



# **A Coordinated Federal Initiative to Prepare the Nation for Extreme Heat**

**Morgan Zabow**, Community Heat and Health Program Manager  
NOAA Climate Program Office

## Eastern Region Headlines

Sections Axios Local | v Axios Pro Events About Axios Sig

CAPITAL WEATHER GANG Climate Weather Environment Climate Lab

Updated Jul 16, 2024 - Energy & Climate

# "Potentially deadly" heat wave envelops East Coast

Heat U.S. Tracker Global Tracker Staying Safe Heat Exhaustion Symptoms Heat's Physical Toll Effect

## *What to Expect as a Punishing Heat Wave Shifts East*

The West will get a small break from record-breaking heat, while much of the Midwest and the East Coast swelter into next week.

## Triple-digit temperatures expected over July Fourth holiday; nearly 150 million under heat alerts

More than 130 heat daily heat records could be set through Tuesday as prolonged and sweltering temperatures are expected across parts of the U.S.

# D.C. hits record 104 amid most intense heat stretch since Dust Bowl

There probably won't be significant relief until Thursday.

Extreme Heat U.S. Tracker Global Tracker Staying Safe Heat Exhaustion Symptoms Heat's Physical Toll

## *Northeast Braces for Dangerous Heat and Humidity*

Forecasters said that temperatures could feel more like 100 degrees in parts of New Jersey and New York City on Monday and into the mid and upper 90s for the rest of the region.

FOX WEATHER

The FOX W  
LEA

er News How to Watch Extreme Weather Learn Local Weather Earth & Space Lifestyle Video America's W

## Millions from Texas to Maine on alert as extreme heat bakes eastern US

The FOX Forecast Center predicts daily record highs to fall through Wednesday.

# Early July Heat Wave



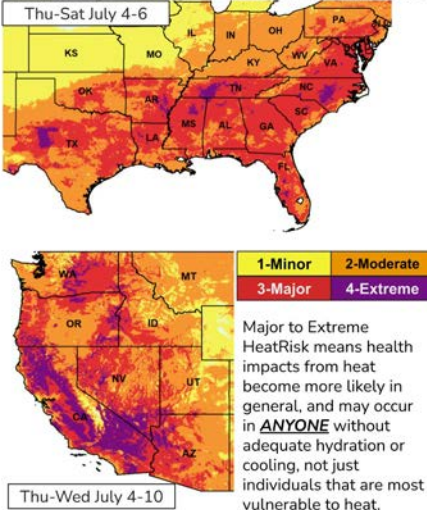
## Key Messages for Early July Heat Wave

Updated July 4, 2024  
2:00 PM EDT

Extremely dangerous heat will build in the Western U.S., with heat persisting in the South

- Significant Heat Expected for the July 4th Holiday**  
 Dangerous heat will impact Independence Day activities in the Southern U.S. and Mid-Atlantic, as well as California and southern Nevada. Use caution and check the forecast. Stay hydrated, limit time outdoors, and act quickly if you see signs of heat-related illness.
- Extremely Dangerous Heat Wave in the West**  
 Intense and long duration heat building in the West will be extremely dangerous and potentially deadly if not taken seriously. The heat will become more widespread by Friday and Saturday. The multi-day nature of the heat and record warm overnight temperatures will cause heat stress to build in people without adequate cooling. Numerous daily record highs are forecast and some locations, including Las Vegas, NV and Redding, CA, may reach their all-time heat records.
- Western Heat Wave Continues into Next Week**  
 Excessive heat should expand northward into the Pacific Northwest and Intermountain West, continuing through much of next week. The prolonged nature of the heat will increase the risk of heat-related illness.
- Extended Heat Wave in the Southern U.S.**  
 The focus for hazardous heat will shift from the south-central and interior southern U.S. towards the Mid-Atlantic and Southeast by Friday and Saturday. Heat index values will approach or exceed 110 degrees at times. The most persistent heat will likely extend from the eastern Gulf Coast into the Carolinas.

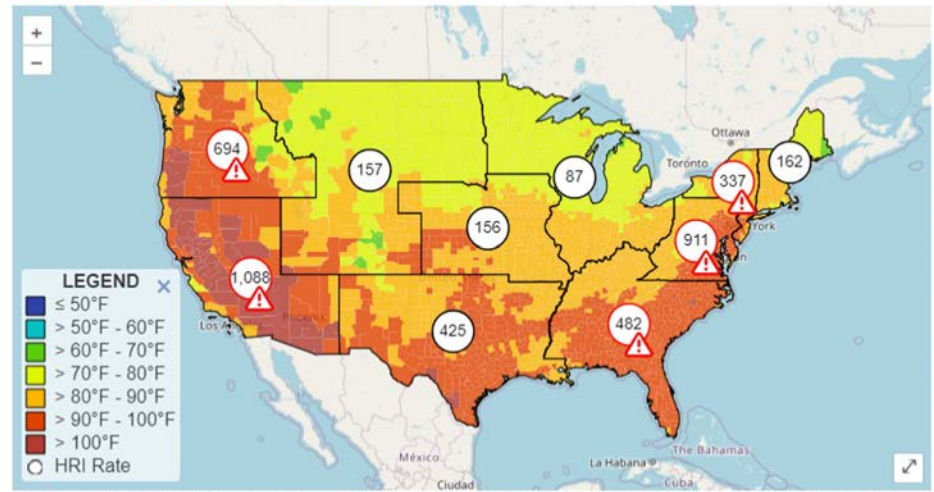
### Maximum Forecast HeatRisk (Experimental)



For more information go to:  
[www.wpc-ncftp.noaa.gov](http://www.wpc-ncftp.noaa.gov) and [www.weather.gov](http://www.weather.gov)

Weather Prediction Center  
College Park, MD

## Daily Heat-Related Illness



This icon indicates that extremely high rates of heat-related illness were detected in the region. Extremely high rates of heat-related illness are defined as exceeding the 95th percentile based on data from 2018-2023.

