# CURRICULUM VITAE

Daniel Carrión, PhD, MPH

Version Date: 9/11/2022

#### **Contact Information:**

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#### Education:

xxxx - 05/2008	BA, Ithaca College, Environmental Studies, Ithaca, NY
xxxx - 05/2011	MPH, New York Medical College, Environmental Health Sciences, Valhalla, NY
xxxx - 06/2019	PhD, Columbia University, Environmental Health Sciences, New York, NY

# Career/Academic Appointments:

07/2019 - 12/2021	Postdoctoral Fellow, Environmental Medicine and Public Health, Icahn School of
	Medicine at Mount Sinai, New York, NY
01/2022 - Present	Assistant Professor, Environmental Health Sciences, Yale School of Medicine, New
	Haven, CT
02/2022 - Present	Adjunct Assistant Professor, Environmental Medicine and Public Health, Icahn
	School of Medicine at Mount Sinai, New York, NY

#### Administrative Positions:

2022 - Present Director of Education, Climate Change and Health, Yale School of Medicine, New Haven, CT

# Professional Honors & Recognition:

## International/National/Regional

2019	Senior Fellow, Environmental Leadership Program
2022	Fellow, New York Academy of Medicine
2022	Senior Fellow, Agents of Change in Environmental Justice

#### Other

2006	Peggy R. Williams Award for Academic & Community Leadership, Ithaca College
2007	Omicron Delta Epsilon International Economics Honor Society, Ithaca College
2008	Student Leadership Award, Ithaca College, Environmental Studies & Sciences
	Program

2017	Teaching Fellow Award, Columbia University Department of Environmental Health
	Sciences
2017	Inducted Member, Delta Omega Public Health Honor Society of New York Medical
	College

# Grants/Clinical Trials History:

Current Grants	
Agency:	NASA
I.D.#:	80NSSC22K1666
Title:	Identifying temperature disparities, energy insecurity, and social vulnerability
	for energy justice in New York State
Role:	Principal Investigator
Percent effort:	15%
Direct costs per year:	\$91,291.00
Total costs for project	
period:	\$149,995.00
Project period:	9/1/2022 - 8/31/2023
Agency:	National Institute of Environmental Health Sciences
Agency: I.D.#:	National Institute of Environmental Health Sciences L60 ES032218
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I.D.#:	L60 ES032218
I.D.#:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and
I.D.#: Title:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes
I.D.#: Title: P.I.:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes Carrion, Daniel
I.D.#: Title: P.I.: Role:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes Carrion, Daniel Loan repayment recipient
I.D.#: Title: P.I.: Role: Percent effort:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes Carrion, Daniel Loan repayment recipient N/A
I.D.#: Title: P.I.: Role: Percent effort: Direct costs per year:	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes Carrion, Daniel Loan repayment recipient N/A
I.D.#: Title: P.I.: Role: Percent effort: Direct costs per year: Total costs for project	L60 ES032218 Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes Carrion, Daniel Loan repayment recipient N/A \$30,000.00

#### Invited Speaking Engagements, Presentations, Symposia & Workshops

## Not Affiliated With Yale:

#### International/National

- "Preventing Household Air Pollution and Understanding its Role in Childhood Pneumonia: Preliminary Findings from Rural Ghana", Haverford College Health Studies Program, Haverford, February 2019 (Lecture)
- "Household Energy and Air Pollution in Ghana: Exploring Infant Nasal Microbial Carriage and the Socio-Ecological Drivers of Clean Cookstove Adoption", George Washington University Milken School of Public Health Department of Environmental Health Sciences, Washington, April 2019 (Lecture)

