



Enhancing the Resilience of Healthcare Critical Infrastructure:

Current Landscape and Measuring Performance

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HCA Healthcare





HCA Healthcare

HCA Healthcare is one the nation's leading providers of healthcare services, comprised of **182** hospitals and approximately **2,400** ambulatory sites of care in **20** states and the United Kingdom



Distribution Centers

Asheville, NC	El Paso, TX	Nashville, TN	TX
Atlanta, GA	Houston, TX	New Orleans, LA	Salt Lake City, UT
Austin, TX	Jacksonville, FL	Portsmouth, NH	San Antonio, TX
Charleston, SC	Kansas City, KS	Southern California	San Jose, CA
Dallas, TX	Lakeland, FL	Richmond, VA	Tampa, FL
Denver, CO	Las Vegas, NV	Rio Grande Valley,	

SIM Centers

Asheville, NC	Nashville, TN
Augusta, GA	Orlando, FL
Austin, TX	Pearland, TX
Brandon, FL	Plantation, FL
Denver, CO	Richmond, VA
Frisco, TX	San Antonio, TX

HCA Healthcare®

Network

182
hospitals

127
freestanding
emergency rooms

125
surgery centers

257
urgent care clinics

Patients

35.7M
patient encounters

8.5M
emergency room visits

2.1M
admissions

217k
deliveries



Emergency Operations Priorities

“Our Enterprise Emergency Operations & HealthTrust Supply Chain are critical components of HCA’s ability to respond to any crisis our communities face.”

Sam Hazen, HCA Board of Trustee’s Meeting 2021

Core Priorities:

➤ Life Safety

- Ensuring the physical and mental wellbeing of our patients, staff, visitors, & communities.

➤ Infrastructure

- Providing resources to enable our staff to care for patients and continue operations

➤ Operations

- Delivering essential care and operations to the communities we serve.

➤ Mission

- Delivering care and improvement to human lives.



Hurricane Helene and Hurricane Milton Timeline

Sept. 23

- EEOC activated for Disturbance 35 in the Caribbean, showing signs of strengthening.
- Potential to strengthen into a major hurricane over the next 72 hours.
- West Florida and North Florida Divisions began de-risking critical patients, evacuating hospitals, and preparing facilities to shelter-in-place.

Sept. 24

- Tropical Storm Helene formed in the Gulf of Mexico.
- Incident Response Teams deployed to FL.

Sept. 26

- Hurricane Helene made landfall in Florida's Big Bend as a powerful Category 4 storm.
- Record-breaking storm surge.
- Incident Response Team deployed to NC.

Sept. 27

- Helene moved north through GA, NC, and TN, bringing powerful winds and flooding in some communities.
- In GA, Memorial Satilla Health, Memorial Health Meadows Hospital and Doctors Hospital of Augusta lost access to city water and/or communications.
- Western NC, the home of Mission Health, was hit especially hard with catastrophic flooding.

Sept. 28 – Oct. 5

- EEOC continued to support Helene response efforts by mobilizing resources to deploy to impacted facilities and assessing the needs of the impacted communities.

Oct. 1

- HCA Healthcare announced the organization will contribute \$1 million through community organizations to aid in Hurricane Helene relief in NC.

Oct. 6

- Amid Hurricane Helene support, the EEOC also began preparations for Tropical Storm Milton.
- Hurricane projected to travel across FL peninsula.
- Incident Response Teams deployed to FL.

Oct. 7

- Milton rapidly intensified to a Category 5 storm with winds at 160 mph.
- Patient de-risking and hospital evacuations began from West Florida Division facilities.

Oct. 9

- Milton made landfall south of Tampa Bay as a Category 3 storm.
- Numerous tornadoes were spawned by Milton in southern and central FL.
- During the storm, patients were transferred from HCA Florida Highlands Hospital.

Oct. 10

- In the pre-dawn hours, Hurricane Milton exited Florida.
- As soon as the storm passed, HCA Florida Largo Hospital transferred 239 patients due to flooding in the basement that caused a loss of primary and generator power to 75% of the hospital.

