

July 25, 2024

CURRICULUM VITA:

Lance A. Waller, Ph.D.

Department of Biostatistics and Bioinformatics
Rollins School of Public Health, Emory University
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Education:

Ph.D. (Operations Research), Cornell University, January 1992.
Thesis title: “Disease Clustering with Multiple Putative Sources”
Thesis advisor: Professor Bruce W. Turnbull.

M.S. (Operations Research), Cornell University, March 1990.

B.S. (Mathematics), New Mexico State University, December, 1986.
Distinction in University Honors.

Positions:

Professor, Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University, July 2018–Present.

Graduate faculty appointments: Environmental Health Sciences; Population Biology, Evolution, and Ecology

Rollins Professor and Chair, Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University, July 2009–July 2018.

Interim Chair, Department of Biomedical Informatics, School of Medicine, Emory University, July 2013–March 2014.

Professor (with tenure), Department of Biostatistics, Rollins School of Public Health, Emory University, September 2003–July 2009.

Associate Professor (with tenure), Department of Biostatistics, Rollins School of Public Health, Emory University, August 1998–September 2003.

Associate Professor (with tenure), Division of Biostatistics, School of Public Health, University of Minnesota, July 1997–June 1998.

Assistant Professor, Division of Biostatistics, School of Public Health, University of Minnesota, August 1993–June 1997.

Assistant Professor, Department of Biostatistics, University of Alabama at Birmingham, October 1991–June 1993.

Research Assistant, School of Operations Research and Industrial Engineering, Cornell University. August 1987–September 1991.

Graduate Research Assistant. Los Alamos National Laboratory. Summer 1986. January 1987–August 1987.

Undergraduate Research Assistant. Radiobiology Division. University of Utah. Summer 1985.

Awards and Honors:

Kathri Lecture, Department of Statistics, Pennsylvania State University, April 2024.

Invited Speaker, Celebration of Statistics and Data Science, Cornell University, September 2023.

Invited Speaker, Séminaire Géomédecine en santé publique. Faculté du Médecine, University of Geneva, Switzerland, November 2023.

Brogan Lecture, Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University, April 2023.

Wake Forest Distinguished Lecture in Statistics and Biostatistics, Wake Forest University, April, 2023.

Andrei Yakovlev Colloquium, Department of Biostatistics and Computational Biology, University of Rochester. September, 2022.

Lowell Reed Lecturer, Applied Public Health Statistics Section, American Public Health Association. November, 2017.

Invited Speaker, Science and the Common Good, “Mapping Mysteries: Science Through Cartographic Visualization and Spatial Statistics”, Ursinus College, 2015.

Distinguished Achievement Medal, Section on Statistics and the Environment, American Statistical Association, 2012.

President, Eastern North American Region (ENAR), International Biometric Society, 2009 (President-Elect, 2008; Past President, 2010).

Second Place for “Pandemic Blues”, Get Ready for Flu Songwriting Contest, American Public Health Association, 2007.

Co-author on Honorable Mention Statistical Science Award, Theoretical Category. U.S. States Centers for Disease Control and Prevention. (Lead author: Xiaohong Mao Davis, Publication: Davis, Waller, and Haber, 2007, listed below).

Abdel El-Shaarawi Young Researcher Award, The International Environmetrics Society, 2004.

Fellow, American Statistical Association, 2003.

Student Government Professor of the Year Teaching Award, Rollins School of Public Health, Emory University, 2003.

Elected ordinary member, International Statistical Institute, 1998.

Young Investigator Travel Award, XVIIth International Biometric Conference, August 1994.

Statistics and Environment Traineeship, Cornell University, 1990–1991.

Student Paper Award, International Biometric Society, ENAR, 1990.

Mathematical Competition in Modeling: 1985 entry judged “Outstanding”, 1986 entry judged “Meritorious”.

Lindley Mathematics Scholarship, New Mexico State University, 1984–1985. Academic Tuition Scholarship, New Mexico State University, 1983–1986.

Public presentations

“Pandemics with Lance: Where do these COVID numbers come from and what do they mean?”. Embury Hills United Methodist Church webinar. October 6, 2020.

Books:

Waller, L.A. and Gotway, C.A. (2004) *Applied Spatial Analysis of Public Health Data*. New York: John Wiley and Sons.

Invited Chapters and Commentaries:

1. **Waller, L.A.** (2023) “Dual use: When technology both helps and hurts.” *Public Books*. (publicbooks.org). May 2023.
2. **Waller, L.A.** (2022) “Global and local impacts of differential privacy on estimates of health care inequity”. *Health Services Research* 1-3. DOI: 10.1111/1475-6773.14080 (invited commentary)
3. **Waller, L.A.** (2022) “Biostatistics and artificial intelligence”. In *Artificial Intelligence in Cardiothoracic Imaging*, De Cecco, C.N., van Assen, M., Leiner, T. (eds). Humana Press, Cham. DOI: 10.1007/978-3-030-92087-6 9
4. **Waller, L.A.** (2022) “Building the analytic toolbox: From spatial analytics to spatial statistical inference with geospatial data”. In *Geospatial Technology for Human Well-Being and Health*, F.S. Faruque (ed). Springer, Cham. DOI: 10.1007/978-3-030-71377-5 2
5. **Waller, L.A.** (2021) “Spatial clustering and autocorrelation of health events.” In *Handbook of Regional Science*, M.M. Fischer, P. Nijkamp (eds.), Springer-Verlag: Germany. DOI: 10.1007/978-3-662-60723-7 80
6. **Waller, L.A.** (2020) Book review: “The Atlas of Disease: Mapping Deadly Epidemics and Contagion from the Plague to the Zika Virus”. *Cartographic Journal*. **57** (1), 86-86. DOI: 10.1080/00087041.2019.1688971
7. **Waller, L.A.** (2017). “Mapping in Public Health”. In *Mapping Across Academia*, Brunn, S.D. and Dodge, M., eds. Dordrecht: Springer.

8. **Waller, L.A.** (2016). "Statistics and Cartography in the 20th Century". In *History of Cartography, the 20th Century*, Monmonier, M., ed. Chicago: University of Chicago Press.
9. **Waller, L.A.** (2013). "Commentary: Regarding assessments of chance in investigations of 'cluster series'". *International Journal of Epidemiology*. **42**, 449-452. DOI:10.1093/ije/dys238.
10. **Waller, L.A.** (2013) "Disease Mapping", in *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vad026.pub2. Published online 1/15/2013.
11. **Waller, L.A.** (2013) "Environmental Justice", in *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vae032.pub2. Published online 1/15/2013.
12. **Waller, L.A.** (2013) "Disease Mapping' Hierarchical Models For", in *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vah011.pub2. Published online 1/15/2013.
13. **Waller, L.A.** (2013) "Spatial Distribution", in *Encyclopedia of Environmetrics*, A.-H. El-Shaarawi and W. Piegorsch (eds), John Wiley & Sons Ltd: Chichester, UK. DOI: 10.1002/9780470057339.vas040m.pub2. Published online 1/15/2013.
14. Gruenewald, P.J., Ponicki, W.R., Remer, L.R., Johnson, F.W., **Waller, L.**, Gorman, D., and Zhu, L. (2012). "Spatial models of the growth and spread of methamphetamine abuse in California". In *Crime, HIV and Health: Intersections of Criminal Justice and Public Health Concerns*, Sanders, B., Thomas, Y.F., and Deeds, B.G., eds. New York: Springer. pp. 167-186.
15. **Waller, L.A.** (2011). Book review: *Statistical Methods for Disease Clustering* by T. Tango. New York: Springer. *Biometrics*. **67**, 1181-1182.
16. Sullivan, P.S., McKenna, M.T., **Waller, L.A.**, Williamson, G.D., and Lee, L.M. (2010) "Analyzing and interpreting public health surveillance data", in *Principles and Practice of Public Health Surveillance*. L.M. Lee, S.M. Teutsch, S.B. Thacker, M.E. St. Louis, eds. Oxford: Oxford University Press. pp. 88-145.
17. **Waller, L.A.** and Carlin, B.P. (2010). "Disease Mapping", in *Handbook of Spatial Statistics*. A.E. Gelfand, P.J. Diggle, M. Fuentes, and P. Guttorp, eds. Boca Raton, FL: Chapman & Hall/CRC. pp. 217-243.
18. **Waller, L.A.** (2010). "Point process models and methods in spatial epidemiology" in *Handbook of Spatial Statistics*. A.E. Gelfand, P.J. Diggle, M. Fuentes, and P. Guttorp, eds. Boca Raton, FL: Chapman & Hall/CRC. pp. 403-423.
19. **Waller, L.A.** (2008). "Detection of clustering in spatial data". *The SAGE Handbook of Spatial Analysis*, A.S. Fotheringham and P.A. Rogerson, eds. London: Sage Publications. pp. 299-320.
20. **Waller, L.A.** (2008). "Statistics in Disease Ecology: Introduction to a Special Issue". *Environmental and Ecological Statistics*. **15**, 259-263.
21. **Waller, L.A.** (2008). "Statistics for Environmental Justice". In *Encyclopedia of Quantitative Risk Assessment and Analysis*. E. Melnick and B. Everitt (eds.) Chichester, UK: John Wiley and Sons Ltd. pp. 1678-1682.

22. **Waller, L.A.** (2007). "Spatial Epidemiology". In *Statistical Advances in the Biomedical Sciences: Clinical Trials, Epidemiology, Survival Analysis and Bioinformatics*. A. Biswas, S. Datta, J. Fine and M. Segal (eds.) Hoboken, NJ: John Wiley and Sons. pp. 97-122.
23. **Waller, L.A.** (2007). "Spatial statistical analysis of point- and area-referenced public health data" in *Geocoding Health Data: The Use of Geographic Codes in Cancer Prevention and Control, Research and Practice*. Rushton, G., Greene, B., Pavlik, C.E., West, M.M., and Zimmerman, D.L. (eds.). Boca Raton, FL: CRC Press. pp. 147-164.
24. **Waller, L.A.** (2005). "Bayesian thinking in spatial statistics". In *Handbook of Statistics, Volume 25: Bayesian Thinking: Modeling and Computation*, D.K. Dey and C.R. Rao (eds). Amsterdam: Elsevier B.V. pp. 589-622.
25. **Waller, L.A.** (2005). "Geographic Information Systems". In *Environmental Health: From Global to Local*, H. Frumkin (ed.) San Francisco: Jossey-Bass. pp. 926-939.
26. **Waller, L.A.** (2005). "Spatial models for categorical data". *Encyclopedia of Biostatistics, Second Edition*. Chichester: John Wiley and Sons. Volume 7, pp. 5087-5095.
27. **Waller, L.A.** (2004). Discussion of J.C. Wakefield's "Ecological inference for 2×2 tables." *Journal of the Royal Statistical Society, Series A* **167**, p. 440.
28. **Waller, L.A.** (2004). "Commentary on Lele". *The Nature of Scientific Evidence: Empirical, Statistical, and Philosophical Considerations*. Mark L. Taper and Subhash Lele, eds. Chicago: University of Chicago Press. pp. 428-431.
29. **Waller, L.A.** (2004). "Methods for detecting disease clustering in time or space". *Monitoring the Health of Populations: Statistical Principles and Methods and in Public Health Surveillance*. Ron Brookmeyer and Donna Stroup, eds. Oxford University Press. pp. 167-201.
30. **Waller, L.A.** (2002). "Spatial disease mapping", in *Environmetrics*, edited by Abdel H. El-Shaarawi and Jana Jureckova, in *Encyclopedia of Life Support Systems*. Developed under the Auspices of the UNESCO, Eolss Publishers, UK. www.eolss.net.
31. **Waller, L.A.** (2002). "Spatial Distribution". *Encyclopedia of Environmetrics*. Chichester: John Wiley and Sons. Volume 4, pp. 2071-2073.
32. **Waller, L.A.** (2002). "Disease Mapping". *Encyclopedia of Environmetrics*. Chichester: John Wiley and Sons. Volume 1, pp. 533-535.
33. **Waller, L.A.** (2002). "Hierarchical Models for Disease Mapping". *Encyclopedia of Environmetrics*. Chichester: John Wiley and Sons. Volume 2, pp. 1004-1007.
34. **Waller, L.A.** (2002). "Environmental Justice". *Encyclopedia of Environmetrics*. Chichester: John Wiley and Sons. Volume 2, pp. 681-682.
35. **Waller, L.A.** (2002). "Confounding". *Encyclopedia of Environmetrics*. Chichester: John Wiley and Sons. Volume 1, pp. 422-423.
36. **Waller, L.A.** (2002). Discussion of Piegorsch and Edwards' "What shall we teach in environmental statistics?" *Environmental and Ecological Statistics*. **9**, 147.

