In the Eye of the Storm: Is Your Hospital Prepared for disasters?

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In the Eye of the Storm: Is Your Hospital Prepared for the Next Disaster?

Hospital staffs are pressed with more immediate concerns than perhaps ever before. Among all this change and sometimes strife is a lurking, monumental concern that needs to be addressed but that requires funding and resources that many hospitals do not have. The concern? Disasters.

The good news is that preparedness is on the radar screens of many healthcare workers. The bad news is that awareness is not enough.

Learning From Tragedy

The events of Sept. 11, 2001 and Hurricane Katrina in 2005 highlighted how important it is for hospitals to re-evaluate their emergency preparedness policies and procedures, says Navy Lt. Commander Chris Gillette, command emergency manager for the National Naval Medical Center. Those tragic situations showed how fast facilities could deplete their resources, Gillette says.

"The events also focused on the need for all hospitals to examine their existing emergency management and security plans ... and evacuation procedures and the need to intensify staff training in those areas," he adds.

Indeed, these national tragedies motivated hospital staffs and government agencies significantly, says Chiehwen Ed Hsu, PhD, MPH, an assistant professor of public health informatics at the University of Maryland College Park School of Public Health.

One example, he says, is an updated version of the National Response Plan which is expected to be released soon. It was last updated May 25, 2006 and provides an all-hazards approach to dealing with domestic incidents. The document outlines how the federal government coordinates with state, local, and tribal governments and the private sector during incidents.

The authors dedicate substantial portions of the report to the lessons learned from 9/11 and Hurricane Katrina, Hsu says. Another example of learning from these events is the recent research priority proposed by the Centers for Disease Control and Prevention (CDC), he adds. The document is called, "Advancing the Nation's Health: A Guide to Public Health Research Needs, 2006–2015."

"In the report, (the) CDC proposed public health preparedness as one of four overarching goals of health protection and has detailed descriptions of the improved research and program focus reflecting the lessons learned," Hsu says.

The aforementioned tragic events undoubtedly led to "great motivation" and outstanding programs, says Ruth Carrico, PhD, RN, CIC, an assistant professor in the Department of Health Promotion and Behavioral Sciences at the University of Louisville School of Public Health and Information Sciences.

"But preparedness is a journey and requires organized thought and broad participation," Carrico says. "It requires planning and strong evaluation. It requires that existing ways of doing things be challenged to see how processes can be improved. More people and groups are talking and working together and that has to be viewed as a positive."

One example of concerted efforts is the Hospital Incident Command System (HICS). The plan is designed to minimize confusion and chaos in a disaster. HICS is an excellent tool, but even so, staff members might find it difficult to adapt to its guidelines, since they may differ from what the employee is used to," Carrico says.

"(HICS) is certainly designed to (be flexible) but the real issue involves people," Carrico says. "We train healthcare personnel to be patient-centered and do what is necessary to take care of the patient and that requires a high level of spontaneity in their approach.

"When we activate HICS we need to impose a new degree of rigidity and some healthcare workers and their executive leaders may really struggle," she adds. "This is a concrete example of why HICS must be exercised, so the ability to move from the more fluid state to a more structured one can be practiced and improved."

An Official Gauge of Preparedness
In an effort to get an accurate estimate of how prepared American hospitals are, three groups have formed a survey. The survey is from Trust for America’s Health, St. Louis University, and the Association for Professionals in Infection Control and Epidemiology’s emergency preparedness committee. The groups started collecting responses in July, 2007 and would like to have at least 2,000 responses by mid-fall of 2007. If they do not have enough, they will extend the deadline until December.

The survey has 40 questions and only takes about 20 minutes to complete, says Terri Rebmann, PhD, RN, CIC, an assistant professor in the Division of Environmental and Occupational Health at the Saint Louis University School of Public Health. She is board certified in infection control and her study emphasis is in infectious disease emergency preparedness.

A similar preparedness survey was released in 2005 and showed that urban hospitals were generally more prepared than rural hospitals. That may not be bad, Rebmann says, as rural hospitals shouldn’t expect the high levels of patient surge that urban hospitals should expect, and therefore do not need to be quite as prepared. Funding and education issues have changed since 2005 though, so these results may be different now, she adds.

One of the major purposes for the Trust for America’s Health survey is to look at how prepared hospitals are now and then take that data to Congress to show how much more money is needed, Rebmann says. Another motivation, particularly of APIC, she adds, is to better understand what information hospital staffs need.

Are Hospitals Doing Enough?

