Weather Emergencies and Their Human Impacts – Learning From the Past To Prepare for the Future

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Making Health Care Better Together

About Alliant Health Solutions
Bobby joined the Jensen Hughes team in February 2019. He brings 30+ years of emergency and disaster services and response management experience, with more than 15 years specific to the health care industry. Bobby is a respected industry leader and educator with experience developing standards and requirements and managing cross-functional teams to analyze complex problems and generate solutions. He leads multi-disciplinary teams specializing in system preparedness, emergency response and recovery, program evaluation, Continuous Quality Improvement, and policy development.

Before joining Jensen Hughes, Bobby was a consultant for the Department of Homeland Security in Washington, D.C., where he supported leadership and major operating stakeholders within DHS through the development of key administrative and regulatory medical policy designed to standardize and validate the delivery of health care at one of the U.S. Government’s largest, most complex organizations.

Bobby has a long history in the Southeast and is Jensen Hughes' Service Line Leader for Healthcare + Emergency Management.
Objectives

+ Understand trends in weather events and predicted changes impacting the Southeast.
+ Recognize the impact of disaster-related trauma incurred by residents, patients, staff, and others.
+ Learn how risk assessments may need to be modified to address predicted changes.
+ Differentiate planning for consequences vs. causes.
“About half of all U.S. counties have had at least 10 federally declared disasters. Here are the counties with the most:”

- Lawrence County, Kentucky (30)
- Caddo County, Oklahoma (30)
- Johnson County, Kentucky (28)
- Perry County, Kentucky (28)
- Magoffin County, Kentucky (28)
- Logan County, Oklahoma (27)
- Breathitt County, Kentucky (26)
- Lafourche Parish, Louisiana (26)
- Floyd County, Kentucky (26)
- Owsley County, Kentucky (26)
- Canadian County, Oklahoma (26)
- Okmulgee County, Oklahoma (26)
Changing Weather Patterns

+ Extreme weather events and long-term changes in climate are making hazards more frequent and/or intense, and physical hazards are compounded by existing stressors and inequities.

+ EPA 8/2022 – “Scientific studies indicate that extreme weather events such as heat waves and large storms are likely to become more frequent or more intense.”
The United States is Earth’s punching bag for nasty weather.

“If the United States as a whole has it bad, the South has it the worst,” said University of Georgia meteorology professor Marshall Shepherd.

“We drew the short straw (in the South) that we literally can experience every single type of extreme weather event,” Shepherd said. “Including blizzards. Including wildfires, tornadoes, floods and hurricanes. Every single type... There’s no other place in the United States that can say that.”
The Risk Assessment

What Are We Assessing?

+ Probability
+ Impact
+ Preparedness
+ Internal Response
+ External Response

The Challenges of Change

+ Probability
+ Historical vs. Predictive
+ Careful of “that won’t happen here”
+ Consult the widespread data available
## Consequences vs. Causes

Consequence management occurs through the consideration of the wider ramifications of an emergency event.

- This approach moves the focus from a specific hazard to broader consequences affecting a community, regardless of the hazard source.

### Causes (specific hazards)
- Fire
- Tornado
- Hurricane
- Flooding
- Snow / Blizzard

### Consequences
- Evacuation
- Loss of use of a building/area
- Utility failure (Power, Water, Sewer, etc.)
- Loss of supply chain
- Loss of Systems (nurse call, Care record, etc.)
**Impacts of Events on People and Facilities**

**The Light on the Hill**

+ Utility outages are likely to occur during significant weather events.
+ People may seek shelter in hospitals and other air-conditioned public facilities with backup generators whether they are sick or not. This puts additional strain on health care facilities.
+ PBS 4/2023 – “Safety can be bought. Those that are well-to-do and who have resources can buy safety and will be the most resilient when disaster strikes… Unfortunately, that isn’t all of us. Poverty makes it hard to prepare for and bounce back from disasters, especially in the South.” - Northern Illinois meteorology professor Walker Ashley
Impacts of Events on People and Facilities

+ Staff and their families are not immune to the impacts of an event. Plan for how to help your staff so they feel safe and confident enough to come to work.

