

Center for Climate, Health and Equity

Reflecting on 2023



In December, our team returned from the annual UN Climate Change Conference (COP28) held in Dubai, and the state of the world has been on our mind ever since. We are currently **not on track** to limit global warming to 1.5°C, a goal set by 195 governments through the Paris Agreement. The World Meteorological Association revealed that we are likely to breach that threshold within the next five years, and, in the meantime, 2023 was the hottest year on record. According to the 2023 Report of Lancet Countdown, the

health of humanity is at grave risk.

But there is still hope. At COP28, we saw a groundswell of commitment to climate and health from health professionals, hospitals, academic centers, cities, local governments, NGOs, activists, and advocates. For the first time in almost 30 years of negotiations, health was a central topic, and governments **recognized** that the end of the fossil fuel era is necessary and inevitable. You can read more about our **perspectives** on COP28, including on the new focus on health, key outcomes from the international negotiations, and the challenges and opportunities ahead for global climate action.

The door is open, but it won't remain so forever – the health sector must accelerate its efforts to advance ambitious climate action to secure a healthy future for all communities. In this critical time, we are proud of how our Center grew in 2023, and we look forward to uplifting and generating solutions-oriented research, education, and policy in 2024.

Happy new year.

Arianne Teherani, Founding Co-Director

Sheri Weiser, Founding Co-Director

2023 Fourth Quarter Review

The UC Center for Climate, Health and Equity (CCHE) is now a Strategic Partner to the National Academy of Medicine's (NAM) Climate Communities Network, and a Network Organization in NAM's Action Collaborative on Decarbonizing the

U.S. Health Sector.

CCHE's Founding Co-Director Sheri Weiser and Managing Director Sapna Thottathil represented UC Health at a **Health Care Without Harm** meeting in Washington D.C., where they spoke with policymakers about the University of California's leadership on decarbonization and the benefits of the Inflation Reduction Act (IRA).

Dr. Weiser also provided climate-health guidance to Global Nurses United, the largest federation of international nurses unions from 35 countries, as well as to the Canadian Federation of Nurses



Unions. These talks informed the U.S. National Nurses United's recent **statement** urging governments to take action against the health impacts of climate change. Dr. Weiser continued to provide climate-health perspectives as a member of the **National Academies Climate Security Roundtable**, including on data gaps in climate change and infectious diseases.

Associate Director for Strategy and Communications Jennifer Monroe Zakaras represented CCHE on the working group for the 2023 Lancet Countdown on Health and Climate Change **Policy Brief for the United States**, which officially **launched** in November.



CCHE co-hosted the 4th
Annual NorCal Symposium
on Climate Change and
Health, which focused on how
climate change is shaping
health and medical education.

CCHE also held a **fall webinar series** on the public health response to climate change and decarbonization in health care.

Finally, CCHE co-hosted a book launch for Susan Bauer-Wu's **new book** A Future We Can Love: How We Can Reverse the Climate Crisis with the Power of our Hearts & Minds. You can **view our past events online** on our website.

In the News

Arianne Teherani was interviewed by **UC News** about her participation in COP28.

Jyoti Mishra spoke about her studies on climate trauma from the Camp Fire in a **Washington Post** article about "fire brain" in survivors of the Maui wildfires. Her research into the mental health impacts of wildfires was also covered by **UC San Diego News**.

Neeta Thakur and Sheri Weiser were guests on KALW Public Radio's "Your Call" to speak about the long-term health impacts of wildfire smoke.

Meghana Gadgil spoke about climate change, threats to human health, and health system resilience at the **third session** of NASEM's New Voices' One Health Webinar Series and in a **Forbes** article about One Health in the context of climate change.

Gina Solomon's **FRESSCA** project was showcased in a **Valley Public Radio** piece as a potential solution to harmful wildfire air pollution experienced by rural residents in the Central Valley.

Seema Gandhi's efforts to eliminate harmful anesthetic gas emissions from UCSF operating rooms was showcased in an interview on **CBS KPIX**.

Arianne Teherani spoke about the importance of integrating climate change topics into medical education for a **Healio** news piece.

Tarik Benmarhnia and Jyoti Mishra participated in a UC San Diego Scripps Institution of Oceanography roundtable on how to fight and prevent wildfires and deal with their adverse effects, which was picked up by the **Del Mar Times**.

Tarik Benmarhnia's **study** revealing higher infant mortality in Bangladesh's flood zones was also covered in **Mirage News**.

Sheri Weiser and Arianne Teherani spoke to **UCSF News** about the adverse health effects of extreme heat.

Hilary Ong shared her perspective as a climate-informed physician for an **Erie News Now** article on training a new generation of climate doctors.

Chris Funk's recent paper describing his work predicting climate disasters in East Africa was reviewed in UC Santa Barbara's **Daily Nexus**.

