

JAIME MADRIGANO

Associate Policy Researcher

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EDUCATION

2011 **Sc.D.** Harvard University (Epidemiology & Environmental Health)
2005 **M.P.H.** University of Medicine and Dentistry of New Jersey (Epidemiology)
1998 **B.E.** Stevens Institute of Technology (Environmental Engineering)

EXPERIENCE

2015 – **Associate Policy Researcher**
RAND Corporation
Behavioral and Policy Sciences Department, RAND Health

2014 – 2015 **Member**
NIEHS Center for Environmental Exposures and Disease (CEED)
Environmental and Occupational Health Sciences Institute (EOHSI)
Rutgers, The State University of New Jersey

2013 – 2015 **Assistant Professor**
Department of Environmental and Occupational Health
School of Public Health
Rutgers, The State University of New Jersey

2011 – 2013 **Earth Institute Postdoctoral Fellow**
Columbia University Mailman School of Public Health

2006 – 2011 **Graduate Trainee and Teaching Assistant**
Harvard University School of Public Health

2004 – 2006 **Environmental Health Scientist**
Occupational and Environmental Health Sciences, Merck & Co., Inc.

2000 – 2004 **Environmental Engineer**
Regulations and Compliance, Merck & Co., Inc.

1998 – 2000 **Environmental Engineer**
CH2M Hill, Inc.

HONORS AND AWARDS

2013 Robert Wood Johnson Foundation New Connections 7th Annual Research and Coaching Clinic travel award
2011 – 2013 Earth Institute Fellowship
2011 HSPH Program in Quantitative Genomics student travel award

2008 – 2011	Predoctoral training award recipient, National Research Service Award Training Program in Genes and the Environment (T32 ES016645), National Institute of Environmental Health Sciences
2006 – 2008	Predoctoral training award recipient, National Research Service Award Training Program in Environmental Epidemiology (T32 ES07069), National Institute of Environmental Health Sciences
2005	Delta Omega, the honorary public health society, Alpha Eta chapter
2005	UMDNJ SPH Bernard D. Goldstein award
2005	UMDNJ SPH Student Community Service Award
2005	UMDNJ SPH Research, Service, and Preparedness Poster Day, 1 st Place, Service
2004	Emily and Leon Goldstein Travel fellowship
2004	ASPH/HRSA/CoL Student Award for Excellence in Public Health Practice, Honorable Mention
1997 – 1998	Gear and Triangle Honor Society
1994 – 1998	Becton-Dickinson / Wesley J. Howe Scholar
1994 – 1998	Edward J. Bloustein Distinguished Scholar
1994 – 1998	Dean's List

PUBLICATIONS

Peer-Reviewed Publications

- Madrigano J**, Ito K, Johnson S, Kinney PL, Matte T. “A Case-Only Study of Vulnerability to Heat Wave-Related Mortality in New York City (2000-2011)”. *Environmental Health Perspectives*. 2015 Jul; 123(7):672-8.
- Kelly MS, Wirth KE, **Madrigano J**, Feemster KA, Cunningham CK, Arscott-Mills T, Boiditswe S, Shah SS, Finalle R, Steenhoff AP. “The effect of exposure to wood smoke on treatment outcomes for childhood pneumonia in Botswana”. *The International Journal of Tuberculosis and Lung Disease*. 2015 Mar; 19(3):349-55.
- Kinney PL, Matte T, Knowlton K, **Madrigano J**, Petkova E, Weinberger K, Quinn A, Arend M, Pullen J. “New York City Panel on Climate Change 2015 Report Chapter 5: Public Health Impacts and Resiliency”. *Ann NY Acad Sci*. 2015 Jan; 1336(1):67-88.
- Madrigano J**, Jack D, Anderson GB, Bell ML, and Kinney PL. “Temperature, Ozone, and Mortality in Urban and Non-Urban Counties in the Northeastern United States”. *Environmental Health*, 2015 Jan; 14(1):3.
- Petrovic N, **Madrigano J**, Zaval L. “Motivating Mitigation: When Health Matters More than Climate Change”. *Climatic Change*. 2014; Sept; 126: 245-254.
- Madrigano J**, Mittleman M, Baccarelli A, Goldberg R., Von Klot S, Melly S, and Schwartz, J. “Temperature, Myocardial Infarction, and Mortality: Modification by Individual and Area-Level Characteristics”, *Epidemiology*. 2013 May; 24(3):439-446. PMID: PMC Journal – In process
- Madrigano J**, Kloog I, Goldberg R, Coull B, Mittleman M, and Schwartz, J. “Long Term Exposure to PM_{2.5} and Incidence of Acute Myocardial Infarction”, *Environmental Health Perspectives*, 2013 Feb; 121(2): 192-196. PMID: PMC3569684.
- Madrigano J**, Baccarelli A, Mittleman M, Sparrow D, Spiro A, Vokonas PS, Cantone L, Kubzansky L, and Schwartz, J. “Air Pollution and DNA Methylation: Interaction by Psychological Factors in the VA

