

Curriculum Vitae  
**JENNI A. SHEARSTON**

**University of Colorado Boulder**  
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## RESEARCH INTERESTS

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Environmental Epidemiology; Environmental Justice; Chemical Exposure; Menstruation; Women's Health; Air Pollution; Traffic-related Pollution; Volatile Organic Chemicals; Gasoline Exposure; Health Consequences of Industrial Pollution; Alternative Tobacco Products (hookah and electronic-cigarettes); Community Based Research

## EDUCATION

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- 2018-2023     **PhD in Environmental Health Sciences, Environmental Epidemiology**, Mailman School of Public Health, Columbia University, New York, NY  
*Thesis:* Traffic-related Pollution: Implications for Environmental Justice and Policy  
*Advisors:* Markus Hilpert, PhD & Marianthi-Anna Kioumourtzoglou, ScD
- 2014-2017     **Master of Public Health, Epidemiology**, College of Global Public Health, New York University, New York, NY  
*Thesis:* Childhood Cancer and Exposure to Industry: An Ecologic Study of New Jersey Counties Using Data from the Toxic Release Inventory  
*Advisor:* Thomas Kirchner, PhD
- 2007-2011     **Bachelor of Arts, English**, Regis University, Denver, CO  
*Thesis:* Living in the Mystery: Myriad Approaches to Death in Edgar Allan Poe's Tales of Terror  
*Advisor:* David Hicks, PhD

**Certifications**     Standard Certificate, Teacher of English, New Jersey, Cert #907813

## AWARDS AND HONORS

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- 2024     NIEHS Environmental Factor Extramural Paper of the Month: Tampons as a source of exposure to metal(loids)
- 2024     I. Bernard Weinstein Award for Academic Excellence in Environmental Health Sciences, Columbia University, New York, NY  
 Awarded for outstanding academic achievement and promise in the field of public health.
- 2024     Northwestern University Transportation Library Travel Grant, Evanston, IL  
*Using the National Environmental Policy Act to Improve Environmental Justice and Reduce Highway-Expansion Related Air Pollution and Health Impacts*
- 2023     Health Effects Institute Jane Warren Award, Boston, MA  
 One of six recipients; awarded on basis of scientific merit and quality for abstract titled: *Can Traffic-related Air Pollution Trigger Myocardial Infarction Within a Few Hours of Exposure? Identifying Hourly Hazard Periods*
- 2021-2023     F31 Ruth L. Kirschstein Predoctoral Individual National Research Service Award, National Institutes of Environmental Health Sciences, (Award # ES033098), Bethesda, MD:  
*Impact of Covid-19 Related Stay-at-home Orders on Traffic, Traffic-related Air Pollution, and Cardiovascular Health in New York City*

- 2020 EHS Exemplary Teaching Award, Columbia University, New York, NY  
Awarded for exemplary work co-re-designing and co-instructing the Department of Environmental Health Sciences course: *Capstone: Critical Thinking and Analysis in EHS*.
- 2018-2021 NIEHS P30 Center for Environmental Health and Justice in Northern Manhattan, Predoctoral Trainee, Columbia University, New York, NY
- 2011 Magna Cum Laude, Regis University, Denver, CO
- 2010-2011 Student Representative to Board of Trustees Standing Committee on Finance & Business Affairs, Regis University, Denver, CO
- 2007-2011 Regis College Honors Program, Regis University, Denver, CO
- 2007-2011 Board of Trustees Scholarship, Regis University, Denver, CO
- 2007-2011 Ruby M. Sisson Memorial Scholarship, Pagosa Springs, CO
- 2007-2011 Pagosa Springs Rotary Club Scholarship Award, Pagosa Springs, CO

## **ACADEMIC APPOINTMENTS & RESEARCH EXPERIENCE**

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- 2025-present Assistant Professor, Department of Integrative Physiology, University of Colorado Boulder, Boulder, CO
- 2023-2024 Postdoctoral Scholar, School of Public Health and Department of Environmental Science, Policy, & Management, University of California Berkeley (Mentors: Rachel Morello-Frosch & Joan A. Casey), Berkeley, CA
- 2018-2023 Graduate Student Researcher, Department of Environmental Health Sciences, Columbia University Mailman School of Public Health (Mentors: Marianthi-Anna Kioumourtzoglou & Markus Hilpert), New York, NY
  - Contributed to a variety of research projects through working collaboratively to design and implement studies, conduct data analysis, collect primary data, and develop collaborations with other researchers and community members
- 2015-2018 Project Manager (2017-2018) / Project Coordinator (2015-2016), Michael Weitzman MD, Scott Sherman MD MPH, & Terry Gordon PhD, Departments of Pediatrics, Population Health, and Environmental Medicine, NYU Langone Medical Center, New York, NY
  - Managed a variety of public health research projects, domestically and globally, including the administration and submission of grants, IRB applications and compliance, creation of data collection tools, study design and implementation, management of data collection and research staff, and analysis of large nationally representative datasets
  - Domestic projects:
    - Smoking Cessation and the Oral Microbiome
    - Air Quality, Child, and Adult Health in Homes where Hookahs and E-cigarettes are Used
    - Air Quality in Vape Shops
    - CUNY Tobacco & Health Behavior Survey
    - Survey of Knowledge and Beliefs of Alternative Tobacco Products among Dental Students
    - Indoor Air Quality in Homes of Hookah Smokers and E-cigarette Users
    - Dental and Periodontal Disease and Hookah Smoking (New York City)
  - Global projects:
    - Abu Dhabi Cohort Study, Abu Dhabi, UAE
    - Periodontal Disease and Hookah Smoking, Sharjah, UAE
    - Quit Buddy App for Smoking Cessation, NYU / St. Petersburg, Russia

