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CONTACT INFORMATION

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RESEARCH INTERESTS

Bayesian analyses; Bayesian nonparametrics; environmental health; glaucoma; infectious diseases; reproductive epidemiology; spatial and spatiotemporal statistics.

EDUCATION

North Carolina State University, Raleigh, North Carolina USA

Ph.D. Statistics; July 2011

- Dissertation Topic: Spatial-Temporal Modeling of the Association between Air Pollution Exposure and Birth Outcomes
- Advisor: Professor Montserrat Fuentes

PROFESSIONAL EXPERIENCE

Department of Biostatistics, Yale School of Public Health
Yale University
New Haven, Connecticut

- *Associate Professor of Biostatistics (with Tenure)* **July 2022 - Present**
- *Associate Professor of Biostatistics (with Term)* **July 2019 - June 2022**
- *Assistant Professor of Biostatistics* **July 2014 - June 2019**
  - *Public Health Modeling Concentration Faculty Member*
  - *Yale Climate Change and Health Initiative Affiliated Faculty Member*

Department of Biostatistics, Gillings School of Global Public Health
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

- *Postdoctoral Research Associate* **August 2011 - July 2014**

PUBLICATIONS

***Indicates senior authorship and/or mentored student first author**
+Indicates co-first author

Refereed Journal Articles:

Prunas O, Willemsen JE, Bont L, Pitzer VE, **Warren JL**, and Weinberger DM (2023). Incorporating data from multiple endpoints in the analysis of clinical trials: example from RSV vaccines. *Epidemiology*, In Press.

da Silva K, Date K, Hirani N, LeBoa C, Jayaprasad N, Borhade P, **Warren JL**, Shimpi R, Hoffman S, Mikoleit M, Bhatnagar P, Cao Y, Haldar P, Harvey P, Zhang C, Daruwalla S, Dharmapalan D, Gavhane J, Joshi S, Rai R, Rathod V, Shetty K, Warrier D, Yadav S, Chakraborty D, Bahl S, Katkar A, Kunwar A, Yewale V, Dutta S, Luby S, and Andrews J (2023). Population structure and antimicrobial resistance patterns of Salmonella Typhi and Paratyphi A amid a phased municipal vaccination campaign in Navi Mumbai, India. *mBio*, In Press.

Forman R, Okumu R, Mageid R, Baker A, Neu D, Parker R, Peyravi R, Schindler J, Sansing LH, de Havenon A, Jasne AS, Kernan WN, Narula R, Wira C, **Warren JL**, and Sharma R (2023).

Association of neighborhood-level socioeconomic factors with delay to hospital arrival in patients with acute stroke. *Neurology*, In Press.

Warren JL, Chitwood MH, Sobkowiak B, Colijn C, and Cohen T (2023). Spatial modeling of *M. tuberculosis* transmission with dyadic genetic relatedness data. *Biometrics*, In Press.

Hill V, Koch RT, Bialosuknia SM, Ngo K, Zink SD, Koetzner CA, Maffei JG, Dupuis AP, Backenson PB, Oliver J, Bransfield AB, Misencik MJ, Petruff TA, Shepard JJ, **Warren JL**, Gill MS, Baele G, Vogels CBF, Gallagher G, Burns P, Hentoff A, Smole S, Brown C, Osborne M, Kramer LD, Armstrong PM, Ciota AT, and Grubaugh ND (2023). Dynamics of Eastern equine encephalitis virus during the 2019 outbreak in the Northeast United States. *Current Biology*, 33(12):2515-2527.e6.

Martinez L+, **Warren JL+**, Harries AD, Croda J, Espinal M, López-Olarte RA, Avedillo P, Lienhardt C, Bhatia V, Liu Q, Chakaya J, Denholm J, Lin Y, Kawatsu L, Zhu L, Horsburgh CR, Cohen T, and Andrews JR (2023). Global, regional, and national estimates of tuberculosis incidence and case detection among incarcerated persons: A systematic analysis. *The Lancet Public Health*, 8(7):e511-e519.

*Gonsalves GS, Paltiel AD, Thornhill T, DeMaria Jr. A, Cranston K, Klevens RM, and **Warren JL** (2023). Patterns of infectious disease associated with injection drug use in Massachusetts. *Clinical Infectious Diseases*, 76(12,15):2134-2139.

Huang M, Strickland MJ, Richards M, **Warren JL**, Chang HH, and Darrow LA (2023). Confounding by conception seasonality in studies of temperature and preterm birth: A simulation study. *Epidemiology*, 34(3):439-449.

Gunasekera K, Marcy O, Muñoz J, Lopez-Varela E, Sekadde MP, Franke MF, Bonnet M, Ahmed S, Amanullah F, Anwar A, Augusto O, Aurilio RB, Banu S, Batool I, Brands A, Cain KP, Carratalá-Castro L, Caws M, Click ES, Cranmer LM, García-Basteiro AL, Hesseling AC, Huynh J, Kabir S, Lecca L, Mandalakas A, Mavhunga F, Myint AA, Kyaw M, Nampijja D, Nicol MP, Orikiriza P, Palmer M, Sant'Anna CC, Siddiqui SA, Smith JP, Song R, Thuong NTT, Ung V, van der Zalm MM, Verkuijl S, Viney K, Walters EG, **Warren JL**, Zar HJ, Marais BJ, Graham SM, Debray TPA, Cohen T, and Seddon JA (2023). Development and validation of treatment-decision algorithms for children evaluated for pulmonary tuberculosis: An individual participant data meta-analysis. *The Lancet Child & Adolescent Health*, 7(5):336-346.

Soriano Jr. MA, **Warren JL**, Clark CJ, Johnson NP, Siegel HG, Deziel NC, and Saiers JE (2023). Social vulnerability and groundwater vulnerability to contamination from unconventional hydrocarbon extraction in the Appalachian Basin. *GeoHealth*, 7(4):e2022GH000758.

Tran PM, **Warren JL**, Leifheit EC, Goldstein LB, and Lichtman JH (2023). Associations between long-term air pollutant exposure and 30-day all-cause hospital readmissions in US stroke patients. *Stroke*, 54(4):e126-e129.

Tong H, **Warren JL**, Kang J, and Li M (2023). Using multi-sourced big data to correlate sleep deprivation and road traffic noise: A US county-level ecological study. *Environmental Research*, 220(2023):115029.

Deziel NC, **Warren JL**, Bravo MA, Macalintal F, Kimbro RT, and Bell ML (2023). Assessing community-level exposure to social vulnerability and isolation: spatial patterning and urban-rural differences. *Journal of Exposure Science and Environmental Epidemiology*, 33(2023):198-206.

