



TRACIE

HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

Alternate Care Sites
Topic Collection
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INFORMATION GATEWAY

Topic Area Collection: Alternate Care Sites

In the event of a disaster or public health emergency, Alternate Care Sites (ACS) may be created to enable healthcare providers to care for injured or sick patients or distribute vaccines and other types of prophylaxis. These ACS may include locations that need to be converted (e.g., schools and stadiums) or they may include facilities like mobile field hospitals. The resources in this Topic Collection highlight recent case studies, lessons learned, tools, and promising practices for developing and activating ACS. It is important to note that while some *portions* of the plans represent best practices, all ACS plans must take into account and comply with the Americans with Disabilities Act.

Planners may wish to access several other related ASPR TRACIE Topic Collections. The [Access and Functional Needs](#) Topic Collection highlights recent case studies, lessons learned, tools, and promising practices for working with individuals with disabilities and others with access and functional needs. For information on planning for and treating patients at a large pre-planned event, access the [Mass Gatherings/Special Events](#) Topic Collection. For alternate care areas within a hospital, access the [Hospital Surge Capacity and Immediate Bed Availability](#) Topic Collection. The [Healthcare-Related Disaster Legal/ Regulatory/ Federal Policy](#) collection includes links to resources on select laws, key issues, lessons learned, tools, and promising practices that can help healthcare professionals better understand the environment in which they will be asked to respond during large-scale emergencies.

Each resource in this Topic Collection is placed into one or more of the following categories (click on the category name to be taken directly to that set of resources). Resources marked with an asterisk (*) appear in more than one category.

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Must Reads

California Department of Public Health. (2007). [Standards and Guidelines for Healthcare Surge During Emergencies: Volume II: Government-Authorized Alternate Care Sites.](#)

This document includes a comprehensive definition of the term “alternate care site” (ACS) and the guidance it contains can help staff develop ACS planning teams, plan for specific threats (a supply list and pandemic-specific considerations for medication storage are used as an example; job action sheets are included, too), and adequately care for patients on site.

Cantrill, S.V., Pons, P.T., Bonnett, C.J., Eisert, S, and Moore, S. (2009). [Disaster Alternate Care Facilities: Selection and Operation](#). AHRQ Publication No. 09-0062.

The authors conducted a literature review and collected responses to a questionnaire that featured items related to the establishment and operation of alternate care facilities (ACF) during several U.S. mass casualty events. They used results to develop and describe the ACF selection tool, operations template, and staffing recommendations; a hospital patient selection tool that can help select patients eligible for transfer to an ACF; and ACF equipment and supply options.

Crum, B., Hill, J., Jepsen, D., et al. (2007). [Pandemic Influenza Response: Ketchikan's Alternate Care Site Exercise](#).

In October of 2006, the community of Ketchikan, Alaska held an emergency preparedness exercise that included two Alternate Care Site scenarios. Speakers in this webinar describe the planning process associated with supplying and staffing a rural Alternate Care Site, and discuss the staffing challenges and lessons learned from this exercise.

Florida Department of Health, Bureau of Preparedness and Response. (2013). [Alternate Care Site Standard Operating Procedure](#).

Broken into six sections (e.g., concept of operations, authorities and references, and attachments), this state-specific standard operating procedure can be tailored by other states involved in designating and planning for Alternate Care Sites. Specific logistics and staffing recommendations are made with comprehensive supply lists.

Institute of Medicine. (2012). [Crisis Standards of Care. A Systems Framework for Catastrophic Disaster Response. Volume 5: Alternate Care Systems](#).

This chapter provides an overview of the role of Alternate Care Sites, the related roles and responsibilities of providers, and operational considerations. This comprehensive overview of the spectrum of alternate care systems includes helpful figures, diagrams, and recommendations. Also included is a table (8-3) that lists the response by incident type (anthrax terror attack, catastrophic earthquake, detonation of improvised nuclear device, and pandemic).