July 6: HHS regions 2 and 3 had extremely high rates of heat-related illness were detected in the region. Extremely high rates of heat-related illness are defined as exceeding the 95th percentile based on data from 2018-2023.

## Mid-July Heat Wave

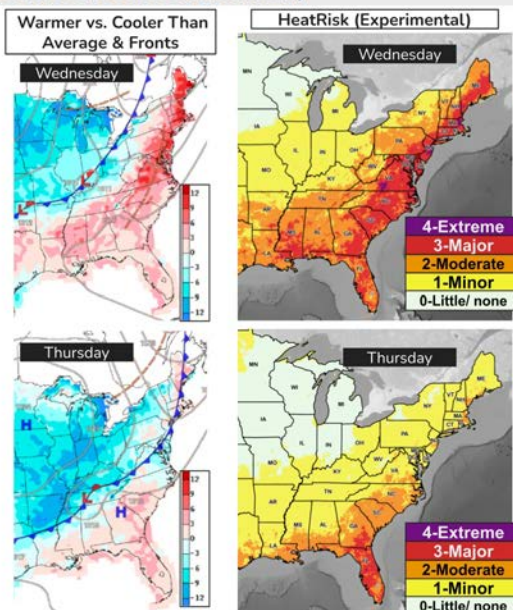


### Key Messages for Mid-July Heat Wave

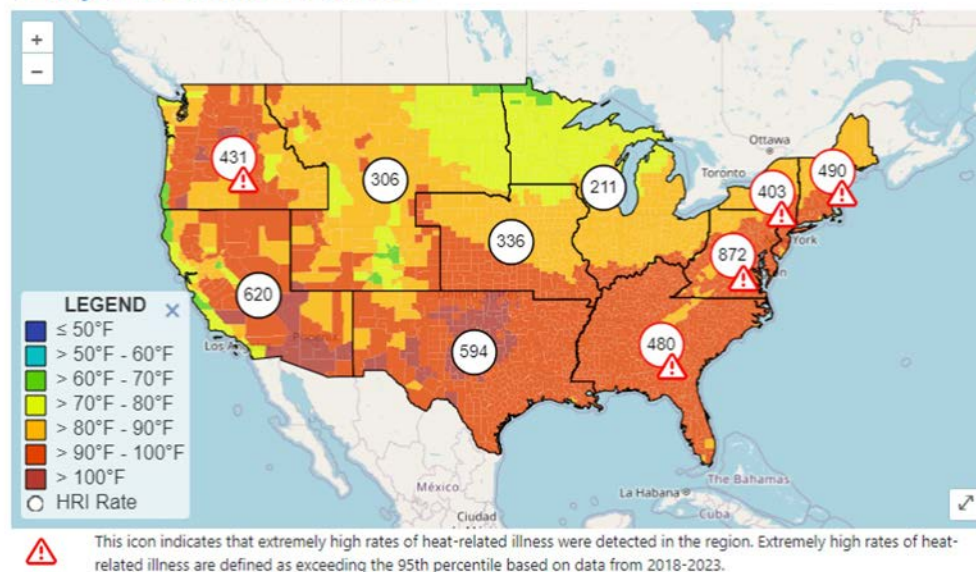
Updated July 16, 2024  
3:00 PM EDT

Another day of dangerous heat along much of the East Coast on Wednesday

- Significant Heat Along the East Coast**  
 The ongoing heat wave will last into Wednesday along much of the East Coast, including major metro areas in the Interstate 95 corridor. Daily record warm overnight temperatures are likely. This heat will be occurring at the end of a lengthy period of intense heat, and heat has a cumulative effect, so the heat on Wednesday will still be dangerous.
- Cold Front Brings Relief**  
 A strong cold front will bring relief as it sweeps across most of the Eastern U.S. from Wednesday into Thursday. This front will be accompanied by showers and thunderstorms. Some thunderstorms could be severe, especially in the Northeast.
- Heat Continues in Florida**  
 The heat will continue in Florida for the remainder of the week and into the weekend, as the front will stall to the north. However, this will be the last update for this Key Messages graphic.



### Daily Heat-Related Illness



July 16: HHS regions 1, 2, and 3 had heat-related illness were detected in the region. Extremely high rates of heat-related illness are defined as exceeding the 95th percentile based on data from 2018-2023.



# Widespread Excessive Heat Over Much of the U.S. into Early August

Issued July 23, 2024

Timing: July 31 - August 6, 2024

A heat wave is forecast for much of the lower 48 late July through at least early August coinciding with the hottest time of the year climatologically.