*Comess S, Chang HH, and **Warren JL** (2022). A Bayesian framework for incorporating exposure uncertainty into health analyses with application to air pollution and stillbirth. *Biostatistics*, In

Press.

Wang P, O'Donnell KJ, **Warren JL**, Dubrow R, and Chen K (2023). Temperature variability and birthweight: Epidemiological evidence from Africa. *Environment International*, 173(2023):107792.

Zheng Z, **Warren JL**, Shapiro ED, Pitzer VE, and Weinberger DM (2022). Estimated incidence of respiratory hospitalizations attributable to RSV infections across age and socioeconomic groups. *Pneumonia*, 14:6.

Chitwood MH, Russi M, Gunasekera KS, Havumaki J, Klaassen F, Pitzer VE, Salomon JA, Swartwood NA, **Warren JL**, Weinberger DM, Cohen T, and Menzies NA (2022). Reconstructing the course of the COVID-19 epidemic over 2020 for US states and counties: results of a Bayesian evidence synthesis model. *PLoS Computational Biology*, 18(8):e1010465.

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Warren JL, Chang HH, Warren LK, Strickland MJ, Darrow LA, and Mulholland JA (2022). Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. *Annals of Applied Statistics*, 16(3):1633-1652.

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You S, Chitwood MH, Gunasekera KS, Crudu V, Codreanu A, Ciobanu N, Furin J, Cohen T, **Warren JL**, and Yaesoubi R (2022). Predicting resistance to fluoroquinolones among patients with rifampicin-resistant tuberculosis using machine learning methods. *PLoS Digital Health*, 1(6):e0000059.

Bravo MA, **Warren JL**, Leong MC, Deziel NC, Kimbro RT, Bell ML, and Miranda ML (2022). Where is air quality improving, and who benefits? A study of PM2.5 and ozone in North Carolina over 15 years. *American Journal of Epidemiology*, 191(7):1258-1269.

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*****Gonsalves GS, Copple JT, Paltiel AD, Fenichel EP, Bayham J, Abraham M, Kline D, Malloy S, Rayo MF, Zhang N, Faulkner D, Morey DA, Wu F, Thornhill T, Iloglu S, and **Warren JL** (2021). Maximizing the efficiency of active case-finding for SARS-CoV-2 using bandit algorithms. *Medical Decision Making*, 2021:353-362.

*****Gonsalves GS, Paltiel AD, Thornhill T, Iloglu S, DeMaria Jr. A, Cranston K, Klevens RM, Walensky RP, and **Warren JL** (2021). The dynamics of infectious diseases associated with injection drug use in Lawrence and Lowell, Massachusetts. *Open Forum Infectious Diseases*, 8(6):ofab128.

Wyllie AL, **Warren JL**, Regev-Yochay G, Givon-Lavi N, Dagan R, Weinberger DM (2021). Serotype patterns of pneumococcal disease in adults are correlated with carriage patterns in older children. *Clinical Infectious Diseases*, 17(11):e768-e775.

Thomas N, Ebelt ST, Newman AJ, Scovronick N, D'Souza RR, Moss SE, **Warren JL**, Strickland MJ, Darrow LA, and Chang HH (2021). Time-series analysis of daily ambient temperature and emergency department visits in five US cities with a comparison of exposure metrics derived from 1-km meteorology products. *Environmental Health*, 20(55):2021.

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Huang M, Strickland MJ, Richards M, Holmes HA, Newman AJ, Garn JV, Liu Y, **Warren JL**, Chang HH, and Darrow LA (2021). Acute associations between heatwaves and preterm and early-term birth in 50 US metropolitan areas: a matched case-control study. *Environmental Health*, 20(47):2021.

Clark CJ, **Warren JL**, Kadan-Lottick N, Ma X, Bell MB, Saiers JE, and Deziel NC (2021). Community concern and government response: Identifying socio-economic and demographic predictors of oil and gas complaints and drinking water impairments in Pennsylvania. *Energy Research & Social Science*, 76:102064.

*****Shioda K, Cai J, **Warren JL**, and Weinberger DM (2021). Incorporating information on control diseases across space and time to improve estimation of the population-level impact of vaccines. *Epidemiology*, 32(3):360-367.

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*****Ransome Y, Subramanian SV, Duncan DT, Vlahov D, and **Warren JL** (2020). Multivariate spatiotemporal modeling of drug- and alcohol-poisoning deaths in New York City, 2009-2014. *Spatial and Spatio-temporal Epidemiology*, 32(2020):100306.

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*****Berchuck SI, Mwanza JC, and **Warren JL** (2019). Diagnosing glaucoma progression with visual field data using a spatiotemporal boundary detection method. *Journal of the American Statistical Association*, 114(527):1063-1074.

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***Berchuck SI, Mwanza JC, and **Warren JL** (2019). A spatially varying change points model for monitoring glaucoma progression using visual field data. *Spatial Statistics*, 30(2019):1-26. (Winner of *RAB Poster Competition Award*, ENAR 2018)

Chadha N, **Warren JL**, Liu J, Tsai JC, and Teng CC (2019). Seven- and eight-year trends in resident and fellow glaucoma surgical experience. *Clinical Ophthalmology*, 2019(13):303-309.

Regan AK, Ball SJ, **Warren JL**, Malacova E, Padula A, Marston C, Nassar N, Stanley F, Leonard H, de Klerk N, and Pereira G (2019). A population-based matched sibling analysis estimating the association between first interpregnancy interval and birth outcomes. *American Journal of Epidemiology*, 188(1):9-16.

Shioda K, Schuck-Paim C, Taylor RJ, Lustig R, Simonsen L, **Warren JL**, and Weinberger DM (2019). Challenges in estimating the impact of vaccination with sparse data. *Epidemiology*, 30(1):61-68.

Nealy BE, **Warren JL**, Strickland MJ, Darrow LA, and Chang HH (2018). Impacts of gestational age uncertainty in estimating associations between preterm birth and ambient air pollution. *Environmental Epidemiology*, 2(4):e031.

Cudahy PGT, **Warren JL**, Cohen T, and Wilson D (2018). Trends in CRP, D-dimer and fibrinogen during therapy for HIV associated multidrug resistant tuberculosis. *American Journal of Tropical Medicine & Hygiene*, 99(5):1336-1341.

***Gonsalves GS, Copple JT, Johnson JT, Paltiel AD, and **Warren JL** (2018). Bayesian adaptive algorithms for locating HIV mobile testing services. *BMC Medicine*, 16(155):1-13.