#### Regional

- 3. "Impacts of climate change on health", WE ACT for Environmental Justice, New York, November 2016 (Other)
- 4. "An Overview of New York's Air Pollution Policies", WE ACT for Environmental Justice, New York, March 2017 (Oral Presentation)
- 5. "Food, Culture, and the Urban Environment", City as a Living Laboratory, New York, July 2017 (Other)
- 6. "Introduction to Research in Climate & Health", John's Hopkins Talented Youth Program, New York, October 2017 (Lecture)
- 7. "The Relationship Between the Environment and Health", Barnard College GlobeMed program, New York, March 2018 (Other)
- 8. "Household Energy and Air Pollution in Ghana: Exploring Infant Nasal Microbial Carriage and the Socio-Ecological Drivers of Clean Cookstove Adoption", Icahn School of Medicine at Mount Sinai Department of Environmental Medicine and Public Health, New York, April 2019 (Lecture)
- 9. "Vulnerable and Susceptible Populations in a Changing Climate", Columbia University Mailman School of Public Health Department of Environmental Health Sciences, New York, April 2019 (Lecture)
- 10. "Climate, Energy, and Health (In)Equity: From Exposures to Epidemiology", Columbia University Mailman School of Public Health, New York, October 2021 (Lecture)

#### Virtual Location

- 11. "The Disproportionate Impact of COVID-19 on Black and Latinx Communities", Google Cloud: Looker, May 2020 (Other)
- 12. "Honors Program Rapid Response Salon on COVID-19: Journalism, Pandemic, and Science", Ithaca College, September 2020 (Other)
- 13. "Puerto Rico: Socio-Environmental Determinants of Health Before and After the Hurricanes", Columbia University Mailman School of Public Health, January 2021 (Lecture)
- 14. "Climate, Energy, and Inequity: From Exposures to Epidemiology", San José State University College of Health and Human Sciences, April 2021 (Lecture)
- 15. "Strategies for using secondary data in health studies", New York University School of Global Public Health MPH program, October 2021 (Lecture)
- 16. "Climate disparities and justice", Clinical Climate Change Conference, Icahn School of Medicine at Mount Sinai, January 2022 (Lecture)
- 17. "Vulnerability and Climate Change: A Health and Equity Perspective", University of California at Berkeley School of Public Health, March 2022 (Lecture)
- 18. "Energy Poverty, Energy Insecurity, and Climate Change", Wells College, April 2022 (Lecture)
- "Doubling down: Restorative justice through mitigation of emissions and health disparities", Advancing Energy Justice: Tools for Justice40 and Equitable Deep Decarbonization, U.S. Department of Energy's Office of Economic Impact and Diversity, May 2022 (Oral Presentation)

# Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated With Yale:

#### International/National

- "Identifying the intersection of disaster vulnerability and mental health service shortage in New York City", International Conference of Urban Health, International Society for Urban Health, San Francisco, April 2016 (Oral Presentation)
- "Predictors of clean cookstove adoption in Kintampo, Ghana", Sustainable Energy Transitions Initiative Conference, Sustainable Energy Transitions Initiative, Durham, May 2018 (Oral Presentation)
- "Examining the relationship between household air pollution and infant nasal carriage", Joint Conference of the International Society for Environmental Epidemiology and the International Society of Exposure Science, International Society for Environmental Epidemiology, Ottawa, August 2018 (Oral Presentation)
- 4. "Enhancing LPG adoption in Ghana: A factorial cluster-randomized controlled trial to enhance LPG adoption & sustained use", Annual Conference for the International Society for Environmental Epidemiology, International Society for Environmental Epidemiology, Utrecht, August 2019 (Poster)
- 5. "Remotely sensed temperature and air pollution, environmental disparities, and birth outcomes", Annual Environmental Health Scholars Retreat, Academic Pediatric Association, hosted by Brown University's School of Public Health, Providence, November 2019 (Other)

#### Virtual Location

- "Using simulation methods to assess the suitability of the case crossover design in environmental epidemiological studies of preterm birth", Annual Conference for the International Society for Environmental Epidemiology, International Society for Environmental Epidemiology, May 2020 (Poster)
- "High spatial and temporal resolution estimates of air pollutants from the TEMPO satellite: Methodological opportunities and challenges for environmental epidemiology studies", Annual Conference for the International Society for Environmental Epidemiology, International Society for Environmental Epidemiology, May 2020 (Poster)
- 8. "Ambient temperature from satellite-hybrid models and preterm birth: A time-stratified casecrossover analysis of 70,000+ preterm births in Central Mexico", Annual Conference of the International Society for Environmental Epidemiology, International Society for Environmental Epidemiology, August 2021 (Poster)
- "Residential segregation, air temperature, and circulatory mortality: Exposure model choice matters for disparities analyses", Annual Conference for the International Society for Environmental Epidemiology, International Society for Environmental Epidemiology, August 2021 (Oral Presentation)