Oct. 11

- Established a modular, free-standing emergency department at HCA Florida Largo Hospital.

Oct. 18 – Present

- HCA Healthcare committed to contributing up to \$750,000 through community organizations and colleague matching to aid in Hurricane Helene and Milton relief efforts in FL and NC.
- EEOC continues to support hurricane response efforts.

Hurricane Helene Storm Overview

Big picture storm facts

Category 4 hurricane at landfall
in Florida's Big Bend

230+ people died

20+ reported tornadoes
across five states

15+ feet of storm surge

2+ feet of rain in western North Carolina

12+ inches of rain in Augusta, Georgia

4+ million without power



Hurricane Helene: Florida and Georgia Response

HCA Healthcare facts and figures

West Florida, North Florida and South Atlantic Divisions

11 

generators for hospital operations

9 

fuel trucks to support colleagues, first responders and generators

8 

6k gallon tanker trucks to provide potable water into hospitals

8 

Incident Response Team members deployed

1 

Tiger Dam (6,500 feet) deployed at HCA Florida Pasadena Hospital

74 

Patients transferred to safer locations at sister hospitals prior to the storm

Hurricane Helene: North Carolina Response

- **Staffing:** Patient surge post-storm and colleague impacts strained existing staffing resources
 - HCA deployed **450+ nurses and physicians** from other markets, beginning 24 hrs post-impact
- **Supply Chain:** Road damage cut off Blue Ridge Hospital from ground access
 - Supplies delivered via HCA contracted cargo helicopters
- **Communications:** Telecom services were cut off for days
 - HCA set up **Starlink Satellite kits** to restore connectivity at hospitals and warehouses
- **Electricity:** Nearly all hospitals lost utility provided electricity, some for up to 15 days
 - HCA deployed **11 2-mw portable generators** to support hospital operations
- **Water:** 5 HCA hospitals in NC lost access to community water. 8+ weeks after Helene, Asheville still does not have utility provided potable water
 - To maintain hospital operations, HCA Healthcare deployed:
 - **28 tanker trucks** (24/7) to provide water to hospitals
 - **engineers** from HCA facilities across the country to develop **innovative solutions** to allow water to travel from tanker trucks through the facility's faucets
 - **portable showers and laundry units** for colleagues without access to water
 - **generators and tanker trucks** for hotels throughout Asheville to house colleagues and their families displaced during the storm



Hurricane Helene: Supporting Healthcare Operations

HCA Healthcare facts and figures

- **11** generators for hospital operations
- **28** 6k gallon tanker trucks to provide potable water into hospitals
- **5** 6k gallon tanker trucks to provide potable water into hotels for colleagues we brought into North Carolina to provide assistance
- **2** 20k gallon tanker trucks to pump large amounts of potable water to maintain hospital operations
- **1** 20k gallon tanker truck to pump large amounts of potable water to support all plumbing at hotels for colleagues providing support
- **2** wells were dug to provide water to cool HVAC units
- **5** Starlink Satellite kits to support communications
- **2** Satellite Cell on Light Trucks (COLTs) to support communications
- **17,000+** cases of bottled water
- **400+** nurses deployed
- **50+** physicians deployed
- **21** Incident Response Team members deployed
- **4** Behavioral Health Response teams, including therapy dogs, deployed
- **2** Disaster Medical Assistance Teams
- **545** hotel rooms for colleagues from divisions across HCA Healthcare to provide relief
- **26** fuel trucks to support colleagues, first responders and generators
- **2** cargo helicopters to supply hospitals cut off from road access
- **10** GMR ALS ambulances to transport patients from outlying hospitals to a higher level of care



Hurricane Helene: During the Storm

Ensuring access to care

Patients were transferred from outlying North Carolina hospitals to Mission Health for a higher level of care.

