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Authors

Abdelatty, Hana
English, Dimitri D
Garcia, Adan
[et al.](#)

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Addressing Heat Inequities Across Los Angeles

Hana Abdelatty, MPP; Dimitri English, MPP; Adan Garcia, MPP;
Selena Melgoza, MPP; Austin Mendoza, MPP • 2023

Issue

As the planet continues to experience the worsening effects of climate change, the topic of extreme heat has risen in prominence on local policy agendas worldwide. In the United States, extreme heat has led to more deaths over the past 30 years than any other weather-related event, more so than even hurricanes and tornadoes combined.¹ Today, the Los Angeles Climate Emergency Mobilization Office characterizes extreme heat as the, “primary climate hazard facing Los Angeles.”

As the century progresses, Angelenos can expect to endure more heat waves that are hotter, longer and more frequent.² Extreme heat events such as heat waves are defined by Los Angeles County as three or more consecutive days with temperatures above 90 degrees. Census tracts in the San Fernando Valley and Highland Park are expected to have the highest number of extremely hot days in Los Angeles by mid-century.³ However, even the median census tract in Los Angeles is expected to experience 59 extremely hot days per year by 2050, an increase of nearly 31% from the recent historical average between 1976 and 2005.⁴

The Federal Emergency Management Agency (FEMA) rated Los Angeles as the city facing the highest risk of natural hazards in the near future. In particular, Los Angeles is vulnerable to the adverse health impacts of climate change-induced extreme heat — but communities of color and low-income households face the greatest risk. Decades of unjust policies like redlining have today led to the inequitable distribution of the resources necessary for communities to protect themselves against such extreme heat.

As part of its general approach to addressing extreme heat, the Climate Emergency Mobilization Office (CEMO) seeks to collaborate with community partners to engage, educate, and uplift the voices of frontline communities. Through doing so, CEMO seeks to ensure that interventions and policies within its Heat Action Plan are equitable and give priority to the perspectives of those most affected by climate change.

Study Approach

To help CEMO accomplish this goal, this report presents and centers the experiences and preferences of frontline community members regarding heat adaptation policies in Los Angeles. The report also offers recommendations on prioritizing policy options based on local preferences and evidence from existing research.

The research conducted for this report involved reviewing municipal climate plans, conducting a geospatial analysis, leading interviews with subject matter experts, convening community focus groups, and administering an online community survey to assess how the City of Los Angeles can advance equitable heat policy and long-term resilience among the most impacted and vulnerable communities.

Research Findings

Frontline communities bear the brunt of extreme heat across Los Angeles, and wish to access more resources from the city to expand their adaptive capacity. Survey results from 546 respondents, seven focus group sessions, and other quantitative and qualitative analysis, led researchers to the following findings:

- Community members frequently mentioned that they had experienced a heat-related illness during extreme heat events or during summer months.
- Focus group participants often mentioned that public water features are inaccessible throughout their neighborhoods, and that their communities need more access to drinking water — especially during heat waves.
- Community members showed the greatest interest in increasing the resources available from the city to build adaptive capacity and resilience against extreme heat at home. Notably, many community members were unaware of existing resilience and cooling centers in their neighborhoods.
- Frontline survey respondents perceived higher risks associated with extreme heat than non-frontline respondents: 57% of frontline respondents believed that extreme heat threatens their health and safety either “a lot” or “severely,” compared to only 41% of non-frontline respondents.
- Frontline community members believe that Los Angeles has been minimally effective at responding to extreme heat and including community voices in such responses.

Recommendations

In the final report, nine policy options are assessed based on their alignment with community preferences, their effectiveness at improving the health outcomes of frontline communities, their ability to target an equitable redistribution of heat adaptation resources distribution, and their financial and administrative feasibility for implementation. Based on this analysis, Los Angeles should:

- Immediately expand access to green space in frontline neighborhoods.
- Increase available at-home heat adaptation resources for frontline communities.
- Equitably distribute pedestrian shade structures and water access across frontline communities.
- Improve the accessibility of communications about available heat adaptation resources.
- Implement community ambassador programs.

- Create more accessible heat-related workplace trainings, and expand the resilience center network.

To effectively build resilient communities, Los Angeles must meet the needs of frontline community members and ensure that they have adequate and accessible resources to cope with extreme heat. Admittedly, the suggested recommendations within this report do not address the long-term changes that must be made to mitigate extreme heat through systemic emissions reductions and scaling up the implementation of clean energy. Still, these recommendations can act as a starting point for integrating community needs and perspectives in Los Angeles’ climate policymaking to ensure that frontline communities have the capacity and resources that they need to not only adapt, but to thrive.

For More Information

Abdelatty, H., English, D.D., Garcia, A., Melgoza, S., & Mendoza, A. (2023). Turning Down the Heat: Addressing Heat Inequities of Frontline Communities in Los Angeles (Master’s capstone, UCLA). Retrieved from: <https://escholarship.org/uc/item/8kr3h6jm>

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- ² Omid Mazdiyasnani et al., “Heatwave Intensity Duration Frequency Curve: A Multivariate Approach for Hazard and Attribution Analysis,” *Scientific Reports* 9 (2019): 14117, <https://doi.org/10.1038/s41598-019-50643-w>.
- ³ UCLA Luskin Center for Innovation and Public Health Alliance of Southern California, “California Healthy Places Index: Extreme Heat Edition,” accessed December 17, 2022, <https://heat.healthyplacesindex.org/>.
- ⁴ U.S. Federal Government, “Climate Mapping for Resilience and Adaptation,” 2022.

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