JANE ELLEN CLOUGHERTY, MSc ScD

Updated October 2023

Professor (with tenure) **Drexel University Dornsife School of Public Health** Department of Environmental and Occupational Health 3215 Market Street, Room 616 Philadelphia, PA, USA 19104

Phone: (267) 359-6072 Fax: (267) 359-6006 Email: jec373@drexel.edu

MSc -- December 1998

AB (Hons) -- June 1997

Chicago, IL USA

Hamilton, Ontario, Canada

STATEMENT of PURPOSE

My work focuses on the role of chronic social stressors (e.g., violence, poverty) in shaping susceptibility to environmental pollution exposures, particularly in urban communities. To that end, I have designed and managed large air pollution monitoring and modeling studies in several U.S. and international cities, developed methods to quantify chronic social stressors for environmental epidemiology, and developed frameworks to quantify synergistic effects among multiple social stressors and pollutants.

EDUCATION and TRAINING

Harvard School of Public Health	ScD June 2006
Exposure, Epidemiology, and Risk Program	Boston, MA USA
Department of Environmental Health	
Also completed curriculum in Society, Human Development, and H	ealth

McMaster University Department of Geography **Emphasis in Environmental Health Sciences**

University of Chicago

Department of Economics and Environmental Studies Program General and Departmental Honors

ACADEMIC LEADERSHIP POSITIONS

Member, Philadelphia Regional Center for Children's Environmental Health (PRCCEH), January 2023 – Present	
University of Pennsylvania	
Chair, Executive Committee of the Faculty (ECF)	September 2021 – June 2022
Drexel University Dornsife School of Public Health	-
Founding Director, PhD Program in Environmental and Occupational Health	June 2020 – September 2023
Chair, Dornsife Task Force on Doctoral Programs	October 2021 – June 2023
Faculty Representative, Dornsife School of Public Health School Council	September 2021 – June 2023
At-Large Representative, Executive Committee of the Faculty (ECF)	September 2020 – June 2023
Faculty Affiliate Representative, UHC Steering Committee	September 2020 – September 2023
Faculty Affiliate, Drexel Urban Health Collaborative (UHC)	January 2017 – September 2023
Dornsife Representative, University Senate Committee on Faculty Affairs	September 2017 – 2019
Director of Exposure Science, University of Pittsburgh Dept of Environ Occupa	ational Health, 2010 – 2016

ACADEMIC AND PROFESSIONAL PRIMARY APPOINTMENTS

Associate Professor (with tenure) Drexel University Dornsife School of Public Health Department of Environmental and Occupational Health	January 2017 – April 2022 Philadelphia, PA USA
Associate Professor (with tenure) / Director of Exposure Science	August 2016 – December 2016
Assistant Professor/ Director of Exposure Science	October 2010 – July 2016

University of Pittsburgh Graduate School of Public Health Department of Environmental and Occupational Health

October 2010 – July 2016 Pittsburgh, PA USA

Jane E Clougherty, MSc, ScD

Senior Research Scientist

New York City Department of Health and Mental Hygiene Department of Environmental Health Bureau of Environmental Surveillance and Policy

Post-Doctoral Research Fellow

Harvard School of Public Health Department of Environmental Health in collaboration with Yale University School of Medicine September 2008 – September 2010 New York, NY USA

June 2006 – September 2009 Boston, MA USA

SECONDARY APPOINTMENTS/ OTHER AFFILIATIONS

Center Member January 2023 – Present Philadelphia Regional Center for Children's Environmental Health (PRCCEH), University of Pennsylvania

Faculty Affiliate Drexel University Urban Health Collaborative (UHC)

Visiting Scientist Air Quality Research Center (AQRC) University of California at Davis

Visiting Scientist New Zealand National Institute for Water and Atmospheric Research (NIWA)

Research Associate Harvard School of Public Health Department of Environmental Health

Visiting Scientist Auckland University of Technology Faculty of Health and Environmental Sciences

Senior Research Associate Environomics, Inc. Environmental Consultants

Program Manager, Research Associate Center for Neighborhood Technology Energy, Economics, and Air Quality

ECO Associate/ InternAprEnvironmental Protection Agency Region V HeadquartersChieDivision of Wastes, Pesticides, and Toxics - Environmental Justice Team

Academic Coordinator University of Chicago Environmental Studies Academic Program

Medical Advocate, Speakers Bureau Rape Victim Advocates February 2017 – Present Philadelphia, PA USA

June 21, 2018 - Present Davis, CA USA

2013-2014; Sept 2023 – Present Auckland, New Zealand

September 2009 – September 2010 Boston, MA USA

June 2006 – September 2008 Auckland, New Zealand

January 2001 – June 2001 Bethesda, MD USA

January 1999 – January 2001 Chicago, IL USA

April 1997 – August 1997 Chicago, IL USA

July 1996 – August 1997 Chicago, IL USA

June 1994 – June 2001 Chicago, IL USA

PROFESSIONAL and SCIENTIFIC MEMBERSHIP and ACTIVITY

2021 - Present	U.S. Environmental Protection Agency (EPA)
	Clean Air Science Advisory Committee (CASAC) – Fine Particle Matter (PM) Panel
2020 – Present	Member, Association of Women in Science (AWIS)
2021 - Present	Editorial Review Board, Frontiers in Epidemiology
2019 - Present	Editorial Review Board, International Journal of Environmental Research and
	Public Health (IJERPH)
2016 - 2020	Associate Editor, Environmental Health Perspectives (EHP)
2019 - Present	Member, Drexel University Social Sciences and Humanities Research
	Committee (SSHRC)
2004 – Present	International Society for Exposure Science (ISES)
2012 - 2019	Board Member, Elected Academic Councilor, Academic Mentor
2014 - 2019	Board Liaison to ISES Publications Committee
2013-2019	Editorial Review Board, Journal of Exposure Science and Environmental
2017 - 2019	Epidemiology (JESEE)
	Quarterly Newsletter Editorial Committee
2004 - Present	International Society for Environmental Epidemiology (ISEE), Member
2015 – Present	International Society for Exposure Science (ISES) Tri-State, Member
2015 - 2018	National Academy of Sciences, Engineering, and Medicine
	[formerly Institutes of Medicine (IOM)]
	Department of Veterans Affairs Scientific Committee on the Burn Pits Registry
2010 - 2012	American Thoracic Society (ATS)
	Environmental and Occupational Health Assembly, member
2019 - present	International Society for Urban Health (ISUH), member
2019 - present	American Association of Geographers (AAG), member
2020 - present	American Heart Association (AHA), Professional member
	HONORS and AWARDS
	University of Chicago:
1994 - 1996	Dean's List
1996	Herst Award for Outstanding Academic Achievement and Social Service
1996	Halperin Academic Scholarship
1997	Maroon Key Honor Society
1997	General Honors (University-wide)
1997	Departmental Honors (Economics)
1997	Contributed to National Press Award
	Outstanding Feminist Writing (First Place): Chicago Free Press
1997	Fulbright Scholarship (IEE/CIES): U.S Canada
2000	Chicago Foundation "Tomorrow's Leaders Today" Awardee
	Harvard University:
2002	Joint Center for Housing Studies Research Award
2007	Harvard School of Public Health, Committee on Educational Policy:
	Letter of Commendation for outstanding teaching, by student evaluations Advanced Topics in Women, Gender, and Health
2005	-
2005	International Society for Environmental Epidemiology (ISEE): New Investigator Award Outstanding Abstract for Oral Presentation
	Johannesburg, South Africa

2005	American Lung Association (ALA) Lung Health Dissertation Grant
2009 - 2012	National Institute for Occupational Health Sciences (NIOSH/CDC) K-01 Award
2010	Environmental Health Perspectives (EHP): Reviewers of the Year 2010
	University of Pittsburgh:
2011	Central Research Development Fund (CRDF) Faculty Award
2011	Center for Social and Urban Research (UCSUR) Manners Faculty Development Award
2013	Nominee: Dr. James L. Craig Endowed Excellence in Education Award, a student-nominated award for outstanding teaching
2013	Featured article in Pitt Public Health Magazine: "The Devil in Diesel"
	International Society for Exposure Science (ISES):
2012	Sally Liu Award for Outstanding New Investigator
2012	- ISES Elected Academic Councilor
2012 2017	City of Pittsburgh Proclamation for Public Service in citywide air monitoring American Rhinologic Society, 1st place poster award: Mady LJ et al., "Air
	Pollution and Chronic Rhinosinusitis: Are There Modifiable Risk Factors for Disease Expression"
	Drexel University:
2017	Faculty Scholarly and Creative Activity Award
2018	Urban Health Collaborative (UHC) Pilot award (PI)
2019	Faculty Summer Research Award
2019	Urban Health Collaborative (UHC) Pilot award (Co-I; PI S. Tripathy)
2019	Social Sciences Research Committee (SSRC) Faculty Travel Award
2020	Office of Research Faculty Scholarly Materials and Equipment Award
2021	CHC/NIOSH Alice Hamilton Award Nominee:
	Niemeier RT, Williams PRD, Rossner A, Clougherty JE, Rice GE [2020]. A
	cumulative risk perspective for occupational health and safety (OHS) professionals. <i>Int J Environ Res Public Health</i> 17(17):6342.
2022	Nominee: Dornsife School of Public Health Mentor Recognition Award

PUBLICATIONS

Original Research Articles (Peer-Reviewed):

- 1. Levy JI, Welker-Hood LK, Clougherty JE, Dodson RE, Steinbach S, Hynes HP. Lung function, asthma symptoms, and quality of life for children in public housing in Boston: a case-series analysis. *Environmental Health.* 2004; 3 (1):13. PMCID: PMC544563. PMID: 15585065.
- 2. Clougherty JE, Levy JI, Hynes HP, Spengler JD. A longitudinal analysis of the efficacy of environmental interventions on asthma-related quality of life and symptoms among children in urban public housing. *Journal of Asthma*. 2006; 43 (5):335-43. PMID: 16801137.
- 3. Levy JI, Baxter LK, Clougherty JE. The air quality impacts of road closures associated with the 2004 Democratic National Convention in Boston. *Environmental Health.* 2006; 5:16. PMCID: PMC1482694. PMID: 16729881.
- 4. Levy JI, Brugge D, Peters JL, Clougherty JE, Saddler SS. A community-based participatory research study of multifaceted in-home environmental interventions for pediatric asthmatics in public housing. *Social Science & Medicine*. 2006 Oct; 63 (8):2191-203. PMID: 16781807.
- 5. Clougherty JE, Eisen EA, Slade MD, Kawachi I, Cullen MR. Predictors of hypertension and heart disease among white- and blue-collar employees in the Alcoa Aluminum Manufacturing Cohort. *Occupational and Environmental Medicine*. 2007; 64:31.
- 6. Clougherty JE, Levy JI, Kubzansky LD, Ryan PB, Suglia SF, Canner MJ, Wright RJ. Synergistic effects of traffic-related air pollution and exposure to violence on urban asthma etiology. *Environmental Health Perspectives*. 2007 Aug; 115 (8):1140-6. PMID: 17687439.
- Baxter LK, Clougherty JE, Laden F, Levy JI. Predictors of concentrations of nitrogen dioxide, fine particulate matter, and particle constituents inside of lower socioeconomic status urban homes. *Journal of Exposure Science & Environmental Epidemiology*. 2007 Aug; 17 (5):433-44. PMID: 17051138.
- Baxter LK, Clougherty JE, Paciorek CJ, Wright RJ, Levy JI. Predicting residential indoor concentrations of nitrogen dioxide, fine particulate matter, and elemental carbon using questionnaire and geographic information systems based data. *Atmospheric Environment*. 2007 Oct; 41 (31):6561-6571. PMCID: PMC2760735. PMID: 19830252.
- 9. Clougherty JE, Wright RJ, Baxter LK, Levy JI. Land use regression modeling of intra-urban residential variability in multiple traffic-related air pollutants. *Environmental Health*. 2008; 7:17. PMCID: PMC2397396. PMID: 18485201.
- Clougherty JE, Houseman EA, Levy JI. Examining Intra-Urban Variability in PM_{2.5} Constituents for Source Apportionment, using GIS and Constrained Factor Analysis. *Atmospheric Environment*. 2009; 43:5545-5555.
- 11. Clougherty JE, Eisen EA, Slade MD, Kawachi I, Cullen MR. Workplace status and risk of hypertension among hourly and salaried aluminum manufacturing employees. *Social Science & Medicine*. 2009 Jan; 68 (2):304-13. PMCID: PMC2659853. PMID: 19027215.
- Clougherty JE, Kubzansky LD, Spengler JD, Levy JI. Ancillary benefits for caregivers of children with asthma participating in an environmental intervention study to alleviate asthma symptoms. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2009 Mar; 86 (2):214-29. PMCID: PMC2648883. PMID: 19184446.
- 13. Clougherty JE, Kubzansky LD. A framework for examining social stress and susceptibility to air pollution in respiratory health. *Environmental Health Perspectives*. 2009; 117 (9):1351-8. PMCID: PMC2737009. PMID: 19750097.

- 14. Clougherty JE. A growing role for gender analysis in air pollution epidemiology. *Environmental Health Perspectives*. 2010; 118 (2):167-76. PMCID: PMC2831913. PMID: 20123621.
- 15. Clougherty JE, Rossi CA, Lawrence J, Long MS, Diaz EA, Lim RH, McEwen B, Koutrakis P, Godleski JJ. Chronic social stress and susceptibility to concentrated ambient fine particles in rats. *Environmental Health Perspectives*. 2010 Jun; 118 (6):769-75. PMID: 20194079.
- 16. Clougherty JE, Eisen EA, Slade MD, Kawachi I, Cullen MR. Gender and sex differences in job status and hypertension. *Occupational and Environmental Medicine*. 2011. 68 (1):16-23. PMID: 20864467.
- 17. Clougherty JE, Houseman EA, Levy JI. Source apportionment of indoor residential fine particulate matter using land use regression and constrained factor analysis. *Indoor Air.* 2011. 21 (1):53-66. PMID: 20887392.
- 18. Ross Z, Kheirbek I, Clougherty JE, Ito K, Matte T, Markowitz S, Eisl H. Noise, air pollutants and traffic: continuous measurement and correlation at a high-traffic location in New York City. *Environmental Research*. 2011 Nov; 111 (8):1054-63. PMID: 21958559.
- 19. Clougherty JE, Kheirbek I, Eisl H, Ross Z, Pezeshki G, Gorczynski J, Johnson S, Markowitz S, Kass D, Matte T. Intra-urban spatial variability in wintertime street-level concentrations of multiple combustion-related air pollutants: The New York City Community Air Survey (NYCCAS). *Journal of Exposure Science & Environmental Epidemiology*. 2013 May-Jun;23(3):232-40. doi: 10.1038/jes.2012.125. Epub 2013 Jan 30.
- Tunno BJ, Shields KN, Lioy P, Chu N, Kadane JB, Parmanto B, Pramana G, Zora J, Davidson C, Holguin F, Clougherty JE. Understanding intra-neighborhood patterns in fine particulate air pollution using mobile monitoring in Braddock, PA. *Environmental Health*. 2012; 11 (76).
- 21. Ross Z, Ito K, Johnson S, Yee M, Pezeshki G, Clougherty JE, Savitz D, Matte T. Spatial and temporal interpolation of air pollutants in New York City: exposure assignment for use in a birth outcomes study. *Environmental Health*. 2013; 12 (51). (*Highly accessed*)
- 22. Rabinowitz PM, Galusha D, Dixon-Ernst C, Clougherty JE, Neitzel RL. The dose-response relationship between in-ear occupational noise exposure and hearing loss. *Occupational & Environmental Medicine*. 2013; 70 (10):716-21.
- 23. Matte T, Ross Z, Kheirbek I, Eisl H, Johnson S, Gorczynski J, Kass D, Markowitz S, Pezeshki G, Clougherty JE. Monitoring intra-urban spatial patterns of multiple combustion air pollutants in New York City: Design and Implementation. *J Expos Sci Environ Epidemiol*. 2013 23(3):223-31. doi: 10.1038/jes.2012.126.
- 24. Felix JD, Elliott EM, Gish T, Maghirang R, Cambal L, Clougherty JE. Examining the transport of ammonia emissions across landscapes using nitrogen isotope ratios. *Atmos Environ*. 2014. 95: 563-570.
- 25. Savitz DA, Bobb J, Carr JL, Clougherty JE, Dominici F, Elston B, Ito K, Ross Z, Yee M, Matte TD. Ambient fine particulate matter, nitrogen dioxide, and term birth weight in New York City. *Am J Epidem*. 2014. 179(4):457-66. doi: 10.1093/aje/kwt268.
- 26. Shmool JLC, Kubzansky LD, Ito K, Dotson-Newman O, Spengler JD, Shepard P, Clougherty JE. Spatial correlations across community social stressors and outdoor air pollution in New York City: A GIS-based approach for social-environmental epidemiology. *Environ Health.* 2014; 13:91. (*Highly accessed*)
- 27. Shmool J, Michanowicz AR, Cambal L, Tunno BJ, Eisl H, Gorczynski JE, Howell J, Gillooly SE, Roper C, Tripathy S, Chubb L, Holguin F, Shields KN, Clougherty JE. Saturation sampling for spatial variability in multiple air pollutants across an inversion-prone metropolitan area of complex terrain. *Environ Health*. 2014; 13 (28). doi: 10.1186/1476-069X-13-28.
- 28. Tunno BJ, Michanowicz AR, Shmool JLC, Kinnee E, Cambal L, Tripathy S, Gillooly SE, Roper C,

Chubb L, Clougherty JE. Spatial variation in inversion-focused measures of fine particulate matter and elemental carbon in Pittsburgh, PA. *J Expos Sci Environ Epidemiol.* 2016; 26, 385–396; doi:10.1038/jes.2015.59.

