

CONTACT INFORMATION	Institute for Health Metrics and Evaluation Population Health Building/Hans Rosling Center 3980 15th Ave NE, Seattle, WA 98195 USA UW Campus Box #351615 aeschuma@uw.edu
EDUCATION	<div> University of Washington <i>August 2022</i> PhD, Biostatistics Dissertation: “Modeling multivariate health and demographic outcomes in low- and middle-income countries using sample registration and complex survey data” Advisor: Jon Wakefield Committee: Tyler McCormick, Noah Simon, Haidong Wang, Jim Hughes </div> <div> University of California, San Diego <i>June 2012</i> BS, Mathematics – Probability and Statistics Minors: Global Health, Psychology <i>Summa cum laude</i> </div>
POSITIONS	<div> University of Washington Assistant Professor <i>April 2024 –</i> <i>Department of Health Metrics Sciences, School of Medicine</i> Research Team Lead: Population, Fertility, and Mortality <i>September 2022 –</i> <i>Institute for Health Metrics and Evaluation</i> Biostatistics Consultant <i>March 2024 –</i> <i>Department of Oral Medicine, School of Dentistry</i> Faculty affiliate <i>November 2024 –</i> <i>Center for Statistics and the Social Sciences</i> Acting Assistant Professor <i>September 2022 – March 2024</i> <i>Department of Health Metrics Sciences, School of Medicine</i> </div>
REFEREED JOURNAL PUBLICATIONS	First or senior authorship <ol style="list-style-type: none"> Schumacher AE, Zheng P, Barber RM, . . . , Aravkin AY, Murray CJL (2025). Global age-sex-specific all-cause mortality and life expectancy estimates for 204 countries and territories and 660 subnational locations, 1950–2023: a demographic analysis for the Global Burden of Disease Study 2023. <i>The Lancet</i>. 406(10513): 1731-1810. Schumacher AE, Bhattacharjee NV, . . . , Murray CJL, Smith AE, Vollset SE (2024). Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. <i>The Lancet</i>. 403(10440): 2057-99. Schumacher AE, Kyu HH, . . . , Lim SS, Murray CJL (2024). Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. <i>The Lancet</i>. 403(10440): 1989-2056. Schumacher AE, McCormick TH, Wakefield J, Chu Y, Perin J, Villavicencio F, Simon N, Liu L (2022). A flexible Bayesian framework to estimate age- and cause-specific child mortality over time from sample registration data. <i>The Annals of Applied Statistics</i>. 16(1): 124-43.

Other authorship

1. Han HJ, Kim YS, Park S, Shin JI, Kim MS, Moon JH, Kim YB, **Schumacher AE**, . . . , Yon DK, Park KY (2025). Burden of Central Nervous System Cancer in the United States, 1990-2021. *JAMA Neurology*. Nov 3:e1-13.
2. Gray AP, Chung E, Hsu RL, Araki DT, Hayoon AG, Weaver ND, Swetschinski LR, Wool EE, Han C, Mestrovic T, Ikuta KS, **Schumacher AE**, . . . , Naghavi M (2025). Global, regional, and national sepsis incidence and mortality, 1990–2021: a systematic analysis. *The Lancet Global Health* 13(12):e2013-26.
3. Naghavi M, Kyu HH, **Schumacher AE**, . . . , Wool EE, Murray CJL (2025). Global burden of 292 causes of death in 204 countries and territories and 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*. 406(10513):1811-72.
4. Hay SI, Ong KL, Santomauro DF, **Schumacher AE**, . . . , Brauer M, Vos T, Murray CJL, Gakidou E (2025). Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*. 406(10513):1873-922.
5. Force LM, Kocarnik JM, May ML, Bhangdia K, Crist A, Penberthy L, Pritchett N, Acheson A, Deitesfeld L, **Schumacher AE**, . . . , Vos T, Murray CJL (2025). The global, regional, and national burden of cancer, 1990–2023, with forecasts to 2050: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*. 406(10512):1565-86.
6. Oh J, Kim S, Kim MS, **Schumacher AE**, . . . , Shin JI, Yon DK (2025). Global, regional, and national burden of asthma and atopic dermatitis, 1990–2021, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Respiratory Medicine*. 13(5):425-46.
7. Bennitt FB, Wozniak S, Causey K, Spearman S, Okereke C, Garcia V, Hashmeh N, Ashbaugh C, **Schumacher AE**, . . . , Brauer M, Burkart K (2025). Global, regional, and national burden of household air pollution, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 405(10485):1167-81.
8. Weaver ND, Bertolacci GJ, Rosenblad E, Ghoba S, Cunningham M, Ikuta KS, Moberg ME, Mougin V, Han C, Wool EE, **Schumacher AE**, . . . , Naghavi M (2025). Global, regional, and national burden of suicide, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Public Health*. 10(3):e189-202.
9. Feigin VL, Vos T, Nair BS, Hay SI, **Schumacher AE**, . . . , Murray CJL (2025). Global, regional, and national burden of epilepsy, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Public Health*. 10(3):e203-27.
10. Santomauro DF, Erskine HE, Herrera AM, Miller PA, Shadid J, Hagins H, Addo IY, Adnani QE, Ahinkorah BO, **Schumacher AE**, . . . , Murray CJL (2025). The global epidemiology and health burden of the autism spectrum: Findings from the Global Burden of Disease Study 2021. *The Lancet Psychiatry*. 12(2):111-21.
11. Leary PJ, Lindstrom M, Johnson CO, Emmons-Bell S, Rich S, Corris PA, DuBrock HM, Ventetuolo CE, **Schumacher AE**, . . . , Murray CJL, Roth GA (2025). Global, regional, and national burden of pulmonary arterial hypertension, 1990–2021:

