



# ASPR TRACIE

## 2022 Year in Review

# INTRODUCTION

The U.S. Department of Health and Human Services (HHS) Administration for Strategic Preparedness and Response (ASPR) has sponsored the ASPR [Technical Resources, Assistance Center, and Information Exchange \(TRACIE\)](#) since 2015. ASPR TRACIE maintains close to 60 Topic Collections that include key articles from peer-reviewed and grey literature and has created more than 450 resources, all of which are indexed in a robust database. We also receive and address technical assistance (TA) requests from various stakeholders—at the federal, state, local, tribal, and territorial government levels; in nongovernmental organizations; and in the private sector—offering a comprehensive, one-stop, national knowledge center for healthcare system preparedness.

The goal of ASPR TRACIE is to fill gaps in healthcare system preparedness capabilities by providing timely, innovative ways to share information and promising practices during planning efforts. Since our inception, ASPR TRACIE has also served as a virtual force multiplier during disasters, improving information sharing, and minimizing duplication of effort.

In September 2022, ASPR TRACIE celebrated our seventh anniversary and in March, we reached a TA milestone when we [responded to our 10,000th TA request \(while maintaining a 99% user satisfaction rating\)](#). For close to three years, we have addressed a surge of COVID-19-specific TA requests, maintained 20 COVID-19-specific resource collections, and created/refreshed more than 100 resources to help our stakeholders make their way through this unprecedented challenge. As communities grappled with concurrent disasters and mass casualty incidents, our team worked hard to ensure our website remained available 24/7 and our materials were supportive and timely.

From a cumulative perspective, as of December 2022, the ASPR TRACIE website has welcomed over 1.5 million visitors, and we have responded to over 11,000 requests for TA (nearly 3,000 were related to COVID-19).

This report lists and provides links to resources we created and updated in 2022; highlights our cumulative resource review process for the year; illustrates how users make the most of our website; and shares our annual TA and marketing and communications accomplishments.



# ASPR TRACIE-DEVELOPED RESOURCES (2022)

As the nation began to emerge into a “new normal,” ASPR TRACIE continued working with our cadre of subject matter experts (SMEs) to generate new and update existing resources [specific to COVID-19](#) and other hazards faced by our stakeholders nationwide.

## Disaster Available Supplies in Hospitals (DASH) Tool

This interactive tool, designed by ASPR TRACIE and Healthcare Ready, in collaboration with the Health Industry Distributors Association (HIDA), Region VII Disaster Health Response Ecosystem, and multiple SMEs, can help hospital emergency planners and supply chain staff estimate supplies that may need to be immediately available for various mass casualty incidents (MCI) and infectious disease emergencies based on hospital characteristics. DASH is comprised of four modules which, taken together, can provide hospitals with a holistic view of the supplies needed to address various types of incidents.

- » [Disaster Available Supplies in Hospitals \(DASH\) Tool](#)
- » [Fact Sheet](#)
- » [Frequently Asked Questions \(FAQs\)](#)
- » [Introduction to the Disaster Available Supplies in Hospitals\(DASH\) Tool \(Webinar\)](#)
- » [Disaster Available Supplies in Hospitals: Demonstration of the DASH Tool](#)



## Additional New and Updated ASPR TRACIE-Developed Resources

2022 found our stakeholders dealing with concurrent emergencies (e.g., natural disasters, pediatric and adult respiratory illness outbreaks, and mass casualty incidents) during the COVID-19 pandemic. Further compounding these incidents were issues such as workplace violence and climate change (which challenged the field before the pandemic). And through it all, healthcare coalitions (HCCs) still had to comply with requirements to create various annexes to their base medical surge/trauma mass casualty response plans. ASPR TRACIE created the following resources to help our varied audiences with their planning and response efforts:

### Climate Change

- » [Climate Change Resilience and Healthcare System Considerations](#) and [Summary Document](#)
- » [Climate Change Resilience and Healthcare Considerations Webinar](#)
- » [Healthcare and Public Health Sector Impacts on Climate Change](#) (TA response)
- » [Hurricane Resources](#) (Updated)
- » [Hospital Evacuation during a Wildfire and Pandemic: Avista Adventist Shares their Experience](#)

### Chemical Hazards

- » [Chemical Emergency Considerations for Healthcare Facilities](#)
- » [Healthcare Coalition Chemical Surge TTX Toolkit](#)
- » [First Receiver Operational Plans during a CBRN Disaster](#) (Updated TA Response)

### Cybersecurity

- » [Healthcare System Cybersecurity: Readiness & Response Considerations](#) (Updated)
- » [Healthcare Cybersecurity Select Lessons Learned](#) (Updated TA Response)

