

Considerations for the Use of Temporary Surge Sites for All-Hazards Incidents

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A wide range of incidents may result in a temporary surge of patients seeking healthcare services in a community. These include large mass casualty incidents (MCI), seasonal illness spikes and other disease outbreaks, and natural disasters resulting in damaged healthcare infrastructure or displaced patient populations.

Some of these incidents occur with little or no warning while others allow for advance planning. While some healthcare surge incidents are resolved within hours of their onset, others require months of management. This considerations document describes the major issues healthcare facility emergency planners should account for when planning temporary patient surge sites. For the purposes of this document, the term “hospital” is used to describe acute care hospitals with emergency departments (EDs) and free-standing facilities with emergency care capability. The term “temporary surge site” is used to describe a range of solutions, including the use of non-patient care areas (e.g., waiting rooms), soft sided structures (e.g., tents), use of community infrastructure (e.g. community center), and mobile facilities to triage and/or treat patients. This document provides an opportunity for healthcare facilities to review their plans and procedures to ensure readiness for potential patient surges. Facility emergency managers should contact their state licensing agency and Centers for Medicare & Medicaid Services (CMS) Regional Office for information about specific licensing and certification requirements for such temporary surge sites.

There is little an individual hospital or healthcare system can do to prevent patient surge, but a region or healthcare coalition (HCC) can use coordinated strategies to help provide situational awareness to support patient surge management throughout the community. All hospitals must have an emergency operations plan (EOP) that includes patient surge strategies covering a range of impact from conventional to crisis – with crisis plans usually involving use of non-traditional spaces for patient care. Strong consideration should be given to activating these plans and implementing incident management whenever usual strategies to manage patient demand are inadequate. Surge is never solely an “emergency department problem,” but should be addressed through facility-wide strategies, including inpatient and outpatient services.

For those hospitals that are part of an HCC where patient loads are diffused across the healthcare system in the area to the degree possible, this should help reduce the need for temporary surge facilities. Good information sharing, coordination, and a coalition approach to temporary care sites can help ensure that patient surges are diffused across the available healthcare system resources.

The U.S. experienced a particularly challenging influenza season in 2018. At that time, ASPR TRACIE received several inquiries for information related to establishing “surge sites,” such as soft sided structures or mobile facilities located adjacent to EDs to augment existing patient care areas or providing patient care in non-traditional areas of the hospital (e.g., converting conference rooms to either inpatient care or ambulatory patient outpatient care). The information in this document was gathered from open-source materials, recent and past discussions with and feedback from ASPR TRACIE Subject Matter Expert (SME) Cadre members, and interviews and site visits that began in 2018 and continued through the COVID-19 pandemic with facilities that deployed temporary surge sites.

In [this interview with ASPR TRACIE](#), doctors from NYC Health + Hospitals discuss the development of surge sites, soft sided structures, and mobile medical units to help decompress their EDs during the 2017-2018 seasonal illness surge.

Managing Patient Surge Internally

As part of their EOPs, hospitals should have a plan to internally increase their ability to manage a surge of patients. Select considerations and strategies include:

- Planning for early discharge, including using discharge holding areas.
- Canceling non-emergency procedures to free up beds in surgical care areas such as same day surgery and post-anesthesia care areas for “inpatient” care.
- Using “geri-chairs” rather than beds for short-term/observation admissions and for administering hydration, bronchodilators, and similar treatments.
- Reviewing patient care plans to determine which patients could be moved safely to other units for ongoing care (e.g., from monitored to non-monitored beds).
- Converting private rooms to semi-private rooms.
- Opening licensed additional beds or units that are closed.
- Using supervisors or teaching staff to provide direct patient care or otherwise changing staffing and responsibilities including ratios, hours, and staffing structure.
- Canceling training or classes to increase staffing.
- Changing documentation requirements (e.g., fast-track paper charts for rapid evaluation and treatment of ambulatory patients).

