

COLLEEN E. REID
Assistant Professor
Department of Geography
University of Colorado, Boulder

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EDUCATION

2014 Ph.D. University of California, Berkeley (Environmental Health Sciences)
2007 M.P.H. University of California, Berkeley (Environmental Health Sciences)
2000 Sc.B. Brown University (Environmental Science)

ACADEMIC APPOINTMENTS

2016 - Present Assistant Professor, Geography Department, University of Colorado, Boulder, CO
2016 - Present Faculty Associate, Institute of Behavioral Science, University of Colorado, Boulder
2017 - Present Faculty Associate, Earth Lab, University of Colorado, Boulder
2014– 2016 Robert Wood Johnson Health and Society Scholar, Post-Doctoral
Harvard School of Public Health, Harvard University - Cambridge, MA

Other Relevant Experience

2009-2014 Graduate Student Researcher, University of California, Berkeley
2007-2009 Association of Schools of Public Health Environmental Health Fellow, U.S. Environmental
Protection Agency, Washington, DC and San Francisco, CA
2006-2007 Graduate Student Researcher in GIS, Office of Environmental Health Hazard Assessment,
Oakland, CA
2006 Environmental Justice and Risk Assessment Intern, Office of Environmental Health Hazard
Assessment, Oakland, CA
1999 Intern in Environmental Epidemiology, London School of Hygiene and Tropical Medicine,
London UK

AWARDS AND HONORS

2018 - 2021 JPB Environmental Health Fellow
2013 International Society of Exposure Science Student Poster Award, Honorable Mention
2010 APHA Student Travel and Registration Scholarship
2006 Roshetko Family Scholarship, UC Berkeley School of Public Health
2005-2006 UC Berkeley School of Public Health Fellowship
2000 Honors Thesis in Environmental Science, Brown University
2000 Nomination to Sigma Xi, the Scientific Research Society
1998 Undergraduate Teaching and Research Award, Brown University

PUBLICATIONS

*represents that author is a graduate student; **represents that author is an undergraduate student; # represents that author is a post-doc under my supervision

Peer-reviewed Journal Articles

1. **Weimer K, Farmer CJQ, **Reid CE**. The geography of c-sections in the United States: How a temporal jump in rates is spatially represented. Accepted at *The Professional Geographer*.
2. **Reid CE** and #Maestas MM. 2018. Wildfire smoke exposure under climate change: impact on respiratory health of affected communities. *Current Opinion in Pulmonary Medicine*. doi:10.1097/MCP.0000000000000552.