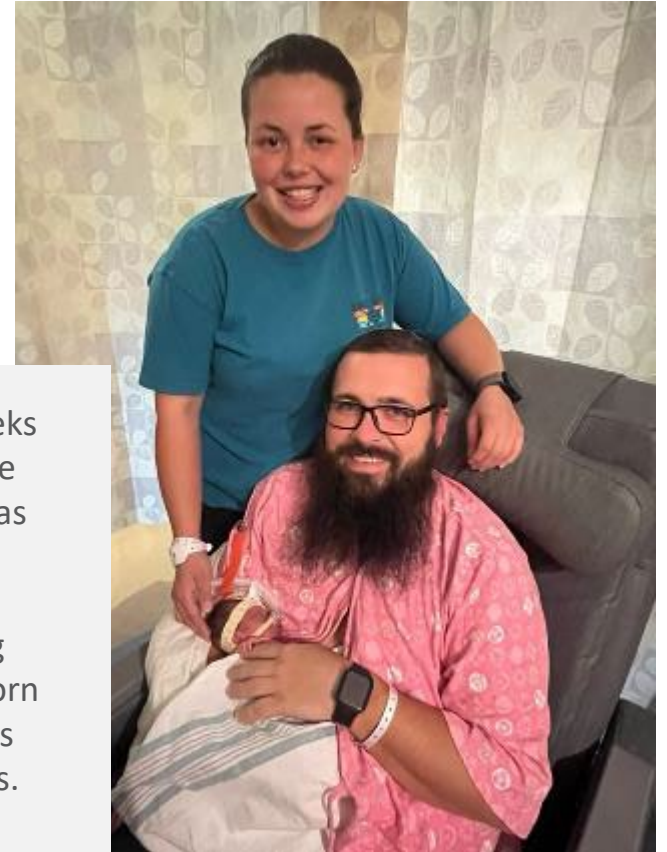
2,500+

**patients cared for across
Mission Hospital***

60+

**babies born at
Mission Health***

During Hurricane Helene and in the weeks that followed, more than **60** babies were born at Mission Health. Among them was Phoenix, whose arrival left a lasting impression. On September 27, while Hurricane Helene was heavily impacting western North Carolina, Phoenix was born at Mission Hospital. He arrived 10 weeks early, only weighing 2 pounds 10 ounces. Phoenix was immediately taken to the hospital's NICU for expert care.



Hurricane Helene: After the Storm

Patient transfers

HCA Healthcare, with assistance from the state, transferred patients who were able to be discharged from Mission Hospital but did not have a safe location in the immediate area to skilled nursing facilities and medical shelters outside the areas hardest hit by the disaster.



