

Managing Catastrophic Disruptions to the Supply Chain

The rain that hasn't let up in the last three days is causing flooding in your healthcare facility's supply room and is threatening to ruin a good portion of your inventory.

An ice storm is wreaking havoc on your city or town's electrical grid and has caused widespread outages, which has eliminated your ability to order supplies electronically.

Hurricanes. Tornadoes. Blizzards. Earthquakes.

At a Glance

- › **Develop a comprehensive recovery plan that encompasses the supply chain.**
- › **Make sure every one of your suppliers has an action plan in place for disaster recovery.**
- › **To avoid flooding-related losses, ensure that supplies, including generators and back-up generators, are stored in an above-ground location.**
- › **Review your downtime policies on a regular basis to ensure that they are updated and current.**
- › **Conduct run-throughs to better understand what procedures would be necessary if systems were to go down.**
- › **Stock a just-in-case inventory, or critical supplies that allow your hospital to exist after a catastrophic event.**
- › **Make arrangements with secondary, out-of-region suppliers in the event that your local suppliers are impacted by a catastrophe.**
- › **Ensure that your insurance pays replacement costs, and your facility is covered by business interruption insurance.**

These are all “acts of God” that can happen to your healthcare facility at a moment's notice, and hospital leaders need to be prepared for the ensuing problems. A lack of planning could result in the loss of supplies, insufficient supplies, or even worse: compromised healthcare services and patient safety.

To be as well prepared as possible, here are some important tips.

Conduct a Risk Assessment

It's important to understand both external and internal vulnerabilities. Externally, make sure every one of your suppliers has an action plan in place for disaster recovery. Both the hospital and supplier should know exactly who to contact in the event of a disaster, and the supplier's plan needs to include alternate methods of communication to account for possible lost phone or Internet service. Suppliers also need to have alternate delivery plans in place in case roads are closed or conditions prevent normal delivery methods.

Hospital leaders can save a lot of time and resources by knowing which suppliers will and will not be able to deal with certain disaster conditions. Conversely,

hospital staff can save themselves from the logistical problems associated with over-ordering supplies during a disaster because it wasn't clear which suppliers would be able to meet delivery demands.

Internally, ensure your supply chain and the systems that support it are part of an overall recovery plan. If this isn't the case, put a plan together immediately. Developing a comprehensive recovery plan is time consuming and demands a vision for operational department excellence.

The Association for Healthcare Resource and Materials Management and the Health Industry Distributors Association offer appropriate reference materials and starting points for emergency preparedness. However, to be truly effective, disaster planning requires customization and organization-specific information. Possible vulnerabilities that need to be checked include a facility's reliance on technology, geographical location, and proximity of vendors.

Employ Risk-Minimizing Strategies

Identifying and understanding a facility's weaknesses and vulnerabilities is half the battle to being prepared in the event of a catastrophic event. Every hospital will have different areas of concern, but one common operational weakness is the physical location of a facility's materials department. Many hospitals have a materials storage location in the basement, a very susceptible location for flooding—a lesson learned from Hurricane Katrina. Therefore, supplies, including generators and back up generators should be kept in an above-ground location.

From a technical standpoint, consider using an outsourced vendor to help after the disaster occurs. Such a company can reload systems, implement proper paperwork to revert to a manual system, and help put a plan in place to quickly move the supply chain around, if that becomes necessary.

Downtime Strategies and Procedures

Planned downtime is a common occurrence with the goal of ensuring maximum system performance and preventing future system failures. However, the game changes when a catastrophic event occurs and there's unplanned or emergency downtime. Review your downtime policies on a regular basis to ensure they're updated and current.

An essential element to assist in an emergency downtime action plan is to conduct a catastrophic event simulation. Hospital leaders should conduct run-throughs to better understand what procedures would be necessary if systems were to go down. This type of planning will make developing corresponding policies much easier.

A positive outcome from Katrina and the aftermath of 9/11 is that more and more facilities are conducting simulations.

Prepare "Just-in-Case" Inventories

Many healthcare facilities have just-in-time inventories, or day-to-day supplies that the facility needs to function on a normal level, such as Band-Aids[®], gauze, tongue depressors, and standard surgical supplies.

Just-in-case (JIC) inventories, however, are those critical supplies that allow hospitals to exist after a catastrophic event. The type of JIC supplies that you should have in place will vary by geographic location. For instance, leaders of a community hospital in the Midwest, which would be susceptible to tornadoes, need to make sure their JIC inventories include bottled water, ready-to-eat meals, and flashlights, whereas leaders of an urban or large medical center, which might be more likely to suffer a terrorist attack, should make sure that JIC supplies include things such as gas masks and radiation suits.