#### **Professional Service:**

Journal Services	
Reviewer	
2018 - Present	Reviewer, Environment International
2018 - Present	Reviewer, Environmental Research

- 2018 Present Reviewer, International Journal of Environmental Research and Public Health
- 2019 Present Reviewer, Journal of Urban Health
- 2020 Present Reviewer, World Development Perspectives
- 2021 Present Reviewer, Environmental Research Letters
- 2021 Present Reviewer, OneEarth
- 2022 Present Reviewer, Journal of Exposure Science and Environmental Epidemiology
- 2022 Present Reviewer, Journal of Climate Change and Health

#### Professional Organizations

# International Society for Environmental Epidemiology2018 - PresentMember, International Society for Environmental Epidemiology

#### New York Academy of Medicine

2022 - Present Fellow, New York Academy of Medicine

#### Public Service / Media Presence

2016 - Present	Member, New York State Minority Health Council, Advisory council to the NYS Commissioner of Health and Office of Minority Health and Health Disparities
	Prevention
2020 - 2021	Mentor, International High School for Health Sciences in Queens, NY, Supervised two student interns

# Bibliography:

Peer-Reviewed Original Research

- Hernández D, Carrión D, Perotte A, Fullilove R. Public health entrepreneurs: training the next generation of public health innovators. Public Health Reports (Washington, D.C.: 1974) 2014, 129: 477-81. PMID: 25364047, PMCID: PMC4187288, DOI: 10.1177/003335491412900604.
- Hernández D, Jiang Y, Carrión D, Phillips D, Aratani Y. Housing hardship and energy insecurity among native-born and immigrant low-income families with children in the United States. Journal Of Children & Poverty 2016, 22: 77-92. <u>PMID: 27616875</u>, <u>PMCID: PMC5016025</u>, <u>DOI:</u> 10.1080/10796126.2016.1148672.
- Carrión D, Lee WV, Hernández D. Residual Inequity: Assessing the Unintended Consequences of New York City's Clean Heat Transition. International Journal Of Environmental Research And Public Health 2018, 15 <u>PMID: 29324717</u>, <u>PMCID: PMC5800216</u>, <u>DOI: 10.3390/ijerph15010117</u>.
- Carrión D, Dwommoh R, Tawiah T, Agyei O, Agbokey F, Twumasi M, Mujtaba M, Jack D, Asante KP. Enhancing LPG adoption in Ghana (ELAG): a factorial cluster-randomized controlled trial to Enhance LPG Adoption & Sustained use. BMC Public Health 2018, 18: 689. <u>PMID: 29866127</u>, <u>PMCID: PMC5987623</u>, <u>DOI: 10.1186/s12889-018-5622-3</u>.
- 5. Abdulai MA, Afari-Asiedu S, **Carrion D**, Ae-Ngibise KA, Gyaase S, Mohammed M, Agyei O, Boamah-Kaali E, Tawiah T, Dwommoh R, Agbokey F, Owusu-Agyei S, Asante KP, Jack D. Experiences with the

Mass Distribution of LPG Stoves in Rural Communities of Ghana. EcoHealth 2018, 15: 757-767. <u>PMID: 30232662</u>, <u>PMCID: PMC7366325</u>, <u>DOI: 10.1007/s10393-018-1369-7</u>.