- a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Respiratory Medicine*. 13(1):69-79.
12. Sirota SB, Doxey MC, Dominguez RM, Bender RG, Vongpradith A, Albertson SB, Novotney A, Burkart K, Carter A, **Schumacher AE**, . . . , Murray CJL, Kyu HH (2025). Global, regional, and national burden of upper respiratory infections and otitis media, 1990–2021: a systematic analysis from the Global Burden of Disease Study 2021. *The Lancet Infectious Diseases*. 25(1):36-51.
 13. Kyu HH, Vongpradith A, Dominguez RM, Ma J, Albertson SB, Novotney A, Khalil IA, Troeger CE, Doxey MC, Ledesma JR, Sirota SB, Bender RG, Swetschinski LR, Cunningham M, Spearman S, **Schumacher AE**, . . . , Murray CJL (2025). Global, regional, and national age-sex-specific burden of diarrhoeal diseases, their risk factors, and aetiologies, 1990–2021, for 204 countries and territories: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Infectious Diseases*. 25(5):519-36.
 14. Mokdad AH, Bisignano C, Hsu JM, Bryazka D, Cao S, Bhattacharjee NV, Dalton BE, Lindstedt PA, Smith AE, Ababneh HS, Abbasgholizadeh R, **Schumacher AE**, . . . , Vollset SE, Murray CJL (2024). Burden of disease scenarios by state in the USA, 2022–50: a forecasting analysis for the Global Burden of Disease Study 2021. *The Lancet*. 404(10469):2341-70.
 15. Carter A, Zhang M, Tram KH, Walters MK, Jahagirdar D, Brewer ED, Novotney A, Lasher D, Mpolya EA, Vongpradith A, Ma J, Verma M, Frank TD, He J, Byrne S, Lin C, Dominguez RV, Pease SA, Comfort H, May EA, **Schumacher AE**, . . . , Murray CJL, Kyu HH (2024). Global, regional, and national burden of HIV/AIDS, 1990–2021, and forecasts to 2050, for 204 countries and territories: the Global Burden of Disease Study 2021. *The Lancet HIV*. 11(12):e807-22.
 16. Awedew AF, Han H, Berice BN, Dodge M, Schneider RD, **Schumacher AE**, . . . , Misganaw A, Dirac MA (2024). The global, regional, and national burden of urolithiasis in 204 countries and territories, 2000–2021: a systematic analysis for the Global Burden of Disease Study 2021. *EClinicalMedicine*. 78.
 17. Comfort H, McHugh TA, **Schumacher AE**, Harris A, May EA, Paulson KR, Gardner WM, Fuller JE, Frisch ME, Taylor HJ, Leever AT, Teply C, Verghese NA, . . . , Hay SI, Naghavi M, Murray CJL, Dandona R, Kassebaum NJ. (2024) Global, regional, and national stillbirths at 20 weeks’ gestation or longer in 204 countries and territories, 1990–2021: findings from the Global Burden of Disease Study 2021. *The Lancet*. 404(10466): 1955-88.
 18. Bryazka D, Reitsma MB, **Schumacher AE**, . . . , Vollset SE, Gakidou G (2024). Forecasting the effects of smoking prevalence scenarios on years of life lost and life expectancy from 2022 to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Public Health*. 9(10):e729-44.
 19. Feigin VL, **Schumacher AE**, . . . , Johnson CO, Roth GA, Nair BS, Rautalin I, Bhatia A, Bisignano C, Vos T, Murray CJL (2024). Global, regional, and national burden of stroke and its risk factors, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Neurology*. 23(10):973-1003.
 20. Naghavi M, Vollset SE, Ikuta KS, Swetschinski LR, Gray AP, Wool EE, Aguilar GR, Mestrovic T, Smith G, Han C, Hsu RL, Chalek J, Araki DT, Chung E, Raggi C, Hayoon AG, Weaver ND, Lindstedt PA, Smith AE, Altay U, Bhattacharjee NV, Giannakis K, Fell F, McManigal B, Ekapirat N, Mendes JA, Runghien T, Srimokla O, **Schumacher AE**, . . . , Murray CJL (2024). Global burden of