(a) High risk (60% chance or more) of excessive heat is indicated for parts of the Central and Southern Plains and Middle and Lower Mississippi Valley regions. Moderate risk (40-60% chance) of excessive heat covers much of the central U.S. and Northeast. A broad area of slight risk of excessive heat (20-40% chance) covers much of the lower 48.

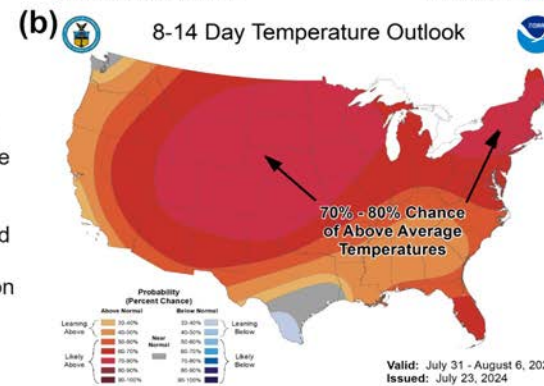
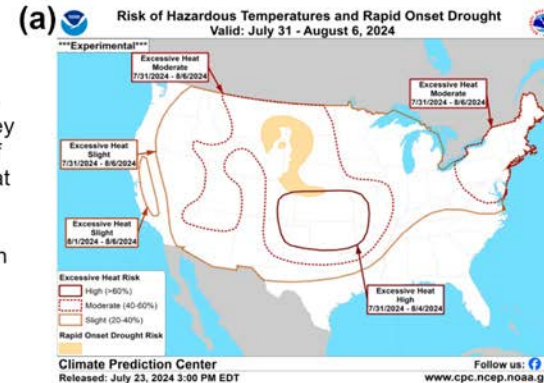
(b) Above normal temperatures are indicated across much of the U.S., with the exception of southern Texas and northwestern Washington. Probabilities of above normal temperatures reach 70 to 80% over the central U.S. and the Northeast.

Maximum temperatures are likely to exceed 100 degrees with heat index values of 105-110 or higher within the high risk of excessive heat, with many locations reaching well into the 90s in the broader slight and moderate risk areas.

Drying topsoil along with the likelihood of above-normal temperatures and below-normal precipitation supports rapid onset drought risk for parts of the Northern and Central Plains.

High temperatures can lead to heat-related illness. Stay in a cool place and limit outdoor activities if possible, remember to hydrate, and never leave people or pets in a vehicle. Visit <https://www.heat.gov/> for safety information during times of excessive heat.

\* For short-term forecasts (prior to July 31), visit [www.wpc.ncep.noaa.gov](http://www.wpc.ncep.noaa.gov) and [weather.gov](http://weather.gov).



National Oceanic and Atmospheric Administration  
U.S. Department of Commerce

Climate Prediction Center  
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

\*\*\*Key messages are subject to change due to changes in forecast information and tools.

## Why Is It So Difficult to Reduce Heat Risk?

1

Heat has been overlooked for a long time and is not yet reflected in **policies** and **governance** structures at all levels of government.

2

Heat impacts are “invisible,” delayed, or **poorly quantified** due to **lacking impact data & studies**.

3

Many communities don't have heat action plans or long-term planning in place, or they **have not stress-tested** those plans.

4

Communities need **guidance, evidence,** and **support** to take effective action on heat.

# The National Integrated Heat Health Information System (NIHHIS)

- Launched in 2015 by NOAA and CDC for a coordinated approach to heat resilience
- Trans-disciplinary work across governmental agencies and non-governmental partners
- Works across timescales to bridge long-term heat mitigation and short-term planning
- Supports and implements the White House Extreme Heat Interagency Working Group



FEMA



Office of  
Climate Change  
and Health Equity



U.S. Department  
of Veterans Affairs



U.S. DEPARTMENT OF  
**ENERGY**



# Federal Heat Action is Complex

Coordination

Research,  
Data,  
Information

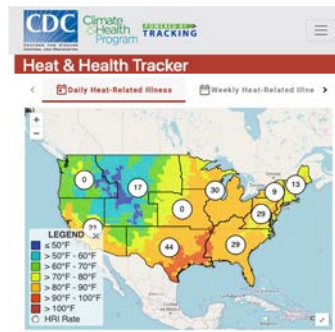
Regulation &  
Policy

Implementation  
& Capacity

Technical  
Support



NATIONAL INTEGRATED HEAT  
HEALTH INFORMATION SYSTEM



NWS HeatRisk

Green 0	Little to no risk from expected heat.
Yellow 1	Minor - This level of heat affects primarily those individuals extremely sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration.
Orange 2	Moderate - This level of heat affects most individuals sensitive to heat, especially those without effective cooling and/or adequate hydration. Impacts possible in some health systems and in heat-sensitive industries.
Red 3	Major - This level of heat affects anyone without effective cooling and/or adequate hydration. Impacts likely in some health systems. Avoid outdoor activities.

OASH

Climate and Health Outlook

The Climate and Health Outlook is an effort to inform health professionals and the public on how our health may be affected in the coming months by climate events and to provide resources for proactive action. Visit the [outlook](#).

