

WHITE PAPER

# The Case for Mass Notification as Part of a Healthcare Communication Plan

Learning from Real World Events



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# Introduction

Every day, millions of Americans put their lives in the hands of the healthcare system. From staff to patients and their family members, hospitals and their surroundings are potential hotbeds for emergencies.

The wake of the COVID-19 pandemic has only made the challenging landscape of the healthcare system that much more difficult to manage. The effects of the pandemic underscore the importance of having a functional mass notification system in place.

While creating an all-encompassing mass notification system for hospitals is arduous, there are a few key components that must be included in order to comply with state and federal standards. The system should, at its core, give full information during an emergency and permit a quick recovery afterward.

Healthcare mass notification systems should support preconfigured templates that can be customized in advance for all anticipated emergencies. In dangerous situations, system administrators can then select the appropriate template — rather than compose a message under potentially stressful circumstances — leading to errors made in the content of the message.

## TWO TYPES OF MASS-NOTIFICATIONS IN THE HEALTHCARE INDUSTRY



Prior to the pandemic, healthcare organizations were already utilizing mass notification systems (traditionally intended for emergencies) for other critical communications. According to Healthcare Facilities Today, mass notification systems have helped improve daily operational efficiency in healthcare organizations.

Many hospitals also utilize notification systems to help with personnel management. This is true in both critical situations (e.g., a sudden rise in patients necessitates additional doctors and nurses, who are notified via a notification system) and everyday shift management and confirmation (e.g., team members are confirmed for additional or swing shifts on a given date).

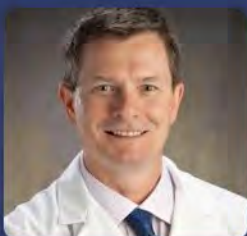
This white paper explores the importance of a robust mass notification system and how to leverage on the recent gains made within the industry to be sufficiently prepared.



# Attacks on Healthcare During COVID-19 and Beyond

Several factors have contributed to the rise in attacks on healthcare personnel during the pandemic. According to a National Nurses United survey of over 15 000 US Registered Nurses conducted in late 2020, about 20% of respondents said they had experienced an increase in on-the-job violence, which they attributed to COVID-19-related staffing shortages, changes in their patient population and visitor restrictions.

**20%** of nurses experienced an increase in on-the-job violence



Terry Kowalenko, MD, professor and Chair of Emergency Medicine at the Medical University of South Carolina in Charleston said in a recent interview that COVID-19 has created an environment “ripe for aggression and violence. You take it out on those who are trying to help your loved ones.”

Since the World Health Organization (WHO) declared COVID-19 a pandemic in March 2020, attacks within the healthcare industry were reported from 56 countries around the world. Healthcare workers have been victims of threats, assaults and demonstrations outside facilities.

These cases were frequently reported during lockdown periods that were designed to stop the spread of the virus. Any verbal or physical act of violence, obstruction or threat that interferes with the availability, access and delivery of medical services is defined as an attack on healthcare by WHO.

## Types of Attacks

According to Insecurity Insight, most COVID-19-related incidents of abuse or violence were triggered by people opposing health measures intended to contain the spread of the virus. Healthcare workers also faced abuse or violence while traveling to and from work and for speaking out against difficulties they experienced in their work.

Threats or violence directed at healthcare workers were frequently triggered by opposition to mandates triggered by the COVID-19 pandemic or by decisions to hospitalize an individual. These types of incidents usually took place at hospitals or other facilities where healthcare workers were on duty.



Cyberattacks on healthcare systems also increased during the pandemic, placing a large threat on patient care and private data. In October 2020, the information technology desk at the University of Vermont (UVM) Medical Center began receiving multiple calls from staff, complaining of strange computer access problems.

All signs pointed to malicious software and, eventually, a file with instructions to contact the alleged perpetrators of the cyberattack was found. The center opted to lock down email, internet access and major parts of the organization's computer network to prevent further damage.

For nearly a month, UVM Medical Center employees couldn't use electronic health records (EHRs), payroll programs or other vital digital tools. Additionally, staff encountered difficulties scheduling and coordinating patient appointments and services. Many surgeries had to be rescheduled and cancer patients had to go elsewhere for oncology treatments.