- Being able to flex staff to changing needs – particularly for specialty patient surge (e.g., pediatric, burn).
- Increasing/expanding clinic hours to include evenings and weekends to deter clinic patients from coming to the ED.
- Converting specialty clinic areas to general acute outpatient care and/or referring ED patients directly to clinics after screening (e.g., sending non-emergent orthopedic injuries to the orthopedics clinic, eye injuries to the eye clinic, non-emergent minor injuries to family medicine, etc. or repurposing an Ear, Nose, and Throat clinic area to care for general acute ambulatory patients).

In [this interview with ASPR TRACIE](#), Ryan Hay, Director of Emergency Preparedness for Lehigh Valley Health System, describes their surge management strategies for the 2017-2018 seasonal illness surge.

While internal surge management works for smaller, local, and more manageable incidents, these strategies have not always been sufficient to address the increased demand during larger incidents.

Use of Temporary Surge Sites on Facility Property

Hospital-wide Engagement

Many of the SMEs ASPR TRACIE interviewed discussed using a hospital-wide approach for addressing surge that integrates with the incident command structure (ICS; usually as part of the planning section and possibly having a designated supervisor under the operations branch depending on the structure). Internal partners include emergency management, nursing leadership (chief nursing officer or representative), physician leadership (chief medical officer or representative), ED leadership, inpatient clinical leadership, daily nurse supervisor, infection control practitioner, pharmacy, environmental services, supply chain and facility management, and patient registration.

Define the term “temporary” for your facility. The general consensus among those interviewed by ASPR TRACIE is that this is less than 30 days, at which point there may be regulatory considerations and other factors for continued operation.

During shorter duration surge incidents and planned events, frequent communication with these partners provides situational awareness of the changing dynamics within the facility or healthcare system. These partners are key decision-makers when determining whether internal surge strategies are sufficient or if a temporary surge site should be established. During a no-notice incident, pre-determined plans may need to be implemented (e.g., establish parking lot or lobby triage and minor care operations) and the operational tempo may be significantly accelerated.

During longer duration surge incidents, daily meetings (huddles) with these partners should be conducted to discuss census and actual volume versus expected volume, coordinate discharge planning, and address staffing issues to help leadership forecast surge needs and strategies. For integrated healthcare systems, data from primary care and internal medicine clinics as well as urgent care clinics could also be used to anticipate surge. As the intensity of the response increases, these daily huddles may need to occur more frequently. Other information that may inform the surge response includes ED wait times, chief complaints, and numbers/percentage of patients who left without being seen (tracked over time).

Thresholds and Triggers

While it is preferable to use existing infrastructure for patient care such as flat-space areas like conference rooms, lobbies, physical therapy spaces, etc. (assuming the building is safe to occupy), temporary facilities both on-site and in the community are part of a continuum of surge capacity solutions that should be planned for and implemented in proportion to the demands and characteristics of the incident. Every facility will have different thresholds and trigger points related to activating temporary surge sites. These points may be based solely on ED volume, lessons learned from previous incidents or could be affected by the inpatient or outpatient volume and the need to board admitted patients beyond the ED or create rapid triage spaces to screen potentially infected patients. Lack of flex space may also contribute to the need to surge outside the facility. Pre-identifying the facility's thresholds and triggers for different types of incidents, then integrating them into hospital-wide plans and exercises, can ensure all parties can support the strategies and decisions. Understanding community-based resources and plans for temporary care is also essential to a comprehensive plan.

Regulatory and Legal Considerations

ASPR TRACIE cannot provide legal or regulatory advice on federal or state regulations associated with using non-traditional space to address patient volume. Waivers of section 1135 of the Social Security Act are only possible when a federal-level emergency has been declared by the President AND Secretary of Health and Human Services. CMS [provides information](#) on ways to increase inpatient and outpatient capacity **without the need for 1135 waivers**. Temporary facilities must meet all the conditions of participation for CMS AND must comply with all state and county licensure and life safety code requirements. As always, when using surge strategies for inpatient care that will last more than a few hours, facilities should notify their state licensing agency and CMS Regional Offices to discuss the specifics of the facility's solution in addition to contacting their HCC and/or other regional hospitals for assistance with load-balancing if they are the primary hospital affected.