- Summer 2017 Intern, US Environmental Protection Agency, Region II, Office of the Regional Administrator, Special Projects, New York, NY
- Interviewed numerous stakeholders throughout Region II involved with reducing childhood exposure to lead paint, including representatives of local governments, non-governmental organizations, universities, and public health offices
  - Developed a resource for community coalitions to use when working to reduce primary lead exposure in their regions titled *Best Practices for Reducing Lead Exposure: A Resource for Community Coalitions*
- 2014-2015 Research Assistant, Michael Weitzman, MD, Department of Pediatrics, NYU Langone Medical Center, New York, NY
- Analyzed data using Stata from the Global Adult Tobacco Survey, in conjunction with colleagues, to evaluate worldwide tobacco cessation resource use

## **TEACHING EXPERIENCE**

- 2020-2022 Teaching Fellow, Mailman School of Public Health, Columbia University  
 EHSC P9300: *MPH Capstone: Critical Thinking and Analysis in EHS* (Spring 2020, Spring 2021, Spring 2022; Enrollments: 17-27; 3 credits)
- Re-designed syllabus with instructional team; taught lessons; developed assignments and grading rubrics; graded and provided feedback to students
- EHSC P9303: *Applied Environmental Public Health Science* (Fall 2021; Enrollment: 6; 3 credits)
- Co-designed group project; reviewed assignments
- 2019-2022 Workshop Guide, Mailman School of Public Health, Columbia University  
*GIS Workshop*, 2-day SHARP Training (Summer 2019, Summer 2020, Summer 2021, Summer 2022; Enrollments: 28-30)
- Provided real-time instructional support during in-person and Zoom sessions one-on-one and in small groups to help students troubleshoot programmatic and coding errors and understand material
- 2016-2017 Teaching Assistant, College of Global Public Health, New York University  
*Drug Use and Public Health* (Fall 2016, Fall 2017; Enrollments: 15-20; 3 credits)
- Collaborated with team to develop masters-level course on licit and illicit drug use, including the design and production of all materials and assignments
- Spring 2015 Arabic Teacher, Newark Collegiate Academy, KIPP:NJ, Newark, NJ
- Facilitated three sections of Arabic classes through Rosetta Stone, in conjunction with developing complementary cultural activities (please note, I do not speak Arabic)
- 2012-2014 English and Special Education Teacher, Newark BRIDGES High School, Newark, NJ  
Teach for America Corps Member, Newark, NJ
- Selected from highly competitive pool to join national teacher corps of recent college graduates and professionals who are placed in high-need public schools to teach for two years
  - Consistently commended by supervisor for outstanding teaching and dedication to students at an urban, public, alternative education school serving over-aged and under-credited students
  - Requested by supervisor to create and deliver over 6 professional development sessions to full school staff
  - Served as Senior Class Advisor for 100 graduating seniors; including organizing fundraisers, planning graduation events and school spirit activities
  - Awarded Staff of the Month for outstanding service and work ethic

## **MENTORSHIP**

*MPH Students at Columbia University*

- 2020 Shannon (Seonyoung) Park
- Advised on coding, data analysis, and manuscript development for a project analyzing air quality changes in New York state during the COVID-19 pandemic
- 2019 Peggy (Pei) Hsieh
- Advised on coding, data analysis, and manuscript writing for a project developing a framework for gas station setback distances

#### High School Students

- 2024-2025 Hamsika Thumu
- Primary mentor for Hamsika's independent research project conducting a narrative review of vaginal absorption of chemicals, as part of the Student Research Program at the Illinois Mathematics and Science Academy

### FELLOWSHIP AND GRANT SUPPORT

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NIEHS Center Pilot Award P30ES009089. Role: Co-I. "Tampons as a source of pesticide and metal exposure: A novel exposure assessment study." April 1, 2022 - March 31, 2023. Direct Costs: \$35,000

NIEHS Award F31 ES033098. Role: PI. "Impact of COVID-19 related stay-at-home orders on traffic, traffic-related air pollution, and cardiovascular health in New York City." September 1, 2021 - August 30, 2023. Direct Costs: \$65,698

### PUBLICATIONS

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#### Peer-Reviewed Publications

