

Nina M. Flores

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EDUCATION

June 2025 GPA 4.0	Doctor of Philosophy in Environmental Health Sciences Mailman School of Public Health, Columbia University, New York, NY Advisors: Matthew Perzanowski, PhD and Joan Casey, PhD Dissertation: <i>"Mold in a Changing Climate – Implications for Fungal Exposures and Asthma Morbidity in New York City Public Housing"</i>
May 2022 GPA 4.0	Master of Philosophy in Environmental Health Sciences Mailman School of Public Health, Columbia University, New York, NY
May 2021 GPA 4.0	Master of Arts in Environmental Health Sciences Mailman School of Public Health, Columbia University, New York, NY
May 2020 GPA 3.9	Bachelor of Science in Computational Biology College of Natural Sciences, The University of Texas, Austin, TX

ACADEMIC APPOINTMENTS

2025-present	<u>Postdoctoral Fellow</u> , NIH T32 Collaborative Fellowship, Dell Medical School and School of Social Work, University of Texas at Austin, Austin, Texas Primary Mentor: Dr. Elizabeth Matsui, MD, MHS Secondary Mentors: Dr. Catherine Cubbin, PhD and Dr. Yessenia Castro, PhD Training focuses on promoting diversity in behavioral, population, and implementation science research to advance health equity in cardiopulmonary diseases. Responsibilities include conducting research projects, publishing findings, presenting at conferences, and collaborating with faculty across disciplines.
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RESEARCH INTERESTS

Environmental Epidemiology; Environmental Justice; Climate Justice; Health Consequences of Climate Change; Extreme Weather; Public Housing; Power Outages; Fungal Exposure; Asthma; Perinatal Epidemiology; Air Pollution; Community Based Research

HONORS AND AWARDS

2026	American Thoracic Society Assembly on Environmental, Occupational and Population Health Award in Honor of Margaret Becklake, Total: \$500
2026	American Thoracic Society Underrepresented Trainee Development Scholarship, Total: \$1,000
2023-2025	F31 Ruth L. Kirschstein Predoctoral Individual National Research Service Award, National Institutes of Environmental Health Sciences, (Award # ES035280; Total: \$69,764), Bethesda, MD
2024	International Society of Environmental Epidemiology Conference Travel Award

2023	EHS Exemplary Teaching Award, Columbia University, New York, NY Awarded for exemplary work co-instructing the Department of Environmental Health Sciences course: <i>Capstone: Critical Thinking and Analysis in EHS</i>
2020-2023	NIEHS Center for Environmental Health and Justice in Northern Manhattan, Predoctoral Trainee, Columbia University, New York, NY

FELLOWSHIP AND GRANT SUPPORT

NIEHS Award F31 ES035280. Role: PI. "An equity-focused evaluation of a system-wide intervention to reduce mold in NYC public housing and its impact on asthma burden." September 15, 2023 - August 30, 2025. Total: \$69,764