Silva GS, **Warren JL**, and Deziel NC (2018). Spatial modeling to identify sociodemographic predictors of hydraulic fracturing wastewater injection wells in Ohio census block groups. *Environmental Health Perspectives*, 126(6):1-8.

Elliott EG, Ma X, Leaderer BP, McKay LA, Pedersen CJ, Wang C, Gerber CJ, Wright TJ, Sumner AJ, Brennan M, Silva G, **Warren JL**, Plata DL, and Deziel NC (2018). A community-based evaluation of proximity to unconventional oil and gas wells, drinking water contaminants, and health symptoms in Ohio. *Environmental Research*, 167(2018):550-557.

Warren JL, Grandjean L, Moore DAJ, Lithgow A, Coronel J, Sheen P, Zelner JL, Andrews JR, and Cohen T (2018). Investigating spillover of multidrug-resistant tuberculosis from a prison: a spatial and molecular epidemiological analysis. *BMC Medicine*, 16(122):1-9.

Hussnain SA, Kovacs KD, **Warren JL**, and Teng CC (2018). Corneal hysteresis and anterior segment optical coherence tomography anatomical parameters in primary angle closure suspects. *Clinical and Experimental Ophthalmology*, 46(5):468-472.

Yang C, Lu L, **Warren JL**, Wu J, Jiang Q, Zuo T, Gan M, Liu M, Liu Q, DeRiemer K, Hong J, Shen X, Colijn C, Guo X, Gao Q, and Cohen T (2018). Internal migration and the transmission dynamics of tuberculosis in Shanghai, China: a prospective epidemiological, spatial, and genomic analysis. *The Lancet Infectious Diseases*, 18(7):788-795.

Warren JL and Gordon-Larsen P (2018). Factors associated with supermarket and convenience store closure: a discrete-time spatial survival modeling approach. *Journal of the Royal Statistical Society: Series A*, 181(3):783-802.

Warren JL, Son J, Pereira G, Leaderer BP, and Bell ML (2018). Investigating the impact of maternal residential mobility on identifying critical windows of susceptibility to ambient air pollution during pregnancy. *American Journal of Epidemiology*, 187(5):992–1000. (Editor's Choice)

Mwanza JC, **Warren JL**, and Budenz DL. Utility of combining spectral domain optical coherence tomography structural parameters for the diagnosis of early glaucoma: a mini-review (2018). *Eye and Vision*, 5(9).

Mwanza JC, Lee G, Budenz DL, **Warren JL**, Wall M, Artes PH, Callan T, and Flanagan JG (2018). Validation of the UNC OCT Index for the Diagnosis of Early Glaucoma. *Translational Vision Science & Technology*, 7(2):16.

Deziel NC, Humeau Z, **Warren JL**, and Niccolai LC (2018). Shale gas activity and increased rates of sexually transmitted infections in Ohio, 2000–2016. *PLoS One*, 13(3):e0194203.

Cassell K, Gacek P, **Warren JL**, Raymond PA, Cartter M, and Weinberger DM (2018). Association between sporadic legionellosis and river systems in Connecticut. *The Journal of Infectious Diseases*, 217(2):179-187. (Editor's Choice)

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Kurum E, **Warren JL**, Schuck-Paim C, Lustig R, Lewnard J, Fernandes RM, Fuentes R, Bruhn CAW, Taylor RJ, Simonsen L, and Weinberger DM (2017). Bayesian model averaging with change points to assess the impact of vaccination and public health interventions. *Epidemiology*, 28(6):889-897. (Winner of 2018 *Kenneth Rothman Epidemiology Prize Paper Award*)

Warren JL, Shioda K, Kurum E, Schuck-Paim C, Lustig R, Taylor RJ, Simonsen L, and Weinberger DM (2017). Impact of pneumococcal conjugate vaccines against pneumonia hospitalizations in high- and low-income sub-populations in Brazil. *Clinical Infectious Diseases*, 65(11):1813-1818.

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Sun J, **Warren JL**, and Zhao H (2017). A Bayesian semiparametric factor analysis model for subtype identification. *Statistical Applications in Genetics and Molecular Biology*, 16(2):145–158.

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of RSV epidemics. *BMC Infectious Diseases*, 16(1):674.

Warren JL, Mwanza JC, Tanna AP, and Budenz DL (2016). A statistical model to analyze clinician expert consensus on glaucoma progression using spatially correlated visua field data. *Translational Vision Science & Technology*, 5(4):14.

Warren JL, Perez-Heydrich C, Burgert CR, and Emch ME (2016). Influence of Demographic and Health Survey point displacements on distance-based analyses. *Spatial Demography*, 4(2):155-173.

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Weinberger DM, Grant LR, Weatherholtz RC, **Warren JL**, O'Brien KL, and Hammitt LL (2016). Relating pneumococcal carriage among children with disease rates among adults before and after introduction of conjugate vaccines. *American Journal of Epidemiology*, 183(11):1055-1062.

Warren JL, Stingone JA, Herring AH, Luben TJ, Fuentes M, Aylsworth AS, Langlois PH, Botto L, Correa A, Olshan AF, and the National Birth Defects Prevention Study (2016). Bayesian multinomial probit modeling of daily windows of susceptibility for maternal $PM_{2.5}$ exposure and congenital heart defects. *Statistics in Medicine*, 35(16):2786-2801.

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Pingali SC, **Warren JL**, Mead AM, Sharova N, Petit S, and Weinberger DM (2016). Association between local pediatric vaccination rates and patterns of pneumococcal disease in adults. *The Journal of Infectious Diseases*, 213(4):509-515.

*Berchuck SI, **Warren JL**, Herring AH, Evenson KR, Moore KAB, Kesavan YK, and Diez-Roux AV (2016). Spatially modelling the association between access to recreational facilities and exercise: the 'Multi-ethnic study of atherosclerosis'. *Journal of the Royal Statistical Society: Series A*, 179(1):293-310.

Mwanza JC, Kim H, Budenz DL, **Warren JL**, Lawrence SD, Jani PD, Thompson GS, and Lee RK (2015). Residual and dynamic range of retinal nerve fiber layer thickness in glaucoma: comparison of three OCT platforms. *Investigative Ophthalmology & Visual Science*, 56(11):6344-6351.

*Nethery RC, **Warren JL**, Herring AH, Moore KAB, and Diez-Roux AV (2015). A common spatial factor analysis model for measured neighborhood-level characteristics: the multi-ethnic study of atherosclerosis. *Health and Place*, 36:35-46.

