

RESEARCH BRIEF SERIES

HEALTH AND EXTREME WEATHER

This research brief is part of an award program designed to address gaps in knowledge related to extreme weather disasters—such as wildfires, floods, extreme heat, and severe storms—that pose significant health risks, particularly for populations already experiencing health challenges.

AWARD RECIPIENTS

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AWARD AMOUNT:
\$49,620

EXPLORING THE MENTAL HEALTH IMPACT OF HURRICANE BERYL ON RACIAL MINORITIES IN HOUSTON, TEXAS

OVERVIEW

On July 8, 2024, Hurricane Beryl made landfall in Southeast Texas, causing widespread power outages, displacing thousands, and straining emergency response systems. This study aimed to understand how racial minorities experienced the storm, including the barriers they faced in accessing mental health resources and the coping mechanisms they used. The mixed methods research design involved conducting surveys (N=118) and focus groups (N=34 participants) with residents from two socially vulnerable neighborhoods in Houston that were directly impacted by the hurricane—the Third and Fifth Wards. These neighborhoods are majority Black and most residents have low incomes.

KEY FINDINGS

- Most survey respondents (61.0%) lost access to energy, water, or food during the emergency.
- Nearly half (44.9%) reported being unable to obtain needed health care—including medication, medical treatment, and therapy—due to medical facilities and pharmacies being closed, eligibility restrictions, or lack of awareness of disaster-related health care services.
- More than 70% were unaware that the Federal Emergency Management Agency (FEMA) provided crisis counseling services.



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- Focus group discussions revealed that residents were frustrated with bureaucratic hurdles that blocked access to financial and mental health support and exacerbated their emotional distress.

RESEARCH IMPLICATIONS

The findings demonstrate that residents in the Third and Fifth Wards experienced limited access to essential resources and medical care in the aftermath of Hurricane Beryl. Findings also showed that residents were unaware of disaster-related health care services, such as FEMA's crisis counseling. Targeted outreach—which is culturally responsive and community-driven—is needed to promote available services. In addition, many residents reported feeling uncertain or ill-prepared to cope with the disaster's impacts. This underlines the need for improved disaster preparedness programs that teach coping skills.

Full Report: Olonilua, O., & Aliu, J. O. (2025). *Exploring the Mental Health Impact of Hurricane Beryl on Racial Minorities in Houston, Texas*. (Natural Hazards Center Health and Extreme Weather Report Series, Report 6). Natural Hazards Center, University of Colorado Boulder. hazards.colorado.edu/health-and-extreme-weather-research/exploring-the-mental-health-impact-of-hurricane-beryl-on-racial-minorities-in-houston-texas