35. Shan X, Casey JA, **Shearston JA**, Henneman L. (2024). Methods for Quantifying Source-Specific Air Pollution Exposure to Serve Epidemiology, Risk Assessment, and Environmental Justice. *GeoHealth*; Nov 5;8(11):e2024GH001188. doi: 10.1029/2024GH001188
34. **Shearston JA**, Saxena R, Casey JA, Kioumourtzoglou MA, Hilpert M. (2024). Variation in the Impact of New York on Pause on Traffic Congestion by Racialized Economic Segregation and Environmental Burden. *GeoHealth*; Dec 11; 8(12):e2024GH001050. doi: 10.1029/2024GH001050
33. **Shearston JA**, Upson K, Gordon M, Do V, Balac O, Nguyen K, Yan B, Kioumourtzoglou MA, Schilling K. (2024). Tampons as a source of exposure to metal(loid)s. *Environ Int*; 190, 108849. <https://doi.org/10.1016/j.envint.2024.108849>
32. Nunez Y, Benavides J, **Shearston J**, Krieger EM, Daouda M, Henneman LRF, McDuffie EE, Goldsmith J, Casey JA, Kioumourtzoglou MA. (2024). An Environmental Justice Analysis of Air Pollution Emissions in the United States from 1970 to 2010. *Nat Commun*; 15(1):268. Doi:10.1038/s41467-023-43492-9
31. **Shearston JA**, Rowland ST, Butt T, Boehme AK, Chillrud SN, Casey JA, Edmondson D, Hilpert M, Kioumourtzoglou MA. (2023). Can Traffic-related Air Pollution Trigger Myocardial Infarction Within a Few Hours of Exposure? Identifying Hourly Hazard Periods. *Environ Int*; 178. doi: 10.1016/j.envint.2023.10808  
\*\*\* Received 2023 Jane Warren Award for this project
30. Karey E, Hess J, Farrell KR, Rebuli ME, **Shearston JA**, Lee L, Reed TA, Eazor J, Edid A, Shetty A, Khan S, Gibbon G, Jaspers I, Weitzman M, Gordon T. (2022). The Nose Knows: Sniffing out the Unique Immunological Risk of Alternative Tobacco Products. *Am J Respir Cell Mol Biol*; 66(4):461-464. doi: 10.1165/rcmb.2021-0368LE
29. **Shearston JA**, Cerna-Turoff I, Hilpert M, Kioumourtzoglou M-A. (2022). Quantifying Changes in NO<sub>2</sub> Due to COVID-19 Related Stay-at-home Orders in New York City. *Hyg Environ Health Adv*; 4. doi: 10.1016/j.heha.2022.100032