Notification and Coordination

Internal communication ensures everyone understands what the temporary surge site is and is not intended to do – the function of the site can vary by incident and in fact, multiple temporary strategies (for screening as well as overflow of stable inpatients) may be implemented concurrently. For integrated healthcare systems, communication and coordination with corporate headquarters should be ongoing and in accordance with emergency plans and policies and procedures.

Regarding external communication, hospitals should notify:

- State licensing agencies and CMS Regional Offices, as applicable.
- Local emergency medical services (EMS) providers, especially if the location of the temporary surge site will impede the traditional flow of traffic or is designed as an initial triage point.
- Local primary care providers and free-standing urgent care and emergency care centers to help offload patient surge by educating patients about alternatives to the ED.
- Other healthcare facilities that may be impacted (e.g., by early discharges that may require homecare support).
- Local HCCs, public health agency, emergency management agency, and [Medical Operations Coordination Center \(MOCC\)](#), if applicable, to help address consistency of care strategies and distribution of patients across the region.

Finally, hospital executive leadership should be visible to staff and the public through personal visits to the temporary surge site and through media interviews and appearances.

Behavioral Health Considerations for Staff and Patients

Surge incidents are stressful for patients, loved ones, and staff. People are tired, worried, and may not be feeling well. If the surge incident results from an MCI or natural disaster, people without physical injuries may arrive seeking information on their loved ones while dealing with their own exposure to a traumatic incident. Patients injured during an MCI may be from another geographic area and they and their loved ones may be under additional stress navigating healthcare decisions in an unfamiliar environment. Staff will likely be tired, working extended or extra shifts, and, in some cases, may personally know the patients. Being

Supporting Staff Working a Surge Incident

- Encourage and support short breaks.
- Stock the break room with:
 - Healthy snacks and drinks.
 - Calming music or areas where staff can listen to short stress management podcasts or music.
 - Antibacterial wipes, spray, and gel.
 - Posters that encourage self-care and hand and respiratory hygiene.
- Provide on-site behavioral healthcare/ faith-based support for staff (and patients).
- Maintain adequate supply of protective gear and encourage its use.
- Offer on-site childcare for staff working extra hours.

told they need to provide care in an environment in which they are not familiar can add to this stress. Incorporating both patient and staff behavioral health needs into surge planning can ensure an efficient response.

Operationalizing a Temporary Surge Site

Considering the following questions can help a hospital decide whether an on-site surge facility is necessary to manage outpatient care:

- 1. Will using a temporary surge site positively impact patient care and flow?**
- 2. Can safe and effective clinical care be provided in a temporary site that is appropriate for patients and staff?**
- 3. Will the demand be sustained long enough to warrant set up?**

- For shorter duration incidents, other surge management strategies may be adequate to address the immediate needs and the effort to establish a temporary surge site may distract from or even hinder the response.
- For planned or forecasted events, consider whether a temporary surge site may be beneficial and how it will contribute to patient flow.

- 4. Has the facility exhausted other options?**

- Expanded to other areas of the hospital/campus (e.g., creating additional outpatient capacity in on-site clinics, same-day surgery, or observation/short-stay areas).
- Increased and/or redeployed staff.
- Increased throughput by reducing length of stay (e.g., expedited charting, moving patients to “results pending” area after tests obtained).
- Expanded hours and capabilities of on-site clinics.
- Augmented virtual medical capabilities (e.g., triage/information lines, telemedicine).
- Encouraged, through public education, that patients seek the proper level of care through urgent care centers, local clinics, or primary care physicians.
- Planned early/coordinated discharge for both inpatients and outpatients.
- Coordinated with local HCC, emergency operations center, EMS dispatch or communications system, or MOCC to manage patient distribution throughout the community.

- 5. What are the costs?**

- Determine need to purchase/rent/borrow a soft sided structure or mobile unit if current infrastructure cannot support the needs.

If considering purchasing a mobile facility versus temporarily renting or borrowing, do so with respect to modular scalability and compatibility with other locally owned assets. This would allow the equipment to be combined in future emergency situations, if necessary.

