



Flooded streets in Edisto Beach, SC, after Tropical Storm Debby.

The 2024 Atlantic hurricane season, which began June 1, has been forecasted to be one of the busiest on record. Only three months into the season, the Atlantic has already seen five named tropical storms, three of which have been upgraded to hurricanes. The season has so far claimed at least 74 lives, with 47 in the United States and its territories alone, and is estimated to have cost more than \$12 billion in damages.^{1,2,3,4,5,6}

This hurricane season has highlighted many unseen complications that often accompany tropical storms and hurricanes, and the heavy toll it takes on affected communities.

Hurricane Beryl (in July) and Hurricanes Debby and Ernesto (in August) all struck regions impacted by major disasters in recent months or years, with some communities still recovering from recent events when these hurricanes hit, highlighting the challenges of repetitive loss from repeat disasters. Many of the storms this season were also accompanied by other climate events—such as tornadoes, in the case of Hurricane Debby, or extreme heat, as seen in all three hurricanes. Across the regions, the storms caused extensive power outages that coincided with severe heat waves, exacerbating heat-related illness, food and water insecurity, and limiting healthcare facility operations. Though the full impact of Hurricane Ernesto is still being assessed, the complications surrounding loss of power, heat and healthcare delivery raise significant concerns as the 2024 Atlantic hurricane season still has yet to reach its halfway point.

Hurricanes and Heat

Extreme heat has been a consistent theme across multiple disasters this season; while often underreported, it can create life-threatening and devastating circumstances for many hurricane-affected communities. For example, when Hurricane Beryl struck Texas in July, nearly 3 million homes and businesses lost power in the greater Houston region,⁷ with a two-

FAST FACTS

- As of August 20, there have been **five named Atlantic storms** this year, including **three hurricanes**.
- Two storms have already resulted in **more than \$1 billion** in damages.

OUR RESPONSE

- International Medical Corps has deployed teams in response to **Hurricane Beryl** in Texas and Jamaica, to **Hurricane Debby** in South Carolina and to **Hurricane Ernesto** in Puerto Rico.
- To date, we have distributed:
 - **3,533** wound-care kits
 - **5,588** hygiene kits
 - **830** tarps
 - More than **2,500** recovery items and construction materials, including headlights, water tanks and cans of shelf-stable food.
- We are collaborating with **15 local partners** to support response and recovery efforts.

¹ <https://www.cbsnews.com/news/tropical-storm-alberto-several-deaths-texas-mexico>

² <https://cw39.com/news/local/deaths-from-hurricane-beryl-climb-to-at-least-36-including-more-who-lost-power-in-heat>

³ <https://tweathercenter.com/2024/07/11/hurricane-beryl-death-toll-now-at-33>

⁴ <https://www.nytimes.com/2024/07/01/weather/tropical-storm-chris-mexico.html>

⁵ <https://www.pbs.org/newshour/nation/death-toll-from-debby-rises-to-8-as-storm-crawls-up-east-coast>

⁶ <https://www.ncei.noaa.gov/access/billions>

⁷ <https://apnews.com/article/houston-power-outages-death-toll-53a403fec3ffd34daeb8d5e179953ba>

week period before power was fully restored—the same time frame that a severe heat wave swept through the region. The heat, combined with the loss of power, brought devastating consequences to communities, including water and food shortages, loss of wages and no means of cooling. This was particularly dangerous for those with chronic conditions, the elderly and economically challenged communities in food deserts. In Harris County, half of the deaths recorded were due to heat-related illnesses after the storm, raising the death toll even days after the hurricane. In the case of Hurricane Debby, Florida and Georgia also experienced heat waves with heat indices up to 112 degrees F immediately following the storm, complicating recovery efforts.⁸

Puerto Rico is currently experiencing the challenge of overlapping climate events, as then-Tropical Storm Ernesto's arrival coincided with an extreme heat wave, with heat indices reaching 110 degrees F.⁹ Puerto Rico's power grid is still feeling the effects of 2017's Hurricane Maria, when the storm knocked out power to nearly half the island, interrupted water services and damaged infrastructure. Because much of the island does not have access to generators, the loss of power presents a deadly threat, as Puerto Rico continues to experience high temperatures and humidity.



Local workers retrofit the Barbary Community Center, in St. Elizabeth Parish, Jamaica, as a temporary health facility, due to severe damage caused by Hurricane Beryl.

