Prepare Your Facility for a Hurricane

John Mathews: We're now going to dive into specific risks and impacts of hurricanes and tornadoes and how it applies to your building.

Besides wind pushing on a building for a hurricane, airborne debris like trees, stumps, and destroyed building materials will smash into the walls and roof of your building and breach your windows and doors if they're not designed for that wind force and allow hurricane force winds to enter into the inside of your building, which you want to avoid. Wind passing over a roof works like an airplane wing and actually provides a strong uplift force when the interior of the building is pressurized because wind is now allowed to enter it, it blows the roof off. Windows shatter, providing deadly debris flying through the building, and under older building codes, oftentimes buildings were designed for gravity loads only. For instance, the walls were designed to take the gravity load of the roof. Under more modern building codes, codes are designed for wind forces, hurricane force winds, applied to the walls of the building to withstand that and tie the roofs down more strongly to the frames. Technologies have evolved that provide windows and doors that can withstand up to 200 mile an hour of force winds.

Let's take a look at hurricane risks and when they occur. Well, in the Atlantic, the hurricane season is between June and November. In the Pacific, it starts a little earlier – May to November. But on a two to seven-year cycle, an average of every five years, it's affected by El Niño, warmer ocean waters in the Pacific than normal, that favors Pacific hurricanes and suppresses Atlantic hurricanes. Then, La Niña is cooler than normal Pacific Ocean temperatures favoring Atlantic hurricanes, suppressing Pacific. We're currently in an El Niño, and as you saw this summer, there was a terrific hurricane that hit the coast of California and led to massive flooding.

Let's talk about getting back on your feet after a hurricane and the impact to you and your communities. Impoverished communities lack the capacity to be able to respond, rebuild, and recover. They live in older buildings that don't meet modern building codes. Generally, they live in urban areas where roads get congested and have limited escape routes available to them. They may need resources like a community relief center to survive afterwards, to eat, and to take care of basic human needs.

In general, these are our families in Head Start, and so that a program – in looking at disaster preparation – might consider building a family relief center approved by your regional office of Head Start to service these families. Whether or not the Head Start center is impacted by a natural disaster, it might well be that your families are. For example, hurricane Katrina in New Orleans in 2005, generally considered having some impoverished neighborhoods, had over 1,800 fatalities and $100 billion in damage. We recently experienced hurricanes in Puerto Rico in 2017. They had 3000 fatalities. Ninety-five percent of homes were without drinking water, and 100% of homes lost electric power for up to a year – some impoverished communities severely impacted.

Another impact of hurricanes is that in planning for reinforcing the resiliency of your facility to withstand the risk of a natural disaster, recognize the benefit of having a facility that can bounce back quickly. Maybe serve a family relief center that can help you to reestablish your program more quickly but also help families to get back to work, to find a safe place for their children, to bring the community back as well. This goes to things like the resources we talked about, having contractors lined up.

The fact that if your facility gets damaged or destroyed, it could take 2.5 to five years to rebuild it and get it back online again, which speaks to the need for a temporary facility and lining up a temporary facility to house your program and your community and putting agreements in place for its use ahead of time. Examples of this were Hurricane Harvey in Texas, where they lost 52 child care centers and 65 voluntarily suspended because of mildew, mold, and other damage. Some of these were Head Start centers. Hurricane Fiona in Puerto Rico – just as one hurricane – we lost over 20 Head Start centers, completely destroyed. We lost another 20 that were severely damaged – 40 head start centers out of 600 in Puerto Rico. An interesting statistic coming out of Hurricane Harvey was that 40% of these child care centers had no flood insurance, which hindered their ability to get back into service.

It's not possible to identify in advance all of the circumstances in which disaster assistant funds through the Office of Head Start may be needed to address the consequences of natural disasters. But one such appropriation was the bipartisan act of 2018. This act provided $637 million in emergency funding for necessary expenses directly related to Hurricanes Harvey, Irma, and Maria, including making payments under the Head Start Act. Now, the hurricane season of 2017 was one of the most destructive in history. The current appropriation is for Hurricane Ian and Fiona for regions II and IV. That was in the amount of $345 million, and by the way, that expires in September of 2027. Looking back to 2017, the office of Head Start has received disaster recovery appropriations totaling a little bit more than a billion dollars and awarded 290 disaster recovery grants.