3. **Reid CE**, Kubzansky LD, Shmool JLC, Li J, Clougherty J. 2018. It's Not Easy Assessing Greenness: A Comparison of the Effects of Spatial Resolution of NDVI and Buffer Sizes on Self-Reported Health. *Health & Place*. 54: 92–101 <https://doi.org/10.1016/j.healthplace.2018.09.005>
4. **Reid CE**, Clougherty J, Shmool JLC, Kubzansky LD. 2017. Is All Urban Green Space the Same? A Comparison of the Health Benefits of Trees and Grass in New York City. *International Journal of Environmental Research and Public Health*.14(11):1411. doi:10.3390/ijerph14111411
5. Koplitz SN, Jacob DJ, Sulprizio MP, Myllyvirta L, **Reid C**. 2017. Burden of disease from rising coal emissions in Southeast Asia. *Environmental Science & Technology* DOI: 10.1021/acs.est.6b03731.
6. **Reid CE**, Jerrett M, Tager IB, Petersen ML, Mann JK, Balmes JR. 2016. Differential respiratory health effects from the 2008 northern California wildfires: a spatiotemporal approach. *Environmental Research* 150:227-235 DOI: 10.1016/j.envres.2016.06.012.
7. **Reid CE**, Brauer M, Johnston F, Jerrett M, Balmes JR, Elliott CT. 2016. Critical Review of Health Impacts of Wildfire Smoke Exposure. *Environmental Health Perspectives*. 124:1334-1343. DOI:10.1289/ehp.1409277.
8. Lim YH, **Reid CE**, Honda Y, Kim H. 2015. Temperature deviation index and elderly mortality in Japan. *International Journal of Biometeorology*. 60:991-998.
9. **Reid CE**, Jerrett M, Petersen ML, Pfister GG, Morefield P, Tager IB, Raffuse SM, Balmes JR. 2015. Spatiotemporal prediction of fine particulate matter during the 2008 northern California wildfires using machine learning. *Environmental Science & Technology* 49(6):3887-96.
10. Snowden JM, **Reid CE**, Tager IB. 2015. Framing air pollution epidemiology in terms of population interventions, with applications to multi-pollutant modeling. *Epidemiology* 26:271-279.
11. Lim YH, **Reid CE**, Mann JK, Jerrett M, Kim H. 2014. Diurnal temperature range and short-term mortality in large US communities. *International Journal of Biometeorology* 59(9):1311-9. DOI 10.1007/s00484-014-0941-2.
12. **Reid CE**, Snowden JM, Kontgis C, Tager IB. 2012. The Role of Ambient Ozone in Epidemiologic Studies of Heat-Related Mortality. *Environmental Health Perspectives* 120(12):1627-30. <http://dx.doi.org/10.1289/ehp.1205251>
13. Holstius DM, **Reid CE**, Jesdale BM, Morello-Frosch R. 2012. Birth Weight Following Pregnancy During the 2003 Southern California Wildfires. *Environmental Health Perspectives* 120(9):1340-5. <http://dx.doi.org/10.1289/ehp.11104515>
14. **Reid CE**, Mann JK, Alfasso R, English PB, King GC, Lincoln RA, Margolis HG, Rubado DJ, Sabato JE, West NL, Woods B, Navarro K, Balmes JR. 2012. Evaluation of a Heat Vulnerability Index on Abnormally Hot Days: an Environmental Public Health Tracking study. *Environmental Health Perspectives* 120(5):715-20. <http://dx.doi.org/10.1289/ehp.11103766>
15. **Reid CE** and Gamble JL. 2009. Aeroallergens, Allergic Disease, and Climate Change: Impacts and Adaptation. *EcoHealth* 6(3): 458-470.
16. **Reid CE**, O'Neill MS, Gronlund C, Brines SJ, Brown DG, Diez-Roux AV, Schwartz J. 2009. Mapping Community Determinants of Heat Vulnerability. *Environmental Health Perspectives* 117(11): 1730-1736.

Book Chapters

1. Jerrett MJ, **Reid CE**, McKone TE, Koutrakis P. Participatory and Ubiquitous Sensing for Exposure Assessment in Spatial Epidemiology. 2015. In: Spatial Analysis in Health Geography. Kanaroglou P, Delmelle E, Gosh G, Páez A (Editors). Ashgate Publishing.

Other Scientific Publications (non-peer-reviewed)

1. Jerrett M, Su JG, **Reid CE**, Jesdale B, Ortega Hinojosa AM, Shonkoff SB, Seto E, Morello-Frosch R. 2011. Mapping Climate Change Exposures, Vulnerabilities, and Adaptation to Public Health Risks in the San Francisco Bay and Fresno Regions. Public Interest Energy Research (PIER) Program Draft White Paper.
2. Gamble, JL, **Reid CE**, Post E, Sachs J. 2008. Review of the Impacts of Climate Variability and Change on Aeroallergens and Their Associated Effects. U.S. Environmental Protection Agency, Washington, DC, USA. EPA Report No. EPA/600/R-06/164F
3. Gamble JL, Ebi KL, Sussman FG, Wilbanks TJ, **Reid C**, Thomas JV, Weaver CP, Harris M, Freed R. 2008. Executive Summary. In: Analyses of the effects of global change on human health and welfare and human systems. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Gamble, J.L. (ed.), K.L. Ebi, F.G. Sussman, T.J. Wilbanks, (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, p. 1-11.
4. Gamble JL, Ebi KL, Grambsch A, Sussman FG, Wilbanks TJ, **Reid CE**, Hayhoe K, Thomas JV, Weaver CP. 2008. Introduction. In: Analyses of the effects of global change on human health and welfare and human systems. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Gamble, J.L. (ed.), K.L. Ebi, F.G. Sussman, T.J. Wilbanks, (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, p. 13–37.
5. Gamble JL, Ebi KL, Sussman FG, Wilbanks TJ, **Reid C**, Thomas JV, Weaver CP. 2008. Common Themes and Research Recommendations. In: Analyses of the effects of global change on human health and welfare and human systems. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Gamble, J.L. (ed.), K.L. Ebi, F.G. Sussman, T.J. Wilbanks, (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, p. 169–176.
6. Kovats RS, Campbell-Lendrum D, **Reid C**, Martens P. 2000. Climate and Vector-Borne Disease: An assessment of the role of climate in changing disease patterns. Maastricht University, ICIS. UNEP. LSHTM.