In general, from coast to coast, are hospitals are doing enough to prepare for pandemic events? Rebmann thinks so. "My impression is that they’re doing as much as they can given the limitations and the challenges of disaster planning," she says. "There’s not a lot of funding. There are often not dedicated positions for someone to be a full-time disaster planner, so it’s like someone is wearing five hats and disaster planning is one of them."

A lack of administrative support is also a challenge at some facilities. "There is no such thing as a perfect plan," Rebmann says. "Becoming prepared is a perpetual process. You’re always working to get better prepared. I think most hospitals are doing as much as they can, especially now that a lot of the funding is tied to outcome measures that were dictated by the CDC and the Joint Commission ... That has really helped within the last year or two."

Carrico agrees that given the limited resources available, hospitals are doing the best they can. "The perception of risk is low and therefore, when a hospital has to determine how to use $10,000 they might decide it is best to purchase a piece of equipment that they need today instead of spending money on something that may or may not happen tomorrow," Carrico says.

Unfortunately, there is not ample proof that increased funding of the last few years has increased preparedness, Hsu says. "There is a lack of objective evaluation indicators or measures ... to provide evaluation results as of how we are doing in terms of preparedness," he says. "A true test would be this flu season — starting this fall through spring — and hurricane activities."

As far as smaller healthcare facilities such as nursing homes and surgery centers, the situation may be bleaker, Rebmann says.

"Disaster planning is even more challenging for the non-hospital healthcare facilities because my understanding is that they don’t receive the same level of funding that hospitals get," she says. "They’re tasked with developing pandemic plans and disaster plans in general with little to no resources. They don’t really have anything to work with."

How Extensive Should a Plan Be?

Since resources are scarce at many hospitals, it is wise to prioritize various emergencies. For instance, Wyoming probably doesn’t need to prepare for hurricanes and Oregon officials should pay more attention to earthquakes than to tornadoes.

But, unexpected events do arise and even a broad plan is helpful. "Technically, according to (the Joint Commission), you have to have an all-hazards disaster plan," Rebmann says. "You have to be prepared for all types of disasters whether it’s a hurricane, a flood, earthquake. But that being said, there’s also the common sense route that every hospital should perform a hazard assessment in terms of what is the most likely hazard to affect their area."

As media attention to disasters wanes, most people stop becoming prepared, Rebmann says. "People sort of reach this point of inertia where they say, ‘It’s all too overwhelming to think about it; I’m getting tired. I can’t do anything about it anyway,’” she says. “People have more immediate things to worry about (such as inspections and infection outbreaks).”

Special Considerations

There are several actions that hospitals can take right now to improve their preparedness levels, Hsu says. Regular drills and exercises are an absolute must. Hsu also recommends that hospital staffs develop:

- a volunteer pool
- staff information kits

• an up-to-date list of assets and possible hazards
• relationships with vulnerable community members. These people should self-register on an emergency information database so that they can receive specialized information of where to get medications or how to evacuate. Many members of vulnerable populations have language barriers.

Hospital staffs may not see this outreach as part of their job, but unfortunately, state agencies and other organizations that could be responsible for this outreach have their own shortcomings.

"Based on our previous studies, many state medical examiners’ offices maintain physician databases that are either outdated or incomplete," Hsu says. "Some had a third of the information incorrect. This should be improved."

Hospital staffs must establish solid relationships with their local community, county, state and federal agencies, Gillette says.

"It is imperative that hospitals partner and network among these agencies and consistently train and exercise together," he says. "The overall concept is about multi-agency collaboration, integration and training. It’s about exchanging your business cards well before the next disaster strikes."

The initial step for hospitals is to have clear, delineated policies in place for emergency response, and to publish basic guidelines that describe each and every staff member’s role in the event of a disaster, Gillette adds.

As far as medication for chronic diseases, Hsu thinks there should be discussions about policy changes that would allow patients with chronic conditions to obtain volume medications in declared emergencies with or without prior authorization from physicians.

Another consideration is that 40 percent of a staff could be sick at some point during a pandemic, Rebmann says. "The administrators need to consider surge capacity issues in terms of increasing their bed numbers and having backup staff, so they’re there to keep the facility open and functioning," she says.

Morgue capacity is also an important topic as most morgues only hold five or six bodies, she adds.

An additional factor to consider is that as many staff members as possible need to be cross trained. For instance, during a pandemic event, non-essential surgeries can be halted so that surgery staff can be relocated. There will be a greater need to care for ventilated patients, Rebmann says, and that requires specially-trained staff. Another tip Rebmann offers is to have a contract with a back-up vendor in case the primary vendor runs out of supplies or cannot otherwise hold up their end of the bargain.