Hurricanes and Healthcare Delivery/Access

The storms of this season also emphasize the critical need and value of prepared and resilient health facilities. Tropical storms and hurricanes create significant health threats to affected communities, including outbreaks of communicable diseases, unclean water, damaged sanitation facilities, interrupted medication or treatments, and increased mental stress—highlighting the importance of accessible healthcare before, during and after a storm.

In Puerto Rico, as of August 16,¹⁰ then-Tropical Storm Ernesto had rendered 41 healthcare centers inactive and forced 23 hospitals to rely on emergency generators due to infrastructure damage or staffing shortages. Flooding and landslides caused by the storm have isolated entire communities, raising concern for vulnerable populations such as the elderly, bedridden or those who depend on battery-powered medical devices, as they are typically least able to access the care they need.

In the wake of Hurricane Beryl and its subsequent heat wave, hospitals and health centers in Houston experienced severe overcrowding. Twenty-nine hospitals throughout the Houston region were impacted by the storm and those health facilities that were still functional quickly became overcrowded as they could not discharge patients to homes or facilities without power.¹¹ NRG Park, a large stadium typically used for the Houston Rodeo, was utilized as an overflow area for patients from various hospitals. The overcrowding of hospitals also limited the capacity of ambulance services as hospitals were unable to accept new patients. Our partners at federally qualified health centers (FQHCs) in Houston immediately adapted to meet the health needs of their communities, as they also recovered from the impact of the storm themselves.

In Jamaica, numerous health facilities in Saint Elizabeth Parish incurred significant infrastructure damage from Hurricane Beryl. However, an arm of the Ministry of Health and regional health team quickly partnered with International Medical Corps to construct several temporary health centers and redirect services to ensure continuity of care for the community.

International Medical Corps' Response

Hurricane Ernesto struck the US Virgin Islands and Puerto Rico as a tropical storm on August 14, before making landfall in Bermuda as a hurricane. The storm brought winds of 85 mph and up to 10 inches of rain across the Virgin Islands and Puerto Rico, causing river flooding, landslides and initiating a widespread power and water outage, at one point impacting over 735,000 homes and businesses on Puerto Rico—nearly half the island.¹² About 20,000 homes are still without power and water.¹³ The flooding, road closures and outages have severely limited healthcare access across the island, as many health facilities have reported closures and as entire communities have been isolated due to washed-out roads.

In preparation for the storm, International Medical Corps prepositioned hygiene and wound care kits on the island, and is closely collaborating with Puerto Rico Voluntary Organizations Active in Disaster (PRVOAD), a member of the Emergency Operations Center (EMOC) on the island, in addition to providing support to local FQHCs.

⁸ <https://www.foxweather.com/weather-news/debby-florida-panhandle-excessive-heat-warning>

⁹ <https://www.npr.org/2024/08/15/nx-s1-5077484/puerto-rico-cleans-up-after-ernesto-knocked-out-power-for-700-000-customers>

¹⁰ <https://www.koat.com/article/tracking-ernesto-august-14/61874084>

¹¹ <https://www.houstonpublicmedia.org/articles/news/health-science/healthcare/2024/07/15/493483/houston-hospitals-overcrowded-after-beryl-causing-delays-in-discharges-and-treatment/>

¹² <https://apnews.com/article/hurricane-ernesto-caribbean-puerto-rico-6d919d9b8f9831c8a664457aeebdb8da>

¹³ <https://lumapr.com/notable-outages/?lang=en>

Since Friday, August 16, the International Medical Corps team has met with leaders from the Federal Emergency Management Agency, EMOC and PRVOAD. The team also has met with four FQHCs (Centro de Servicios Primarios de Salud de Patillas, Centro de Salud Familiar Dr Julio Palmieri Ferri, MedCentro and Health ProMed) located in the southeast and central municipalities—the hardest-hit areas. We so far have distributed 540 hygiene kits, 1,000 wound-care kits and 650 tarps, as well as tables, chairs, canopies and other supplies. Our local partners have emphasized the vulnerability of people with chronic conditions, those who are dependent on medical devices that need to be charged or powered, or those who are bedridden. International Medical Corps is collaborating with partners to procure and distribute other items to support their recovery and help prepare for future disasters.



International Medical Corps staff meet with Chief Medical Officer Jamie Singleton Hunter of the Chelsea Medical Center, Beaufort Jasper Hampton Comprehensive Health Services, in Okatie, SC.

Less than two weeks before Ernesto hit Puerto Rico, **Hurricane Debby** made landfall on the Gulf Coast of Florida on August 5 as a Category 1 hurricane, bringing tornadoes, torrential rain and strong winds up the East Coast and affecting communities as far north as Vermont with flash floods and extensive power outages.