Weinberger DM, **Warren JL**, Steiner CA, Charu V, Viboud C, and Pitzer VE (2015). Reduced-dose schedule of prophylaxis based on local data provides near-optimal protection against RSV. *Clinical Infectious Diseases*, 61(4):506-514.

Chang HH, **Warren JL**, Darrow LA, Reich BJ, and Waller LA (2015). Assessment of critical exposure and outcome windows in time-to-event analysis with application to air pollution and preterm birth study. *Biostatistics*, 16(3):509-521.

Lamichhane AP, **Warren JL**, Peterson M, Rummo P, and Gordon-Larsen P (2015). Spatial-temporal modeling of neighborhood sociodemographic characteristics and food stores. *American Journal of Epidemiology*, 181(2):137-150.

Mwanza JC, Budenz DL, **Warren JL**, Webel AD, Reynolds CE, Barbosa DT, and Lin S (2015). Retinal nerve fiber layer thickness floor and corresponding functional loss in glaucoma. *British Journal of Ophthalmology*, 99(6):732-737.

Mwanza JC, **Warren JL**, Hochberg JT, Budenz DL, Chang RT, and Ramulu PY (2015). Combining frequency doubling technology perimetry and scanning laser polarimetry for glaucoma detection. *Journal of Glaucoma*, 24(8):561-567.

Sanders AP, Desrosiers TA, **Warren JL**, Herring AH, Enright D, Olshan AE, Meyer RE, and Fry RC (2014). Association between arsenic, cadmium, manganese, and lead levels in private wells and birth defects prevalence in North Carolina: an ecologic study. *BMC Public Health*, 14(1):955.

Warren JL, Luben TJ, Sanders AP, Brownstein NC, Herring AH, and Meyer RE (2014). An evaluation of metrics for assessing maternal exposure to agricultural pesticides. *Journal of Exposure Science and Environmental Epidemiology*, 24(5):497-503.

Mwanza JC, **Warren JL**, Budenz DL, and the Ganglion Cell Analysis Study Group (2013). Combining spectral domain optical coherence tomography structural parameters for the diagnosis of glaucoma with early visual field loss. *Investigative Ophthalmology & Visual Science*, 54(13):8393-8400.

Lamichhane AP, **Warren JL**, Puett R, Porter DE, Bottai M, Mayer-Davis EJ, and Liese AD (2013). Spatial patterning of supermarkets and fast food outlets with respect to neighborhood characteristics. *Health and Place*, 23:157-164.

Warren JL, Perez-Heydrich C, and Yunus M (2013). Bayesian spatial design of optimal deep tubewell locations in Matlab, Bangladesh. *Environmetrics*, 24(6):377-386.

Meng Q, Richmond-Bryant J, Lu S, Buckley B, Welsh WJ, Whitsel EA, Hanna A, Yeatts KB, **Warren JL**, Herring AH, and Xiu A (2013). Cardiovascular outcomes and the physical and chemical properties of metal ions found in particulate matter air pollution: a QICAR study. *Environmental Health Perspectives*, 121(5):558-564.

Warren JL, Fuentes M, Herring AH, and Langlois PH (2013). Air pollution metric analysis while determining susceptible periods of pregnancy for low birth weight. *ISRN Obstetrics and Gynecology*, 2013:387452.

Warren JL, Fuentes M, Herring AH, and Langlois PH (2012). Bayesian spatial-temporal model for cardiac congenital anomalies and ambient air pollution risk assessment. *Environmetrics*, 23(8):673-684.

Warren JL, Fuentes M, Herring AH, and Langlois PH (2012). Spatial-temporal modeling of the association between air pollution exposure and preterm birth: identifying critical windows of exposure. *Biometrics*, 68(4):1157-1167. (Winner of 2012 *Best Paper in Biometrics Award*)

Book Chapters:

Warren JL and Bell ML. Alternative models for estimating air pollution exposures - land use regression and stochastic human exposure and dose simulation for particulate matter (SHEDS-PM), in *Handbook of Environmental and Ecological Statistics* (editors: Gelfand A, Smith R, Hoeting J,

and Fuentes M), CRC Press, 2019.

Warren JL, Fuentes M, Herring AH, and Langlois PH. Spatiotemporal modeling of preterm birth, in *Handbook of Spatial Epidemiology* (editors: Lawson AB, Banerjee S, Haining RP, and Ugarte L), CRC Press, 2016.

Patent:

Mwanza JC, Budenz DL, and **Warren JL** (2017). Methods, systems, and computer readable media for predicting early onset glaucoma. US Patent Number: 9,554,755; January 31^{st}, 2017.

Journal Correspondence:

Regan AK, Ball SJ, **Warren JL**, Malacova E, Padula A, Marston C, Nassar N, Stanley F, Leonard H, de Klerk N, and Pereira G (2019). The uncertain role of interpregnancy interval and why we need new approaches to an old problem. *American Journal of Epidemiology*, 188(1):22-23.

Cassell K, Gacek P, **Warren JL**, Raymond PA, Cartter M, and Weinberger DM (2018). Reply to Rucinski et. al. Letter. *The Journal of Infectious Diseases*, 218(4):670-671.

Internal Publications:

Perez-Heydrich C, **Warren JL**, Burgert CR, and Emch ME (2013). Guidelines on the use of DHS GPS data. *Spatial Analysis Reports No. 8.* Calverton, Maryland, USA: ICF International.

Blog Posts:

***Berchuck SI and **Warren JL** (2018). Statistics in glaucoma: Part I. *R Views*. Retrieved from `https://rviews.rstudio.com/2018/12/03/statistics-in-glaucoma-part-i/`.

***Berchuck SI and **Warren JL** (2018). Statistics in glaucoma: Part II. *R Views*. Retrieved from `https://rviews.rstudio.com/2018/12/07/statistics-in-glaucoma-part-ii/`.

***Berchuck SI and **Warren JL** (2018). Statistics in glaucoma: Part III. *R Views*. Retrieved from `https://rviews.rstudio.com/2018/12/18/statistics-in-glaucoma-part-iii/`.

Students

Current:

Xiangyu Zhang, Ph.D. student, Yale University, Biostatistics Department (Qualifying examination committee member).

Sunny Siddique, Ph.D. student, Yale University, Chronic Disease Epidemiology Department (Dissertation committee member).

Nicholas Chen, M.P.H.. student, Yale University, Department of Epidemiology of Microbial Diseases (Second thesis reader).

Shannon Whittaker, Ph.D. student, Yale University, Department of Social and Behavioral Sciences (Dissertation committee member).