- bacterial antimicrobial resistance 1990–2021: a systematic analysis with forecasts to 2050. *The Lancet*. 404(10459):1199-226.
21. Han H, Letourneau ID, **Schumacher AE**, . . . , Dirac MA (2024). Trends and levels of the global, regional, and national burden of appendicitis between 1990 and 2021: findings from the Global Burden of Disease Study 2021. *The Lancet Gastroenterology & Hepatology*. 9(9):825-58.
 22. Bender RG, Sirota SB, Swetschinski LR, Dominguez RM, Novotney A, Wool EE, Ikuta KS, Vongpradith A, Rogowski EL, Doxey M, Troeger CE, Albertson SB, Ma J, He J, Maass KL, **Schumacher AE**, . . . , Naghavi M, Murray CJL, Kyu HH (2024). Global, regional, and national incidence and mortality burden of non-COVID-19 lower respiratory infections and aetiologies, 1990–2021: a systematic analysis from the Global Burden of Disease Study 2021. *The Lancet Infectious Diseases*. 24(9):974-1002.
 23. Cross M, Ong KL, Culbreth GT, Steinmetz JD, Cousin E, Lenox H, Kopec JA, Haile LM, Brooks PM, Kopansky-Giles DR, Dreinhoefer KE, Betteridge N, **Schumacher AE**, . . . , Vos T, March LM, Woolf AD (2024). Global, regional, and national burden of gout, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 6(8):e507-17.
 24. Vollset SE, **Schumacher AE**, . . . , Smith AE, Murray CJL (2024). Burden of disease scenarios for 204 countries and territories, 2022–2050: a forecasting analysis for the Global Burden of Disease Study 2021. *The Lancet*. 403(10440):2204-56.
 25. Brauer M, Roth GA, Aravkin AY, Zheng P, **Schumacher AE**, . . . , Murray CJL, Gakidou E (2024). Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 403(10440):2162-203.
 26. Ferrari AJ, Santomauro DF, **Schumacher AE**, . . . , Vos, T, Murray, CJL (2024). Global incidence, prevalence, years lived with disability (YLDs), disability-adjusted life-years (DALYs), and healthy life expectancy (HALE) for 371 diseases and injuries in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 403(10440):2133-61.
 27. Naghavi M, Ong KL, **Schumacher AE**, . . . , Wool EE, Murray CJL (2024). Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 403(10440):2100-32.
 28. Steel N, **Schumacher AE**, . . . , Hay SI, Murray CJL (2025). Changing life expectancy in European countries 1990–2021: a subanalysis of causes and risk factors from the Global Burden of Disease Study 2021 (2024). *The Lancet Public Health*. 10(3):e172-88.
 29. Wu AM, Cross M, Elliott JM, Culbreth GT, Haile LM, Steinmetz JD, Hagins H, Kopec JA, Brooks PM, Woolf AD, Kopansky-Giles DR, Walton DM, Treleaven JM, Dreinhoefer KE, Betteridge N, **Schumacher AE**, . . . , Ong KL, Vos T, March LM (2024). Global, regional, and national burden of neck pain, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 6(3): e142-55.

