

## Joshua L. Warren

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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* **July 2019 - Present**
- *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 mentored student first author/senior author**

#### Refereed Journal Articles:

Heo S, Chen C, Kim H, Sabath B, Dominici F, **Warren JL**, Di Q, Schwartz J, and Bell ML (2021). Temporal changes in associations between high temperature and hospitalizations by greenspace: analysis in the Medicare population in 40 U.S. northeast counties. *Environment International*, In Press.

Phung D, **Warren JL**, Chu C, and Dubrow R (2021). The relationship between flood severity and risk of hospitalization in the Mekong River Delta of Vietnam. *Occupational and Environmental Medicine*, In Press.

\*Ehrlich HY, Bei AK, Weinberger DM, **Warren JL**, and Parikh S (2021). Mapping partner drug resistance to guide antimalarial combination therapy policies in sub-Saharan Africa. *Proceedings of the National Academy of Sciences*, In Press.

Phillips MT, Meiring JE, Voysey M, **Warren JL**, Baker S, Basnyat B, Clemens JD, Dolecek C, Dunstan SJ, Dougan G, Gordon MA, Heyderman RS, Holt KE, Qadri F, Pollard AJ, Pitzer VE, and

the STRATAA Study Group (2021). A Bayesian approach for estimating typhoid fever incidence from large-scale facility-based passive surveillance data. *Statistics in Medicine*, In Press.

\*Gonsalves GS, Copple JT, Paltiel AD, Fenichel EP, Bayham J, Abraham M, Kline D, Malloy S, Rayo M, Zhang N, Faulkner D, Morey D, 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*, In Press.

Zheng Z, Pitzer VE, **Warren JL**, and Weinberger DM (2021). Community factors associated with local epidemic timing of respiratory syncytial virus: a spatiotemporal modeling study. *Science Advances*, In Press.

Jiang S, **Warren JL**, Scovronick N, Moss S, Darrow LA, Strickland MJ, Newman AJ, Chen Y, Ebelt ST, Chang HH (2021). Using logic regression to characterize extreme heat exposures and their health associations: a time-series study of emergency department visits in Atlanta. *BMC Medical Research Methodology*, In Press.

\*Gonsalves GS, Paltiel AD, Thornhill T, Iloglu S, DeMaria Jr. A, Cranston K, Kleven 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*, In Press.

Gunasekera KS, Walters E, van der Zalm MM, Palmer M, **Warren JL**, Hesseling AC, Cohen T, and Seddon JA (2021). Development of a treatment-decision algorithm for HIV-uninfected children evaluated for pulmonary tuberculosis. *Clinical Infectious Diseases*, In Press.

Pitzer VE, Chitwood ME, Havumaki J, Menzies NA, Perniciaro S, **Warren JL**, Weinberger DM, and Cohen T (2021). The impact of changes in diagnostic testing practices on estimates of COVID-19 transmission in the United States. *American Journal of Epidemiology*, In Press.

de Oliveira LH, Shioda K, Valenzuela MT, Janusz CB, Rearte A, Sbarra AN, **Warren JL**, Toscano CM, and Weinberger DM (2021). Declines in pneumonia mortality following the introduction of pneumococcal conjugate vaccines in Latin American and Caribbean countries. *Clinical Infectious Diseases*, In Press.

Becher RD, Jin L, **Warren JL**, Gill TM, DeWane MP, Davis KA, MD, and Zhang Y (2021). Geographic variation in the utilization of and mortality after emergency general surgery operations in the Northeastern and Southeastern United States. *Annals of Surgery*, In Press.

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.

Cords O, Martinez L, **Warren JL**, O'Marr JM, Walter KS, Cohen T, Zheng J, Ko AI, Croda J, and Andrews JR (2021). Incidence and prevalence of tuberculosis in incarcerated populations: a systematic review and meta-analysis. *The Lancet Public Health*, 6(5):e300-e308.