- Assess logistics and cost to operate the temporary surge site in addition to normal operations (e.g., rentals, overtime, additional staffing, generator fuel, lighting, security).
- Account for whether the change in treatment site will affect reimbursement.
- If renting the structure, specify facility staff that will set up and operate the generator, HVAC, and other systems and to assemble and take down the structure.

6. What are the “optics” of the on-site temporary surge site?

- Plan for working with the media and managing community expectations.
- Prepare for patient perceptions.
- Ensure that if the temporary facility is used only for specific conditions that these are not perceived as providing “sub-standard” care (e.g., if the temporary site is used for isolation care for a high consequence infectious disease).
- Manage patient expectations at the initial point of care; tell them they may be seen in a temporary surge site, and this may decrease their wait time. Emphasize that patients are directed to the temporary surge site based solely on their symptoms and condition and not other factors, such as ability to pay.
- Inform employees – those working in the ED and those staffing the temporary surge site – of the purpose of the site and the types of patients who can be cared for there.

Consider having a “media day” that allows the press and local leadership the opportunity to look around prior to opening the facility for patient care. This could also provide the opportunity to message to your community about wait times and where to seek care. Such a media day can also be incorporated into your timeline when planning an exercise and can similarly be used to familiarize your community with your capabilities.

7. Are adequate plans and procedures in place?

- Ensure staff have been trained on the operations of the temporary surge facility. Consider a staff training day if practical or provide adequate time for on-the-job training. Incorporate establishment of a temporary surge site in exercise plans to test staff and identify gaps in plans and procedures.
- Establish modifications in clinical care for patients treated in the temporary site (e.g., not running labs on everyone, treating based on symptoms).

8. Does the facility’s plan for the temporary surge site include purpose-specific factors, safety and accessibility features, and hazard identification and mitigation?

- Determine the purpose of the temporary surge site (e.g., waiting room, triage only, decontamination and assessment, isolation, ongoing treatment).
- Estimate the size and footprint of the temporary surge site and all its associated equipment.
- Ensure the location is safe and accessible for employee and patient movement between the temporary surge site and the ED/hospital.

- Consider providing overhead cover for those moving between an exterior temporary surge site and the hospital.
- Create an extreme weather plan (e.g., snow, high winds, electrical storms, heat), especially if using temporary structures.
- Identify and mitigate other potential hazards (e.g., minimizing wind effects from helipad rotor wash).
- Work with facility security and/or local law enforcement to ensure staff, patients, and the temporary site are adequately protected.
- Ensure security mechanisms are in place to restrict access to the temporary surge site (during operational and non-operational hours).
- Ensure the proposed location will not impede access to the ED or other entry points to the hospital.

All the facilities interviewed by ASPR TRACIE indicated that patient perception of the temporary surge site was mostly positive, with an appreciation of shorter wait times. The “left without being seen” numbers dropped dramatically after these facilities initiated a temporary surge site. Some of the specific negative comments included:

- Concerns about receiving lower level of care.
- Fear or perception of being placed in an “Ebola tent” or “quarantine or isolation.”
- Some patients (including people experiencing homelessness) felt “pushed out” quickly.



Exhibits 1 and 2. Different views of a mobile soft sided structure adjacent to an emergency department main entrance.

Clinical Care Delivery in a Temporary Surge Site

Considering the following questions can help a hospital decide on important factors as it relates to clinical care delivery in a temporary surge site:

1. Will you use electronic or paper charting and documentation?

- Determine whether paper or electronic charting will be used and how beds/pods will be documented.
- If you will use your electronic medical record (EMR), determine if it needs to be expanded to include additional beds/units to incorporate the temporary care.
- If the EMR is not used, determine the process for integrating the charting in the temporary care area into the EMR in the future.
- Develop and use templated clinical charts on EMR or paper forms.
- Utilize custom discharge instructions and pre-printed prescriptions.
- Utilize default billing/coding.

If considering purchasing a mobile facility versus temporarily renting or borrowing, do so with respect to modular scalability and compatibility with other locally owned assets. This would allow the equipment to be combined in future emergency situations, if necessary.