37. Leong, T. and **Waller, L.A.** (2001). “A spatial statistical analysis of sea turtle nesting sites on St. George Island, Florida”. *American Statistical Association Section on Statistics and the Environment Newsletter*. Volume 3, No. 1, 1, 4-6.
38. Tassone, E.C., and **Waller, L.A.** (2000). “Environmental Justice, GIS, and the Select Steel Case” *Public Health GIS News and Information* (Number 37), 9-11.
39. **Waller, L.A.** (1998). Book review: *Methods for Investigation of Localized Clustering of Disease*. F.E. Alexander and P. Boyle (eds). International Agency for Research on Cancer Scientific Publication No. 135. Lyon, France. 1996. *Statistics in Medicine*. **17**, 1532-1534.

Peer-reviewed Publications:

1. * Buller, I.D., Hacker, G.M., Novak, M.G., Tucker, J.R., Peterson, A.T., **Waller, L.A.** (2024, to appear) “Multiple ‘spaces’: using wildlife surveillance, climatic variables, and spatial statistics to identify and map a climatic niche for endemic plague in California, U.S.A.”, *Spatial and Spatiotemporal Epidemiology*
2. * Ge, L., Zhang, Y., **Waller, L.A.**, Lyles, R. (2024, to appear) “Utilizing a Capture-Recapture Strategy to Accelerate Infectious Disease Surveillance”. *Annals of Applied Statistics*
3. * Zhang, Y., Ge, L., **Waller, L.A.**, Shah, S., Lyles, R.H. (2024) “A capture-recapture modeling framework emphasizing expert opinion in disease surveillance”. *Statistical Methods in Medical Research*. DOI: 10.1177/09622802241254217
4. * Campbell, D.A., Johnson, M., Piedrahita, R., Pillarisetti, A., **Waller, L.A.**, Kearns, K.A., Kremer, J., Mollinedo, E., Sarnat, J.A., Clark, M.L., Underhill, L.J., McCracken, J.P., Diaz-Artiga, A., Steenland, K., Rosa, G., Kirby, M.A., Balarishnan, K., Sambandam, S., Mukhopadhyay, K., Sendhil, S., Natarajan, A., Ndagijimana, F., Dusabimana, E., Thompson, L.M., Checklsey, W., Nicolaou, L., Hartinger, S., Peel, J.L., Clasen, T.F. and Naeher, L.P. (2024) “Factors Determining Black Carbon Exposures among Pregnant Women Enrolled in the HAPIN Trial”. *Environmental Science & Technology*. **58**, 23, 10162–10174. DOI: 10.1021/acs.est.3c09991
5. * Mei, Y., Christensen, G.M., Li, Z., **Waller, L.A.**, Ebel, S., Marcus, M., Lah, J.J., Wingo, A.P., Wingo, T.S., Hüls, A. (2024) “Joint effects of air pollution and neighborhood socioeconomic status on cognitive decline-Mediation by depression, high cholesterol levels, and high blood pressure”. *Science of The Total Environment*. **923**:171535. DOI: 10.1016/j.scitotenv.2024.171535
6. Peterson, E.N., Nethery, R.C., Padellini, T., Chen, J.T., Coull, B.A., Piel, F.B., Wakefield, J., Blangiardo, M., **Waller, L.A.** (2024) “A Bayesian hierarchical small area population model accounting for data source specific methodologies from American Community Survey, Population Estimates Program, and Decennial census data”. *Annals of Applied Statistics* **18** (2): 1565-1595 (June 2024). DOI: 10.1214/23-AOAS1849
7. * Pampati, S., Liddon, N., Stuart, E.A., **Waller, L.A.**, Mpofu, J.J., Lopman, B., Adkins, S.H., Guest, J.L. and Jones, J. (2024) “Disparities in Unmet Health Care Needs Among US Children During the COVID-19 Pandemic”. *The Annals of Family Medicine*, **22** (2), pp.130-139. DOI: 10.1370/afm.3079

8. * Ganasegeran, K., Abdul Manaf, M.R., Safian, N., **Waller, L.A.**, Mustapha, F.I., Abdul Maulud, K.N. and Mohd Rizal, M.F. (2024) “How Socio-economic Inequalities Cluster People with Diabetes in Malaysia: Geographic Evaluation of Area Disparities Using a Non-parameterized Unsupervised Learning Method”. *Journal of Epidemiology and Global Health*, pp.1-15. DOI: 10.1007/s44197-023-00185-2
9. Checkley, W., Thompson, L.M., Sinharoy, S.S., Hossen, S., Moulton, L.H., Chang, H.H., **Waller, L.**, Steenland, K., Rosa, G., Mukeshimana, A., Ndagijimana, F., McCracken JP, Diaz-Artiga A, Balakrishnan, K., Garg, S.S., Thagavel, G., Aravindalochanan, V., Hartinger, S.M., Chiang, M., Kirby, M.A., Papageorgihibi, A.T., Ramakrishnan, U., Williams KN, Nicolaou L, Johnson M, Pillarisetti A, Rosenthal L, Underhill LJ, Wang J, Jabbarzadeh, S., Chen, Y., Dávila-Román, V.G., Naehar, L.P., McCollum, E.D., Peel, J.L., Clasen, T.F. (2024) “Effects of Cooking with Liquefied Petroleum Gas or Biomass on Stunting in Infants”. *New England Journal of Medicine*, **390** (1), pp.44-54. DOI: 10.1056/NEJMoa2302687
10. McCollum, E.D., McCracken, J.P., Kirby, M.A., Grajeda, L.M., Hossen, S., Moulton, L.H., Simkovich, S.M., Goodman-Palmer, D., Rosa, G., Mukeshimana, A. Balakrishnan, K., Thangavel, G., Garg, S.S., Castanaza, A., Thompson, L.M., Diaz-Artiga, A., Papageorgihibi. A.T., Davila-Roman, V.G., Underhill, L.J., Hartinger, S.M., Williams, K.N., Nicolaou, L., Chang, H.H., Lovvorn, A.E., Rosenthal, J.P., Pillarisetti, A., Ye, W.L., Naehar, L.P., Johnson, M.A., **Waller, L.A.**, Jabbarzadeh, S., Wang, J.T., Chen, Y.Y., Steenland. K., Clasen, T.F., Peel, J.L., Checkley, W. (2024) “Liquefied petroleum gas or biomass cooking and severe infant pneumonia”. *New England Journal of Medicine*, **390** (1), pp.32-43. DOI: 10.1056/NEJMoa2305681
11. * Lyles, R.H., Zhang, Y., Ge, L. and **Waller, L.A.** (2024) “A design and analytical strategy for monitoring disease positivity and biomarker levels in accessible closed populations”. *American Journal of Epidemiology*, **193** (1), pp.193-202. DOI: 10.1093/aje/kwad177
12. **Waller, L.A.** (2024). “Maps: A Statistical View”. *Annual Review of Statistics and Its Application*, **11**. DOI: 10.1146/annurev-statistics-032921-040851
13. Checkley, W., Thompson, L.M., Hossen, S., Nicolaou, L., Williams, K.N., Hartinger, S.M., Chiang, M., Balakrishnan, K., Garg, S.S., Thangavel, G., Aravindalochanan, V., Rosa, G., Mukeshimana, A., Ndagijimana, F, McCracken, J.P., Diaz-Artiga, A., Sinharoy, S.S., **Waller, L.**, Wang, J., Jabbarzadeh, S., Chen, Y., Steenland, K., Kirby, M.A., Ramakrishnan, U., Johnson, M., Pillarisetti, A., McCollum, E.D., Craik, R., Ohuma, E.O., Dávila-Román, V.G., de las Fuentes, L., Simkovich, S.M., Peel, J.L., Clasen, T.F., Papageorghiou, A.T. (2024) “Cooking with liquefied petroleum gas or biomass and fetal growth outcomes: a multi-country randomised controlled trial”. *The Lancet Global Health*, **12** (5), pp.e815-e825. DOI: 10.1016/S2214-109X(24)00033-0
14. Wang, W., Tang, P., Lou, J., Shao, Y., **Waller, L.**, Ko, Y.A. and Xiong, L. (2024) “IGAMT: Privacy-Preserving Electronic Health Record Synthesization with Heterogeneity and Irregularity”. In *Proceedings of the AAAI Conference on Artificial Intelligence* **38**, No. 14, pp. 15634-15643. DOI: doi.org/10.1609/aaai.v38i14.29491
15. * Deshpande, A., Scovronick, N., Clasen, T.F., **Waller, L.**, Wang, J., Aravindalochanan, V., Balakrishnan, K., Puttaswamy, N., Peel, J. and Pillarisetti, A., (2023). “Heat exposure among adult women in rural Tamil Nadu, India”. *Environmental Science & Technology*, **58** (1), pp.315-322. DOI: 10.1021/acs.est.3c03461

16. * Ge, L., Zhang, Y., **Waller, L.A.**, and Lyles, R.H. (2023). “Enhanced inference for finite population sampling-based prevalence estimation with misclassification errors”. *The American Statistician*, **78**(2):192-8. DOI: 10.1080/00031305.2023.2250401
17. Lin, X., Geng, R., Menke, K., Edelson, M., Yan, F., Leong, T., Rust, G.S., **Waller, L.A.**, Johnson, E.L. and Cheng Immergluck, L. (2023). “Machine learning to predict risk for community-onset Staphylococcus aureus infections in children living in southeastern United States”. *PLoS ONE*, **18** (9), p.e0290375. DOI: 10.1371/journal.pone.0290375
18. Williams, K.N., Quinn, A., North, H., Wang, J., Pillarisetti, A., Thompson, L.M., Díaz-Artiga, A., Balakrishnan, K., Thangavel, G., Rosa, G., Ndagijimana, F., Underhill, L.J., Kirby, M.A., Puzzolo, E., Hassen, S., **Waller, L.A.**, Peel, J.L., Rosenthal, J.P., Clasen, T.F., Harvey, S.A., and Checkley, W. (2023) “Fidelity and adherence to a liquefied petroleum gas stove and fuel intervention: the multi-country Household Air Pollution Intervention Network (HAPIN) trial”. *Environment International*, **179**, p.108160. DOI: 10.1016/j.envint.2023.108160
19. * Li, Y., Coull, B.A., Krieger, N., Peterson, E., **Waller, L.A.**, Chen, J.T. and Nethery, R.C. (2023) “Impacts of census differential privacy for small-area disease mapping to monitor health inequities”. *Science Advances*, **9**(33), p.eade8888. DOI: 10.1126/sciadv.ade8888 PMID: PMC10438951
20. Telford, C., Nyakarahuka, L., **Waller, L.**, Kitron, U. and Shoemaker, T. (2023) “Spatial prediction of Crimean Congo hemorrhagic fever virus seroprevalence among livestock in Uganda”. *One Health*, **17**, p.100576. DOI: 10.1016/j.onehlt.2023.100576
21. * Richard, D.M., Gazmararian, J.A., Greenhouse, A., Khakharia, A., Phillips, L.S. and **Waller, L.A.** (2023) “Space-time clustering of COVID-19 cases in the United States veteran population”. *Annals of Epidemiology*, **87**, pp.9-16. DOI: 10.1016/j.annepidem.2023.09.006
22. * Ganasegeran, K., Manaf, M.R.A., Safian, N., **Waller, L.A.**, Maulud, K.N.A., and Mustapha, F.I. (2023) “GIS-based assessments of neighborhood food environments and chronic conditions: An overview of methodologies.” *Annual Review of Public Health*, **45**. DOI: 10.1146/annurev-publhealth-101322-031206
23. **Waller, L.A.** (2023). “A Conversation with Ray Waller”. *CHANCE*, **36** (4), 30-36. DOI: 10.1080/09332480.2023.2290952
24. Banja, J., Gichoya, J.W., Martinez-Martin, N., **Waller, L.A.** and Clifford, G.D. (2023) “Fairness as an afterthought: An American perspective on fairness in model developer-clinician user collaborations”. *PLoS Digital Health*, **2**(11), p.e0000386. DOI: 10.1371/journal.pdig.0000386
25. Welsh, J.W., Sitar, S.I., Parks, M.J., Patton, S.C., Braughton, J.E., **Waller, L.A.**, and Ngo, Q.M. (2023) “Association Between Clinician-Level Factors and Patient Outcomes in Virtual and In-Person Outpatient Treatment for Substance Use Disorders: Multilevel Analysis”. *JMIR Human Factors*, **10**(1), p.e48701. DOI: 10.2196/48701 PMID: 10656667
26. * Zhang, Y., Ge, L., **Waller, L.A.**, and Lyles, R.H. (2023). “On some pitfalls of the log-linear modeling framework for capture-recapture studies in disease surveillance”. *Epidemiologic Methods*, **12**(1), p.20230019. DOI: doi.org/10.1515/em-2023-0019
27. Balakrishnan, K., Steenland, K., Clasen, T., Chang, H., Johnson, M., Pillarisetti, A., Ye, W., Naeher, L.P., Diaz-Artiga, A., McCracken, J.P., Thompson, L.M., Rosa, G., Kirby, M.A.,