Haoran Zhuo, Ph.D. student, Yale University, Department of Environmental Health Sciences (Dissertation committee member).

Rory Stewart, Ph.D. student, Yale University, School of the Environment (Dissertation committee

member).

Pengfei Guo, Ph.D. student, Yale University, Department of Environmental Health Sciences (Dissertation committee member).

Melanie Chitwood, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases (Qualifying examination committee member).

Emmanuella Asabor, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases (Qualifying examination committee member).

Zhe Zheng, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases (Dissertation committee member).

Completed:

Yuge Wang, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2023). Computational methods for single-cell data: From decomposition, integration, to label transfer.

Cassandra Clark, Ph.D. student, Yale University, Department of Environmental Health Sciences (Dissertation committee member, 2022). The impacts of unconventional oil and gas development on drinking water and children's health.

Kenneth Gunasekera, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases

- Dissertation committee member, 2021. Spatial and prediction models for addressing challenges in pediatric tuberculosis control and care.
- Qualifying examination committee member, 2019. Childhood tuberculosis: studies to improve diagnosis of childhood disease and new methods for use of age-specific data to understand transmission.

Phoebe Tran, Ph.D. student, Yale University, Department of Chronic Disease Epidemiology (Dissertation committee member, 2022). Influence of air pollution on 2014-2015 national ischemic stroke hospitalization and 30-day all-cause hospital readmission in older US adults.

Jiawei Wang, Ph.D. student, Yale University, Yale Computational Biology and Bioinformatics

- Dissertation committee member, 2022. Identification of genetic implications in neuropsychiatric disorders.
- Qualifying examination committee member, 2019. Identification of transcriptomic implications in mental disorders.

Alyssa Parpia, Ph.D. student, Yale University, Department of Epidemiology of Microbial Diseases.

- Dissertation committee member, 2021. Applications of dynamic modeling and statistical analysis to infectious diseases.
- Qualifying examination committee member, 2018. The impact of climate, environment, and vaccination on dengue incidence in Costa Rica.

Maile Phillips, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases

- Dissertation committee member, 2021. Cost-effectiveness analyses of typhoid interventions in epidemic and endemic settings.
- Qualifying examination committee member, 2019. Cost-effectiveness analysis of typhoid prevention in epidemic and endemic settings.

Huan Tong, Ph.D. student, University College London, Institute for Environmental Design and Engineering (Primary advisor on exchange student project).

Rebecca Earnest, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases (Qualifying examination committee member, 2021). Spatiotemporal dynamics of outbreak-prone (re)-emerging infectious diseases.

Frank Wu, M.P.H. student, Yale University, Department of Epidemiology of Microbial Diseases (Second thesis reader, 2021). Why not here? An examination of statewide hospital use among patients with IDU-associated diagnoses and procedures in Lawrence and Lowell MA, 2005-2019.

Jiafang Song, M.S. student, Yale University, Department of Biostatistics (Primary master's thesis advisor). A directionally-varying change points model for quantifying the impact of a point source.

- Winner of the YSPH Department of Biostatistics Master's Thesis Award, 2021

Hao Mei, Ph.D. student, Yale University, Department of Biostatistics

- Dissertation committee member, 2021. Building dynamic disease networks using claims data.
- Applied area examination member, 2018. Obtaining robust estimate of the population-level impact of pneumococcal conjugate vaccines.

Yuge Wang, Ph.D. student, Yale University, Department of Biostatistics (Applied area examination member, 2020). Gene regulatory network inference from single-cell transcriptomic data.

Kayoko Shioda, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases

- Dissertation committee member, 2020. Obtaining robust estimates of the population-level impact of vaccines.
- Qualifying examination committee member, 2018. Building dynamic disease networks using administrative claims data.

Chen Chen, Ph.D. student, Yale University, The School of Forestry & Environmental Studies (Dissertation reader, 2020). Temporal trends of health impacts from air pollution today and under a changing climate.

Ning Zhang, M.S. student, Yale University, Department of Biostatistics (Second thesis reader, 2020). Properties of regression estimates under interference.

Renee Mehra, Ph.D. student, Yale University, Department of Chronic Disease Epidemiology (Dissertation committee member, 2020). Structural and interpersonal stigma and racial disparities in adverse birth outcomes.

Mo Li, Ph.D. student, Yale University, Department of Biostatistics

- Dissertation committee member, 2020. Gene-based association analysis for genome-wide association studies.
- Applied area examination member, 2017. Heritability estimation using individual genotype data or summary statistics from genome-wide association studies.

Xiaochen Wang, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2020). Statistical methods for cardiovascular disease risk assessment.

Shan Jiang, M.P.H. student, Emory University, Department of Biostatistics (Summer field supervisor, 2019). Machine learning algorithms for heat events and emergency room visits in Atlanta, Georgia.

Amrutasri Nori-Sarma, Ph.D. student, Yale University, The School of Forestry & Environmental Studies (Dissertation reader, 2019). Temperature, air pollution, and human health burden in urban India.

Jessica Rothman, M.S. student, Yale University, Department of Biostatistics (Applied area examination primary advisor, 2019). Statistical methods for examining the impact of air pollution on reproductive health.

Katherine Wolf, M.P.H. student, Yale University, Department of Environmental Health Sciences (Second thesis reader, 2019). Evaluation of sociodemographic factors and presence of oil and gas waste disposal wells in Kansas.

Hing Ting (Connie) Li, M.P.H. student, Yale University, Department of Epidemiology of Microbial Diseases (Primary master's thesis advisor, 2019). Association between engagement in a community-based home visitation program and birth spacing between first and second children.

Xinyue Li, Ph.D. student, Yale University, Department of Biostatistics (Dissertation reader, 2019). Statistical methods for wearable device data: applications in clinical studies.

Li Zeng, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2018). Statistical and machine learning methods in cancer genomic data analysis.

Lan Jin, Ph.D. student, Yale University, The School of Forestry & Environmental Studies (Dissertation reader, 2018). Air pollution and adverse birth outcomes in Lanzhou, China.

Alyssa Sbarra, M.P.H. student, Yale University, Department of Epidemiology of Microbial Diseases (Second thesis reader, 2018). Increasing PCV impact estimate credibility via pooled analysis.

Jacob McPadden, M.D., Clinical Neonatology Fellow, Yale School of Medicine (Research mentor, 2018).

Yiyi Liu, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2018). Statistical methods for cell heterogeneity and cell drug-response study.

