Healthcare Technology Online

Health IT Lessons From Hurricane Sandy

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If you followed any of the television coverage of Hurricane Sandy, then it's likely you saw patients being evacuated from New York University Langone Medical Center at the height of the storm. A transformer explosion cut power to the facility and backup generators failed, forcing medical staff to keep critically ill patients alive using manual ventilators as they were relocated to neighboring hospitals. These images were a telling reminder of the devastating impact natural disasters can have on healthcare.

Super storms like Sandy can also provide us with insight into the strengths and weaknesses of our current health IT systems and protocols, and help us identify areas for improvement. Power outages and flooding from Sandy affected health IT systems throughout New England, New York, New Jersey, and Pennsylvania. For example, Staten Island University Hospital was forced to revert to using paper patient records after flooding disrupted power to the building where the hospital's data servers are stored, thereby cutting access to EHRs. Similarly, West Penn Allegheny Health System in Pittsburgh lost EHR access when the IDN's data center in Mountain Lakes, NJ sustained damage during the storm surge.

Obviously, losing access to EHRs during a storm is problematic, but let's look on the bright side for a moment —these systems and the data they contain can be restored. Unlike Hurricane Katrina, where hundreds of thousands of paper patient records were lost forever in the flood waters, EHR data is recoverable. This is a huge step forward in regards to record integrity, and ultimately, patient care.

Now, let's look at the areas for health IT improvement made painfully evident by Hurricane Sandy. First and foremost, is the need for better disaster recovery and business continuity plans among healthcare providers. A natural disaster or other crisis in one part of the country should not put a healthcare facility's data in jeopardy. Fully redundant data centers should be established in geographically dispersed locations. This will ensure that if one data center is affected by a storm or crisis, operations can be immediately transferred to the other data center with little to no interruption or loss of data access. The Statewide Health Information Network for New York (SHIN-NY), for example, has a primary data center located in New York City, but another fully redundant data center located in Texas. If its New York center lost power, the Texas location could have taken over almost instantaneously.

The SHIN-NY reference leads me to my next point — Hurricane Sandy helped to illustrate the need for and value of reliable HIE (health information exchange). Think about all those patients from New York University Langone Medical Center that were evacuated and transferred to other hospitals. It's likely their medical records didn't travel with them. HIE would allow clinicians in these other medical facilities to access the health records for these displaced patients from their network. Furthermore, facilities that still had power, but lost access to EHR data could potentially retrieve electronic records on their own patients via an HIE during the storm. HIE has been met with its fair share of criticism and doubters in the past, but Hurricane Sandy provided a real world example of how HIE can not only improve data flow, but save lives.