- Thangavel, G., Sambandam, S., Mukhopadhyay, K., Puttaswamy, N., Aravindalochanan, V., Garg, S., Ndagijimana, F., Hartinger, S., Underhill, L.J., Kearns, K.A., Campbell, D., Kremer, J., **Waller, L.**, Jabbarzadeh, S., Wang, J., Chen, Y., Rosenthal, J., Quinn, A., Papageorghiou, A.T., Ramakrishnan, U., Howards, P.P., Checkley, W., Peel, J. L. (2023). “Exposure–response relationships for personal exposure to fine particulate matter (PM_{2.5}), carbon monoxide, and black carbon and birthweight: an observational analysis of the multicountry Household Air Pollution Intervention Network (HAPIN) trial”. *The Lancet Planetary Health*, **7**(5), e387-e396. DOI: doi.org/10.1016/S2542-5196(23)00052-9
28. Amin, A.B., Tate, J.E., **Waller, L.A.**, Lash, T.L., Lopman, B.A. (2023). “Monovalent Rotavirus Vaccine Efficacy Against Different Rotavirus Genotypes: A Pooled Analysis of Phase II and III Trial Data”. *Clinical Infectious Diseases*, **76**(3), e1150-e1156. DOI: 10.1093/cid/ciac699
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Committee Reports

1. *Analysis of Cancer Risks in Populations near Nuclear Facilities: Phase I*. (2012). Committee on the Analysis of Cancer Risks in Populations Near Nuclear Facilities - Phase I. Nuclear and Radiation Studies Board. Division of Earth and Life Studies. National Research Council of the National Academies. Washington DC: The National Academies Press.
2. *The Utility of Proximity-based Herbicide Exposure Assessments in Epidemiologic Studies in Vietnam Veterans*. (2008) Institute of Medicine (IOM). Washington DC: The National Academies Press.
3. *Existing and Potential Standoff Explosives Detection Techniques*. (2004) Committee on the Review of Existing and Potential Standoff Explosives Detection Techniques. Board on Chemical Sciences and Technology. Division of Earth and Life Studies. National Research Council of the National Academies. Washington DC: The National Academies Press.

Non-peer-reviewed Publications:

1. Wheeler, D.C., Hickson, D.A., and **Waller, L.A.** (2008). "Assessing Local Model Fit in Bayesian Hierarchical Models Using the Partitioned Deviance Information Criterion". *Proceedings of the Joint Statistical Meetings*.

2. Conlon, E.M. and **Waller, L.A.** (1999). "Flexible spatial hierarchical models for mapping disease rates". *Proceedings of the Statistics and the Environment Section of the American Statistical Association*.
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10. Turnbull, B.W., and **Waller, L.A.** (1992). "Tests for disease clusters about putative sources of hazard with applications". *Proceedings of the XVth International Biometrics Conference*, Hamilton, New Zealand. pp. 279-289.

Conference presentations:

1. **Waller, L.A.** "Plots for testing goodness-of-fit: an empirical rescaling with applications to censored data." ENAR Biometric Society Spring Meeting, April 1-4, 1990. Baltimore, MD.
2. **Waller, L.A.** and Turnbull, B.W. "Focused tests of disease clustering about putative sources of hazard." ENAR Biometric Society Spring Meeting, March 23-25, 1992. Cincinnati, OH.
3. **Waller, L.A.** "Disease clusters about multiple sources of hazard: recent tests and surveillance considerations". Workshop on Statistics and Computing in Disease Clustering, sponsored by Applied Biomathematics with funding from the Electrical Power Institute and the National Cancer Institute. Port Jefferson, NY. July 23-24, 1992.

4. **Waller, L.A.**, Hardin, J.M. and Turnbull, B.W. "A comparison of recent statistical tests of clustering of health events about putative sources of hazard: assumptions, power, and robustness". Third General Meeting of the International Environmetrics Society, August 17–21, 1992. Helsinki University of Technology, Espoo, Finland.
5. **Waller, L.A.**, Turnbull, B.W., and Hardin, J.M. "On obtaining P-values by numerical inversion of characteristic functions with applications". Joint Statistical Meetings, August 8–12, 1993. San Francisco, CA.
6. **Waller, L.A.** "Statistical power and design of focused clustering studies". Conference on Statistics and Computing in Disease Clustering, July, 21–22, 1994. Vancouver, British Columbia.
7. **Waller, L.A.** and Lawson, A.B. "The power of focused tests to detect disease clustering". XVIIth International Biometric Conference, August 8–12, 1994. Hamilton, Ontario.
8. **Waller, L.A.** and Zelterman, D. "Log-linear modelling of disease rates with the negative multinomial distribution". Joint Statistical Meetings, August 15–18, 1994. Toronto, Ontario.
9. *Invited presentation:* **Waller, L.A.** "Bayesian space-time modeling of disease rates". Annual Symposium of the Statistical Society of Ottawa. 1994. (Dr. Waller was one of four invited speakers for a day-long symposium on spatial statistics.)
10. **Waller, L.A.** and McMaster, R.B. "Using Geographic Information Systems to aid in the analysis of public health surveillance data". Centers for Disease Control and Prevention Symposium on Statistical Methods: Small Area Analysis for Public Health, January 25-26, 1995. Atlanta.
11. **Waller, L.A.** and Louis, T.A. "Statistical inference for mis-aligned data from incompatible zones". International Symposium on Computer Mapping in Epidemiology and Environmental Health. February 13-15, 1995. Tampa.
12. **Waller, L.A.**, Carlin, B.P., Xia, H., and Gelfand, A.E., "Spatio-temporal hierarchical modeling of disease rates". Joint Statistical Meetings, August 4-8, 1996. Chicago.
13. *Invited presentation:* **Waller, L.A.**, Louis, T.A., and Carlin, B.P., "Spatial statistics and GIS for environmental justice". International Society of Environmental Epidemiology Conference, August 17, 1996. Edmonton. (Dr. Waller was invited to be a speaker at a joint National Cancer Institute/Environmental Protection Agency workshop "Exposure and Epidemiology in Cancer Research: Gene-Environment Interactions").
14. **Waller, L.A.**, Carlin, B.P., and Xia, H., "Structuring correlation within hierarchical spatio-temporal models of disease rates". Modelling Longitudinal and Spatially Correlated Data: Methods, Applications, and Future Directions. October 15-18, 1996. Nantucket. (Dr. Waller was chosen to be one of 27 speakers from nearly 100 applicants.)
15. *Invited presentation:* **Waller, L.A.**, Louis, T.A., and Carlin, B.P., "Statistical issues in assessments of environmental justice", American Public Health Association Meeting, November 20, 1996.
16. *Invited presentation:* **Waller, L.A.**, Conlon, E., and Xia, H., "Neighborhood structures in hierarchical models for disease mapping", ENAR Biometric Society Spring Meeting, March 24–26, 1997. Memphis, TN.

17. *Invited presentation:* **Waller, L.A.** “Spatial statistics for GIS assessments of public health”. Institute for Mathematics and its Applications Workshop on Statistics in the Health Sciences. August 11-15, 1997.
18. *Invited presentation:* **Waller, L.A.** and Poquette, C. “The effect of mis-specified cluster models on the power of focused tests of disease clustering” World Health Organization (WHO) Workshop on Disease Mapping and Risk Assessment for Public Health Decision Making. October 2-4, 1997. Rome, Italy.
19. *Invited presentation:* **Waller, L.A.**, Louis, T.A., and Carlin, B.P., “Spatial interpolation in statistical assessments of environmental justice”, International Society of Exposure Assessment Meeting, November 2-4, 1997, Research Triangle Park, NC.
20. *Invited presentation:* **Waller, L.A.**, and Best, N. “Flexibility in Hierarchical Models of disease rates”, Joint Statistical Meetings, August 9-13, 1998, Dallas, TX.
21. *Invited presentation:* **Waller, L.A.** “Tests for putative health hazard assessment”. Symposium on Environmental Epidemiology, International Society for Clinical Biostatistics 19th Annual Conference, August 24-28, 1998. Dundee, Scotland.
22. *Invited presentation:* **Waller, L.A.** and Conlon, E.M. “Data-based neighborhoods, geographic effects, and spatial smoothing of disease rates”. ENAR Biometric Society Meetings, March 28-31, 1999.
23. *Invited presentation:* **Waller, L.A.** “Models for clustering”. Atelier de Formation No. 106: Statistical methods for analysing geographic variations in health indicators. Institut national de la Santé et de la Recherche Médicale (INSERM). April 12-14, 1999, Le Vésinet, France.
24. *Invited presentation:* **Waller, L.A.**, Louis, T.A., and Carlin, B.P. “Statistical assessments of environmental justice using disparate data sources”. Joint Statistical Meetings, August 8-12, 1999. Baltimore, MD.
25. *Invited discussion:* **Waller, L.A.** “Re: Remodeling Biometrics”, discussion of Professor Charles McCulloch’s Invited Theme Presentation: “Remodeling Biometrics”. ENAR Biometric Society Meetings, March 20-22, 2000. Chicago, IL.
26. *Invited presentation:* **Waller, L.A.**, Chu, H., and Rolka, D. “Small area estimation of diabetes prevalence with individual- and area-level covariates”. Workshop on Hierarchical Modeling in Environmental Statistics, Ohio State University. May 14-16, 2000. Columbus, OH.
27. *Invited presentation:* **Waller, L.A.** “Extensions to conditional/intrinsic autoregressive hierarchical models for disease mapping”. Statistics and Health: Edmonton Statistics Conference 2000. Edmonton, Alberta, Canada.
28. *Invited presentation:* **Waller, L.A.** and Tassone, E. “A statistical assessment of an environmental justice complaint in Flint, Michigan.” Joint Statistical Meetings. August 13-17, 2000. Indianapolis, IN.
29. *Roundtable discussion leader:* **Waller, L.A.** “Disease mapping and spatial analysis of public health data”. ENAR Biometric Society Meetings. March 20-22, 2001. Charlotte, NC.

