

Heat waves like the one that's killed 14 in the southern US are becoming more frequent and enduring

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Tubers float the cool Comal River in New Braunfels, Texas, Thursday, June 29, 2023. Meteorologists say scorching temperatures brought on by a heat dome have taxed the Texas power grid and threaten to bring record highs to the state. Credit: AP Photo/Eric Gay

Heat waves like the one that engulfed parts of [parts of the South and Midwest](#) and killed more than a dozen people are becoming more common, and experts say the extreme weather events, which claim more lives than hurricanes and tornados, will likely increase in the future.

A [heat](#) dome that pressured the Texas power grid and killed 13 people there and another in Louisiana pushed eastward Thursday and was expected to be centered over the mid-South by the weekend. Heat index levels of up to 112 degrees (44 Celsius) were forecast in parts of Florida over the next few days.

Eleven of the [heat-related deaths](#) in Texas occurred in Webb County, which includes Laredo. The dead ranged in age from 60 to 80 years old, and many had other [health conditions](#), according to the county medical examiner. The other two fatalities were Florida residents who died while hiking in extreme heat at Big Bend National Park.

Scientists and medical experts say such deaths caused by extreme heat will only increase in the U.S. each summer without more action to combat [climate change](#) that has pushed up temperatures, making people especially vulnerable in areas unaccustomed to warm weather.

"Here in Boston we prepare for snowstorms. Now we need to learn how to prepare for heat," said Dr. Gaurab Basu, a primary care physician and the director of education and policy at the Center for Climate, Health, and the Global Environment at Harvard T.H. Chan School of Public Health.



Workers repair a power line on Thursday, June 29, 2023, in Houston. An unrelenting heat wave in Texas is testing the state's power grid as demand soars during a second week of triple-digit temperatures. Credit: AP Photo/David J. Phillip

Planting more trees to increase shade in cities and investing in green technology like [heat pumps](#) for home cooling and heating could help, Basu said.

Extreme heat already is the deadliest of all weather events in the United States, including hurricanes, tornadoes, wildfires and flooding.

"Heat waves are the deadliest because they affect such large areas and can go on for days or weeks," said Joellen Russell, a climate scientist

who teaches at the University of Arizona in Tucson and is currently on a Fulbright scholarship in Wellington, New Zealand. "And they catch people by surprise."

Phoenix, the hottest large city in America, faces an excessive heat warning headed into the weekend. Dangerously hot conditions are forecast from Saturday through Tuesday, including temperatures of 107-115 degrees (41.6-46.1 Celsius) across south-central Arizona.



Tubers float the cool Comal River in New Braunfels, Texas, Thursday, June 29, 2023. Meteorologists say scorching temperatures brought on by a heat dome have taxed the Texas power grid and threaten to bring record highs to the state. Credit: AP Photo/Eric Gay

"Arizona already understands heat to a certain extent, but it's getting hotter for us, too," said Russell. "That means a lot of people will continue to die."

Counting heat deaths has become a science in Arizona's Maricopa County, which includes metro Phoenix. The county tallied 425 heat-associated deaths last year, a 25% increase over 2021.

Located in the Sonoran Desert, Maricopa County counts not just deaths due to exposure but also deaths in which heat is among several major contributing factors, including heart attacks and strokes.

The county's Office of the Medical Examiner updates suspected and confirmed heat-associated deaths [every week](#) through the warm season, which runs from May through October. So far [this season](#), there have been six heat-associated deaths in Maricopa County, home to nearly 4.5 million people.



Lucas Harrington, age 7, cools off in a mister at Kauffman Stadium as temperatures approach 100 degrees fahrenheit before a baseball game between the Kansas City Royals and the Cleveland Guardians, Wednesday, June 28, 2023, in Kansas City, Mo. Credit: AP Photo/Charlie Riedel

Dr. Sameed Khatana, a staff cardiologist at the Philadelphia VA Medical Center and assistant professor at the University of Pennsylvania's Perelman School of Medicine, said deaths in which heat contributed significantly to fatalities from causes like heart failure should also be considered to provide a more complete picture.

Khatana participated in research published last year that suggested that from 2008 and 2017 between [13,000 to 20,000 adult deaths](#) were linked to [extreme heat](#), about half [due to heart disease](#).