Nori-Sarma A, Thimmulappa R, Venkataraman GB, **Warren JL**, Berman JD, Whittaker SD, Kulick ER, Wellenius GA, Mahesh PA, and Bell ML (2021). NO<sub>2</sub> exposure and lung function decline in a cohort of adults in Mysore, India. *Environmental Research Communications*, 3:055001.

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.

**Warren JL**, Miranda ML, Tootoo JL, Osgood CE, and Bell ML (2021). Spatial distributed lag data fusion for estimating ambient air pollution. *Annals of Applied Statistics*, In Press.

Lee JH, Ma AK, **Warren JL**, and Teng CC (2021). Impact of iStent microbypass shunt on Medicare Part B glaucoma surgical expenditure. *Ophthalmology Glaucoma*, 4(2):131-138.

Sharma R, Kuohn LR, Weinberger DM, **Warren JL**, Sansing LH, Jasne A, Falcone GJ, Dhand A, and Sheth KN (2021). Excess cerebrovascular mortality in the United States during the COVID-19 pandemic. *Stroke*, 52(2):563-572.

Deziel NC, **Warren JL**, Huang H, Zhou H, Sjodin A, and Zhang Y (2021). Exposure to polychlorinated biphenyls and organochlorine pesticides and thyroid cancer in Connecticut women. *Environmental Research*, 192(2021):110333.

Wang Q, Miao H, **Warren JL**, Ren M, Benmarhnia T, Knibbs LD, Zhang H, Zhao Q, and Huang C (2021). Association of maternal ozone exposure with term low birth weight and susceptible window identification. *Environment International*, 146(2021):106208.

Shioda K, Toscano CM, Valenzuela MT, Huarcaya WV, **Warren JL**, Weinberger DW, and de Oliveira LH (2020). Impact of pneumococcal conjugate vaccine uptake on childhood pneumonia mortality across income levels in Brazil, Colombia, and Peru. *Gates Open Research*, 4:136.

\*Zhang Z, Chandra S, Kayser A, Hsu M, and **Warren JL** (2020). A hierarchical Bayesian implementation of the Experience-Weighted Attraction model. *Computational Psychiatry*, 4:40-60.

Reich BJ, Guan Y, Fourches D, **Warren JL**, Sarnat SE, and Chang HH (2020). Integrative statistical methods for exposure mixtures and health. *Annals of Applied Statistics*, 14(4):1945-1963.

Phillips MT, **Warren JL**, Givon-Lavi N, Tothpal A, Regev-Yochay G, Dagan R, and Weinberger DM (2020). Evaluating post-vaccine expansion patterns of pneumococcal serotypes. *Vaccine*, 38(49):7756-7763.

Weinberger DM and **Warren JL** (2020). Estimating the power to detect a change caused by a vaccine from time series data. *Gates Open Research*, 4:27.

**Warren JL**, Kong W, Luben TJ, and Chang HH (2019). Critical window variable selection: estimating the impact of air pollution on very preterm birth. *Biostatistics*, 21(4):790-806.

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Lu-Culligan A, Klein J, and Earnest R, Simonov M, Datta R, Handoko R, Naushad N, Sewanan LR, Valdez J, White EB, Lapidus S, Kalinich CC, Jiang X, Kim DJ, Kudo E, Linehan M, Mao T, Moriyama M, Oh JE, Park A, Silva J, Song E, Takahashi T, Taura M, Weizman O, Wong P, Yang Y, Bermejo S, Odio CD, Omer, SB, Dela Cruz CS, Farhadian S, Martinello RA, Iwasaki A, Grubaugh ND, and Ko AI (2020). Saliva or nasopharyngeal swab specimens for detection of SARS-CoV-2. *New England Journal of Medicine*, 383:1283-1286.