30. Thomson AM, McHugh TA, Oron AP, Teply C, Lonberg N, Tella VV, Wilner LB, Fuller K, Hagins H, **Schumacher AE**, . . . , Hay SI, Naghavi M, Murray CJL, Kassebaum NJ (2023). 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*. 10(8): e585-e599.
31. Mensah GA, Fuster V, Murray CJ, Roth GA, **Schumacher AE**, et al (2023). Global burden of cardiovascular diseases and risks, 1990-2022. *Journal of the American College of Cardiology*. 82(25):2350-473.
32. Gause EL, **Schumacher AE**, Ellyson AM, Withers SD, Mayer JD, Rowhani-Rahbar A (2024). An Introduction to Bayesian Spatial Smoothing Methods for Disease Mapping: Modeling County Firearm Suicide Mortality Rates. *American Journal of Epidemiology*. kwae005. doi:10.1093/aje/kwae005. *Epub ahead of print*. PMID:38375682.
33. Lozano R, Montoya A, Razo C, **Schumacher AE**, Comfort H, Pease S, et al (2023). Impacto de COVID-19 en la esperanza de vida en México. Un análisis basado en el estudio Global Burden of Disease 2021. *Gac Med Mex*. 159(6): 479-487. Available from: <https://dx.doi.org/10.24875/GMM.23000420>.
34. Bollyky TJ, Castro E, **Schumacher AE**, . . . , Murray CJL, Dieleman JL (2023). Assessing COVID-19 pandemic policies and behaviours and their economic and educational trade-offs across US states from Jan 1, 2020, to July 31, 2022: an observational analysis. *The Lancet*. 401(10385): 1341-1360.
35. Perin J, Chu Y, Villavicencio F, **Schumacher AE**, McCormick TH, Guillot M, Liu L (2022). Adapting and validating the log quadratic model to derive under-five age- and cause-specific mortality (U5ACSM): a preliminary analysis. *Population Health Metrics* 20(3): 1-12.
36. Lee PP, Guess GC, **Schumacher AE**, Dalley RW (2021). Delayed diagnosis of palatal adenoid cystic carcinoma: Review of diagnostic workup and image features of perineural spread. *Oral Oncology*. 2021 Oct;121:105501.
37. Bugg D, Bretherton R, Kim P, Olszewski E, Nagle A, **Schumacher AE**, Chu N, Gunaje J, DeForest C, Stevens K, Kim DH (2020). Infarct Collagen Topography Regulates Fibroblast Fate via p38-Yes-Associated Protein Transcriptional Enhanced Associate Domain Signals. *Circulation Research*, 127(10): 1306-22.
38. Mocumbi AO, Langa DC, Chicumbe S, **Schumacher AE**, Al-Delaimy WK (2019). Incorporating selected non-communicable diseases into facility-based surveillance systems from a resource-limited setting in Africa. *BMC Public Health*, 19(1): 147.
39. Guess GC, Dalley R, **Schumacher AE**, Lee PP (2019). Detection of perineural spread of palatal adenoid cystic carcinoma by CT. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*. 128(4):e158.
40. Lee PP, Stanton A, **Schumacher AE**, Truelove E, Hollender LG (2019). Osteoarthritis of the TMJ and increase of the horizontal condylar angle. A longitudinal study. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology*, 127(4): 339-350.
41. Fullman N, Yearwood J, **Schumacher AE**, . . . , Christopher JL Murray, Rafael Lozano (2018). Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. *The Lancet*, 391(10136): 2236-71.