30. *Invited presentation:* **Waller, L.A.**, Chu, H., and Rolka, D. “Combining individual and county-level information in small area estimation: Multilevel hierarchical models with spatial smoothing”. United States Postal Service Small Area Estimation Conference. April 11-14, 2001. Potomac, MD.
31. *Invited presentation:* **Waller, L.A.** “The nuts and bolts of conditional/intrinsic autoregressive hierarchical models for spatial smoothing”. Southern Regional Council on Statistics Summer Research Conference. June 4-6, 2001. St. Augustine, FL.
32. *Invited presentation:* **Waller, L.A.**, Chu, H., and Rolka, D. “Combining individual and county-level information in small area estimation: Multilevel hierarchical models with spatial smoothing”. Joint Statistical Meetings. August 5-9, 2001. Atlanta, GA.
33. *Invited presentation:* **Waller, L.A.**, and Barclay, A.B. “Linking GIS and statistical tools to assess environmental justice”. American Public Health Association Annual Meeting. October 23, 2001. Atlanta, GA.
34. *Invited presentation:* **Waller, L.A.**, Tassone, E.C., Casper, M., Williams, I., and Greenlund, K. “Small area disparities in cardiovascular disease mortality”. Minnesota Conference on the Measurement and Assessment of Health Disparities. May 10, 2002. Minneapolis, MN.
35. *Invited presentation:* **Waller, L.A.** “Assessing the impact of fishing pier construction on spatial patterns of sea turtle nesting in Palm Beach County, Florida”. Southern Regional Council on Statistics Summer Research Conference. June 3-5, 2002. Natchez, MS.
36. *Invited presentation:* **Waller, L.A.** “How many cases are too many? Detection of disease outbreaks and clusters”. Introductory Overview Lecture. Joint Statistical Meetings. August 12, 2002. New York, NY.
37. *Invited presentation:* **Waller, L.A.** and Barclay, A.B. “ ‘Agile GIS’: Building application-specific spatial analytic software from freely available software tools”. Spatial Statistics: Integrating Statistics, GIS, and Statistical Graphics. Sponsored by the Statistics in the Environment Section of the American Statistical Association and the National Research Center for Statistics and the Environment. October 17-19, 2002. Seattle, WA.
38. *Shortcourse:* **Waller, L.A.** and Gotway, C. “Introduction to Geographic Information Systems and Spatial Analysis for Public Health Studies.” Eastern North American Region of the International Biometric Society Spring Meeting. March 2003. Tampa, FL.
39. *Shortcourse:* **Waller, L.A.** and Gotway, C. “Introduction to Geographic Information Systems and Spatial Analysis for Public Health Studies.” Centers for Disease Control and Prevention. May 2003. Atlanta, GA.
40. *Invited presentation:* **Waller, L.A.** “A spatial analysis of sea turtle nesting patterns in Palm Beach County, Florida”. Statistical Society of Canada Annual Meeting. June 2003. Halifax, Nova Scotia.
41. *Roundtable discussion leader:* “Spatial analysis of environmental data”. Joint Statistical Meetings, August 4, 2003. San Francisco, CA.
42. *Invited presentation:* **Waller, L.A.** “Data features impacting detection of disease clusters in health surveillance”. Joint Statistical Meetings. August 6, 2003. San Francisco, CA.

43. *Invited presentation:* **Waller, L.A.** “Methods of spatial analysis for cancer data”. Centers for Disease Control and Prevention Cancer Conference 2003. September 15, 2003. Atlanta, GA.
44. *Invited presentation:* **Waller, L.A.** “Innovative uses of geographic information systems in public health”. Centers for Disease Control and Prevention’s 4th Immunization Registry Conference. November, 2003. Atlanta, GA.
45. **Waller, L.A.**, Leong, T, Särkkä, A., Kennedy, W., and Wendelschafer-Crabb, G. “Second-order spatial analysis of epidermal nerve fibers”. Eastern North American Region of the International Biometric Society Spring Meeting. March 2004. Pittsburgh, PA.
46. *Invited presentation:* **Waller, L.A.** “A Brief Introduction to Spatial Data Analysis for Geocoded Health Events”. Prostate Cancer Geocoding: Assessing Fitness for Use. Iowa City, IA. March 2004.
47. *Invited presentation:* **Waller, L.A.** “Exploring Spatio-temporal Patterns in Lyme Disease Incidence and Reporting, 1992-2000”. Graybill Conference. Colorado Springs, CO. June 2004.
48. *Invited presentation:* **Waller, L.A.** “Spatial point pattern analysis of sea turtle nesting”. Spatial Statistics, Image Analysis and Signal Processing within Biology and Technology. Smögen, Sweden. August 2004.
49. *Invited presentation:* **Waller, L.A.** “Standardized Rates: Making Rates Comparable”. CDC Community Health Assessment Conference. Atlanta, GA. September 2004.
50. *Invited presentation:* **Waller, L.A.** “Some statistical approaches to spatial questions in environmental health tracking”. CDC Environmental Health Tracking Workshop. San Francisco, CA. October 2004.
51. *Invited presentation:* **Waller, L.A.**, Leong, T., Barclay, A., and Howard, B. “Spatial analysis of sea turtle nesting at Juno Beach, Florida”. Eastern North American Region of the International Biometric Society Spring Meeting. March 2005. Austin, TX.
52. *Invited presentation:* **Waller, L.A.** “Spatio-temporal analysis of points on a line”. Southern Regional Council on Statistics Summer Research Conference. Clemson, SC. June 2005.
53. *Invited presentation:* **Waller, L.A.** and Tassone, E. “Assessing Environmental Justice”. Western North American Region of the International Biometric Society Spring Meeting. June 2005. Fairbanks, AK.
54. *Invited presentation:* **Waller, L.A.** “Exploring the dynamic genetic geography of raccoon rabies”. Eastern North American Region of the International Biometric Society Spring Meeting. March 2006. Tampa, FL.
55. *Invited presentation:* **Waller, L.A.** Invited discussant. Mathematical Biology Institute, Workshop on Uncertainty in Ecological Analysis, Ohio State University.
56. *Invited presentation:* **Waller, L.A.**, Real, L.A., Reeder, S., Biek, R., Smith, D. “Spatial statistical analysis of viruses and hosts in geographic and genetic space”. Spatial and Spatio-temporal Modelling in Biology, Ecology and Geosciences - Smögen Workshop, August 21-25, 2006. Smögen, Sweden.

57. *Invited Presentation:* **Waller, L.A.** “Maps, clusters, and spatial statistics: Tools for spatial epidemiology”. Invited Presentation to CDC Public Health Informatics Fellows. October 2006.
58. *Invited presentation:* **Waller, L.A.** “Cluster Detection: Finding epidemiologic needles in haystacks of data”. Invited Presentation. American Statistical Association, Georgia Chapter Meeting. January 2007. Augusta, Georgia.
59. *Contributed presentation:* **Waller, L.A.**, Leong, T. “Evaluating local spatial nesting impacts of a beach nourishment project”, Juno Beach, Florida, 1999-2002. Poster Presentation. Sea Turtle Symposium. February 2007. Myrtle Beach, South Carolina.
60. *Invited presentation:* **Waller, L.A.** “Training Grants/Programs in Biostatistics”. Presentation for Fostering Diversity in Biostatistics Workshop preceding Eastern North American Region, International Biometric Society Spring Meeting. March 2007. Atlanta, Georgia.
61. *Invited presentation:* **Waller, L.A.**, Wang, Y., and Lin, C. “Assessing spatial performance of surveillance systems”, Joint Statistical Meetings, August 2007. Salt Lake City, Utah.
62. *Contributed presentation:* **Waller, L.A.** Whitney, E., Benbow, E. “Spatial analysis linking ecologic field observations and BU surveillance in Ghana” World Health Organization Annual Buruli Ulcer Conference, March 2008. Geneva, Switzerland.
63. *Invited presentation:* **Waller, L.A.** “Spatial pattern and process: Assessing spatial performance of spatial models”. 15th Annual Spring Research Conference (SRC) on Statistics in Industry and Technology, May 2008, Atlanta, Georgia.
64. *Invited presentation:* **Waller, L.A.** “Training Grants/Programs in Biostatistics”. Presentation for Fostering Diversity in Biostatistics Workshop preceding Eastern North American Region, International Biometric Society Spring Meeting. March 2008. Crystal City, Virginia.
65. *Invited presentation:* **Waller, L.A.** “Statistical methods for estimating spatially-varying associations: Assumptions, implementation, and inference”. Stanford Methods of Analysis for the Social Sciences. November 2008.
66. *Invited presentation:* **Waller, L.A.** “Research overview in spatial statistics”. Algorithms Kickoff Meeting, StratAG, National University of Ireland, Maynooth. January 2009.
67. *Invited presentation:* **Waller, L.A.**, Wheeler, D.C., Biek, R., and Real, L.A. “Spatial analysis of genetic population structure and feline immunodeficiency virus in cougars. Joint Statistical Meetings, Washington DC, August 2009.
68. *Invited presentation:* **Waller, L.A.** “Spatial and space-time point processes: Applications”. SAMSI Workshop on Spatial Statistics. September 2009.
69. *Invited presentation:* **Waller, L.A.**, Price, M., Tassone, E., and Wheeler, D.C. “Measuring health disparities in a geographic context: Spatially smoothed estimated of local health disparities.” Joint Statistical Meetings, Vancouver, British Columbia. July 2010.
70. *Invited presentation:* **Waller, L.A.** “Health data and privacy concerns: New challenges in a changing geospatial landscape”. URISA, Atlanta, Georgia. June 2011.
71. *Invited presentation:* **Waller, L.A.** and Puggioni, G. “Statistical modeling: Moving between pattern and process in ecology”. Joint Statistical Meetings, Miami, FL. August 2011.

72. *Invited presentation:* **Waller, L.A.** “Spatial uncertainty and spatial measures of performance”. ENAR Spring Meeting, Washington DC, March 2012.
73. *Invited tutorial:* **Waller, L.A.** “Slippery slopes: A practical introduction to spatially varying slopes in regression models”. ENAR Spring Meeting, Washington DC, March 2012.
74. *Invited presentation:* **Waller, L.A.** “Spatial uncertainty estimation and public health data”. Joint Statistical Meetings, San Diego CA, August 2012.
75. *Invited presentation:* **Waller, L.A.** “Spatial uncertainty estimation and public health data”. AAAS Annual Meeting, Boston MA, February 2013.
76. *Invited presentation:* **Waller, L.A.**, McClintock, S., Clennon, J., and Whitney, E. “Spatial surveillance for neglected tropical diseases”. ENAR Spring Meeting, Orlando FL, March 2013.
77. *Invited presentation:* **Waller, L.A.**, McClintock, S., Clennon, J., and Whitney, E. “Spatial surveillance for neglected tropical diseases”. Joint Statistical Meetings, Montreal, Canada, August 2013.
78. *Two invited presentations:* **Waller, L.A.** “Overview of Outbreak Detection” and **Waller, L.A.** “Environmental Regulation and Statistics”. Given to National Academy of Science, Committee on Applied and Theoretical Statistics, May 2014.
79. *Invited presentation:* **Waller, L.A.**, Olsbo, V., Särkkää, Myllymäki, M., Panoutsopoulou, I., Kennedy, W., and Wendelschafer-Crabb, G. “Spatial point process models and empirical analysis of epidermal nerve fibers”. Symposium on Spatial Statistics, Yale University, June 2014.
80. *Invited discussant:* **Waller, L.A.** “Comments on Nobles, Serban, and Swann ‘Spatial accessibility of pediatric primary healthcare’”. Joint Statistical Meetings, Boston, MA. August 2014.
81. *Invited presentation:* **Waller, L.A.** “Maps and mysteries: Science through cartographic visualization and spatial statistics.” Part of the Science and the Common Good Lecture Series, Ursinus College., February 2015.
82. *Invited presentation:* **Waller, L.A.** “Pattern and process: Disease ecology, spatiotemporal statistics and zoonotic surveillance”. Workshop on Complex Spatiotemporal Data Structures: Methods and Applications. Fields Institute for Research in Mathematical Sciences, University of Toronto. April 2015.
83. *Invited presentation:* **Waller, L.A.** “Careers in Biostatistics”. StatFest, North Carolina State University, Raleigh NC, September 2015.
84. *Invited presentation:* **Waller, L.A.** “Evaluating data science contributions in teaching and research”. Joint Statistical Meetings, Seattle WA, August 2015.
85. *Invited discussion:* **Waller, L.A.** Discussion of Keiding and Louis “Perils and potentials of self-selected entry to epidemiological studies and surveys”. Journal of the Royal Statistical Society, Series A. Read paper, Joint Statistical Meetings, Seattle Washington, August 2015.
86. *Invited presentation:* **Waller, L.A.** “Spatial statistics and disease ecology: Raccoon rabies”. Symposium on Disease Burden and Spatial Models of Exposure to Infectious Agents, Utrecht University, Netherlands.