Older people and those with diabetes, obesity, heart disease and other serious health conditions are most at risk, he said.

"Hurricanes, flooding and wildfires are very dramatic," said Khatana. "Heat is harder to see and especially affects people who are socially isolated or living on the margins."



Jase Howard plays in the water with his cousin Denim Howard at the Ormond Spray Park in Destrehan, La., on Tuesday, June 27, 2023. Credit: Brett Duke/The Advocate via AP

The city of Phoenix's Office of Heat Response and Mitigation has opened summertime shelters for homeless people, operates cooling

centers in libraries and other community spaces to help people get out of the sun and distributes bottled water, hats and sunscreen. The city also has a "Cool Callers" program with volunteers dialing vulnerable residents who ask to be checked on during hot periods.

Even the Phoenix Zoo is taking measures to cool off the monkeys, big cats and rhinos, spraying them with water, delivering frozen treats, and providing shaded areas and cooled water pools.

Extreme heat deaths are a global problem.

Mexican health authorities this week said there have been at least 112 heat-related deaths so far this year, acknowledging for the first time the deadliness of a recent heat wave that President Andrés Manuel López Obrador previously dismissed as an invention of alarmists.



Chutti, a rhinoceros at the Phoenix Zoo, gets cooled off by keeper Leslie Lindholm, Tuesday, June 27, 2023, in Phoenix. As triple digit temperatures become the norm, the zoo utilizes cooling techniques for the animals that include spraying, frozen treats, shaded areas, pools of water, and earlier morning hours for guests in an effort to keep animals cool. Credit: AP Photo/Matt York



Neelam Tamar, 25, suffering from heat stroke, recovers at the Lalitpur district hospital, in Indian state of Uttar Pradesh, Saturday, June 17, 2023. Extreme heat is fast becoming a serious public health crisis in India. Credit: AP Photo/Rajesh Kumar Singh



Cheetahs eat frozen bloodcicles at the Phoenix Zoo, Tuesday, June 27, 2023, in Phoenix. As triple digit temperatures become the norm, the zoo utilizes cooling techniques for the animals that include spraying, frozen treats, shaded areas, cooled pools of water, and earlier morning hours for guests in an effort to keep animals cool. Credit: AP Photo/Matt York



Jitendra Kumar, a paramedic who travels in ambulance, washes his face with water to cool himself off after dropping a patient at Lalitpur district hospital, in Banpur, in Indian state of Uttar Pradesh, Saturday, June 17, 2023. Credit: AP Photo/Rajesh Kumar Singh



Gilmer Guinn blows off the driveway of a home on Central Avenue while wearing a hat to protect himself from the sun in Memphis, Tenn., on Thursday, June 29, 2023. As dangerous heat and humidity smothered parts of the South and Midwest on Thursday, local governments and charities worked to protect poor and elderly residents by opening cooling stations and delivering donated air conditioners. Credit: Chris Day/The Commercial Appeal via AP



Norma Hicks walks down Linden Avenue with an umbrella to protect her from the sun in Memphis, Tenn., on Thursday, June 29, 2023. As dangerous heat and humidity smothered parts of the South and Midwest on Thursday, local governments and charities worked to protect poor and elderly residents by opening cooling stations and delivering donated air conditioners. Credit: Chris Day/The Commercial Appeal via AP



A kayaker and tubers float the cool Comal River in New Braunfels, Texas, Thursday, June 29, 2023. Meteorologists say scorching temperatures brought on by a heat dome have taxed the Texas power grid and threaten to bring record highs to the state. Credit: AP Photo/Eric Gay

The report released Wednesday also shows a significant [spike in heat-related fatalities](#) in the last two weeks. So far this year, Mexico's overall heat-related deaths are almost triple the figures seen in 2022.

A flash study released this spring said record-breaking April temperatures in Spain, Portugal and northern Africa were made 100 times more likely by human-caused climate change.

Deaths and widespread hospitalizations were caused by searing heat

wave that broiled parts of southern Asia in April with temperatures of up to 113 degrees (45 Celsius) was made at least 30 times more likely by climate change, according to a [rapid study](#) by international scientists.

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