

Crain's

Local hospitals focus on future resiliency planning in wake of severe flooding

By: Jacqueline Neber

Local hospitals are strengthening and amending their resiliency planning in the wake of severe flooding last month.

Oscar Gonzalez, the senior assistant vice president of capital development group within H+H's office of facilities development, said H+H leadership is now focused on making the Woodhull facility more water-resistant after H+H/Woodhull was forced to evacuate patients when the September flood caused a neighborhood power outage.

"It's a learning curve for all of us and we have to take a closer look to see, how do we diverge any water from getting in," he told Crain's. "What we've been working on is taking a second look at the capital plan there" including accelerating projects to ensure the property is watertight, he said.

Some buildings in the system are older and make it challenging to build in cutting-edge climate change protections, Gonzalez said. To that end, the system is focused on completing existing resiliency projects and drawing up new ones, including putting in new generators. After Hurricane Sandy in 2012 H+H integrated floodwalls, migrated mechanical equipment to higher levels of hospitals and implemented burn walls, he said, and has replaced a building at H+H/South Brooklyn Health and is putting up a floodwall at H+H/Metropolitan.

Gonzalez added that the hospital and the health system are increasingly focused on maintaining redundancy, or having backup safeguards--and secondary backups--in the event that the first line of flood defense breaks down. The system has already achieved redundancy for generators, switch gears and air handling units.

Meanwhile, across the city hospitals at sea level are also changing how they think about resiliency after the events of this fall. At Ocean Breeze-based Staten Island University Hospital, stationed three blocks from the beach, executive director Dr. Brahim Ardolic said the most crucial lesson his hospital learned since Hurricane Sandy and recent events is the idea that severe weather is inevitable.

To prepare, the hospital is building more and more redundancy, he said, so the facility can continue operations seamlessly, and has moved important systems out of the basement where they are vulnerable to water. He noted this is particularly important for intensive care patients who rely on the hospital's machinery to stay alive.

"This is going to be happening repeatedly and you have to be better prepared for it," Ardolic said. "We've been in the process of looking at every building on the campus and saying, 'Okay, where are we at risk, what does our infrastructure look like?' You'll see that a lot of hospitals are doing that. But [we have] particular focus on this one because we are in a floodplain as are one or two other sites for Northwell."

SIUH built a renovated emergency department over a decade ago that is elevated off the ground to mitigate flood risk and aims to construct new buildings that way as well. Ardolic anticipates future patient care spaces that are built in other sea-level parts of the city such as downtown Manhattan will be constructed the same way.

Over in Manhattan at NYU Langone, representative Steve Ritea told Crain's the health system puts flood preparedness measures into every new construction and retrofitting project, and NYU's emergency management and enterprise resilience team conducts disaster preparedness exercises at its campuses.

Most recently, the team stimulated a large patient evacuation with New York City Emergency Management and the New York City Fire Department, Ritea added.

Meanwhile, Ardolic acknowledged that being part of Northwell Health helps his hospital respond to situations through a "robust" system-wide emergency team. To that end, Dr. Aaron Bernstein, the director of the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry who has studied hurricane risk at New York hospitals, pointed out that the growing impacts of

climate change will require hospitals to work together across the city.

“We need systems that can be flexible. And we've seen this in various parts of the country, particularly in more hurricane-prone areas: health systems that are actually in competition with each other have paved the way so that, for example, medical records can be very easily accessible across networks,” Bernstein said.

This is particularly important, Bernstein continued, because of disparities between New York's health networks that point to some big-picture issues within health care. While some systems could afford to spend large amounts of money rebuilding after Sandy, others—including facilities that treat mostly underserved patients—could not, Bernstein said, underscoring the need for hospitals to work together.

One untapped solution, he said, could involve hospitals getting funds through the Inflation Reduction Act and other federal resources that could help them increase resilience. Another could be hospitals focusing on connectivity between big city institutions and smaller hospitals further from the coast that could be more insulated from weather events.

While patients are typically sent from smaller facilities to urban ones with more resources, thinking in the reverse could represent a new avenue for ensuring patient safety.

“These more intense hurricanes and floods mean we need to think about resilience in the system,” Bernstein said. “And that really speaks to how we pay for care and how we support more rural hospitals, especially in places where care is limited.”