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Cloud Computing

While Harvey exposed health IT hurdles, some providers weathered the storm

Devastation wrought by Hurricane Harvey, and likely Hurricane Irma, highlights the pressing need for healthcare EHR interoperability, but a few providers said cloud-based tech help them deliver care when many couldn't.

By Jessica Davis | September 08, 2017 | 10:44 AM

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A view across the street from Advanced Diagnostics Hospital and Clinic. Photo via Advanced

Diagnostics

Hurricane Harvey ravaged Texas. Mass flooding forced people from homes, while the death toll has reached 70 people.

But the disaster also took its toll on the region's healthcare sector causing disruptions in services or closures of major hospitals like MD Anderson Cancer Center and East Houston Regional Medical Center.

Stories have already come out about how lingering hurdles to health record interoperability made caring for Houston's population much more difficult in the wake of Harvey. While displaced patients and emergency situations increase the need to have medical history and allergies at the point-of-care, many providers had difficulty getting that data.

However, some providers were able to keep operations running. Their stories highlight not only why interoperability needs to become an essential function of healthcare, but how cloud-based system architecture really proves its worth when a disaster strikes.

VillageMD Houston

For VillageMD Houston -- a primary care practice that works with more than 100 Houston-based providers, and partners with clinics, care management services and others, a lot of the essential communication began long before Hurricane Harvey hit the region.

"Even before a storm like Harvey, we were working on identifying high-risk patients and connecting them with providers and the rest of our team, like care management," said VillageMD Houston Chief Financial Officer Dan Jenson.

With high-risk patients, there's a need for more touch points. Jenson said that his team discussed past storms to determine possible scenarios, which were communicated with patients before the storm.

Prior to Harvey, the portal could connect to about 10,000 patients. Jenson reached out to athenahealth and overnight, the team was able to create a solution that allowed VillageMD Houston to contact all of its 160,000 patients.

The platform enabled providers to phone, text, email or message patients about the status of its clinics and provided patients a direct line to physician support.

VillageMD Houston's care management team leveraged its list of high-risk patients, and reached out to these patients before the storm to help them prepare and informed them who they could call.

"We've had great feedback from patients that this service provided a voice of comfort before the storm," said Jenson.

Further, VillageMD Houston's Village At-Home program sends providers to the homes of patients who have difficulty making it into the office. After the storm, this program allowed physicians to go into the

homes of these patients to ensure they were safe.

Equipped with tablets from its EHR vendor athenahealth, providers were able to document patient visits, said Jenson. Providers reviewed the needs of the house and determined whether it was safe for a patient to stay there.

Phone lines remained up during the storm, and Jenson said physicians were on-call throughout Harvey to order x-rays and treat symptoms over the phone. And since the athenahealth platform is cloud-based, these physicians could access patient records from home using mobile devices -- even if they lost power and Wi-Fi during the storm.

VillageMD also used smart sheets to make sure safe was staff and adjust staffing so staff was able to head to work based on where they lived -- rather than where they were normally employed, said Jenson. The cloud-based platform let staff use the EHR system as normal, even at alternate sites.

Further, VillageMD Houston worked with providers throughout Houston after the storm. Some practices were overcrowded and others were solo providers wanting to join a larger group. But what remained most important to Jenson was that all patients received efficient care and those in high acuity weren't left to deal with problems on their own.

"Only one of our clinics took on water, and a few had water damage. One took on a couple of feet of water on the first floor, but still opened last week despite that," Jenson said. All clinics are now back up and running, but there is still lingering damage to some clinics and the homes of some staff.

But to Jenson, as the flooding and physical damage subsides from the city, it's important for VillageMD Houston to remain in contact with patients.

"We want to make sure the patients understand there are many lingering health issues that can occur because of the storm," said Jenson. "We're sending communications for patients to see providers and get checked out."

> "Moving to a modern 2017 infrastructure for healthcare is a moral imperative."
>
> – athenahealth Chief Product Officer Kyle Armbrester

Advanced Diagnostics

For Advanced Diagnostics Hospital and Clinic, storm preparation started a week and half prior to Harvey touching down. The provider used checklists and went through normal hospital routine to make sure generators were fully operational, alternative power and internet sources were at the ready and that there was enough food storage.

According to Rob Turner, CEO and COO of the hospital, he met with the past owners and determined it was unlikely flooding would be an issue. And so the organization was confident the hospital would be fine. They were lucky, and it benefited not only their patients, but patients from other providers after the storm hit.

"While others suspended service, we were doing normal operations," said Turner. "We had the comfort of keeping patients in-house. We used our in-house EHR and moved forward, based on appropriate preparation."

Preparation starts when you open the hospital, but heightens right before the storm," said Lucky Chopra, MD, CEO of parent company Advanced Diagnostics. "We're pleased our systems worked and our dedicated allies and vendors performed for us. It was one less worry."

While other hospitals struggled because "their EMR simply couldn't perform or there was flooding," things went as planned for Advanced Diagnostics.

Turner attributed that success to planning, but also to athenahealth's cloud-based platform. Not only did

providers leverage the on-site interoperability, Turner said he was able to log onto the system from home and monitor care and check accounts to ensure that everything was functioning as normal.

"The system was stable throughout: We had no disruptions in care," said Turner. "Even with a few bumps in power, our generators kicked on and everything remained intact."

"With a cloud-based system, all of our data was preserved in real time," said Chopra. "And we had no data loss."

So much so, that Advanced Diagnostics was able to help other providers in the area, including the AHCA East Houston Regional Medical Center that had 12-inches of flooding. As a result, Chopra said the hospital had to handle patients with higher acuity than with normal operations.

But due to the tech and hospital functioning as normal, Advanced Diagnostics was able to help East Houston and other local providers by providing care to patients and space for providers to work.

While their cloud-based EHR meant existing patient records were easy to access, for influx of patients from other hospitals, they had to rely on their dictated history, said Chopra. Fortunately, as new patients came through the emergency room, there was no need to refer to past diagnostics.

"For most ER traffic, what you see is what you get. And you manage it accordingly," said Chopra.

More work to be done

While Houston boasts some of the top healthcare institutions in the country, in terms of connectivity, the region isn't where everyone else is in the industry, said Chopra. "But these problems existed before the storm."

Most of the time with new records requests, it's a lot of manual processes, explained Chopra. If we needed records, it would come on a disc. We're pretty restricted city-wide. But within systems, it's a lot better. Although there are even inconsistencies within some systems.

"One of the challenges is because patients don't move through the system with a full record," said

Jenson. "We had patients come in from other clinics that had shut down… and it's a burden administratively."

"It's one of the challenges we face, especially during a time like this with patients displaced," he added. "Some patients come in with limited medical history, others bring files and some don't, and we have to start from scratch. It takes a long time to gather the necessary information."

While VillageMD Houston was able to leverage an iPad solution that allowed patients to get the key information into the system -- "letting providers focus on care rather than just entering patient data into the EHR," said Jenson.

"We should not wait to crisis to demonstrate the need for patient-centric backbone, and patients should be able to have control of their data," said athenahealth Chief Product Officer Kyle Armbrester. "It's a wake-up call for the industry to break down the barriers between systems, and make sure we're sharing the most up-to-date data."

"We desperately need this industry to move into a modern tech era, where more things are in the cloud and more stable," he said. "Moving to a modern 2017 infrastructure for healthcare is moral imperative."

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