**Though the center never paid a ransom, the attack cost an estimated \$50 million in lost revenue, according to UVM Health Network Chief Medical Information Officer, Doug Gentile, MD. And, it took IT staff three weeks of working 24/7 to secure network systems and restore thousands of affected computers.**

The ransomware attack on UVM Medical Center is like numerous others that have hit hundreds of hospitals in recent years. Hackers gain entry to a computer system, encrypt the files that run it and then demand payment for a decryption key to unlock access.

This is a very familiar story globally as more than 1 in 3 healthcare organizations around the world have reported being hit by ransomware in 2020, according to a survey by IT professionals.

As mentioned above, the nature of attacks on healthcare related to COVID-19 varies across contexts and can range from the use of weapons targeting medical facilities to the stigmatization of healthcare workers who are treating COVID-19 patients.

**Ultimately – whether they take the form of a cyber attack or a physical assault – these disruptions deprive people of urgently needed care, endanger healthcare providers and undermine health systems.**

## THE OCTOBER 2020 CYBER ATTACK ON THE UNIVERSITY OF VERMONT MEDICAL CENTER



Computer access problems led to the discovery of malicious software



Critical systems had to be shut down for a month severely affecting hospital operations and patient services



It took IT staff three weeks, working 24/7 to secure the system and restore access

# \$50,000,000

This is what it cost UVM in lost revenue



# Stopping Attacks on Healthcare Facilities

Keeping hospital environments safe is a necessary priority for stakeholders as we move past COVID-19. At a time when patients are dealing with multiple effects of the pandemic, cases of violence and cyberattacks only serve to create unnecessary chaos.

Above and beyond the security that is provided at healthcare facilities, government stakeholders need to come together to invest in systematic data collection programs on the attacks against healthcare workers. This is a measure that will go a long way in ensuring that stakeholders are better prepared for attacks in the future.

## Recommendations

A recommendation by Judith E. Arnetz, Ph.D., MPH, professor and Associate Chair for Research in the Family Medicine Department at Michigan State University's College of Human Medicine is that, "reviewing data collected is the best way to learn what went wrong and what we can do to avoid it going forward." Her study of workplace violence includes the first randomized clinical trial of an intervention aimed at reducing violence by patients against healthcare workers. One of the findings from the Detroit Medical Center system was that most incidents took place after 8:00 pm. Enforcing visiting hour limits immediately reduced the incidence and severity of assaults.

Another initiative that government stakeholders could implement is ensuring that training for handling attacks is part of each facility's emergency budget. There has been a significant increase in the amount of equipment and security measures as a result of the pandemic. And, as we've seen, this is also proportional to the increase in attacks. The safety of healthcare facilities and the staff that keep them running is of critical importance.

## Emergency Operations Plan: 6 Key Elements Checklist for Hospitals

Since the healthcare system itself is a vital part of any crisis response, administrators of healthcare facilities and hospitals must formulate a comprehensive disaster plan detailing their organization's intended course of action in the case of any kind of emergency. The complexities of ensuring continuity of services throughout the community puts hospitals at the forefront of emergency planning.

A smart hospital emergency operation plan includes mass casualty events (where loss of life and need for medical attention is high) or direct disruptions to the medical system's ability to deliver care. This approach allows the hospital to act more nimbly in crises of varying causes, durations and scopes.



The standard in emergency planning followed by hospitals is The Joint Commission's Emergency Management Standard. This nonprofit organization sets standards for — and issues accreditation to — healthcare organizations. To be certified as meeting The Joint Commission's standard, facilities must undergo an evaluation every three years and meet other safety and emergency protocols.

The Joint Commission has identified a hospital emergency operation plan's six key elements: communication, resources and assets, safety and security, staff responsibilities, utilities and clinical and support activities. Read on for a look at these components, along with a checklist of steps administrators can take to begin creating each part of their emergency plan.

## Communication

Hospitals rely on efficient communication even in non-emergency situations. During a crisis, the execution of an emergency operations plan can hinge on communication. Internal lines of contact must be clearly documented in any hospital emergency operations plan. Procedures for disseminating information to staff should also be clearly outlined.