Millin, M.G., Jenkins, J.L., and Kirsch, T. (2006). [A Comparative Analysis of Two External Health Care Disaster Responses Following Hurricane Katrina](#). *Prehospital Emergency Care*. 10(4): 451-456.

The authors analyzed data from two disaster temporary healthcare clinic sites (one in Louisiana, staffed by out-of-state volunteers and the other in Mississippi, with a federal Disaster Medical Assistance Team) to better understand the needs and medical conditions of the 500 patients seen over two days of operation. The majority of visits were for chronic diseases, primary health care, vaccinations, and to obtain medications that patients did not have with them. The authors noted the need for improvements in primary care disaster planning, including for pediatric patients, for social services, and for pharmaceuticals to treat acute and chronic conditions.

Montgomery County Advanced Practice Center. (2010). [Alternative Care Site Computer Model \(Beta Version\)](#).

The Alternative Care Site (ACS) Planning Model can help public health officials evaluate the resources required to staff and equip ACS in various emergency scenarios. This model focuses on the critical resources needed for ACS; users must have Excel to operate the model.

Redhead, J., Ward, P., and Batrick, N. (2005). [The London Attacks--Response: Prehospital and Hospital Care](#). *The New England Journal of Medicine*. 353:546-547.

The authors detail the medical response to the 2005 London public transportation bombing. They discuss the nature of injuries, how a treatment center was set up in a nearby hotel, and the process of handing burn patients over to a regional burn center. While hotels are not traditional alternate care sites, this could be an option when adequate transportation is not available.

Summit County Health District, Summit County Emergency Management Agency, Akron Regional Hospital Association. (2008). [Development of an Alternative Care System: A Workbook for Community Planners Preparing for Medical Surge](#).

Rather than identifying individual Alternate Care Sites (ACS), Summit County chose to develop a comprehensive system. This document provides an overview of the ACS strategies and approach and provides step-by-step guidance for others interesting in similar approaches.

Education and Training

California Department of Public Health. (2008) [Government-Authorized Alternate Care Site Training Guide](#).

This training course can be used as a tool for local health departments and other healthcare providers interested in developing alternate care sites. The materials were designed to be customized to fit a variety of jurisdictions.

California Department of Public Health. (2008). [Government-Authorized Alternate Care Site Training Presentation](#).

This presentation provides an overview of Alternate Care Sites, explains the site selection process, and highlights various staffing roles.

Craig, J., Thompson, B., and Brown, T. (n.d.). [Mobile Disaster Hospital Deployment to Mississippi](#).

The speakers provide an overview of North Carolina's mobile hospital deployment to Mississippi after tornadoes struck in 2014.

Crum, B., Hill, J., Jepsen, D., et al. (2007). [Pandemic Influenza Response: Ketchikan's Alternate Care Site Exercise](#).

In October of 2006, the community of Ketchikan, Alaska held an emergency preparedness exercise that included two Alternate Care Site scenarios. Speakers in this webinar describe the planning process associated with supplying and staffing a rural Alternate Care Site, and discuss the staffing challenges and lessons learned from this exercise.

North Carolina Department of Health & Human Services, Office of Emergency Medical Services. (n.d.). [National Mobile Disaster Hospital Factsheet](#). (Accessed 12/20/2016.)

This factsheet provides an overview of the North Carolina Mobile Disaster Hospital. It includes information on deployment capability and site requirements.

Federal Medical Stations

Knickerbocker, D. (2014). Federal Medical Station (FMS). U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (Please request document from ASPR TRACIE).

This document provides an overview of the Federal Medical Station (FMS), including what is included in the FMS cache and examples of how they have been deployed during events. Also included are a fact sheet and staffing model for the 50-bed FMS, a FMS Wrap Around Checklist, and FMS Site Survey Checklist. Please note that the descriptions provided in this resource are specific to federal FMS operations only.

