

Emmanuelle (Emma) Hines

<https://www.linkedin.com/in/emmahines>

Expertise: climate change adaptation and resilience, public health, hazards/disasters, emergency preparedness

WORK EXPERIENCE

Lecturer

October 2019 – present

Yale School of Public Health

- Lead discussions and develop course content for the Climate Adaptation for Human Health module of the Yale Climate Change and Health Online Certificate Program. Students in this program will develop an understanding of the health impacts of climate change, devise community adaptation strategies, and communicate the health-related risks of climate change to the public and policymakers.

Climate and Health Program ORISE Fellow

June 2019 – present

Centers for Disease Control and Prevention (CDC)

- Review, conduct, and publish climate change and health research, with a primary emphasis on the risks and impacts of flooding on healthcare infrastructure. Additional project work focuses on heat and other extreme weather events, employing both qualitative and quantitative research methods.
- Lead the creation of technical guidance documents and communications materials (fact sheets, educational videos, etc.), as well as updates to website content.
- Support the Climate-Ready States and Cities Initiative by providing technical assistance to state and local public health agencies preparing for and responding to the health effects of climate change.
- Collaborate with federal agencies (FEMA, NOAA, USGCRP) and partner organizations (APHA, ASTHO, CSTE, NACCHO, NEHA, NIHB) to establish research priorities and funding mechanisms.
- Serve on the CDC Climate and Health Program Grantee Meeting (2019) and Science Symposium (2019) planning committees and the CSTE Climate, Health, & Equity Subcommittee.
- Serve on rotation as Climate/Weather Subject Matter Expert in the CDC 2019 Novel Coronavirus Response Environmental Health Task Force.

Research Affiliate

May 2018 – present

University of Colorado Boulder

- Natural Hazards Center – Serve as project manager for the Global Hazards and Disaster Research Centers Web Map, which is an effort to increase collaboration and access to emerging research by curating a comprehensive list of over 370 disaster-focused academic research centers across the world and creating an interactive web map displaying their locations and details.
- Institute of Behavioral Science – Conduct research tasks including statistical analysis and a literature review and synthesis of the impacts of green space on children's health for a manuscript in progress.

Graduate Teaching Assistant

August 2017 – May 2018

CU Boulder – Department of Geography

- GEOG 3692 Global Public Health: Acted as a teaching assistant to 130 students by leading three weekly recitations, attending lectures, holding weekly office hours, assisting with course preparation, and grading student assignments.

Climate and Health Program ORISE Fellow

June 2016 – August 2016

Centers for Disease Control and Prevention (CDC)

- Selected among 12 undergraduates for the Collegiate Leaders in Environmental Health Program.
- Conducted a geospatial vulnerability assessment identifying Texas healthcare infrastructure facilities at-risk of flooding.

EDUCATION

University of Colorado Boulder

M.A., Geography
Natural Hazards Center & Population Center
2017 – 2019

University of Texas at Austin

B.S., Environmental Science
B.A., Geography
2013 – 2017

PROFESSIONAL SKILLS

- **Research:** literature review, statistical and geospatial analysis, qualitative and quantitative methods
 - **Communication:** technical writing, grant writing, science communication and outreach, social media, workshop planning and facilitation, teaching and education
 - **Project Management:** project design, implementation, monitoring, and evaluation
 - **Software:** Microsoft Office (PowerPoint, Word, and Excel), Geographic Information System Analysis (ArcGIS and QGIS), Remote Sensing (ERDAS Imagine), Statistical Analysis (RStudio and MatLab)
 - **Coursework:** Health & Medical Geography, Climate Change & Health, Earth Analytics, Climate Change, Health & Society, Biostatistics, Applied Regression Analysis, Environmental GIS, GIS Modeling, Environmental Science Field and Research Methods
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LEADERSHIP AND SERVICE

Peer Mentor

May 2016 – May 2017

UT Austin – Foundation Scholars Program

- Supported eight highly-motivated freshman as they transition academically from high school to college by creating community, connecting students to resources, and developing their leadership, critical thinking, and communication skills to improve four-year graduation rates and retention

President

May 2015 – May 2017

UT Austin – Geography Society

- Presided over bi-monthly chapter meetings and represent the organization to the university
 - Organized five volunteer and social events per semester, recruited both academic and non-UT speakers for meetings, maintained communication between officers and members, and disseminated internship and job information to members
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AWARDS & DISTINCTIONS

All awards were granted for research excellence, academic performance, or conference travel support.

