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Mission Accomplished: How a Hospital Sheltered in Place, Kept Patients and Staff Safe, and Maintained Operations After Hurricane Helene

In September 2024, Hurricane Helene made landfall as a Category 4 storm, bringing historic inland flooding, tornadoes, and other damage to the southeastern U.S. and southern Appalachian Mountains. ASPR TRACIE met with Wyatt Chocklett, one of Mission Hospital's Chief Operating Officers, who shared how the "hub hospital" in Asheville, North Carolina sheltered in place and overcame total utility failures, road closures, supply shortages, and other challenges.

Mission Hospital is an 853-bed flagship hospital in Asheville, NC and is part of the HCA North Carolina division. It is the only Level 2 trauma center and the only comprehensive stroke center in western North Carolina.

John Hick (ASPR TRACIE Senior Editor; JH)

Please describe Mission Hospital and the area it serves.

Wyatt Chocklett (WC)

Mission is part of the HCA North Carolina division of hospitals. In a hub and spoke model, Mission serves as the hub, and a series of critical access hospitals and post-acute and long-term care services are the spokes. To us, Western North Carolina encompasses 18 counties, and we also serve parts of Southeast Tennessee, Northeast Georgia, and Northern South Carolina. It is a large catchment area. We are proud of the care we give and have ranked very highly for eight years straight as a regional hospital by U.S. News and World Report.

JH

If you had to fully evacuate the hospital, how close is the nearest hospital that could accommodate your patients?

The closest metropolitan area with similar facilities and capabilities is the Greenville/ Spartanburg area, which is about 90 minutes away. While there is a large healthcare presence in that area, the closest children's hospital is in Charlotte, approximately two hours away.

JH

Your area received a lot of rain before Hurricane Helene hit. How did the rain and flooding affect the area surrounding the hospital?

WC

As Hurricane Helene approached, we worked with our corporate incident response team to ensure we were ready for what we initially thought would just be a rain event. While Helene was developing and changing course, our area experienced a three-day rain event, saturating the soil in western NC and creating flood prone conditions. The rain flowed down the mountains into the City of Asheville, which is essentially a bowl. Eastern Tennessee experienced similar conditions, particularly in Unicoi County and Sevierville.

According to the National Oceanic and Atmospheric Administration's report on Hurricane Helene Buncombe County received rainfall amounts in excess of 18 inches.

Asheville and Buncombe County are at the intersection of Interstates 26 and 40, and several highways also run through the area. When the hurricane made landfall on Friday September 27, both I-26 and 40—part of which had collapsed near the TN/NC line—became impassable very quickly. By Saturday, dams began to break. The French Broad River runs west to east and the water coming from eastern TN empties into the river in Asheville. The French Broad River typically runs three to four feet in depth; at peak, it crested at 27 feet. When that flooding occurred, it essentially created a new river, eventually connecting to the Swannanoa River, located in the hardest hit area of Buncombe County.

JH

We often talk about hospitals planning to be an "island" of sorts in a disaster. Your hospital literally was one because of mudslides, surrounding floodwaters, and the limited ability to conduct air operations. Despite encountering significant infrastructure loss and utility outages, you were the only source of medical care in the region, and you needed to keep functioning. Please walk us through the decision-making the executive and incident command teams made before, during, and after the storm.

WC

We did not evacuate. Instead, we brought in all our staff regardless of shift to help prepare for this storm. In addition to the 800 patients we were caring for, we housed several thousand employees in and around the hospital. Traditionally, in other parts of the country, the focus of the response would be on reopening for the community, setting up access points, and establishing emergency operations centers (EOC) with other municipalities. That was not an option at Mission. Because we could not meet any external needs at first, we operated from an adaptation of Maslow's Hierarchy of Needs, where we focused on stabilizing internal operations first, to include water, fuel, and communications.

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Hurricanes Resource Page

Tips for Retaining and Caring for Staff after a Disaster

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Other Resources

Hurricane Helene Recap: Catastrophic Surge, Inland Flooding From Florida To The Appalachians

National Hurricane Center Tropical Cyclone Report: Hurricane Helene

- First, Asheville's municipal water supply was severely damaged and inaccessible, so we had to quickly supply water to meet our own needs. We dug a 900-foot well Sunday afternoon to supply our air handlers.
- Next, we had to fuel our generators. We got a truck in on Monday that helped restock our fuel supply and keep the generators running.
- The next barrier we addressed was telecommunications. The city, county and state EOCs were all without power. Even though areas like Raleigh weren't directly hit by the flooding, for example, they experienced tornados which knocked out their EOC infrastructure for the state. Our corporate emergency response team was able to fly into the Asheville airport, bringing us a satellite uplink that enabled us to come back online.