OSHA  
PROPOSED RULE  
Heat Injury and Illness Prevention in  
Outdoor and Indoor Work Settings

- H.R.4953  
Preventing HEAT Illness and Deaths Act of 2023
- H.R.4733 - Smoke and Heat Ready Communities Act of 2023
- H.R.4256 - Jordan McNair Student Athlete Heat Fatality Prevention Act
- H.R.4314 - Stay Cool Act
- H.R.4269 - Timothy J. Barber Act



USAID

TECHNICAL REPORT

HEAT WAVES AND HUMAN HEALTH

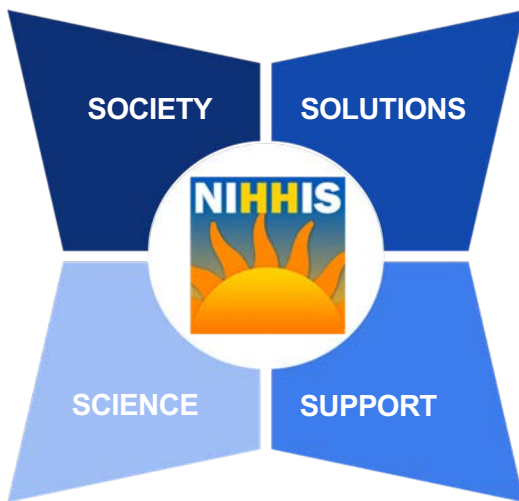
EMERGING EVIDENCE AND EXPERIENCE TO INFORM RISK MANAGEMENT IN A WARMING WORLD





# NIHHIS Program Coordination

The NIHHIS Program manages interagency coordination and planning. It is hosted in the Climate Program Office in NOAA Research.



National Heat Strategy

The screenshot shows the HEAT.gov website. The header includes the logo and navigation links: "News & Events", "Learn", "Urban Heat Islands", "Centers of Excellence", "Tools", "Planning & Preparing", "Funding Opportunities", and "About". The main heading is "Who Is Most At Risk To Extreme Heat?". Below this are several tabs: "Children", "Athletes", "Older Adults", "Pregnant People", "Emergency Responders", "Outdoor and Indoor Workers", "People with Disabilities", "People with Chronic Health Conditions", "People Experiencing Homelessness", and "Pets and Service and Support Animals". The "Children" tab is selected. The content area features an infographic titled "Who Is Most At Risk To Extreme Heat?" with sections for "Suburban Sprawl", "Urban Heat Island", "Older Adults", "Athletes", "Pregnant People", "Emergency Responders", "Outdoor and Indoor Workers", and "People with Disabilities". A text block explains that extreme temperatures associated with heat waves can make everyone uncomfortable, and that some groups face a greater risk of heat-related illness than others. A source is cited as "National Climate Assessment, Figure 14.2".

Heat.gov  
Heat Beat Newsletter,  
X: @Heatgov

The banner is for the "3rd Annual NIHHIS National Meeting". It features the NIHHIS logo and a sun icon. The text includes: "3rd Annual NIHHIS National Meeting", "April 16-18, 2024", "12:00-4:00 PM ET", and "Virtual (Zoom)". A red arrow points to the registration link: "Register: bit.ly/NIHHISNational".

Interagency Working Groups, Funding Priorities, Forums, Communications

# New Interagency Heat Actions



**FEMA Streamlines BCA  
for Resilience Grants**



**OSHA Heat Rule & National  
Emphasis Program**



**HUD Extreme Heat  
Quick Guide**

# HEAT.GOV



Search NOAA sites



Home / News & Features

## Biden Administration launches Heat.gov with tools for communities facing extreme heat

Focus areas: Research, Climate

Topics:

heat, heat waves, safety, extreme weather, public health, Social media and Web, climate, resilience

Share: [Twitter](#) [Facebook](#) [Email](#) [Print](#)

### Current Conditions and Future Outlooks

#### Extreme Heat

92,530,689  
people in warning area

30-Day Change



Source: NOAA National Weather Service



National Integrated Heat Health Information System

Home News & Events Learn Urban Heat Islands Tools & Information At Risk Groups Planning & Preparing About

### Welcome to HEAT.gov

Heat related illnesses and death are largely preventable with proper planning, education, and action. Heat.gov serves as the premier source of heat and health information for the nation to reduce the health, economic, and infrastructural impacts of extreme heat.

Heat.gov is the web portal for the National Integrated Heat Health Information System (NIHHS)

#### News

Funding Opportunity: EPA Environmental Justice Government-to-Government Program

New Document Outlining Tips for People Who Take Medication and Coping with Hot Weather