Rackard, J. and Vitale, J. (2012). [Federal Medical Resource Support for a Natural Disaster: Federal Medical Station and Strategic National Stockpile](#). Centers for Disease Control and Prevention, Division of Strategic National Stockpile.

The speakers in this presentation provide an overview of the Strategic National Stockpile and Federal Medical Station (FMS) concept, mission, and capabilities. An FMS timeline and deployment organizational chart are also included.

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2015). [Medical Assistance: Federal Medical Stations](#).

This website provides a brief overview and description of a Federal Medical Station.

U.S. Department of Health and Human Services, Office of the Assistant Secretary of Preparedness and Response. (2016). [Federal Medical Station](#).

This factsheet defines Federal Medical Stations (FMS) and explains how state, local, tribal, and territorial authorities can request FMS (i.e., the FMS cache alone, the cache with federal staffing, or federal staffing alone).

Guidance

Agency for Healthcare Research and Quality. (2004). [Rocky Mountain Regional Care Model for Bioterrorist Events: Locate Alternate Care Sites During an Emergency](#).

Chapter 4 of this document describes processes associated with selecting, validating, supplying, and staffing alternate care sites.

Barbera, J.A. and Macintyre, A.G. (2007). [Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies](#).

This handbook describes the changes to the federal public health and medical response structure since the development of the original MSCC handbook in 2004. The MSCC Management System describes a framework of coordination of public and private entities across six tiers of response, of which tier two is the management of healthcare coalitions (see Chapter 3). This document is considered to be a foundational document for coalition development that describes the response system.

*California Department of Public Health. (2007). [Standards and Guidelines for Healthcare Surge During Emergencies: Volume II: Government-Authorized Alternate Care Sites](#).

This document includes a comprehensive definition of the term “alternate care site” (ACS) and the guidance it contains can help staff develop ACS planning teams, plan for

specific threats (a supply list and pandemic-specific considerations for medication storage are used as an example; job action sheets are included, too), and adequately care for patients on site.

Centers for Disease Control and Prevention, National Center for Environmental Health. (2015). [A Guide to Operating Public Shelters in a Radiation Emergency.](#)

This document can assist emergency managers with planning and response efforts related to shelter operations in a radiation emergency. The guide includes information on screening for radioactive contamination, decontamination, radiation monitoring, registration, health surveillance, and communications consistent with Centers for Disease Control and Prevention Community Reception Center guidance.

Centers for Disease Control and Prevention. (2015). [Community Planning Framework for Healthcare Preparedness.](#)

This document includes information to help planners enhance and/or develop a community's medical surge plans. It is organized into chapters, such as: Building Planning Teams and Coalitions; Models of Healthcare Delivery; Alternate Care Systems (ACS); Essential Healthcare Services; and Crisis Standards of Care. Chapter 5 includes a review of ACS plans in the community and offers some strategies for ACS planning.

Institute of Medicine. (2012). [Crisis Standards of Care. A Systems Framework for Catastrophic Disaster Response. Volume 5: Alternate Care Systems.](#)

This chapter provides an overview of the role of Alternate Care Sites, the related roles and responsibilities of providers, and operational considerations. This comprehensive overview of the spectrum of alternate care systems includes helpful figures, diagrams, and recommendations. Also included is a table (8-3) that lists the response by incident type (anthrax terror attack, catastrophic earthquake, detonation of improvised nuclear device, and pandemic).

Joint Commission. (2006). [Surge Hospitals: Providing Safe Care in Emergencies.](#)

This document provides an overview of different types of surge hospitals, and discusses how they are managed and operated. Surge hospitals can include mobile medical facilities and portable facilities. Case studies from real events are also included.

Phillips, S.J., Knebel, A., and Johnson, K. (2007). [Mass Medical Care with Scarce Resources: A Community Planning Guide.](#) U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response.

Chapter VI of this guide provides an overview of the issues surrounding non-federal, non-hospital-based alternative care sites (ACS). Different types of ACS are described,

and factors associated with decision making during mass casualty events are highlighted. Sample case studies are also included including several from Hurricane Katrina.

