

COMMUNITY HEALTH AND ENVIRONMENT

Assessing Impact and Improving Resilience

Community Health and Emergency Preparedness Strategies for Hazardous Weather

WORKSHOP 7 SNAPSHOT





About

The American Hospital Association's Community Health and Environment initiative offers insights and resources to support hospitals and health systems and their strategic partners in addressing the health impacts of hazardous weather and associated environmental conditions on their communities and patient populations. As part of this initiative, a workshop was hosted in Orlando, Fla., with hospital and health system leaders.

This workshop, the seventh and last in a series, focused on how hospitals and community partners are addressing the health impacts of hazardous weather — with an emphasis on emergency preparedness — and how these issues can be incorporated into ongoing community health assessments (CHAs), community health implementation plans (CHIPs) and daily operations.

Insights and strategies from other workshops convened as part of this initiative are available at [AHA.org/community-health-environment/workshops](https://www.aha.org/community-health-environment/workshops).

Key Themes

Workshop participants identified five interconnected themes that highlight opportunities to strengthen community health and emergency preparedness strategies and address the health impacts of hazardous weather:

- Applying emergency preparedness lessons to population and community health strategies.
- Leveraging community partnerships to support safe housing during and after hazardous weather.
- Identifying environmental conditions that amplify community health risks.
- Strengthening cross-sector partnerships to enhance emergency response.
- Supporting community resilience in health care planning.



Applying Emergency Preparedness Lessons to Population and Community Health Strategies

Florida's frequent exposure to hurricanes, extreme rainfall levels and significant heat events has created deep organizational knowledge about emergency preparedness and response. Workshop participants emphasized the importance of translating this knowledge into long-term community health improvement strategies.

Hospital and health system leaders at the Florida workshop described substantial emergency response efforts that took place during Hurricane Ian in 2022. Challenges included addressing an unexpected fire risk in an auxiliary hospital facility while power systems were strained, deploying mobile technology and Wi-Fi units when conventional communications channels failed, and supporting hospital staff that were coping with significant damage to their own homes. Severe weather can stress local communications and power systems and reduce emergency response capacity, ultimately shaping how hospital and health system operations and patient care proceed.



TACTICAL TAKEAWAYS

- Hospitals in Florida are integrating lessons gained from hurricane responses, including evacuation logistics and continuity of care planning, into long-term community health strategies.
- Digital health systems can support emergency preparedness beyond facility operations, including using electronic health record data to help identify patients most at risk from hazardous weather events. Working with community and public health partners can support outreach and continuity of care before, during and after disruptions from hazardous weather.



Leveraging Community Partnerships to Support Safe Housing During and After Hazardous Weather

Participants highlighted the impact of housing and shelter instability on community health during severe weather events. Many people live or work in environments where heat, moisture intrusion or limited cooling significantly worsen chronic conditions such as asthma, cardiovascular disease and diabetes.

Participants noted that after hurricanes, patients may continue living in residences that exhibit persistent environmental hazards, such as moisture or mold issues, since alternative housing options are not readily available or feasible.

TACTICAL TAKEAWAYS

- Screening for social drivers of health during patient encounters in emergency departments can help identify health risks and unstable living conditions. Screenings also can assess risk of social isolation and lack of existing support networks. This data can inform which patients may need extra assistance before, during or after an extreme weather event.
- Indoor toxic exposures following hazardous weather events can be particularly harmful to children with asthma, older adults with respiratory or cardiovascular disease, and other at-risk populations. While many home remediation programs are designed to support homeowners, renters may face additional barriers.

For example, renters may need to coordinate remediation with their landlords or property managers, which can delay or limit access to these interventions.

- Some hospitals and health systems are working with community partners to conduct home visits and connect patients with community resources that could offer needed assistance.
- Hospitals and health systems can screen for unstable housing conditions and incorporate housing challenges as part of care planning, discharge decisions and community health assessment processes.