PRESENTATIONS

Invited Presentations at Other Institutions

1. **Reid CE**. Wildfire Smoke Exposure and Population Health. Center for Health and the Environment Webinar. October 1, 2018.
2. **Reid CE**. Wildfire Smoke Exposure and Population Health. National Association of County and City Health Officials (NACCHO) Webinar: Western Wildfires - Keeping Communities from Polluted Air. May 21, 2018.
3. **Reid CE**. Wildfire Smoke Exposure and Population Health. UCSF Fresno Air Pollution and Health Meeting. University of California San Francisco Fresno Center, Fresno, CA. April 7, 2018.
4. **Reid CE**. Using a Novel Spatiotemporal Exposure Assessment to Estimate Health Effects during the 2008 Northern California Wildfires. Presentation at the Colorado School of Public Health, Aurora, CO, October 4, 2017.
5. **Reid CE**. 2017. Using a Novel Spatiotemporal Exposure Assessment to Estimate Health Effects during the 2008 Northern California Wildfires. Presented July 17, 2017 at the 2017 NCAR/CDC Workshop on Weather, Climate, and Health, Boulder, CO.
6. **Reid CE**. 2017. Health effects of the 2008 northern California wildfires: a spatiotemporal approach. Presentation at the University of Michigan, Ann Arbor. January 10, 2017.

7. **Reid CE.** 2014. "Wildfire Smoke Exposure and Population Health." Public Health Climate Action Team Meeting at the California Air Resources Board, Sacramento, CA. July 22, 2014.
8. **Reid CE.** 2013. "Wildfire Smoke Exposure and Population Health." Genetic and Environmental Toxicology Association. Oakland, CA. December 2, 2013.
9. **Reid CE.** 2013. "Development and Evaluation of the Heat Vulnerability Index for the US." As part of the U.S. Environmental Protection Agency's Mid-Atlantic Sustainability Collaborative Webinar - Increased Heat Vulnerability as a Consequence of Climate Change. July 22, 2013.
10. **Reid CE.** 2013. Estimating health impacts from wildfire particulate matter using chemical transport models and aerosol optical depth. ACD Internal Seminar at the National Center for Atmospheric Research. May 7, 2013.
11. **Reid CE.** 2013. "Development and Evaluation of the Heat Vulnerability Index for the US." As part of a webinar on Heat Vulnerability for C40 Cities Climate Leadership Group and The Cool Cities Network. April 25, 2013.
12. **Reid CE.** 2009 "Who's Hit Hardest by Heat Waves?" September 17, 2009. Podcast. "The Researcher's Perspective: EHP Podcast Series" Available at: <http://ehp03.niehs.nih.gov/static/podcasts.action>

Invited Presentations at Home Institution

1. **Reid CE.** 2017. It's Not Easy Assessing Green: An exploration into different measures of exposure to urban vegetation and how that may differentially affect health. Institute of Behavioral Sciences Colloquium, University of Colorado Boulder. November 16, 2017.
2. **Reid CE.** 2017. Air Quality/Atmospheric Sciences presentation at the Climate & Health Workshop, May 9, 2017 at the University of Colorado, Boulder, CO.
3. **Reid CE.** 2016. Does exposure to green space improve our health? Using the Built Environment for Social Change: Health, Water, and Shelter. FDR Foundation Global Citizenship 3rd Annual Wintersession @Adams House. Harvard University, Cambridge, MA. January 21, 2016.