- 29. Sheffield PE, Shmool JLC, Zhou J, Clougherty JE. Ambient ozone exposure and children's acute asthma in New York City: A Case-Crossover Analysis. *Environ Health* 2015; 14(25). doi: 10.1186/s12940-015-0010-2. PMCID: PMC4373115. (*Highly accessed*)
- 30. Talbott E, Arena V, Rager JR, Clougherty JE, Michanowicz, AR, Sharma RK, Stacy SL. Fine Particulate Matter and the Risk of Autism Spectrum Disorder. *Environ Res* 2015. 140: 414-420. DOI: 10.1016/j.envres.2015.04.021.
- Savitz DA, Elston B, Bobb J, Clougherty JE, Dominici F, Ito K, Johnson S, McAlexander T, Ross Z, Shmool JL, Matte T, Wellenius G. Ambient fine particulate matter, nitrogen dioxide, and hypertensive disorders of pregnancy in New York City. *Epidemiol.* 2015. 26(5):748–757.
- 32. Shmool JL, Yonas MA, Newman OD, Kubzansky LD, Calloway C, Joseph E, Parks A, Shepard P, Clougherty JE. Identifying perceived neighborhood stressors across diverse communities in New York City. *Am J Comm Psych.* 2015. doi: 10.1007/s10464-015-9736-9.
- Tunno BJ, Cambal L, Dalton R, Tripathy S, Howell J, Michanowicz AR, Shields KN, Holguin F, Lioy P, Clougherty JE. Indoor air sampling for multiple pollutants in industrial communities in Pittsburgh. *Sci Tot Environ*. 2015. 536:108-15. doi: 10.1016/j.scitotenv.2015.06.117.
- 34. Shmool JL, Bobb JF, Savitz DA, Matte TD, Johnson S, Elston B, Ito K, Ross Z, Dominici F, Clougherty JE. Area-level socioeconomic deprivation, nitrogen dioxide exposure, and term birth weight in New York City. *Environ Res* 2015; 142: 624-632.
- 35. Tunno BJ, Michanowicz AR, Shmool JL, Kinnee E, Tripathy S, Cambal L, Dalton R, Clougherty JE. Spatial patterning in PM_{2.5} constituents under an inversion-focused sampling design across an urban area of complex terrain. *J Expos Sci Environ Epidemiol.* 2016 26(4):385-96.
- Roper C, Tunno B, Cambal L, Chubb L, Clougherty JE, Mischler S. Characterization of ambient and extracted PM_{2.5} collected on filters for toxicology applications. *Inhalation Toxicology 2015*. 27(13). doi:10.3109/0898378.2015.1092185.
- Johnson S, Bobb JF, Ito K, Savitz DA, Elston B, Shmool JLC, Dominici F, Ross Z, Clougherty JE, Matte TD. Ambient fine particulate matter, nitrogen dioxide, and preterm birth in New York City. *Environ Health Perspect* 2016. 124(8) DOI:10.1289/ehp.1510266.
- 38. Michanowicz AR, Shmool JLC, Cambal L, Tunno B, Gillooly S, Olson Hunt JM, Tripathy S, Naumoff Shields K, Clougherty JE. Incorporating line source dispersion into a land use regression model for predicting NO₂. *Transport Res Part D: Transp and Environ.* 2016. 43: 181-91.
- 39. Payne-Sturges DC, Korfmacher KS, Cory-Slechta DA, Jimenez M, Symanski, Shmool JLC, Dotson-Newman O, Clougherty JE, French R, Levy JI, Laumbach R, Rodgers K, Bongiovanni R, Scammell MK. Engaging communities in research om cumulative risk and social stress-environment interactions: Lessons learned from EPA's STAR Program. *Environmental Justice*. 2015, 8(6): 203-212.
- 40. Shmool JLC, Kinnee E, Zhou J, Sheffield PE, Clougherty JE. Spatio-temporal ozone variation in a case-crossover analysis of childhood asthma hospital visits in New York City. *Environmental Research*. 2016 May;147:108-14. doi: 10.1016/j.envres.2016.01.020.
- Péter S, Holguin F, Wood LG, Clougherty JE, Raederstorff D, Antal M, Weber P, Eggersdorfer M. Nutritional solutions to reduce risks of negative health impacts of air pollution. *Nutrients*. 2015; 7(12):10398-416. doi:10.3390/nu7125539.
- 42. Michanowicz DR, Shmool JLC, Tunno B, Tripathy S, Gillooly S, Kinnee E, Clougherty JE. A hybrid land use regression / AERMOD framework for predicting intra-urban variation in PM_{2.5} *Atmospheric Environment.* 2016; 131:307-15. doi:10.1016/j.atmosenv.2016.01.045.

- 43. Tunno BJ, Dalton R, Cambal L, Holguin F, Lioy P, Clougherty JE. Indoor Source Apportionment in Urban Communities near Industrial Sites. *Atmospheric Environment* 2016; 139: 30-36. doi:10.1016/j.atmosenv.2016.04.039.
- 44. Ito K, Johnson S, Kheirbek I, Clougherty JE, Pezeshki G, Ross Z, Eisl H, Matte T. Intra-urban variation of fine particle elemental concentrations in New York City. *Environmental Science & Technology* 2016. 50(14):7517-26. doi: 10.1021/acs.est.6b00599.
- 45. Gillooly SE, Shmool JLC, Michanowicz DR, Bain DJ, Cambal LK, Shields KN, Clougherty JE. Framework for using deciduous tree leaves as biomonitors for intraurban particulate air pollution in exposure assessment. *Environmental Monitoring and Assessment 2016*. 188(8), 1-23. doi: 10.1007/s10661-016-5482-1
- 46. Tunno BJ, Shmool JLC, Michanowicz DR, Tripathy S, Chubb LG, Kinnee E, Cambal L, Roper C, Clougherty JE. Spatial variation in diesel-related elemental and organic PM_{2.5} components during workweek hours across a downtown core. *Sci Total Environ 2016; 573:27-38. doi:* 10.1016/j.scitotenv.2016.08.011.
- Roper, C, Chubb LG, Cambal L, Tunno B, Clougherty JE, Fattman C, Mischler SE. Association of inflammatory markers with PM_{2.5} components: Importance of characterizing filter-based PM_{2.5} following extraction. *Water Air Soil Pollut*. 2017 Jan; 228: 43. doi: 10.1007/s11270-016-3219-y. PMCID: PMC5628506. PMID: 28989204.
- 48. Reid CE, Clougherty JE, Shmool JLC, Kubzansky LD. Is all urban green space the same? A comparison of the health benefits of trees and grass in NYC. *Int J Environ Res Public Health* 2017; 14, 1411; doi:10.3390/ijerph14111411
- 49. Hubbell BJ, Kaufman A, Rivers L, Schulte K, Hagler G, Clougherty JE, Cascio W, Costa D. Understanding Social and Behavioral Drivers and Impacts of Air Quality Sensor Use. *Sci Tot Environ 2017; 621: 886-894. https://doi.org/10.1016/j.scitotenv.2017.11.275.*
- 50. Paterson, J, Iusitini L, Tautolo E-S, Taylor S, Clougherty J. Pacific Islands Families (PIF) Study: Housing and psychological distress among Pacific mothers. *Aust N Z J Public Health. 2018 Apr;42(2):140-144. doi: 10.1111/1753-6405.12717. PMID: 28898499.*
- Mady LJ LJ, Schwarzbach HL, Moore JA, Boudreau RM, Tripathy S, Kinnee E, Dodson ZM, Willson TJ, Clougherty JE, Lee SE. Air pollutants may be environmental risk factors in chronic rhinosinusitis disease progression. *Int Forum Allergy Rhinol.* 2018 Mar; 8(3):377-384. doi: 10.1002/alr.22052.
- 52. Shmool JLC, Johnson IL, Dodson ZM, Keene R, Gradeck R, Beach SR, Clougherty JE. Developing a GIS-Based Online Survey Instrument to Elicit Perceived Neighborhood Geographies to Address the Uncertain Geographic Context Problem, *The Professional Geographer. 2018* doi: 10.1080/00330124.2017.1416299.
- Erqou S, Clougherty JE, Olafiranye O, Magnani JW, Aiyer A, Tripathy S, Kinnee E, Kip KE, Reis S. Particulate Matter Air Pollution and Racial Differences in Cardiovascular Disease Risk. *Arteriosclerosis, Thrombosis, and Vascular Biology 2018;* 38:935–942. PMID: 29545240. PMCID: PMC5864550. DOI: 10.1161/ATVBAHA.117.310305.
- 54. Sheffield PE, Herrera MT, Kinnee EJ, Clougherty JE. Not so little differences: Variation in hot weather risk to young children in New York City. *Public Health 2018;* 161:119-126. doi: https://doi.org/10.1016/j.puhe.2018.06.004. PMID: 29960726.
- 55. Reid CE, Kubzansky LD, Li JY, Shmool JLC, Clougherty JE. It's not easy assessing greenness: A comparison of NDVI datasets and neighborhood types and their associations with self-rated health in New York City. *Health Place*. 2018 Sep 21;54:92-101. doi: 10.1016/j.healthplace.2018.09.005. *PMID: 30248597. DOI: 10.1016/j.healthplace.2018.09.005.*
- 56. Tunno BJ, Michanowicz AR, JLC Shmool, Tripathy S, Kinnee E, Cambal L, Chubb L, Roper C,

Clougherty JE. Spatial patterns in rush-hour vs. work-week diesel-related pollution across a downtown core. *Int J Environ Res Pub Health*. 2018 Sep 10;15(9). doi: 10.3390/ijerph15091968. PMID: 30201856. PMCID: PMC6164514.

- 57. Tunno BJ, Tripathy S, Kinnee E, Michanowicz AR, JLC Shmool, Cambal L, Chubb L, Roper C, Clougherty JE. Fine-Scale Source Apportionment Including Diesel-Related Elemental and Organic Constituents of PM_{2.5} across Downtown Pittsburgh. *Int J Environ Res Pub Health*. 2018. 15, 2177. doi:10.3390/ijerph15102177. PMID: 30301154. PMCID: PMC6210746.
- 58. Payne-Sturges DC, Scammell MK, Levy JI, Cory-Slechta DA, Symanski E, Shmool JLC, Laumbach R, Linder S, Clougherty JE. Methods for Evaluating the Combined Effects of Chemical and Nonchemical Exposures for Cumulative Environmental Health Risk Assessment. *Int J Environ Res Pub Health* 2018, 15(12), 2797; <u>https://doi.org/10.3390/ijerph15122797</u>.
- 59. Tunno BJ, Longley I, Somervell E, Edwards S, Olivares G, Gray S, Cambal L, Chubb L, Roper C, Coulson G, Clougherty JE. Separating spatial patterns in pollution attributable to woodsmoke and other sources, during daytime and nighttime hours, in Christchurch, New Zealand. *Environ Res.* 2019, 171:228-238.
- 60. Schinasi L, Quick H, Clougherty JE, De Roos AC. Greenspace and infant mortality in Philadelphia, PA. *Journal of Urban Health*. 2019. 96(3):497-506. <u>https://doi.org/10.1007/s11524-018-00335-z</u>.
- Burris HH, Lorch S; Kirpalani H; Pursley DM; Elovitz MA; Clougherty JE. Racial disparities in preterm birth in the US; a biosensor of physical and social environmental exposures. Archives of Disease in Childhood. 2019;104(10): 931-935. <u>http://dx.doi.org/10.1136/archdischild-2018-316486</u>. PMID: 30850379. PMCID: PMC6732250.
- 62. Tripathy S, Tunno BJ, Michanowicz DR, Kinnee E, Shmool JLC, Gillooly S, Clougherty JE. Hybrid land use regression modeling for estimating spatio-temporal exposures to PM_{2.5}, BC, and metal components across a metropolitan area of complex terrain and industrial sources *Science of the Total Environment*. 2019. 673:54-63. <u>https://doi.org/10.1016/j.scitotenv.2019.03.453</u>.
- Longley I, Tunno B, Somervell E, Edwards S, Olivares G, Gray S, Coulson G, Cambal L, Roper C, Chubb L, Clougherty JE. Assessment of Spatial Variability across Multiple Pollutants in Auckland, New Zealand. *Int J Environ Res Public Health* 2019. 16(9):1567. PMID: 31060269. PMCID: PMC6539388. DOI: 10.3390/ijerph16091567.
- 64. Sheffield PE, Kinnee EJ, Shmool JLC, Clougherty JE. Violent crime and socioeconomic deprivation in shaping asthma-related pollution susceptibility: a case-crossover design. *J Epidemiol Community Health.* 2019;73:846–853. doi:10.1136/jech-2018-211816.
- 65. Burns CJ, LaKind JS, Mattison DR, Alcala CS, Branch F, Castillo J, Clark A, Clougherty JE, Darney SP, Erickson H, Goodman M, Greiner M, Jurek AM, Miller A, Rooney AA, Zidek A. A Matrix for Bridging the Epidemiology and Risk Assessment Gap. *Global Epidemiology. 2019. https://doi.org/10.1016/j.gloepi.2019.100005.*
- 66. Gillooly SE, Tripathy S, Michanowicz, Shmool JLC, Bain D, Tunno B, Cambal L, Clougherty JE. Evaluating deciduous tree leaves as biomonitors for ambient particulate matter pollution in Pittsburgh, PA, USA. *Environ Monit Assess. 2019;191:711.*
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- 87. Yang N, Quick HS, Melly SJ, Mullin AM, Zhao Y, Edwards J, Clougherty JE, Schinasi LH, Burris HH. Spatial patterning of spontaneous and medically indicated preterm birth in Philadelphia. *Am J Epidemiol.* 2023. *Accepted.*
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- 89. Girma B, Liu B, Schinasi LH, Clougherty JE, Sheffield PE. High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC. *Environmental Research: Health. Accepted.*
- 90. Schinasi LH, Kondo MC, Edwards J, Clougherty JE, De Roos A, Bilal U. Does urban greenspace reduce mortality inequalities based on poverty, race or both in Philadelphia, PA? *Journal of Urban Health*. 100, 686-695 (2023), https://doi.org/10.1007/s11524-023-00748-5.
- 91. Ocampo P, Clougherty JE. Perceived vs. Objective Measures of Air Pollution as Predictors of Asthma and Self-Reported Health among Urban Adults. *Int J Environ Res Public Health. 2023, 20, 6648. https://doi.org/10.3390/ijerph20176648.*

Invited Review Papers (Peer-Reviewed):

- 92. Clougherty JE, Souza K, Cullen MR. Work and its role in shaping the social gradient in health. *Annals of the New York Academy of Sciences*. 2010 Feb; 1186:102-24. PMID: 20201870.
- Clougherty JE, Shmool JL, Kubzansky LD. The role of non-chemical stressors in mediating socioeconomic susceptibility to environmental chemicals. *Current Environ Health Reports*. 2014: 1(4): 302-313. doi: 10.1007/s40572-014-0031-y.
- 94. Clougherty JE, Rider C. Integration of Psychosocial and Chemical Stressors in Risk Assessment. *Curr Opin Toxicol.* 2020:22: 25-29. <u>https://doi.org/10.1016/j.cotox.2020.07.005</u>.
- 95. Clougherty, J.E., Humphrey, J.L., Kinnee, E.J. et al. What Is "Socioeconomic Position (SEP)," and How Might It Modify Air Pollution-Health Associations? Cohering Findings, Identifying Challenges, and Disentangling Effects of SEP and Race in US City Settings. *Curr Envir Health Rpt* 9, 355–365 (2022). <u>https://doi.org/10.1007/s40572-022-00359-3</u>

Invited Commentaries:

96. Clougherty JE, Burris H. Rising global temperatures is likely to exacerbate persistent disparities in

preterm birth. Paediatr Perinat Epidemiol. 2022;36:23-25. http://dx.doi.org/10.1111/ppe.12852.

97. Clougherty JE. Temporality and Recursive Dynamics in Stress-Pollution Interactions: A Commentary. *Environ Health Perspec. Accepted*. <u>https://doi.org/10.1289/EHP12416</u>.

Commentaries/ Short Reports:

- 98. Clougherty JE, Kubzansky LD. Traffic-Related Air Pollution and Stress: Effects on Asthma. *Environ Health Perspect*. 2008; 116 (9): A376-A377. doi: 10.1289/ehp.11863.
- 99. Clougherty, J.E., Exposure science in an infectious disease pandemic: who do we want to be? *J Expos Sci Environ Epi* 2020. 30(6):903-904. <u>https://www.nature.com/articles/s41370-020-00277-2</u>.
- 100. Clougherty JE, Kinnee EJ, Cardet JC, Mauger D, Bacharier L, Beigelman A, Blake KV, Cabana MD, Castro M, Chmiel JF, Covar R, Fitzpatrick A, Gaffin JM, Gentile D, Israel E, Jackson DJ, Krishnan JA, Kumar HV, Lang JE, Lazarus SC, Lemanske RF, Lima J, Martinez F, Morgan W, Moy J, Myers R, Naureckas ET, Ortega VE, Peters SP, Phipatanakul W, Pongracic JA, Ross K, Sheehan WJ, Smith LJ, Solway J, Sorkness CA, Wechsler ME, Wenzel S, White SR, Holguin F. Geography, Generalizability, and Susceptibility in Clinical Trials. *Lancet Respir Med.* 9(4):330-332. DOI: https://doi.org/10.1016/S2213-2600(21)00046-1.
- 101. Weinberger KR, Girma B, Clougherty JE, Sheffield PE. Inclusion of child-relevant data in the development and validation of heat vulnerability indices: A commentary. *Environmental Research: Health.* 2023 Sep 1;1(3):033001. doi: 10.1088/2752-5309/acdd8a. Epub 2023 Jun 22.

Invited Book Chapters:

- 102. Clougherty JE. Efficacy of environmental interventions on asthma-related quality of life. In: Preedy V, Watson RR, editors. *Handbook of Disease Burdens and Quality of Life Measures*. p 3073-3083. New York: Springer, 2009.
- 103. Clougherty JE, Levy JI. Psychosocial and Chemical Stressors. In: Rider C, Simmons JE, editors. *Mixtures Toxicology and Risk Assessment*. Springer, 2018. ISBN 978-3-319-56232-2.

Government and Institute-Sponsored Research Reports:

- 104. Levy JI, Clougherty JE, Baxter LK, Houseman EA, Paciorek CJ, HEI Health Review Committee. Evaluating heterogeneity in indoor and outdoor air pollution using land-use regression and constrained factor analysis. *Health Effects Institute (HEI) Research report*. 2010 Dec. PMID: 21409949.
- 105. Johnson S, Kheirbek I, Pezeshki G, Jacobson JB, Kass D, Freed A, Strickland CH, Eisl HM, Gorczynski J, Benson A, Camacho A, Werbe-Fuentes J, Haviland-Markowitz J, Munoz R, Tilles A, Vanderpool S, Markowitz S, Clougherty JE, Matte T, Ross Z, Kitson H, Stevens LM (2011). The New York City Community Air Survey: Results from Year One Monitoring, 2008-2009. New York City Department of Health and Mental Hygiene, and NYC Mayor's Office for Long-Term Planning and Sustainability. http://www.nyc.gov/html/doh/downloads/pdf/eode/comm-air-survey-report.pdf.
- 106. Michanowicz D, Malone S Ferrar K, Kelso M, Clougherty JE, Fabisiak JP, Kriesky J. Pittsburgh Regional Environmental Threat Analysis (PRETA): Particulate Matter. Public report commissioned by Heinz Endowments: http://www.chec.pitt.edu/documents/PRETA/PRETA PM.pdf.
- 107. Levy JI, Clougherty JE, deFur P (2011). Integrating Chemical and Non-Chemical Stressors in Cumulative Risk Assessment. U.S. EPA Risk Assessment Forum, Research Triangle Park, NC. Government white paper commissioned by U.S. EPA. (commissioned white paper).
- 108. Michanowicz A, Malone S, Ferrar KJ, Kelso M, Clougherty JE, Kriesky J, Fabisak JP Pittsburgh Regional Environmental Threats Analysis Report: Hazardous Air Pollutants. Public report

commissioned by Heinz Endowments: http://www.heinz.org/UserFiles/Library/PRETA_HAPS.pdf.