Peccia J, Zulli A, Brackney DE, Grubaugh ND, Kaplan EH, Casanovas-Massana A, Ko AI, Malik AA, Wang D, Wang M, **Warren JL**, Weinberger DM, Arnold W, and Omer SB (2020). Measurement of SARS-CoV-2 RNA in wastewater tracks community infection dynamics. *Nature Biotechnology*, 38:1164-1167.

Wang Y, Wang K, Han T, Zhang P, Chen X, Wu W, Feng Y, Yang H, Li M, Xie B, Guo P, **Warren JL**, Shi X, Wang S, Zhang Y (2020). Exposure to multiple metals and prevalence for preeclampsia in Taiyuan, China. *Environment International*, 145(2020):106098.

\*Gunasekera KS, Zelner J, Becerra MC, Contreras C, Franke MF, Lecca L, Murray MB, **Warren JL**, and Cohen T (2020). Children as sentinels of tuberculosis transmission: disease mapping of programmatic data. *BMC Medicine*, 18(234):1-7.

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**Warren JL** (2020). A nonstationary spatial covariance model for processes driven by point sources. *Journal of Agricultural, Biological and Environmental Statistics*, 25(3):415-430.

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**Warren JL**, Luben TJ, and Chang HH (2020). A spatially-varying distributed lag model with application to air pollution and term low birth weight study. *Journal of the Royal Statistical Society: Series C*, 69(3):681-696.

Nori-Sarma A, Thimulappa RK, Venkataramana GV, Fauzie AK, Dey SK, Venkareddy LK, Berman J, Lane KJ, Fong KC, **Warren JL**, and Bell ML (2020). Low-cost NO<sub>2</sub> monitoring and predictions of urban exposure using universal kriging and land-use regression modelling in Mysore, India. *Atmospheric Environment*, 226(2020):117395.

**Warren JL** and Weinberger DM (2020). Estimating serotype-specific efficacy of pneumococcal conjugate vaccines using hierarchical models. *Epidemiology*, 31(2):259-262.

Johnson NP, **Warren JL**, Elliott EG, Nicolai LM, and Deziel NC (2020). A multi-region analysis of shale drilling activity and rates of sexually transmitted infections in the United States. *Sexually Transmitted Diseases*, 47(4):254-260.

Armstrong PM, Ehrlich HY, Magalhaes T, Miller MR, Conway PJ, Bransfield A, Misencik MJ, Gloria-Soria A, **Warren JL**, Andreadis TG, Shepard JJ, Foy BD, Pitzer VE, and Brackney DE (2019). Successive blood meals enhance virus dissemination within mosquitoes and increase transmission potential. *Nature Microbiology*, 5:239-247.

\*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.

Li ZR, Xie E, Crawford FW, **Warren JL**, McConnell K, Copple JT, Johnson T, and Gonsalves GS (2019). Suspected heroin-related overdose incidents in Cincinnati, Ohio: a spatiotemporal analysis. *PLOS Medicine*, 16(11):e1002956.

Deziel NC, Alfonso-Garrido J, **Warren JL**, Huang H, Sjodin A, and Zhang Y (2019). Exposure to polybrominated diphenyl ethers and a polybrominated biphenyl and risk of thyroid cancer in women: single and multi-pollutant approaches. *Cancer Epidemiology, Biomarkers & Prevention*, 28(10):1755-1764.

Liu Y, **Warren JL**, and Zhao H (2019). A hierarchical Bayesian model for single-cell clustering using RNA-sequencing data. *Annals of Applied Statistics*, 13(3):1733-1752.

Anwar MY, **Warren JL**, and Pitzer VE (2019). Diarrhea patterns and climate: a spatiotemporal analysis of diarrheal disease in Afghanistan. *American Journal of Tropical Medicine & Hygiene*, 101(3):525-533.

\*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.

Wang Y, Zhang P, Chen Xi, Wu W, Feng Y, Yang H, Li M, Xie B, Guo P, **Warren JL**, Shi X, Wang S, and Zhang Y (2019). Multiple metal concentrations and gestational diabetes mellitus in Taiyuan, China. *Chemosphere*, 237(2019):124412.