2020	HHS FY2019 Green Champion Award - Wellness Project/Program, CDC
2019	NCEH/ATSDR Health Equity Group Honor Award (<i>nominated</i>), CDC
2018	Mabel Duncan Memorial Scholarship, CU Boulder: \$2,000
2018	Adam Kolff Memorial Research Scholarship, CU Boulder: \$2,500
2018	UGGS Travel Grant, CU Boulder: \$300
2017	CARTSS Graduate Student Award, CU Boulder: \$1,000
2017	Foundation Scholars Program Mentor Scholarship, UT Austin: \$450
2017	College of Liberal Arts Competitive Scholarship, UT Austin: \$7,500
2017	Department of Geography Undergraduate Award, UT Austin: \$200
2016	Environmental Science Fall Capstone Research Grant, UT Austin: \$500

PUBLICATIONS

Journal Articles

- 2020 **Hines, E.**, M. Mathews, L. Peek. “Global List and Interactive Web Map of University-Based Hazards and Disaster Research Centers.” *Natural Hazards Review*, 21(2). [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000371](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000371).
- 2020 **Hines, E.** and C. Reid. “Hurricane Harvey Hospital Flood Impacts: Accuracy of Federal Emergency Management Agency Flood Hazard Areas in Harris County, Texas.” *American Journal of Public Health*, 110(4). <https://doi.org/10.2105/AJPH.2019.305520>.
- 20xx **Hines, E.** and C. Reid. “Hospital Preparedness and Response to Hurricane Harvey in Harris County, Texas.” Under Review in *Disaster Medicine and Public Health Preparedness*.
- 20xx Manangan, A., **E. Hines**, S. Saha, P. Schramm. “Flooding Risk of Medical Infrastructure—A National Assessment of Hospitals and Nursing Homes in Flood Hazard Zones”. Forthcoming.
- 20xx Reid, C., J. Humphrey, **E. Hines**, and K. Mason. “The role of greenspace on school absences in a nationally representative cohort”. Forthcoming.

CDC Technical Guidance Documents

- 20xx **Hines, E.** and P. Schramm. “Evidence on hospital interventions to prepare for, respond to, and recover from extreme flooding events”. Forthcoming.
- 20xx Brown, C., **E. Hines**, and P. Schramm. “Regional health impacts of climate change in the United States: A summary of health effects, resources, and adaptation examples from health departments funded by CDC’s Climate and Health Program.” Forthcoming.

Data Sets

- 2019 Peek, L., **E. Hines**, M. Mathews, J. Gunderson, H. Wu. “Global Academic Hazards and Disaster Research Centers Data.” DesignSafe-CI. <https://doi.org/10.17603/e9wq-gz57>

CONFERENCE PRESENTATIONS (* indicates presenter)

Paper Presentation

- 2020 *Manangan, A., A. Berens, T. Palmer, N. Dutton, **E. Hines**, J. Bell. “A tool to model flood inundation for public health preparedness, response, and recovery”. Council of State and Territorial Epidemiologists Annual Conference. Seattle, WA. [Conference cancelled due to COVID-19]
- 2019 ***Hines, E.** “Hospital Vulnerability to Hurricane Harvey in Harris County, Texas.” Annual Meeting of the American Association of Geographers, Washington DC.
- 2017 *Manangan, A., S. Widerynski, S. Saha, **E. Hines**. “Vulnerability of healthcare infrastructure to flooding.” Annual Meeting of the American Public Health Association, Atlanta, GA.
- 2017 *Manangan, A., S. Saha, P. Schramm, **E. Hines**. “Flooding Risk of Medical Infrastructure—A National Assessment of Hospitals and Nursing Homes in Flood Hazard Zones.” Annual Meeting of the American Meteorological Society, Seattle, WA.

Poster Presentation

- 2020 ***Hines, E.** “Flooding Risk of Medical Infrastructure—A National Assessment of Hospitals and Nursing Homes in Flood Hazard Zones”. Natural Hazards Research and Applications Workshop. Virtual Conference.
- 2017 ***Hines, E.** “Assessing the Vulnerability of Texas Healthcare Infrastructure and Population to Flooding.” Annual Meeting of the American Association of Geographers, Boston, MA.