28. Jiang N, Xu S, Li L, El Shahawy O, Freudenberg N, **Shearston JA**, Sherman SE. (2022). The Mediating Effect of E-cigarette Harm Perception in the Relationship between E-cigarette Advertising Exposure and E-cigarette Use. *Int J Environ Res Public Health*; 19(10): 6215. doi: 10.3390/ijerph19106215
27. Benavides J, Rowland ST, **Shearston JA**, Nunez Y, Jack DW, Kioumourtzoglou MA. (2022). Methods for Evaluating Environmental Health Impacts at Different Stages of the Policy Process in Cities. *Curr Environ Health Rep*. doi: 10.1007/s40572-022-00349-5
26. Upson K, **Shearston JA**, Kioumourtzoglou MA. (2022). An Epidemiologic Review of Menstrual Blood Loss as an Excretion Route for Per- and Polyfluoroalkyl Substances. *Curr Environ Health Rep*; 9, 29-37. doi: 10.1007/s40572-022-00332-0
25. Upson K, **Shearston JA**, Kioumourtzoglou MA. (2022). Menstrual Products as a Source of Environmental Chemical Exposure: A Review from the Epidemiologic Perspective. *Curr Environ Health Rep*; 9, 38-52. doi: 10.1007/s40572-022-00331-1
24. Al-Marzooq F, Al Kawas S, Rahman B, **Shearston JA**, Saad H, Benzina D, Weitzman M. (2022). Supragingival Microbiome Alterations as a Consequence of Smoking Different Tobacco Types and its Relation to Dental Caries. *Sci Rep*; 12, 2861. doi: 10.1038/s41598-022-06907-z
23. Li M, Hilpert M, Goldsmith J, Brooks JL, **Shearston JA**, Chillrud SN, Ali T, Umans JG, Best LG, Yracheta J, van Donkelaar A, Martin RV, Navas-Acien A, Kioumourtzoglou MA. (2022). Air Pollution in American Indian Versus Non-American Indian Communities, 2000-2018. *Am J Public Health*; 112, 615-623. doi: 10.2105/AJPH.2021.306650
22. **Shearston JA**, Eazor J, Lee L, Vilcassim R, Reed T, Ort D, Weitzman M, Gordon T. (2021). Effects of Electronic Cigarettes and Hookah Water Pipe Use on Home Air Quality. *Tob Control*. doi: 10.1136/tobaccocontrol-2020-056437
21. **Shearston JA**, Martinez ME, Nunez Y, Hilpert M. (2021). Social Distancing Fatigue in Manhattan during the COVID-19 Pandemic: Evidence from Real-time Traffic. *Sci Tot Environ*. doi: 10.1016/j.scitotenv.2021.148336
20. Al Kawas S, Al-Marzooq F, Rahman B, **Shearston JA**, Saad H, Benzina D, Weitzman M. (2021). The Impact of Smoking Different Tobacco Types on the Subgingival Microbiome and Periodontal Health: A Pilot Study. *Sci Rep*; 11(1113). doi: 10.1038/s41598-020-80937-3
19. Hsieh PY, **Shearston JA**, Hilpert M. (2021). Benzene Emissions from Gas Station Clusters: A New Framework for Estimating Lifetime Cancer Risk. *J Environ Health Sci Engineer*; doi: 10.1007/s40201-020-00601-w
18. El-Shahawy O, Park SH, Rogers E, **Shearston JA**, Thompson A, Cooper S, Freudenberg N, Ball SA, Abrams A, Shelley D, Sherman SE. (2020). Hookah Use Patterns, Social Influence and Associated Other Substance Use Among a Sample of New York City Public University Students. *Subst Abuse Treat Prev Policy*; 15(65). doi: 10.1186/s13011-020-00283-5
17. **Shearston JA**, Johnson AM, Domingo-Reloso A, Kioumourtzoglou MA, Hernández D, Ross J, Chillrud SN, Hilpert M. (2020). Opening a Large Delivery Service Warehouse in the South Bronx: Impacts on Traffic, Air Pollution, and Noise. *Int J Environ Public Health*; 17(9). doi: 10.3390/ijerph17093208. PMID: PMC7246477
16. **Shearston JA**, Hilpert M. (2020). Gasoline Vapor Emissions During Vehicle Refueling Events in a Vehicle Fleet Saturated with Onboard Refueling Vapor Recovery Systems: Need for an Exposure Assessment. *Front Public Health*; 8(18). doi: 10.3389/fpubh.2020.00018. PMID: PMC7020915
15. **Shearston JA**, Lee L, Eazor J, Meherally S, Park SH, Vilcassim MJR, Weitzman M, Gordon T. (2019). Effects of Exposure to Direct and Secondhand Hookah and E-Cigarette Aerosols on Ambient Air Quality and Cardiopulmonary Health in Adults and Children: Protocol For A Panel Study. *BMJ Open*; 9(6) e029490. doi: 10.1136/bmjopen-2019-029490. PMID: PMC6597628

14. Chapman CR, **Shearston JA**, Folkers KM, Redman BK, Caplan AL, Bateman-House A. (2019). Single Patient Expanded Access Requests: IRB Professionals' Experiences and Perspectives. *AJOB Empir Bioeth*; Apr-Jun. doi: 10.1080/23294515.2019.1577192
13. El-Shahawy O, Park SH, Lee L, Duncan DT, Tamura K, **Shearston JA**, Sherman SE, Weitzman M. (2018). Evaluating State-level Differences in E-cigarette and Cigarette Use Among Adults in the United States Between 2012 and 2014: Findings from the National Adult Tobacco Survey. *Nicotine Tob Res*; Feb 27. doi: 10.1093/ntr/nty013
12. **Shearston JA**, Shah K, Cheng E, Moosvi R, Park SH, Patel N, Spielman AI, Weitzman M. (2017). Dental, Dental Hygiene, and Advanced Dental Students' Use, Knowledge, and Beliefs Regarding Tobacco Products. *J Dental Educ*. Nov;81(11):1317-1326. doi: 10.21815/JDE.017.091. PMID: 29093145
11. Palamar JJ and **Shearston JA**. (2017). Nonmedical Opioid Use in Relation to Recency of Heroin Use in a Nationally Representative Sample of Adults in the US. *J Psychoactive Drugs*; 50(2):159-166. doi: 10.1080/02791072.2017.1368747. PMCID: PMC5847431
10. Park SH, Duncan D, El Shahawy O, Lee L, **Shearston JA**, Tamura K, Sherman SE, Weitzman M. (2017). Characteristics of Adults Who Switched from Cigarette Smoking to E-cigarettes. *Am J Prev Med*; pii: S0749-3797(17)30363-X. doi: 10.1016/j.amepre.2017.06.033.
9. Tseng KK, Park SH, **Shearston JA**, Lee L, Weitzman M. (2017). Parental Psychological Distress and Food Insecurity: Sad Dads in Hungry Homes. *J Dev Behav Pediatr*; doi: 10.1097/DBP.0000000000000481
8. Park SH, Lee L, **Shearston JA**, Weitzman M. (2017). Patterns of Electronic Cigarette Use and Level of Psychological Distress. *PLoS ONE*; 12(3):e0173625.
7. Weitzman M, Yusufali AH, Bali F, Vilcassim MJ, Gandhi S, Peltier R, Nadas A, Sherman S, Lee L, Hong Z, **Shearston J**, Park SH, Gordon T. (2016). Effects of Hookah Smoking on Indoor Air Quality in Homes. *Tob Control*; doi:10.1136/tobaccocontrol-2016-053165. PMCID: PMC5505800
6. Park SH, Duncan DT, El Shahawy O, **Shearston JA**, Lee L, Tamura K, Sherman SE, Weitzman M. (2016). Analysis of State-Specific Prevalence, Regional Differences, and Correlates of Hookah Use in US Adults, 2012-2013. *Nicotine Tob Res*; pii: ntw229
5. **Shearston JA**, Park SH, Lee L, Oshinsky C, Sherman SE, Weitzman M. (2016). Increasing Hookah Use Among Adolescent Females in the US: Analyses from the 2011-2014 National Youth Tobacco Survey (NYTS). *Tob Prev Cessation*; 2:74. doi: https://doi.org/10.18332/tpc/64941
4. Cawkwell PB, Lee L, **Shearston J**, Sherman SE, Weitzman M. (2016). The Difference a Decade Makes: Smoking Cessation Counseling and Screening at Pediatric Visits. *Nicotine Tob Res*; pii: ntw146.
3. Palamar JJ, **Shearston JA**, Cleland CM. (2016). Discordant Reporting of Nonmedical Opioid Use in A Nationally Representative Sample of US High School Seniors. *Am J Drug Alcohol Abuse*; 17:1-9.
  - a. Palamar JJ, **Shearston J**, Cleland C. (2016). Discordant Reporting of Nonmedical Opioid Use: Reply to Letter to the Editor. *Am J Drug Alcohol Abuse*; 0(0):1-2.
2. Lee L, **Shearston JA**, Weitzman M. (2016). New Alternative Tobacco Products – A Threat to Adolescent Health. *Pediatr Rev*; 37(7):310-2. doi: 10.1542/pir.2015-0146. PMID: 27368364
1. Palamar JJ, **Shearston JA**, Dawson EW, Mateu-Gelabert P, Ompad DC. (2016). Nonmedical Opioid Use and Heroin Use in A Nationally Representative Sample of US High School Seniors. *Drug Alcohol Depen*; 1(158):132-8. doi: 10.1016/j.drugalcdep.2015.11.005. PMCID: PMC4698068

