The frequency and severity of weather and climate-related disasters continue to rise in the U.S., affecting the resilience of communities and the health of their most vulnerable residents, including older adults. Disasters can disrupt access to health care services and community support, worsen existing health conditions, and contribute to new health concerns. Because chronic disease, frailty, memory impairment and limited mobility become more common with age, older adults are particularly vulnerable to the effects of disasters.

**Older adults in the U.S.**

The number of adults age 65+ is expected to nearly double by 2060, to an estimated 95 million. 85% have at least one chronic condition. 90% take at least one prescription medication.

**Takeaways from our research**

A University of Michigan team is studying the effects of weather and climate-related disasters on older adults in the U.S.

**1. Emergency planning**

Many older adults have not taken steps recommended by disaster preparedness agencies to prepare for disasters.

- 53% believed that they will experience a disaster or other emergency in the next year.
- 29% had a stocked emergency kit that follows recommended guidelines.
- 25% of those who use essential medical equipment that requires electricity (9% of respondents) had an alternative power source.
- 44% were signed up for an emergency alert warning system in their communities, and 33% were unsure if their communities had a system.

**2. Disruptions in health care**

Access to essential health care services for older adults—such as primary care, home health services, and treatments for chronic disease—becomes even more important after a disaster, yet disruptions in care occur.

In a study of home health agencies affected by Hurricane Harvey in Texas, 76% reported a disruption in services, despite 99% of agencies reporting that they had emergency preparedness plans in place. Nearly half of the disruptions lasted one week or longer.

**3. Long-term health outcomes**

Older adults may experience lasting negative health effects after disasters. Changes in daily routines and limited access to community services and health care may contribute.

- Older adults are hospitalized in larger numbers not just immediately, but also in the weeks following large-scale disasters.
- Living through a disaster has been linked to changes in healthy living, such as weight gain and decreased physical activity, among older adults.
- Breast cancer patients who lived through Hurricane Katrina in 2005 had a significantly higher death rate than similar patients not exposed to the storm, in the 10 years following the disaster.

*The National Poll on Healthy Aging conducted a survey of adults age 50-80 years old in May 2019.*
What does this mean for health policy and practice discussions?

Emergency preparedness

- At-risk older adults—those who are socially isolated or live with disabilities, for example—can benefit from emergency preparedness planning that is tailored to their specific needs.
- Discussing emergency preparedness with older adults during routine health care visits, especially in advance of hurricane or wildfire seasons, can support them in taking steps to be prepared.
- Communication to older adults about disasters and emergencies should be tailored to their preferences for receiving information. For example, our findings suggest that older adults tend to get information about emergencies from TV, rather than the internet.

Preparing for increased health care needs and service disruptions

- Health care systems should plan for the increased needs of older adults in the weeks and months after a disaster, particularly those with chronic conditions or disabilities.
- Our research indicates that hospital surge planning could be critical for up to a month after a disaster. Current standards call for immediate availability of 20% of staffed beds within four hours of a declared disaster, but planning for increased admissions for a longer period is necessary.
- Since 2017, the Centers for Medicare and Medicaid Services has required that participating providers have an emergency preparedness plan in place. Yet, our research finds that disruptions in services persist. The effectiveness of these plans should be regularly evaluated to determine how they have been deployed and to assess their impact and remaining gaps in health care system disaster response.
- Home health agencies can work to minimize disruptions in services; key challenges include addressing issues with staffing and following clients who have evacuated or relocated after a disaster.

Supporting communities in promoting healthy aging

- Establishing, or enhancing existing, partnerships between community agencies, health care systems, faith-based organizations and local public safety agencies can strengthen community ties in advance of an emergency.
- Older adults and the community agencies that serve them can participate in local emergency preparedness activities, such as free or low-cost drills, simulations, or courses on preparedness.
- Local aging organizations should work with emergency response professionals to develop programming to increase awareness about preparing for emergencies.

Our published research


Health Outcomes After Disaster for Older Adults with Chronic Disease: A Systematic Review. Bell SA, Horowitz J, Iwashyna TJ. 2019 Sept 7. doi: 10.1003/jgermfonc123.


Additional references


To download this brief, visit: ihpi.umich.edu/disasters

For more information, please contact Eileen Kostanecki, IHPI’s Director of Policy Engagement & External Relations, at ekostan@umich.edu or 202-554-0578.

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