- 109. Clougherty JE, Kheirbek I, Johnson S, Pezeshki G, Jacobson JB, Eisl HM, Gorczynski J, Ross Z, Kitson H, Benson A, Camacho A, Werbe-Fuentes J, Haviland-Markowitz J, Munoz R, Tilles A, Strickland CH, Charles-Guttman K, Markowitz S, Kass D, Matte T (2010). The New York City Community Air Survey: Results from Summer Monitoring 2009. New York City Department of Health and Mental Hygiene, and NYC Mayor's Office for Long-Term Planning and Sustainability. http://www.nyc.gov/html/doh/downloads/pdf/eode/nyccas-report-summer09.pdf
- 110. Clougherty JE, Kheirbek I, Johnson S, Pezeshki G, Jacobson JB, Eisl H, Gorczynski J, Ross Z, Kitson H, Benson A, Camacho A, Werbe-Fuentes J, Haviland-Markowitz J, Munoz R, Tilles A, Strickland CH, Charles-Guttman K, Markowitz S, Kass D, Matte T (2010). The New York City Community Air Survey Supplemental report: Nickel Concentrations in Ambient Fine Particles: Winter Monitoring, 2008-2009. New York City Department of Health and Mental Hygiene, and NYC Mayor's Office for Long-Term Planning and Sustainability. http://www.nyc.gov/html/doh/downloads/pdf/eode/nyccas-ni-report0510.pdf (Government report).
- 111. Clougherty JE, Kheirbek I, Johnson S, Pezeshki G, Jacobson JB, Eisl HM, Gorczynski J, Ross Z, Kitson H, Benson A, Camacho A, Werbe-Fuentes J, Haviland-Markowitz J, Munoz R, Tilles A, Strickland CH, Charles-Guttman K, Markowitz S, Kass D, Matte T (2009). The New York City Community Air Survey: Results from Winter Monitoring 2008-2009. New York City Department of Health and Mental Hygiene, and NYC Mayor's Office for Long-Term Planning and Sustainability. http://nyc.gov/html/om/pdf/2009/pr_538_nyccas_report.pdf (Government report).
- 112. Tunno BJ, Clougherty JE. (Characterizing the Spatial Variation in Diesel Particulate Matter in Downtown Pittsburgh. Allegheny County Health Department (ACHD). (Government Report).
- 113. Longley I, Tunno BJ, Clougherty JE. Spatially-Resolved Technique for Source Apportionment in New Zealand (SpartaNZ): Auckland. National Institute of Water & Atmospheric Research Ltd, Auckland, New Zealand (NIWA). *(Government Report)*.
- 114. Committee on the Review of the Department of Veterans Affairs Airborne Hazards and Open Burn Pitt Registry; National Academies of Sciences, Engineering, and Medicine. *Review of the Department of Veterans Affairs Airborne Hazards and Open Burn Pitt Registry*. National Academies Press, Washington D.C., 2016.
- 115. Clougherty JE, Humphrey JL, Reid CE, Kinnee EJ, Robinson LF, McClure LA, Kubzansky LD. 2021. Social Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. Health Effects Institute (HEI) Research Report 206:

<u>https://www.healtheffects.org/publication/social-susceptibility-multiple-air-pollutants-cardiovascul</u> <u>ar-disease</u>.

Manuscripts under review:

- 116. Clougherty JE, Humphrey JL, Kinnee EJ, Sheffield PE. Historical Redlining and Current Violent Crime Rates across New York City (NYC). Research Letter. *Submitted*.
- 117. Humphrey JL, Kinnee EJ, Robinson LF, Clougherty JE. Spatio-temporal associations among multiple pollutants and sub-types of cardiovascular events: A case-crossover analysis. *Submitted*.
- 118. Remigio R, Burris H, Clougherty JE. Chronic community social stressors and susceptibility to nitrogen dioxide (NO₂) on infant birthweight in New York City (NYC). *Submitted*.
- 119. Gomez L, Kinnee EJ, Kaufman J, Young MT, Cardet JC, Mauger D, Bacharier L, Beigelman A, Blake KV, Cabana MD, Castro M, Chmiel JF, Covar R, Fitzpatrick A, Gaffin JM, Gentile D, Israel E, Jackson DJ, Krishnan JA, Kumar HV, Lang JE, Lazarus SC, Lemanske RF, Lima J, Martinez F, Morgan W, Moy J, Myers R, Naureckas ET, Ortega VE, Peters SP, Phipatanakul W, Pongracic JA, Ross K, Sheehan WJ, Smith LJ, Solway J, Sorkness CA, Wechsler ME, Wenzel S, White SR,

Holguin F, Clougherty JE. Variation in efficacy of clinical treatments for asthma by fine particulate air pollution and neighborhood poverty: The AsthmaNet Stepped-up Yellow Zone Inhaled Corticosteroids to Prevent Exacerbations (STICS). *Submitted*.

Drafted manuscripts in preparation:

- 121. Humphrey JL, Kinnee EJ, Clougherty JE. Differential susceptibility to multiple air pollutants by chronic community social stressors in CVD: A case-crossover analysis. Target journal: *Lancet*.
- 122. Tripathy S, Schinasi L, Capps S, Clougherty JE. Spatial and temporal variation in nitrogen dioxide (NO₂) in a complex multi-source urban setting. Target journal: *Atmos Environ*.
- 123. Tripathy S, Somervell E, Kachhara A, Olivares G, Coulson G, Longley I, Clougherty JE. Ports-related air pollution exposures across central Auckland, New Zealand.

Link to peer-reviewed publications listed in NCBI:

http://www.ncbi.nlm.nih.gov/sites/myncbi/jane.clougherty.1/bibliography/50364355/public/?sort=date&direction=asc ending

RESEARCH FUNDING

Current:

Funding Agency: Funding Opportunity:	Environmental Protection Agency (EPA) Science to Achieve Results Cumulative Health Impacts at the Intersection of Climate Change, Environmental Justice, and Vulnerable Populations/ Lifestages: Community-Based Research for Solutions (EPA-G2021-STAR-H1)
Title of Grant:	Understanding Pediatric Susceptibility Across Temperature and Environment in New York (UPStATE NY)
Principal Investigator: Years Inclusive:	Clougherty JE/ Sheffield PE (Multiple-PI) 2022 – 2025
Percent Effort:	20%/25%
Total Direct Costs:	\$1,113,986
Total Amount Awarded:	\$1,350,000
Funding Agency:	National Institutes of Health (NIH) R01
Title of Grant:	Pediatric Health in Extreme Weather – Health Effects and Ambient Temperature (PHEW-HEAT)
Principal Investigator:	Sheffield PE/ Clougherty JE (Multiple-PI)
Years Inclusive:	8/2019 - 7/2024
Percent Effort:	20% academic year; 25% summer
Total Amount Awarded:	\$876,400 (direct)
Eunding Aganay	National Institutes of Health (NIH)/ National Institutes of Environmental
Funding Agency:	Health Science (NIEHS)
Funding Opportunity:	Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER) Award
Title of Grant:	Synergistic Effects of Stress and Traffic-Related Air Pollution on Cardiovascular Health
Principal Investigator:	Wexler/ Chao/ Clougherty (Multi-PI)
Years Inclusive:	12/2022 - 11/2025
Percent Effort:	20/ 25%
Total Direct Costs:	\$1,408,037
Total Amount Awarded:	\$2,217,841
Funding Agency:	National Institutes of Health (NIH)/ National Institutes of Environmental Health Science (NIEHS) R21
Title of Grant:	Community-based air toxics monitoring during rapid environmental change, in industrialized neighborhoods
Principal Investigator:	Clougherty
Role on Grant:	Principal Investigator (PI)
Years Inclusive:	2022 - 2024
Percent Effort:	15%
Total Direct Costs:	\$275,000
Total Amount Awarded:	\$275,000
Funding Agency:	NIH/ NHLBI
Funding Opportunity:	R56 Bridge Funding
Title of Grant:	The housing environment and ambient temperature (HEAT) study
Principal Investigator:	Schinasi
Role on Grant:	Co-Investigator
Years Inclusive:	9/19/2022 - 9/18/2023

Percent Effort:	5%
Total Direct Costs:	\$296,372
Total Amount Awarded:	\$ 438,118.00
Funding Agency:	University of Pennsylvania - Philadelphia Regional Center for Children's Environmental Health (PRCCEH)
Title of Grant:	Evaluating the modifying effect of air pollution on asthma step-up treatment effectiveness among children in Philadelphia"
Principal Investigator:	Clougherty
Role on Grant:	PI
Years Inclusive:	December 1, 2023 – November 30, 2024
Percent Effort:	0%
Total Direct Costs:	\$25,000
Funding Agency:	Arnold Ventures
Title of Grant:	Sustainability of violence prevention after vacant lot greening in Philadelphia: 10-year follow-up
Principal Investigator:	Stephen Mooney
Role on Grant:	Co-Investigator
Years Inclusive:	1/1/23-12/31/25
Percent Effort:	5%
Total Direct Costs:	\$896,590
Funding Agency:	Drexel University Environmental Collaboratory
Title of Grant:	A Community-Scale Monitoring System for Multiple Air Pollutants in South Philadelphia
Principal Investigator:	Clougherty
Years Inclusive:	2022 - 2023
Total Amount Awarded:	\$20,000
Funding Agency:	Drexel University Scholarly Materials and Equipment Research Awards
Title of Grant:	Monitoring Equipment for Urban VOC Air Sampling
Principal Investigator:	Clougherty
Years Inclusive:	2020-2021
Total Amount Awarded:	\$19,771
Funding Agency:	American Chemistry Council
Title of Grant:	Creating and Sustaining Successful Public-Private Partnerships (PPPs) for Environmental Monitoring Programs: Principles and Elements
Principal Investigator:	LaKind JS/ Rule AM/ Wagner FA
Role:	Consultant
Years Inclusive:	11/1/2022 - 4/30/2024
Past research support:	
Funding Agency:	Health Effects Institute (HEI)
Grant Number:	4956-RFPA15-2/17-2
Title of Grant:	Susceptibility to Multiple Air Pollutants in Cardiovascular Disease
Principal Investigator:	JE Clougherty
Years Inclusive:	8/2017 - 10/2019
Percent Effort:	20%
Total Amount Awarded:	\$400,000
Funding Agency:	Drexel University Faculty Summer Research Awards

Title of Grant:	Chronic Stressors and Urban Air Pollution in Asthma and Birth Outcomes
	in NYC
Principal Investigator:	JE Clougherty
Years Inclusive:	6/2019 - 6/2020
Total Amount Awarded:	\$7,000
Funding Agency:	Drexel University Urban Health Collaborative (UHC)
Title of Grant:	Using Emerging Air Sensors to Identify Community Air Pollution Exposures
	Specific to South Philadelphia
Principal Investigator:	Tripathy
Years Inclusive:	6/2019 - 6/2020
Total Amount Awarded:	\$30,000
Funding Agency:	NIEHS Environmental Health Science Center at UC Davis (Pilot award)
Title of Grant:	Social and Genetic Susceptibility to Traffic-Related Air Pollution (TRAP)
Principal Investigator:	Wexler
Years Inclusive:	11/2018 - 11/2019
Total Amount Awarded:	\$5,500
Funding Agency:	National Institutes of Health (NIH)
Grant Number:	1R01HL114536-01
Title of Grant:	Validating GIS-based methods to address spatial uncertainty in clinical trials
Principal Investigator:	JE Clougherty, F Holguin
Role on Grant:	PI (multiple)
Years Inclusive:	8/2012 - 7/2017 (NCE to 7/2018)
Percent Effort:	30.0 %
Total Direct Costs:	\$1,250,000
Total Amount Awarded:	\$1,858,479
Funding Agency:	National Institutes of Health (NIH)
Title of Grant:	Integrating individual and community exposures for cancer risk in urban
The of Grant.	and rural areas of western PA
Dringing Investigator	Jian-Min Yuan
Principal Investigator: Role on Grant:	
Years Inclusive:	Co-Investigator 9/1/16 – 8/31/17
Percent Effort:	5%
Total Direct Costs:	\$7,869
Total Amount Awarded:	\$12,139
Total Amount Awarded.	\$12,137
Funding Agency:	National Institutes of Health (NIH)
Grant number:	1UG3OD023365-01
Title of Grant:	Pre-adolescent and Late-adolescent Follow-up of the CHARGE Study
	Children
Principal Investigator:	Hertz-Picciotto, Bennett, Schweitzer
Role on Grant:	Co-Investigator
Years Inclusive:	10/1/16 - 9/30/17
Percent Effort:	10%
Total Direct Costs (Yr 1):	\$999,636.
Total Amount Awarded (Yr 1):	\$1,569,429.
Funding Agency:	Drexel University Urban Health Collaborative (UHC)
Title of Grant:	Design and Implementation for Spatially-Distributed Air Monitoring
	Campaigns in Philadelphia
	t0

Principal Investigator:	JE Clougherty
Years Inclusive:	6/2017 – 5/2018
Total Direct Costs:	\$25,000
Funding Agency: Title of Grant:	Drexel University Scholarly and Creative Research Award Monitoring Spatial Variation in Air Pollution across Urban Areas: Auckland, New Zealand
Principal Investigator:	JE Clougherty
Years Inclusive:	6/2017 – 5/2018
Total Direct Costs:	\$17,700
Funding Agency:	University of Pittsburgh/ UPMC Clinical Translational Sciences Institute
Title of Grant: Principal Investigator: Role on Grant: Years Inclusive: Total Direct Costs:	(CTSI) Translational Research Pilot PM _{2.5} and Atrial Fibrillation in Allegheny County JM Magnani Co-Investigator 7/2017 – 6/2018 \$25,000
Funding Agency: Title of Grant:	Mascaro Center for Sustainable Innovation Quantifying Reductions in Diesel-Related Air Pollution Exposures across Downtown Pittsburgh
Principal Investigator:	JE Clougherty
Years Inclusive:	2015-2016
Total Amount Awarded:	\$50,000
Funding Agency: Grant Number: Title of Grant:	U.S. Environmental Protection Agency R834576 Community Stressors and Susceptibility to Air Pollution in Urban Asthma
Principal Investigator:	JE Clougherty
Years Inclusive:	3/2011 - 3/2016 (NCE)
Percent Effort:	15.0 %
Total Direct Costs:	\$1,226,206
Funding Agency: Grant Number: Title of Grant:	Allegheny County Health Department (ACHD) 138884 Characterizing the Spatial Variation in Diesel Particulate Matter in Downtown Pittsburgh
Principal Investigator:	JE Clougherty
Years Inclusive:	9/2012 - 9/2015
Percent Effort:	10.0 %
Total Direct Costs:	\$860,000
Funding Agency:	National Institutes of Health (NIH)
Grant Number:	1 R21 ES021429-01
Title of Grant:	Children's Health and Vulnerability to Heat and Ozone in NYC
Principal Investigator:	JE Clougherty, P Sheffield
Role on Grant:	PI (multiple)
Years Inclusive:	6/2012 - 5/2015 (NCE)
Percent Effort:	10.0 %
Total Direct Costs:	\$137,960
Total Amount Awarded:	\$209,012

Funding Agency: Title of Grant: Principal Investigator: Years Inclusive: Percent Effort: Total Amount Awarded:	National Resources Defense Council (NRDC) Airborne Coal Ash Monitoring and Analysis JE Clougherty 10/2015 - 8/2016 5.0 % \$21,559
Funding Agency: Grant Number:	National Institutes of Health (NIH) 5R01ES19955-3
Title of Grant:	Air Pollution and Pregnancy Outcomes in New York City
Principal Investigator:	Savitz
Role on Grant:	Co-Investigator
Years Inclusive:	8/2011 - 6/2014
Percent Effort: Total Direct Costs:	10.0 %
Total Direct Costs:	\$71,345
Funding Agency:	Manners Award - University Center for Social and Urban Research
Title of Grant:	Social Stressors, Air Pollution, and Cancer across Allegheny County, PA
Principal Investigator:	Robertson, L
Role on Grant:	Co-Investigator
Years Inclusive: Total Amount Awarded:	2014-2015 \$10,000
Total Alloulit Awarded.	\$10,000
Funding Agency:	University of Pittsburgh Central Research Development Fund
	Faculty Award 2012
Title of Grant:	Validating tree leaf use as a novel method to reduce exposure misclassification
Principal Investigator:	Shields
Clougherty Role on Grant:	Co-Investigator
Years Inclusive:	6/2012 - 6/2014
Total Direct Costs:	\$16,000
Funding Agency:	Heinz Endowments
Title of Grant:	Incorporating Metals Analysis into Spatial Mapping of Multiple Air Pollutants across Pittsburgh
Principal Investigator:	Robinson
Clougherty Role on Grant:	PI (multiple)
Years Inclusive:	6/2012 - 5/2014
Percent Effort:	5.0 %
Total Direct Costs:	\$132,211
Funding Agency:	New Zealand National Institute of Water and Atmospheric Research
Grant Number:	SA131152
Title of Grant:	Visiting Scientist Travel Award for Dr. Jane E. Clougherty
Principal Investigator:	I Longley
Clougherty Role on Grant:	PI (multiple)
Years Inclusive: Total Direct Costs:	8/2012 - 8/2013 \$20,360
Total Dilect Costs.	\$20,500
Funding Agency:	Heinz Endowments
Grant Number:	C1627
Title of Grant:	Case-Control Study of Personal and Environmental Risk Factors for
Principal Investigator:	Childhood Autism in Southwestern Pennsylvania Talbott

Clougherty Role on Grant: Years Inclusive: Percent Effort: Total Direct Costs: Total Amount Awarded:	Co-Investigator 8/2011 - 8/2013 5.0 % \$780,915 \$780,915
Funding Agency: Grant Number: Title of Grant:	University of Pittsburgh Central Research Development Fund CRDF Faculty Pilot Award 2011 Developing a GIS-based survey instrument to examine multiple exposures in neighborhood health research
Principal Investigator: Years Inclusive: Total Direct Costs:	JE Clougherty 6/2011 - 8/2013 \$16,000
Funding Agency: Grant Number: Title of Grant: Principal Investigator:	University of Pittsburgh Center for Social and Urban Research (UCSUR) Manners Faculty Development Award 2011 A novel geospatial modeling technique to predict individual-level chronic stress in urban communities Clougherty JE
Years Inclusive: Total Direct Costs:	6/2011 - 6/2013 \$10,000
Funding Agency: Grant Number: Title of Grant:	National Institute for Occupational Health Sciences (NIOSH/CDC) K-01 (1-K01-OH-009589-01) Chronic Occupational Noise, Stressors, and Susceptibility in Cardiovascular Illness
Principal Investigator: Years Inclusive: Percent Effort: Total Direct Costs:	JE Clougherty 2009 – 2013 50.0 % \$300,000
Funding Agency:	National Institute for Environmental Health (NIEHS) Harvard School of Public Health (HSPH) Particle Center Pilot Program
Title of Grant: Principal Investigator: Years Inclusive:	Physiologic Mechanisms to Explain Observed Differential Susceptibilities to Air Pollution by Social Stress in Rats Clougherty 2007 – 2008
Total Direct Costs:	\$25,000
Funding Agency: Title of Grant:	New Zealand Health Research Council (HRC) Feasibility Grant Family Stressors and Susceptibility to Traffic-Related and Indoor Air Pollution: The Pacific Islands Families Study
Principal Investigator: Clougherty Role on Grant: Years Inclusive: Total Direct Costs:	Paterson Co-Investigator 2006 – 2007 \$128,000
Funding Agency: Title of Grant:	American Lung Association: Lung Health Dissertation Grant The Roles of Social Stress and Air Pollution Exposures in Exacerbation and Etiology of Childhood Asthma
Principal Investigator: Years Inclusive: Percent Effort:	Clougherty 2005 – 2006 100.0 %
Total Direct Costs:	\$25,000