An effective disaster response will involve communication with other local first responders. When formulating an emergency operations plan, a hospital administrator or manager should ascertain exactly which agencies will be handling an emergency and identify the appropriate contacts there. Having contact information for other groups and officials in the community — who may act as sources of aid and information in a catastrophe — is also critical.

Documenting attempts at making contact with outside agencies, as well as any conversations that take place, is a crucial step to meeting The Joint Commission's standard for EOPs. Detailed records of incoming and outgoing communications must be kept throughout the emergency.

As with all aspects of an EOP, communication channels are reviewed and updated, with an eye on staff changes or agency responsibility shifts.

### Steps to take toward meeting this requirement:

- Expand communication procedures during an emergency rather than radically overhaul current ones
- Document communication protocols and channels
- Identify and document which agencies will provide emergency information
- Make inroads with local first responders
- Stay up to date on changes in official procedure
- Capture the efficiency of plan metrics and evaluate



## Resources and Assets

If an organization intends to be operational throughout an emergency, it needs to identify resources for restoring stock of non-medical supplies such as food, water and clean bedding. Hospital administrators should document their inventory and its depletion rate to plan for lengthy periods without the ability to resupply.

Sufficient supplies to weather any catastrophe and effectively care for patients must be kept on site at all times. Administrators must avoid optimism about federal or local support. Disasters such as Hurricane Katrina have underscored how the government can also be too overwhelmed by the crisis to effectively respond. A hospital emergency operations plan should assume that things will not go as planned.

Staff is considered an asset and must also be supported during an emergency. An EOP should document how staff will obtain transportation to and from work, define appropriate shelter and plan for emotional counseling. Partnering with outside groups such as behavioral health agencies and volunteers who can lend their services in support of healthcare workers is a potential way to address this requirement.

Like every other aspect of the hospital emergency operation plan, resource and asset needs must be regularly revised to match current conditions. Continually monitoring demand on supply chains and finding alternate vendors will keep administrators ahead of the game.

### Steps to take toward meeting this requirement:

- Identify supplies that will be needed at the beginning of a crisis and actions such as an evacuation
- Determine how everyday supplies will be replenished if a disaster cuts off outside support
- Consider asking existing vendors to insert a “surge clause” in supply contracts in case of emergency
- Document procedures for conserving resources and assets
- Evaluate current resource needs and external demands periodically





# Safety and Security

Safety and security are even more important during a crisis, as everyday norms are jeopardized. A hospital emergency operations plan must detail exactly how the organization intends to maintain the safety and security of patients and staff. Actions taken to this end can fluctuate with each disaster.

Administrators must evaluate the potential safety and security hazards that may arise in any given disaster and document their mitigation plans. Hazardous and biological waste disposal instructions, biological and chemical decontamination procedures and isolation protocols are all potential inclusions in a hospital EOP.

Contact information and command structures for local security agencies (such as police and sheriffs) should also be obtained and included in the EOP. Coordination with these agencies can be crucial for escorting staff members through disaster areas and managing disorderly members of the public.

After a disaster occurs, the organization's response should be evaluated for its efficiency and effectiveness. Organizational protocols must be reevaluated as new threats appear on the horizon.

## Steps to take toward meeting this requirement:

- Provide for disposal, decontamination and isolation
- Determine facility capabilities in case a lockdown is needed
- Control and/or minimize points of access to the facility
- Prioritize routes of internal traffic
- Establish evacuation routes for different types of emergencies
- Arrange for law enforcement to maintain order around the facility

# Staff Responsibilities

Roles and responsibilities for staff and licensed independent contractors must be clearly established and understood if an emergency operations plan is to be effective. To meet The Joint Commission's standard, a hospital emergency operations plan should document what staff will be doing in each of the six key areas.

All hospital staff on site during an emergency must be trackable. A system should be set up in advance of a crisis to keep tabs on the location of on-duty personnel. This may be something as simple as identification cards worn around the neck or a mobile app for more well-funded organizations.

Staff support is an important aspect of this criteria. Staff must be trained in the roles they are expected to play during an emergency. Independent practitioners need to know who they will report to and what role they will occupy. Follow-up counseling would ideally be provided to staff for stress incurred during the crisis as well.