Summit County Health District, Summit County Emergency Management Agency, Akron Regional Hospital Association. (2008). [Development of an Alternative Care System: A Workbook for Community Planners Preparing for Medical Surge.](#)

Rather than identifying individual Alternate Care Sites (ACS), Summit County chose to develop a comprehensive system. This document provides an overview of the ACS strategies and approach and provides step-by-step guidance for others interesting in similar approaches.

Lessons Learned

Appleton, L. (2011). [BC's Mobile Medical Unit- An Innovative Health Sector Resource.](#) Provincial Health Services Authority.

This presentation provides an overview of the mobile medical unit for British Columbia (Canada) and how it was used during real events. This presentation also includes lessons learned, roles during disaster response/ recovery, and deployment criteria.

Blackwell, T. and Bosse, M. (2007). [Use of an Innovative Design Mobile Hospital in the Medical Response to Hurricane Katrina.](#) (Abstract only). Annals of Emergency Medicine. 49(5): 580-588.

This article summarizes the deployment of a mobile hospital following hurricane-related damage to Mississippi's acute care infrastructure. The authors describe how Carolinas MED-1, a mobile hospital, provided emergency care, diagnostics, surgical capabilities, general and critical care while repair occurred in the impact areas.

*Cantrill, S.V., Pons, P.T., Bonnett, C.J., Eisert, S, and Moore, S. (2009). [Disaster Alternate Care Facilities: Selection and Operation.](#) AHRQ Publication No. 09-0062.

The authors conducted a literature review and collected responses to a questionnaire that featured items related to the establishment and operation of alternate care facilities (ACF) during several U.S. mass casualty events. They used results to develop and describe the ACF selection tool, operations template, and staffing recommendations; a hospital patient selection tool that can help select patients eligible for transfer to an ACF; and ACF equipment and supply options.

Eastman, A., Rinnert, K., Nemeth, I., et al. (2007). [Alternate Site Surge Capacity in Times of Public Health Disaster Maintains Trauma Center and Emergency Department Integrity: Hurricane Katrina.](#) (Abstract only.) The Journal of Trauma. 63(2):253-7.

After Hurricane Katrina, the Dallas Convention Center Medical Unit was established to meet the increased demand for medical care. The authors examined data for 10,367 patients who sought emergent or urgent healthcare at the alternate care site and found the care not only safe and effective, but it also allowed care in urban trauma centers and emergency departments to continue.

Hamilton, D., Gavagan, T., Smart, K., et al. (2009). [Houston's Medical Disaster Response to Hurricane Katrina: Part 2: Transitioning From Emergency Evacuee Care to Community Health Care](#). (Abstract only.) *Annals of Emergency Medicine*. 53(4):(515-527).

The authors explain how alternate care sites were set up in Houston to provide medical care for Hurricane Katrina evacuees. Topics covered include elements of the regional disaster response (e.g., regional coordination, triage and emergency medical service transfers into the region's medical centers, medical care in population shelters, and community health challenges).

Merin, O., Nachman, A., Levy, G., et al. (2010). [The Israeli Field Hospital in Haiti — Ethical Dilemmas in Early Disaster Response](#). *The New England Journal of Medicine*. 362(e38).

The authors share experiences with field hospital issues in an austere environment and how healthcare practitioners addressed resource dilemmas. They emphasize the importance of addressing scope of practice of alternate care sites in the planning process.

Millin, M.G., Jenkins, J.L., and Kirsch, T. (2006). [A Comparative Analysis of Two External Health Care Disaster Responses Following Hurricane Katrina](#). *Prehospital Emergency Care*. 10(4): 451-456.