PUBLICATIONS

Peer Reviewed Publications

16. Reho P, Jackson GL, Wang F, **Flores NM**, Henneman LRF, Mercer D, Schwartz BS, Baccarelli A, Wu H, Casey JA. (2026). Exposure to Coal-fired Power Plant Emissions, Unconventional Natural Gas Development, and Salivary miRNA Profiles and Asthma in Children. *Environmental Research*.
15. McBrien H, Catalano R, Bruckner T, **Flores NM**, Stolte A, Gemmill A, Casey JA. Impacts of the Pacific Northwest Heat Dome on preterm birth rates in Oregon and Washington State (2026). *American Journal of Epidemiology*.
14. Casey JA, Gu YM, Schwarz L, Frankland TB, Wilner LB, McBrien H, **Flores NM**, Dey AK, Lee GS, Chen C, Benmarhnia T, Tartof S. (2026) The 2025 Los Angeles Wildfires and Outpatient Acute Healthcare Utilization. *JAMA Health Forum*.
13. **Flores NM**, Spira-cohen A, Do V, Northrop AJ, Lovinsky-Desir S, Walters S, Rudolph KE, Hernández D, Perzanowski MS, Casey JA. (2026) Electrical power outages and asthma-related emergency department visits in NYC, 2019-2020. *Epidemiology*.
12. Shea B, Meltzer GY, Steiger BB, Parms RM, Do V, McBrien H, **Flores NM**, Gordon M, Blake EM, Casey JA. (2025). Co-occurring climate events and environmental justice in California, 2018–2019. *Environmental Research: Health*.
11. Northrop AJ, Do V, **Flores NM**, Wilner LB, Sheffield PE, Casey JA. (2025). Power Outages and Carbon Monoxide Poisoning in Children. *Pediatrics*.
10. Do V, Wilner LB, **Flores NM**, McBrien H, Northrop AJ, Casey JA. (2025) Spatiotemporal patterns of individual and multiple simultaneous severe weather events co-occurring with power outages in the United States, 2018–2020. *PLOS Climate*.
9. Milki AA, **Flores NM**, Stingone J, Johnson M, Lovinsky-Desir S. (2025). Would the now shelved congestion tax narrow or widen the health equity gap if brought back to NYC? *Journal of Epidemiology and Community Health*.
8. **Flores NM**, Hernández D, Fahey CA, Portis LJ, Casey JA. (2024). Assessing the burden of electrical, elevator, heat, hot water, and water service interruptions in New York City public housing. *Journal of Urban Health*,
7. **Flores NM**, Northrop AJ, Do V, Gordon M, Jiang YL, Rudolph KE, Hernández D, Casey JA. (2024). Powerless in the storm: severe weather-driven power outages in New York State, 2017-2020. *PLOS Climate*.

6. Northrop, AJ, **Flores NM**, Do, V, Sheffield, PE, Casey, JA. (2024). Power outages and pediatric unintentional injury hospitalizations in New York State. *Environmental Epidemiology*.
5. **Flores NM**, Lovinsky-Desir S, Divjan A, Hoepner LA, Zou J, Miller RL, Herbstman JB, Perera FP, Perzanowski MS, Chen Q. (2023). Trajectory analysis of rhinitis in a birth cohort from lower-income NYC neighborhoods. *Journal of Allergy and Clinical Immunology*.
4. Casey JA, Daouda M, Babadi RS, Do V, **Flores NM**, Berzansky I, González DJX, Van Horne YO, James-Todd T. (2023). Methods in Public Health Environmental Justice Research: a Scoping Review from 2018 to 2021. *Current Environmental Health Reports*.
3. **Flores NM**,* Do V,* Rowland ST, Casey JA, Kioumourtzoglou MA. (2023). The role of insurance status in the association between short-term temperature exposure and myocardial infarction hospitalizations in New York State. *Environmental Epidemiology*. *Shared first author
2. Do V, McBrien H, **Flores NM**, Northrop AJ, Schlegelmilch J, Kang MV, Casey JA. (2023). Spatiotemporal distribution of power outages with climate events and social vulnerability in the USA. *Nature Communications*.
1. **Flores NM**, McBrien H, Do V, Kang MV, Schlegelmilch J, Casey JA. (2022). The 2021 Texas Power Crisis: distribution, duration, and disparities. *Journal of Exposure Science and Environmental Epidemiology*.

