gakidou, Vin Gupta. Reexamining Rates of Decline in Lung Cancer Risk after Smoking Cessation: A meta-analysis. September 2020. *Annals of the American Thoracic Society.*

15. Deborah C. Malta, ...**Marissa B. Reitsma**, ... Emmanuela Gakidou. Trends in prevalence and mortality burden attributable to smoking, Brazil and federated units, 1990 and 2017. September 2020. *Population Health Metrics.*

14. **Marissa B. Reitsma**, Nancy Fullman, Marie Ng, GBD 2015 Tobacco Collaborators, Christopher Murray, Mohammad Mehrdad Forouzanfar, Emmanuela Gakidou. Estimating smoking prevalence and attributable disease burden in 195 countries and territories, 1990-2015: a systematic analysis from the Global Burden of Disease Study 2015. April 2017. *The Lancet.*

13. Ashkan Afshin, Mohammad Mehrdad Forouzanfar, **Marissa B. Reitsma**, Patrick Sur, Kara Estep, Alex Lee, Laurie Marczak, Ali Mokdad, Maziar Moradi Lakeh, Mohsen Naghavi, Joseph Salama, Theo Vos, GBD 2015 Obesity Collaborators, Christopher Murray. Obesity and overweight and their health impact 1990-2015 in 195 countries. June 2017. *New England Journal of Medicine.*

12. **GBD 2019 Risk Factors Collaborators**. The unfulfilled promise of prevention: the global burden of 86 risk factors, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. October 2020. *The Lancet.*

11. **GBD 2019 Diseases and Injuries Collaborators**. Global burden of 302 diseases, injuries, and impairments, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. October 2020 *The Lancet.*

10. Luisa S. Flor, ...**Marissa B. Reitsma**, ... Emmanuela Gakidou. Community-based interventions for detection and management of diabetes and hypertension in underserved communities: a mixed-methods evaluation in Brazil, India, South Africa and the USA. June 2020. *BMJ Global Health.*

9. **GBD 2017 Risk Factors Collaborators**. 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. November 2018. *The Lancet.*

8. Kantor R, DeLong A, Schreier L, **Reitsma M**, Kemboi E, Orido M, Obonge S, Boinett R, Rono M, Emonyi W, Brooks K, Coetzer M, Buziba N, Hogan J, Diero L. HIV-1 second-line failure and drug resistance at high-level and low-level viremia in Western Kenya. November 2018. *AIDS.*

7. Kyle Foreman,... **Marissa Reitsma**,... Christopher JL Murray. Forecasting life expectancy, years of life lost, and all-cause and cause-specific mortality for 250 causes of death: reference and alternative scenarios for 2016-40 for 195 countries and territories. October 2018. *The Lancet.*

6. Rose Gabbert,... **Marissa Reitsma**,... Herbert Duber. Identifying gaps in the continuum of care for hypertension and diabetes in two Indian communities. December 2017. *BMC Health Services Research.*

5. **GBD 2016 Risk Factors Collaborators**. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990 to 2016: a systematic analysis for the Global Burden of Disease Study 2016. September 2017. *The Lancet.*

4. **GBD 2015 Risk Factors Collaborators**. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. October 2016. *The Lancet.*

3. Katherine Brooks, Lameck Diero, Allison DeLong, Maya Balamane, **Marissa Reitsma**, Emmanuel Kemboi, Millicent Orido, Mia Coetzer, Joseph Hogan, Rami Kantor. Treatment Failure, Drug Resistance and High K65R in HIV-infected Patients on Tenofovir-Based 1st-Line Antiretroviral Therapy in Western Kenya. May 2016. *Journal of the International AIDS Society.*

2. Rami Kantor,... **Marissa Reitsma**,... Susan Eshleman. Pretreatment HIV Drug Resistance and HIV-1 Subtype C Are Independently Associated With Virologic Failure: Results From the Multinational PEARLS (ACTG A5175) Clinical Trial. February 2015. *Clinical Infectious Diseases.*

1. Philip Chan, **Marissa Reitsma**, Allison DeLong, Bruce Boucek, Marco Salemi, Amy Nunn, Rami Kantor. Phylogenetic and Geospatial Evaluation of HIV-1 Subtype Diversity at the Largest HIV Center in Rhode Island. April 2014. *Infection, Genetics and Evolution.*

INVITED LECTURES AND TEACHING

Guest Lecturer | Introduction to Decision Sciences   Jul. 2021, Jul. 2022
Advancing Health Equity and Diversity Summer Research Program, Stanford University

Guest Lecturer | Descriptive Epidemiology and Global Health   Jul. 2021, Jul. 2022
Advancing Health Equity and Diversity Summer Research Program, Stanford University

Guest Lecturer | Global Burden of Disease: Methods and Results   Jan. 2021, Jan. 2022
University of Washington, Seattle