2. Which types of patients will be treated?

Determine what types of patients are appropriate for the temporary surge site. Options include:

- Triage/assessment only (e.g. to determine if the patient has an infectious complaint and direct them to the appropriate care area).
- Any low acuity, regardless of chief complaint.
- Influenza-like illness (ILI) or suspect cases only (to reduce transmission risks) during seasonal illness outbreaks.
- Observation patients.
- Inpatient overflow (general, or isolation).
- Chemical exposure (e.g. potential for riot control agents during mass gatherings/demonstrations).

3. Which patients will be excluded?

Determine whether some types of patients may be inappropriate for the temporary surge site. The facilities ASPR TRACIE talked with all excluded patients with the following conditions/symptoms from their temporary surge sites:

- Behavioral issues related to mental health or chemical dependency.
- Diarrheal illness (those who will require frequent use of a restroom if one is not available in the temporary surge site).
- Obstetric or gynecological complaints or pregnant patients.

- Patients in custody/escorted by law enforcement.
- Certain complaints such as eye or orthopedic, depending on the equipment and supplies, may be excluded.
- Extreme ages (e.g., under 8 or over 80 years of age).

4. What will operating hours be?

Determine whether the site will be operated 24/7, during pre-defined hours, or on an as-needed basis. The following questions can help planners decide:

- Does census data suggest times when the temporary surge site is most needed?
- Does experience with previous similar planned events suggest appropriate operating hours?
- If the temporary surge site is not open 24/7, what is the facility’s plan for securing and maintaining the temporary surge site during non-operational hours?
- If the surge site will be operated on an as-needed basis, what is the procedure to determine the need and how will staffing be shifted to accommodate the need?
How will the operating hours be messaged to the community?

5. How will the temporary surge site be integrated with the hospital?

Consider the following questions to achieve efficient patient flow:

- Where/how will patients be registered (e.g., “mini registration” at check-in and a full registration at the bedside in the temporary surge site)?
- Should full registration occur at check-in based on available staffing?
- Will the facility manage discharge from within the temporary surge site?
- Will the patient stay in the cube/examination area waiting for test results or is there a “flow” from care space to waiting space or into the hospital?
- How will patients be directed to specific areas (e.g., signage and/or volunteers)?
- How will accompanying family members/friends of patients be managed or restricted in the temporary surge site?
- If the area is used for inpatient care, what are the selection criteria and exclusions (e.g. oxygen requirement, medically fragile)?



Exhibits 3 and 4. Ensure there is adequate space for movement and patient care.

6. What capabilities are available at the temporary surge site?

Consider whether and how the following capabilities will be available in the temporary surge site; this can also help determine the types of patients cared for in the site:

- Power:
 - Is power supplied by generators or electrical connections? If using generator power, does the capability exist to switch from one generator to another when they reach their hourly maximum capacity or in case of failure?
 - If the generator is gas-powered, is it located a sufficient distance away so that noise and exhaust (and carbon monoxide) are not issues?
 - Are there sufficient charging stations for staff and patient cell phones and other devices?
 - Is there lighting capability both inside and on the exterior of the temporary surge site?
 - Is there sufficient power for durable medical equipment?
- Climate control with regular monitoring from staff familiar with portable equipment. If heat is required, what are the safety/fire risks and response plans?