#### Book Chapters

1. Sherman SE, El-Shahawy O, Leinberger-Jabari A, **Shearston J**, Weitzman M. Dokha Tobacco Smoking: An Alternative Tobacco Product Endemic to the Arabian/Persian Gulf. Handbook of Healthcare in the Arab World. Ed. Ismail Laher.

*Under Review, Pre-prints and papers in preparation*

1. Nguyen K, **Shearston JA**, Upson K, Gordon M, Do V, Schilling K, Liu M, Balac O, Kioumourtoglou M-A, Yan B. (2025). Tampons are a potential source of exposure to endocrine disrupting chemicals (EDCs). *In preparation*.
2. **Shearston JA**, Shan X, Henneman L, Mobley TM, Daouda M, Zhou Y, Rojas-Saunero LP, Mayeda ER, Morello-Frosch R, Casey JA. (2024). A history of environmental injustice: segregation and air pollution in 1940 and 2010 in the United States. *In preparation*.
3. **Shearston JA**, Trowbridge J, Glazer S, Buren H, Baehner L, Rudel R, Morello-Frosch M. (2025). Changes in polycyclic aromatic hydrocarbons (PAHs) among a cohort of urban female firefighters after structural fire-suppression events. *In preparation*.
4. Gordon M, Cohen G, Geller RJ, Harmon Q, Upson K, Wise LA, Wesselink AK, Wegienka GR, Baird DD, Kioumourtoglou MA, **Shearston JA**. (2025). Tampons as a Source of Exposure to Metals Among Reproductive-aged Black Women. *In preparation*.
5. Villanueva M, Meng Q, **Shearston JA**, Morello-Frosch R, Cushing LJ. (2025). Health outcomes in populations living near refineries: a scoping review. *In preparation*.
6. Shan X, Casey J, **Shearston JA**, Henneman L. (2025). Source-specific air pollution in areas and periods with limited data: application to 1940 in the United States. *In preparation*.
7. Martinez D, Kaneshiro GS, Hannoush H, Yan B, Kioumourtoglou M-A, **Shearston JA**, Reame N, Upson K, Schilling K. (2025). Menstrual cycle-related vaginal pH variations in metal leaching from tampons. *In preparation*.
8. Hess J, Farrell KR, Rebuli ME, **Shearston JA**, Lee L, Reed TA, Eazor J, Jaspers I, Weitzman M, Gordon T, Karey E. (2025). Secondhand e-cigarette aerosol increases risk of respiratory inflammation in children and adults. *Submitted/under review*.
9. Thumu H, **Shearston JA**. (2026). Vaginal absorption of surfactants and chemicals: a narrative review. *In preparation*.
10. Hilpert M, **Shearston JA**, Cole J, Chillrud SN, Martinez ME. (2021). Acquisition and Analysis of Crowd-sourced Traffic Data. Arxiv. doi: 10.48550/arXiv.2105.12235. *Pre-print*.
11. **Shearston JA**, Martinez ME, Nunez Y, Hilpert M. (2021). Social-distancing fatigue: Evidence from Real-time Crowd-sourced Traffic Data. medRxiv. doi: 10.1101/2021.03.04.21252917. *Pre-print*.