Dr. Mishra is Co-Director of CCHE's Climate Change and Mental Health Council. Drs. Thakur, Solomon, and Ong are CCHE-affiliated faculty. Dr. Ong also co-leads the UCSF Climate Hub. Dr. Gandhi is co-chair of CCHE's health systems pillar. Dr. Benmarhnia is co-chair of CCHE's Research Pillar and lead for the UC San Diego campus. Dr. Gadgil is a co-lead for the UC Berkeley campus. Dr. Funk is the lead for the UC Santa Barbara campus. Drs. Teherani and Weiser are CCHE's Founding Co-Directors.

New Research

NIH awards over \$3.7 million for climate change and HIV research: CCHE's Founding Co-Director Sheri Weiser is a multiple principal investigator of a multidisciplinary team of researchers from UCSF, UCSB, the CUNY Institute for Implementation Science in Population Health, and the Icahn School of Medicine at Mount Sinai who are launching an innovative research study to advance our understanding of how climate change and extreme weather influence HIV-related health outcomes around the world.

Quantifying emissions and enhancing inclusivity: Insights from ASCO attendance data. Katie Lichter, Ali Sabbagh, Sasha Demeulenaere, Taylor Drew, Alexandra Conway, Leticia M Nogueira, Margaret Kelsey Kirkwood, Jasmine Kamboj, Karly Hampshire, Katherine Gundling, Arianne Teherani, Sapna Thottathil, Osama Mohamad. JCO Oncology Practice 19, suppl 11 (2023): 442.

The mitigated carbon emissions of transitioning to virtual medical school and residency interviews: A survey-based study. Karly Hampshire, Lawrence Huang, Hugh Shirley, Valerie Kahkejian, Elizabeth Yates, Sheri D. Weiser, Misha Rosenbach, Kevin Liang, Arianne Teherani. Medical Education, 8 Aug. 2023.

Excess risk in infant mortality among populations living in flood-prone areas in Bangladesh: A cluster-matched cohort study over three decades, 1988 to 2017. Francois Rerolle, Benjamin F. Arnold, Tarik Benmarhnia. Proceedings of the National Academy of Sciences of the United States of America vol. 120, 50 (2023): e2218789120.

"Am I going to have to run to get out of this place?" A qualitative study exploring HIV clinical and service provider experiences from California regions heavily impacted by climate disaster. Lissa Moran, Shannon M. Fuller, Shivali Joshi, Simon Outram, Kimberly A. Koester, Wayne T. Steward, Emily A. Arnold. PLOS Climate, 2, 10 (2023): e0000269.

Do social vulnerability indices correlate with extreme heat health outcomes? Sahar Derakhshan, David P. Eisenman, Rupa Basu, Travis Longcore. The Journal of Climate

Change and Health (2023): 100276.

Exploring the impact of environmental exposure changes on metabolic biomarkers: A 6-month GPS-GIS study among women with overweight or obesity. Noémie Letellier, Jiue-An Yang, Sarah Alismail, Nivedita Nukavarapu, Sheri J. Hartman, Cheryl L. Rock, Dorothy D. Sears, Marta M. Jankowska, Tarik Benmarhnia. Environmental Research, vol. 243 117881. 7 Dec. 2023.

Disability prevalence and community-level allocation of Hurricane Harvey federal disaster recovery assistance in Texas. Natasha P. Malmin, David Eisenman. Journal of Disability Policy Studies, 2023.

Cooler and Healthier: Increasing tree stewardship and reducing heat-health risk using community-based urban forestry. Edith de Guzman, Erica L. Wohldmann, David P. Eisenman. Sustainability 15, 8 (2023): 6716.

Tailored forecasts can predict extreme climate informing proactive interventions in East Africa. Chris Funk, Laura Harrison, Zewdu Segele, Todd Rosenstock, Peter Steward, C. Leigh Anderson, Erin Coughlan de Perez, Daniel Maxwell, Hussen Seid Endris, Eunice Koch, Guleid Artan, Fetene Teshome, Stella Maris Aura, Gideon Galu, Diriba Korecha, Weston Anderson, Andrew Hoell, Kerstin Damerau, Emily Williams, Aniruddha Ghosh, Julian Ramirez-Villegas, David Hughes. Earth's Future 11, 7 (July 2023): e2023EF003524.

Pathways from climate change to emotional wellbeing: A qualitative study of Kenyan smallholder farmers living with HIV. Beyeler NS, Nicastro TM, Jawuoro S, Odhiambo G, Whittle HJ, Bukusi EA, Schmidt LA, Weiser SD. PLOS Glob Public Health. 2023 Jul 25;3(7):e0002152. doi: 10.1371/journal.pgph.0002152. eCollection 2023. PMID: 37490427

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UC Center for Climate, Health and Equity | Mission Hall, San Francisco, CA 94158

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