Webinar Recording of the 2022 Urban Heat Island Mapping Campaign Results



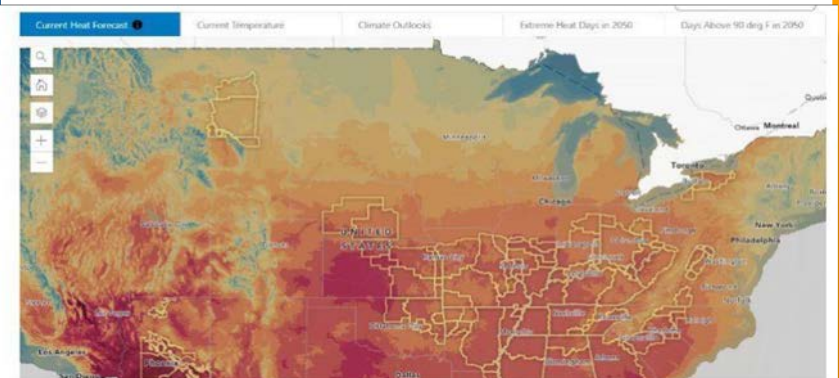
Tools & Information



Who is at Risk to Extreme Heat

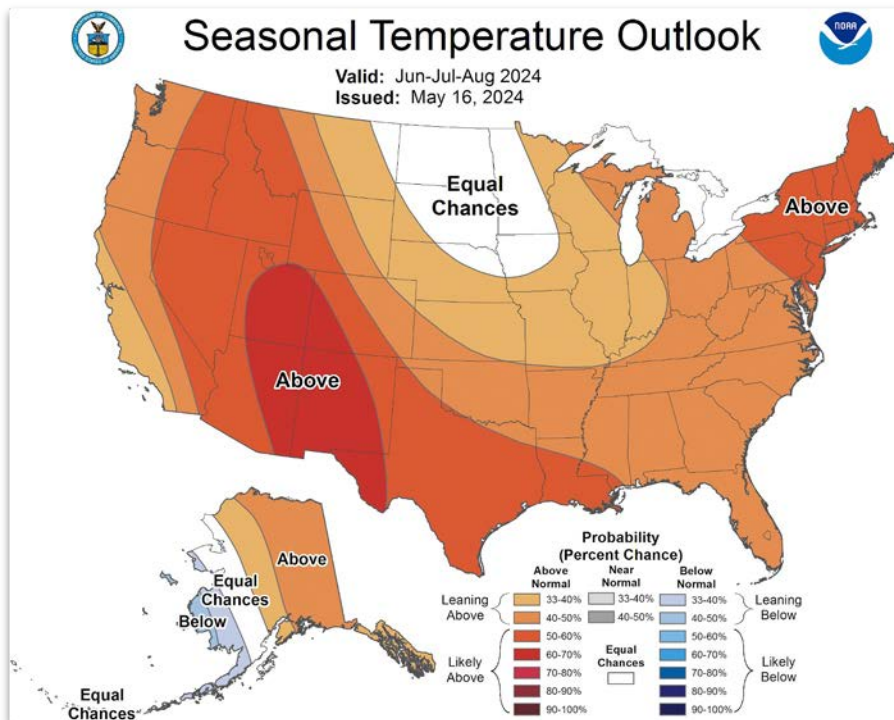


Climate and Health Outlook



# Seasonal Temperature Outlook & Key Messages

CPC Seasonal temperature outlooks and Key Messages available on [heat.gov](https://heat.gov)



Areas favored for warmer than normal conditions this summer - June-July-August

**Key Messages for Midwest to Northeast Heat Wave**  
Updated June 12, 2024 2:00 PM EDT

Potentially dangerous and long duration heat is expected next week

- The first long duration heat wave of the summer is expected to begin Sunday over the middle of the Nation before spreading to the Ohio Valley, Great Lakes, and Northeast next week.
- High temperatures are forecast to peak in the mid-to-upper 90s, which could break daily record highs throughout the Ohio Valley and Northeast Mon-Tues. Warm overnight temperatures only dropping into the mid-70s will offer little to no relief to those without adequate or reliable cooling.
- A moderate risk of excessive heat (40-60% chance) is anticipated to last at least through June 21 in the Northeast and June 24 in the Midwest, with a slight risk (20-40% chance) remaining in place for much of the eastern U.S. through June 26.
- For information on staying cool & safe visit [www.weather.gov/safety/heat](https://www.weather.gov/safety/heat) and check local media and government websites for cooling center information. Limit outdoor activity and stay hydrated!

**NWS HeatRisk Valid Tuesday, June 18**

0-Little to none 1-Minor 2-Moderate 3-Major 4-Extreme

**Risk of Excessive Heat Valid for June 20 - 26, 2024**

High (>60%) Excessive Heat Moderate (40-60%) Slight (20-40%)

Climate Prediction Center  
Released June 12, 2024 3:00 PM EDT  
www.cpc.ncep.noaa.gov

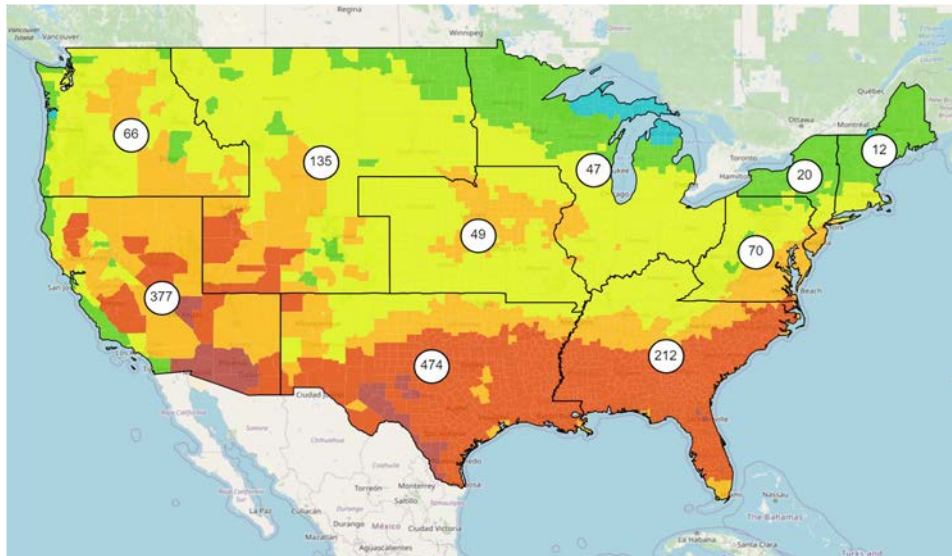
For more information go to: [www.wpc.ncep.noaa.gov](https://www.wpc.ncep.noaa.gov) and [www.weather.gov](https://www.weather.gov)