87. *Invited presentation:* **Waller, L.A.** “Thoughts on recruiting a generation you don’t belong to”. Trends and Innovations in Clinical Trial Statistics, Raleigh NC, May 2016.
88. *Invited presentation:* **Waller, L.A.** “X marks the spot”. Summer Research Conference, Southern Regional Council on Statistics. Jekyll Island, GA. June 2017.
89. *Two invited presentations:* **Waller, L.A.** “Small area estimation in a nutshell” and “Introduction to disease mapping”. CDC Environmental Health Tracking Conference, Atlanta GA, May 2017.
90. *Invited presentation:* **Waller, L.A.**, Brook, J., Kretzschmar, M., Hackert, V., Hoebe, C. and Teunis, P. “Linking a dose-response model to observed infection to describe spatial-temporal patterns in a Q fever outbreak”. Joint Statistical Meetings, Baltimore MD, July 2017.
91. *Invited presentation:* **Waller, L.A.** “Spatial statistics and disease ecology: Modeling pattern and process”. CDC, September 2017.
92. *Invited panelist (one of six):* Late-breaking session: Addressing sexual misconduct in the Statistics Community. Joint Statistical Meetings, Vancouver, British Columbia. August 2018.
93. *Invited presentation:* **Waller, L.A.** and Lyerla, R. “County level assessments”, One-day Substance Use and Mental Health Surveillance Workshop, Council of State and Territorial Epidemiologists Annual Meeting. Raleigh NC, June 2019.
94. *Invited presentation:* **Waller, L.A.** “Understanding global exposure to ambient air pollution via heterogeneous data sources”. American Association for the Advancement of Science (AAAS) Annual Meeting. Washington DC, February 2019.
95. *Invited presentation:* **Waller, L.A.** “Incorporating population-at-risk uncertainty into disease mapping models”. Royal Statistical Society Workshop on Data Integration and Modelling in Observational Study. London. March 2019.
96. *Invited presentation:* **Waller, L.A.** and Buller I. “Zoonotic surveillance for plague via point processes in geographic and principal components space.” Point Processes in Space, Time, and Beyond Workshop. Skagen Denmark. May 2019.
97. *Invited presentation:* **Waller, L.A.** “I’m sorry, Dave. I can’t do that. Social and Ethical Issues in Data Science Training and Education.” Workshop: Leveraging Artificial Intelligence and Machine Learning to Advance Environmental Health Research and Decisions.” National Academies of Science, Engineering, and Medicine. Washington DC, June 2019.
98. *Invited presentation:* **Waller, L.A.** “Data Science”, Subsurface Data and Machine Learning. National Academies of Science, Engineering, and Medicine. Washington DC, June 2019.
99. *Invited provocateur:* **Waller, L.A.** “Seven provocative statements about data science and public health”. NIH Data Science Innovation Lab: Rural Public Health. Winston Salem, NC. June 2019.
100. *Invited speaker:* **Waller, L.A.** and Buller, I. “Zoonotic surveillance for plague via point processes in geographic and principal components space.” University of Pennsylvania Workshop: Big Data in Population Health Sciences. Philadelphia, September 2019.

101. *Invited speaker:* **Waller, L.A.** and Buller, I. “Zoonotic surveillance for plague via point processes in geographic and principal components space.” Emory Cross-Scale Infectious Disease Symposium. Atlanta, September 2019.
102. *Invited speaker:* **Waller, L.A.** “The geospatial perspective: Methods of geospatial science and statistics for investigating cancer clusters”. CDC Cancer Cluster Guidelines Expert Panel Forum, Atlanta, September 2019.
103. *Invited speaker:* **Waller, L.A.** “Incorporating population-at-risk uncertainty into disease mapping models”. CM Stat, London, December 2019.
104. *Invited speaker:* **Waller, L.A.** “Spatial epidemiology of compassion and love”. Task Force for Global Health Workshop on the Epidemiology of Compassion and Love. Atlanta, January 2020.
105. *Invited plenary speaker:* **Waller, L.A.** “Zoonotic surveillance for plague via point processes in geographic and principal components space.” Fields Institute for Research in Mathematical Sciences, University of Toronto. Workshop: Advancing knowledge about spatial modeling, infectious diseases, environment and health. Virtual, June 2020.
106. *Invited roundtable leader:* **Waller, L.A.** “Early career mentoring: What do I need to know?” ENAR Spring Meeting, Virtual, March 2021.
107. *Invited speaker:* **Waller, L.A.** “Spatial statistics, environmental justice, and equity in access”. EPA Office of Research and Development, Virtual, March 2021.
108. *Invited speaker:* **Waller, L.A.** “Spatial statistics, environmental justice, and equity in access”. ISPOR Conference, Virtual, April 2021.
109. *Invited speaker:* **Waller, L.A.** and Cooper, H. “Integrating data analytics into the social and behavioral science research lifecycle”. NIH Office of Social and Behavioral Science Training in Advanced Data Analytics, Virtual, May 2021.
110. *Invited roundtable participant:* **Waller, L.A.** Roundtable discussion on “Geo for Pandemics”. International Society for Photogrammetry and Remote Sensing Annual Meeting, Virtual, July 2021.
111. *Invited speaker:* **Waller, L.A.**, Buller, I. “Zoonotic surveillance for plague via point processes in geographic and principal components”, Sub-Saharan Africa Network (SUSAN), International Biometric Society meeting, September 2021.
112. *Invited speaker:* **Waller, L.A.** “Using what you have: Infectious disease surveillance with limited data and time.” Indo-US Conference II on the Science of Mathematical Modeling and Decision Making: A Changing Direction into the Future from Past to Post COVID-19 Pandemic, October 2021.
113. *Invited speaker:* **Waller, L.A.** “Maps: A Statistical View”. **Yakovlev Colloquium, Department of Biostatistics and Computational Biology, University of Rochester**, September 22, 2022.
114. *Invited speaker:* **Waller, L.A.** “Maps: A Statistical View”. **Wake Forest Distinguished Lecture in Statistics and Biostatistics**, Department of Biostatistics and Data Science/Department of Statistics, Wake Forest University, April 13, 2023.

115. *Invited speaker:* **Waller, L.A.** “Maps: A Statistical View”. **Donna J. Brogan Lecture**, Department of Biostatistics and Bioinformatics, Rollins School of Public Health, Emory University. April 20, 2023.
116. *Invited speaker:* **Waller, L.A.** “Maps: A Statistical View”. Celebration of Statistics and Data Science, Cornell University, September 2023.
117. *Invited speaker:* **Waller, L.A.** “Maps, Mysteries, and Medicine”. Séminaire Géomédecine en santé publique. Faculté du Médecine, University of Geneva, Switzerland, November 2023. (Note: Introduced as “the Elvis Presley of spatial epidemiology”).
118. *Invited speaker:* **Waller, L.A.** “Maps: A Statistical View”. **Kathri Lecture**, Department of Statistics, Pennsylvania State University, April 2024.

Grant Support:

1. Student Travel Award, to attend ENAR Biometric Society Spring Meeting. 1990.
2. National Institutes of Health/National Eye Institute: Vision Science Research Center (Core) Module V Clinical Vision Research Development. PI: Dr. Terry Hickey. University of Alabama at Birmingham. (Funded 50% as Core Biostatistician, October 1992–June 1993.)
3. Alabama Pharmacists and AIDS/HIV Demonstration Project. PI: Linda Potts, MPH. Contract with Foundation of Pharmacists and Corporate America for AIDS Education. University of Alabama at Birmingham. (Funded 10% as Biostatistician, aided in design, implementation, and analysis of mail survey, June 1992–June 1993.)
4. Department of Health and Human Services Training Grant: Mid-South Program for Public Health Practice. PI: Dr. Michael Maetz. University of Alabama at Birmingham. (Funded 10% effort as Biostatistician, aided in design, implementation, and analysis of mail survey, August 1992–June 1993.)
5. Graduate School, University of Minnesota, Grant-in-Aid of Research, Artistry and Scholarship: Statistical Methodology in Disease Surveillance. PI: **Dr. Lance A. Waller**. (Received \$19,673.50 for period 12/93–12/94. Grant includes computer hardware and software and provides support for a 50% research assistant to study statistical methods for modelling the spatial distribution of disease cases.)
6. National Institutes of Health, Chronic Obstructive Pulmonary Disease/Lung Health Study. PI: Dr. John Connett. (Supported 25% as Biostatistician. 1994–1996).
7. Young Investigator Travel Support, for attendance at the XVIIth International Biometric Conference in Hamilton, Ontario. (Support from National Science Foundation through the International Biometric Society and covered travel expenses and hotel costs to chair and present paper in a Special Contributed Session at conference, August 1994.)
8. National Cancer Institute: Small Business Technology Transfer (STTR). “Biostatistical Methods in Environmental Epidemiology”. PI: Dr. Geoffrey M. Jacquez, BioMedware. University of Minnesota subcontract PI: **Dr. Lance A. Waller**. 1995-1996. (\$35,085, supporting 15% salary for Dr. Waller and a 50% research assistant).

9. Agency for Health Care Policy and Research, 1 R01 HS07772 03. "Patient Outcomes Associated with Anti-depressant Drugs". PI: Dr. Judith Garrard. (Supported 10% as Biostatistician, 1995-1998).
10. National Institute of Environmental Health Sciences, 1-R01-ES07750-01A1. "Statistical Methods to Assess Environmental Justice". PI: **Dr. Lance A. Waller**. (Supported 40% as PI, \$802,085, 1996-2000).
11. Environmental Protection Agency. "Measurement and Source Apportionment of Human Exposure to Hazardous Air Pollution". PI: Dr. Ken Sexton. (Funded, 5% as Statistical Advisor, year 3, 1998-1999).
12. Association of Schools of Public Health Cooperative Agreement with the Centers for Disease Control and Prevention. "Small Area Estimation of Diabetes Prevalence". PI: **Dr. Lance A. Waller**. (Supported 30% as PI, \$216,456, 1998-2000).
13. CDC Interpersonal Agreement (00IPA24904) "Small Area Estimation of Cardiovascular Disease Mortality. PI: **Dr. Lance A. Waller**. CDC NCCDPHP, DACH, CVH. (Supported 15% as PI, 7/1/00-6/30/02).
14. American College of Epidemiology. "Analytic approaches for missing and mismeasured exposure data in the NHEXAS and SOPHIA studies". PI: Dr. Robert Lyles. (6% as Biostatistician, \$49,052, 2001-2002).
15. Palm Beach County, Florida. "Analysis of spatial biological data". PI: **Dr. Lance A. Waller**, (10% as PI, \$13,722, 2001-2002).
16. Centers for Disease Control and Prevention Cooperative Agreement. U50/CCU420275. "Paul Coverdell National Acute Stroke Registry". PI: Dr. Michael Frankel (5% as Biostatistician, Direct: \$1,058,513 total grant period, Indirect: \$236,341 total grant period, 2001-2002).
17. Electric Power Research Institute. "Particulate Pollution and Arrhythmias in Patients with AICD and TTEM". PI: Dr. Paige Tolbert. (5% as Biostatistician, Direct: \$304,543 total grant period, Indirect: \$97,455 total grant period, 2000-2002).
18. National Institutes of Health (NIH). R01 HL689040. "Detecting changes in myocardial perfusion and function". PI: Dr. Tracy Faber. (5% as Biostatistician, Direct: \$250,000 annual, Indirect: \$111,947, 2002-2004).
19. Centers for Disease Control and Prevention (NCCDPHP/DACH/CVH 00IPA24904). Interpersonal Agreement. "Small area estimation of cardiovascular disease mortality". PI: **Lance A. Waller**. (15%. Direct: \$13,583 annual, Indirect \$0 annual, 2002-2003).
20. Centers for Disease Control CDC/ATPM Cooperative Agreement. TS-0760 U50/CCU300860. "Diabetes, Heart Disease, and Hospitalizations in Georgia". PI: Dr. Curtiss Cook. (5% as Biostatistician, \$129,680, 2003-2004).
21. National Institute of Environmental Health Sciences (NIH). 1-R01-ES07750-05 (competing continuation). "Statistical Methods to Assess Environmental Justice". PI: **Dr. Lance A. Waller**. (30% as PI, \$291,600, 2001-2005).