## **PRESENTATIONS**

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*Conference Oral Presentations*

8. **Shearston JA**, Shan X, Henneman L, Mobley TM, Daouda M, Zhou Y, Rojas-Saunero LP, Mayeda ER, Morello-Frosch R, Casey JA. A history of environmental injustice: segregation and air pollution in 1940 and 2010 in the United States. Gerontological Society of America Annual Scientific Meeting: Seattle, WA. November 13-16, 2024.
7. **Shearston JA**, Shan X, Henneman L, Mobley TM, Daouda M, Zhou Y, Rojas-Saunero LP, Mayeda ER, Morello-Frosch R, Casey JA. A history of environmental injustice: segregation and air pollution in 1940 and 2010 in the United States. International Society of Environmental Epidemiology 36th Annual Meeting: Santiago, Chile. August 25-28, 2024.

6. **Shearston JA**, Schilling K, Balac O, Upson K, Do V, Gordon M, Nguyen K, Yan B, Kioumourtzoglou MA. Tampons as a Source of Exposure to Metal(loid)s. ISEE North American Chapter Conference 2023: Corvallis, OR, USA. June 19-21, 2023.
5. **Shearston JA**, Rowland ST, Butt T, Chillrud SN, Casey JA, Edmondson D, Hilpert M, Kioumourtzoglou MA. Can Traffic-related Air Pollution Trigger Myocardial Infarction within a Few Hours of Exposure? Identifying Hourly Hazard Periods. ISEE North American Chapter Conference 2023: Corvallis, OR, USA. June 19-21, 2023.
4. **Shearston JA**, Rowland ST, Butt T, Chillrud SN, Casey JA, Edmondson D, Hilpert M, Kioumourtzoglou MA. Can Traffic-related Air Pollution Trigger Myocardial Infarction within a Few Hours of Exposure? Identifying Hourly Hazard Periods. Health Effects Institute Annual Conference 2023: Boston, MA, USA. April 30-May 2, 2023.
3. **Shearston JA**, Johnson AM, Hernandez D, Kioumourtzoglou M-A, Chillrud SN, Hilpert M. Partnering with the Community to Advocate for Clean Air: A Case Study from the South Bronx, NYC. ISEE North American Chapter-sponsored Symposium: Scientist Connections with Environmental Justice Communities. International Society of Environmental Epidemiology 34th Annual Meeting: Athens, Greece. September 18-21, 2022.
2. **Shearston JA**, Leinberger-Jabari A, El-Shahawy O. Dokha: Current Knowledge and Gaps: A Review of the Literature. Oral Presentation. 1<sup>st</sup> Dokha Tobacco International Symposium. Abu Dhabi, UAE. November 5-6, 2017.
1. **Shearston JA**, Park SH, Lee L, Weitzman M. Exclusive Hookah Use, Exclusive Cigarette Use, and Hookah-Cigarette Dual Use Among US Adolescents. Oral Presentation. 19<sup>th</sup> Annual Conference, International Society of Addiction Medicine: Abu Dhabi, UAE. October 26-29, 2017.

#### *Invited Presentations*

2. **Shearston JA**. Chemicals and Regulation: A Focus on Menstruation, Fossil Fuel Pollution, and Disproportionate Exposure. Department of Occupational and Environmental Medicine Research Forum, National Jewish Health, Denver, CO. March 13, 2025.
1. **Shearston JA** Upson K, Gordon M, Do V, Balac O, Nguyen K, Yan B, Kioumourtzoglou MA, Schilling K. Tampons as a Source of Exposure to Metal(loid)s.
  - a. Texas Department of State Health Services, Childhood Lead Poisoning Prevention Strategic Planning Committee. August 21, 2024.
  - b. WE ACT for Environmental Justice. October 16, 2024.
  - c. New York State Environmental Action Team. September 17, 2024.

#### *Campus Presentations*

7. **Shearston JA**. Chemicals and Regulation: A Focus on Menstruation, Fossil Fuel Pollution, and Disproportionate Exposure. Integrative Physiology Colloquium, University of Colorado Boulder. February 24, 2025.
6. **Shearston JA**. Traffic and Traffic-related Air Pollution in New York: Getting Granular with Temporal and Spatial Resolution. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. November 28, 2022.
5. **Shearston JA**. Tampons as a Source of Exposure to Environmental Chemicals. T32 Retreat, Mailman School of Public Health, Columbia University. October 28, 2022.
4. **Shearston JA**. Investigating 3 Environmental Exposures: Metals in Tampons, Air Pollution During the Covid-19 Pandemic, and Traffic Patterns in NYC Census Tracts. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. February 14, 2022.
3. **Shearston JA**. Exploring the Impact of COVID-19 on Traffic and Traffic-related Air Pollution in NYC. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. April 19, 2021.