The authors analyzed data from two disaster temporary healthcare clinic sites (one in Louisiana, staffed by out-of-state volunteers and the other in Mississippi, with a federal Disaster Medical Assistance Team) to better understand the needs and medical conditions of the 500 patients seen over two days of operation. The majority of visits were for chronic diseases, primary health care, vaccinations, and to obtain medications that patients did not have with them. The authors noted the need for improvements in primary care disaster planning, including for pediatric patients, for social services, and for pharmaceuticals to treat acute and chronic conditions.

Redhead, J., Ward, P., and Batrick, N. (2005). [The London Attacks--Response: Prehospital and Hospital Care](#). *The New England Journal of Medicine*. 353:546-547.

The authors detail the medical response to the 2005 London public transportation bombing. They discuss the nature of injuries, how a treatment center was set up in a nearby hotel, and the process of handing burn patients over to a regional burn center. While hotels are not traditional alternate care sites, this could be an option when adequate transportation is not available.

Stanford, C. (2010). [Post-Earthquake Medicine in Haiti: Disaster Relief at a Field Hospital](#). (Requires free registration.) University of Washington, Northwest Center for Public Health Practice.

This one-hour webinar showcases the lessons learned and operations of a field hospital set up in the aftermath of the 2010 Haiti Earthquake. Dr. Christopher Sanford served as a medical officer on a U.S. Federal disaster response team deployed to the field hospital.

Taylor, M., Stokes, W., Bajuscak, R., and Shekar, S. (2007). [Mobilizing Mobile Medical Units for Hurricane Relief: The United States Public Health Service and Broward County Health Department Response to Hurricane Wilma, Broward County, Florida](#). *Journal of Public Health Management and Practice*. 13(5):447-52.

This article describes the lessons learned from the nine mobile medical vans deployed during Hurricane Wilma. It includes data from the type of medical evaluations provided, other services (e.g., syndromic surveillance), and common presenting complaints by patients. Of particular interest may be the types of treatment services provided and a list of key lessons learned such as using the Incident Command System (ICS), using redundant communications, developing a protocol for credentialing prior to deployment, and the different responders in addition to medical providers involved.

Trabert, E. (2006). [The Role of the Federal Medical Station in Disaster Response: Lessons Learned from Hurricanes Katrina and Rita](#). CNA Corporation.

This PowerPoint presentation provides an overview of Federal Medical Station (FMS) operations during hurricanes Katrina and Rita, conditions among FMS patients, and key lessons learned. It may provide some insight for a medical station Concept of Operations (CONOPS) regarding possible expectations and lessons learned from a real-world case study.

Lessons Learned: Pandemic Flu

Centers for Medicare and Medicaid Service. (2009). [Hospital Alternative Care Sites during H1N1 Public Health Emergency](#).

A summary sheet provides responses to questions of payment, conditions of participation and standards of care associated with hospital alternative care sites established to support the H1N1 patient medical surge. It includes a discussion of EMTALA section 1135 waiver compliance alternatives to hospitals.

Chung, S., Monteiro, S., Hogencamp, T., et al. (2011). [Pediatric Alternate Site of Care during the 2009 H1N1 Pandemic](#). (Abstract only.) *Pediatric Emergency Care*. 27(6): 519-26.

The authors describe the design, implementation, and performance of an alternate site of care for non-urgent pediatric patients with influenza-like illnesses (ILI) during the 2009 H1N1 pandemic. They found that select non-urgent patients with ILI were treated safely and efficiently with a high level of family satisfaction in these non-traditional settings.

Cruz, A.T., Tittle, K.O., Smith, E.R., and Sirbaugh, P.E. (2012). [Increasing Out-of-Hospital Regional Surge Capacity for H1N1 2009 Influenza A Through Existing Community Pediatrician Offices: A Qualitative Description of Quality Improvement Strategies](#). (Abstract only.) *Disaster Medicine and Public Health Preparedness*. 6(2):113-116.

This article discusses communication, interventions and coordination of community resources for low-acuity pediatric patients and their families as a mechanism to increase community surge capacity during the H1N1 pandemic and for future disease outbreaks. Strategies to support access to primary medical home practitioners include increasing clinical staffing, longer office hours and identifying additional office space can help to mitigate surge on local emergency centers.