For about a week, we were the only location in the county that had internet and running water and the only location that could provide healthcare. It took the Federal Emergency Management Agency (FEMA) a few days to be able to get another satellite dish to our facility, enabling them to communicate with headquarters.

JH

How were you able to secure drinking and non-potable water so quickly?

WC

Once we were able to tap into a natural spring and cool our air handlers, we worked with local and national water vendors to supply drinking and non-potable water. We trucked in 300,000 gallons a day to our hospital which allowed us to pressurize own system to use toilets and shower.

Figure 1. A tanker provides water to the hospital. Photo courtesy of HCA.

JH

How many tanker trucks delivered the water and how long were you without municipal water?

WC

Two tanker trucks—one with 8,000-gallon capacity and the other with 12,000-gallon capacity—pumped 300,000 gallons a day into Mission Hospital. We relied on our HCA enterprise relationships and our state partnership with South Carolina to accomplish this feat. Together with the Spartanburg Regional Water Authority, we facilitated the 24-hour rotation of tanker trucks carrying water up and down I-26 for several months. We were very fortunate to have pre-existing hookups that worked seamlessly with the trucks. We were without municipal water for 54 days.

We had to be creative and acquire a portable pump system that could pressurize the system high enough for showers and toilet flushing; some of our towers are nine stories or higher. Before establishing the water line, we used bucket brigades, portable toilets, and portable showers.

JH

How did you secure fuel for generators and staff?

WC

We supplied diesel for our generators for a week until power was restored. We also contracted with a gasoline supplier to provide (at no cost) 10 gallons of gas per week to nearly 9,000 employees, allowing them to get to and from work. We set up stations at multiple locations to prevent any one location from being overburdened and to facilitate access for staff who worked on other campuses or what side of town they lived on.

Figure 2. A tanker truck provides fuel to hospital staff. Photo courtesy of HCA.

JH

You are the biggest referral center in the region, and suddenly you've lost the ability to call in or out or page staff. How did you reconstitute those systems?

WC

Despite being without communications, our emergency department (ED) never closed once. We continued to see walk-in patients and EMS patients, despite not being able to communicate. We prioritized standing up our own internal internet service. Once we did that, we were able to build momentum. After the first satellite device was brought in from Nashville (from the corporate emergency response team), we could communicate via cellular devices internally. We were also able to communicate with our patient logistics center, housed in Richmond, Virginia. Within a few days, Mission was able to receive transferred patients again.

JH

It sounds like having that satellite backup is something other hospitals could take into consideration.

WC

It was a gamechanger. One satellite antenna brought our day-to-day infrastructure, including our electronic documentation system and our supply chain systems, back online. It is also how we were able to communicate with FEMA at a federal level, and they deployed their own satellite dish on our hospital later that week. This second satellite connection brought all of Mission's internet communications back to normal capacity, including our electronic health record system.

JH

How did you manage downtime specific to electronic health records?

WC

This was an opportunity we identified; we learned that when you are completely incapacitated and do not have a way to document electronically, it is critical to ensure your downtime forms are current and easy to navigate. We are currently modernizing all our downtime forms to reflect the ever-changing environment of the electronic health record.

JH

Did you have any issues with laboratory supplies or getting results?

WC

We do a good job managing our par and inventory levels. The 72-hour advance notice for the hurricane allowed us to stock up and double our inventory to get us through that 7–10-day period where the roads were impassable.

JH

You mentioned that you brought in staff ahead of the storm. I imagine you also had staff in the community who couldn't get to the hospital or buy gas or take care of necessities due to the outages. How did you help staff meet basic needs so they could come to work?