Samuel Berchuck, Ph.D. student, The University of North Carolina at Chapel Hill, Department of Biostatistics (Primary dissertation advisor, 2018). Statistical methods for modeling the spatial structure on the visual field in glaucoma research.

- Winner of the RAB Poster Competition Award, ENAR 2018

Nisheet Nautiyal, Ph.D. student, Yale University, Department of Biostatistics

- Dissertation committee member, 2018. Spatio-temporal methods for reconstructing cancer incidence trends.
- Applied area examination primary advisor, 2015. Statistical methods for multipollutant research.

Kelsie Cassell, M.P.H. student, Yale University, Department of Epidemiology of Microbial Diseases (Second thesis reader, 2017). Association between sporadic Legionellosis and river systems in Connecticut.

Zhishan Gu, M.P.H. student, Yale University, Department of Biostatistics (Second thesis reader, 2017). Spatial trends in lung cancer mortality in the United States, 1969-2004.

Yinjun Zhao, M.P.H. student, Yale University, Department of Biostatistics (Second thesis reader, 2017). Bayesian integrative analysis of heterogeneous data in breast cancer prognosis.

Jiehuan Sun, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2017). Statistical methods for translational medicine in longitudinal genomics studies.

Wenjing Kong, M.S. student, Yale University, Department of Biostatistics (Primary master's thesis advisor, 2017). Critical window variable selection for air pollution and adverse birth outcomes.

Veronika Shabanova, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member, 2017). Multivariate approach to modeling of time to event data with non-susceptible fractions and informative censoring.

Joseph Lewnard, Ph.D. student, Yale University, Department of Epidemiology of Microbial Diseases (Dissertation reader, 2016). Inference of the natural histories of partially immunizing pathogens aided by studies of socioeconomically distinct populations.

Nan Zhao, Ph.D. student, Yale University, Department of Environmental Health Sciences (Dissertation reader, 2016). Understanding the role of prenatal exposure to ambient air pollutants in preterm birth and ultrasound measured fetal growth in China.

Yunwei Wang, M.S. student, Yale University, Department of Biostatistics (Primary master's thesis advisor, 2016). Spatial-temporal models for human Lyme disease in Connecticut.

Douglas Noveroske, M.P.H.. student, Yale University, Department of Epidemiology of Microbial Diseases (Second thesis reader, 2016). Respiratory syncytial virus in Connecticut: predictors of seasonal epidemic timing.

Dennis Wang, M.P.H. student, Yale University, Epidemiology of Microbial Diseases (Second thesis reader, 2016). The effect of spatiotemporally-dependent air pollution exposure on birthweight in the Lanzhou Birth Cohort.

Samantha Emanuele, M.P.H. student, Yale University, Department of Biostatistics (Second thesis reader, 2015). Bayesian spatial modeling of respiratory syncytial virus transmission in the United States.

Rachel Nethery, Ph.D. student, The University of North Carolina at Chapel Hill, Department of Biostatistics (Summer research in spatial statistics, 2013-2015). A common spatial factor analysis model for measured neighborhood-level characteristics: the multi-ethnic study of atherosclerosis.

Invited Talks

Meta-regression case studies in infectious disease epidemiology . ASA-CT Mini-Conference, April 2023. Groton, CT.

Tuberculosis burden estimates among incarcerated populations in the Western Pacific Region. Webinar, World Health Organization Western Pacific Regional Office, February 2023. Virtual.

Tuberculosis burden estimates among incarcerated populations in the South-East Asia region. Webinar, World Health Organization South-East Asian Regional Office, January 2023. Virtual.

A Bayesian framework for incorporating exposure uncertainty into health analyses with application to air pollution and stillbirth. 2022 Annual Meeting of The International Environmetrics Society (TIES), November 2022. Virtual.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. Climate Change and Health Seminar Series, Yale School of Public Health, April 2022. New Haven, CT.

Statistical methods for modeling spatially-referenced paired genetic relatedness data. Epidemiology and Biostatistics Seminar, Department of Biostatistics and Bioinformatics, Emory University, February 2022. Atlanta, GA.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. HERCULES Exposome Research Center Seminar Series, Emory University, February 2022. Atlanta, GA.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. Innovative Methods for Identifying Perinatal Critical Windows with Mixtures, 33rd Annual Conference of the International Society for Environmental Epidemiology, August 2021. New York, NY.

Elements of biostatistics. Core Curriculum Lecture, Hematology/Medical Oncology Fellowship Program, Yale School of Medicine, June 2021. New Haven, CT.

Introduction to Spatial Statistics (guest lecture). BIS 681: Statistical Practice, Department of Biostatistics, Yale School of Public Health, April 2021. New Haven, CT.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. Epidemiology and Biostatistics Seminar, Department of Epidemiology and Biostatistics, Drexel University, March 2021. Philadelphia, PA.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. NIEHS Center Seminar Series, Department of Environmental Health Sciences, Center for Environmental Health in Northern Manhattan, February 2021. New York, NY.

Critical window variable selection for mixtures: estimating the impact of multiple air pollutants on stillbirth. Environmental Medicine and Public Health Seminar, Department of Environmental Medicine and Public Health, Mount Sinai, December 2020. New York, NY.

A framework for estimating sub-national vaccine coverage using administrative data. Geospatial Immunization Modeling for Equity: Summer 2019 Technical Meeting, August 2019. Washington, DC.

A spatially varying change points model for monitoring glaucoma progression using visual field data. Recent Advances in Spatial and Spatial-temporal Methods. Joint Statistical Meetings (JSM), August 2019. Denver, CO.

Spatiotemporal statistical methods for monitoring glaucoma progression using visual field data. Statistics in Biosciences (SIBS) Invited Session: Statistical Advancement in Bioscience Research. International Chinese Statistical Association (ICSA) 2019 Applied Statistics Symposium, June 2019. Raleigh, NC.

Spatiotemporal statistical methods for monitoring glaucoma progression using visual field data. Statistics Colloquia Seminar Series, Department of Statistics, University of Connecticut, November 2018. Storrs, CT.

A Bayesian critical window variable selection method for estimating the impact of air pollution exposure during pregnancy. Statistical Inference in Air Pollution and Health Epidemiology. International Chinese Statistical Association (ICSA) 2018 Applied Statistics Symposium, June 2018. New Brunswick, NJ.

Diagnosing glaucoma progression with visual field data using a spatiotemporal boundary detection

method. Statistical Methods for Emerging Spatial and Spatiotemporal Data. Eastern North American Region (ENAR) of the International Biometric Society, March 2018. Atlanta, GA.

Spatiotemporal boundary detection for localized smoothing in areal data. QPRC 2017: The 34th Quality and Productivity Research Conference, June 2017. Storrs, CT.