Weather Prediction Center  
College Park, MD

Focus on Days 1-7 and Week 2

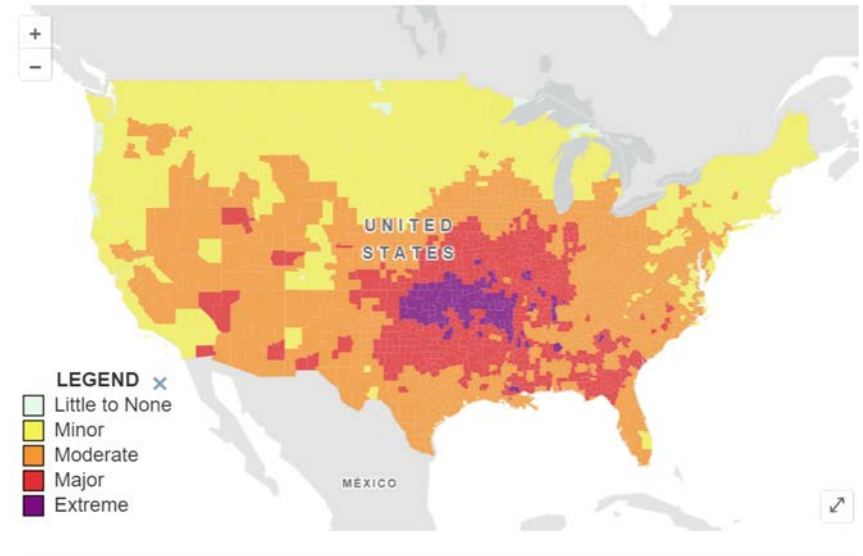
# CDC/NWS Heat & Health Resources

## Heat & Health Tracker



Rate of ED visits associated with heat-related illness per 100,000 ED visits by region

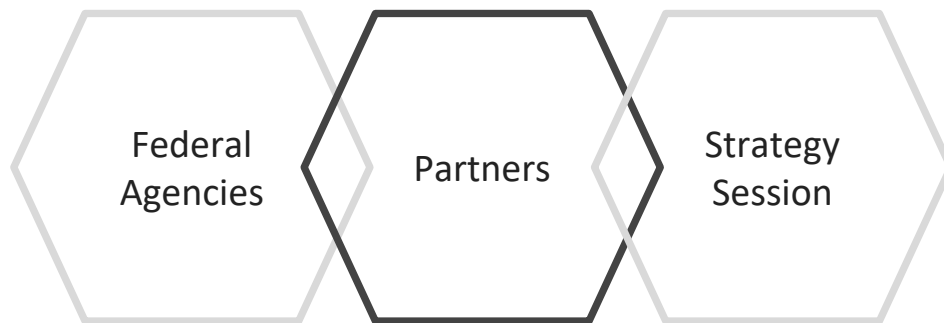
## Heat Risk



Heat Risk for Tuesday, June 25

# Federal Heat Communications Plan

A whole-of-government plan informed by government agencies to raise public awareness on dangers of heat through community engagement, infographics, webinars and workshops, social media campaigns, and more



**PREVENT BLACKOUTS DURING HEAT WAVES.**

- High energy use can strain the power grid. During heat waves, use less electricity.
- Take it easy on the A/C. Cool off, such as taking a shower.
- Turn off unnecessary lights and electronics.
- Unplug devices you're not using.
- Don't use the dishwasher.

**Heat Exhaustion**

**ACT FAST**

- Move to a cooler area
- Loosen clothing
- Sip cool water
- Seek medical help if symptoms don't improve

**Symptoms:** Dizziness, Thirst, Heavy Sweating, Nausea, Weakness

**Heat Stroke**

**ACT FAST**

**CALL 911**

- Move person to a cooler area
- Loosen clothing and remove extra layers
- Cool with water or ice

**Symptoms:** Confusion, Dizziness, Becomes Unconscious

Heat exhaustion can lead to heat stroke. Heat stroke can cause death or permanent disability if emergency treatment is not given.

CDC MASH Stay Cool, Stay Hydrated, Stay Informed!



# Social Media Campaigns

1. Early-Season Campaign 4/29-5/3
2. Mid-Season Campaign 7/15-8/16
3. Late-Season Campaign 9/23-9/27

NIHHIS Heat Safety Awareness Social Media Campaign  
April 29 - May 3, 2024

**NIHHIS**  
NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM

<b>APRIL 29</b>	Learn About Heat
Heat-related Illness Awareness	<b>APRIL 30</b>
<b>MAY 01</b>	National Heatstroke Prevention Day
Personal Risk Factors with Heat	<b>MAY 02</b>
<b>MAY 03</b>	Preparedness, Tools, & Resources

# Building Awareness and Critical Heat Datasets with Citizen Science



80+ community-led **urban heat island mapping campaigns** that build upon local partnerships to learn how heat is distributed.