INVITED PRESENTATIONS

- 1. Clougherty JE. The Role for Gender Analysis in Environmental Health: Exposure to violence as a determinant of air pollution susceptibility. Presented at: HSPH Advanced Seminar in Women, Gender, and Health; 2004-2006; Boston, MA.
- 2. Clougherty JE. Gender and Sex Differences in the Role of Job Grade on Hypertension Outcomes. Presented at: MacArthur Network on Socioeconomic Status and Health; 2008; Phoenix, AZ.
- 3. Clougherty JE. Chronic Disease Onset in the Alcoa Aluminum Manufacturing Cohort. Presented at: MacArthur Network on Socioeconomic Status and Health; 2008; Cambridge, MA.
- 4. Clougherty JE. Combined Effects of Chronic Stress and Air Pollution. Presented at: North Carolina Environmental Justice Summit; 2009; Bricks, NC.
- 5. Clougherty JE, The New York City Community Air Survey (NYCCAS): Briefing for EPA. EPA Region II. 2009 Jan 28; New York, NY.
- 6. Clougherty JE. Year-Round Intra-Urban Variability in Air Pollution: The New York City Community Air Survey (NYCCAS). Presented at: Harvard School of Public Health: Exposure, Epidemiology, and Risk Seminar; 2010; Boston MA.
- 7. Clougherty JE. Combined Effects of Air Pollution and Social Stressors on Health in Communities Affected by Natural Gas Fracturing. Presented at: Conference on Health Effects of Shale Gas Extraction: What is Known and What We Can Predict; 2010; University of Pittsburgh, PA.
- 8. Clougherty JE. Examining Year-Round Intra-Urban Variability in Multiple Air Pollutants: The New York City Community Air Survey (NYCCAS). Presented at: Harvard School of Public Health: Biostatistics Seminar; 2010; Boston, MA.
- 9. Clougherty JE. Intra-Urban Variability in Multiple Air Pollutants: The New York City Community Air Survey (NYCCAS). Presented at: Hunter College of the City University of New York; 2010
- 10. Clougherty JE, Kubzansky LD. A Framework for Examining Social Stress and Susceptibility to Environmental Pollutants. Presented at: U.S. Environmental Protection Agency (EPA) Symposium: The Science of Environmental Justice; 2010 Mar; Washington, DC.
- 11. Clougherty JE, Godleski J. Stress-Related Susceptibility to Air Pollution, with Application in an Animal Model. Presented at: Conceptualizing Gene-Environment Interactions in Obesity Research: Complex Pathways to Health Disparities,' Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities; 2011; Boston MA.
- 12. Clougherty JE. Examining Health Effects of Urban Air Pollution using Land-Use Regression Modeling Methods. Presented at: Carnegie Mellon University; 2011; Pittsburgh, PA.
- 13. Clougherty JE, Levy JI, deFur P. An Example for Integrating a Non-chemical Stressor into Cumulative Risk Assessment: Exposure to Violence and Air Pollution in Childhood Asthma. Presented at: Integrating Chemical and Non-Chemical Stressors in Cumulative Risk Assessment' U.S. EPA Risk Assessment Forum; 2011; Research Triangle Park, NC.
- 14. Clougherty JE, Lawrence J, Diaz E, Long M, McEwen B, Koutrakis P, Godleski J. Chronic Social Stress and Differential Susceptibility to Concentrated Air Pollution in Rats. Presented at: U.S. Environmental Protection Agency (EPA) Symposium: The Science of Environmental Justice; 2011; Washington, DC.
- 15. Clougherty JE, Levy JI, Carr JL, deFur P. Using Epidemiological (and Toxicological) Evidence to Incorporate Non-Chemical Stressors into Cumulative Risk Assessment, in symposium: 'Is Epidemiology Really the Key to Cumulative Risk Assessment?'. Presented at: International Society for Environmental Epidemiology (ISEE); 2012; Columbia, SC.
- 16. Clougherty JE. Quantification of Air Pollution in Pittsburgh. Presented at: Pittsburgh Asthma Summit: West Penn Allegheny Health System; 2012; Pittsburgh, PA.
- 17. Clougherty JE, Carr JL, Shepard P. Disentangling Spatial Patterns in Social and Environmental Exposures for Epidemiology. Presented at: EPA Workshop on Interactions between Social Stressors and Environmental Hazards; 2012 May; Washington DC.
- 18. Clougherty JE. Multiple-Pollutant Air Monitoring and Source Identification in Pittsburgh, PA. Presented at: Mid-Atlantic Regional Air Managers (MARAMA) Air Toxics Workshop; 2012 Aug 1; Baltimore, MD.
- 19. Clougherty JE. Assessment of Non-Chemical Stressor Exposures for Environmental Health

Research. Presented at: International Society for Exposure Science (ISES); 2012 Oct; Seattle WA.

- 20. Carr JL, Newman OD, Joseph E, Chubb L, Parks A, Callaway C, Kubzansky LD, Spengler JD, Shepard P, Clougherty JE. Exploring the relevance of publicly-available indicators of social stressors through a spatially-informed, community-based qualitative process across NYC. Presented at: WE ACT for Environmental Justice Researcher Roundtable; 2012 Oct 1; New York, NY.
- 21. Gillooly SE, Cambal L, Clougherty JE, Shields KN. Validating tree leaf use as a novel method to reduce exposure misclassification. Presented at: University of Minnesota Institute for Rock Magnetism; 2012 Oct 1; Minneapolis, MN.
- 22. Clougherty JE. Health Effects of Shale Gas Extraction Conference (Moderator). Presented at: University of Pittsburgh; 2012 Nov 9; Pittsburgh, PA.
- 23. Gillooly SE, Cambal L, Feinberg J, Jackson M, Carr JL, Michanowicz AR, Tunno BJ, Clougherty JE, Shields KN. Development and Validation of a Method Using Deciduous Tree Leaves to Capture Air Pollution Variation in Pittsburgh, PA. Poster presented at: Health Across the Lifespan: Allegheny County 2012 conference; 2012 Dec 2; Pittsburgh, PA.
- 24. Michanowicz AR. Sustainability: Air pollution within the context of public health equity. Presented at: Sustainability EXPOsed: Rediscovering sustainability ideas and innovations that are making business, governance, and community better for our region; 2013; Pittsburgh, PA.
- 25. Clougherty JE, Holguin F. Validating GIS-based methods to address spatial uncertainty in clinical trials. Presented at: NIH AsthmaNet Steering Committee; 2013 Jan 8; Chicago, IL.
- 26. Clougherty JE. Diesel Monitoring throughout Downtown Pittsburgh. Presented at: Allegheny County Health Department (ACHD) Air Advisory Committee; 2013 Jan 23; Pittsburgh, PA.
- 27. Clougherty JE, Carr JL, Johnson I. Developing a GIS-based survey tool to elicit perceived neighborhood information for environmental health research. Presented at: University Center for Social and Urban Research (UCSUR); 2013 Feb 1; Pittsburgh, PA.
- 28. Clougherty JE. Health Disparities, Multiple Pollutants, and Pollution Susceptibility, across Pittsburgh, PA. Presented at: GSPH Board of Visitors; 2013 Mar 28; Pittsburgh, PA.
- 29. Clougherty JE. Intra-Urban Air Pollution Exposure Assessment for Epidemiology. Presented at: National Institutes for Water and Atmospheric Research (NIWA) Research Symposium; 2013 Apr 20; Auckland, New Zealand.
- 30. Clougherty JE. Intra-Urban Variation in Air pollution and Susceptibility. Presented at: Clean Air Society of Australia and New Zealand (CASANZ); 2013 May 6; Christchurch, New Zealand.
- 31. Clougherty JE. Intra-Urban Variation in Air Pollution and Susceptibility. Presented at: Auckland Council; 2013 May 10; Auckland, New Zealand.
- 32. Clougherty JE. Intra-Urban Variation in Air Pollution and Health Effects. Presented at: Unitech University; 2013 May 14; Auckland, New Zealand.
- 33. Carr JL, Clougherty JE. Chronic Social Stressors and Susceptibility to Air Pollution across NYC. Presented at: New York City Community Air Network (NYCCAN); 2013 Jun 19; New York, NY.
- 34. Clougherty JE, Tunno B, Cambal L, Roper C, Chubb L. Monitoring for Spatial Variation in Multiple Air Pollutants in Pittsburgh, PA and New Zealand. Presented at: National Institutes for Water and Air Research (NIWA); 2014; Auckland NZ.
- 35. Clougherty JE, Tunno B, Cambal L, Chubb L, Roper C. Monitoring for Spatial Variation in Multiple Air Pollutants in Pittsburgh, PA and New Zealand. Presented at: National Institutes for Water and Air Research (NIWA) Speaker Series; 2014; Christchurch, New Zealand.
- 36. Clougherty JE. GIS-Based Methods for the Analysis of Clinical Trials Data. Presented at: Hillman Cancer Center Speakers' Series; 2014; Pittsburgh, PA.
- 37. Carr JL, Clougherty JE. Validating community stressors using individual survey data on perceived stress across New York City. Presented at: Pittsburgh Biobehavioral Medicine Community Idea Series; 2014 Feb 13; Pittsburgh, PA.
- 38. Clougherty JE. Organics Monitoring in Downtown Pittsburgh. Presented at: EPA Region III Air Director's Annual Meeting; 2014 May 29; Pittsburgh, PA.
- 39. Clougherty JE. Air Monitoring and Modelling across Pittsburgh, PA. Presented at: Breathe Project Advisory Committee; 2014 Jun 5; Pittsburgh, PA.
- 40. Clougherty JE. Spatial Variation in Diesel-Related Organics in Downtown Pittsburgh. Presented at: Allegheny County Health Department (ACHD) Clean Air Advisory Committee; 2014 Jun 17;

Pittsburgh, PA.

- 41. Clougherty JE, Shmool JL. Validating administrative social stressor indicators using survey data on perceived stress across New York City, in Symposium on 'Exposure Assessment for Non-Chemical Stressors'. Presented at: International Society for Exposure Science (ISES); 2014 Sep 12; Cincinnati, Ohio.
- 42. Clougherty JE. Implications of Intra-Urban Variation in Air Pollution for Nutritional Interventions. Presented at: DSM Workshop on Nutritional Interventions for Health Effects of Air Pollution; 2014 Sep 22; Valencia, Spain.
- 43. Clougherty JE. Intra-Urban Variation in Air Pollution Implications for Nutritional Interventions. Presented at: Nutrition & Food Sciences Congress; 2014 Sep 23-25; Valencia, Spain.
- 44. Clougherty JE. Mobile and Saturation Monitoring for Multiple Pollutants and Source Identification in Pittsburgh, PA, in Health Effects Institute (HEI) workshop on mobile and saturation monitoring. Presented at: International Society for Exposure Science (ISES); 2014 Oct 12; Cincinnati, Ohio.
- 45. Shmool JL, Clougherty JE. Area-level socioeconomic deprivation, air pollution, and term birth weight in New York City, in Symposium on 'Exposure Assessment for Non-Chemical Stressors'. Presented at: International Society of Exposure Science (ISES); 2014 Oct 12; Cincinnati, OH.
- 46. Clougherty JE. Community Stressors and Susceptibility to Air Pollution in Urban Asthma. Presented at: US Environmental Protection Agency Grantee Workshop; 2014 Oct 23; Boston, MA.
- 47. Clougherty JE. Exposure Assessment for Unconventional Natural Gas Development -- A Case Study. Presented at: Harvard School of Public Health (HSPH) Environmental Health Fellows Workshop; 2014 Nov 5; Boston, MA.
- 48. Clougherty JE. Differential Susceptibility to Urban Air Pollution by Chronic Stress. Presented at: Harvard School of Public Health (HSPH) Environmental Health Fellows Workshop; 2014 Nov 5; Boston, MA.
- 49. Clougherty JE, Kinnee E, Holguin F. Key Sources of Intra-urban Spatial Variability in Geocoded Residential Addresses. Presented at: NIH Webinar Series on Spatial Uncertainty: Data, Modeling and Communication; 2014 Nov 6; Bethesda, MD.
- 50. Clougherty JE. Spatial Modeling of Diesel-Related Air Pollutants in Downtown Pittsburgh. Presented at: Mid-Atlantic Regional Air Managers' Association. 2014 Dec 10. Charlottesville, VA.
- 51. Clougherty JE, Tripathy SH. Introduction to Environmental Health. Presented at: Urban League of Pittsburgh. 2015 Jan 26; Pittsburgh PA.
- 52. Clougherty JE. Diesel-Related Air Pollution in Downtown Pittsburgh. Presented at: Allegheny County Health Department Air Advisory Committee. 2015 Feb 10; Pittsburgh PA.
- 53. Clougherty JE. Intra-Urban Variation in Air Pollution in Pittsburgh. Presented at: University of Pittsburgh Department of Geology and Environmental Science; 2015 Feb 12; Pittsburgh PA.
- 54. Clougherty JE. A Framework for Examining Social Stress and Susceptibility to Air Pollution in Respiratory Health. Presented at: Evaluating and Quantifying Stress for Inclusion in Cumulative Risk Assessment Symposium, at Society of Toxicology (SOT); 2015 Mar 23; San Diego, CA.
- 55. Clougherty JE. Intra-Urban Variation in Air Pollution Exposures and Susceptibility. Presented at: Curtin University; 2015 Mar 27; Perth, Australia.
- 56. Clougherty JE. Intra-Urban Air Pollution and Differential Susceptibility. Presented at: University de Bordeaux; 2015 Apr 10; Bordeaux, France.
- 57. Clougherty JE. La Pollution de l'Air Urbaine et l'Asthme des Enfants. Presented at: Centre National de Recherche Scientifique (CNRS); 2015 Apr 13; Paris, France.
- 58. Clougherty JE. Chronic Social Stressors and Susceptibility to Air Pollution in New York City, in Symposium on Intersection of Environmental and Social Epidemiology. Presented at: Society for Epidemiologic Research (SER); 2015 Jun 16-19; Denver, CO.
- 59. Clougherty JE. Intra-Urban Variation in Air Pollution Exposures and Susceptibility. Presented at: University of California at Davis; 2015 July 6; Davis, CA.
- 60. Clougherty JE, Longley I. Spatial Variation in Multiple Air Pollutants and Source Identification across Auckland and Christchurch. GNS Science. 2015 July 15. Auckland, New Zealand.
- 61. Clougherty JE, Longley I. Spatial Variation in Multiple Air Pollutants and Source Identification across Auckland Central Business District. Auckland Council/ Auckland Transport. 2015 July 16. Auckland, New Zealand.

- 62. Shmool, JLC, Reid C, Kubzansky LD, Spengler JD, Clougherty JE. Symposium on Integrating greenspace measures into environmental epidemiology, in symposium Greenspace and Health. International Society for Environmental Epidemiology (ISEE); 2015 Aug; Sao Paulo, Brazil.
- 63. Clougherty JE, Carr Shmool JL, Hajat A. Measuring the Neighborhood Social Environment: Implications for Environmental Epidemiology. Pre-Conference Workshop, International Society for Environmental Epidemiology. 2015 Aug; Sao Paulo, Brazil.
- 64. Shmool, JLC, Reid C, Kubzansky LD, Spengler JD, Clougherty JE. Symposium on Integrating methods for greenspace exposure assessment. Presented at: International Society of Exposure Science (ISES); 2015 Oct; Henderson, NV.
- 65. Clougherty JE. Environmental Health in Social Context. University of Pittsburgh Office of the Provost -- Green Speakeasy Seminar Series. 2015 Nov 2. Pittsburgh, PA.
- 66. Clougherty JE. Characterizing Spatial Variation in Diesel-Related Particulate Matter in Downtown Pittsburgh. Allegheny County Health Department (ACHD) Air Advisory Committee. 2016 Jan 20.
- 67. Robertson L, Shmool JLC, Clougherty JE. Spatial Variation in Social Stressors, Air Pollution, and Cancer. University Center on Social and Urban Research. 2016 20 Jan; Pittsburgh, PA.
- 68. Clougherty JE. Intra-urban variation in air pollution and social susceptibility. Drexel University Dornsife School of Public Health. 2016 Feb 10, Philadelphia, PA.
- 69. Clougherty JE. Intra-urban variation in air pollution and social susceptibility. National Institute for Environmental Health Sciences, Epidemiology Branch. 2016 Apr; Research Triangle Park, NC.
- 70. Holguin F, Clougherty JE. Incorporating GIS-based Indicators for Air Pollution and Chronic Stressors into Interpretation of Clinical Trials. 1 May 2016. Chicago, IL.
- 71. Clougherty JE. Accounting for Social and Psychosocial Factors at Health Effects Institute (HEI) Annual Meeting: Traffic and Air Pollution Workshop. 3 May 2016. Denver, CO.
- 72. Clougherty JE. Spatial Variation in Airborne Metals in Pittsburgh. Making the Connection: Air Pollution and Brain Health. Phipps Conservatory, 12 May 2016, Pittsburgh PA.
- 73. Clougherty JE. Diesel-Related Air Pollution in Downtown Pittsburgh. Allegheny County Health Department Monitoring and Compliance Subcommittee. 13 May 2016. Pittsburgh, PA.
- 74. Clougherty JE. Intra-urban variation in air pollution and social susceptibility. Old Dominion University, 14 May 2016; Norfolk VA.
- 75. Clougherty JE. Intra-urban Variation in Air Pollution and Health Impacts. City of Philadelphia Air Pollution Control Board Meeting. 2 June 2016; Philadelphia PA.
- 76. Clougherty JE. Social and Psychosocial Susceptibility to Urban Air Pollution. Plenary speaker: International Conference on Indoor Air. Ghent, Belgium, July 2016.
- 77. Clougherty JE. Spatial variation in nighttime exposures to woodsmoke-related organic air pollution. National Institute for Water and Atmospheric Research (NIWA) Woodsmoke workshop. July 2016. Wellington, New Zealand.
- 78. Clougherty JE. Spatial variation in nighttime exposures to woodsmoke-related organic air pollution in Christchurch. Environment Canterbury. July 2016. Christchurch, New Zealand.
- 79. Clougherty JE. Exposures to diesel-related air pollution in downtown Pittsburgh. Invited presentation to Allegheny County Board of Health. September 15, 2016.
- 80. Clougherty JE. Non-chemical stressors in cumulative risk assessment. Society of Toxicology (SOT) RASS Risk Assessment webinar series. 14 Sept 2016.
- 81. Clougherty JE. The link between exposure to traffic-related pollution and SES, in Health Effects Institute (HEI) symposium: Real-time measurements and integrated models to estimate traffic exposures in complex urban environments, at International Society of Exposure Science (ISES); Utrecht, Netherlands, Oct 2016.
- 82. Clougherty JE. Social and psychosocial factors in CRA. In symposium: Integrating Cumulative Risk Assessment into Occupational Safety and Health. Society for Risk Analysis (SRA) Annual Meeting, Dec 2016; San Diego, CA.
- 83. Clougherty JE. Diesel-Related Air Pollution in Downtown Pittsburgh. Mid-Atlantic Diesel Collaborative (MDC). Mid-Atlantic Regional Air Managers' Association. January 2017.
- 84. Clougherty JE. Spatial Variation in Diesel-Related Organics in a Downtown Core. Mid-Atlantic Regional Air Managers' Association. Webinar. February 28, 2017.
- 85. Clougherty JE. Combined Effects of Social Stressors and Environmental Pollution on Urban Health.

University of Pennsylvania. Penn Injury Science Center (PISC). February 2017.