22. National Institute of Neurological Disorders and Stroke (NIH). R21-NS46258-01. "Assessing Spatial Patterns of Epidermal Nerve Fibers". PI: **Dr. Lance A. Waller**. (25% as PI, \$176,480 annual, 2002-2004, no-cost extension to 2005).
23. U.S. Environmental Protection Agency, R82921301-0. "Multi-pollutants and Risk of Cardiac and Respiratory Emergency Department Visits in Atlanta". PI: Dr. Paige Tolbert. (5% as Biostatistician, \$1,238,940, 2002-2004).
24. National Institute of Environmental Health Sciences (NIH). R01-ES011294-01. "Multiple pollutants and cardiorespiratory outcomes". PI: Dr. Paige Tobert. (5% as Biostatistician, \$267,499, 2002-2006).
25. National Institute of Health (NIH) R01 AI39129. "Epidemiology and Ecology of Vibrio Cholerae in Bangladesh". PI (of Emory subcontract): Dr. Ira Longini. (15% as Biostatistician, \$68,887, 2003-2007).
26. Robert Wood Johnson Foundation 049860. "Neighborhood Parks and Active Living". PI: Dr. Howard Frumkin. (5% as Biostatistician, \$550,317, 2003-2006).
27. National Institute of Allergy and Infectious Diseases (NIH) R01 AI047498. "Phylogeography and Spatial Dynamics of Epidemic Rabies". PI: Dr. Leslie A. Real. (10% as Biostatistician, \$200,025, 1999-2008).
28. National Cancer Institute-Surveillance Epidemiology and End Results (NCI-SEER). "Assessment of Accuracy of Geocoding". PI: Dr. Michael Goodman. (10% as Biostatistician). 2006.
29. National Institutes of Health. "Geography, Networks, and Risk in Disease Transmission." PI: Dr. Richard Rothenberg. (10% as Biostatistician). 2005-2007.
30. U.S. Environmental Protection Agency. "A Longitudinal Approach of Assessing Aggregate Exposure to Organophosphorus Pesticides in Children". PI: Dr. Alex Lu. (10% as Biostatistician). 2006-2007.
31. U.S. Environmental Protection Agency. "Developing Pharmacokinetic-based Health Indicators for Dietary Pesticides". PI: Dr. Alex Lu. (10% as Biostatistician). 2006-2007.
32. National Institute of Environmental Health Sciences (NIEHS/NIH) "Air Pollution and Birth Defects in Atlanta, 1968-2002". PI: Dr. Paige Tolbert. (5% as Biostatistician). 2005-2008.
33. National Institute of Alcohol Abuse and Alcoholism (NIAAA/NIH) R21 AA016632. "Spatial Statistics for Alcohol Epidemiology". PI: **Dr. Lance A. Waller**. 2007-2009.
34. National Institute of General Medical Sciences (NIGMS/NIH) T32 GM074909. "Biostatistics in Genetics, Immunology, and Neuroimaging". PI: **Dr. Lance A. Waller**. 2005-2010.
35. Centers for Disease Control and Prevention. "BioSense Utility". PI: Dr. James Beuhler (2006-2008), *Dr. Lance A. Waller* (2008-2009). (5% as Biostatistician, 2006-2008, PI, 2008-2009).
36. Care, Inc. "Sustaining and Scaling School Water, Sanitation, and Hygiene Plus Community Impacts". PI: Dr. Richard Rheingans. (5% as Biostatistician). 2006-2011.
37. National Institute of Environmental Health Sciences (NIEHS/NIH) T32 ES012160. "Environmental Biostatistics Training Grant". PI: **Dr. Lance A. Waller**. 2006-2011.

38. National Institute of Environmental Health Sciences (NIEHS/NIH) R01 ES015525. “Spatial Statistics for Disease Ecology”. PI: **Dr. Lance A. Waller**. 2008-2011.
39. TKC Global Solutions. “Tracking air pollution health effects: Health impact assessment”. PI: Dr. Matthew Strickland (2.5% as Biostatistician). 2010-2011.
40. National Heart, Lung, and Blood Institute (NHLBI/NIH) T15 HL098122 “Atlanta Summer Institute for Training in Biostatistics”. PI: **Dr. Lance A. Waller**. 2009-2015.
41. Environmental Protection Agency. RD-83479901. “EPA Clean Air Research Center”. PI: Dr. Paige Tolbert. (12.5% as Director of Biostatistics Core). 2011-2015.
42. National Institute of Environmental Health Sciences (NIEHS/NIH) R01 ES019897 “Spatial and temporal modeling of PM2.5 and infant mortality”. PI (Emory Subcontract): Dr. Matthew Strickland. (2.5% as Biostatistician). 2011-2012.
43. Georgia Department of Health. “Statistical Support for Syndromic Surveillance”. PI: **Dr. Lance A. Waller**. 2015-2016.
44. American Statistical Association. “ASA Research Experience for Undergraduates”. Emory PI: **Dr. Lance A. Waller**, 2016. (Subcontract to ASA REU grant from the National Science Foundation).
45. National Institute of Environmental Health Sciences (NIEHS/NIH) R00 ES023475 “Novel approaches for linking air quality mixtures, climate, and human health”. PI: Dr. John Pearce (Mentor: **Dr. Lance A. Waller**. 2014-2018).
46. National Center for Advancing Translational Sciences (NCATS/NIH) R25 HL131507 “Atlanta Summer Institute for Training in Biostatistics”. PI: **Dr. Lance A. Waller**. 2016-2019.
47. National Institute of Allergy and Infectious Disease (NIAID/NIH) P01 AI098670 “Quantifying heterogeneities in dengue virus transmission dynamics”. PI: Dr. Thomas Scott (Co-Investigator on Project 3: **Dr. Lance A. Waller**). 2014-2019.
48. National Institute of Environmental Health Sciences (NIEHS/NIH) U2C ES026560 “National Exposure Assessment Laboratory at Emory”. PI: **Dr. Lance A. Waller**, 2015-2019.
49. National Heart, Lung, and Blood Institute (NHLBI/NIH) R25 HL131507 “Atlanta Summer Institute for Research Education in Biostatistics”. PI: **Dr. Lance A. Waller**. 2016-2019.
50. National Institute of Allergy and Infectious Diseases (NIAID/NIH) U19 AI111211 “Role of antigen-specific T cell responses in the control of TB”. PI: Dr. Henry Blumberg (Director of Data Management Center: **Dr. Lance A. Waller**. 2014-2021).
51. National Heart, Lung, and Blood Institute (NHLBI/NIH) UM1 HL134590 “Household air pollution and health: A multi-country LPG intervention trial”. PI: Dr. Thomas Clasen. (Director of Data Management Center: **Dr. Lance A. Waller**. 2016-2021).
52. National Institute of Child Health and Human Development (NICHD/NIH) R01 HD 092580 “Improving statistical methods for small area estimates of public health indicators and demographic characteristics” PI: **Dr. Lance A. Waller**, 2018-2021.

53. National Institute of Allergies and Infectious Disease (NIAID/NIH) R01 AI125842 “Spatio-temporal data integration methods for infectious disease surveillance”. Co-PIs: Drs. Justin V. Remais, Howard Chang, **Lance A. Waller**. 2017-2022.
54. National Institute of Allergies and Infectious Disease (NIAID/NIH) R01 AI130163. “Urban water systems, enteric pathogen distribution and microbiome development in children: A natural experiment in Mozambique”. PI: Dr. Karen Levy (Co-Investigator: **Dr. Lance A. Waller**). 2018-2022.
55. National Institute of Allergies and Infectious Disease (NIAID/NIH) R01 AI138646. “The role of casual contact and migration in XDR TB transmission in South Africa: A geospatial, genomic, and social network study”. PI: Dr. Neel Gandhi (Co-investigator: **Dr. Lance A. Waller**). 2018-2022.
56. National Institute on Aging (NIA/NIH) “Biostatistics and Bioinformatics Resource Core (BRC)” BRC PI: **Dr. Lance A. Waller**, subproject for U54 AG062334 “Emory Specialized Center of Research Excellence (SCORE) on Sex Differences, Overall PI: Dr. Ighovwerha Ofotokun. 2018-2023.
57. National Institute of Drug Abuse (NIDA 5R01DA052214-1008-45104-110000001) “Spatio-temporal Methods for Surveillance of the Opioid Syndemic”, PI: Dr. David Kline (Wake Forest). 2021-2025.
58. National Institute of Minority Health and Health Disparities (NIMHD R21MD017943). “Neighborhood transportation vulnerability and geographic patterns of diabetes-related limb loss”, PI: Dr Marcos Coutinho Schechter. 2022-2025.
59. National Institute of Allergy and Infectious Disease (NIAID U01AI148069) “Quantifying the Epidemiological Impact of Targeted Indoor Residual Spraying on Aedes-borne Diseases”, PI: Dr. Gonzalo M. Vazquez-Prokopec. 2020-2025.
60. National Institute of Allergy and Infectious Disease (NIAID UG3 AI176853) “Limited interaction cohort to identify determinants of viral suppression in MSM and transfeminine individuals living with HIV: A multilevel approach”, PI: Dr. Patrick Sullivan. 2023-2025.
61. National Institute of Environmental Health Sciences (NIEHS 1R01ES033530) “Household Air Pollution and Health: a Multi-country LPG Intervention Trial”. PI: Dr. Thomas Clasen, 2022-2026.
62. National Cancer Institute (NCI: R01CA266574) “Refined Capture-Recapture Methods for Surveilling Cancer Recurrence”. MPIs: Dr. Robert Lyles and Lance Waller, 2022-2026.
63. National Institute of Environmental Health Sciences (NIEHS/NIH) “Environmental Health Data Sciences Core” Core PI: **Dr. Lance A. Waller**, core for P30 ES019776 “Human Exposome Research Center: Understanding Lifetime Exposures”, PI: Dr. Carmen Marsit. 2013-2027.
64. Lupus Research Alliance (2023 LRA DIVERSITY) “Lupus in Rural Georgia: Investigating Research Barriers and Environmental Risk Factors”, PI: Dr. Jessica Williams. 2023-2027.
65. U.S. Centers for Disease Control and Prevention. (NU38FT000001) “Emory Center for Infectious Disease Modeling and Analytics and Training Hub (CIDMATH)”, PI: Dr. Benjamin Lopman. 2023-2028.

66. PENDING: National Institute of Allergy and Infectious Disease (NIAID R21 AI178205) “A general and flexible individual-based multi-scale modelling framework to inform spatiotemporally heterogeneous epidemic response”, PI: Dr. Max Lau. 2024-2026.
67. PENDING: National Institute of General Medical Sciences. “Enhancing Access for Successful Evaluation (EASE) Learning Experience”, PI: Dr. Amber Mason, 2024-2026.
68. PENDING: National Institute of Environmental Health Sciences (NIEHS U24OD035522) “Community-Oriented Action, Science and Translation Superfund Center (COAST)”, PI: Dr. Dana Barr. 2025-2030.
69. PENDING: National Science Foundation. “PIPP Phase II: Theme 4: Human-Centered Spatiotemporal Intelligence for Pandemic Prevention”, PI: Dr. Andreas Zuffe. 2024-2031.
70. PENDING: National Institute of Drug Abuse. “Training in Advanced Data Analytics to Prevent Drug Related Harms”, MPIs: Drs. Hannah Cooper, Lance Waller, Abeed Sarker

Courses taught – Emory University:

1. BIOS 738, *Bayes and Empirical Bayes Methods* (Fall 2004, 2007, 2011).
2. BIOS 737, *Spatial Analysis of Public Health Data* (Spring 1999, Fall 2000, Spring 2004, 2006, 2013, 2019).
3. BIOS 507, *Applied Linear Models* (Spring 2000, 2001, 2002).
4. INFO 530, *Geographic Information Systems in Public Health* (Spring, Fall 2002-2011, Fall 2020-21).
5. INFO 560R, *Advanced Geographic Information Systems* (Fall 2020, Fall 2021).
6. BIOS 777, *Teaching Biostatistics* (2014-Present).
7. BIOS 780, *Advanced PhD Seminar* (Spring 2017).
8. BIOS 511, *Statistical Inference I* (Spring 2018).
9. IBS 592 *Quantitative Methods*. (Population Biology, Evolution, and Ecology required course on mathematical modeling and statistical inference). (Spring 2010, 2012, 2014, 2016, 2018).