Identifying Environmental Conditions That Amplify Community Health Risks

Environmental conditions such as extreme heat, flooding, mold exposure, cold snaps and power loss intensify the community health challenges that hospitals and health systems already are working to address, including the impacts on respiratory and cardiac disease, food insecurity and chronic conditions. Severe weather events illuminate which populations have fewer buffers when conditions worsen, giving hospital and health system teams clearer insight into where more support, better coordination, and focused prevention or mitigation efforts may be needed.

Workshop participants noted that operational disruptions during hurricanes, wildfire smoke events and prolonged heat waves can expose the same underlying issues that drive ED visits throughout the year. For example, people living in poorly cooled or moisture-damaged environments may experience worsening asthma and diabetes symptoms; individuals facing food insecurity struggle more immediately after storms interrupt services; and community members with mobility challenges or limited support networks face greater difficulty accessing cooling centers or routine health care.

Rather than treating hazardous weather and associated environmental conditions as distinct risk factors, workshop participants emphasized using these amplification patterns to better understand population needs, anticipate who is most likely to be affected during future events, and identify opportunities for more coordinated support across clinical teams, community partners and emergency preparedness teams.

TACTICAL TAKEAWAYS

- Spikes in respiratory illness, household environmental risks (such as mold) and nutritional needs during major weather events tend to mirror challenges that persist year-round. This helps organizations identify which issues represent the greatest community health risks.
- Based on ED usage data during heat waves, flooding and cold snaps, it is possible to determine which patients have limited access to cooling, safe shelter, transportation, food or medical care continuity, highlighting who may require additional proactive outreach or coordination in nonemergency situations. Clinicians, social workers, emergency managers and community partners observe the variety of ways that hazardous weather can strain existing health and social services. Comparing these observations can help identify emerging vulnerabilities and inform holistic planning.





Strengthening Cross-Sector Partnerships to Enhance Emergency Response

Workshop participants noted that during recent storms and heat events in Florida, hospitals and health systems collaborated with community organizations to address a variety of community health and social needs. For example, working with emergency management teams made evacuations smoother; collaborating with faith leaders facilitated more rapid community communications; and collaborating with housing tenant groups helped address shelter conditions.

Participants also emphasized looking for opportunities to bridge any gaps between emergency preparedness and community health teams, each of which operate with distinct goals and organizational structures. Hospitals and health systems can use vulnerability assessments to identify populations at elevated risk during hazardous weather events. These risks may overlap with those addressed through population health and public health efforts. Cross-team alignment can help hospitals and health systems better understand and address how day-to-day social needs become acute risks during severe weather.



TACTICAL TAKEAWAYS

- Faith communities are effective partners for distributing real-time information before, during and after emergencies, serving as a trusted resource to reach people where they live and gather.
- Clinicians, who have observed pediatric respiratory impacts during periods with increased wildfire smoke, can provide education and outreach at schools, in the classroom or during after-school programs, to connect with students and their families.
- Community health, emergency preparedness, sustainability and clinical care teams are increasingly recognizing their interdependencies around hazardous weather-related health issues and response.
- Monthly cross-system partnership convenings promote sharing strategies and messaging to help educate community residents about heat, mold and flooding issues.



Supporting Community Resilience in Health Care Planning

The resilience of communities in navigating the health impacts of hazardous weather relies on their understanding of how different population groups experience such impacts. Older adults, people managing chronic conditions, agricultural and outdoor workers, families living in homes with moisture problems or limited cooling, residents unable to relocate after storms, and individuals without reliable access to shelter, transportation or support networks — all these community members face heightened challenges when hazardous weather events occur.

Workshop participants highlighted the need for education and outreach — within hospitals and in the broader community — to help people recognize the health impacts of hazardous weather events, understand how weather can worsen chronic conditions, and know when and how to seek assistance.

TACTICAL TAKEAWAYS

- Framing the impact of hazardous weather by emphasizing core health outcomes, such as respiratory and cardiovascular health, helps strengthen organizational buy-in.
- Some older adults and families avoid cooling centers because transit to them involves unshaded or unsafe travel, highlighting the importance of recognizing structural barriers to accessing community support.
- Home health aides, Meals on Wheels teams and community health workers can identify environmental risks during routine visits to patients' homes and then relay this information to front-line hospital leaders and clinical teams.

