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This year's hurricane season highlights urgency of hospital preparedness

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The Buzz This Week

Hurricane Helene, a Category 4 storm, struck Florida on September 26, causing widespread destruction across six states and more than 230 deaths, a number expected to rise. Now, Hurricane Milton hit Florida 2 weeks later as a Category 3 storm, triggering numerous tornadoes, complicating recovery efforts, and bringing destruction of its own.

National Oceanic Atmospheric Administration (NOAA) forecasts an 85% chance of an above-normal 2024 Atlantic hurricane season. Colorado State University is predicting 25 named storms, including six major hurricanes (Category 3+). Climate change is causing more frequent and severe storms every year, not just in 2024.

Studies show that hurricanes in the Atlantic Ocean are now twice as likely to intensify from a weak storm to a major Category 3 or higher hurricane within 24 hours, compared to previous decades. This rapid intensification leaves less time for communities to prepare and evacuate, further exacerbating the damage and human toll.

Given this heightened activity, experts are urging hospital leaders to act because health systems are also vulnerable during disasters. Paul Biddinger, Chief Preparedness and Continuity Officer at Mass General Brigham and Director of the Emergency Preparedness Research, Evaluation, and Practice program at the Harvard T. H. Chan School of Public Health, stated, "I think people have traditionally assumed that the hospital will be open, the hospital will be there for them in the disaster. And we have seen many times that that isn't true."

A 2022 study analyzed 78 cities along the Atlantic and Gulf coasts. In approximately one-third of these cities, at least half of the hospitals are vulnerable to flooding, even from weaker hurricanes.

The research underscores a growing concern: The projected sea level rise will increase the likelihood of coastal hospital flooding by 22% by the end of the century. This highlights the critical need for hospital preparedness. With hurricanes intensifying, researchers emphasize that hospitals must enhance their resilience against both the direct effects of hurricanes and the accompanying flooding.

Why It Matters

As climate patterns shift, the unpredictable nature of these storms demands flexible and innovative approaches. However, many hospitals, particularly rural facilities and community health centers, face significant challenges due to limited resources and knowledge of climate resilience strategies.

To protect patients and facilities, hospitals need to adopt a dual strategy that focuses on preparedness and prevention. In the short term, facilities should review and enhance disaster plans, focusing on well-defined communication procedures, staffing strategies, and facility access and transportation logistics. These considerations should be part of a comprehensive business continuity plan that includes detailed playbooks covering a variety of scenarios.

As the authors of an article in The Lancet suggest, “Healthcare leaders should be thinking about implementing innovative ways to keep staff trained and ready by providing high-fidelity simulations and realistic live exercises. An example pertinent to hurricane preparedness would be to simulate operating a hospital for 96 (hours) on diesel generators while at the same time coordinating a response to both a hurricane and a cyberattack.” Such rigorous training can significantly improve a hospital’s resilience and readiness in the face of multiple simultaneous challenges.

In addition, health systems must address the mental health impact of extreme weather events on patients and providers. Such events can intensify stress, anxiety, and other mental health challenges, especially in vulnerable communities that may already be at risk. By integrating mental health support into emergency planning, hospitals can better address the holistic needs of their communities.

Long-term strategies should prioritize sustainability and climate-resilient infrastructure, including green energy solutions like solar panels and durable, sustainable building materials. Collaboration with the local government and stakeholders is key to securing critical infrastructure and information, such as power grids and emergency transportation routes. This is especially true in vulnerable coastal areas. As able, hospitals should also consider embracing sustainable practices to reduce their carbon footprint, as the healthcare sector is a major contributor to US emissions.

While climate change presents a serious ongoing challenge, health systems can act to safeguard providers and the communities they serve. Hospitals also must prioritize climate change strategies, with commitment from executives to front-line staff. The benefits of sustainability and resilience interventions are clear, offering both public health and economic advantages. Though these efforts won’t reverse climate change, they will significantly strengthen preparedness for the challenges ahead.

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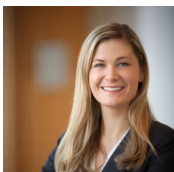
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