Lauren Blair Wilner

PhD student

About me

I am currently pursuing my PhD in Epidemiology at the University of Washington School of Public Health. I am interested in the intersection of public health and data science, with a particular focus on the interaction between the environment and health.

Education

2022-current **PhD student, Epidemiology**, *University of Washington School of Public Health*, Seattle, WA.

2014-2015 **Masters of Public Health, Epidemiology and Biostatistics**, *Tufts University School of Medicine*, Boston, MA.

2010-2014 **B.A., International Relations, Community Health (minor Studio Art), cum laude**, *Tufts University*, Medford, MA.

Work Experience

2024-current **Teaching Assistant**, *University of Washington, Department of Epidemiology*, Seattle, WA.

- Teaching assistant with Professor Steve Mooney. I collaborated on the curriculum development for a new graduate level course called Data Management for Public Health. I collaborated with Professor Mooney to curate the content of this course and I designed the labs for each session. Currently I am a teaching assistant for the first iteration of the course, where I am co-teaching the labs and assisting with all other classroom and course needs.

2022-current **Research Assistant**, *University of Washington, Department of Epidemiology*, Seattle, WA.

- Research assistant with Professor Steve Mooney leading various research projects surrounding built environment and health, including studies on physical activity, traffic safety, and data privacy practices. Developed an R package now hosted on CRAN and have led the analyses, reports, and presentations for three different projects.

2023-current **Research Assistant**, *University of Washington, Department Environmental and Occupational Health Sciences*, Seattle, WA.

- Research assistant with Professor Joan Casey leading projects on climate change and health, working with collaborators in various industries and across different universities. Leading projects on wildfires, power outages, extreme heat, and natural disasters and their relationships with human health.

2022-2023 **Research Scientist**, *Institute for Health Metrics and Evaluation (IHME)*, Seattle, WA.

- Statistical modeler for the Disease Expenditure (DEX) team. Led the Skilled Nursing Facility and Dental care envelope estimation.

2019-2022 **Research Scientist**, *Institute for Health Metrics and Evaluation (IHME)*, Seattle, WA.

- Statistical modeler for all congenital birth defects for the Global Burden of Disease (GBD) study.
- Reviewed articles from systematic literature reviews and extracted data. Formatted, transformed, reviewed, and assessed data sources to determine their relevance and utility for ongoing analysis.
- Developed and managed large datasets to be used in epidemiological and statistical analyses via a cluster computing system.
- Ran and interpreted results from advanced statistical models including: ensemble models testing all combinations of covariates to maximize out-of-sample predictive validity, Bayesian hierarchical meta-regression models estimating the prevalence and incidence , and other novel meta-regression tools.
- Designed and ran entire modeling pipeline from data processing to statistical modeling to design/generation of diagnostic tables and figures, primarily in both R and Python.
- Led a team of researchers and data professionals modeling birth defects, blood disorders, and cerebral palsy.

2017-2019 **Researcher**, *Institute for Health Metrics and Evaluation (IHME)*, Seattle, WA.

- Statistical modeler for all congenital birth defects for the Global Burden of Disease (GBD) study.

2015-2017 **ASPPH/CDC Allan Rosenfield Global Health Fellow**, *Field Epidemiology Training Programs (FETP), Centers for Disease Control (CDC)*, Atlanta, GA.

- FETP provides technical assistance to Ministries of Health globally in order to establish epidemiology training programs for host country doctors and public health professionals.
- Assistant program manager for FETP implementation across Francophone West Africa (75% travel to countries in the region); Acting Public Health Advisor for implementation of FETP Senegal.
- Provided technical support for FETP implementation in Zika-affected countries of Central/South America.
- Assisted with conducting monitoring and evaluation of FETPs worldwide.

2014-2017 **Data Analyst**, *International Nutrition Foundation (INF) TRUMF Ghana Study at the Friedman School of Nutrition, Tufts University*, Boston, MA.

- Data analyst for USAID- funded field study at Friedman School of Nutrition.

2015-2015 **Data Analyst/GIS Specialist**, *Food Aid Quality Review (FAQR) study, Tufts University Friedman School of*, Boston, MA.