Lam, C., Walhorn, R., Toner, E., et al. (2006). [The Prospect of Using Alternative Medical Care Facilities in an Influenza Pandemic](#). (Abstract only.) *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*. 4(4): 384-390.

The authors reviewed literature on federal and state pandemic plans and categorized models for alternate care facilities. The team then analyzed how these models applied to an influenza pandemic, including how they could function as primary triage sites, provide supportive care, offer isolation locations to patients, and serve as recovery clinics to facilitate patient discharge from hospitals.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. (2009). [Requesting an 1135 Waiver](#).

When the U.S. Department of Health and Human Services (HHS) Secretary declares a public health emergency under Section 319 of the Public Health Service Act, s/he may temporarily waive or modify certain requirements to ensure that there are enough health care resources and services available to meet the needs of the public's health. A presidential declaration of emergency under the National Emergencies Act or Stafford Act is also required for Section 1135 waivers. This document highlights examples of waivers and other related information.

Mobile Medical Units

Minnesota Department of Health. (2013). [Minnesota's Mobile Medical Resources: About the Mobile Medical Unit \(MMU\)](#).

This 4-minute video (hosted on YouTube) provides an overview of a Mobile Medical Unit, how it is set up, used, and managed.

Northern New England Metropolitan Medical Response System. (2011). [Mobile Medical Unit Field Operations Guide](#).

This state-specific pocket guide provides field teams with the following information regarding mobile medical units: preparing (for deployment), deploying (personnel), setup, operations, demobilization, safety, and treatments.

Texas Department of State Health Service, Emergency Medical Task Force. (2012). [Mobile Medical Unit Standard Operating Guideline](#).

This Standard Operating Guideline focuses on operations, staffing, requirements, scope of care, activation procedures, and safety considerations for mobile medical units. It also includes detailed appendices of supply and pharmacy caches and deployment guide for personnel.

Wisconsin Disaster Medical Response Team. (2012). [Wisconsin Disaster Medical Response Team Field Operations Guide](#).

This state-specific pocket guide provides field teams with the following information regarding mobile medical units: preparing (for deployment), deploying (personnel), setup, operations, demobilization, safety, and treatments.

Plans, Tools, and Templates

*Cantrill, S.V., Pons, P.T., Bonnett, C.J., Eisert, S, and Moore, S. (2009). [Disaster Alternate Care Facilities: Selection and Operation](#). AHRQ Publication No. 09-0062.

The authors conducted a literature review and collected responses to a questionnaire that featured items related to the establishment and operation of alternate care facilities (ACF) during several U.S. mass casualty events. They used results to develop and describe the ACF selection tool, operations template, and staffing recommendations; a hospital patient selection tool that can help select patients eligible for transfer to an ACF; and ACF equipment and supply options.

Denver Health. (2009). [Disaster Alternate Care Facilities: Report and Interactive Tools](#). Agency for Healthcare Research and Quality.

The report and associated tools can help emergency planners and other stakeholders select, staff, and stock Disaster Alternate Care Facilities.

District of Columbia Department of Health, Health Emergency Preparedness and Response Administration. (2010). [Alternate Care Site Pandemic Surge Optimization Plan](#). Braintree Solution Consulting, Inc.

This template was developed to help the D.C. Department of Health to develop a comprehensive and prescriptive response plan. It includes guidance for site selection, operations, staffing, low acuity care CONOPS, community focused ambulatory care clinic CONOPS, and primary triage point CONOPS. Appendices include sample emergency legislative orders, alternate care site admission orders, and site selection matrix.

Florida Department of Health, Bureau of Preparedness and Response. (2013). [Alternate Care Site Standard Operating Procedure](#).

Broken into six sections (e.g., concept of operations, authorities and references, and attachments), this state-specific standard operating procedure can be tailored by other states involved in designating and planning for Alternate Care Sites. Specific logistics and staffing recommendations are made with comprehensive supply lists.