- Laboratory capabilities within the temporary care space (e.g., basic point-of-care urine, urine pregnancy, blood glucose, rapid strep and influenza testing, and point-of-care blood tests).
- Radiology services (integration with hospital or in the care area).
- Oxygen – tanks, supply hose, on-site generation or system.
- Electrocardiogram.
- Equipment for obtaining vital signs including oxygen saturation and temperature.
- Suction.
- Crash cart.
- IV fluids/lab draw cart/materials.
- Pharmaceuticals:
 - Frequently used medications on hand (e.g., acetaminophen, ibuprofen, anti-emetics tailored to the incident).
 - Ability to get other medications from main ED or pharmacy.
 - Secure location for medication and dispensing process as needed.
- Negative airflow area(s).
- Layout:
 - How many beds (and/or elevated cots, chairs, or geri-chairs) for patients?
 - How many chairs are there in the waiting/discharge areas?
 - Is there adequate storage space for a limited amount of resupply for frequently used items (e.g., linens, gloves, masks)?
 - Is there space for staff to sit and/or chart?
 - Will restrooms be part of the temporary surge site or are they conveniently located? Is signage available to direct patients?
 - How will patient privacy be protected?
 - How will the site comply with the Americans with Disabilities Act or provide alternative access through the hospital?
 - How will cross-contamination/cross-infection be prevented?
- Computer access and other information technology and biomedical technology needs for registration and patient care (including wi-fi).
- Overhead paging/signboards/other communications.
- Whiteboards/flow tracking (if EMR not used or as backup).
- Hospital phones/radios.
- Carts and other equipment appropriate for the environment.
- Personal protective equipment (PPE).
- Handwashing stations or hand sanitizer dispensers.

One healthcare provider ASPR TRACIE interviewed suggested using more durable tool storage or utility carts from hardware stores rather than medical grade carts.

- TV/music in waiting area, if separate from main area.
- Trash cans, biohazard receptacles, sharps containers, and laundry bins.
 - Establish a process to manage laundry, garbage, and biohazard disposal.
 - Confirm temporary surge site complies with essential environmental health standards relating to management of the water supply, sanitation, hygiene, and waste.
- Chairs in treatment area for visitors.



Exhibits 5 and 6. Consider heavy duty carts for austere environments

7. How can staffing the temporary surge site support select services?

- Security/greeter/flow control:
 - What level of security is needed?
 - Are staff needed to screen/greet the patient(s) outside to direct them to the appropriate area(s)?
- Clinical staff:
 - An adequate number of providers should be present to maintain maximal throughput. With relatively low acuity and templated charting, patient turnover can be very rapid. Provider/RN teams often can “tag-team” visits

within minutes, particularly if select registration/charging/discharge strategies are implemented.

- In some cases, staffing the temporary facility with contract or disaster response personnel (e.g. Disaster Medical Assistance Team members from HHS/ASPR) may be feasible and advisable to allow the hospital to focus on more acute care needs.
- Registration/charting/discharge:
 - Expedited registration – who will perform these tasks and how?
 - Use of scribes should be considered when the providers are not accustomed to managing high throughput.
- Environmental services:
 - Determine who will turn over the rooms and related cleaning expectations.
 - If handled by staff other than environmental services, ensure sufficient cleaning supplies are available and personnel are trained on safe use.
- Diagnostics:
 - Determine if nursing staff can use standing orders to order a variety of urinalysis, labs, and radiological tests prior to the patient being placed in the temporary surge site and who will perform these.
 - Decide between adjusting lab, radiology, and other protocols or limit labs and other diagnostics on patients treated at surge site (e.g., if advanced imaging or testing is needed, refer into the hospital).
- Pharmacy:
 - Will a pharmacist be located in the temporary care area?
- Social work:
 - Set up a separate area/desk to avoid consultation in clinical spaces.
- Resupply:
 - What is the process for central supply personnel to regularly re-supply the site?

The facilities ASPR TRACIE interviewed had temporary surge sites in the range of 12-14 additional beds that they staffed with roughly 1-2 registered nurses (RNs), 1 technical partner (nursing assistant, patient care technician), and 1 provider (nurse practitioner, physician assistant, or physician). None of the facilities used residents in the surge site.

Maintenance of Temporary Surge Site Operations

Ongoing communication and monitoring are needed to ensure smooth functioning of the temporary surge site. Consider the following to assess the site's daily functioning, improve services, and to inform decision-making on when to demobilize:

- Establish key metrics and review data from multiple sources (e.g., lab results, x-rays, admissions, syndromic surveillance).
- Compare key metrics and data with previous time periods to identify trends and indicators of the need for the temporary surge site.
- Determine a process to review the function of the site and quality improvement processes to improve efficiency and safety.
- Hold daily (or more frequently as needed) calls or huddles with multi-disciplinary teams to quickly identify and solve challenges such as staffing, pharmaceuticals, and supply shortages or distribution disruptions.
- Collect and retain operational documentation (e.g., daily logs) for use during the after-action review process.
- Collect and retain capital, staffing, and general cost records associated with the incident.