Normative Aging Study”, *American Journal of Epidemiology*, 2012 Aug; 176(3):224-232. PMID: PMC Journal – In process.

Madrigano J, Baccarelli A, Mittleman M, Sparrow D, Vokonas PS, Tarantini L, Bollati V, and Schwartz, J. “Aging and Epigenetics: Longitudinal Changes in Gene-Specific DNA Methylation”, *Epigenetics*, 2012 Jan; 7(1):63-70. PMID: PMC3329504.

Madrigano J, Baccarelli A, Mittleman M, Wright RO, Sparrow D, Vokonas PS, Tarantini L, and Schwartz, J. “Prolonged Exposure to Particulate Air Pollution, Genes Associated With Glutathione Pathways and Decreased DNA Methylation”, *Environmental Health Perspectives*. 2011 Jul 119(7):977-982. PMID: PMC3222977

Madrigano J, Baccarelli A, Wright RO, Suh H, Sparrow D, Vokonas PS, and Schwartz J. “Air pollution, Obesity, Genes, and Cellular Adhesion Molecules” *Occupational and Environmental Medicine*. 2010 May; 67(5): 312-317. PMID: PMC3229824

Buchanich JB, Dolan DG, Marsh GM, **Madrigano J**. “Underascertainment of Deaths Using Social Security Records: A Recommended Solution to a Little-Known Problem” *American Journal of Epidemiology* 2005; 162: 193-194.

Reviews, Editorials and Reports

Madrigano J, McCormick S, Kinney PL. “The two ways of assessing heat-related mortality and vulnerability”. *Accepted for American Journal of Public Health*.

Madrigano J. “Growing old and gasping for air”. *Maturitas*. 2015 Jul; 81(3):331-2. (Invited Editorial)

Saha S, Kinney PL, **Madrigano J**, and Uejio CK. “Chapter 4.5: Human Health” in *Climate Change in the Northeast: A Sourcebook, Draft Technical Input Report Prepared for the U.S. National Climate Assessment*. 2012. [available at http://downloads.globalchange.gov/nca/technical_inputs/nca_ne_full_report_v2.pdf]

In preparation

McCormick S, Zinnsmeister E, **Madrigano J**. “Practices Involved in the Identification of Heat-Related Deaths”. *Under review*.

Madrigano J, Adar S, Schwartz J, Hoffman EA, Aaron CP, Enright P, Austin J, Szpiro A, Stukovsky KH, Kinney PL, Vedal S, Diez-Roux AV, Kaufman J, Barr RG. “Long-term exposure to ambient particulate matter and decline in lung function and progression of emphysema. The MESA Lung and MESA Air Studies”. *In preparation*.

Gronlund CJ, O’Neill MS, Adar S, Kaufman J, Auchincloss, Lima JA, Sheppard L, **Madrigano J**, Diez-Roux AV, Kaufman K, Barr RG. “Vulnerability to the Cardiovascular Effects of Summer Heat in Six U.S. Cities: Results from the Multi-Ethnic Study of Atherosclerosis (MESA)”. *In preparation*.

Shendell DG, Chishti S, Zheng L, **Madrigano J**. “Safety and Health Concerns for Global Child Laborers in Less Developed Countries: A Review of Peer-Reviewed Journals and U.S. Department of Labor Initiatives”. *In preparation*.

Parikh MA, Aaron CP, Hoffman EA, Schwartz J, **Madrigano J**, Enright P, Austin J, Kalhan R, Lovasi G, Watson K, Stukovsky KH, Barr RG. “Use of ACE Inhibitors and Angiotensin II Receptor Blockers and Longitudinal Change in Percent Emphysema on Computed Tomography. The MESA Lung Study”. *In preparation*.