Under Review, Pre-prints, and in preparation

6. **Flores NM**, Rodriguez J, Cacho C, Reynoso J, DeLuca AC, Giri M, Youngwood R, Iannuzzi F, Fox J, Abreu G, Lovinsky-Desir, S. A Youth-Centered Approach to Addressing Poor Air Quality Near a School in Washington Heights, New York City. *Accepted IPHJ*.
5. McBrien H, Casey JA, Chillrud LA, **Flores NM**, Wilner LB. popexposure: An open-source Python package to find the number of people residing near environmental hazards quickly and efficiently. *Pre-print*.
4. **Flores NM***, Little M*, Acosta L, D'Andrea C, Divjan A, Cochran SJ, Sobek E, Clark N, Lemons AR, Dannemiller KC, Green BJ, Perzanowski MS. Domestic fungal exposure and asthma morbidity in New York City children following Superstorm Sandy. *Shared first author. *Accepted JESEE*.
3. **Flores NM**, Casey JA, Lovinsky-Desir S, Spira-Cohen A, Luis, S, Walters S, Little M, Zou J, Rudolph KE, Hernández D, Chen Q, Perzanowski MS. The Impact of a 2019 System-Wide Mold Intervention in NYC Public Housing on Emergency Department Visits for Asthma. *Accepted AJRCCM*.
2. **Flores NM***, Katz DSW*, Parekh TM, Peng RD, Bhavnani D, Balcer-Whaley S, Matsui EC. Ambient pollen and COPD-related emergency department visits in seven Texas cities, 2015–2020. *Shared first author. *Under Review*.
1. **Flores NM**, Zigler C, Chambliss S, Flom A, Zigmund S, Hall EM, Cubbin C, Mueller EJ, Matsui EC, Linking Local Zoning to Air Pollution Sources: A Framework and Case Study in Austin, Texas. *Under Review*.

PRESENTATIONS

Invited Presentations

4. **Flores NM.** Mold in a changing climate – health implications for NYC. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. November 18, 2024.
3. **Flores NM.** Outages and asthma in the New York City Housing Authority. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. October 2, 2023.
2. **Flores NM.** A brief dive into severe weather and outages, rhinitis and asthma, and extreme temperatures and myocardial infarctions. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. April 3, 2023.
1. **Flores NM.** Repeat Exposures and Asthma Exacerbations in NYC: Material Hardship and Cockroaches. Environmental Health Sciences Department Seminar, Mailman School of Public Health, Columbia University. March 29, 2021.

Conference Oral Presentations

4. **Flores NM,** Casey JA, Lovinsky-Desir S, Spira-Cohen A, Luis, S, Walters S, Little M, Zou J, Rudolph KE, Hernández D, Chen Q, Perzanowski MS. Large-Scale Mold Intervention Reduced Asthma Emergency Department Visits in New York City Public Housing Differentially Across Building and Neighborhood Characteristics. 2026 American Thoracic Society annual meeting. Orlando FL.
3. **Flores NM,** Casey JA, Lovinsky-Desir S, Spira-Cohen A, Luis, S, Walters S, Little M, Zou J, Rudolph KE, Hernández D, Chen Q, Perzanowski MS. The Impact of a 2019 System-Wide Mold Intervention in NYC Public Housing on Emergency Department Visits for Asthma. 2026 American Academy of Allergy Asthma and Immunology annual meeting. Philadelphia, PA.
2. **Flores NM,** Northrop AJ, Do V, Gordon M, Jiang YL, Rudolph KE, Hernández D, Casey JA. Powerless in the storm: severe weather-driven power outages in New York State, 2017-2020. ISEE North American Chapter Conference 2023: Corvallis, OR, USA. June 19-21, 2023.
1. **Flores NM,** Northrop AJ, Do V, Gordon M, Jiang YL, Rudolph KE, Hernández D, Casey JA. Powerless in the storm: severe weather-driven power outages in New York State, 2017-2020. SER 2023: Portland, OR, USA. June 13-16, 2023.

Conference Poster Presentations

4. **Flores NM,** Rudolph KE, Spira-Cohen A, Walters S, Do V, Northrop AJ, Fahey CA, Portis LJ, Hernández D, Lovinsky-Desir S, Perzanowski MS, Casey JA. Assessing the burden and health implications of service interruptions in New York City public housing. Poster Presentation, 2024 Annual Conference of the International Society for Environmental Epidemiology. Santiago, Chile.
3. **Flores NM,** Perzanowski MS, Lovinsky-Desir S, Divjan A, Hoepner LA, Miller RL, Herbstman JB, Perera FP, Chen Q. Latent Class Growth Analysis of Rhinitis in an Inner-City Birth Cohort. Poster Presentation. 2023 American Academy of Allergy Asthma and Immunology annual meeting. San Antonio, TX.
2. **Flores NM,** McBrien H, Do V, Kiang MV, Schlegelmilch J, Casey JA. The 2021 Texas Power Crisis: Distribution, Duration, and Disparities. Poster Presentation, 2022 Socio-Environmental Research Group Annual Conference, Portland, OR.