- Data analyst for USAID- funded field studies in Malawi, Sierra Leone, and Burkina Faso on effectiveness and cost-effectiveness of supplementary feeding programs; GIS analysis for these three field studies.
- Co- created of data collection instruments and templates; Literature review on food aid/malnutrition.
- Led all analyses for the FAQR study as well as all manuscripts and presentations during this time period.

2013-2014 **Research Assistant/Intern**, *Food Aid Quality Review (FAQR) study, Tufts University Friedman School of*, Boston, MA.

- Intern on FAQR study coordinating data collection and entry efforts.

2015-2017 **Mobile Health Education Intern**, *Rubenstein Ecosystems Science Laboratory*, Boston, MA.

- Performed a literature review of best practices in community mental health programs using ICT4D for mobile education in post-conflict or humanitarian emergency settings.

2014-2015 **Research Assistant/Data Analyst**, *Harvard Business School Zambian Water Project*, Cambridge, MA.

- Assisted with data extraction and cleaning for data from Zambian Ministry of Health and Ministry of Education, in addition to preparing data for analysis at Harvard Business School and the National Bureau of Economics Research.

2013-2013 **Field Human Resources Intern**, *Doctors without Borders (Médecins Sans Frontières, MSF)*, New York, NY.

- Processed, reviewed, and evaluated incoming applications for MSF field workers and prepared briefings, training materials, and logistics for field worker missions, and conducted training sessions for all field staff members.

2013-2013 **Consulting Intern**, *Partners Senegal*, Dakar, Senegal.

- Partners Senegal is a branch of Partners for Democratic Change, a global organization working to develop change, conflict management, and empowerment of individuals in government. I led research on children's health and the role of the Senegalese security sector to protect health. I wrote a policy proposal for Senegalese government regarding the role of the police and related armed forces in protecting children's rights to health and mental health.

2012-2012 **Administrative Intern**, *Village Health Works (VHW)*, New York, NY.

- Developed correspondence and coordinated logistics on behalf of VHW with donors and staff in Burundi and co-authored a student handbook for the launch of the partnership between American universities and VHW.

2012-2017 **Grants & Research Manager**, *Zimbabwe Orphans Fund (ZOF)*, New York, NY.

- ZOF Africa is a non-profit organization working with orphaned youth in Zimbabwe to provide technical training and educational programming. I am a member of the founding ZOF team and coordinated and wrote grant applications, as well as researched and outlined the strategic plans for projects at Emerald Hill Children's Home in Zimbabwe.

2011-2014 **Research Assistant**, *Global Development and Environment Institute (GDAE), Tufts University*, Medford, MA.

- GDAE is a research institute at Tufts University that combines research and curricular development at The Fletcher School of Law and Diplomacy, with a focus on the relationship between development and the environment. I composed, edited, and formatted three textbooks currently in publication, as well as conducted research for the Social Science Library project, which distributes educational materials worldwide.

2011-2011 **Intern**, *Humanity in Action (HIA)*, New York, NY.

- Led research/review of HIA Fellows' projects and assisted with the launch of a new website.

Teaching Experience

2014-2015 **Principles of Biostatistics**, *Tufts University School of Medicine*, Boston, MA.
- Graduate level, Teaching Assistant
- Developed course materials and taught Stata lab sections for all MPH Biostatistics students

2024-current **Data Management for Public Health**, *University of Washington School of Public Health, Department of Epidemiology*, Seattle, WA.
- Graduate level, Teaching Assistant
- Leading the development of curriculum materials for a new University of Washington course on data management and analysis; TA for the course when it is offered for the first time.

Skills and Qualifications

Coding: R, Python, SQL, Bash, SAS, SPSS, Stata.

Software: MS Office, ArcMap, Nvivo.

Language: French, Wolof.

Publications

2023 **Lauren Blair Wilner, Weipeng Zhou, Phil Hurvitz, Anne Moudon, Bumjoon Kang, Brian Saelens, Jim Phuong, Matthew Dekker, Stephen J Mooney. walkboutr: Extracting walk bouts from GPS and accelerometry data for physical activity research. R Journal. (under review)**.

2021 **GBD 2019 Under-5 Mortality Collaborators. 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. 17 August 2021. doi: 10.1016/S0140-6736(21)01207-1.**.

2020 **GBD 2019 Universal Health Coverage Collaborators. 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. 27 August 2020. doi:10.1016/S0140-6736(20)30750-9.**.