WORKSHOP-GENERATED EXAMPLE

Partnering to Advance Weather-Resistant Housing — Health-Driven Strategies for Residents and the Local Workforce

The Problem

People who live in buildings with maintenance issues, poor insulation, insufficient cooling or exposure to pollutants are more vulnerable to conditions that undermine health. Safer housing that is designed to protect against hazardous weather is linked to better overall health. Hospitals and health systems can work with community partners to help address these upstream drivers of health and well-being.

**The Big Idea**

Hospitals and health systems, local governments and community organizations can collaborate to facilitate safer homes for renters and middle-income households by combining services including housing assessments, community amenities and education.

Key approaches identified by workshop participants include:

- Establishing medical-legal partnerships to help renters navigate housing concerns that affect health.
- Collaborating to conduct home assessments, including for renter-occupied housing. Assessments can focus on air quality, energy use and hazardous weather risks that may contribute to illness or unsafe indoor temperatures.
- Delivering education on how home maintenance links to health, such as helping residents understand how ventilation, moisture control and energy efficiency affect chronic conditions, stress levels and heat exposure.
- Partnering with organizations that are creating “resilient” housing options. Such housing is more energy efficient and supports healthier indoor environments for renters.

Together, these approaches can help improve indoor environmental conditions and reduce health burdens.

Impact

- Improved indoor air quality and reduced exposure to stressors such as hazardous weather.
- Lower household stress through reduced energy costs and improved home efficiency as it relates to health.
- Overall improvement in individual and community health outcomes.

Hospital and Health System Benefits

- Greater workforce stability as a result of more reliable housing options.
- Reduced chronic respiratory illness, fewer heat-exacerbated illnesses and decreased ED visits.
- Improved medical surge management during hazardous weather events, supporting better hospital throughput.
- Enhanced relationships with community partners.
- Long-term community health gains, even if immediate returns are qualitative.

Assumptions and Risks

- Strong coordination with community partners, utilities and builders is essential.
- Returns on investment may accrue primarily to patients and communities rather than directly to hospitals and health systems.
- Organizational costs, staffing constraints and competing priorities may limit the pace or scale of implementation.



Example Initiative

Children’s Mercy Hospital — Home Environmental Assessments. Children’s Mercy Hospital in Kansas City, Mo., operates a hospital-led program that sends environmental health specialists to visit the homes of children hospitalized with severe asthma or respiratory infections. The purpose of these visits is to identify and address any environmental triggers. The hospital’s toxicology and environmental health team conducts comprehensive assessments examining moisture, ventilation, allergens and other indoor environmental exposures that can affect a child’s respiratory health. Specialists provide education to parents and caregivers on how ventilation, moisture control and home maintenance practices affect chronic conditions. These specialists also share recommendations for eliminating exposure to asthma triggers and maintaining a safe, healthy home. The hospital connects families to nonprofit agencies, government programs and business partners that can help address identified issues, including providing weatherization and home repair services.

Top Takeaways for Leadership

- **Crafting messaging that emphasizes the health impacts of hazardous weather events can increase reach and engagement.** Framing the impacts of hazardous weather by emphasizing core health outcomes, such as exacerbation of respiratory and cardiovascular conditions, can broaden engagement and reinforce internal alignment across the organization.
- **Hazardous weather poses risks to operations as well as community health.** Power, water, staffing and EHR reliability are critical to providing health care services; hazardous weather events can threaten each of these.
- **Regional collaborations can address continuity of care challenges.** Collaborations and partnerships among hospitals, health systems and community organizations can improve emergency preparedness, prevent duplication of efforts and build shared strategies that benefit entire communities.
- **Investing in community-level prevention can reduce demands on emergency services during hazardous weather events.** Partnering with community-based organizations to address social and environmental factors upstream, such as housing stability and food insecurity, can reduce demands on emergency services, improve patient and community health outcomes, and support long-term resilience.



For more information on AHA's Community Health
and Environment initiative, visit
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