A spatial method to estimate local vaccine uptake using administrative records. New England Statistical Symposium, April 2017. Storrs, CT.

Identifying critical pregnancy indows of susceptibility to ambient air pollution exposure. Biostatistics Colloquia Seminar Series, Department of Biostatistics and Computational Biology, University of Rochester Medical Center, March 2017. Rochester, NY.

Methods for the analysis of spatial data (guest lecture). EMD 538: Quantitative Methods in Infectious Disease Epidemiology, Department of Epidemiology of Microbial Diseases, Yale School of Public Health, November 2015. New Haven, CT.

Jointly analyzing spatially correlated visual field data to detect glaucoma progression. Joint 24^{th} International Chinese Statistical Association (ICSA) Applied Statistics Symposium and 13^{th} Graybill Conference, Colorado State University, June 2015. Fort Collins, CO.

Modeling of daily windows of susceptibility for maternal $PM_{2.5}$ exposure and congenital heart defects. Environmental Statistics Seminar, Department of Biostatistics, Harvard University, May 2015. Boston, MA.

Bayesian spatial modeling of the local persistence of PCV-targeted pneumococcal serotypes among adults in Connecticut, 1998-2009. Public Health Modeling Seminar, Department of Epidemiology of Microbial Diseases, Yale University, May 2015. New Haven, CT.

Bayesian spatial modeling of the local persistence of PCV-targeted pneumococcal serotypes among adults in Connecticut, 1998-2009. New England Statistical Symposium, April 2015. Storrs, CT.

A spatially varying coefficient model with partially unknown proximity matrix for the detection of glaucoma progression using visual field data. MacMillan-CSAP Quantitative Research Methods Workshop Series, Institution for Social and Policy Studies, Yale University, April 2015. New Haven, CT.

A spatially varying coefficient model with partially unknown proximity matrix for the detection of glaucoma progression using visual field data. Spatial Structures in the Social Sciences (S4) Colloquia, Brown University, February 2015. Providence, RI.

DHS point displacement impact on covariate assignment. Demographic and Health Surverys (DHS) Program Technical Consultation on Geographic Masking and Displacement of GPS Data for Household Surveys, July 2014. Rockville, MD.

Spatial-temporal modeling of the critical windows of air pollution exposure for preterm birth. XXVII International Biometric Conference (IBC), July 2014. Florence, Italy.

Should I consider a postdoctoral position in statistics/biostatistics? Postdoc Information Session. Eastern North American Region (ENAR) of the International Biometric Society, March 2014. Baltimore, MD.

Bayesian spatial and spatial-temporal modeling with applications in environmental epidemiology and ophthalmology. Biostatistics Seminar Series, Department of Biostatistics, Yale School of Public

Health, December 2013. New Haven, CT.

Bayesian spatial data analysis (guest lecture). BIOS 779: Bayesian Statistics, Department of Biostatistics, Gillings School of Global Public Health, November 2013. Chapel Hill, NC.

Statistical classification for early glaucoma detection. Carl Zeiss OCT Research Group Meeting, March 2013. Chapel Hill, NC.

Introduction to spatial statistical analyses (guest lecture). BIOS 767: Longitudinal Data Analysis, Department of Biostatistics, Gillings School of Global Public Health, April 2012. Chapel Hill, NC.

Understanding historical emission trends. 16^{th} Annual Environmental Protection Agency International Emission Inventory Conference, June 2007. Raleigh, NC.

Contributed Talks

Statistical methods for modeling spatially-referenced paired genetic relatedness data. Eastern North American Region (ENAR) of the International Biometric Society, March 2022. Houston, TX.

A spatially varying change points model for monitoring glaucoma progression using visual field data. Spatial Statistics 2019: Towards Data Science, July 2019. Sitges, Spain.

A Bayesian critical window variable selection method for estimating the impact of air pollution exposure during pregnancy. Eastern North American Region (ENAR) of the International Biometric Society, March 2019. Philadelphia, PA.

Spatial variability in the persistence of PCV-targeted pneumococcal serotypes among adults. Joint Statistical Meetings (JSM), August 2016. Chicago, IL.

Spatial variability in the persistence of PCV-targeted pneumococcal serotypes among adults. International Symposium on Pneumococcal and Pneumococcal Diseases (ISPPD), June 2016. Glasgow, Scotland.

A spatially varying coefficient model with partially unknown proximity matrix for the detection of glaucoma progression using visual field data. Eastern North American Region (ENAR) of the International Biometric Society, March 2015. Miami, FL.

Spatial-temporal modeling of the critical windows of air pollution exposure for preterm birth. Eastern North American Region (ENAR) of the International Biometric Society, March 2013. Orlando, FL.

Spatial-temporal modeling of the critical windows of air pollution exposure for preterm birth. Joint Statistical Meetings (JSM), July 2012. San Diego, CA.

Ambient air pollution exposure and preterm birth (poster presentation). The University of North Carolina at Chapel Hill Center for Environmental Health and Susceptibility Symposium on Interdisciplinary Environmental Health Research, November 2011. Chapel Hill, NC.

Understanding historical emission trends (poster presentation). 17th Annual North Carolina State Undergraduate Research Symposium, May and August 2007. Raleigh, NC.

Completed Research Grants

(Nunez Smith)
Agency: Yale Cancer Center Team Challenge
Title: Investigating structural and social determinants of health to address cancer disparities and promote health equity research
Project Title: Environmental and social determinants of cancer risk in Connecticut (Project Lead:

Deziel)
Role: Co-Investigator

Sponsored Research Agreement (Omer)
Agency: Facebook, Inc. Title: Building vaccine confidence through tailored messaging campaigns
Goal: To understand whether data insights and targeted message testing– combined with behavioral science expertise (in vaccine acceptance and behavior change)– can build public trust and strengthen demand for routine immunizations and/ COVID-19 vaccination in five selected countries. This project is conducted in partnership with UNICEF.
Role: Co-Investigator

R01 MD012769 (Bell)
Agency: NIMHD
Title: Environmental health disparities in an older population
Role: Co-Investigator

R01 AG056628 (Lichtman)
Agency: NIA
Title: Disparities in patterns of recurrent stroke in the elderly
Role: Co-Investigator

OPP1176267 (Weinberger)
Agency: Bill & Melinda Gates Foundation
Title: Evaluating PCV impact using data sources of variable quality from resource-poor settings
Role: Co-Investigator

