

Nate B. Wiecha

University of North Carolina at Chapel Hill
Gillings School of Public Health
Department of Biostatistics
135 Dauer Drive
Chapel Hill, NC 27599
Email: nwiecha@unc.edu

- Education**
- NORTH CAROLINA STATE UNIVERSITY *2021-2025*
PhD, Statistics. Advisor: Prof. Brian J. Reich
- NORTH CAROLINA STATE UNIVERSITY *2019-2021*
MA, Statistics
- UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL *2010-2014*
BA, Economics and Political Science
- Experience**
- UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
Postdoctoral Research Trainee, Li Lab (Prof. Didong Li) *Fall 2025-present*
- Methodological research on spatial statistics and nonparametric regression, with application to exposure to multiple environmental pollutants
 - Statistical support to Geospatial Modeling of Arsenic Exposure project, led by Dr. Marc Serre
- NORTH CAROLINA STATE UNIVERSITY
Research Assistant, GenX Exposure Study (Dr. Jane A. Hoppin) *Fall 2022-Fall 2025*
- Statistical support to research on North Carolina communities' exposure to per- and polyfluoroalkyl substances (PFAS)
 - Epidemiological research on possible health effects of PFAS exposure
 - Comparison of methods for analysis of chemical mixtures in epidemiology
- Research Assistant, Dr. Brian J. Reich *Spring-Summer 2022*
- Statistical methods development for causal inference and spatial statistics
- Teaching Assistant, Mrs. Malorie Winters *Fall 2021*
- Hybrid course instructor for Introduction to Statistics

RESEARCH TRIANGLE INSTITUTE

Economist

2016-2021

- Co-led large-scale production of data reports for Medicare Accountable Care Organizations (ACOs)
- Analysis of financial and beneficiary assignment data for Medicare ACOs
- Research assistant for evaluation of innovative state Medicaid programs

Publications

N. Wiecha, E. Griffith, B.J. Reich, J. A. Hoppin (2026). When are novel methods for analyzing chemical mixtures in epidemiology beneficial? **Environmental Epidemiology**, 10(1), e456.

N. Wiecha, J. A. Hoppin, and B. J. Reich (2025). Two-stage estimators for spatial confounding with point-referenced data. **Biometrics**, 81(3), ujaf093.

N. Kotlarz, J. McCord, **N. Wiecha**, R.A. Weed, M. Cuffney, J.R. Enders, M. Strynar, D.R.U. Knappe, B.J. Reich, and J.A. Hoppin (2024). Reanalysis of PFO5DoA Levels in Blood from Wilmington, North Carolina, Residents, 2017–2018. **Environmental Health Perspectives**, 132(2), 027701.

N. Kotlarz, J. McCord, **N. Wiecha**, R.A. Weed, M. Cuffney, J.R. Enders, M. Strynar, D.R.U. Knappe, B.J. Reich, and J.A. Hoppin (2024). Measurement of Hydro-EVE and 6:2 FTS in Blood from Wilmington, North Carolina, Residents, 2017–2018. **Environmental Health Perspectives**, 132(2), 027702.

S. M. Reddy, **N. Wiecha**, C.T. Nguyen, and D.H. Barch (2023). The Role of Adverse Pregnancy Outcomes in Conventional Cardiovascular Risk Prediction. **Maternal and Child Health Journal**, 27(10), 1774-1786.

C.L. Hersey, **N. Wiecha**, L. M. Greenwald, S. M. Kissam (2022). Medicaid ACOs and Managed Care: A Tale of 2 States. **Population Health, Equity & Outcomes**, 10(3), 28-33.

In preparation

C. McNeill, **N. Wiecha**, Y. Baek, S. Berchuck, B.J. Reich. Addressing Spatial Confounding for Discrete Outcome Data and Areal Data (2026+). **In preparation.**

N. Wiecha, A. Qaqish, H. Zhou, D. Li. Nonparametric Hypothesis Tests Using Additive Gaussian Processes (2026+). **In preparation.**

N. Wiecha, R. Rotem, M. Weisskopf. Impacts of predictor correlation on point estimate stability and sign reversal (2026+). **In preparation.**

N. Wiecha, D. Batish, J.R. Enders, R.A. Weed, D. Collier, C.S. Lea, B.J. Reich, N. Kotlarz, J.A. Hoppin. PFAS exposure and thyroid hormone levels in adults from highly exposed North Carolina communities (2026+). **In preparation.**

N. Wiecha, A. Sauer, B.J. Reich (2026+). Gradient-based hypothesis tests in Bayesian nonparametric regression. **In preparation.**

Funding

T32 Training Grant, Biostatistics for Research in Environmental Health
Provost Doctoral Fellowship, NCSU Graduate School, 2024-2025

Presentations	Speaker, Session: “Consideration of Spatial and Temporal Variations.” <i>Joint Statistical Meetings</i> , March 2025	
	Speaker, Session: “Advancements in Spatio-temporal Analysis and Modeling Techniques.” <i>Eastern North American Region (ENAR) Spring Meeting</i> , March 2025	
	Speaker, Session: “Recent Applications of Gaussian Processes.” <i>Advancements in Interdisciplinary Statistics and Combinatorics</i> , October 2024	
	Contributed Poster: “Two-stage Estimators for Spatial Confounding.” <i>Joint Statistical Meetings</i> , August 2024	
	Speaker: “Two-stage Estimators for Spatial Confounding.” <i>North Carolina State University Department of Statistics Seminar Series</i> , April 2024	
Teaching	Contributed Poster: “Evaluation of methods for analyzing nonlinear and counter-acting associations of PFAS with health outcomes.” <i>Superfund Research Program Annual Meeting</i> , December 2023	
	Instructor, <i>Introduction to Statistics (ST311)</i>	<i>Fall 2021</i>
	Instructor, <i>Statistics PhD Qualifying Exam Prep Course</i>	<i>Summer 2023</i>
	Guest Lecturer, <i>Epidemiology and Statistics in Global Public Health</i>	<i>Fall 2024</i>
	Instructor, <i>Principles of Statistical Inference (BIOS 600)</i>	<i>Spring 2026</i>
Awards	Mu Sigma Rho (Statistics Honor Society)	<i>2021</i>
	Glaxo Smith Klein Fellowship	<i>2025</i>