Conference Presentations [*Denotes Invited for Symposium or Panel]

1. **Reid CE,** Jerrett M, Considine E, Telesca D, Watson G, Pfister GG. Health Impacts Associated with Fine Particulate Matter and Ozone during a Wildfire: Evidence of Differential Effects Due to Measures of the Social Environment. Oral Presentation at the International Society of Environmental Epidemiology annual meeting in Ottawa, Canada. August 30, 2018.
2. **Reid CE,** Jerrett M, Telesca D, Watson G, Pfister GG. Respiratory health impacts associated with fine particulate matter and ozone from a California wildfire. American Association of Geographers Annual Meeting, New Orleans, LA. April 14, 2018.
3. ***Reid CE.** Wildfire Smoke Exposure and Population Health. CHPPD Invited Session: Wildfire Smoke Health Risk Communication at the American Public Health Association Annual Meeting in Atlanta, GA. November 7, 2017.
4. **Reid CE,** Clougherty JE, Shmool JLC, Kubzansky LD. 2017. Is All Urban Green Space the Same? A Comparison of the Health Benefits of Trees and Grass in New York City. Poster Presentation at the International Society of Environmental Epidemiology, September 25, 2017, Sydney, Australia.
5. **Reid CE,** Clougherty JE, Shmool JLC, Li J, Kubzansky LD. 2017. 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 Annual Meeting, Boston, MA. April 7, 2017.
6. **Reid CE.** 2016. Health impacts of green space: differential effects for trees and grass. Robert Wood Johnson Health and Society Scholars Annual Meeting 2016, New Orleans, LA

7. **Reid CE**, Jerrett M, Tager IB, Petersen M, Mann JK, Balmes JR. 2016. Using a Novel Spatiotemporal Exposure Assessment to Estimate Respiratory Health Effects during the 2008 Northern California Wildfires. American Meteorological Society's Seventh Conference on Environment and Health. January 12, 2016.
8. Shmool JLC, **Reid C**, Kubzansky LD, Spengler J, Clougherty JE. 2015. Intra-Urban Air Pollution Concentrations, Perceived Air Quality, and Greenspace. International Society of Exposure Science Annual Meeting 2015, Henderson, Nevada. October 15, 2015.
9. **Reid CE**. 2015. Greenspace and health: mediation through reductions in psychosocial stress? Robert Wood Johnson Health and Society Scholars Annual Meeting 2015, Chapel Hill, NC
10. **Reid CE**, Jerrett M, Tager IB, Petersen ML, Morefield P, Balmes JR. 2013. Spatiotemporal modeling of wildfire smoke exposure in Northern California using satellite data and chemical transport models. Poster presentation at the Environment and Health – Bridging South, North, East and West Conference of ISEE, ISES and ISIAQ, Basel, Switzerland 19 – 23 August 2013.
11. **Reid CE**, Mann JK, Alfasso R, English P, King G, Margolis H, Sabato J, West N, Navarro K, Balmes JR. 2011. Evaluation of a Heat Vulnerability Index on Abnormally Hot Days: An Application of Environmental Public Health Tracking Data. Oral presentation at the 2011 International Society for Environmental Epidemiology, Barcelona, Spain.
12. **Reid CE**, Mann JK, Balmes JR, Rubado D, Margolis H, West N, Woods B, Flowers H. 2010. Climate change, heat waves, and population vulnerability: Using the environmental public health tracking network for validity testing of the heat vulnerability index. Oral presentation at the 2010 American Public Health Association Annual Meeting and Exhibition, Denver, CO.
13. ***Reid CE**. 2010. Heat Vulnerability Mapping: Proposed Vulnerability Measures and Mapping Approaches. Oral presentation at the 2010 CSTE (Council of State and Territorial Epidemiologists) Annual Conference in Portland, OR.
14. **Reid CE**, O'Neill MS, Brines SJ, Gronlund C, Diez-Roux AV, Brown DG, Schwartz J. 2008. Mapping Community Determinants of Heat Vulnerability. Poster presentation at the 2008 ISEE/ISEA Joint Annual Conference: Exposure and Health in a Global Environment, Pasadena CA.
15. **Reid CE**. 2008. Climate Change Impacts on Human Health in the United States: The Need for Preparedness Planning. Oral Presentation at the National Environmental Health Association's 72nd Annual Educational Conference (AEC) & Exhibition, Tucson, AZ.
16. **Reid C**, Broadwin R, Seto E. 2007. Comparison of Geocoding Results Using a Street Map and a Parcel Map. Poster presentation at the 2007 CalGIS Conference, Oakland, CA
17. **Reid C**, Morry D, Hoover S, Sandy MS, Zeise L, Zuniga R. 2007. Cancer Potencies and Daily Intake Levels for Six Industrial Chemicals. Poster presentation at the 2007 Society of Toxicology Conference, Charlotte, NC.