Staff roles and responsibilities should be evaluated periodically for effectiveness. Rehearsals or drills of disaster scenarios are a good way to determine whether a specified role is a good fit for a particular staff member.

**Steps to take toward meeting this requirement:**

- Evaluate what staffing needs will be during an emergency
- Determine how staff will be called in if telecommunications are down
- Consider revising sick leave and vacation policies during crisis events
- Implement a dynamic, scalable tracking system for on-site staff
- Reevaluate and reorganize roles and responsibilities as needed

## Utilities

The hospital emergency operations plan should also document the essential utilities required for the smooth functioning of the organization. These can include water, electricity, telecommunications, fuel, ventilation, medical gas and vacuum systems.

Many different kinds of crises can disrupt functioning in utilities, and multiple utilities can be impacted at a time. For example, an earthquake can affect both telecommunications and gas while a hurricane can cause flooding that renders potable water undrinkable and knocks out power lines. An EOP should consider the possibility of precipitating crises.

To provide for these contingencies, organizations might consider obtaining generators, water filtration systems and additional fuel sources, among other resources. Backup utilities — and any repair parts they may require — should be located in an area where they would remain safe during the initial disaster. An emergency operations plan may also include assistance from outside sources, though plans should take into consideration that access to the facility may be limited or cut off.

New equipment and other changes in facility composition and protocol will require updates to the utility portion of the EOP. As with other resources, organizational needs in this area must be regularly reviewed and revised.

**Steps to take toward meeting this requirement:**

- Identify the essential utilities the organization requires for operation (e.g., internet service)
- Investigate the potential disruptions essential utilities face in the region
- Obtain backup generators and water reservoir tanks
- Stock extra fuel and repair parts for generators and other essential equipment
- Contact outside sources for support in providing utilities
- Decide when to stop accepting patients or evacuate



# Clinical and Support Activities

Meeting the clinical needs of patients remains the highest priority for a healthcare organization, even during an emergency. As such, a hospital emergency operations plan needs to document how clinical and support activities will be maintained. Administrators will need to consider how to provide patient care within the rapidly changing circumstances a disaster scenario presents.

Clinical activities requiring special attention during a crisis include triage, vulnerable populations such as elderly and disabled people, providing for hygienic, sanitation and mortuary services and documenting clinical information about patients are all crucial to fulfilling this standard.

Steps to take toward meeting this requirement:

- Determine the specific clinical activities that must be maintained for the organization
- Identify what additional areas of support will be needed in a crisis
- Consult with clinical staff to formulate a scalable triage system
- Establish a backup plan for providing critical support services such as sanitation and mortuary
- Evaluate performance and make changes to the EOP as needed



# Best Practices for Clear Communication

Even though the world sometimes appears to have become a more complicated place, many healthcare facilities still lack the infrastructure necessary to interact effectively with everyone.

As a company committed to keeping people connected, we hope this white paper will give you ideas for the best practices to implement in your own organization should you need to manage an emergency.

Below are some steps you can take to bolster your organization's communications practices and enhance positive outcomes for your organization, staff, patients and assets.

## Assess the tools at your disposal

Assessing the procedures and tools already in place is a good starting point in establishing any communication plan. To discover potential flaws, it's critical to understand how information is currently being conveyed.

Following the storms in Tuscaloosa, Alabama in 2011, it was determined that the Alabama Trauma System (which was created to prevent hospital overcrowding by assisting patients in rerouting to other hospitals) was underutilized. Assessment of these types of tools should assist hospitals avoid overcrowding with trauma cases.

Examine the tools at your disposal and ensure they are being used to their greatest capacity. It may appear to be more convenient to skip certain processes, but this can cause confusion and compromise the protocols in place to keep everyone safe and informed.

## Test for effectiveness

Many traditional options for emergency alerting systems are already available. But, if they are not adequately tested or expanded on, problems can quickly arise. It's important to test for reach and effectiveness when introducing or enhancing your emergency alert protocols. Identify areas of risk and understand what tools are needed to overcome them.

It's critical to consider every event that could warrant a mass alert in your organization. Having specific protocols in place ahead of time can save you time and hassles in the event of a critical event. Additionally, regular testing assists in keeping everyone up to date on procedures while also ensuring the system's capabilities. This means you'll be able to spot and solve any flaws or problems so that everything functions smoothly in the event of an emergency.