Graduate Teaching Assistant | Analysis of Costs, Risks, and Benefits of Health Care   Fall 2021
Stanford University
Evaluation of effectiveness of instruction: 4.9/5

Invited Speaker | Strategies to reduce racial/ethnic disparities in the COVID-19   April 2021
vaccination campaign
Center for Population Health Sciences, Stanford University

Guest Lecturer | Principles of Health Metrics   October 2020
University of Washington, Seattle

Invited Speaker | Quantifying the Global Health Impacts of Smoking   October 2019
Johns Hopkins University, Baltimore

Invited Speaker | Path to a Tobacco-Free Taiwan   November 2018
Taipei Medical University, Taiwan

Lead Instructor | Introduction to Research   September 2018
Institute for Health Metrics and Evaluation, Seattle

Invited Lecturer | Tobacco control in Mexico and Latin America   August 2018
Instituto Nacional de Salud Pública, Mexico

Guest Lecturer | Global Burden of Disease   Jul. 2017, Aug. 2018
University of Washington, Seattle

Instructor | Global Burden of Disease Technical Training Workshop   Apr. 2017, Apr. 2018
Institute for Health Metrics and Evaluation, Greece

Guest Lecturer | Tobacco and Public Health   May 2017
University of Washington, Seattle

Undergraduate Teaching Assistant | Burden of Disease in Developing Countries   Fall 2013
Brown University, Providence

Service

Student Representative: Justice, Equity, Diversity, and Inclusion Committee [2021-Present]
Stanford Center for Health Policy

Referee: BMJ Open, Tobacco Control, Tobacco Use Insights, International Journal of Cancer, American Journal of Public Health, Value in Health

Mentor: Advancing Health Equity and Diversity Summer Research Program [2022]; Inclusive Mentorship in Data Science [2022-Present]; Stanford Biosciences Student Association First Mentorship Program [2020-Present]; Upward Scholars [2019-2021]

Relevant previous service: Founded and led IHME's Staff Feedback and Improvement Group [2018-2019], volunteer at County Doctor Free Clinic (primarily serving homeless and street involved youth, majority LGBTQ population) [2016-2019].

Additional Work and Research Experience

Research Scientist   September 2016 - Present*
Institute for Health Metrics and Evaluation, University of Washington
*Part-time beginning September 2019
Seattle, WA
- Lead research on estimating the burden of disease attributable to alcohol use and tobacco use (smoking, secondhand smoke, and smokeless tobacco)
- Support development of a multi-modal tobacco surveillance system for use in diverse settings
  - Piloted in Lusaka, Accra, and Nairobi
- Forecast the health effects of smoking under different policy scenarios
- Responsible for adding two new risk factors to the global burden of disease study (childhood obesity and chewing tobacco use), as well as a major methodological overhaul for the approach to estimating smoking attributable burden
- Train, supervise, and mentor Post-Bachelor Fellows

Post-Bachelor Fellow   September 2014 - September 2016
Institute for Health Metrics and Evaluation, University of Washington
Seattle, WA
- Developed statistical models to estimate the burden of disease attributable to tobacco use and high-body mass index
- Supported a prospective impact evaluation of community-based interventions for non-communicable diseases in the United States, India, South Africa, and Brazil
- Modeled key covariates, including various categories of food consumption, smoking prevalence, obesity and overweight prevalence, temperature, and precipitation
- **Visiting Researcher at the University of Zambia, July 2016 - August 2016:**
  - Assessed equity in coverage of childhood vaccinations by wealth and performed a decomposition of the drivers of inequity

Research Assistant January 2012 - August 2014
Brown University Center for AIDS Research
Providence, RI
- Clinical Research: Extracted clinical, behavioral, and demographic data in order to analyze HIV transmission networks among high-risk individuals in Rhode Island
- Bioinformatics Research: Investigated the diversity of HIV subtypes circulating in Rhode Island, and the concordance of various bioinformatics tools used to determine viral subtypes
- Statistical Research: Analyzed the prevalence and correlates of second-line antiretroviral treatment failure, patterns of second-line drug resistance, and impacts on future treatment options
- Laboratory Research: Compared viral sequences from different analytes (plasma, peripheral blood mononuclear cells, and dried blood spots) in order to assess the feasibility of expanding access to viral genotyping in low-resource settings
  - Extracted proviral DNA and viral RNA, ran gel electrophoresis and PCR, and completed viral sequencing

Visiting Researcher July 2013 - August 2013
Moi Teaching and Referral Hospital
Eldoret, Kenya
- Investigated associations between tribal affiliation and transmission of HIV, adherence to clinic appointments and medication, and risk of failing antiretroviral therapy through mixed-methods research involving chart review, qualitative interviews, and phylogenetic analysis

Last Updated: June 8, 2022