Supporting colleagues

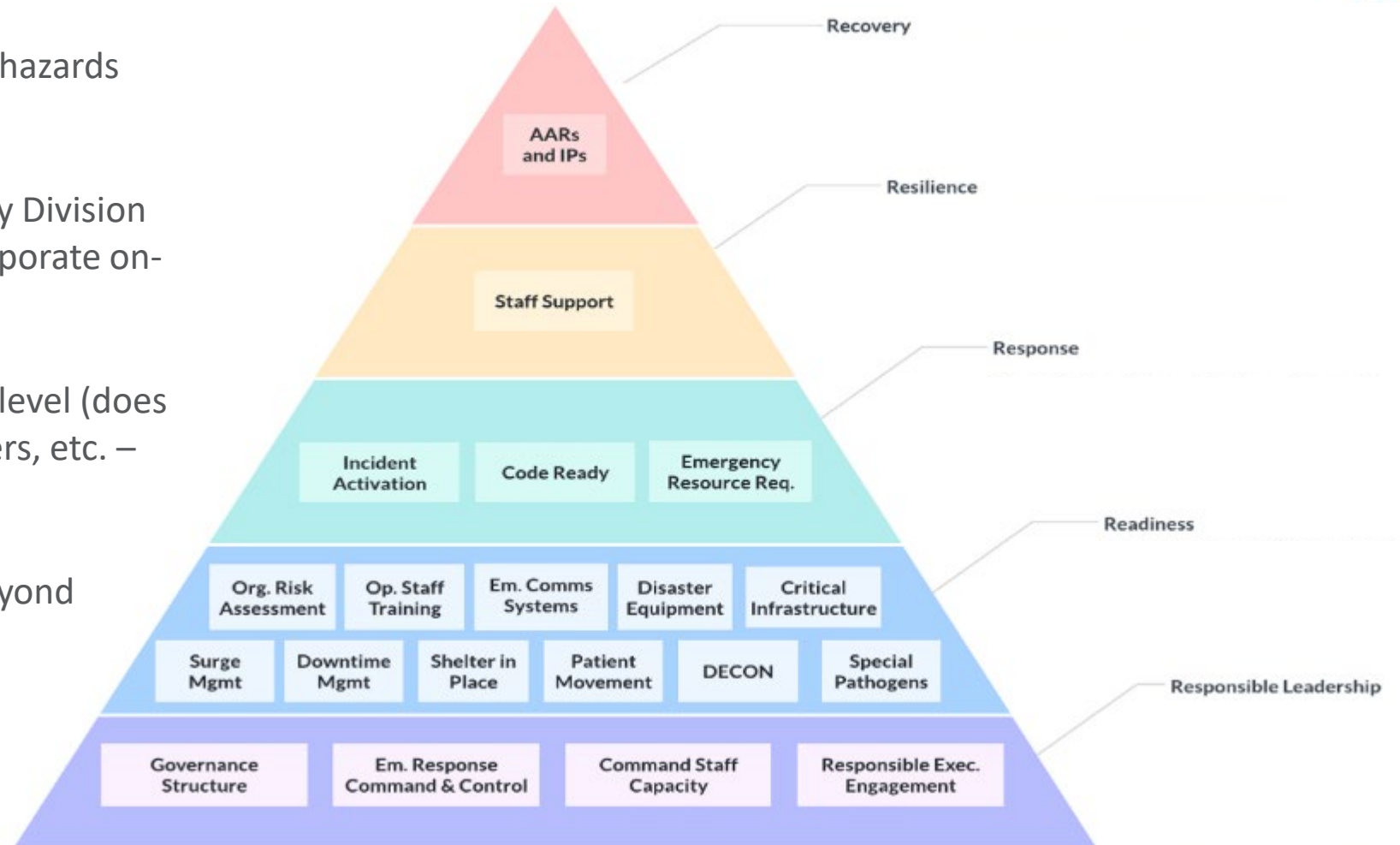
- **7** mini marts supporting colleagues
 - Food, cleaning supplies, and personal hygiene products
- **1** mega mart supporting colleagues
 - Mini-marts, plus gasoline for colleagues' vehicles, and portable shower and laundry facilities
- **33,646** gallons of gasoline for colleagues' vehicles
- **56** portable showers
- **18** portable laundry units
- **1,970** Hope Fund grants for Hurricane Helene assistance totaling more than **\$1.6 million**. More than **1,047** Hope Fund grants totaling more than **\$817,000** were provided to North Carolina Colleagues.*
- **3** therapy dogs from Methodist Healthcare and **1** from GMR

*data current as of Oct. 15, 2024



Measuring Performance: HCA's Comprehensive Hospital Readiness Evaluation Program

- 144 metrics categorized into 20 all-hazards and incident-specific competencies
- Facility self-assessment validated by Division EOCs, and through randomized Corporate on-site evaluations
- Evaluated at the acute care facility-level (does not include ASCs, urgent care centers, etc. – under future consideration)
- Mapped to TJC and CMS, but go beyond current standards



Benefits of Metrics Program (to date)

- Increased leadership attention, resources, and commitment
- Anticipation of known gaps during events
- Prioritize and support gap-closure through annual goal-setting process
- Standardization and promotion of promising practices
- Created a day-to-day roadmap for facility emergency managers
- Future state – peer assessment process?



Questions & Discussion



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