+ Workers may be at increased risk due to temperature extremes within facilities due to loss of utilities.

+ And don’t forget, we should probably think about the people we provide care for:

+ Patients and Residents
Impacts of Events on People and Facilities

+ It has been shown that there is a relation between heat and violence, especially after heat waves.
+ Studies have found that extreme weather may also lead to PTSD for some. PTSD in flood and storm settings are among the top three most common combinations of mental health outcomes. There is an increased frequency in people residing in low and middle-income areas.
+ Weather-related disasters are often followed by secondary stressors, including financial strain, displacement, and disruptions in social support networks, that can exacerbate risks, especially for individuals and groups with preexisting vulnerabilities or highly exposed.
+ Vulnerable groups at risk = the economically disadvantaged, elderly, disabled, prisoners, substance abusers, and children.
Impacts of Events on People and Facilities

+ **Transfer Trauma or Relocation Stress Syndrome** - Can occur when an individual moves from one location to another. It can lead to a decline in their physical and emotional well-being, leading to significant health complications and even premature death.

+ The University of California and California State University analyzed existing EEG scans of California’s 2018 Camp Fire survivors. They then compared the group to a control population that had never been exposed to the fire, finding that *those who survived the fire showed significant differences in brain activity and cognitive function.*

+ The University of Rochester found that *trauma can be life-changing for an individual, physically altering the brain,* which appears to re-wire after these experiences.
Resources

+ HHS ASPR, Technical Resources, Assistance Center, and Information Exchange (TRACIE)
  https://asprtracie.hhs.gov/

+ U.S. Climate Resiliency Tool Kit
  https://toolkit.climate.gov/regions/southeast

+ International Society for Traumatic Stress Studies
  https://istss.org/home
Questions?
Thank You!

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Take a Proactive Approach to Emergency Preparedness Planning

Don’t Wait Until an Emergency Happens:

Our Alliant Health Solutions State Quality Managers and Quality Advisors are here to provide coaching and resource support when:

1. Creating or revising your emergency preparedness plans
2. Planning tabletop or full-scale exercises
3. Executing your plans during a disaster
4. Debriefing after a disaster
5. Incorporating your EPP plans into your QAPI program

Please reach out to us at: nursinghome@allianthealth.org

Emergency Preparedness Plans (EPP) – A Guide to Resources and Templates for Nursing Homes
Trauma-Informed Training Modules for Frontline Staff

Learning Objectives

• Learn about trauma-informed care and why we are on this journey

• Describe the signs of trauma reactions

• Learn how our own experiences affect how we respond to people

• Understand ways to respond to residents’ needs

• Identify how and when to report signs of trauma
Nursing Home and Partnership for Community Health: CMS 12th SOW GOALS

**OPIOID UTILIZATION AND MISUSE**
- Promote opioid best practices
  - Reduce opioid adverse drug events in all settings

**PATIENT SAFETY**
- Reduce hospitalizations due to c. diff
  - Reduce adverse drug events
  - Reduce facility acquired infections

**CHRONIC DISEASE SELF-MANAGEMENT**
- Increase instances of adequately diagnosed and controlled hypertension
  - Increase use of cardiac rehabilitation programs
  - Reduce instances of uncontrolled diabetes
  - Identify patients at high-risk for kidney disease and improve outcomes

**CARE COORDINATION**
- Convene community coalitions
  - Reduce avoidable readmissions, admissions to hospitals and preventable emergency department visits
  - Identify and promote optimal care for super utilizers

**COVID-19**
- Support nursing homes by establishing a safe visitor policy and cohort plan
  - Provide virtual events to support infection control and prevention
  - Support nursing homes and community coalitions with emergency preparedness plans

**IMMUNIZATION**
- Increase influenza, pneumococcal, and COVID-19 vaccination rates

**TRAINING**
- Encourage completion of infection control and prevention trainings by front line clinical and management staff
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