Demobilization

When planning to activate a temporary surge site, it is also important to consider the demobilization process. The following steps can help guide demobilization planning:

- Identify the criteria and triggers that will drive the decision to close the temporary surge site.
- Notify external partners and facility staff in advance of demobilization.
- Inventory supplies/equipment:
 - If the supplies came from the facility's disaster cache, replenish as needed prior to storage.
 - If supplies came from the facility's daily inventory, replace and restock as needed.
 - Return all temporary surge site supplies to designated containers/storage areas for future use. Complete or ensure that any needed repairs/replacement are made prior to storage.
- Demobilize the EMR surge module, if applicable.
- Conduct a terminal cleaning of the temporary surge site.
- Make any repairs needed to the area.
- Return rental equipment to vendors.
- Complete an after-action review to capture lessons learned and areas for improvement.

When using a soft sided structure as a temporary surge site, cleaning and drying are important to longevity. Those facilities ASPR TRACIE interviewed recommended storage in a temperature-controlled warehouse or other space.

Additional Resources

ASPR TRACIE Resources

Topic Collections

- [Alternate Care Sites](#)
- [Crisis Standards of Care](#)
- [Emergency Operations Plans/Emergency Management Program](#)
- [Ethics](#)
- [Healthcare-Related Disaster Legal/Regulatory/Federal Policy](#)
- [Hospital Surge Capacity and Immediate Bed Availability](#)
- [Incident Management](#)
- [Influenza Epidemic/Pandemic](#)
- [Information Sharing](#)
- [Risk Communication/Emergency Public Information and Warning](#)
- [Virtual Medical Care](#)

Other Resources

- [CMS and Disasters: Resources at Your Fingertips](#)
- [Disaster Behavioral Health: Resources at Your Fingertips](#)
- [Disaster Behavioral Health Self Care for Healthcare Workers Modules](#)
- [EMTALA and Disasters](#)
- [Engaging Healthcare System Partners in Medical Surge Resource Page](#)
- [Healthcare Coalition Influenza Pandemic Checklist](#)
- [Healthcare Coalition Involvement in Mass Gatherings Webinar](#)
- Healthcare Coalition Surge Estimator Tool: [Hospital Data Collection Form](#) and [Aggregator](#)
- [Mass Violence/Active Shooter Incidents: Hospital Triage, Intake, and Throughput](#)
- [Patient Surge Strategies: 2018 Lehigh Valley Health System](#)
- [Patient Surge Strategies: NYC Health + Hospitals](#)
- [*The Exchange, Issue 8: Supporting Hospital Surge – Meeting Patient and Staff Needs*](#)
- [*The Exchange, Issue 18: Innovations in Healthcare Surge Capacity Management*](#)
- [Telehealth in Alternate Care Sites: Ensuring Patient Care and Staff Safety in Massachusetts](#)
- [Tips for Retaining and Caring for Staff after a Disaster](#)

External Resources by Agency

ASPR

- [Disaster Behavioral Health](#)
- [Federal Medical Stations](#)

British Columbia Provincial Health Services Authority

- [The Mobile Medical Unit: A Unique Program in British Columbia](#)

California Department of Public Health

- [CHPH Guidance: Approval for Health Care Facility Use of Surge Tents](#)
- [Hospital Surge Plan Checklist and Resources](#)
- Standards and Guidelines for Healthcare Surge During Emergencies: [Volume 1: Hospitals](#)

Centers for Medicare & Medicaid Services

- [Reminder of Emergency Medical Treatment and Labor Act \(EMTALA\) Requirements and Guidance for Hospitals in a Disaster](#)

Florida Department of Health, Bureau of Preparedness and Response

- [Alternate Care Site Operations Guide](#)

New York City Department of Health and Mental Hygiene, Office of Emergency Preparedness and Response

- [Bed Surge Capacity Expansion Tool \(BSCET\)](#)
- [Emergency Department Capacity Expansion Tool \(EDCET\)](#)
- [Intensive Care Unit Capacity Expansion Tool \(ICUCET\)](#)

Northern New England Metropolitan Medical Response System

- Mobile Medical Unit Field Operations Guide (Must contact necep@dartmouth.edu for guide.)