Courses taught – University of Minnesota:

1. PubH 8421, *Analysis of Categorical Data* (1994-1997).
2. PubH 8449, *Topics in Biostatistics: Spatial Biostatistics* (Spring 1994).
3. PubH 8436, *Spatial Biostatistics* (Spring 1995, Winter 1997, Winter 1998).
4. PubH 8433, *Analysis of Longitudinal Data* (Spring 1996) Team-taught by 2 faculty members.

Courses taught – University of Alabama at Birmingham:

1. *Applied Sampling* (Spring 1993).
2. *Data Collection, Management, and Analysis* (Winter 1992 and Winter 1993).
3. *Bioassay and Quality Control* (Summer 1992). Team-taught by 3 faculty members.
4. *Introduction to Public Health* (Fall 1992). One lecture on “The Impact of Biostatistics on Public Health”.
5. *Design and Analysis of Clinical Dental Research* (Winter 1993) Two lectures out of 10.
6. *Medical Freshmen Statistics* (Fall 1992).
7. *Toxicology II* (Spring 1993) Two lectures on “Toxicological Modeling in Risk Assessment”.
8. *Risk Assessment* (Spring 1992) One lecture on “Statistical Models in Risk Assessment”.

Professional Service:

Emory University Committees:

- Co-Director, Center for AI Learning, 2023-2024.
- Advisory Committee for AI.Humanity Initiative, Emory University, 2022.
- Search Committee, Dean, Rollins School of Public Health, Emory University, 2021.
- Director, Strategic Planning to develop a Data Sciences Center for the Woodruff Health Sciences Center, Emory University. 2018-2024.
- Search Committee Chair, Associate Dean for Research, Rollins School of Public Health, Emory University. 2018-2019.
- Search Committee, Department of Environmental Health, Rollins School of Public Health, Emory University. 2007-2008.
- Information Technology Advisory Committee, Rollins School of Public Health, 2007-Present.
- Center for Comprehensive Informatics Charter Committee, Woodruff Health Sciences, Emory University, 2008-2014.
- Computational and Life Sciences Search Committee, Emory University, 2007-2014.
- Search Committee, Chair of Department of Environmental and Occupational Health, Emory University, 2006.
- Search Committee, Chair of Environmental Studies, Emory University, 2005-2006.
- Search Committee (Department chair and tenure-track faculty), 2003-2006. - Research Advisory Committee, Rollins School of Public Health, 2003-Present.
- Appointment, Promotion and Tenure Committee, Rollins School of Public Health, 2003-Present.
- Computing Committee, Department of Biostatistics. 2003-Present.
- Member of Woodruff Leadership Academy (inaugural class), 2002-2003.
- Exam Committee, Department of Biostatistics, 2003.
- Faculty Focus Group on Information Technology, Woodruff Health Sciences Center, 2001.
- Biostatistical Consulting Center Committee, Department of Biostatistics, 1997, 2002.
- Curriculum Committee, Rollins School of Public Health, 1999-2005.
- Recruitment Committee, Department of Biostatistics. 1998-2002.
- Curriculum Committee, Department of Biostatistics, 1998-2001.

- Search Committee (Research Faculty and Associate Faculty), Department of Biostatistics, 1997.

University of Minnesota Committees:

- Chair, Search Committee for Assistant Professor, Division of Biostatistics, University of Minnesota, 1998.
- Appointment, Promotion, and Tenure Committee, School of Public Health, 1997.
- Recognition, Awards, and Honors Committee, School of Public Health, 1995-1996.

American Statistical Association:

- Co-chair, Committee on Funded Research, 2020-Present.
- Chair, Working Group on Training the Next Generation of Statisticians, 2012-2013.
- Elected Region 4/5 Representative to the Caucus of Academic Representatives, August 2011-2014.
- Member, Journal of Agricultural, Environmental, and Biological Statistics Management Committee, 2011-2013.
- Chair, Section on Statistics and the Environment, 2008.
- Member, Strategic Plan Focus: Financial Status Emphasis on Meetings, 2008.
- Member, Ad-hoc Joint Statistical Meeting Task Force, 2004.
- Publications Officer, Section on Statistics and the Environment, 2003-2004.
- Chair, Committee on Meetings, 2002.
- Program Committee, Section on Statistics and the Environment workshop: "Spatial statistics: integrating statistics, GIS, and statistical graphics", 2002.
- Web Editor, Section on Statistics and the Environment, 2002.
- Newsletter Editor, Section on Statistics and the Environment, 1997-2001.
- General Methodology Chair, Joint Statistical Meetings Program Committee, 2000.
- Organizer/Chair: Invited Session on "Spatial Analyses of Epidemiologic Data", Joint Statistical Meetings, 1995.
- Publications Officer, Section on Statistics in Epidemiology, 1996-1997.

International Biometric Society, Eastern North American Region (ENAR):

- ENAR President-Elect/President/Past-President, 2008-2010.
- ENAR Secretary, 2005-2007.
- Elected Member of Regional Committee, 2002-2004.
- ENAR representative to the American Statistical Association's Committee on Meetings. 1999-2002.
- Organizer: Invited Session on "Analysis of Biological Spatial Point Patterns", ENAR Biometrics Meeting, 2001.
- Round Table Discussion Leader: "Disease Mapping and Spatial Analysis of Public Health Data", ENAR Biometrics Meeting, 2001.
- Member of the Regional Advisory Board for ENAR, 1998-2000.
- Student Paper Contest reviewer, ENAR, 1999.
- Organizer: Invited Session on "The GIS/Statistics Interface". ENAR Biometrics Meeting,

1998.

- Co-organizer and Chair: Special Contributed Session on “Disease Patterns and Environmental Epidemiology”, International Biometrics Conference, 1994.

Working Groups and Panels:

- Member, Scientific Advisory Committee, U.S. Census Bureau. 2021-2023.
- Member, Independent Advisory Committee, Global Burden of Disease. Institute of Health Metrics and Evaluation, University of Washington.
- Co-Chair, National Academy of Science, Engineering, and Medicine, Committee on Applied and Theoretical Statistics, 2020-2022.
- Member, National Academy of Science, Engineering, and Medicine, Board of Mathematical Sciences and Analytics, 2018-Present.
- Member, National Academy of Science Committee on Applied and Theoretical Statistics, 2012-2018.
- Member, National Academy of Science Committee on Analysis of Cancer Risks in Populations near Nuclear Facilities, Phase 1, January 2011-April 2012.
- Invited teleconference participant, iPlant Collaborative Grand Challenge Workshop on Mechanistic Basis for Plant Adaptation, September 2008.
- Member, Expert Panel on Geospatial Research, Surveillance and Capacity Building, U.S. Centers for Disease Control and Prevention, May 2008.
- Member, Working Group on Ecological Sensor Networks, Statistical and Applied Mathematical Science Institute, 2008.
- Member, Institute of Medicine, Board on Military and Veteran’s Health, Committee on Making Best Use of the Agent Orange Exposure Reconstruction Model. January 2007-December 2008.
- Member, National Institute of Alcohol Abuse and Alcoholism Planning Meeting on Mechanisms of Behavior Change, November 2007.
- Member, National Academies Committee To Assess Potential Health Effects from Exposures to PAVE PAWS Low-level Phased-array Radiofrequency Energy. October-December 2005.
- Member, CDC/NCI Geographic Information Science Geography and Spatial Statistician Focus Group, Santa Barbara, CA, November 2004.
- Member, National Research Council, Board on Chemical Sciences and Technology. Committee to Review Existing and Potential Standoff Explosives Detection Technology. Project BCST-02-07-A. 2003.
- Member, External Peer Review Panel, United States Census Bureau’s Program of General Research and Support. December 2002.
- National Institute of Alcohol Abuse and Alcoholism, Workshop on Ecological Modeling of Alcohol-Related Behavior. October 2002.
- Chair, panel to review “Best Practices in Spatial Analysis of Cancer Data”, sponsored by the National Cancer Institute. June 2002-March 2003.
- Working Group on Spatial Disease Ecology, National Center for Ecological Analysis and Synthesis, 2000-2002.
- Invited Participant in Workshop on Status and Trends in Spatial Analysis, National Center for Geographic Information and Analysis, Santa Barbara, CA, 1998.
- Special Advisor to World Health Organization (WHO). Workshop on Disease Mapping and Risk Assessment for Public Health Decision Making. October 2-4, 1997. Rome, Italy.
- Panel Member, “GIS Applications in Cancer Research”, GIS Advisory Panel Meeting, Na-

tional Cancer Institute, Bethesda, MD, 1996.

Editorial:

- Associate Editor, *Scientific Data*, 2017-Present.
- Senior Associate Editor, *Advances in Disease Surveillance*, 2006-Present.
- Associate Editor, *American Statistician*, 1998-1999, 2017-2021
- Associate Editor, *Environmetrics*, 2009-Present.
- Associate Editor, *Bayesian Analysis*, 2004-2009.
- Associate Editor, *Environmental and Ecological Statistics*, 2004-2008.
- Associate Editor, *Biometrics*, 2000-2009.
- Member of Editorial Board, *Statistics In Medicine*, 1996-1999.
- Guest Co-Editor, *Statistics In Medicine*, **12**, Number 19/20, **14**, Number 21/22, **15**, Number 7/8/9.
- Manuscript referee: *American Industrial Hygiene Association Journal*; *American Journal of Epidemiology*; *American Society of Civil Engineering Journal of Hydrology*; *American Statistician*; *Annals of Epidemiology*, *Annals of the Institute of Statistical Mathematics*; *Archives of Otolaryngology – Head and Neck Surgery*; *Biometrics*; *Canadian Journal of Fisheries and Aquatic Sciences*; *Cancer*; *Computational Statistics*; *Ecosphere*; *Emerging Infectious Diseases*; *Environment and Planning A*; *Environmental and Ecological Statistics*; *Environmetrics*; *Epidemiology*; *Geoinformatica*; *Health Services and Outcomes Research Methodology*; *International Journal of Epidemiology*; *Journal of Aerosol Science*; *Journal of Agricultural, Biological, and Environmental Statistics*; *Journal of the American Statistical Association*; *Journal of Animal Ecology*; *Journal of Computational and Graphical Statistics*; *Journal of Epidemiology and Community Health*; *Journal of Exposure Analysis and Environmental Epidemiology*; *Journal of Human and Ecological Risk Assessment*; *Journal of the Royal Statistical Society, Series A*; *Journal of Statistical Computation and Simulation*; *Journal of Statistical Planning and Inference*; *Journal of Theoretical Biology*; *Journal of Time Series Analysis*; *Nature Communications*; *PLoS Neglected Tropical Diseases*; *Proceedings of the National Academy of Sciences*; *Science*; *Social Science & Medicine*; *Statistica Neerlandica*; *Statistics in Medicine*; *Technometrics*.