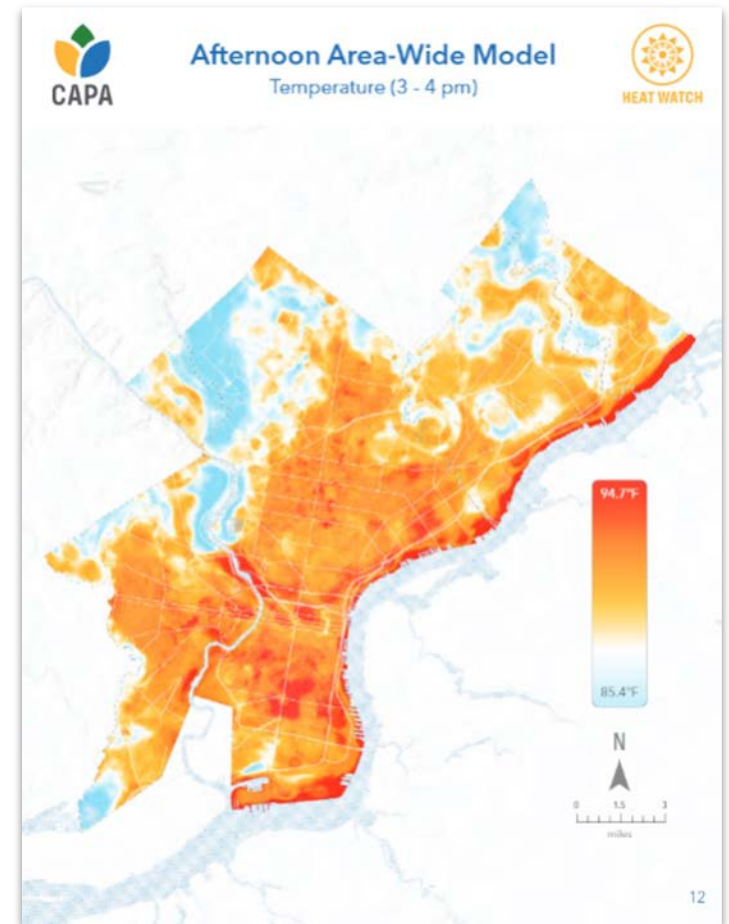
Past campaigns have successfully informed city sustainability plans, public health practices, urban forestry plans, and research projects.



## UHI Cities in the NE

### Cities in the Eastern Region

- Boston, Mystic River Watershed, Framingham, and Brockton, MA
- Scranton and Philadelphia, PA
- NYC
- Baltimore and Montgomery County, MD
- Burlington, VT
- Jersey City, Newark, and Elizabeth, NJ
- Wilmington, DE
- Washington, DC