2. **Shearston JA**. Pesticides and Traffic: Studies in the New York Area. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. February 10, 2020.
1. **Shearston JA**. Gasoline Vapor Emissions from Gas Stations: Underground Storage Tank Vent Pipes and Vehicle Refueling. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. March 4, 2019.

*Selected Conference Poster Presentations*

11. **Shearston JA**. Tampons as a source of exposure to metals among reproductive-aged Black women. Poster Presentation. International Society of Environmental Epidemiology 34<sup>th</sup> Annual Meeting: Athens, Greece. September 18-21, 2022.
10. **Shearston JA**. New York on PAUSE and traffic-related air pollution: quantifying diurnal changes in NO<sub>2</sub> due to COVID-19 stay-at-home orders. Poster Presentation. International Society of Environmental Epidemiology 34<sup>th</sup> Annual Meeting: Athens, Greece. September 18-21, 2022.
9. **Shearston JA**. Acquisition and Analysis of Crowd-Sensed Traffic Data at Multiple Spatial Scales. Poster Presentation. International Society of Environmental Epidemiology 34<sup>th</sup> Annual Meeting: Athens, Greece. September 18-21, 2022.
8. **Shearston JA**, Johnson AM, Domingo-Relloso A, Kioumourtzoglou MA, Hernandez D, Ross J, Chillrud SN, Hilpert M. A South Bronx Community-based Study: Impacts on Traffic, Air Pollution, and Noise from a Large Delivery Service Warehouse. Poster Presentation. International Society of Environmental Epidemiology 33<sup>rd</sup> Annual Meeting: Virtual Meeting. August 23-26, 2021.
7. **Shearston JA**, Martinez ME, Nunez Y, Hilpert M. Social-distancing Fatigue: Evidence from Real-time Crowd-sourced Traffic Data. Poster Presentation. International Society of Environmental Epidemiology 33<sup>rd</sup> Annual Meeting: Virtual Meeting. August 23-26, 2021.
6. **Shearston JA**, Re DB, Boehme A, Kioumourtzoglou MA. Agricultural Pesticide Use and Parkinson's Disease Admissions: A County-Level Study of New York State, 1995-2012. Poster Presentation. International Society of Environmental Epidemiology 32<sup>nd</sup> Annual Meeting: Virtual Meeting. August 24-27, 2020.
5. **Shearston JA**, Hilpert M. Gasoline Vapor Emissions During Vehicle Refueling Events, New York City. Poster Presentation. International Society of Environmental Epidemiology 32<sup>nd</sup> Annual Meeting: Utrecht, The Netherlands. August 25-28, 2019.
4. **Shearston JA**, El-Shahawy O, Park SH, Thompson A, Watnick D, Lamberson P, Weitzman M, Ball S, Freudenberg N, Sherman S. Characteristics Associated with Self-Reported Changes in Level of Current Hookah Use among a Sample of US Young Adults. Poster Presentation. 3<sup>rd</sup> International Conference on Waterpipe Tobacco Smoking Research. Beirut, Lebanon. November 2017.
3. **Shearston JA**, Park SH, Lee L, Weitzman M. Exclusive Hookah Use, Exclusive Cigarette Use, and Hookah-Cigarette Dual Use Among US Adolescents. Poster Presentation. Pediatric Academic Society Annual Meeting: San Francisco, CA. May 2017.
2. **Shearston JA**, Shah K, Cheng E, Moosvi R, Park SH, Patel N, Spielman AI, Weitzman M. Use, Knowledge, and Beliefs about Cigarettes and Alternative Tobacco Products Among Dental Students at One US Institution. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Florence, Italy. March 2017.
1. **Shearston JA**, Park SH, Lee L, Oshinsky C, Sherman SE, Weitzman M. Hookah: An Emerging Threat to Adolescent Females in the US. Poster Presentation. National Institutes of Health-Tobacco Regulatory Science Conference, May 2016, Bethesda, MD.

## **POLICY ENGAGEMENT ACTIVITIES**

Senator Durazo, California State Legislature. Worked with an aid from Senator Durazo's office to inform development of a bill that would require manufacturers to make available chemical testing information for menstrual products, and to pay for testing of chemicals when requested by the state (SB 754). The bill was introduced in 2025.

Reach the Decisionmakers 2024-2025 Cohort / California Environmental Protection Agency Department of Pesticide Regulation (CA DPR). University of California San Francisco EaRTH Center.

- Participated in a year-long training program to increase capacity and skills for engaging with policymakers. As part of the program, created a series of recommendations around the CA DPR's update to a model that predicts the ability of pesticides to leach into groundwater. Met with members of CA DPR to discuss changes to the Groundwater Protection Program and shared a white paper we prepared offering several recommendations for the program.