WC

Initially it was very difficult to get an accurate headcount. As soon as the satellite device was enabled, we were able to text out to our entire team of just over 9,000. Within seven days, our corporate human resources team in Nashville was able to get in touch with every single employee via text message, do a brief wellness check, and share instructions on how to request resources (e.g., fuel for vehicles, showers, potable water). We also set up a "mega mart" in the hospital where staff could find free basic necessities like canned goods, bread, and fruit until grocery stores could reopen.

JH

Did you set up any alternate housing inside or outside the hospital?

WC

We housed some staff in conference rooms and sleep rooms. For those we couldn't accommodate, we very quickly established relationships with five local hotels. We bought every single room for close to a month in those five hotels. Those hotels did not have running water, power, generators, or internet service. Once our hospital was secure and running, we replicated the model we used at each of those hotels. We brought in tanker trucks of water and portable generators to power up the hotels and provided them with mobile internet service. We also provided shuttles for employees to travel to and from the hospital, and we provided 24-hour security at those hotels the ensure safety and wellbeing of our employees while they were resting between shifts.

JH

How did you manage nutritional needs for patients and staff?

WC

With all four access points to the hospital completely cut off, our company's Chief Executive Officer (CEO) reached out to the CEO of Walmart for assistance. There is a Sam's Club in Asheville, and while the roads were impassable, Walmart

provided HCA some helicopters, which allowed us to secure perishable and non-perishable food and home goods, load them onto the helicopters, and offload them every 15 minutes on a football field at a nearby high school. From there, the goods were placed on a shuttle bus that took them to the hospital. This began on day 4; until then we had to be creative in how we fed our patients and staff. By day 3, we were relying on MREs for patients and staff in certain circumstances. We are very thankful for the HCA-Walmart relationship.

A few days later, the interstate the connects Charlotte to Asheville was temporarily reopened to get more food and supplies to the area and that helped us get more food into the system, increasing stability.

JH

The Mission system includes several critical access hospitals. Were helicopters used to provide support to them, too?

WC

Yes, Mission Hospital owns and operates three patient transport helicopters which we used not only to transport patients, food, and supplies, but also to transport physicians and other staff as the roads were impassable for several weeks.

Figure 3. A line of staff and volunteers helps load supplies onto a helicopter for transport. Photo courtesy of HCA.

JH

How did you manage this increase in helicopter traffic?

WC

One landing zone at Mission Hospital is on top of a clinical tower, and the other is at the south end of the campus, which was not flooded, so both were safe and operational. Some of the critical hospital landing zones were compromised, as was the low frequency radio and instrument landing systems, so we had to establish some zones and communications on the fly immediately after the storm.

The Asheville Regional Airport was closed for about three days which is why it took our corporate support team some time to get to us. We also had to wait for air traffic communications and power to be restored.

JH

What were some of the lessons you learned from the decision-making and incident command standpoint?

WC

In times of emergency, groups can get really big, really fast. By default, it's human nature to want to be at the table and to want to provide input. It is important to note, however, that every person you add to a meeting during the response is going to add 5-10 minutes to your meeting because they want to report out and ensure their issues are being addressed. This became cumbersome very quickly and slowed the decision-making process, so we had to make some changes.

We decentralized our command and created distinct and separate structures under logistics, financing, nursing operations, and support services. Each of those teams met twice a day. We asked team members to be succinct in their updates, and to share what their immediate needs were, then the lead of those structures reported back to incident command. Incident command synthesized and shared the information with the county, state, FEMA, and our corporate offices.

JH

Did you learn any lessons relative to interfacing with jurisdictions when it came to supporting communication and other needs?

WC

Mission Hospital was in a unique position in that we benefited from the size, the scale, the resources, and the depth of knowledge that only HCA can provide. We were able to come out of the storm and resume communications quicker than the city or county's EOC. Our focus was to support the hospital and the patients seeking care. Once we reestablished operations, we were able to act as partners (and not a burden) to our city and county counterparts.

JH

In conclusion, it is important to have satellites and redundant communication tools, have connections to secure water and drill on site as practical, and when in doubt, come back to your own version of Maslov's Hierarchy of Needs. Is there anything else you would add to that list?

WC

It is important to be as clear and concise as possible with updates you share with staff. There's no sense in sharing a four-five paragraph update every 12 hours. It is better to provide bullets that list what you've solved and highlight what you are working on next. Be vigorous about communications and ensure you have a team that has channels to share messages facility-wide to reduce confusion and provide consistency during an emergency.