42. Wang Y, Li X, Zhou M, Luo S, Liang J, Liddell CA, Coates MM, Gao Y, Wang L, He C, Kang C, Liu S, Dai L, **Schumacher AE**, . . . , Zhu J, Murray CJL, Wang H (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.
43. Newton JN, Briggs ADM, Murray CJL, Dicker D, Foreman KJ, Wang H, Naghavi M, Forouzanfar MH, Ohno SL, Barber RM, Vos T, Stanaway JD, Schmidt JC, Hughes AJ, Fay DFJ, Ecob R, Gresser C, McKee M, Rutter H, **Schumacher AE**, . . . , Davis ACJ (2015). Changes in health in England, with analysis by English regions and areas of deprivation, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010): 5-11.
44. Murray CJL, Barber RM, Foreman KJ, **Schumacher AE**, . . . , Saloman JA, Lopez AD, Vos T (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.
45. Naghavi M, Wang H, Lozano R, Davis A, Liang X, Zhou M, Vollset SE, **Schumacher, AE**, . . . , Vos T, Lopez AD, Murray CJL (2015). Global, regional, and national 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.
46. Wang H, Liddell CA, Coates MM, Mooney MD, Levitz CE, **Schumacher AE**, Apfel H, Iannarone M, Phillips B, Lofgren KT, Sandar L, Dorrington R, . . . , Vos T, Lopez AD, Murray CJL (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): 957-979.
47. Kassebaum NJ, Bertozzi-Villa A, Coggeshall MS, Shackelford KA, Steiner C, Heuton KR, Gonzalez-Medina D, Barber R, Huynh C, Dicker DJ, Templin T, Wolock TM, **Schumacher AE**, . . . , Lopez AD, Naghavi M, Murray CJL, Lozano R (2014). Global, regional, and national levels and causes of maternal mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 384(9947): 980-1004.
48. Wang H, **Schumacher AE**, Levitz CE, Mokdad AH, Murray CJL (2013). Left behind: Widening disparities for males and females in US county life expectancy, 1985-2010. *Population Health Metrics* 11(8): 1-15.
49. Levin-Rector A, Rajaratnam J, Wang H, **Schumacher AE**, Levitz CE, Murray CJL. Improved analysis of sibling survival data taking into account survivor bias, zerosurviving reporters and recall bias. *Mortality estimation for national populations: methods and applications*. University of Washington Press.

SUBMITTED
JOURNAL
PUBLICATIONS

1. **Schumacher AE** and Wakefield J (*in review*). Small area estimation methods for multivariate health and demographic outcomes using complex survey data. *Spatial and Spatio-temporal Epidemiology*. Preprint: <https://arxiv.org/abs/2511.15917>
2. Guess GC, Dalley R, **Schumacher AE**, Lee PP. Osseous changes associated with perineural spread of palatal adenoid cystic carcinoma can be reliably identified in CT. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology*.

TEACHING

Courses

University of Washington

HMS 512: Mortality Analysis for Health Metrics Sciences

HMS 592: Health Metrics Sciences Seminar

Workshops and Trainings

Institute for Health Metrics and Evaluation

- GBD Workshop: Methods and Analytical Strategies for Transforming Data to DALYs. Riyadh, Saudi Arabia. Sep 28–Oct 2, 2025. <https://sites.google.com/uw.edu/gbd-workshop-methods-and-analy/>
- GBD Demographic Methods Training. Riyadh, Saudi Arabia. Feb 24–27, 2025. <https://sites.google.com/uw.edu/gbddemographicsworkshop1>
- Mortality Methods in Health Metrics Workshop. Islamabad, Pakistan. Nov 18–21, 2024. <https://sites.google.com/uw.edu/mortalityworkshop>

Invited Lectures

University of Washington

PHRMRA 545: Statistical Topics For Biomedical Regulatory Affairs Professionals

- Lecture 3: Basic Statistical Analysis

- Lecture 4: Randomized Controlled Trials

Mozambique Institute for Health Education and Research

Global Burden of Disease in Mozambique. Maputo, Mozambique.