Philadelphia, 2022

# Outcomes from Heat Mapping



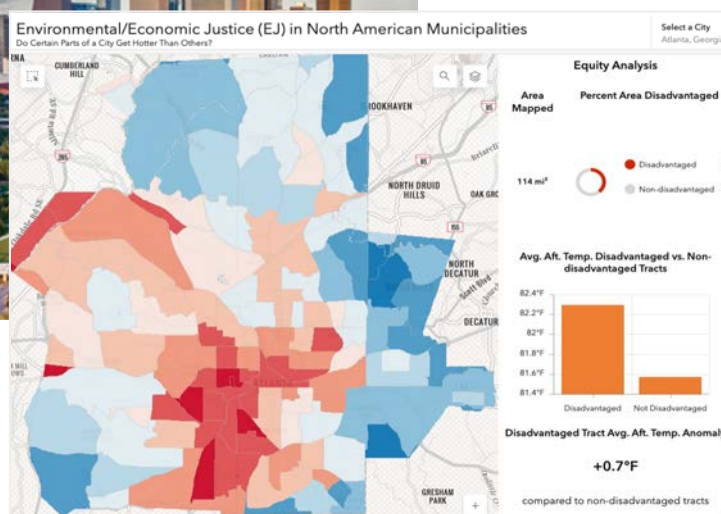
Awareness and Advocacy



Community Engagement



Resilience Planning & Grantmaking



Datasets for Evidence



Shade & Smart Surfaces



Urban Greening

## NOAA Climate and Equity Pilots

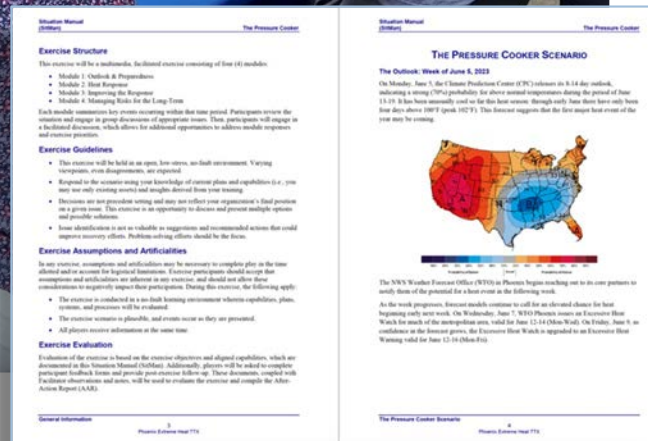
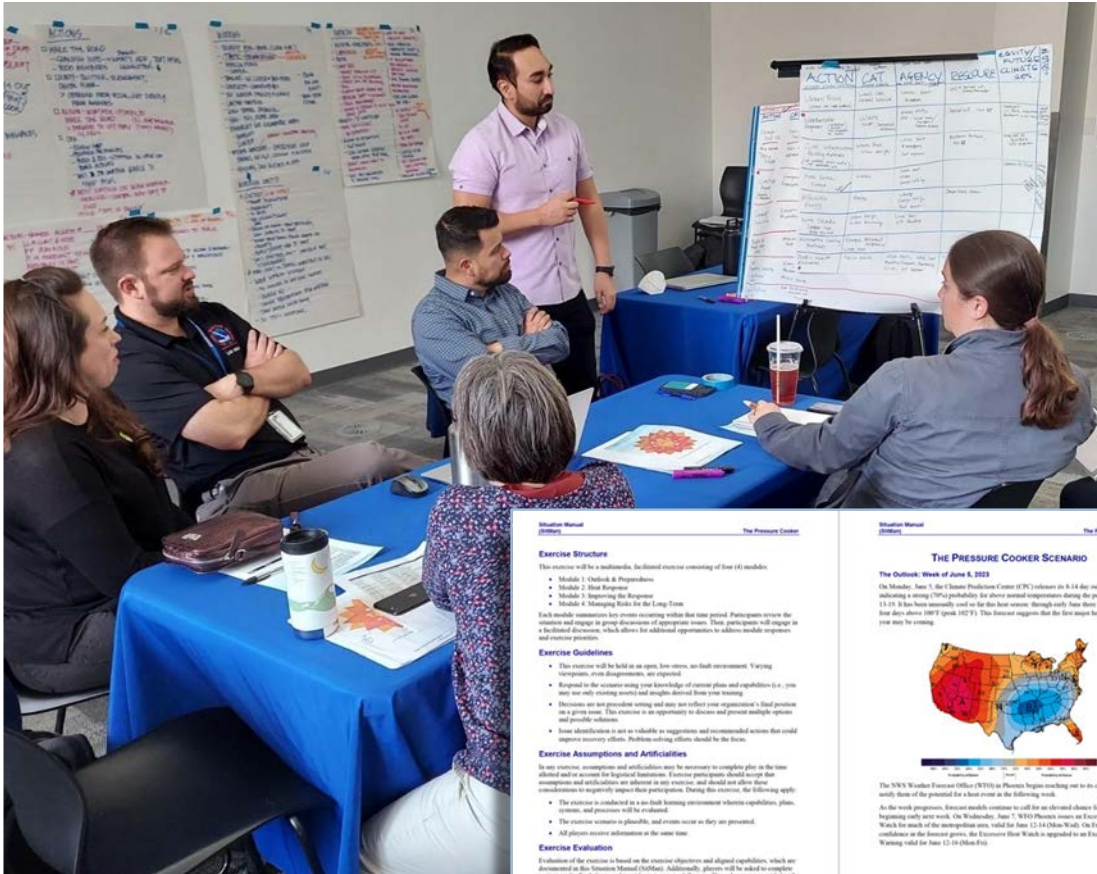
# NOAA Climate & Equity Roundtable Pilots: Heat

NOAA Regional Coordination Teams, RCSDs & NIHHIS piloted heat tabletop exercises in:

- Las Vegas, NV
- Phoenix, AZ
- Charleston, SC
- Miami, FL

The tabletops span timescales including resilience; they are planned with community-based organizations that serve at-risk groups.

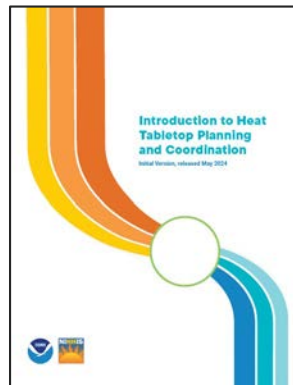
Ex Action: shaded bus stops



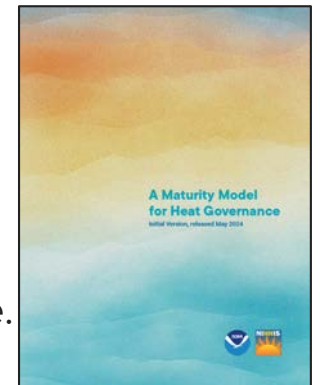
# Supporting Local Heat Action Planning, Heat Governance, and Tabletop Exercises



Heat **tabletop exercises** simulate extreme heat events and inform improvements to preparedness, response and long-term resilience.



The **maturity model for heat governance** allows leaders and decision-makers to evaluate institutional posture and improve heat governance.





## Center for Collaborative Heat Monitoring



Supports **community science** data collection on extreme heat so communities can observe, monitor and evaluate factors influencing heat risk at a local scale

## Center for Heat Resilient Communities



Determines **best strategies** for mitigating and managing local heat, leveraging federal investments to reduce heat risk, and developing data-driven solutions



# Stay Connected with NIHHIS



- **Website:** [HEAT.GOV](https://HEAT.GOV)
- **Email:** [nihhis@noaa.gov](mailto:nihhis@noaa.gov)
- **Newsletter:**  
[bit.ly/HeatBeatNewsletter](https://bit.ly/HeatBeatNewsletter)
- **X/Twitter:** @HeatGov