**Disaster Training**

Every hospital employee should receive disaster training, Rebmann says. "It doesn’t matter if you’re the valet parker, a nurse, a physician or someone working in the cafeteria," she says. "Everyone is going to have a role in a disaster response and everyone needs to understand what that role is going to be. There are some general things everyone should know (such as) the general aspects of a disaster plan, and becoming familiar with HEICS."

The type of training each employee receives should depend on what position that employee fills, Hsu says. "Many training modules emphasize training in communication, in providing logistic support, and in enabling those needing help to make informed decisions," Hsu says. "All employees should have working knowledge as how to become helpers in time of urgency."

Training must be competency-based, Carrico believes.

"If the healthcare worker understands how to prevent transmission of seasonal influenza and is able to apply that knowledge effectively, that will take us a long way in addressing prevention if we are faced with pandemic influenza," she says.

Expecting personnel to practice at a higher level during an emergency is unrealistic if they lack a competent foundation, Carrico says. "If we need for healthcare workers to practice hand hygiene as a means of preventing disease transmission, can we expect them to perform consistently during an emergency if there is inconsistent practice today?" she asks.

An extreme but fantastic example of emergency preparation is the National Naval Medical Center’s emergency preparedness training program. All staff members — regardless of their profession — have a role in emergency preparedness and are trained throughout the year.

"Training is culminated by hosting a region-wide mass casualty exercise which features an unprecedented integration of local, state, federal and military assets in action," Gillette says. "A command-wide disaster training conference is also held in conjunction with the mass casualty exercise consisting of hands-on skills stations, information booths and lectures from subject matter experts throughout the region."

More than 2,500 staff members participate in the conference each year, he adds.
Gillette believes that the key to a successful training program is having the support of senior leadership. "Our leaders have made emergency preparedness a top priority," he says.

**Evacuation**

An evacuation plan is a mandatory part of disaster preparation. "Every hospital should have an evacuation plan and most probably do have one," Rebmann says. "I can’t think of a single reason to not have an evacuation plan. You would need that for a flood, a hurricane, pandemic — any number of disasters might cause a need for patients to be evacuated.”

According to Hsu, a good evacuation plan should include the following:

1. Identification of available assets such as community faith-based organizations and voluntary fire department members
2. Knowledge of vulnerable populations (seniors, disabled persons, children, people who are linguistically isolated)
3. Awareness of hazardous sites (Hazmat sites, radioactive facilities, etc.)
4. Transportation routes
5. Available space for setting up central command, shelters, etc.

Exercising evacuation plans can be extremely difficult, Carrico says. "The circumstances under which an evacuation could occur are so variable that it further complicates such plans," she says. "I think it is most important to identify the supporting processes and systems that need to be in place to facilitate an evacuation, if one were to occur. If staff do not understand their roles during routine emergencies — where to report, what equipment is needed, who stays in place, communication processes — it becomes very difficult to determine an appropriate course of action that is needed during a larger emergency.”

Assessing modes of transportation is key and may involve borrowing vehicles from nearby sources. An evacuation plan is not the sole responsibility if a hospital staff, Carrico believes. It should involve a whole community.

"For example, if patients were to be evacuated from a hospital, I would not think that the hospital has enough transportation readily available," she says. "This sort of process would require that the local emergency management agency be involved and, hopefully, significant discussion and planning would have occurred prior to the emergency.”

A good plan must be practiced.

"A big issue when it comes to disaster planning is that quite often facilities have a plan, sometimes even a very good plan, but if the staff doesn’t follow a plan during a disaster, the plan is useless; it’s just words on paper," Rebmann says. "Quite often I’ve heard from communities that lay things out in their plans without talking to their partners.”

The planners assume that, for instance, the health department is going to help in certain ways, but they don’t confirm those theories.

"I’ve heard that from many disaster planners from different responding agencies, from hospitals and health departments, EMS, etc. — that they don’t necessarily always know what’s in the community partners’ plans," Rebmann says. "If they’re thinking very locally as opposed from a regional perspective they might not understand that those resources might already be allocated to other facilities.”

Rebmann agrees that disaster drills are 100 percent necessary. "If staff members know what they’re supposed to do it definitely makes the situation more comfortable, as opposed to this chaotic scene where no one understands what they’re supposed to be doing,” Rebmann says. "I would think that (chaos) would create much more opportunity for people to flee.”

Preparedness may seem overwhelming, so it’s wise to start in batches. Chances are great that in the case of an emergency, staff members will be thankful for every little preparation that was made. A flawed plan, after all, is better than an extremely flawed plan, and virtually any plan is better than none all.