Garcia FA, Shendell DG, **Madrigano J**. “Relationship Among Environmental Quality Variables, Housing Variables, and Residential Needs: A Secondary Analysis of the Relationship among Indoor, Outdoor, and Personal Air Concentrations (RIOPA) Database”. *In preparation*.

FUNDING

Completed

Title: Climate Change: Bridging the Gap Between Public Interests, Science, and Policy Development

Role: Co-PI

Sponsor: Columbia University Earth Institute Cross Cutting Initiative Seed Funding

Amount: \$30,000

Period: 7/1/12 – 12/31/13

SERVICE

2015	Reviewer for ASPH/CDC Public Health Fellowship Program
2014	Bridging the Gaps Faculty Preceptor, Rutgers, School of Public Health
2014 –	Rutgers, School of Public Health, Student Affairs Committee, member
2014	Rutgers Biomedical and Health Sciences Strategic Plan Public Health Work Group
2014	Peer Reviewer, International Society for Environmental Epidemiology Annual Meeting abstracts
2013 –	New York City Panel on Climate Change Health Working Group
2013	Reviewer for Jacques May Thesis Prize Competition, Association of American Geographers
2012 –	Peer Reviewer for <i>Epidemiology</i> , <i>American Journal of Epidemiology</i> , <i>Environmental Health Perspectives</i> , <i>Archives of Environmental and Occupational Health</i> , <i>Population Research and Policy Review</i> , <i>International Journal of Biometeorology</i> , <i>Environmental Science & Technology</i>
2012	Reviewer for Research Grants Council (RGC) of Hong Kong
2009 – 2010	Harvard School of Public Health, Student Government Community Service Chair
2006 – 2010	Harvard School of Public Health Department of Epidemiology Student Advisory Committee
2003 – 2005	Student Founder and Director, UMDNJ SPH V.O.I.C.E.S.
2001	Society of Women Engineers, NJ Section Scholarship Committee Chair

PROFESSIONAL ORGANIZATIONS

International Society for Environmental Epidemiology, Society for Epidemiologic Research, American Public Health Association, American Heart Association

TEACHING

2014, 2015	Environmental and Occupational Epidemiology, EPID0650 (Co-Course Director), Rutgers University School of Public Health
2013	Advanced Techniques in Epidemiologic Methods, P9487 (Guest Lecturer), Columbia University Mailman School of Public Health

2010, 2011	Analysis of Case-Control and Cohort Studies, EPI204 (Teaching Assistant), Harvard School of Public Health
2009	Fundamentals of Epidemiology, EPI500 (Teaching Assistant); Environmental and Occupational Epidemiology, EPI215 (Teaching Assistant), Harvard School of Public Health
2008, 2009	Elements of Epidemiologic Research: Methods II, EPI202 (Teaching Assistant), Harvard School of Public Health
2008	Introduction to Epidemiology: Methods I, EPI201 (Teaching Assistant), Harvard School of Public Health

STUDENT ADVISING

Jenizah Melendez, Faculty Advisor, Master's Thesis, 2013 – 2014
 Fausto Garcia (co-Faculty Advisor), Master's Thesis, 2014 – 2015
 Ashley Miller, Doctoral Dissertation Committee Member, 2014 –
 Megan Merdinger, Faculty Advisor, Master's Thesis, 2015

PRESENTATIONS

Madrigano J, Adar S, Schwartz J, Hoffman EA, Aaron CP, Enright P, Austin J, Szpiro A, Stukovsky KH, Kinney PL, Vedal S, Diez-Roux AV, Kaufman K, Barr RG. “*Ambient Fine Particulate Matter (PM_{2.5}) Exposure And Longitudinal Change In Percent Emphysema On Computed Tomography (CT). The Multi-Ethnic Study Of Atherosclerosis (MESA) Lung And Air Pollution Studies*”. American Thoracic Society International Conference, May 19, 2014. (Oral Presentation)

Madrigano J. “*Particulate Pollution, Susceptibility, and Epigenetic Pathways in an Elderly Cohort*”, American Association for the Advancement of Science Annual Meeting, February 14, 2014. (Invited Talk)

Petrovic N, Madrigano J, Zaval L. “*Framing the Consequences of Mitigation: Does Health Matter More than Climate Change?*”, Behavior, Energy, and Climate Change Conference, November 19, 2013. (Oral Presentation)