Summit County Health District, Summit County Emergency Management Agency, Akron Regional Hospital Association

- [Development of an Alternate Care System: A Workbook for Community Planners Preparing for Medical Surge](#)

Texas Department of State Health Service, Emergency Medical Task Force

- [Mobile Medical Unit Standard Operating Guideline](#)

U.S. Department of Veterans Affairs

- [Psychological First Aid: Field Operations Guide](#)

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The following SMEs contributed to/reviewed this document in 2018, when it was originally published (listed alphabetically): Eric Alberts, BS, FPEM, CHS-V, CDP-1, CHPP, CHEP, SEM, CFRP, FABCHS, Manager, Emergency Preparedness, Orlando Health, Inc. (Hospital System); Eileen A. Blake, MPH, Associate Director, Yale New Haven Health System Center for Healthcare Solutions/Center for Emergency Preparedness and Disaster Response; Caecilia J. Blondiaux, Regulations Coordinator/Emergency Prep Lead, Quality, Safety, and Oversight Group, Center for Clinical Standards and Quality, Centers for Medicare & Medicaid Services; Julie Bulson, DNP, MPA, RN, NE-BC, Director, Emergency Preparedness, Spectrum Health; Craig DeAtley, PA-C, Director, Institute for Public Health Emergency Readiness, MedStar Washington Hospital Center, and Administrative Director, D.C. Emergency HealthCare Coalition; Ryan M. Hay, BSN, CEN, PHRN, CEM, Director, Emergency Preparedness, Lehigh Valley Health Network and Chair, Northeast PA Health Care Coalition / Health and Medical Committee; John Hick, MD, U.S. Department of Health and Human Services (HHS), Office of the Assistant Secretary for Preparedness and Response (ASPR) and Hennepin County Medical Center; Richard Hunt, MD, Senior Medical Advisor, National Healthcare Preparedness Programs, HHS ASPR Office of Emergency Management; Mark Jarrett, MD, MBA, MS, Sr. Vice President & Chief Quality Officer, Associate Chief Medical Officer, North Shore-LIJ Health System, Professor of Medicine, Hofstra – North Shore LIJ School of Medicine; Rachel Kaul, LCSW, CTS, Senior Policy Analyst, Behavioral Health Lead, HHS ASPR Office of Policy and Planning; Joseph Lamana, Director, Operations Division, HHS/ASPR/ONE; Syra Madad, DHSc, MSc, MCP, Director, System-wide Special Pathogens Program, New York City Health + Hospitals; Kelly Nadeau, RN, MN, EMHP, Director, Healthcare Preparedness Program, Emergency Preparedness and Response, Georgia Department of Public Health; James Paturas, CEM, CBCP, EMTP, FACCP, Director, Yale New Haven Health System Center for Emergency Preparedness and Disaster Response; Luis Puentes, RN, BSN, MA, PHRN, Administrator, Department of Public Safety and Emergency Operations, Lehigh Valley Health Network; Mary Russell, EdD, MSN, Emergency Services, Boca Raton Regional Hospital; Susan Schmitz, MAIDP, Senior Project Director, Veterans Emergency Management Evaluation Center, Veterans Health Administration Office of Patient Care Services; Kevin Sheehan, MPH, MBA, CIH, CSP, REHS, Captain, U.S. Public Health Service, ASPR, Office of Emergency Management, Division of National Hospital Preparedness, Region IX; Sean Studer, MD, Deputy Chief Medical Officer of NYC Health + Hospitals; Meghan Treber, MS, Principal,

Public Health Preparedness Practice, ICF, ICF ASPR TRACIE Project Director; Mark Van Dyke, M.Ed., Manager, Emergency Preparedness, Spectrum Health; and Lori M. Wood, MSEM, EMHP, Director, Emergency Management, Grady Memorial Hospital.