In the Absence of Electricity and Connectivity

No matter what the catastrophic event, loss of electricity is probably the most common side effect that a healthcare facility will endure. Since we all rely heavily on technology, it's critical to assess nontechnical readiness. It is essential that staff understand how to revert to a manual process if power is lost.

Make sure there's a back-up plan that includes a printed catalog, or a record of necessary universal product code numbers, so that orders can be manually placed for supplies. Additionally, it's necessary to calculate the time it would take to recover from not having access to the technical and electronic tools that hospital staff normally use.

Avoid Selecting Suppliers Solely Based on Close Proximity

It's not uncommon for small, community hospitals to choose local suppliers to

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reduce shipping fees. Yet from a disaster readiness perspective, that can be very risky. If a facility were impacted by a disaster, then the local supplier could be impacted as well.

No matter what the size of the health-care facility, leaders should make sure a secondary, out-of-region supplier is in place—in addition to having local vendors. This will reduce the likelihood of being unable to receive supplies because vendors have been impacted by the same catastrophe that has hit the hospital.

Proper Insurance for Loss of Materials

Most healthcare facilities have insurance, but it's important to have adequate insurance to recoup inventories lost in a disaster. Make sure your insurance pays

replacement costs, and that your facility is covered by business interruption insurance.

This insurance covers the loss of materials and the costs associated with storing supplies in an alternate facility or trailer. Progressive healthcare facilities already have separate buildings for materials management and IT.

Remember the "People" Factor

It's important to understand that disaster recovery plans are designed for situations that are more or less controllable. While it's important to have such a plan, there will be disasters that are beyond control, such as the recent crushing tornado that destroyed most of Sumter Regional Hospital in Americus, Ga.

Remember to use common sense and take into consideration the "people factor." Some employees' homes might be severely impacted by a disaster, or road conditions could make commutes difficult. In those cases, don't expect all employees to be available to work.

Most important, recognize that the odds of a catastrophe to your healthcare facility are more likely than you might think, and being well prepared for whatever comes your way will help you to maximize the effectiveness of your supply chain management. ☎

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Disaster Supply Core Formulary

Formularies for the type of supplies that hospitals need to have on hand have been put together through a partnership among the Association for Healthcare Resource & Materials Management, the Health Industry Distributors Association, and the Health Industry Group Purchasing Association. The organizations emphasize that the amount of products needed will depend on the individual hospital. The formulary for core products is listed here. The remaining formularies—those for dealing with chemical, biological, radiological, nuclear, and explosive disasters, as well as formularies for pediatrics and staff—can be downloaded at www.ahrmm.org.

Instruments/Equipment	18G IV start catheter	NS 1000cc	Facial tissues
Blood pressure cuffs, disposable	Winged infusion set 23GA & 25GA	Central vein catheter kit	Bedpan
blood pressure manometer		Multi lumen central catheter kit	Urinal
Batteries: AA, AAA, B, C, 1 gross per incident	Irrigation Solutions	Long arm board	Belonging bag
Artificial resuscitator bag, 10% child, 5% infant	Normal saline irrigation solution 2000cc	Short arm board	Regular soap
	Sterile water irrigation solution 2000cc	Stopcock	Mouth care supplies
Sharps: NDL/Syringes	IV Access/Supplies	Linen	Miscellaneous
10cc needleless syringes	IV start kits	Disposable sheets	Sterile lubricant
60cc needleless syringes	Micro drip tubing	Disposable pillows	Alcohol wipes
3cc 23G1" safety syringes	Adult drip tubing	Disposable pillow covers	PVP wipes
3cc 22G1 1/2" safety syringes	Blood administration tubing	Hand Hygiene	Tongue depressors
TB syringes	Disposable IV pressure bag	Providine/iodine scrub brushes	5 in 1 connectors
Insulin syringes	Metri set tubing	PCMX scrub brushes (1 box per 100 capsules)	Garbage liners
Blunt plastic cannula	Arterial line tubing	Patient Personal Care Supplies	Blood glucose testing supplies
Level lock cannula	IV Solutions	Bath basin	Waterproof markers
18G 1 1/2" safety needles	LR 1000cc	Emesis basin	Body bag (25 per 100 casualties)
20G 1" safety needles			Blank labels/tags
Sharps container			Individual bottled drinking water
20G IV start catheter			

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