United States Senate HELP Committee (Health, Education, Labor and Pensions). Met with staff members for the HELP Committee on July 17, 2024 to discuss metals in tampons and suggest potential responses/actions to reduce metal contamination in menstrual products.

## **COMMUNITY ENGAGEMENT ACTIVITIES**

McClymonds High School Guest Lesson. Computer Science for a Safer World: GIS and Mapping Environmental Health Risks. UC Berkeley Superfund Research Project Outreach Team. McClymonds High School, Oakland, CA. December 7, 2023.

- Co-created and taught a lesson for high school students on using GIS to map environmental health risks in their own neighborhoods and California more broadly.

Community report-back. How did traffic congestion change in Mott Haven – Port Morris from 2017 to 2019? Event: Air Pollution in the South Bronx, hosted by South Bronx Unite. 349 E 140<sup>th</sup> St, Bronx, NY. May 21, 2022.

- I presented the results of a study measuring how traffic had changed in the Port Morris and Mott Haven neighborhoods of the South Bronx.

Community engagement. How to build and use air pollution monitors for citizen science. Event: Community Listening Session, hosted by South Bronx Unite. South Bronx Art Space. January 18, 2020.

- I gave a live tutorial (with Dr. Markus Hilpert) showing participants how to use the [Arduino](#) platform to build air pollution monitors. In addition, we gave a brief oral presentation to share the results of a study showing how traffic, air pollution, and noise had changed after a large distribution facility opened in the neighborhood.

## **SELECTED PRESS**

Castillo A. [Hydrogen-powered buses fuel hope for cleaner air in the Bronx](#). Epicenter NYC. October 14, 2024.

Hobson M. [Tampons have lead in them – what does it mean for your health?](#) *National Geographic*. July 19, 2024

Holohan M. [The FDA is investigating metals in tampons. Are tampons safe? Don't panic, experts say](#). Today. July 9, 2024, (updated) September 6, 2024.

Treisman R. [The FDA is probing tampons after a study found toxic metals in popular brands](#). NPR. (updated) September 11, 2024

Gibson K. [Arsenic, lead and other toxic metals detected in tampons, study finds](#). CBS News. July 5, 2024.

Cameron I. [Toxic Tampon Warning as Arsenic and Lead Found in Common Menstrual Products](#). *Newsweek*. July 4, 2024

Roberts C. [What Are Organic Tampons, and Are They Worth Buying?](#) *Consumer Reports*. September 27, 2023

## **PROFESSIONAL ORGANIZATIONS, SOCIETIES, AND SERVICE**

### *Society Membership & Service*

- 2019-Present International Society of Environmental Epidemiology
- Managed ISEE North American Chapter's Twitter/X and website from 2021-2024
- 2017 Society for Research on Nicotine and Tobacco

### *Peer Review Activities*

American Journal of Respiratory and Critical Care Medicine; Atmosphere; Environment International; Environmental Engineering Research; Environmental Research; Environmental Science and Pollution Research; GeoHealth; Toxics

### *Sessions Chaired*

- 2023 Co-chaired a session on "Chronic Disease" at the ISEE North American Chapter Conference 2023: Corvallis, OR, USA. June 19-21, 2023.
- 2022 Chaired a session on "Child health and exposure to pesticides and other chemicals" at the International Society of Environmental Epidemiology 34th Annual Meeting: Athens, Greece. September 18-21, 2022.
- 2021 Co-chaired (with Brama Koné) a session on "Climate and disparities" at the International Society of Environmental Epidemiology 33rd Annual Meeting: Virtual Meeting. August 23-26, 2021.

## **ACADEMIC AND PROFESSIONAL SERVICE**

- 2020-2023 Founding Member, EHS Doctoral Student Sub-committee on Diversity, Equity, and Inclusion, Department of Environmental Health Sciences, Columbia University
- 2018-2023 Co-leader (2019), Member (2018, 2020-2023) ouR Club, Department of Environmental Health Sciences, Columbia University
- Organized regular, doctoral-student-led meetings for students to share knowledge about coding in R, give practice talks, discuss professional development, mentor other students, and address administrative concerns
  - Facilitated inaugural peer mentorship program

## **PUBLIC SERVICE**

- 2024 Oakland Education Fund, Oakland, CA
- Mentored three high school students as part of an 11-week program to explore career, college, and internship opportunities
- 2020-2023 The Brotherhood/Sister Sol, New York City, NY
- Assisted high school students with college admissions applications, including editing personal statements and resumes
- 2014-2017 Ignite Greater Newark, Newark, NJ
- 2015-2016 Mentoring Program for disadvantaged youth interested in pursuing health careers, New York City, NY
- Co-developed, in conjunction with a team at the NYU School of Medicine, a program that teaches public health research skills, study design, and manuscript development for high school students
- 2010-2011 Regis University Student Government, Regis University, Denver, CO
- Served as Student Body Vice President, and Class Senator

2011            Newborns in Need, Denver Health, Denver, CO  
2007-2011    University Ministry, Regis University, Denver, CO