Jin L, Berman JD, **Warren JL**, Levy JI, Thurston G, Zhang Y, Xu X, Wang S, Zhang Y, and Bell ML (2019). A land use regression model of nitrogen dioxide and fine particulate matter in a complex urban core in Lanzhou, China. *Environmental Research*, 177(2019):108597.

Strickland MJ, Lin Y, Darrow LA, **Warren JL**, Mulholland JA, and Chang HH (2019). Associations between ambient air pollutant concentrations and birth weight: a quantile regression analysis. *Epidemiology*, 30(5):624-632.

\*Mehra R, Kershaw T, Ickovics J, Keene DE, and **Warren JL** (2019). Racial and ethnic disparities in adverse birth outcomes: Differences by racial residential segregation. *SSM - Population Health*, 8(2019):100417.

Zeng L, **Warren JL**, and Zhao H (2019). Phylogeny-based tumor subclone identification using a Bayesian feature allocation model. *Annals of Applied Statistics*, 13(2):1212-1241.

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Rappazzo KM, **Warren JL**, Davaolos AD, Meyer RE, Sanders AP, Brownstein NC, and Luben TJ (2019). Maternal residential exposure to specific agricultural pesticide active ingredients and birth defects in a 2003-2005 North Carolina birth cohort. *Birth Defects Research*, 111(6):312-323.

\*Berchuck SI, Mwanza JC, Tanna AP, Budenz DL, and **Warren JL** (2019). Improved detection of visual field progression using a spatiotemporal boundary detection method. *Scientific Reports*, 9(1):4642.

\*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)

Benz L, Wrensch MR, Schildkraut JM, Bondy ML, **Warren JL**, Wiemels JL, and Claus EB (2018). Quality of life after surgery for intracranial meningioma. *Cancer*, 124(1):161-166.

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.

\*Sun J, Herazo-Maya JD, Kaminski N, and Zhao H, **Warren JL** (2017). A Dirichlet process mixture model for clustering longitudinal gene expression data. *Statistics in Medicine*, 36(22):3495-3506.

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Antillon M, **Warren JL**, Crawford FW, Weinberger DM, Kurum E, Pak GD, Marks F, and Pitzer VE (2017). The burden of typhoid fever in low- and middle-income countries: a meta-regression approach. *PLOS Neglected Tropical Diseases*, 11(2):e0005376.

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Noveroske DB, **Warren JL**, Pitzer VE, and Weinberger DM (2016). Local variations in the timing of RSV epidemics. *BMC Infectious Diseases*, 16(1):674.

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**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<sub>2.5</sub> exposure and congenital heart defects. *Statistics in Medicine*, 35(16):2786-2801.

Rappazzo KM, **Warren JL**, Meyer RE, Herring AH, Sanders AP, Brownstein NC, and Luben TJ (2016). Maternal residential exposure to agricultural pesticides and birth defects in a 2003-2005 North Carolina birth cohort. *Birth Defects Research Part A: Clinical and Molecular Teratology*, 106(4):240-249.

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.

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\*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.

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frequency doubling technology perimetry and scanning laser polarimetry for glaucoma detection. *Journal of Glaucoma*, 24(8):561-567.

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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.

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**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.

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**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<sup>st</sup>, 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:**

Huan Tong, Ph.D. student, University College London, Institute for Environmental Design and Engineering (Qualifying examination 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).

Rebecca Earnest, 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).

Yuge Wang, Ph.D. student, Yale University, Department of Biostatistics (Dissertation committee member).

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

Phoebe Tran, Ph.D. student, Yale University, Department of Chronic Disease Epidemiology (Dissertation committee member).

Cassie Clark, Ph.D. student, Yale University, Department of Environmental Health Sciences (Dis-

sertation committee member).