## Use the right channels

During an emergency, excessive volume can cause cellular networks to become congested. As a result, it's critical to use a variety of communication channels to reach people quickly.

People in Boston, for example, faced difficulties following the 2013 marathon bombing. When mobile network usage spiked, following the crisis, communications were disrupted. People in the area were attempting to make outgoing calls while those outside the area were trying to contact people within it. This put a significant strain on the network, making it problematic for calls to connect.

Maintaining good communication entails keeping the appropriate channels open. Examine the various methods for reaching people and determine which will be the most effective in the specific situation. Keep in mind that particular channels may become overloaded, causing messages to be lost. To get information to the people who need it, communicate through numerous channels.

## Wrapping Up Your Communications Approach

These are just a few of the difficulties that health facilities may face during an emergency scenario. It's essential to work with a mass notification system that is committed to using the most up-to-date technology, research and resources to assist organizations in providing the best possible response to emergencies.

Here are a few guidelines for providing clear communications during a crisis to help mitigate losses and keep people safer.

Guideline	Details
<b>Use a single system</b>	Time is of the essence when a crisis develops. Personnel in charge of safety and security may not have time to log in and out of several systems to transmit multiple notifications. As such, a single method that reaches everyone aids in the rapid dissemination of critical information.
<b>Reach multiple devices</b>	Your system should be able to connect to landlines, mobile phones, computers and even digital displays. To alert your employees more effectively, delivery to every accessible device is indispensable.
<b>Provide regular updates</b>	After your initial alert goes out, sending follow-up messages to further instruct your teams is advantageous. By doing so, you can provide more details about developments, what precautions staff and patients should take to stay safe until it is resolved and all-clear messages.

Guideline	Details
<b>Designate groups</b>	During an emergency, it may be necessary to target specific groups for alerts and updates. The right notification tool allows you to choose specific groups or team leaders to deliver information and guidance.
<b>Message Templates</b>	Prepare for multiple scenarios by creating message templates ahead of time. Using templates, messages can be delivered as soon as a crisis occurs to convey basic information and start safety procedures. They also help minimize delays and human error.

## Regroup's Solutions for Healthcare

Solutions that provide a cloud-based mass notification platform are secure and flexible, giving healthcare professionals and administrators an easy-to-use communication tool that can reduce costs, improve patient care and safety and increase patient satisfaction.

In addition to being a fast and reliable tool for managing emergencies, Regroup can be used every day by doctors, administrators and other staff members. This multimodal platform makes it easy to communicate within healthcare facilities, collaborate on patient care, manage staffing needs and even provide updates and information to patients.

Regroup provides the features most sought-after by healthcare facilities and professionals:

- Flexible messaging with unlimited admins
- Multiple ways to send and receive your messages via email, push notifications, desktop alerts, text/SMS, mobile app, voice, digital signage, PA systems and more
- Free mobile app that enables users to send alerts anywhere with only two taps
- Conference bridging to quickly convene doctors, nurses and other personnel to collaborate on patient care and coordinate plans, even when your workforce is in multiple locations
- Pre-configured quick post templates help you get information out faster and more accurately
- Automated alerts from FEMA's Integrated Public Alert & Warning System (IPAWS), NOAA, the National Weather Service (NWS) and more



# Conclusion

The Centers for Medicare and Medicaid (CMS) requires healthcare facilities to have an emergency preparedness and disaster recovery plan in place in order to maintain participation in Medicare and Medicaid programs. Regroup's mass notification platform can help healthcare providers meet many of the mandate's requirements by ensuring doctors, nurses and staff are able to receive critical information quickly and on any device.

Using an emergency mass notification system like Regroup allows you to maintain vital communications in the event of a crisis and stay in touch during regular operations. Alerts and advisories will be delivered to both on-site and remote workers over a variety of channels for maximum efficiency.

Regroup can help you create a smarter, more effective communication plan and mitigate risks to your facility and staff. We welcome you to contact us for more information or a demonstration of the Regroup Mass Notification platform.

Call Us **855-REGROUP**

Visit Us Online **[www.regroup.com](http://www.regroup.com)**