- 86. Clougherty JE. Saturation Sampling for Spatial Variation in Diesel-Related Pollution. Environmental Defense Fund webinar. April 3, 2017.
- 87. Clougherty JE. Susceptibility to Multiple Pollutants in Cardiovascular Disease. Health Effect Institute (HEI) annual meeting. Poster presentation. Alexandria, VA. May 1, 2017.
- 88. Clougherty JE. Psychosocial stress, air pollution, and respiratory disease. In symposium: Air Pollution and Psychosocial Stress and the Origin of Lung Disease. American Thoracic Society (ATS). Washington, D.C., May 24, 2017.
- 89. Clougherty JE. The role of psychosocial stressors in mediating socioeconomic susceptibility to air pollution. In symposium: Social Determinants of Health, Environmental Exposures, and Disproportionately Impacted Communities: What We Know and How We Tell Others. International Society for Exposure Science (ISES) Annual Meeting. Research Triangle Park, NC. October 2017.
- 90. Clougherty JE. What is the evidence? What are the gaps? University of Albany-T.H. Chan Harvard School of Public Health workshop: What is the joint contribution of environmental and social determinants of health in explaining health and disease over the life course? Building the field and identifying research priorities. Saratoga Springs, NY. October 2017.
- 91. Clougherty JE. Gender, chronic stress, and susceptibility to air pollution in chronic respiratory illness. International Conference on Impact of Environment on Women's Health. Amity University. Lucknow, India. November 2017.
- 92. Clougherty JE. Exposure Assessment for Nonchemical Stressors. Society for Risk Analysis (SRA)-International Society for Exposure Science (ISES) Webinar Series. February 2018.
- 93. Clougherty JE, Humphrey JL, Kinnee EJ, Reid CE, Robinson L, McClure LA, Kubzansky LD. Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. Health Effects Institute (HEI) Annual Meeting. Poster presentation. April 2018.
- 94. Clougherty JE. Chemical and Non-chemical Stressors in Cumulative Risk Assessment. National Institutes of Occupational Safety and Health (NIOSH) symposium on Cumulative Risk Assessment. Cincinnati, OH. July 2018.
- 95. Clougherty JE, Longley I, Tunno B, Somervell E, Edwards S, Olivares G, Coulson G. Using Distributed Air Sampling to Distinguish Spatial Contributions of Woodsmoke from other Particulate Sources in a Medium-sized City. In symposium: Innovation in community-based assessment of Residential Wood Smoke Exposure, Health and Solutions. International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Science (ISES) Joint Annual Meeting. Ottawa, Ontario, Canada. August 2018.
- 96. Clougherty JE. Psychosocial Stress and Air Pollution in Respiratory and Cardiovascular Health. Rutgers Environmental and Occupational Health Sciences Institute (EOHSI). Piscataway NJ. April 2018.
- 97. Clougherty JE. Differential Susceptibility to Environmental Pollution by Chronic Urban Stressors. Center of Excellence in Environmental Toxicology (CEET). Perelman School of Medicine at the University of Pennsylvania. October 2018.
- 98. Clougherty JE, Tripathy S. Design of a saturation network to capture spatial variation in NO₂ across Philadelphia. Drexel University Urban Health Collaborative (UHC). Philadelphia PA, January 2019.
- 99. Humphrey JL, Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L, Clougherty JE. Social Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. American Association of Geographers (AAG). Washington, D.C., April 2019.
- 100. Clougherty JE, Kinnee EJ, Holguin F. Modification of Asthma Clinical Trial Results by Environmental and Socioeconomic Exposures. American Association of Geographers (AAG). Washington, D.C., April 2019.
- 101. Clougherty JE. Social Susceptibility to Air Pollution in Respiratory and Cardiovascular Health. University of Michigan, Epidemiology Seminar Series. April 2019.
- 102. Clougherty JE, Humphrey JL, Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L. Social Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. Health Effects Institute (HEI) Annual meeting. Seattle, WA, May 2019.
- 103. Clougherty JE. Chronic social stressors and susceptibility to air pollution. Columbia University Mailman School of Public Health. Department of Environmental Health Sciences/ NIEHS Center

for Environmental Health. June 2019.

- 104. Clougherty JE. Chronic social stressors and susceptibility to air pollution in urban communities. in symposium: Innovations in data collection and analysis in urban health research. Drexel Urban Health Symposium, Philadelphia PA, September 2019.
- 105. Clougherty JE. Chemical and Non-Chemical Stressors in Cumulative Risk Assessment (Keynote). North Carolina Society for Toxicology (SOT) Annual Meeting. October 5, 2019.
- 106. Clougherty JE. Differential susceptibility to air pollution by chronic psychosocial stress. Duke University Nicholas School of the Environment. February 13, 2020.
- 107. Clougherty JE. The Role of Socioeconomic Status (SES) in Studies of Air Pollution and Health. In session: Inequalities of Air Pollution Exposures and Associated Health Impacts in the United States. Health Effects Institute (HEI) Annual meeting. Boston, MA. April 2020.
- 108. Clougherty JE. Ports-related air pollution exposures across central Auckland, New Zealand. Drexel University 5th Annual International Research Showcase. May 27, 2020.
- 109. Clougherty JE. Social stressors and environmental pollution on urban community health. (Keynote). Impact Ideathon: hosted by United Engineers & STEMchats. June 21, 2020.
- 110. Clougherty JE. University of Pennsylvania Center for Neuroscience & Society. Faculty Presenter: Harriet A. Washington's A Terrible Thing to Waste: Environmental Racism and the Assault on the American Mind. 2020-21 Public Talk series. November 2020.
- 111. Clougherty JE. Chronic Social Stressors and Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. In Colloquium: "Racism, Disparities, and Environmental Health" Harvard T.H. Chan School of Public Health NIEHS Center. Boston, MA, December 9, 2020.
- 112. Tripathy S, Clougherty JE. Refinery-related Benzene Exposures and Health in South Philadelphia. Philly Thrive Teach-In. June 10, 2021.
- 113. Clougherty JE. U.S. EPA Office of Research and Development (EPA/ORD) Workshop: Evaluating non-chemical stressors for children's environmental health protection. Synergistic Effects of Multiple Stressors and Pollutants on Cardiovascular Disease (CVD) Events in New York City. October 2021.
- 114. Clougherty JE. Assessing fine-scale variation in multiple air pollutants and social stressors for environmental epidemiology. Georgetown University Environmental Metrology & Policy Program (EMAP) Program. March 3, 2022.
- 115. Clougherty JE. Harvard T.H. Chan School of Public Health JPB Environmental Health Follows Workshop: Social and environmental exposures and the developmental origins of health disparities. Plenary Speaker: Methodologic Needs for Moving the field Forward in Quantifying Synergistic Effects of Chemical and Non-Chemical Exposures on Health. Portland, OR April 2022.
- 116. Girma B, Liu, B, Kinnee, EJ, Schinasi, LH, Clougherty, JE, Sheffield, PE. High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC. New York City Epidemiology Forum, New York, NY, May 23, 2022.
- 117. Clougherty JE, Luben T. Beyond the Bench: Using Exposure Science to Promote Toxicology in Policy, Decision-Making, and Public Health. Society of Toxicology (SOT) Webinar, Nov 2022.
- 118. Clougherty JE, Sharma R. Combined effects of air pollution and neighborhood violence on epilepsy and seizures in children. Society for Research in Child Development. Salt Lake City, UT. March 2023.
- 119. Clougherty JE. Social Stressors and Susceptibility to Air Pollution and Climate-Related Exposures. Drexel University Dornsife School of Public Health Dean's Advisory Committee (DAC); Philadelphia, PA March 31, 2023.
- 120. B Langellier, JE Clougherty. Grant-Writing Workshop. PhD Student Activities Group (PhDSAG). Drexel University Dornsife School of Public Health. April 2023.
- 121. Clougherty JE. Social Stressors and Susceptibility to Air Pollution and Climate-Related Exposures. Pennsylvania Department of Health, Division of Environmental Health. April 19, 2023.
- 122. Clougherty JE. Understanding Pediatric Susceptibility Across Temperature and Environment in New York (UPStATE NY). Climate and Environmental Justice Cumulative Health Impacts: Grantee Kickoff Meeting. U.S. Environmental Protection Agency (EPA). June 27, 2023.
- 123. Clougherty JE. U.S. Environmental Protection Agency (EPA) Office of Environmental Justice and External Civil Rights and the Office of Research and Development. Webinar series: Social

vulnerability in Human Health Risk Assessment. The intersection of social vulnerability and environmental health disparities: key concepts and relevance for risk assessment. July 29, 2023.

- 124. Clougherty JE, Gomez L, Holguin F. Enhancing the Quality and Generalizability of Clinical Trials through Environmental Epidemiology: Opportunities and Challenges. Early Morning session: 35th ISEE Conference, Kaohsiung, Taiwan. October 2023.
- 125. Tripathy S, Frueh L, Moore K, Clougherty JE. Delaware Valley Regional Planning Commission (DVPRC). Air Quality, Climate Change, and Health. October 5, 2023.

CONFERENCE PRESENTATIONS

- 1. Clougherty JE. Evaluating the Efficacy of Indoor Environmental Intervention to Improve Health Outcomes in Children. Presented at: Central and Eastern European Conference on Indoor Air Quality; 2004; Tatras-Patry, Slovakia.
- 2. Clougherty JE. The Healthy Public Housing Initiative: Indoor Environmental Intervention to Improve Health Outcomes in Children. Presented at: American Public Health Association (APHA); 2004; Washington, DC.
- 3. Clougherty JE. Estimating Intra-Urban Variability in Traffic-Related Air Pollutants. Presented at: International Society for Exposure Analysis (ISEA); 2005; Tucson, AZ.
- 4. Clougherty JE. Effect Modification of Indoor Environmental Interventions to Reduce Childhood Asthma Symptoms. Presented at: 15th Conference of the International Society for Environmental Epidemiology (ISEE); 2005; Johannesburg, South Africa.
- 5. Clougherty JE. Modeling Intra-Urban Variability in Outdoor PM_{2.5}, EC, and NO₂. Presented at: 15th Conference of the International Society for Environmental Epidemiology (ISEE); 2006; Paris, France.
- 6. Clougherty JE. GIS-Based Retrospective Exposure Estimation, and Social-Environmental Synergy in Asthma Etiology. Presented at: 15th Conference of the International Society for Environmental Epidemiology (ISEE); 2006; Paris, France.
- 7. Clougherty JE. GIS-based Retrospective Exposure Estimation, and Social-Environmental Synergy in Asthma Etiology. Presented at: Environmental Justice Symposium, Conference of the International Society for Environmental Epidemiology (ISEE); 2007; Mexico City, Mexico.
- 8. Clougherty JE. The Effect of Job Status on Hypertension incidence in an Industrial Setting: The Alcoa Aluminum Manufacturing Cohort. Presented at: 19th Annual Conference on Epidemiology in Occupational Health (EpiCOH); 2007; Banff, Alberta Canada.
- Clougherty JE, Levy JI, Houseman A. Modeling Intra-Urban Variability in PM_{2.5} Constituents for Source Apportionment, using GIS and Independent Components Analysis (ICA). Presented at: International Society for Exposure Analysis (ISEA); 2007; Durham, NC.
- 10. Clougherty JE. Chronic Disease Onset in the Alcoa Aluminum Manufacturing Cohort. Presented at: MacArthur Network on Socioeconomic Status and Health Meeting; 2007 May; Cambridge, MA.
- 11. Clougherty JE. Traffic-Related Air Pollution, Acculturative Stress, and Childhood Respiratory Health in Urban New Zealand: Pacific Islands Families Study. Presented at: International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Analysis (ISEA); 2008; Pasadena, CA.
- 12. Clougherty JE. Social Stress and Susceptibility to Concentrated Particulate Air Pollution (CAPs) in Rats. Presented at: International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Analysis (ISEA); 2008; Pasadena, CA.
- 13. Clougherty JE. Job Strain and Hypertension in Manufacturing Settings: The Alcoa Aluminum Manufacturing Cohort. Presented at: Conference on Epidemiology in Occupational Health (EpiCOH); 2008; San Jose, Costa Rica.
- 14. Levy JI, Clougherty JE, Hausman A. Modeling Intra-Urban Variability in PM_{2.5} Constituents for Source Apportionment, using GIS and Positive Matrix Factorization. Poster presented at: Health Effects Institute (HEI) Annual Conference; 2008; Philadelphia, PA.
- 15. Clougherty JE. Modeling Intra-Urban Variability in PM2.5 Constituents for Source Apportionment, using GIS and Constrained Factor Analysis. Presented at: International Society for Exposure Analysis (ISEA); 2009; Minneapolis, MN.

- 16. Clougherty JE. Chronic Stress and Respiratory Response to Concentrated Particulate Air Pollution (CAPs) in Rats. Presented at: International Society for Environmental Epidemiology (ISEE); 2009; Dublin, Ireland.
- 17. Clougherty JE. The New York City Community Air Survey: Design and Preliminary Results. Presented at: International Society for Environmental Epidemiology (ISEE); 2009; Dublin, Ireland.
- 18. Clougherty JE. Temporal and Spatial Sampling Allocation for Year-Round Variability in Multiple Pollutants: The New York City Community Air Survey. Poster presented at: Health Effects Institute (HEI) Annual Meeting; 2009; Portland, OR.
- 19. Clougherty JE. Wintertime Spatial and Temporal Variability in Multiple Air Pollutants: The New York City Community Air Survey (NYCCAS). Presented at: International Society for Exposure Analysis (ISEA); 2009; Minneapolis, MN.
- 20. Clougherty JE. Temporal and Spatial Sampling Allocation for Year-Round Variability in Multiple Pollutants: The New York City Community Air Survey (NYCCAS). Poster presented at: Health Effects Institute (HEI) Annual Meeting; 2009 Nov; Minneapolis, MN.
- 21. Clougherty JE. Spatial Variability in Wintertime Concentrations of Multiple Pollutants and PM2.5 Constituents: The New York City Community Air Survey (NYCCAS). Presented at: American Association for Aerosol Research (AAAR); 2010; San Diego, CA.
- 22. Clougherty JE. Chronic Social Stress and Susceptibility to Fine Particulate Air Pollution in Rats. Presented at: American Association for Aerosol Research (AAAR); 2010; San Diego, CA.
- 23. Clougherty JE. Validated Measures of Chronic Occupational Noise Exposure, as Predictors of Hypertension. Presented at: International Society for Environmental Epidemiology (ISEE); 2011; Barcelona, Spain.
- 24. Tunno B, Cambal L, Howell J, Dalton R, Michael A, Tripathy S, Shields KN, Holguin F, Clougherty JE. Indoor Air Sampling for Particulate Matter and Nitrogen Dioxide in Pittsburgh Communities Near Active Steel Mills. Poster presented at: International Society for Environmental Epidemiology (ISEE); 2012 Aug 20; Columbia SC.
- 25. Carr JL, Newman OD, Joseph E, Chubb L, Parks A, Callaway C, Kubzansky LD, Spengler JD, Shepard P, Clougherty JE. Exploring the relevance of publicly-available indicators of social stressors through a spatially-informed, community-based qualitative process across New York City. Poster presented at: International Society of Environmental Epidemiology (ISEE); 2012 Aug 24; Columbia SC.
- 26. Clougherty JE. Cardiovascular Response to Chronic Social Stress in Rats. Presented at: International Society for Exposure Science (ISES); 2012 Oct; Seattle, WA.
- 27. Carr JL, Kubzansky LD, Ito K, Newman OD, Spengler JD, Shepard P, Clougherty JE. GIS-based methods for characterizing spatial relationships among social stressors across New York City. Presented at: International Society of Exposure Science (ISES); 2012 Oct 1; Seattle WA.
- 28. Carr JL, Clougherty JE. Community Stressors, Air Pollution, and Childhood Asthma across NYC. Poster presented at: Pittsburgh International Lung Conference; 2012 Oct 5; Pittsburgh, PA.
- 29. Gillooly SE, Cambal L, Feinberg J, Jackson M, Carr JL, Michanowicz AR, Tunno B, Clougherty JE, Shields KN. Development and Validation of a Method Using Deciduous Tree Leaves to Capture Air Pollution Variation in Pittsburgh, PA. Poster presented at: International Society for Exposure Science (ISES) annual conference; 2012 Oct 28; Seattle, WA.
- 30. Clougherty JE, Carr JL, Levy JI. Assessment of Non-Chemical Stressor Exposures for Environmental Health Research (Symposium). Presented at: International Society for Exposure Science (ISES); 2012 Oct 28; Seattle, WA.
- 31. Cambal L, Elliott E, Felix D, Tunno B, Howell J, Michanowicz AR, Carr JL, Gillooly S, Shields KN, Clougherty JE. Developing Methods to Determine the Nitrogen Isotopic Composition (d15N) in NO₂ for Source Apportionment in an Urban Area. Poster presented at: International Society for Exposure Science (ISES); 2012 Oct 28; Seattle, WA.
- 32. Cambal L, Clougherty JE. Intra-Urban Relationships between Ambient Ozone (O₃) and Nitrogen Dioxide (NO₂) Concentrations in Pittsburgh, PA. Poster presented at: International Society for Exposure Science (ISES); 2012 Oct 28; Seattle WA.
- 33. Shields KN, Clougherty JE. Evaluation of the Spiroscout, a novel device to record spatially and temporally resolved asthma exacerbation events, near Braddock, PA. Poster presented at:

International Society for Exposure Science (ISES); 2012 Oct 28; Seattle WA.

- 34. Tunno B, Cambal L, Carr JL, Michael A, Howell J, Gillooly S, Tripathy S, Roper C, Misquitta A, Shields KN, Gorczynski J, Eisl H, Clougherty JE. Spatial Variation in Inversion-Focused Seasonal Measures of Fine Particulate Matter and Elemental Carbon in Pittsburgh, PA. Poster presented at: International Society for Exposure Science (ISES); 2012 Oct 28; Seattle WA.
- 35. Michanowicz AR, Carr JL, Cambal L, Tunno B, Gillooly S, Howell J, Shields KN, Clougherty JE. Efficacy of line source dispersion modeling within an area of complex terrain (Pittsburgh, PA) for improving spatial concentration estimates for nitrogen dioxide in land use regression modeling. Poster presented at International Society for Exposure Science (ISES); 2012 Oct 28; Seattle, WA.
- 36. Clougherty JE. Spatial Variation for Diesel-Related Organics in Downtown Pittsburgh. Presented at: Mid-Atlantic Regional Air Manger's Association (MARAMA); 2013; Richmond, VA.
- 37. Carr JL, Johnson I, Keene R, Gradeck R, Landry P, Lucht J, Beach SR, Clougherty JE. Developing and validating an online GIS-based instrument to elicit perceived neighborhood information for public health research: A pilot study in New York City and Pittsburgh. Poster presented at: Dean's Day, University of Pittsburgh Graduate School of Public Health.; 2013 Apr 1; Pittsburgh, PA.
- 38. Roper C, Latoche J, Chubb L, Cambal L, Tunno B, Carr JL, Howell J, Tripathy S, Michanowicz AR, Gillooly S, Fattman CL, Clougherty JE. Diesel Fine Particlulate Composition of PM2.5 in Downtown Pittsburgh, PA and the Effects on Inflammatory Responses in Mice. Presented at: 27th Annual Meeting of the Allegheny-Erie Society of Toxicology, Toxicity of Air, Ground, and Water Pollutants; 2013 May 30; Morgantown, WV.
- 39. Clougherty JE. Chronic Social Stress and Cardiovascular Function in Rats. Presented at: International Society for Environmental Epidemiology (ISEE); 2013 Aug 20; Basel, Switzerland.
- 40. Gillooly S, Cambal L, Yonas MA, Kriesky J, Schmid J, Moore J, Clougherty JE, Shields K. A Community-Based Participatory Research (CBPR) Approach to Characterize Perceived Air Pollution "Hot Spots" Using Tree Leaves as Biomonitors. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 41. Tunno B, Cambal L, Roper C, Tripathy S, Michanowicz AR, Carr JL, Howell J, Gillooly S, Chubb L, Gorczynski J, Eisl H, Clougherty JE. Comparison of 24-hour vs. Inversion-Period Integrated Samples of PM2.5 and Elemental Carbon in Pittsburgh, PA, USA. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 42. Tunno B, Cambal L, Carr JL, Roper C, Tripathy S, Chubb L, Michanowicz AR, Howell J, Gillooly S, Gorczynski J, Eisl H, Clougherty JE. Exposure Assessment and Spatial Variation of PM2.5 and Elemental Carbon in Downtown Pittsburgh, PA, USA. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 43. Gillooly S, Cambal L, Feinberg J, Jackson M, Carr JL, Michanowicz AR, Tunno B, Clougherty JE, Shields KN. Development and Validation of a Magnetic Method Using Deciduous Tree Leaves to Obtain Spatially-Resolved Air Pollution Measurements in Pittsburgh, PA, USA. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 44. Cambal L, Elliott E, Felix D, Tunno B, Clougherty JE. Using the Nitrogen Isotopic Composition of NO2 (d15N-NO2) for Source Apportionment in an Urban Area. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 45. Cambal L, Gillooly SE, Tunno B, Michanowicz AR, Bain DJ, Clougherty JE, Shields KN. A Comparison of Trace Elements Accumulation and Spatial Variability in Leaves of Norway Maple Trees to Co-located PM_{2.5} Filters in an Urban Area. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 46. Carr JL, Bobb J, Yee M, Matte T, Savitz D, Clougherty JE. Influence of spatial heterogeneity in socioeconomic deprivation on birth outcomes and air pollution epidemiology in New York City, USA. Poster presented at: International Society for Environmental Epidemiology Annual Conference; 2013 Aug 20; Basel, Switzerland.
- 47. Michanowicz AR, Carr JL, Cambal L, Tunno B, Gillooly S, Howell J, Tripathy S, Roper C, Shields KN, Clougherty JE. A hybrid Land Use Regression/AERMOD Model for Predicting PM2.5. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.
- 48. Michanowicz AR, Cambal L, Carr JL, Tunno B, Gillooly S, Howell J, Tripathy S, Roper C, Shields KN, Clougherty JE. A Hybrid Land Use Regression/ CALINE3 Model for Predicting NO₂: A

Seasonal Comparison. Poster presented at: International Society for Exposure Science (ISES); 2013 Aug 20; Basel, Switzerland.