International Medical Corps deployed a team to Charleston, South Carolina, to assess the impact of the storm with our local healthcare partners in the Low Country region.

The team met with representatives of the Red Cross, local organization One80 Place Homeless Shelter and FQHC networks Beaufort Jasper Hampton Comprehensive Health Services (BJHCHS) and Fetter Health Care Network. We distributed 520 hygiene kits and 498 wound-care kits to these partners, and procured an additional 2,970 individual hygiene kits for the BJHCHS, Fetter Health and AccessHealth healthcare networks. International Medical Corps also has distributed 1,350 individual hygiene kits to the Salvation Army in Georgia, in collaboration with the Georgia Emergency Management and Homeland Security Agency. As hurricane season continues, we are working to procure a generator and to provide critical emergency response training for partner healthcare clinics and their communities, to build resilience and ensure readiness for the next event.

The earliest Category 5 storm on record, **Hurricane Beryl** cut its way through the Caribbean and Mexico to make landfall in Texas on July 8 as a Category 1 storm. In the Caribbean, Beryl killed at least 19 people and left an estimated \$6.4 million in crop and infrastructure damage. Many health centers and hospitals in Jamaica incurred significant damage. Beryl also devastated coastal communities of Texas as well as the city of Houston, causing power outages to nearly 3 million people even as a heat wave with indices as high as 100 degrees F descended on the area. The storm caused 39 deaths in the US. Some communities in Houston were still rebuilding from a derecho that tore through the city in May, and did not have proper infrastructure in place during Hurricane Beryl, leaving them especially vulnerable in the storm's aftermath, without power, effective cooling systems and adequate access to food or water.

In response to the storm, International Medical Corps immediately deployed teams to Jamaica and Texas. In Jamaica, we partnered with National Healthcare Enhancement Foundation, an arm of the Jamaican Ministry of Health, to support three temporary health centers, as well as one hospital that is replacing services for three neighboring clinics that are non-functioning and the Saint Elizabeth Regional Health Center, which is home to the offices of the regional health team. International Medical Corps distributed 2,500 items for both the construction and medical operations of the temporary health clinics, including diagnostic kits, wound-care kits, hygiene kits, flashlights, IV poles, blood pressure monitors and a mosquito fogging machine.

In Texas, International Medical Corps partnered with two large FQHC networks located in some of Houston's hardest-hit communities. With homes already damaged by the May derecho, many communities were heavily affected by the storm. Unable to work, many lost wages, while power outages led to food spoilages. Several communities in food deserts faced limited access to food and water. In partnership with the FQHCs, International Medical Corps distributed 180 tarps, 46 headlamps, 2,012 wound-care kits and 17 cases of canned and shelf-stable food.

International Medical Corps continues to work closely with our partner organizations to support their recovery needs. We are coordinating with local partners to procure and distribute emergency and recovery supplies while replenishing our stock for future climate disasters. Additionally, across all areas where International Medical Corps has responded, local partners have expressed and highlighted the critical need for emergency preparedness and response training, which will help to ensure that local community members and staff are prepared for emergencies at the household level. We also will provide training to build the capacity of health centers, enabling them to remain operational, meet urgent health needs and keep communities healthy in the face of the anticipated increased frequency and intensity of extreme weather events.

International Medical Corps in the US and Territories

International Medical Corps has been an emergency responder in the United States and Caribbean since 2005, when we partnered with local community clinics overwhelmed by Hurricane Katrina. In the US, International Medical Corps works with national, state and local partners in the healthcare system to address the significant challenges that face domestic healthcare services, and deploys emergency response teams in response to disasters.

Across the Caribbean and the US, International Medical Corps was a first responder during 2010's Haiti earthquake, 2012's Superstorm Sandy, 2016's Hurricane Matthew in Haiti, 2017's Hurricane Maria in Puerto Rico and Dominica, 2018's Hurricane Michael in Florida, 2019's Hurricane Dorian in the Bahamas, 2020's earthquakes in Puerto Rico, and 2022's Hurricane Ian and 2023's Hurricane Idalia in Florida, among other emergency response efforts. Over the past seven years, International Medical Corps has engaged partner networks of more than 275 hospitals, clinics and health-related facilities and NGOs across 18 states and territories, supporting more than 6 million patients and healthcare providers in the US.



International Medical Corps' prepositioned individual hygiene kits and wound-care kits enabled it to share with local partners immediately after each disaster.