GRANTS AND CONTRACTS

Current Funding

Title: Susceptibility to Multiple Air Pollutants in Cardiovascular Disease

Role: Co-investigator (PI: Jane Clougherty, Drexel University)

Sponsor: Health Effects Institute

Amount: \$400,000 [\$15,448 sub-contract to University of Colorado, Boulder]

Period: 8/1/17 – 7/31/19

Goal: To understand differential susceptibility to air pollution for cardiovascular disease endpoints through the lens of social disadvantage.

Title: Longitudinal impacts of greenness on children's health

Role: PI

Sponsor: The Center to Advance Research in the Social Sciences (CARTSS), University of Colorado Boulder

Amount: \$3956.32

Period: 1/1/17 – 12/31/18

Goal: To enable preliminary analyses to investigate longitudinal changes in greenness exposure and health outcomes among children in the ECLS-K:2011 cohort.

TEACHING

University of Colorado Courses Taught

Fall 2016 GEOG 4852: Health and Medical Geography, Enrollment = 24

Spring 2017 GEOG 3692: Introduction to Global Public Health, Enrollment = 132

Fall 2017 GEOG 4120/5100: Special Topics in Geography: Climate Change and Health, Enrollment=17

Spring 2018 GEOG 3692: Introduction to Global Public Health, Enrollment = 131

Spring 2018 GEOG 4023/5023: Quantitative Methods in Geography, Enrollment = 22

Fall 2018 GEOG 4852/5852: Health and Medical Geography, Enrollment = 34 (29 undergrads / 5 grads)

Undergraduate Honors Theses Advising

Quinn Adams, Environmental Studies department, chair of Honors Thesis committee. September 2018 – April 2019

Anna Boylan, Environmental Studies department, chair of Honors Thesis committee. September 2018 – April 2019

Kai Kresek, Geography Department, chair of Honors Thesis committee and principal advisor, August 2017-April 2018. Thesis Title: "Are perceived neighborhoods palimpsests? Analyzing self-defined New York City Neighborhoods in the context of historical redlining" – *summa cum laude*

Undergraduate Student Advising on Research Projects, University of Colorado Boulder

Ellen Considine, Earth Lab Intern from Applied Math Department, September 2017 – present

Masters Student Committees, University of Colorado Boulder

Emmanuelle Hines, MA Candidate in Geography, May 2019 – chair

Gina Li, MA Candidate in Geography, May 2019 – chair

Mollie Buckland, MA Candidate in Geography, May 2019 – member

Victoria Scholl, MA Candidate in Geography, May 2019 – member

Sarah Posner, MA Candidate in Geography, May 2019 – member

Patrick Rody, MA Candidate in Geography, May 2019 -- member

Doctoral Student Committees, University of Colorado Boulder

Joseph Tuccillo, Geography Department, Member of doctoral comprehensive exam and dissertation proposal committees

Mohamed Eltarkawe, Mechanical Engineering Department, Member of dissertation proposal committee

Post-doctoral Advising, University of Colorado Boulder

Melissa May Maestas, Earth Lab, October 1, 2017 – present

Pre-University of Colorado Teaching Experience

2013 – 2014 Co-instructor, Global Environmental Change for Health Scientists, UC Berkeley

2010 - 2012 Reader for Global Environmental Change for Health Scientists, UC Berkeley