- Asante KP, Afari-Asiedu S, Abdulai MA, Dalaba MA, Carrión D, Dickinson KL, Abeka AN, Sarpong K, Jack DW. Ghana's Rural Liquefied Petroleum Gas Program Scale Up: A case study. Energy For Sustainable Development : The Journal Of The International Energy Initiative 2018, 46: 94-102. PMID: 32489234, PMCID: PMC7266102, DOI: 10.1016/j.esd.2018.06.010.
- Heaney AK, Carrión D, Burkart K, Lesk C, Jack D. Climate Change and Physical Activity: Estimated Impacts of Ambient Temperatures on Bikeshare Usage in New York City. Environmental Health Perspectives 2019, 127: 37002. <u>PMID: 30835141</u>, <u>PMCID: PMC6768325</u>, <u>DOI: 10.1289/EHP4039</u>.
- Agbokey F, Dwommoh R, Tawiah T, Ae-Ngibise KA, Mujtaba MN, Carrion D, Ali Abdulai M, Afari-Asiedu S, Owusu-Agyei S, Asante KP, Jack DW. Determining the Enablers and Barriers for the Adoption of Clean Cookstoves in the Middle Belt of Ghana-A Qualitative Study. International Journal Of Environmental Research And Public Health 2019, 16 <u>PMID: 30987276</u>, <u>PMCID:</u> <u>PMC6480161</u>, <u>DOI: 10.3390/ijerph16071207</u>.
- Carrión D, Kaali S, Kinney PL, Owusu-Agyei S, Chillrud S, Yawson AK, Quinn A, Wylie B, Ae-Ngibise K, Lee AG, Tokarz R, Iddrisu L, Jack DW, Asante KP. Examining the relationship between household air pollution and infant microbial nasal carriage in a Ghanaian cohort. Environment International 2019, 133: 105150. <u>PMID: 31518936</u>, <u>PMCID: PMC6868532</u>, <u>DOI: 10.1016/j.envint.2019.105150</u>.
- Fry D, Kioumourtzoglou MA, Treat CA, Burke KR, Evans D, Tabb LP, Carrion D, Perera FP, Lovasi GS. Development and validation of a method to quantify benefits of clean-air taxi legislation. Journal Of Exposure Science & Environmental Epidemiology 2020, 30: 629-640. <u>PMID: 31142812</u>, <u>PMCID:</u> <u>PMC7398736</u>, <u>DOI: 10.1038/s41370-019-0141-6</u>.
- Prah RKD, Carrion D, Oppong FB, Tawiah T, Mujtaba MN, Gyaase S, Kwarteng A, Ae-Ngibise KA, Agyei O, Twumasi M, Agbokey F, Asante KP, Jack DW. Time Use Implication of Clean Cookstoves in Rural Settings in Ghana: A Time Use Study. International Journal Of Environmental Research And Public Health 2020, 18 <u>PMID: 33383624</u>, <u>PMCID: PMC7795878</u>, <u>DOI: 10.3390/ijerph18010166</u>.
- Carrión D, Arfer KB, Rush J, Dorman M, Rowland ST, Kioumourtzoglou MA, Kloog I, Just AC. A 1-km hourly air-temperature model for 13 northeastern U.S. states using remotely sensed and groundbased measurements. Environmental Research 2021, 200: 111477. <u>PMID: 34129866</u>, <u>PMCID:</u> <u>PMC8403657</u>, <u>DOI: 10.1016/j.envres.2021.111477</u>.
- Quinn AK, Adjei IA, Ae-Ngibise KA, Agyei O, Boamah-Kaali EA, Burkart K, Carrión D, Chillrud SN, Gould CF, Gyaase S, Jack DW, Kaali S, Kinney PL, Lee AG, Mujtaba MN, Oppong FB, Owusu-Agyei S, Yawson A, Wylie BJ, Asante KP. Prenatal household air pollutant exposure is associated with reduced size and gestational age at birth among a cohort of Ghanaian infants. Environment International 2021, 155: 106659. <u>PMID: 34134048</u>, <u>PMCID: PMC8628363</u>, <u>DOI:</u> <u>10.1016/j.envint.2021.106659</u>.
- Carrión D, Colicino E, Pedretti NF, Arfer KB, Rush J, DeFelice N, Just AC. Neighborhood-level disparities and subway utilization during the COVID-19 pandemic in New York City. Nature Communications 2021, 12: 3692. <u>PMID: 34140520</u>, <u>PMCID: PMC8211826</u>, <u>DOI: 10.1038/s41467-021-24088-7</u>.
- Dubowski K, Kaali S, Jack D, Prah RKD, Clemente JC, Tawiah T, Mujtaba M, Iddrisu L, Carrión D, Konadu DG, Agyei O, Kornu FM, Osei-Owusu S, Lee AG, Asante KP. Infant Nasopharyngeal Microbiota Subphenotypes and Early Childhood Lung Function: Evidence from a Rural Ghanaian

