Is climate change stressing us out? New study aims to find out

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Tulane University has been awarded $1 million to investigate how climate-induced factors impact mental health outcomes in five Gulf South states: Texas, Louisiana, Mississippi, Alabama, and Florida. (Photo by Shutterstock)

While the major impacts of climate change — more severe weather, rising seas and frequent wildfires — capture most of the headlines, a changing climate affects people in other, more subtle ways.

Communities may face regular flooding from stronger, more frequent rainstorms or more days sweltering in triple-digit temperatures that threaten the power grid and spike utility bills. Climate-driven events are stressing city infrastructure, but are they also causing more stress?

Tulane University has been awarded $1 million from the National Academy of Sciences' Gulf Research Program to investigate how climate-induced factors impact mental health outcomes in five Gulf South states: Texas, Louisiana, Mississippi, Alabama, and Florida.

Over the next three years, the project will assess this by mapping which communities are most vulnerable to several climate-induced factors – heat, air pollution, tropical cyclones, power outages, precipitation, drought, and relative humidity – and comparing that to reported mental health-related emergency room visits among Medicare and Medicaid patients.

"The Gulf South is one of the most vulnerable places for climate change impacts in the United States," said the principal investigator of this study, Mostafijur Rahman, an assistant professor of environmental health sciences at the Tulane University Celia Scott Weatherhead School of Public Health and Tropical Medicine. "However, there is a lack of comprehensive epidemiological research examining these impacts on the region. This study aims to fill that critical gap."

Using Medicare and Medicaid data means the study will examine the impacts of climate change on the South's most vulnerable populations. Further, the researchers will assess disparities in climate change-induced exposures based on socially disadvantaged neighborhoods or neighborhoods in close proximity to industrial plants in the five states studied.

The analysis will also measure access to green spaces and air conditioning to explore any potential mitigating effects on mental health challenges caused by climate change.

"The key goals are to identify which climate factors have the strongest association with mental health outcomes and map the most vulnerable communities and populations," Rahman said. "By pinpointing the most at-risk communities and effective interventions, this research will help inform targeted policies to mitigate the mental health impacts of our changing climate."

The study began this summer and will continue until July 2027.