(Cohen)
Agency: Vital Strategies, Inc/USAID
Title: Genomic, spatial, and epidemiological analysis to inform targeted TB interventions in Moldova-TREAT TB: Technology, Research, Education, and Technical Assistance for Tuberculosis
Role: Co-investigator

5R01AI123208-02 (Weinberger)
Agency: NIH
Title: Forecasting pneumococcal serotype frequencies to develop adult-specific vaccines
Role: Co-Investigator

(Bell, **Warren**)
Agency: Yale Climate Change and Health Initiative (CCHI) Pilot Project in Climate Change and Health Research
Title: Exposure to Greenspace and risk of hospital admissions under a changing climate
Role: Co-Principal Investigator

OPP1199204 (**Warren**)
Agency: Bill & Melinda Gates Foundation (Grand Challenges Explorations Round 21)
Title: Obtaining accurate estimates of subnational vaccine coverage
Role: Principal Investigator

EPA G2016-ORD-D1 (Deziel, Saiers)
Agency: U.S. Environmental Protection Agency
Title: Drinking water vulnerability and neonatal health outcomes in relation to oil and gas production in the Appalachian Basin
Role: Co-Investigator

(**Warren**)
Agency: NIH/NCATS; Yale University Clinical and Translational Science Award Program YCCI Scholar Award
Title: Spatiotemporal statistical methods for analyzing glaucomatous visual field progression
Role: Principal Investigator

WI178463 (Weinberger)
Agency: Pfizer (Investigator Initiated Research)
Title: Factors associated with the local persistence of Prevnar-targeted serotypes among adults
Role: Co-Investigator

54GM088558 (Lipsitch)
Agency: NIH/NIGMS; MIDAS center for communicable disease dynamics
Role: Co-Investigator

R01AI112438-01 (Cohen, Salomon)
Agency: NIH/NIAID
Title: Evaluating health and economic effects of targeted strategies in TB/HIV epidemics
Role: Co-Investigator

OPP1114733 (Weinberger)
Agency: The Bill and Melinda Gates Foundation
Title: Impact of pneumococcal conjugate vaccines (PCVs) among poor populations living in middle-income countries
Role: Co-Investigator

1R21NR016352-01 (Hawley)
Agency: NIH/NINR
Title: Establishing the preliminary feasibility and efficacy of a group prenatal care intervention to address maternal and child NCD risk in American Samoa
Role: Co-Investigator

Service to the Profession

Review panel member for the Health Effects Institute (HEI), 2019, 2022

Poster Judge, NextGen: Data Science Day, Yale University, 2018

Associate Editor, *Journal of the American Statistical Association - Theory and Methods*, 2018-2020

David P. Byar Young Investigator Award selection committee member (American Statistical Association (ASA) Biometrics Section), 2017

Grant reviewer for the Swiss National Science Foundation (SNSF), 2017

Mail reviewer for the NIH Diseases and Pathophysiology of the Visual System (DPVS) study section, 2016

Associate Editor, *Statistics in Biosciences*, 2015-Present

Grant reviewer for the Environment and Health Fund (EHF) in Israel, 2012

Reviewer for Advances in Research; AIMS Public Health; American Journal of Epidemiology; American Journal of Ophthalmology; American Journal of Tropical Medicine and Hygiene; Annals of Applied Statistics; Atmospheric Environment; Bayesian Analysis; BioMed Research International; Biometrics; Biostatistics; BMC Medicine; BMC Public Health; BMJ Open; British Journal of Oph-

thalmology; Challenges; Environmental Health; Environmental Health Perspectives; Environmental Protection Agency (internal review); Environmental Research; Environmental Science and Pollution Research; Environmetrics; Epidemiologic Methods; Epidemiology; International Journal of Environmental Research and Public Health; International Journal of Epidemiology; International Statistical Review; Journal of Agricultural Biological and Environmental Statistics; JAMA Network Open; Journal of the American Statistical Association: Applications and Case Studies; Journal of the American Statistical Association: Theory and Methods; Lancet Global Health; Lancet Infectious Diseases; National Birth Defects Prevention Study; New England Journal of Medicine; Ophthalmology; Ophthalmology Glaucoma; Preventing Chronic Disease; Proceedings of the National Academy of Sciences; Scientific Reports; Spatial and Spatio-temporal Epidemiology; Spatial Demography; Statistical Methods in Medical Research; Statistics in Biosciences; Statistics in Medicine; Tobacco Science; and Toxics.

Service to the Yale School of Public Health

Data Safety Monitoring Board voting member for the "Catheter-Related Early Thromboprophylaxis with Enoxaparin (CRETE) Studies", 2021-present

YSPH Practicum Advisory Committee, 2020-Present

YSPH Education Committee, 2019-2020

YSPH Department of Biostatistics Faculty Search Committee Member, 2018

YSPH Climate Change and Health Initiative Faculty Search Committee Member, 2017

The New England Statistics Symposium Co-Organizer (with Daniel Zelterman and Forrest Crawford), 2016

YSPH Staff Award for Outstanding Service Selection Committee Member, 2016

YSPH Biostatistics Department Seminar Organizer, 2014-2018

Honors and Awards

YSPH Data Science Research Award, 2023 (coauthor)

YSPH Preventing Next Public Health Threat Research Award, 2023 (coauthor)

YSPH Faculty Marshal, Commencement, 2023

YSPH Distinguished Student Mentoring Award, 2023

YSM Office of Health Equity Research Award for Yale Research Excellence in 2022, Finalist

YSPH Team Science Award, 2022 (co-senior author)

YSPH Department of Biostatistics Master's Thesis Award, 2021 (presented to Jiafang Song)

Kenneth Rothman Epidemiology Prize Paper, 2018 (co-author)

RAB Poster Competition Award, ENAR 2018 (presented to Samuel I. Berchuck)

Best Paper in Biometrics (2012) by an IBS Member, 2014 (first author)

Outstanding Teaching Assistant Award, 2009

Recipient of the Vertical Integration of Research and Education (VIGRE) Statistical Traineeship Scholarship, 2006

Mu Sigma Rho (National Statistical Honor Society) Member, 2006

Recipient of the National Science Foundation Computer Science, Engineering, and Mathematics Scholarship (NSF-CSEMS), 2004-2008

PRIMARY INSTRUCTOR TEACHING

BIS 567: Bayesian Statistics, Yale University, Department of Biostatistics, Fall 2015-Present.

BIS 525: Seminar/Journal Club in BIS, Yale University, Department of Biostatistics, Fall 2014-Spring 2018.

ST 311: Introduction to Statistics, North Carolina State University, Department of Statistics, Fall 2008.