Kansas Department of Health and Environment, Bureau of Public Health Preparedness. (n.d.). [Alternate Medical Care Site Emergency Operations Plan](#). (Accessed 12/21/2016.)

This template was developed for local agencies to use for developing an alternate medical care site plan. This template provides an opportunity for partners to identify and address issues associated with alternative medical care sites in the community by providing possible approaches for site operations.

Missouri Department of Health and Human Services. (2007). [Alternate Care Sites](#).

Resources included on this webpage include a trailer deployment diagram, a state-specific report bioterrorism hospital preparedness, trailer supply manifests (that can be altered to suit other states/jurisdictions), and a map of proposed trailer sites.

Montgomery County Advanced Practice Center. (2010). [Alternative Care Site Computer Model \(Beta Version\)](#).

The Alternative Care Site (ACS) Planning Model can help public health officials evaluate the resources required to staff and equip ACS in various emergency scenarios. This model focuses on the critical resources needed for ACS; users must have Excel to operate the model.

Natchitoches Regional Medical Center, Louisiana. (2011). [Alternate Care Site Plan](#).

This plan from a local hospital provides an overview of how they will activate and manage an alternate care site.

Public Health Seattle-King County. (2012). [Alternate Care Facilities Plan](#).

This plan provides guidance to establish a care facility within 24 hours of becoming aware of the need to do so. Services are for those that need medical assistance but are not able to receive it in the traditional environments of a hospital or long term care facility.

Shrestha, S., Sosin, D., and Meltzer, M. (2012). [Planning for Baseline Medical Care Needs of a Displaced Population After a Disaster](#). (Abstract only). *Disaster Medicine and Public Health Preparedness*. 6(4): 335-342.

The authors created a tool called MedCon: PreEvent that can help healthcare providers and first responders estimate the number of displaced survivors that will need specialized medical care after a disaster.

Spectrum Health and Grand Valley State University. (2012). [Alternate Care Site Implementation Plan for the Cook-DeVos Health Sciences Building](#).

This alternate care site (ACS) plan includes sections on: roles for various directors (e.g., communication, security/safety, finance, logistics); ACS design (e.g., patient flow, standing orders, and nursing subunits); and staffing requirements. Sample job action sheets are included; all appendices are available upon request from ASPR TRACIE (1-844-5-TRACIE [587-2243] or askasprtracie@hhs.gov).

Research

*California Department of Public Health. (2007). [Standards and Guidelines for Healthcare Surge During Emergencies: Volume II: Government-Authorized Alternate Care Sites](#).

This document includes a comprehensive definition of the term “alternate care site” (ACS) and the guidance it contains can help staff develop ACS planning teams, plan for specific threats (a supply list and pandemic-specific considerations for medication storage are used as an example; job action sheets are included, too), and adequately care for patients on site.

Krumperman, K., Weiss, S., and Fullerton, L. (2015). [Two Types of Prehospital Systems Interventions that Triage Low-Acuity Patients to Alternative Sites of Care](#). (Abstract only). *Southern Medical Journal*. 108(7): 381-386.

While not disaster-specific, this study of low-acuity 9-1-1 callers noted that they were receptive to being transferred to a call center staffed by nurses with referrals to an urgent care center or primary physician provider or being treated on scene by paramedics and referred either to an urgent care center or primary physician.

Agencies and Organizations

Note: The agencies and organizations listed in this section have a page, program, or specific research dedicated to this topic area.

U.S. Department of Health and Human Services. Office of the Assistant Secretary for Preparedness and Response. [1135 Waivers](#).

US Department of Health and Human Services. Office of the Assistant Secretary for Preparedness and Response. [Medical Assistance: Federal Medical Stations](#).

This ASPR TRACIE Topic Collection was comprehensively reviewed in November and December 2016 by the following subject matter experts (listed alphabetically):

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