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

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

**Completed:**

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 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.

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

ifying examination committee member, 2019). Identification of transcriptomic implications in mental disorders.

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

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, Ph.D. 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 (First thesis reader, 2019). Association between engagement in a community-based home visitation program and birth spacing between first and second children.

Maile Phillips, Ph.D. student, Yale University, Department Epidemiology of Microbial Diseases (Qualifying examination committee member, 2019). Cost-effectiveness analysis of typhoid prevention in epidemic and endemic settings.

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 Parpia, Ph.D. student, Yale University, Department of Epidemiology of Microbial Diseases (Qualifying examination committee member, 2018). The impact of climate, environment, and vaccination on dengue incidence in Costa Rica.

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

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

*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.

*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 windows 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<sup>th</sup> International Chinese Statistical Association (ICSA) Applied Statistics Symposium and 13<sup>th</sup> Graybill Conference, Colorado State University, June 2015. Fort Collins, CO.

*Modeling of daily windows of susceptibility for maternal PM<sub>2.5</sub> 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 Surveys (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<sup>th</sup> Annual Environmental Protection Agency International Emission Inventory Conference, June 2007. Raleigh, NC.

CONTRIBUTED  
TALKS

*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.

RESEARCH  
GRANTS

**Current:**

(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

1R01 (Mathema)

Agency: NIH

Title: Targeting TB transmission hotspots to find undiagnosed TB in South Africa: a genomic,



geospatial and modeling study (TARGET- TB)  
Role: Co-Investigator

1R01 (Bell, Deziel)  
Agency: NIH  
Title: Air pollution, heat, cold, and health: disparities in the rural South  
Role: Co-Investigator

(Bell)  
Agency: Health Effects Institute  
Title: Australian wildfires and perinatal health risks  
Role: Co-Investigator

R01AI147854 (Cohen, Salomon)  
Title: Integrating genomic and spatial approaches for targeted control of HIV-associated tuberculosis epidemics  
Role: Co-investigator

5P30CA016359 (Fuchs)  
Agency: NIH/NCI  
Title: Yale comprehensive cancer center support grant  
Role: Biostatistician

R01AI137093 (Weinberger, Pitzer, **Warren**)  
Agency: NIH/NIAID; MIDAS  
Title: Predicting and monitoring variations in the impact of vaccines against RSV  
Role: Co-Principal Investigator

1R01ES028346-01A1 (Chang, Darrow)  
Agency: NIH/NIEHS  
Title: Extreme heat events and pregnancy duration: a national study  
Role: Subcontract Principal Investigator

1R01MD012769-01A1 (Bell)  
Agency: NIH/NIEHS  
Title: Environmental health disparities in an older population  
Role: Co-Investigator

(Cohen)  
Agency: USAID  
Title: Implementation and evaluation of universal whole genome sequencing of M. tuberculosis in the Republic of Moldova to inform public health interventions  
Role: Co-Investigator

1R01 AG056628-01A1 (Lichtman)  
Agency: NIH/NIA  
Title: Disparities in patterns of recurrent stroke in the elderly  
Role: Co-Investigator

**Completed:**

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

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 Ophthalmology*, *American Journal of Tropical Medicine and Hygiene*, *Annals of Applied Statistics*, *Atmospheric Environment*, *BioMed Research International*, *Biometrics*, *Biostatistics*, *BMC Medicine*, *BMC Public Health*, *BMJ Open*, *British Journal of Ophthalmology*, *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*, *JABES*, *JAMA Network Open*, *JASA: Applications and Case Studies*, *JASA: Theory and Methods*, *Lancet Global Health*, *Lancet Infectious Diseases*, *National Birth Defects Prevention Study (NBDPS)*, *New England Journal of Medicine*, *Ophthalmology*, *Ophthalmology Glaucoma*, *Preventing Chronic Disease*, *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

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

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

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.