- 49. Carr JL, Kubzansky LD, Newman OD, Spengler JD, Shepard P, Clougherty JE. Validating community stressors using individual data on perceived stress across New York City (NYC). Poster presented at: International Society for Environmental Epidemiology (ISEE) Annual Conference; 2013 Aug 20; Basel, Switzerland.
- 50. Shmool JL, Clougherty JE, Robertson LB, Sharma R, Simon B, Yuan J, Bovbjerg D. Social stress, air pollution, and cancer in Allegheny County, PA. Presented at: University of Pittsburgh Cancer Institute Research Retreat; 2014; Greensburg, PA.
- 51. Michanowicz A, Shmool J, Tunno BJ, Clougherty JE. A hybrid land use regression/AERMOD model for predicting PM2.5. Presented at: International Society of Exposure Science (ISES); 2014; Cincinnati, OH.
- 52. Rubright RT, Gillooly S, Tripathy S, Kasunic A, Gilliam ST, Wallace JM, Yonas MA, Clougherty JE. Transects Modeling from Bisecting Roadways for PM_{2.5}, Elemental Carbon (EC), and Nitrogen Dioxide (NO₂) in Homewood, PA. Poster presented at: International Society for Exposure Science (ISES); 2014; Cincinnati, OH.
- 53. Chubb L, Tunno B, Cambal L, Roper C, Somervell E, Edwards S, Olivares G, Gray S, Coulson G, Longley I, Clougherty JE. Spatial contrasts in PM_{2.5} Collected During Daytime and Nighttime Hours in Christchurch, New Zealand. Poster presented at: International Society for Exposure Science (ISES); 2014; Cincinnati, OH.
- 54. Zhou J, Shmool JL, Clougherty JE, Sheffield P. Ambient ozone and children's acute asthma in New York City: A comparison of time-series and case-crossover analyses with spatially-resolved air pollution metrics. Poster presented at: International Society for Environmental Epidemiology (ISEE); 2014; Seattle, WA.
- 55. Tunno B, Cambal L, Chubb L, Roper C, Edwards S, Coulson G, Longley I, Clougherty JE. Spatial Variation in Fine Particulate Matter and Black Carbon across Auckland, New Zealand. Poster presented at: International Society for Exposure Science (ISES); 2014; Cincinatti, OH.
- 56. Tripathy S, Tunno B, Shmool JL, Michanowicz A, Manuck S, Gianaros PJ, Clougherty JE. Residential Outdoor Air Pollution and Brain Morphology in the Adult Health and Behavior (AHAB II) Cohort in Pittsburgh. Poster presented at: International Society for Environmental Epidemiology (ISEE); 2014; Seattle, WA.
- 57. Cambal L, Elliott E, Felix JD, Tunno BJ, Roper C, Michanowicz A, Clougherty JE. Using the Nitrogen Isotopic Composition of NO₂ (delta15N-NO₂) for Source Apportionment in an Urban Area. Poster presented at: International Society for Exposure Science (ISES); 2014; Cincinnati, OH.
- 58. Gillooly S, Tripathy S, Rubright RT, Kasunic A, Zuberi A, Gilliam ST, Lopez D, Wallace JM, Morris K, Yonas MA, Clougherty JE. Using Community-Based Participatory Research (CBPR) to Identify Areas of Concern Regarding Neighborhood Children's Exposures to Air Pollution Using Tree Leaves as Biomonitors. Poster presented at: International Society for Environmental Epidemiology (ISEE); 2014; Seattle, WA.
- 59. Clougherty JE. Spatial variation in organic tracers of diesel exposures during high-traffic hours in Downtown Pittsburgh. Presented at: Allegheny County Health Department (ACHD) Criteria Monitoring Subcommittee; 2014 Feb 10; Pittsburgh, PA.
- 60. Michanowicz AR, Clougherty JE. Hybrid land use regression/ AERMOD model for predicting PM_{2.5}. Presented at: International Society for Exposure Science (ISES); 2014 Oct 12; Cincinnati OH
- 61. Gilliam S, Burry K, Lopez D, Yonas MA, Kasunic A, Zuberi A, Boddie S, Bamwine P, Wallace JM, Gillooly SE, Tripathy S, Rubright RT, Clougherty JE. Healthy Living, Healthy Learning, Healthy Lives: Using CBPR Approaches to Examine How Diverse Contexts Influence Children's Asthma. Poster presented at: 142nd APHA Annual Meeting and Exposition; 2014 Nov 15-19; New Orleans, LA.
- 62. Tripathy S, Tunno B, Michanowicz DR, Shmool JLC, Gianaros PJ, Clougherty JE. Spatial Variation in Lead and Manganese Metal Constituents of Fine Particulate Matter. Presented at: International Society for Environmental Epidemiology (ISEE); 2015 Oct; Sao Paulo, Brazil.
- 63. Shmool JLC, Kinnee EJ, Sheffield PS, Clougherty JE. Incorporating Spatially-Resolved Exposure Metrics in a Case-Crossover Analysis of Ozone and Child Asthma Exacerbations. Presented at:

International Society for Environmental Epidemiology (ISEE); 2015 Oct; Sao Paulo, Brazil.

- 64. Shmool JLC, Bobb JF, Ito K, Elston B, Savitz DA, Ross Z, Matte TD, Johnson S, Dominici F, Clougherty JE. Area-Level Socioeconomic Deprivation, Air Pollution, and Term Birth Weight. Presented at: International Society for Environmental Epidemiology (ISEE); 2015 Oct; Sao Paulo, Brazil.
- 65. Tunno B, Tripathy S, Shmool JLC, Michanowicz D, Kinnee E, Gillooly S, Clougherty JE. Source Apportionment on Organic Compounds and Trace Elements across Downtown Pittsburgh, PA, USA. Presented at: International Society for Exposure Science (ISES); 2015 Oct; Henderson, NV.
- 66. Kinnee E, Shmool JLC, Tripathy S, Holguin F, Sheffield P, Clougherty JE. Spatial uncertainty in geocoding methods, exposure misclassification, and urban structure. Presented at: International Society for Exposure Science (ISES); 2015 Oct; Henderson, NV.
- 67. Kinnee E, Shmool JLC, Holguin F, Clougherty JE. Spatial Variation in Social and Environmental Exposures and Implications for Asthma-Related Clinical Trials, at International Society of Exposure Science (ISES); Utrecht, Netherlands, Oct 2016.
- 68. Tripathy SH, Gianaros PJ, Clougherty JE. Airborne Metals and Associations with Brain Inflammation in Pittsburgh Adults. International Society for Environmental Epidemiology (ISEE); 2016 Aug; Rome, Italy.
- 69. Erqou S, Clougherty JE, Reis S. Exposures to environmental pollutants in racial disparities in pre-clinical cardiovascular risk. American Heart Association (AHA). 2016 July; Phoenix, AZ.
- 70. Reid CE, Clougherty JE, Shmool JLC, Li J, Kubzansky LD. It's Not Easy Assessing Greenness: A Comparison of the Effects of Spatial Resolution of NDVI and Buffer Sizes on Self-Reported Health. American Association of Geographers (AAG). 2017 April; Boston, MA.
- 71. Orak N, Small M, Clougherty JE. A Probabilistic Methodology for Risk Assessmen of Nitrogen Dioxide Exposure and Adverse Reproductive Outcomes: A New York City Case Study. World Environment and Water Resources Congress. 2017; Sacramento CA.
- 72. Lee S, Moore J, Mady L, Clougherty JE. Air Pollution and Chronic Rhinosinusitis: Are there Modifiable Risk Factors for Disease Expression? American Rhinologic Society Annual Meeting April 2017.
- 73. Reid CE, Shmool JLC, Kubzansky LD, Clougherty JE. What Measure of Greenness Matters: the role of self-described neighborhoods and different measures of greenness with health in NYC. GeoMed. September 2017; Lisbon, Portugal.
- 74. Clougherty JE, Shmool JLC, Kinnee E, Sheffield PS. Chronic Social Stressors and Susceptibility to Short-term Variation in Urban Ozone: A Case-Crossover Analysis of Childhood Asthma Exacerbations in NYC. International Society for Environmental Epidemiology (ISEE) Annual Meeting. September 2017. Sydney, Australia.
- 75. Mady L, Lee S, Moore J, Kinnee E, Dodson Z, Tripathy S, Clougherty JE. Air Pollutants may be Modifiable Factors in Allergic Rhinitis and Chronic Rhinosinusitis. American Academy of Otolaryngic Allergy's Annual Scientific Meeting. Chicago IL. September 2017.
- 76. Mady L, Lee S, Moore J, Kinnee E, Dodson Z, Tripathy S, Clougherty JE. Air Pollutants may be Modifiable Factors in Allergic Rhinitis and Chronic Rhinosinusitis. American Rhinologic Society Annual Meeting. Chicago IL. September 2017.
- 77. Clougherty JE, Kinnee EJ, Shmool JLC, Sheffield PE. Violence, Poverty, and Differential Susceptibility to Ambient Ozone in Childhood Asthma. Drexel University Urban Health Collaborative (UHC) Fall symposium. Poster presentation. September 2017.
- 78. Canterbury A, Erqou S, Clougherty JE, Bambs C, Shpilsky D, Magnani J, Aiyer A, Kinnee E, Tripathy S, Reis S. Associations among Cumulative Social Risk, Ideal Cardiovascular Health and Exposure to Environmental Pollutants. American College of Cardiology 67th Annual Scientific Session & Expo. March 2018.
- 79. Holguin, Kinnee E, Clougherty JE. Using geographic information system (GIS) analysis to understand how the environment influences asthma. University of Colorado Asthma Clinical and Research Program. University of Colorado Asthma Research and Education (UCore). Grand Rounds. March 2018.
- 80. Ocampo P, Clougherty JE. Describing associations among perceived air quality, air pollution exposures and self-reported health in an urban population. Drexel University Emerging Graduate

Scholars Conference. May 2018.

- 81. Humphrey JL, Kubzansky LD, Kinnee EJ, Reid CE, McClure LA, Clougherty JE. Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. Society for Epidemiologic Research (SER). Baltimore, Maryland. Poster presentation. June 2018.
- 82. Clougherty JE, Kinnee EJ, Holguin F. Modification of Asthma Clinical Trial Results by Environmental and Socioeconomic Exposures. International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Science (ISES) Joint Annual Meeting. Ottawa, Ontario, Canada. August 2018.
- 83. Tripathy S, Williams P, Schinasi L, Capps S, Clougherty JE. Disentangling impacts of multiple NO₂ sources in an urban industrial area. International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Science (ISES) Joint Annual Meeting. Ottawa, Ontario, Canada. August 2018.
- 84. Humphrey JL, Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L, Clougherty JE. Social Susceptibility to Multiple Air Pollutants in Cardiovascular Disease. International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Science (ISES) Joint Annual Meeting. Ottawa, Ontario, Canada. August 2018.
- 85. Volk H, Perera F, Braun JM, Kingsley SL, Gray K, Buckley J, Clougherty JE, Croen L, Eskenazi B, Herting M, Just A, Kloog I, Margolis A, McClure L, Miller R, Wright R. Leveraging Variability across Space and Time to Assess Air Pollution Exposures and Child Health in ECHO. International Society for Environmental Epidemiology (ISEE)/ International Society for Exposure Science (ISES) Joint Annual Meeting. Ottawa, Ontario, Canada. August 2018.
- Schinasi LH, De Roos A, Quick H, Clougherty JE. Associations between area-level greenness and infant mortality rates in Philadelphia, PA. Society for Epidemiologic Research (SER). Baltimore, MD. June 2018.
- 87. Rhinehart ZJ, Kinnee E, Saul M, Clougherty J, Magnani JW. Association of particulate matter and incident stroke in atrial fibrillation. University of Pittsburgh Department of Medicine Research Day. Pittsburgh, PA, April 2019.
- 88. Clougherty JE, Humphrey JL, Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L. Social Susceptibility to Urban Air Pollution in Cardiovascular Disease. Health Effects Institute (HEI) Annual Meeting, Seattle, WA. May 5 -7, 2019
- 89. Williams P, Niemeier RT, Rice G, Clougherty JE, Rossner A. Advancing Cumulative Risk Assessment in Occupational Settings. In session: Risk Assessment and Management. American Industrial Hygiene Conference & Expo. Minneapolis MN. May 2019.
- 90. Clougherty JE, Humphrey JL, Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L. Social Susceptibility to Urban Air Pollution in Cardiovascular Disease. International Medical Geography Symposium (IMGS), Queenstown, New Zealand, June 30 July 5, 2019.
- 91. Humphrey, JL. Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L, Clougherty JE. Social Susceptibility to Urban Air Pollution in Cardiovascular Disease. International Society for Environmental Epidemiology (ISEE). Utrecht, The Netherlands, August 2019.
- 92. Clougherty JE, Kinnee EJ, Holguin F. Modification of Asthma Clinical Trial Results by Environmental and Socioeconomic Exposures. International Society for Environmental Epidemiology (ISEE). Utrecht, The Netherlands, August 2019.
- 93. Rhinehart ZJ, Kinnee E, Saul M, Clougherty JE, Magnani JW. Association of particulate matter and incident stroke in atrial fibrillation. American Heart Association (AHA) Annual Meeting. Baltimore MD, September 2019.
- 94. Clougherty JE, Humphrey, JL. Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L. Social Susceptibility to Urban Air Pollution in Cardiovascular Disease. Drexel Urban Health Symposium, Philadelphia PA, September 2019.
- 95. Tripathy S, Williams P, Lavelle Lucia, Schinasi L, Capps S, Clougherty JE. Disentangling impacts of multiple nitrogen dioxide sources across Philadelphia. Drexel Urban Health Symposium, Philadelphia PA, September 2019.
- 96. Clougherty JE, Humphrey, JL. Kinnee EJ, Kubzansky LD, Reid CE, McClure LA, Robinson L. Social Susceptibility to Urban Air Pollution in Cardiovascular Disease. American Public Health Association (APHA) annual meeting, Philadelphia PA, November 2019.

- 97. Tripathy S, Williams P, Lavelle Lucia, Schinasi L, Capps S, Clougherty JE. Disentangling impacts of multiple nitrogen dioxide sources across Philadelphia. American Public Health Association (APHA) annual meeting, Philadelphia PA, November 2019.
- 98. Burris HH, Clougherty JE, Melly SJ, Elovitz MA. Neighborhood violent crime is associated with high perceived stress in pregnancy. To be presented as a poster at 40th Annual Pregnancy Meeting of the Society for Maternal Fetal Medicine. February 6, 2020, Grapevine, TX.
- 99. Williams PRD, Rossner A, Clougherty JE, Rice G, Niemeier RT. Adopting a Cumulative Risk Assessment Perspective to Support Decision-Making in the Work Environment. Society for Risk Analysis (SRA) Annual Meeting. December 9-11, 2019, Arlington, VA.
- 100. Herrera MT, Girma B, Liu B, Schinasi L, Clougherty JE, Sheffield PE. Hot weather and child emergency department visits for injury: An initial inquiry into violence as mechanism. American Public Health Association (APHA) annual meeting, October 24-28, 2020, San Francisco CA.
- 101. Schinasi L, Hirsch J, Melly S, Bayer J, Lovasi G, Clougherty JE. Greenspace, gentrification, and urban development in the United States: A longitudinal, multi-city study. International Society for Environmental Epidemiology (ISEE). August 23-27, 2020, Washington, DC.
- 102. Clougherty JE, Kinnee EJ, Holguin F. Variation in Clinical Trial Results for Asthma by Environmental and Socioeconomic Exposures. In session, "Air pollution and respiratory health in children and patients." International Society for Environmental Epidemiology (ISEE). August 23-27, 2020, Washington, DC.
- 103. Humphrey J, Clougherty JE. Community Social Stressors and Susceptibility to Urban Air Pollution in Cardiovascular Disease (e-poster). International Society for Environmental Epidemiology (ISEE). August 23-27, 2020, Washington, DC.
- 104. Remigio R, Clougherty JE. Chronic neighborhood stressors can modify the effect of nitrogen dioxide on term birthweight in New York City. International Society for Environmental Epidemiology (ISEE). August 23-27, 2020, Washington, DC.
- 105. Herrera MT, Girma B, Liu B, Schinasi L, Clougherty JE, Sheffield PE. Heat, Medical Fragility, and Child Morbidity in a U.S. Urban Setting (e-poster). International Society for Environmental Epidemiology (ISEE). August 23-27, 2020, Washington, DC.
- 106. Rhinehart ZJ, Kinnee E, Essien UR, Saul M, Guhl E, Clougherty JE, Magnani JW. Association of Fine Particulate Matter and Risk of Stroke in Patients with Atrial Fibrillation. University of Pittsburgh GIS Day: November 18, 2020. <u>https://gisdaypgh.com/expo</u>.
- 107. Kinnee EJ, Tripathy S, Schinasi L, Shmool JLC, Sheffield PE, Holguin F, Clougherty JE. Geocoding error, spatial uncertainty, and implications for exposure assessment and environmental epidemiology. University of Pittsburgh GIS Day: November 18, 2020. <u>https://gisdaypgh.com/expo</u>.
- 108. Schikowski E, Adam Handen, Kinnee E, Clougherty JE, Nouraie MS, Chan SY. Effect of Race on Hospitalizations and Mortality in PH-HFpEF: Disparities Persist After Adjustment for Neighborhood Deprivation. American College of Cardiology (ACC), 2021.
- 109. Kondo M, Clougherty JE, Hohl B, Branas C. The Differential Impact of Place-Based Neighborhood Greening Interventions on Fear of Violence between Women and Men. Society for Prevention Research (SPR), 2021.
- 110. Niu L, Herrera MT, Girma B, Liu B, Schinasi L, Clougherty JE, Sheffield PE. Associations between Heat Index and Child Emergency and Hospital Visits in New York City. International Society for Environmental Epidemiology (ISEE). New York, NY. August 2021.
- 111. Clougherty JE, Humphrey JL, Kinnee EJ. Modification by Multiple Social Stressors in Air Pollution-CVD Associations. International Society for Environmental Epidemiology (ISEE). New York, NY. August 2021.
- 112. Schinasi L, Diez Roux A, Clougherty JE. Does urban greenspace reduce racial and socioeconomic disparities in mortality in Philadelphia, PA? International Society for Environmental Epidemiology (ISEE). New York, NY. August 2021.
- 113. Gomez L, Kinnee EJ, Kaufman JD, Young MT, Holguin F, Clougherty JE. Modification of Asthma Clinical Trial Treatment Efficacy by Social and Environmental Exposures. International Society for Environmental Epidemiology (ISEE). New York, NY. August 2021.
- 114. Clougherty JE, Humphrey JL, Kinnee EJ. Modification by Multiple Social Stressors in Air Pollution-CVD Associations. International Conference on Urban Health (ICUH). Online. July 2021.