Review Panels and Related Activities:

- Independent subject matter expert, US CDC/ATSDR report: *Guidelines for Examining Unusual Patterns of Cancer and Environmental Concerns*, February 2022.
- External reviewer, National Academies of Science, Engineering, and Medicine consensus study, *Developing a Long-Term Strategy for Low-Dose Radiation Research in the United States*, February 2022
- External review committee, Department of Statistics, North Carolina State University, January 2013.
- Review of Concept Paper, Methods of Behavior Change Initiation, National Institute of Alcohol Abuse and Alcoholism, November, 2008.
- Proposal review, U.S. Civilian Research and Development Foundation. June 2003.
- Special Emphasis Panel, National Institute of Alcohol Abuse and Alcoholism. April 2002, February 2003.
- Grant review, NSERC (Canada). 1998, 2002.
- Grant reviews, NSF/NIH program in mathematical biology. January 2002.

- National Institute of Health Special Study Section: SNEM-02, for NCI RFA “Geographic-based research in cancer control and epidemiology”. Study Section Chair: November 2001. Panel Member: March 2001.
- Grant reviews, proposals submitted to the Geography and Regional Science and Digital Government Programs, National Science Foundation, 2001-Present.
- External Reviewer: draft National Research Council report on “Ozone Forming Potential of Reformulated Gasoline”, 1999.
- Grant review: Agency for Toxic Substances and Disease Registry, 1994-Present;
- Grant review panel: National Science Foundation/Environmental Protection Agency Water and Watersheds program. 1996.
- Reviewer: Association of Schools of Public Health/Centers for Disease Control and Prevention/Agency for Toxic Substance and Disease Registry Summer Internships. 1994.
- Grant review: United States Department of Energy, Office of Epidemiologic Studies, 1994;
- Grant review: The Wellcome Trust, United Kingdom, 1994;

Other:

- Organizing committee, Spatial and Spatio-temporal Modelling in Biology, Ecology and Geosciences - Smögen Workshop, Smögen, Sweden, 2006.
- Consultation with Centers for Disease Control and Prevention: National Center for Environmental Health: 2002, 2019.
- Program Committee, Spatial Statistics: Integrating Statistics, GIS, and Statistical Graphics, Section on Statistics and the Environment, American Statistical Association, Seattle, Washington, 2002.
- Consultation with Exponent, 2001-2002.
- Consultation with Minnesota Department of Health:
Drs. John Oswald and Nagi Salem (Behavioral Risk Survey sampling issues) 1994, 1995.
Dr. Marian Marbury (data analyst for Indoor Air and Children’s Health Study) 1993-1995.
- Program committee: Conference on Statistics and Computing in Disease Clustering, 1994.

External Doctoral Committees

1. André J. Bulter, Environmental Engineering, Georgia Institute of Technology, October 2000. *Temporal and Spatial Analysis of PM_{2.5} Mass and Composition in Atlanta.*
2. Joan Buenconsejo, Biostatistics and Epidemiology, Yale University, August 2004. *A Bayesian Hierarchical Model for Estimation of Disease Incidence using Two Surveillance Datasets.*
3. Farouk S. Nathoo, Statistics and Actuarial Science, Simon Fraser University, December 2005. *Methods for the Analysis of Spatio-temporal Multi-state Processes.*
4. R. John Brooke, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht, The Netherlands. “Human dose response models for Q fever: Estimation of Coxiella burnetii exposure and disease burden”.
5. Zhen Zhong, Computer Science, Georgia Institute of Technology, October 2021.
6. Estrelle Thunnissen, University of Antwerp, the Netherlands.

Advising

Emory University

Advisee	Major	Date of completion	Advisor role
Judith Hughes, MPH	Biostatistics	5/1999	Thesis advisor
Betsy Cadwell, MPH	Biostatistics	5/2000	Thesis advisor
Rose Anne Rudd, MPH	Biostatistics	5/2001	Thesis advisor
Andrew Allen, PhD	Biostatistics	5/2001	Committee member
Elizabeth Hill, PhD	Biostatistics	5/2002	Dissertation advisor
Jennifer Jenkins, MPH	Biostatistics	5/2002	Thesis advisor
Haitao Chu, PhD	Biostatistics	5/2003	Committee member
Heather Boyd, PhD	Epidemiology	11/2003	Dissertation advisor
Xiaohong Mao, PhD	Biostatistics	11/2003	Committee member
Traci Leong, PhD	Biostatistics	11/2005	Dissertation advisor
Carol Lin, PhD	Biostatistics	7/2005	Dissertation advisor
DeMarc Hickson, PhD	Biostatistics	11/2005	Dissertation advisor
Eric Tassone, PhD	Biostatistics	5/2006	Dissertation advisor
Michael Levy, PhD	Population Biology and Evolutionary Ecology	5/2007	Dissertation advisor
Kathleen Wannameuler, PhD	Biostatistics	12/2007	Committee member
Benjamin Silk, PhD	Epidemiology	5/2008	Committee member
Lyndsey Darrow, PhD	Epidemiology	5/2008	Committee member
Kevin Ward, PhD	Epidemiology	5/2008	Committee member
Kathryn Lafond, MPH*	Global Environmental Health	5/2008	Committee member
Maura Sullivan, PhD	Epidemiology	7/2008	Committee member
Megan Price, PhD	Biostatistics	5/2009	Committee member
Meredith Scarberry, MS	Biostatistics	5/2009	Academic advisor
Joanna Moore, MPH	Biostatistics	5/2009	Thesis advisor
Barbara Do, MPH	Biostatistics	5/2009	Thesis advisor
Michael Kramer, PhD	Epidemiology	7/2009	Committee member
Di H. Cross, PhD	Epidemiology	7/2009	Committee member
Yuemei Wang, PhD	Biostatistics	7/2009	Dissertation advisor
Kari Hart, PhD	Biostatistics	5/2011	Academic advisor
Jeff Switchenko, PhD	Biostatistics	11/2011	Dissertation advisor
Karoun Bagamian, PhD	Population Biology and Evolutionary Ecology	5/2012	Dissertation advisor
Shannon McClintock, PhD	Biostatistics	5/2012	Dissertation advisor
Ming Wang, PhD	Biostatistics	5/2013	Dissertation advisor
Anand Bharwaj, PhD	Population Biology and Evolutionary Ecology	5/2014	Committee member
Michael Sauria, PhD	Population Biology and Evolutionary Ecology	7/2014	Committee member

* Winner of Shepard Award for best MPH Thesis, Emory University, 2008.

Emory University (continued)

Advisee	Major	Date of completion	Advisor role
Wayne Harris, MSPH	Public Health Informatics	5/2015	Thesis advisor
Sara Khan, MSPH	Public Health Informatics	5/2016	Thesis advisor
Alex Edwards, MSPH	Public Health Informatics	5/2017	Thesis advisor
Shiwei Tang, MSPH	Biostatistics	5/2017	Thesis advisor
Ian Buller, PhD	Environmental Health	5/2018	Dissertation advisor
Samantha Noreen, PhD	Biostatistics	8/2018	Dissertation advisor
Behzad Kianian PhD	Biostatistics	11/2019	Dissertation advisor
Brian Conroy, PhD	Biostatistics	11/2020	Dissertation advisor
Nancy Murray, PhD	Biostatistics	11/2021	Dissertation committee
Pengfei Tang, PhD	Computer Science	11/21	Dissertation committee
Elizabeth Sajewski, PhD	Environmental Health	5/2022	Dissertation committee
Kristin Harrington, PhD	Epidemiology	5/2022	Dissertation committee
Ian Hennessee, PhD	Environmental Health	5/2022	Dissertation committee
Jordan Lewis	Population Biology, Evolution, Ecology	Summer 2022	Dissertation committee
Sanjana Pampati	Epidemiology	Spring 2023	Dissertation committee
Yuzi Zhang	Biostatistics	Spring 2023	Dissertation committee
Lin Ge	Biostatistics	Summer 2023	Dissertation committee
Michelle McCauley	Population Biology, Evolution, Ecology	Spring 2024	Dissertation committee
Courtney Victor	Population Biology, Evolution, Ecology	Spring 2024	Dissertation committee
Mitchell Kendzel	Population Biology, Evolution, Ecology	Spring 2024	Dissertation co-advisor
Lynda Bryant	Population Biology, Evolution, Ecology	Spring 2024	Dissertation co-advisor
Thomas Hsiao	Biostatistics	Spring 2024	Dissertation advisor
Jacob Elgert	Biostatistics	Spring 2025	Dissertation committee
Delante Moore	Biostatistics	Spring 2025	Dissertation advisor
Katie Campbell	Epidemiology	Spring 2025	Dissertation committee
Sebastian Duran	Population Biology, Evolution, Ecology	Spring 2025	Dissertation committee
Michelle McCauley	Population Biology, Evolution, Ecology	Spring 2025	Dissertation committee
Courtney Victor	Population Biology, Evolution, Ecology	Spring 2025	Dissertation committee
Brady Bennet	Epidemiology	Spring 2025	Dissertation committee
Stephen Mugel	Environmental Health	Spring 2025	Dissertation committee

Emory University, Postdoctoral Trainees

Advisee	Years	Current Position
Monica Jackson PhD	2003-2005	Professor (tenured), Statistics American University
David Wheeler PhD	2006-2008	Associate Professor (tenured), Biostatistics Virginia Commonwealth University
Gavino Puggioni PhD	2009-2012	Associate Professor (tenured), Computer Science and Statistics University of Rhode Island
Julie Clennon PhD	2010-2011	Instructor, Environmental Science Emory University
John Pearce PhD	2011-2014	Assistant Professor (tenure-track), Environmental Health Medical University of South Carolina (Recipient of NIEHS K99/R00)
Jenna Krall PhD	2014-2016	Assistant Professor (tenure-track), Global and Community Health George Mason University
Emily Peterson PhD	2020-2022	Research Assistant Professor, Biostatistics and Bioinformatics Rollins School of Public Health, Emory University

University of Minnesota

Advisee	Major	Date of completion	Advisor role
Marla Husnik, M.S.	Biostatistics	3/1995	M.S. committee
Lori Vitelli, M.S.	Epidemiology	5/1995	M.S. committee
Chang Yu, M.S.	Biostatistics	5/1995	Academic advisor
Li Ding, M.S.	Biostatistics	6/1995	M.S. advisor
Lisa Bjorling, M.S.	Biostatistics	9/1995	Academic advisor
Terry Spear, Ph.D.	Environmental and Occupational Health	3/1996	Thesis reviewer
Mark Werner, Ph.D.	Environmental and Occupational Health	8/1996	Thesis reviewer
Chris Pulling, M.S.	Biostatistics	8/1996	M.S. advisor
Catherine Billups, M.S.	Biostatistics	9/1996	M.S. advisor
Anna Gaichas, M.S.	Biostatistics	12/1996	Academic advisor
Zihui Lin, M.S.	Biostatistics	12/1996	M.S. committee
Karen Smoyer, Ph.D.	Geography	3/1997	Dissertation committee
Dongmei Zhang, M.S.	Biostatistics	5/1997	M.S. committee
Yingjia Shen, M.S.	Biostatistics	5/1997	M.S. advisor
Brian Harris, M.S.	Biostatistics	7/1997	M.S. advisor
Brandon Sparks, M.S.	Biostatistics	7/1997	M.S. advisor
Xuwei Wang, M.S.	Biostatistics	8/1997	M.S. committee
Aijun Song, M.S.	Biostatistics	10/1997	M.S. advisor
Hong Xia, Ph.D.	Biostatistics	12/1997	Thesis co-advisor
Su-Hsing Lee, Ph.D.	Environmental and Occupational Health	2/1998	Thesis reviewer
Diana Fernandez, Ph.D.	Epidemiology	12/1998	Thesis committee
Erin Conlon, Ph.D.	Biostatistics	7/1999	Dissertation advisor

University of Alabama at Birmingham

Advisee	Major	Date of completion	Advisor role
Carey Newton, MPH	Industrial Hygiene	8/1992	MPH committee
Jennifer Martin, MPH	Industrial Hygiene	5/1993	MPH committee
William Weems, DrPH	Epidemiology	8/1993	DrPH committee
Alfonza Atkinson, Ph.D.	Environmental Health	5/1994	Ph.D. committee
Bill DeShazo, DrPH	Epidemiology	5/1994	DrPH committee