Madrigano J and Petrovic N. “*Cleaner Fuel Oil in New York City: A Local Assessment of Health and Climate Co-Benefits*”, American Public Health Association Annual Meeting, November 5, 2013. (Oral Presentation)

Madrigano J, Ito K, Johnson S, Kinney PL, Matte T. “*Vulnerability to Heat-Related Mortality in New York City*”, Environment and Health (Joint annual meeting of International Society for Environmental Epidemiology, International Society of Exposure Science, and International Society of Indoor Air Quality and Climate), August 21, 2013. (Invited Talk).

Madrigano J. “*Particulate Pollution, Susceptibility, and Epigenetic Pathways in an Elderly Cohort*”, Society of Toxicology Annual Meeting, March 13, 2013. (Invited Talk)

Petrovic N, Madrigano J, Zaval L, Smith D. “*What's in a frame when it comes to fossil fuels: Does health matter more than climate change?*”. American Association for the Advancement of Science Annual Meeting. February 16, 2013. (Poster)

Madrigano J. and Petrovic N. “*Perceptions of Fossil Fuels: Climate Change Versus Public Health*”. Earth Institute Fellows Symposium, Columbia University. November 1, 2012. (Oral Presentation)

- Madrigano J. and Petrovic N. *“Public Health and Climate Change Framings of Fossil Fuel Use Reduction”*. Center for Research on Environmental Decision Making Annual Meeting, Columbia University, May 3, 2012 (Oral Presentation)
- Madrigano J. *“The Role of Air Quality, Climate, and Social Stressors on Human Health”*. Earth Institute Fellows Symposium, Columbia University. November 10, 2011. (Oral Presentation)
- Madrigano J. *“How Do Perceptions of Climate Co-Benefits Influence Motivation for Climate Change Mitigation?”*, Center for Research on Environmental Decision Making, Columbia University, October 20, 2011. (Invited Talk)
- Madrigano J. Mittleman MA, Baccarelli A, Goldberg R, Melly S, Von Klot S, Schwartz J. *“Temperature, Myocardial Infarction, and Mortality: Effect Modification by Individual and Area-Level Characteristics”*, International Society for Environmental Epidemiology Annual Conference. September 14, 2011. (Poster)
- Madrigano J, Baccarelli A, Mittleman M, Sparrow D, Spiro A, Vokonas PS, Cantone L, Kubzansky L, and Schwartz J. *“Air Pollution, Psychological Measures, and Gene-Specific DNA Methylation”*, Harvard EPA Clean Air Center. June 7, 2011. (Invited Talk)
- Madrigano J, Baccarelli A, Mittleman MA, Sparrow D, Vokonas PS, Tarantini L, and Schwartz, J. *“Air Pollution, Psychological Measures, and DNA Methylation”*, International Conference of the American Thoracic Society. May 18, 2011. (Poster Discussion)
- Madrigano J, Baccarelli A, Vokonas PS, Bollati V, Zanobetti A, Tarantini L, and Schwartz, J. *“Prolonged Exposure to Particulate Air Pollution and Decreased DNA Methylation”*, International Society for Environmental Epidemiology Annual Conference. August 26, 2009. (Oral Presentation)
- Madrigano J, Baccarelli A, Suh H, Sparrow D, Vokonas P, Schwartz J. *“PM_{2.5}, Genes, and Serum Markers of Endothelial Function: The VA Normative Aging Study”*. International Conference of the American Thoracic Society. May 20, 2008. (Poster)
- Madrigano J, Demissie K, Balasubramanian, B, Petrova, A. *“Trends in Low Birthweight Morbidity in the U.S., 1989 – 2002”*. Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting. June 26, 2005. (Poster)
- Madrigano J, Asare L. *“A Student-Initiated Service Project to Eliminate Health Disparities in Women and Children Living in Transitional Housing – Successes and Challenges”*. American Public Health Association 132nd Annual Meeting. November 8, 2004. (Poster)
- Madrigano J, Demissie K, West B. *“A Student-Initiated Service Project to Eliminate Health Disparities in Women and Children Living in Transitional Housing – Successes and Challenges”*. New Jersey Thoracic Society 32nd Annual Meeting. June 4, 2004. (Oral Presentation)