1. **Flores NM**, McBrien H, Do V, Kiang MV, Schlegelmilch J, Casey JA. The 2021 Texas Power Crisis: Distribution, Duration, and Disparities. Poster Presentation, 2022 Annual Conference of the International Society for Environmental Epidemiology. Athens, Greece.

TEACHING EXPERIENCE

2022-2023	<u>Teaching Fellow</u> , Mailman School of Public Health, Columbia University • Capstone: Critical Thinking and Analysis in EHS (Spring 2023) Public Health GIS (Fall 2021)
2022-2023	<u>Workshop Guide</u> , Mailman School of Public Health, Columbia University • GIS Workshop, SHARP Training (Summer 2021) • Environmental Justice Workshop, SHARP Training (Summer 2022)
2018-2020	<u>Undergraduate Teaching Assistant</u> , Department of Biostatistics, University of Texas

SERVICE

Department and University Committees

2021-2025	Member, EHS Doctoral Student Sub-committee on Diversity, Equity, and Inclusion, Department of Environmental Health Sciences, Columbia University • Helped organize and run a peer mentoring program for incoming PhD students • Developed resources (e.g., an informal handbook) to help incoming students navigate departmental and program requirements • Advocated successfully for two structural changes: department-wide adoption of formal community guidelines and assignment of first-year research rotations to accelerate new students' research start
2022-2023	Co-leader, Climate and Health Seminar Series, Department of Environmental Health Sciences, Columbia University • Organized monthly seminars on topics in Climate and Health by inviting speakers and facilitating their talks

Peer Review Activities

Energy Research and Social Science; Journal of Allergy and Clinical Immunology; Annals of the New York Academy of Sciences; International Journal of Disaster Risk Reduction, Environmental Health Perspectives, Environmental Research

PROFESSIONAL MEMBERSHIPS

Society Membership

2021-Present	International Society of Environmental Epidemiology
2023-Present	American Academy of Asthma Allergy and Immunology
2025-Present	American Thoracic Society

Conference Sessions Chaired

2023	Co-chaired a session on "Environmental Justice" at the ISEE North American Chapter Conference 2023: Corvallis, OR, USA. June 19-21, 2023.
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RESEARCH EXPERIENCE

2020-2025

Graduate Student Researcher, Matthew Perzanowski, PhD and Joan Casey PhD, Department of Environmental Health Sciences, Columbia University Mailman School of Public Health

- Collaborated with epidemiologists, biostatisticians, and community partners to translate environmental exposure data into actionable health findings
- Conducted statistical analyses using diverse methods (case-crossover, time series, difference-in-differences, distributed lag non-linear models, latent class growth analysis) to characterize environmental exposures and health outcomes; authored findings published in journals including Journal of Exposure Science & Environmental Epidemiology, Journal of Allergy and Clinical Immunology, American Journal of Respiratory and Critical Care Medicine, and PLOS Climate

2023-2024

NYCHA Policy and Organizing Intern, WE ACT for Environmental Justice, New York, NY

- Outreach and meeting facilitation for WE ACT's NYCHA working group that meets monthly to inform and mobilize members around EJ issues of in NYC public housing
 - Worked with NYC Policy Manager to plan 2024 goals and vision for the group
- Developed NYCHA Outage Dashboard to summarize publicly available outage data in user-friendly format
- Drafted WE ACT statement following the New York City Council's Oversight Hearing on RAD/PACT, the Trust, and the Future of the New York City Housing Authority

SKILLS

Programming and Software: R; QGIS; Google Earth Engine; Python; Microsoft Office; G-suite; EndNote

Research: Exposure Assessment (power outages, mold, air pollution, weather); Grant Submission; Study Management; Data Analysis; Data Management; Statistical Methods; Causal Frameworks and Inference; Epidemiology