2020 **Zimmerman MS, Smith AGC, Sable CA, Echko MM, Wilner LB, Olsen HE, Atalay HT, Awasthi A, Bhutta ZA, Boucher JL, Castro F, Cortesi PA, Dubey M, Fischer F, Hamidi S, Hay SI, Hoang CL, Hugo-Hamman CT, Jenkins KJ, Kar A, Khalil IA, Kumar RK, Kwan GF, Mengistu DT, Mokdad AH, Naghavi M, Negesa L, Negoi I, Negoi RI, Nguyen CT, Nguyen HLT, Nguyen LH, Nguyen SH, Nguyen TH, Nixon MR, Noubiap JJ, Patel S, Peprah EK, Reiner RC, Roth GA, Temsah MH, Tovani-Palone MR, Towbin JA, Tran BX, Tran TT, Truong NT, Vos T, Vosoughi K, Weintraub RG, Weldegwergs KG, Zaidi Z, Zheleva B, Zuhlke LJ, Murray CJL, Martin GR, Kassebaum NJ. Global, regional, and national burden of congenital heart disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet Child & Adolescent Health. 21 January 2020; doi: 10.1016/S2352-4642(19)30402-X.**.

2018 **GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. 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. 8 Nov 2018;392:1789–858. doi: http://dx.doi.org/10.1016/S0140-6736(18)32279-7.**.

2018 **GBD 2017 DALYs and HALE Collaborators. 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. 8 Nov 2018;392:1859–922. doi: http://dx.doi.org/10.1016/S0140-6736(18)32335-3.**.

2018 **GBD 2017 SDG Collaborators. 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. 8 Nov 2018; 392:2091–138. doi: http://dx.doi.org/10.1016/S0140-6736(18)32281-5.**.

2018 **GBD 2017 Causes of Death Collaborators. 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. 8 Nov 2018;392:1736-88. doi: http://dx.doi.org/10.1016/S0140-6736(18)32203-7.**.

2017 **Rogers BL, Wilner LB, Maganga G, Walton SM, Suri DJ, Langlois BK, Chui KKH, Boiteau JM, Vosti SA, Webb P. Program changes are effective and cost-effective in increasing the amount of oil used in preparing corn soy blend porridge for treatment of moderate acute malnutrition in Malawi. Matern Child Nutr. 2017 Oct;13(4):e12393. doi: 10.1111/mcn.12393. Epub 2017 Jan 12. PMID: 28083927; PMCID: PMC6866085.**.

2017 **Wilner, L., Wells, E., Ritter, M., Casimir, J. M., Chui, K., Lantagne, D.. Sustained use to a relief-to-recovery household water chlorination program in Haiti: Comparing external evaluation findings with internal supervisor and community health worker monitoring data. Journal of Water, Sanitation, and Hygiene for Development(2017) 7 (1): 56–66. https://doi.org/10.2166/washdev.2017.035**.

2018 **Breanne K. Langlois, Devika J. Suri, Lauren Wilner, Shelley Marcus Walton, Kwan Ho Kenneth Chui, Kristine R. Caiafa & Beatrice Lorge Rogers (2018) Self-report vs. direct measures for assessing corn soy blend porridge preparation and feeding behavior in a moderate acute malnutrition treatment program in southern Malawi, Journal of Hunger & Environmental Nutrition, 13:4, 470-481, DOI: 10.1080/19320248.2017.1374902.**.

2017 **Wilner, L., Suri, D.J., Langlois, B.K. et al. Effective delivery of social and behavior change communication through a Care Group model in a supplementary feeding program. J Health Popul Nutr 36, 34 (2017). https://doi.org/10.1186/s41043-017-0111-3.**.

Presentations

2023 **A shift in data sharing paradigms: a case study of the ways in which big data and complex algorithms allow for increased data sharing while preserving privacy**, *Society for Epidemiologic Research.*

2020 **Global, Regional, and National Levels and Trends in Congenital Birth Defects, 1990-2019**, *International Conference on Birth Defects and Disabilities.*

2015 **The Price of Oil: Assessing Behavior Change Communication & Increased Oil Ration on improving Oil Use in Food Aid Preparation for Children Malawi**, *Experimental Biology.*