2011 Teaching Assistant, Introduction to Environmental Health Sciences, UC Berkeley

Invited Guest Lectures in University Courses

- 2018 “Climate Change, Air Quality, and Health” October 30, 2018 in Climate Change and Health at the Colorado School of Public Health, Aurora, CO.
- 2018 “Wildfire smoke exposure and population health” October 23, 2018 in Introduction to Environmental Health Sciences at the University of Colorado Denver.
- 2018 “Climate Change and Health” July 3, 2018 in GEOG 3692: Introduction to Global Health, University of Colorado Boulder
- 2018 Member of Writing CV panel in Institute of Behavioral Sciences Proseminar March 9, 2018 University of Colorado Boulder
- 2017 Presentation on Writing Effective Cover Letters to post-doc in Earth Lab, September 12, 2017, University of Colorado Boulder
- 2017 “Climate Change and Health” August 9, 2017 in GEOG 3692: Introduction to Global Health, University of Colorado Boulder
- 2017 Member of Academic Job Market panel in Institute of Behavioral Sciences Proseminar April 14, 2017 University of Colorado Boulder
- 2016 “Wildfire Smoke Exposure and Population Health” October 17, 2016 in ATOC 6020: Seminar in Climate Dynamics at University of Colorado Boulder
- 2013 Invited guest lecturer “Estimating health impacts from wildfire particulate matter using chemical transport models and aerosol optical depth”, Introduction to Environmental Health Sciences, UC Berkeley
- 2013 Invited guest lecturer “Directed Acyclic Graphs: An example with Heat and Ozone”, Environmental Health Sciences Doctoral Seminar, UC Berkeley

PROFESSIONAL SERVICE

Internal Service – Geography Department

- PUEC committee member for Instructor Sarah Kelly, Fall 2018
- Chair of Colloquium Committee, Fall 2018 – Spring 2019
- Panelist on Grad School and Beyond, October 9, 2018
- Colloquium Committee, Fall 2017-Spring 2018
- Digital Globe Scholarship Reviewer, Spring 2018
- Diversity Committee, Fall 2016-Spring 2017

Internal Service – University of Colorado Boulder

- Reviewer for Innovative Seeds Grants, Social Science and Professional Schools, Winter 2017
- Member of Climate Change and Health committee, run by Emily Cobabe-Ammann, Fall 2016-present
- Helped coordinate May 2017 and October 2018 symposia related to climate change and human health

External Service

- 2017- present Editorial Review Board Member, *Environmental Health Perspectives*
- 2018 Organizer and Chair of Sessions on Extreme Events, Hazards and Health at the 2018 American Association of Geographers meeting in New Orleans, LA
- 2016 Subject Matter Expert to the U.S. EPA on Mapping the Vulnerability of Human Health to Climate Change in the U.S. Sponsored and organized by EPA’s Global Change Research Program in the Office of Research and Development (ORD).
Resulted in the following publication: U.S. EPA. Mapping the Vulnerability of Human Health to Extreme Heat in the United States (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-18/212F, 2018.

2013-2014 Climate and Health Idea Lab, Secretary and Co-founder, University of California, Berkeley
2010-2012 GRADS (Graduate Recruitment and Diversity Services) Ambassador for the School of Public Health, University of California, Berkeley, 2010-2012

Ad-hoc Reviewer for National Science Foundation, Geography and Spatial Sciences 2017-present

Ad-hoc Peer Reviewer for: *American Journal of Respiratory and Critical Care Medicine, American Journal of Epidemiology, Atmospheric Environment, Biometrics, BMJ Open, Climatic Change, Environmental Health Perspectives, Environmental Health, Environmental Research Letters, Environmental Research, Environmental Science & Technology, Environment International, Epidemiology, Geocarto International, GeoHealth, Health & Place, International Journal of Biometeorology, International Journal of Health Geographics, Journal of Geography and Regional Planning, Journal of the Air & Waste Management Association, Science of the Total Environment, Social Science & Medicine, Social Science & Medicine – Population Health, and review of a dissertation submitted for the Association of American Geographers Jacques May Prize*

LANGUAGE/COMPUTER COMPETENCIES

English (native) and Spanish (fluent)
R, ArcGIS, SAS, Microsoft Office, Endnote

PROFESSIONAL MEMBERSHIPS

International Society of Environmental Epidemiology (2008 to present)
American Association of Geographers (2016 to present)

Updated January 31, 2019