Pregnancy Cohort. International Journal Of Environmental Research And Public Health 2021, 18 <u>PMID: 34299726</u>, <u>PMCID: PMC8305530</u>, <u>DOI: 10.3390/ijerph18147276</u>.

- Jack DW, Ae-Ngibise KA, Gould CF, Boamah-Kaali E, Lee AG, Mujtaba MN, Chillrud S, Kaali S, Quinn AK, Gyaase S, Oppong FB, **Carrión D**, Agyei O, Burkhart K, Ana-Aro JA, Liu X, Berko YA, Wylie BJ, Etego SA, Whyatt R, Owusu-Agyei S, Kinney P, Asante KP. A cluster randomised trial of cookstove interventions to improve infant health in Ghana. BMJ Global Health 2021, 6 <u>PMID: 34452940</u>, <u>PMCID: PMC8404442</u>, <u>DOI: 10.1136/bmjgh-2021-005599</u>.
- Carrión D, Prah R, Tawiah T, Agyei O, Twumasi M, Mujtaba M, Jack D, Asante KP. Enhancing LPG Adoption in Ghana (ELAG): A Trial Testing Policy-Relevant Interventions to Increase Sustained Use of Clean Fuels. Sustainability 2021, 13 <u>PMID: 34765257</u>, <u>PMCID: PMC8580155</u>, <u>DOI:</u> <u>10.3390/su13042213</u>.
- Zhang L, He MZ, Gibson EA, Perera F, Lovasi GS, Clougherty JE, Carrión D, Burke K, Fry D, Kioumourtzoglou MA. Evaluating the Impact of the Clean Heat Program on Air Pollution Levels in New York City. Environmental Health Perspectives 2021, 129: 127701. <u>PMID: 34878319</u>, <u>PMCID:</u> <u>PMC8653771</u>, <u>DOI: 10.1289/EHP9976</u>.
- Janevic T, Lieb W, Ibroci E, Lynch J, Lieber M, Molenaar NM, Rommel AS, de Witte L, Ohrn S, Carreño JM, Krammer F, Zapata LB, Snead MC, Brody RI, Jessel RH, Sestito S, Adler A, Afzal O, Gigase F, Missall R, **Carrión D**, Stone J, Bergink V, Dolan SM, Howell EA, Krammer Serology Core Study Group.. The influence of structural racism, pandemic stress, and SARS-CoV-2 infection during pregnancy with adverse birth outcomes. Am J Obstet Gynecol MFM 2022, 4: 100649. <u>PMID:</u> <u>35462058</u>, DOI: 10.1016/j.ajogmf.2022.100649.
- Carrión D, Belcourt A, Fuller CH. Heading Upstream: Strategies to Shift Environmental Justice Research From Disparities to Equity. American Journal Of Public Health 2022, 112: 59-62. <u>PMID:</u> 34936408, <u>PMCID: PMC8713605</u>, <u>DOI: 10.2105/AJPH.2021.306605</u>.
- Carrión D, Rush J, Colicino E, Just AC. The Case-Crossover Design Under Changing Baseline Outcome Risk: A Simulation of Ambient Temperature and Preterm Birth. Epidemiology (Cambridge, Mass.) 2022, 33: e14-e15. <u>PMID: 35447631</u>, <u>DOI: 10.1097/EDE.00000000001477</u>.