Teaching Assistantships

University of Washington

BIOST 571: Advanced Regression Analysis for Dependent Data

BIOST 555: Statistical Methods for Spatial Epidemiology

BIOST 524: Design of Medical Studies

BIOST 514/515: Biostatistics I/II

BIOST 511/512/513: Medical Biometry I/II/III

PHI 512: Analytic Skills for Public Health I

PHRMRA 545: Statistical Topics For Biomedical Regulatory Affairs Professionals

UCONJ 510: Introductory Laboratory Based Biostatistics

SISMID 2020 Module 5: Spatial Statistics in Epidemiology and Public Health

SISG 2020 Module 8: Bayesian Statistics for Genetics

PRESENTATIONS

1. **Schumacher AE**, Aravkin A, Zheng P, Murray CJL (2025). Moving Beyond Model Life Table Systems: A New Method for Direct Estimation of Age-Specific Mortality. International Population Conference 2025. International Union for the Scientific Study of Population.
2. **Schumacher AE**, Wakefield J (2023). Area- and unit-level models for small area estimation of multivariate outcomes using complex survey data in low- and middle-income countries. Population Association of America 2023 Annual Meeting.
3. **Schumacher AE**, McCormick TH, Wakefield J, Chu Y, Perin J, Liu L (2019). Bridging the CASM: Estimating Cause- and Age-Specific Mortality for Children in LMICs with the CASM-Child model. Population Association of America 2019 Annual Meeting.
4. **Schumacher AE**, McCormick TH, Wakefield J, Chu Y, Perin J, Liu L (2018). Bridging the CASM: Estimating Cause- and Age-Specific Mortality in Children with the CASM-Child model. University of Washington Department of Biostatistics Colloquium.

5. **Schumacher AE**, McCormick TH, Wakefield J, Chu Y, Perin J, Liu L (2018). Bridging the CASM: Estimating Cause- and Age-Specific Mortality in Children for LMICs with the CASM-Child model (2018). Joint Statistical Meetings 2019.
6. **Schumacher AE**, McCormick TH, Wakefield J, Chu Y, Perin J, Liu L (2018). Bridging the CASM: Estimating Cause- and Age-Specific Mortality for Children in Low- and Middle-Income Countries with the CASM-Child model. Geospatial Methods for Closing the Global Mortality Data Divide. Centre for Global Health Research.
7. **Schumacher AE**, McCormick TH, Chu Y, Perin J, Liu L (2018). A Bayesian Hierarchical Multivariate Poisson-Lognormal Model to Estimate Age- and Cause-Specific Child Mortality in Data-Scarce Countries. Annual Student Poster Session. University of Washington Department of Statistics.
8. **Schumacher AE**, Zhou XH, Wang H (2016). A Statistical Framework for the Global Estimation of Child Mortality. Annual Student Poster Session. University of Washington Department of Biostatistics.
9. **Schumacher AE**, Ng M (2013). Finding the best cross-validation technique for modeling spatiotemporally correlated data: a simulation study. University of Washington Department of Biostatistics Annual Retreat.
10. Levin-Rector A, Wang H, Rajaratnam JK, Levitz CE, **Schumacher AE**, Murray CJL (2013). Improved analysis of sibling survival data taking into account survivor bias, zero-surviving reporters and recall bias. International Population Conference 2025. International Union for the Scientific Study of Population.
11. **Schumacher AE**, Wang H, Lopez AD, Murray CJL (2013). Divergent trends in adult and elderly mortality for 21 regions and 187 countries, by sex, from 1970 to 2010: A systematic analysis. Global Health Metrics and Evaluation Conference.

GRANTS AND AWARDS

National Institutes of Health R21: \$437,200 **2018 – 2020**
Developing innovative analytics to estimate age-and cause-specific child mortality for low- and middle-income countries
 Role: Research Assistant
 PI: Tyler H McCormick and Li Liu

National Institutes of Health T32: \$1,336,287 **2015 – 2018**
Biostatistics and Mental Health
 Role: Trainee
 Director: Xiao-Hua Zhou

COMPUTING SKILLS

Proficient in:
 R, STATA, L^AT_EX, Microsoft Office Suite
 Familiarity in:
 Python, C, C++, UNIX, SQL, JMP

REFERENCES

Jon Wakefield Email: jonno@uw.edu
 Professor
 Department of Biostatistics
 Department of Statistics
 University of Washington

Haidong Wang
Unit Head, Monitoring, Forecasting and Inequalities
Division of Data, Analytics, and Delivery for Impact
World Health Organisation
Email: hawang@who.int

Brayan Ortiz
Senior Applied Scientist
Modeling & Optimization
Amazon
Email: brayanvo@amazon.com

Andrew Humbert
Assistant Professor
Department of Rehabilitation Medicine
University of Washington
Email: ahumbert@uw.edu