- 115. Lopez PM, Stump T, Kirk N, Jung V, Clougherty JE, Francis AL. Individual differences in personality traits affect performance, frustration, and effort in a speech-in-noise task. Acoustical Society of America. Seattle, WA. November 2021.
- 116. Edwards J, Gotschall J. Clougherty JE, Schinasi L. Associations between Greenspace Utilization, Proximity, and Changes in Loneliness. American Association for the Advancement of Science (AAAS), 2022.

**Awarded* 1st place in poster competition, Medicine and Public Health section.

- 117. Girma B, Liu, B, Kinnee, EJ, Schinasi, LH, Clougherty, JE, Sheffield, PE. High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC. New York City Epidemiology Forum, New York City, NY, April 16, 2022.
- Gómez L, Kinnee E, Young MT, Kaufman J, Holguin F, Mauger D, Clougherty JE. Modification of
 118. Treatment Efficacy in Asthma Clinical Trials by Social and Environmental Co-exposures. Harvard
 T.H. Chan School of Public Health JPB Environmental Health Follows Workshop: Social and
 environmental exposures and the developmental origins of health disparities. Portland, OR April
- 2022.
 119. Sharma R, Humphrey JL, Kinnee EJ, Sheffield PE, Jane Clougherty JE. Non-linear modification by neighborhood violence in acute air pollution-asthma relationships. Harvard T.H. Chan School of Dabie Market Market and Market All School of School and Schol and School and School and School and S
- neighborhood violence in acute air pollution-asthma relationships. Harvard T.H. Chan School of Public Health JPB Environmental Health Follows Workshop: Social and environmental exposures and the developmental origins of health disparities. Portland, OR April 2022.
- 120. Girma B, Liu B, Kinnee E, Schinasi LH, Clougherty JE, Sheffield PE. High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC. New York City: Columbia University Mailman School of Public Health. May 2022.
- 121. Francis A, Lopez PM, Chen Y, Kirk N, Frain E, Fong K, Love J, Clougherty JE. Does having control over background noise affect (either) listening effort or speech perception? 182nd Meeting of the Acoustical Society of America, Denver, CO. May 23 27, 2022.
- 122. Clougherty JE, Humphrey JL, Kinnee EJ. Modification by Multiple Social Stressors in Air Pollution-CVD Associations. 19th International Medical Geography Symposium (IMGS). Glaskow, Scotland. June 2022.
- 123. Girma B, Liu, B, Schinasi, LH, Clougherty, JE, Sheffield, PE. Extreme Temperatures and Emergency Department Visits for Injury Among Children and Young Adults in NYC. (Poster). NYC Exposome Symposium, July 12, 2022
- 124. Girma B, Knobel P, Humphrey, JL, Liu, Clougherty, JE, Sheffield, PE. Socioeconomic factors and injury-related emergency department visits among young people in New York City. (Poster) NIEHS Environmental Health Sciences Core Centers (EHSCC) Annual Meeting, July, 13, 2022.
- 125. Girma B, Liu B, Kinnee E, Schinasi LH, Clougherty JE, Sheffield PE. High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Athens, Greece. September 2022.
- 126. Gomez L, Kinnee EJ, Young MT, Kaufman JD, Mauger, DT, Holguin F, Clougherty JE. PM_{2.5} and NO₂ as Potential Modifiers of Clinical Trial Results on Asthma Exacerbation and Control: Secondary Analysis of AsthmaNet Best African American Response to Asthma Drugs (BARD) trials. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Athens, Greece. September 2022.
- 127. Clougherty JE, Kinnee EJ, Humphrey J. Modification by Multiple Social Stressors in Air Pollution-CVD Associations. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Athens, Greece. September 2022.
- 128. Sharma R, Humphrey JL, Kinnee EJ, Sheffield PE, Clougherty JE. Combined effects of air pollution and neighborhood violence on epilepsy and seizures in children. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Athens, Greece. September 2022.
- 129. Knobel P, Humphrey J, Kinnee EJ, Clougherty JE. Historical redlining and modern-day cardiovascular disease across New York City. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Athens, Greece. September 2022.
- 130. Lovasi GS, Treat CA, Fry D, Shah I, Clougherty JE, Berberian A, Perera FP, Kioumourtzoglou, M-A. Evaluating the effect of New York City's clean bus program on changes to estimated ambient air pollution. International Conference on Urban Health (ICUH). Valencia, Spain. October 2022.

- 131. Fry D, Mooney SJ, Maestre G, Garza N, Gullón P, Bayer FJ, Bilal U, Sanchez BN, Clougherty JE, Lovasi GS. Measuring Neighborhood Physical Disorder with Google Street View Imagery. International Conference on Urban Health (ICUH). Valencia, Spain. October 2022.
- 132. Girma B, Knobel P, Humphrey, JL, Liu, Clougherty, JE, Sheffield, PE. Socioeconomic factors and injury-related emergency department visits among young people in New York City. American Public Health Association conference, Boston, MA, November 2023.
- 133. Gomez L, Kinnee EJ, Young MT, Kaufman JD, Mauger, DT, Holguin F, Clougherty JE. PM2.5 and NO₂ as Potential Modifiers of Clinical Trial Results on Asthma Exacerbation and Control: Secondary Analysis of AsthmaNet Best African American Response to Asthma Drugs (BARD) trials. Drexel Urban Health Collaborative (UHC) – UHC Day. October 2022.
- 134. Clougherty JE, Kinnee EJ, Humphrey J. Modification by Multiple Social Stressors in Air Pollution-CVD Associations. Drexel Urban Health Collaborative (UHC) UHC Day. October 2022.
- 135. Sheffield PE, Just A, Schinasi L, Liu B, Kinnee EJ, Sharma S, Frueh L, Morrow F, Clougherty JE. Child health and Climate-related exposures in New York State: Resilience Factors in Environmental Justice Communities. 2023 NYS Public Health Partnership Conference, Westchester County NY, April 2023.
- 136. Sharma R, Humphrey JL, Kinnee EJ, Sheffield PE, Clougherty JE. Psychosocial susceptibility in acute air pollution and temperature effects on seizures and epilepsy in children. International Society for Environmental Epidemiology (ISEE) North American Chapter (NAC) Conference, Corvalis OR, June 2023.
- 137. Sharma R, Sheffield PE, Clougherty JE. Associations between air pollution, temperature, and seizures and epilepsy: a scoping review of the epidemiologic evidence.. International Society for Environmental Epidemiology (ISEE) North American Chapter (NAC) Conference, Corvalis OR, June 2023.
- 138. Gomez L, Kinnee EJ, Young MT, Kaufman JD, Mauger, DT, Holguin F, Clougherty JE. Modification of Step-Up Therapy in Black Adults with Poorly Controlled Asthma by PM_{2.5} and NO₂. International Society for Environmental Epidemiology (ISEE) North American Chapter (NAC) Conference, Corvalis OR, June 2023.
- 139. Frueh L, Moore K, Jackson-Foy C, Robinson D, Clincy M, White C, Miller J, Mullison J, Winslow P, Jerslid A, Johnson C, Tripathy S, Clougherty JE. South Philadelphia Community Air Monitoring Project: Community-Based Participatory Study Design. International Society for Environmental Epidemiology (ISEE) North American Chapter (NAC) Conference, Corvalis OR, June 2023.
- 140. Gomez L, Kinnee EJ, Young MT, Kaufman JD, Mauger, DT, Holguin F, Clougherty JE. Modification of Step-Up Therapy in Black Adults with Poorly Controlled Asthma by PM_{2.5} and NO₂. Society for Epidemiologic Research (SER) Conference, Portland OR, June 2023.
- 141. Gomez L, Kinnee EJ, Young MT, Kaufman JD, Mauger, DT, Holguin F, Clougherty JE. Modification of Step-Up Therapy in Black Adults with Poorly Controlled Asthma by PM_{2.5} and NO₂. International Society for Environmental Epidemiology (ISEE), Taiwan, Sept 2023.
- 142. Frueh L, Moore K, Jackson-Foy C, Robinson D, Clincy M, White C, Miller J, Mullison J, Winslow P, Jerslid A, Johnson C, Tripathy S, Clougherty JE. South Philadelphia Community Air Monitoring Project: Community-Based Participatory Study Design. International Society for Environmental Epidemiology (ISEE), Taiwan, Sept 2023.
- 143. Johnston N, Tripathy S, Frueh L, Moore K, Clougherty JE. Volatile Organic Compounds in Air Surrounding Former Philadelphia Oil Refinery Site. American Geophysical Union (AGU) Annual Conference, San Francisco, CA, 2023.
- 144. Sharma R, Gomez L, Das J, Rahman F, Rawa MS, Frueh L, Mazumder H, Bheemireddy G, Sharma S, Hossain MM, Sheffield P, Clougherty JE. Air pollution and cancers of the Central Nervous System (CNS): A scoping review. Workshop: Advancing the Science on Environment, Climate, and Cancer: Challenges and Future Research. ISGlobal Barcelona: Online conference. October 2023.

OTHER SCHOLARLY ACTIVITIES

Manuscript and Grant Reviewer:

2019 - Present	Editorial Review Board, International Journal of Environmental Research and Public Health (IJERPH)
2008 - Present	Environmental Health Perspectives (EHP)
2012 - Present	- Editorial Board Member
2016 - Present	- Associate Editor
2008 - Present	Journal of Exposure Science and Environmental Epidemiology (JESEE)
2014 - 2018	- Editorial Board Member
2011 – Present	Environmental Health
2016 – Present	- Editorial Board Member
	National Institutes of Health (NIH) Study Sections -Ad hoc reviewer:
2016	- Neurological, Aging and Musculoskeletal Epidemiology (NAME)
2017	- Community Influences on Health and Behavior (CIHB)
2018	- Systemic Injury by Environmental Exposure (SIEE)
2019	- Social Sciences and Population Studies A (SSPA)
2021	- Time-Sensitive R21 Mechanism, NIEHS
2008 – Present	Indoor Air – reviewer
2010 - Present	American Journal of Public Health – reviewer
2010 - Present	Social Science and Medicine – reviewer
2010 - Present	Atmospheric Environment – reviewer
2011 - Present	European Respiratory Journal – reviewer
2011 - 2012	Psychological Science – reviewer
2011 - Present	BMJ-reviewer
2012 - 2013	Psychosomatic Medicine – reviewer
2012 – Present	International Journal of Environmental Research and Public Health - reviewer
2015 -2016	Clean Air Regulatory Agenda (CARA) Program, Health Canada.
2016 – Present	Health Effects Institute (HEI) grant reviewer
2021	JAMA Pediatrics – reviewer

MEDIA MENTIONS

- Buckley, C. (2009, December 16). On Upper East Side (Gasp!), Some of the City's Dirtiest Air. *The New York Times*. Retrieved from: https://archive.nytimes.com/2009/12/17/nyregion/17pollute.html
- Hood E. (2010, May 31) Stress and the city: Measuring effects of chronic stress and air pollution. Environ Health Perspec, 118(6):A258. DOI: 10.1289/ehp.118-a258b. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898881/</u>.

Pitt scientist to lead major asthma study. Pittsburgh Tribune-Review. June 22, 2011.

Parents' stress tied to pollution's effect on kids. Reuters Health News. July 22, 2011.

- Cooney, CM. (2011, Oct 1). Stress–Pollution Interactions: An Emerging Issue in Children's Health Research. *Environ Health Perspec*. <u>https://doi.org/10.1289/ehp.119-a430</u>.
- *CISION PR Newswire*. 'Allegheny General Hospital and the Breathe Project Present "The Air We Breathe: A Regional Summit on Asthma and the Environment."' May 10, 2012.

Conti, D. (2013, October 12). Once shrouded in smoke, Western Pa. makes strides to clean the air, but problems remain. *Pittsburgh Tribune-Review*. Retrieved from: <u>https://archive.triblive.com/local/pittsburgh-allegheny/once-shrouded-in-smoke-western-pa-makes-str</u> <u>ides-to-clean-the-air-but-problems-remain/</u>

Radio New Zealand (Radio NZ). (2014, April 14). Study to analyse air pollution.

Rosenblatt, L. (2016, November 16). Pitt study shows buses main source of diesel pollution. *The Pitt News*. Retrieved from: https://pittnews.com/article/113846/top-stories/pitt-study-shows-buses-main-source-diesel-pollution/

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- Schneider, I. (2015, May 26). Air Pollution and Autism. Labroots. Retrieved from: https://www.labroots.com/trending/neuroscience/1196/air-pollution-and-autism
- Hydzik, A. (2015, May 26). Pennsylvania Study Links Air Pollution to Autism Risk. *Futurity*. Retrieved from: <u>http://www.futurity.org/air-pollution-pregnancy-autism-928242/</u>
- Murray, A. Experts to speak on connection between air pollution and brain health at Pittsburgh event. *Pittsburgh City Paper*. May 9, 2016. Retrieved from: https://www.pghcitypaper.com/Blogh/archives/2016/?page=43&year=2016.
- *Dornsife SPH Magazine*. Faculty Profile: Jane Clougherty, MSc ScD. Winter 2017-18. Retrieved from: <u>https://drexel.edu/dornsife/news/publications/magazine/Dornsife-SPH-Magazine-Winter-2017-1</u><u>8/</u>.
- Birch, J. (April 3, 2020). Cleaning Your Home For Coronavirus? Don't Forget Your Indoor Air. *Huffington Post.* Retrieved from: <u>https://www.huffpost.com/entry/cleaning-home-coronavirus-indoor-air_1_5e85f6f5c5b60bbd7350869</u> <u>7</u>.
- Hopey, D. Study: Air pollution linked to more strokes in people with Afib. *Pittsburgh Post-Gazette*. September 24, 2020. Retrieved from: <u>https://www.post-gazette.com/news/health/2020/09/24/JAMA-Network-Open-UPMC-study-air-pollu</u>tion-pm25-particulates-linked-strokes-Afib-heart/stories/202009230137.
- Air pollution exposure multiplies risk of stroke in AF patients. *Cardiac Rhythm News*. September 16, 2020. <u>https://cardiacrhythmnews.com/air-pollution-exposure-multiplies-risk-of-stroke-in-af-patients/</u>.
- Kubis, A. Study Finds Link between Air Pollution and Risk of Stroke for People with AFib. *The Allegheny Front*. September 16, 2020. Retrieved from: <u>https://www.alleghenyfront.org/study-finds-link-between-exposure-to-air-pollution-and-risk-of-stroke</u>

-in-people-with-afib/.

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https://www.downtoearth.org.in/news/air/atrial-fibrillation-patients-at-greater-stroke-risk-when-exposed-to-air-pollution-study-73419.

- *Environmental News Network.* Pollution and Stroke Risk in People With Atrial Fibrillation . Retrieved from: <u>https://www.enn.com/articles/65348-pollution-and-stroke-risk-in-people-with-atrial-fibrillation</u>.
- Dunleavy BP. Study: Air pollution increases stroke risk in people with AFib. UPI. September 15, 2020. Retrieved from:

https://www.upi.com/Health_News/2020/09/15/Study-Air-pollution-increases-stroke-risk-in-people-with-AFib/9641600178596/.

- Neill, P. Air pollution increases risk of stroke, new study. Air Quality News. September 16, 2020. Retrieved from: <u>https://airqualitynews.com/2020/09/16/air-pollution-increases-risk-of-stroke/</u>.
- WHYY NPR Philadelphia. Why the air quality in Philly might be worse than we know. May 2, 2021. Retrieved from: https://mms.tveves.com/MediaCenterPlayer.aspy?u=aHR0cDoyL 2117GlbY2VudGVyL pR27X1lcv/

https://mms.tveyes.com/MediaCenterPlayer.aspx?u=aHR0cDovL21lZGlhY2VudGVyLnR2ZXllcy5j b20vZG93bmxvYWRnYXRld2F5LmFzcHg%2FVXNlcklEPTIyODQwNiZNRElEPTE1MDM0Mjg 4Jk1EU2VlZD03MTgyJlR5cGU9TWVkaWE%3D

- Sanger-Katz M, Miller CC, Quealy K. With Hugs and Haircuts, U.S. Epidemiologists Start Returning (Carefully!) to Everyday Life. *New York Times*. May 12, 2021. Retrieved from: <u>https://www.nytimes.com/2021/05/12/upshot/covid-epidemiologists.html?action=click&module=Top</u> %20Stories&pgtype=Homepage.
- NBC News 10 Philadelphia. The Newly Discovered Ways Air Pollution May Harm You. Retrieved from: <u>https://www.nbcphiladelphia.com/local/the-newly-discovered-ways-air-pollution-may-harm-you/292</u> 7594/
- Health Effects Institute HEI Update: Study Examines Role of Social Stressors in Air Pollution–Disease Links. September 2021. Retrieved from: https://www.healtheffects.org/publication/update-september-2021
- WHYY NPR Philadelphia Climate Desk. Delaware poor air quality alert until midnight Friday linked to Canadian wildfires. Retrieved from: <u>https://whyy.org/articles/delaware-poor-air-quality-alert-midnight-friday-canadian-wildfires/</u>.
- Canadian wildfires lead to "Hazardous" Air Quality in Philadelphia: What you need to know. *Green Philly*. June 8, 2023. <u>https://www.thegreencities.com/news/canadian-wildfires-lead-to-hazardous-air-quality-in-philadelphi</u> a-what-you-need-to-know/.
- WHYY NPR Philadelphia. Wildfire updates: Smoky conditions improve across the Philly region. https://whyy.org/live/philadelphia-air-quality-wildfires-canada-smoke-updates/.
- WHYY NPR Philadelphia. Morning Edition. Live Interview. June 8, 2023.
- EXEL: Drexel Research Magazine. 2023. Rowhomes Versus Refineries. https://exelmagazine.org/article/row-homes-versus-refineries/.
- National Geographic. Can air pollution cause inflammation? Scientists are starting to unravel the connection. Sohn, E. Published online: October 5, 2023. <u>https://www.nationalgeographic.com/premium/article/inhaling-pollution-inflammation-bodies</u>.

