



Community Adaptations to City Heat

What is CATCH?

We are an interdisciplinary team based out of Boston University, experienced in community-engaged climate and health research and communications, temperature modeling, data and maps to inform decision-making, and multi-city partnerships.

We are working to make extreme heat health impacts visible through household energy, climate, and sustainability policies in frontline communities.



Those hit "first and worst" by the impacts of climate change.

We look beyond geographic boundaries to include people who are vulnerable for different reasons.

What is a frontline community?



Examples:

- Living in urban heat islands
 - Being pregnant, younger, or older
 - Living in affordable housing without air conditioning or ability to pay for electricity
- And many, many others!

We are working to:



Raise visibility of the adverse impacts of extreme heat on health



Deliver tools for decision makers to quantify extreme heat impacts on health



Connect siloed policies to improve heat adaptation and impacts in frontline communities

Please reach out if these activities could inform your work. We are looking for collaborators for **Summer 2026**

What We Do

Our Impact

We share research, data, maps & stories.

For example:

- Collecting, analyzing, and compiling data to understand impacts of extreme heat on health.
- Creating models to understand impact of trees and white roofs on outdoor temperatures.
- Quantifying effects of air conditioning and white roofs on indoor building temperatures.
- Measuring temperatures indoors and outdoors.
- Developing a database of extreme heat action plans & policies across cities.
- Creating maps to identify city hotspots, AC prevalence, and more.
- Understanding how urban heat islands impact emergency room visits and other health impacts.

We create new information to support city + community decisions.

For example:

- Engaging with frontline residents and communities to understand and elevate experiences, stories, and priorities.
- Identifying data gaps that require further investigation.
- Supporting extreme heat workshops and campaigns to enhance awareness and education.
- Creating synergies and connections across community members, city leaders, and policy makers.



Heat Adaptation and Policy Improvements

- Elevating the lived experience of frontline communities to inform action.
- Informing and improving city heat adaptation / resilience plans and decisions.
- Identifying best practices, facilitating collaboration, and sharing knowledge across cities.



Currently working in:
Boston, Phoenix,
and New Orleans

These three cities experience significant urban heat island intensity and are in different climate zones, representing three distinct types of urban heat:

Boston -
increasingly **hot, but built**
for **cold** weather

New Orleans -
extremely **hot** and
humid almost year round

Phoenix -
extremely **hot** and **dry**
almost year round

Examples of past and ongoing projects

Elevating resident experiences of extreme heat and adaptation measures with tools such as Photovoice and Iseechange

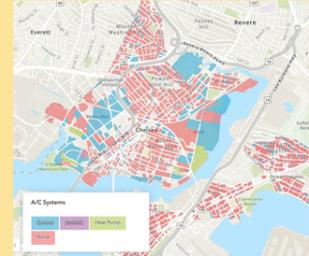


On this street in Chelsea, free food is distributed once a week. People are waiting in line early in the morning, waiting for their turn, for a long time. It is hard to have use this resource to keep going every day, but the elderly, on hot days, these people must wait under the sun until their turn, without being able to take refuge in the shade. What could the city do about this?
- Nohermi

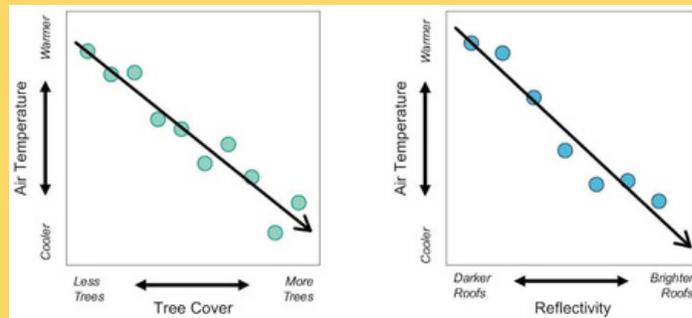


BUSPH Photo by Megan Jones

Connecting researchers with practitioners & community based organizations



Mapping cooling infrastructure and energy costs at a building level [C-HEAT data dashboard]



Modeling impact of trees and white roofs on ambient and indoor temperatures in a neighborhood. (Graph)



BUSPH Photo by Megan Jones

Measuring temperature to support decisions & policies

As well as...

- Identifying areas of high heat impacts using small area health data
- Sharing plans and policies from other cities
- Providing data in support of a plan/policy and beyond!

Our Partners:

Dialogue Earth



CITY of BOSTON



How can we collaborate together?

[in/the-catch-heat-project](https://www.linkedin.com/company/the-catch-heat-project)

cityheat@bu.edu

catchcityheat.org

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