TEACHING

Undergraduate-level Courses:

Year(s)	Course Number & Title	Role
1996 – 1997	<i>University of Chicago</i> : Environmental Studies Academic Program	Academic Coordinator
Fall 1997	<i>McMaster University:</i> Physical Geography of North America	Teaching Assistant
Graduate-level Courses:		
	Harvard School of Public Health:	T 1 1 1 1 1
Spring 2003	Air Pollution	Teaching Assistant
Spring 2004	Exposure Assessment/ Analytic Chemistry	Teaching Assistant
Fall 2004 - 2006	Lifecycle Analysis and Risk Assessment	Teaching Assistant
Spring 2007	Advanced Topics in Women, Gender and Health	Co-Primary Instructor
	University of Pittsburgh:	
Spring 2011	Environmental Health and Disease (EOH 2013)	Guest Lecturer
Spring 2011	Fate and Transport of Environmental Contaminants (EOH 2122)	Co-Primary Instructor
Fall 2011	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
Summer 2012	Environmental Epidemiology (EPI 2220)	Guest Lecturer
Spring 2012	Fate and Transport of Environmental Contaminants (EOH 2122)	Co-Instructor
Fall 2012	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
Spring 2013	Fate and Transport of Environmental Contaminants (EOH 2122)	Co-Primary Instructor
Fall 2013	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
Summer 2014	Environmental Epidemiology (EPI 2220)	Guest Lecturer
Fall 2014	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
Spring 2015	Environmental Health and Disease	Guest Lecturer

(EOH 2013)

Fall 2015	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
Spring 2016	Environmental Health and Disease (EOH 2013)	Guest Lecturer
Spring 2016	Applied Spatial Analysis in Environmental/ Community Epidemiology (EPI 2220)	Guest Lecturer
Fall 2016	Principles of Environmental Exposure Assessment (EOH 2504)	Primary Instructor
	Drexel University:	
Spring 2017	Environmental Hazard Assessment (EOH 620)	Primary Instructor
Summer 2017	Introduction to Environmental and Occupational Health (EOH 510)	Guest Lecturer
Spring 2018	Environmental Hazard Assessment (EOH 620)	Primary Instructor
Summer 2018	Introduction to Environmental and Occupational Health (EOH 510)	Guest Lecturer
Fall 2018	Environmental and Occupational Health (PBHL 314)	Guest Lecturer
Fall 2018	Proposal Writing Seminar (EPI 803)	Guest Lecturer
Winter 2018	Advanced Methods in GIS for Public Health (EOH 710)	Guest Lecturer
Spring 2019	Environmental Hazard Assessment (EOH 620)	Co-Instructor
Spring 2019	Introduction to Environmental and Occupational Health (EOH 510)	Guest Lecturer
Summer 2019	Introduction to Environmental and Occupational Health (EOH 510)	Guest Lecturer
Fall 2019	Environmental and Occupational Health (PBHL 314)	Guest Lecturer
Spring 2020	Environmental Hazard Assessment (EOH 620/820)	Primary Instructor
Fall 2020	Environmental and Occupational Health (PBHL 314)	Guest Lecturer
Spring 2021	Environmental Exposure Science (EOH 612/812)	Primary Instructor
Fall 2021	Environmental and Occupational Health (PBHL 314)	Guest Lecturer

Spring 2022	Environmental Exposure Science (EOH 612/812)	Primary Instructor
Fall 2022	Environmental and Occupational Health (PBHL 314)	Guest Lecturer
Fall 2022	Introduction to Environmental and Occupational Health (EOH 510)	Guest Lecturer
Spring 2023	Environmental Exposure Science (EOH 612/812)	Primary Instructor

MENTORING AND ADVISING

Undergraduate Students

Year(s) 6/2011 - 8/2011	Mentee Hanna Giacomin Personal sampling for air pollution	Role Mentor (summer intern)
6/2011 - 8/2011	Nijole Pollock Personal sampling for air pollution	Mentor (summer intern)
6/2011 - 8/2012	Isaac Johnson GIS-based online survey development	Mentor (student employee)
6/2012	Rehima Jordan Socioeconomic patterns in air pollution exposures from Marcellus Shale operations	Mentor (Pitt-STEER)
6/2012 - 6/2013	Rebecca Dalton Elemental source markers in urban fine particles	Mentor
1/2013 - 6/2013	Jessica McDonald Monitoring and modeling volatile organic compound (VOC) concentrations across Downtown Pittsburgh	Mentor 1
8/2018 - 5/2019	Lucia Lavelle Multi-pollutant air pollution monitoring in Philadelphia	Internship mentor
9/2020 - 12/2020	Perla Cuevas Essential work and Covid-19 in NYC	Co-op Advisor
Master's Students		
Year(s) 2010 – 2011	Mentee Laalithya Konduru MS (Completed 2011) Biomarkers of Chronic Stress	Role Thesis Advisor
2011 - 2013	Jeff Howell MPH (Completed 2013) Pittsburgh air monitoring and youth focus groups	Mentor

2011 - 2013	Lauren Chubb MPH (Completed 2013) Organic markers of diesel particulate exposures across Downtown Pittsburgh	Primary Advisor
2011 – 2013	Leah Cambal MPH (Completed 2013) Gaseous pollutant source apportionment across Pittsburgh	Primary Advisor
2011 – 2015	 Sara Gillooly MS (Completed April 2015) Development of a method for using tree leaves for urban source identification Award: Delta Omega Honor Society Inductee 2015 Delta Omega Outstanding Masters' Thesis 2015 	Primary Advisor
6/2013 - 4/2015	Ryan Tyler Rubright MS (Completed April 2015) Variation in PM _{2.5} and pre-clinical markers of cardiovascular illness in Pittsburgh, PA	Primary Advisor
8/2016-9/2016	Brian Adams DrPH (Behavioral and Community, Health Scis) Examining intimate partner violence support services for gay and bisexual men	Qualifying Exam Committee Member
2/2016 - 2017	Guning Liu Air pollution exposures and self-reported health among prisoners in a facility near a coal ash dump	Research rotation
8/2016-2017	Heng Bai Social status as a modifier of immune and respiratory response to air pollution during California wildfires in large primates	Research rotation
Drexel University:		Faculty Mentor
2017 – 2019	Paige Williams Spatial patterns in gaseous air pollution exposures in Philadelphia, PA Award: Dornsife Funded Student-Faculty Collaborative Projects: Disentangling Multiple Air Pollution Sources in South Philadelphia	•
2017 – 2019	Pilar Ocampo Perceived and objective air pollution exposures in New York City	Faculty Advisor
2019 - 2020	Danielle Uibel MPH, Environmental and Occupational Health	Faculty Advisor
2019 - 2020	Duong Nguyen MPH, Health Management and Policy Urban Health Fellowship	Project Mentor

	Air Monitoring in South Philadelphia	
2019 - 2020	Kathleen Escoto MPH, Epidemiology Air Pollution and Pre-term Birth in South Philadelphia	Preceptor/ Project Mentor
2019 - 2020	Chahita Kanungo MPH, Environmental and Occupational Health Urban Air Pollution and Health	Faculty Mentor
2020 – Present	Chanel Conigan MPH, Global Health	Faculty Mentor
2021 – Present	Kushak Naik MPH, Epidemiology	Faculty Mentor
2021 – Present	Christina Miller MPH, Urban Health	Faculty Mentor
2021 - Present	Paige Hollingsworth MPH, Urban Health	Faculty Mentor

Doctoral Students

Year(s) 2010 – 2013	Mentee Brett Tunno DrPH (completed November 2013) Modeling Spatial Variation in Ambient PM _{2.5} and BC across Pittsburgh Award: International Society for Environmental	Role Primary Advisor
	<i>Epidemiology (ISEE) Outstanding Student Poster</i> <i>Presentation 2011</i>	
2010 - 2014	Jessie L. Carr Shmool DrPH (completed December 2014) Exposure Assessment for Non-Chemical Stressors in Environmental Health	Primary Advisor
	Awards: Outstanding Student, EOH 2014	
	Delta Omega Honor Society Inductee 2015	
	Delta Omega Honor Society Outstanding Doctoral Thesis	
2011 - 2014	Andrew Michanowicz	Primary Advisor
	DrPH (completed December 2014)	
	Integration of source dispersion modeling into land use regression models across complex terrain	
	Awards:	
	Delta Omega Honor Society	
	International Society for Exposure Science	

Jane E Clougherty, MSc, ScD

	Outstanding Student Poster 2012	
2012 - 2017	Sheila Tripathy PhD (completed April 2017) Hybrid Land use Regression Modeling of Fine Particulate Matter and Metal Components for Application in two Pittsburgh Cohorts	Primary Advisor
	Award: Tri-State Chapter International Society of Exposure Science (ISES) travel award 2018	
2011 - 2012	Shantanu Kathar PhD (completed 2012) Secondary particle formation from diesel engines	PhD Committee Member (Carnegie Mellon University Engineering & Public Policy)
2011 – 2012	Tim Gordon PhD (completed 2012) Treatment effects on fine particulate composition from heavy-duty engines	PhD Committee Member (Carnegie Mellon University Engineering & Public Policy)
2015	Tao Xue PhD (completed January 2015) Time-Series analysis of air pollution and cardiovascular outcomes	Research Rotation – 2012
2019 - 2021	Henry Colby Chemistry of Third-hand Smoke from E-cigarettes and vaping	PhD Proposal Committee Drexel University Department of Chemistry
2019 – 2021	Rennie Joshi Land-Use Regression Modeling of PM ₁₀ in Nepal	PhD Committee Member Drexel University Dornsife School of Public Health Epidemiology and Biostatistics
2020 - 2021	Dustin Fry Streetscape Virtual Audits Across the Americas: Measurement, Validity, and Bias	PhD Committee Member Drexel University Dornsife School of Public Health Epidemiology and Biostatistics
Fall 2020 – Present	Lizbeth Gomez PhD Candidate, Summer 2022 Modification of Clinical Interventions for Asthma by Social and Environmental Exposures	Primary Advisor, Program Chair
	Awardss: Drexel Urban Health Collaborative GATHER Fellow 2022-2023 Finalist for Drexel-Selected Doctoral Student Presentation: American Association for the Advancements of Science (AAAS) November 2022 Delta Omega Public Health Honor Society 2023	

Fall 2020 – Present	Rachit Sharma PhD Candidate, Summer 2022 Air pollution, temperature, and psychosocial stressors in pediatric seizure and epilepsy across New York State	Primary Advisor, Program Chair
	Awards: Drexel University Global Travel Award 2022; Drexel Urban Health Collaborative (UHC) Dissertation Funding Award 2022-2023 Drexel Teck-Kah Lim Travel Award 2023 Global Engagement Travel Award 2023	
Fall 2021 – Summer 2022	Danielle Piontkowski Urban Air Pollution and Children's Mental Health	Primary Advisor, Program Chair
Fall 2023 - Present	Lisa Frueh Community Assets and Resilience to Climate-Related Exposures in Children's Health	Primary Advisor, Program Chair
	Awards: DSPH Dean's PhD Funding Drexel Gold-Level Graduate College Fellowship Drexel Peace Engineering Fellows Award Drexel Teck-Kah Lim Domestic Travel Award 2023 Global Engagement Travel Award 2023	

Postdoctoral Fellows

Year(s) 1/2013 – 1/2015	Mentee Jiang Zhou, PhD Case-crossover analyses of spatiotemporal variance in air pollution and childhood asthma in NYC
8/2017 – 2019	Jamie Humphrey, PhD Susceptibility by social factors in case-crossover analyses of multiple air pollutants and cardiovascular risk in NYC
6/2017 – 2019	Sheila Tripathy, PhD Spatial variation in ports-related emissions in Auckland, New Zealand; Source apportionment for multiple NO ₂ sources in Philadelphia, PA Drexel Urban Health Collaborative (UHC) grant awardee 2019: Using Emerging Air Sensors to Identify Community Air Pollution Exposures Specific to South Philadelphia Fulbright Award Finalist, U.SNew Zealand 2019

Junior Faculty Mentees

9/2017 – Present	Leah Schinasi, PhD
	Assistant Professor (tenure-track)
	Dept of Environmental and Occupational Health
	Mentor: Drexel Dornsife Junior Faculty Mentoring
	Program
	Mentor: American Heart Association (AHA) Career
	Development Award 2019-2022: Urban greenness,
	cardiovascular disease mortality, and the
	environmental pathways underlying this association
3/2018 - Present	Usama Bilal, MD MPH PhD
	Assistant Professor (tenure-track)
	Department of Epidemiology and Biostatistics &
	Urban Health Collaborative
	Drexel University Dornsife School of Public Health
	Committee member: 2018 NIH Director's Early
	Independence Award.
May 2021 – Present	Tara McAlexander, PhD
	Research Assistant Professor
	Department of Epidemiology and Biostatistics
	Drexel University Dornsife School of Public Health
	Primary Mentor: NIH K-01 Application: Air
	pollution mixture exposures and associations with
	renal outcomes in a population-based cohort.
June 2022 - Present	Erin Kulick, PhD
	Assistant Professor (tenure-track)
	Department of Epidemiology and Biostatistics
	1 1 07

Temple University College of Public Health

Josiah Kephart Assistant Professor (tenure-track) Dept of Environmental and Occupational Health Mentor: Drexel Dornsife Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Scholars Program

SERVICE

Departmental Committees

	University of Pittsburgh:
2011-2016	Departmental Graduate Program Committee, member
2011 - 2016	Departmental Environmental Epidemiology Faculty Search Committee, member
	Drexel University Department of Environmental and Occupational Health:
March 2018 – Nov 2018	Co-Chair, Doctoral (PhD) Program Development Committee
Dec 2018 - 2019	Co-Director, Doctoral (PhD) Program
Nov 2018 – 2019	Chair, Tenure-Track Faculty Search Committee
2019 - Present	Chair, EOH Departmental Chair Evaluation Committee
Sept 2019 – Feb 2019	Director, Doctoral (PhD) Program

School and University Committees

University of Pittsburgh:

2011 - 2014	GSPH Educational Policies and Curriculum Committee (EPCC) Alternate Departmental Representative
2011 - 2012	GSPH Conference on the Health Effects of Natural Gas Extraction Member, Planning committee
August 2012 – 2016	University of Pittsburgh Committee on Race and Social Problems (RAP) Health Research Advisory Committee Member
October 2013 – 2014	GSPH Salk Centennial Celebration Planning Committee Member
October 2013 – 2016	University of Pittsburgh Provost's Sustainability Task Force (Mascaro Center for Sustainable Innovation) Invited Member
August 2014 –2016	GSPH Educational Policies and Curriculum Committee (EPCC) Departmental Representative

September 2014 -2015	Association for Schools and Programs of Public Health (ASPPH) Invited Faculty Objective Reviewer
October 2014 –2015	Council on Education for Public Health (CEPH) GSPH re-accreditation process Internal reviewer
October 2016 – Dec 2016	Graduate School of Public Health Faculty Appointments, Promotion, and Tenure Committee (FAPTC)
	Drexel University:
July 2017 – Sept 2019	Drexel University: School Representative, Senate Committee for Faculty Affairs
	Drexel University Dornsife School of Public Health:
February 2017 – May 2018	Educational Coordinating Committee (ECC) Member
April 2017 – May 2018	Program Alignment and Review (PAR)Member, Undergraduate Program Assessment Committee
Nov 2017 – May 2018	Member, Director of Global Health Search Committee
September 2019 – Present September 2020 – Present September 2020 – Present September 2020 – Present	 Executive Committee of the Faculty (ECF): Elected At-Large Representative Elected Chair Member, Dean's Executive Council (DEC) Member, Dornsife School Council
September 2020 - Present	Urban Health Collaborative Steering Committee - Affiliate Faculty Representative
September 2019 - Present	Drexel Urban Health Collaborative (UHC) GATHER T32 Training Grant Faculty Mentor
October 2021 – Present	Dornsife Task Force on Doctoral Programs - Member, Co-Chair
November 2021 – Present November 2021 – Present	 Dornsife NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Award Mentor, Advisory Board Faculty Search Committee
March 2022 - Present	Urban Health Collaborative (UHC) Climate Change and Health Equity Working Group, member
External Committees	
September 2021 - Present	U.S. Environmental Protection Agency (EPA) Clean Air Science Advisory Committee (CASAC) – Particle Matter (PM) Panel
September 2021 – Present	Editorial Review Board, Frontiers in Epidemiology journal
September 2021 - Present	Advisor, American Petroleum Institute (API)-funded study on data and methods needs for addressing intersection of air pollution and infectious agents (e.g.,

	SARS-CoV-2) on health
August 2020 - Present	Advisory Board, OJB Landscape Architecture; Grant award from Landscape Architecture Foundation (LAF)
2019 - Present	Editorial Board International Journal of Environmental Research and Public Health (IJERPH)
2018 - 2019	Guest Editor International Journal of Environmental Research and Public Health (IJERPH) Special Issue: Social Stressors and Susceptibility to Environmental Chemicals
	National Institutes of Health (NIH) Study Sections:
August 2016	- Neurological, Aging and Musculoskeletal Epidemiology Study Section (NAME) - <i>Ad hoc reviewer</i>
April 2017	- Community Influences on Health and Behavior (CIHB) - Ad hoc reviewer
June 2018	- Systemic Injury by Environmental Exposure (SIEE) - Ad hoc reviewer
June 2019	- Social Sciences and Population Studies A (SSPA) - Ad hoc reviewer
April 2021	- Time-Sensitive R21 Mechanism, NIEHS - Ad hoc reviewer
October 2018	Risk Assessment-Epidemiology Methods Workshop (Tampa, FL)
January 2019 – 2021	Electric Power Research Institute (EPRI) Expert Panel on Confounding by Socioeconomic Factors in Environmental Epidemiology
November 2016	Norwegian Institute of Public Health (NIPH) Advisory Board: HEALTHSCAPES – The Impact of Urban Green Landscapes on Citizen Health and Wellbeing
August – Dec 2016	Air Advisory Committee, Allegheny County Department of Health (ACHD)
2012 – Present 2016 – 2020	Environmental Health Perspectives (journal): Editorial Review Board Associate Editor
8/2012 - 8/2015 8/2015 - 8/2017 8/2014 - 6/2018 8/2012 - 8/2015 6/2017 - 2018	International Society for Exposure Science (ISES): Elected Academic Councilor/ Board Member Publications Committee Liaison Publications Committee Mentor, Students and New Researchers Program Quarterly Newsletter Editorial Review Board
2013 - 2019	Editorial Review Board Journal of Exposure Science & Environmental Epidemiology
2016 - 2019	Editorial Review Board, Environmental Health (journal)
2014 - 2016	National Academy of Sciences (NAS): Institute of Medicine (IOM) Department of Veterans Affairs

	Scientific Committee on Impacts of Open Burn Pits on Health of Veterans of Wars in Iraq and Afghanistan
2017 - 2019	New Zealand Health Research Council (HRC) - Grant reviewer
2015 – Present	National Institute for Occupational Safety and Health (NIOSH) / Centers for Disease Control (CDC) Working Group: Occupational Factors in Cumulative Risk Assessment
2015 - 2016	Green Buildings Alliance (GBA) Pittsburgh Health Advisory Council
2015 – 2016	City of Pittsburgh Office of Sustainability – Pittsburgh Climate Action Plan Climate/ Resilience Project Public Health & Wellbeing Expert Group
2012 - 2013	West Harlem Environmental Action (WE ACT for Environmental Justice) Clean Heat Buildings Council, Board Member
2013 - 2014	New York City Clean Air Network (NYCCAN) member