### Emergency Management/Incident Command

- » [Emergency Management Terms and Presentations](#) (Updated TA Response)
- » [Health Equity, Diversity & Inclusion \(HEDI\) Job Action Sheet \(JAS\) for the Hospital Incident Command System \(ICS\)](#) (TA Response)
- » [Local Public Health Department Emergency Operations Plans](#) (Updated TA Response)

- » [Public Health Continuity of Operations Planning](#) (Updated TA Response)

### The Exchange

- » [Issue 15: Ethics in Healthcare during Disasters](#)
  - [Ethical Dilemmas during and Beyond COVID-19](#)
  - [Ethical Issues Related to COVID-19 Treatments](#)
  - [Crisis Standards of Care and COVID-19](#)
  - [Medical Operations Coordination Centers/Patient Load-Balancing: Summary of Lessons Learned during COVID-19](#)
- » [Issue 16: Decedent Management during Disasters](#)
  - [Disaster Mortuary Response Teams in Action: The Role of DMORT in Natural Disasters, Pandemics, and Beyond](#)
  - [COVID-19 Decedent Management: MI-MORT in Action](#)
  - [COVID-19 Decedent Management: Experiences from New York City](#)
  - [Fatality Management in Rural Areas: How One Justice of the Peace Oversaw the Uvalde School Shooting](#)
  - [Fatality Management and Mass Gatherings: Looking Back at the Route 91 Harvest Festival Shooting](#)

### New Resource Pages

- » [Countries in Conflict](#)
- » [Mpox](#)
- » [Pediatric Surge](#)



## Pediatric Resources

- » [Healthcare Pediatric Surge Annex: Leveraging Templates for Operational Impact](#) (Speaker Series Recording)
- » [Hospital Strain Mitigation Strategies](#)
- » [Improving Hospital Pediatric Surge](#)
- » [Improving Regional Pediatric Surge](#)
- » [Pediatric Surge Staffing Considerations](#) (TA Response)
- » [Pediatrics and High Flow Nasal Cannulas](#) (TA Response)
- » [Pediatric Surge Resource Page](#)

## Resources for Healthcare Coalitions

- » [HCC Funding Models](#) (Updated TA Response)
- » [Healthcare Coalition Chemical Surge TTX Toolkit](#)
- » [Healthcare Coalition Communication Plans](#) (Updated TA Response)
- » [Tools and Templates for Healthcare Coalitions](#)

## Speaker Series Recordings

- » [Innovations in Hospital Design: Penn Med Pavilion](#)
- » [Innovations in Hospital Design: Mayo Clinic](#)
- » [Tennessee Disaster Mental Health Strike Team](#)
- » [N95 Respirator Fit Testing-Emerald Coast \(FL\) Healthcare Coalition](#)
- » [Search and Rescue in the Big Horn Basin](#)

## Workplace Violence

- » [Hospital Lockdown Resources](#) (Updated TA Response)
- » [Strategies for Healthcare Workplace Violence Prevention: Risk Assessment and De-Escalation](#) (Webinar)
- » [Trends, Policies, and Protocols Related to Healthcare Workplace Violence](#)

## Miscellaneous Updated Resources

- » [ASPR TRACIE Evaluation of Hazard Vulnerability Assessment \(HVA\) Tools](#)
- » [Avian Influenza Quick Facts](#)
- » [Considerations for the Use of Temporary Surge Sites for All-Hazards Incidents](#)
- » [Considerations for the Use of Temporary Surge Sites for Managing Seasonal Patient Surge](#)
- » [Crisis Standards of Care Briefs](#)
- » [Crisis Standards of Care Resources for Hospice and Palliative Care](#) (TA Response)
- » [Disaster Behavioral Health: Resources at Your Fingertips](#)
- » [Emergency Preparedness Information Modules for Nurses in Acute Care Settings](#)
- » [Human Health and Environmental Impacts of Volcanic Eruption](#) (TA Response)
- » [Major Radiological or Nuclear Incidents: Potential Health and Medical Implications](#)
- » [Partnering with the Healthcare Supply Chain During Disasters](#)
- » [Rehabilitation and Disaster Preparedness Resources](#) (TA Response)
- » [Resources on Telehealth Regulations, Coverage and Benefits, and Lessons Learned](#) (TA Response)
- » [Resources Related to Do-Not-Resuscitate/Do-Not-Intubate \(DNR/DNI\) During Crisis](#) (TA Response)
- » [Solar Eclipses: Planning Resources](#)
- » [Surgical Fires Hazard Assessment Tools](#) (TA Response)
- » [Tips for Retaining and Caring for Staff](#)

## New and Updated COVID-19 Resources

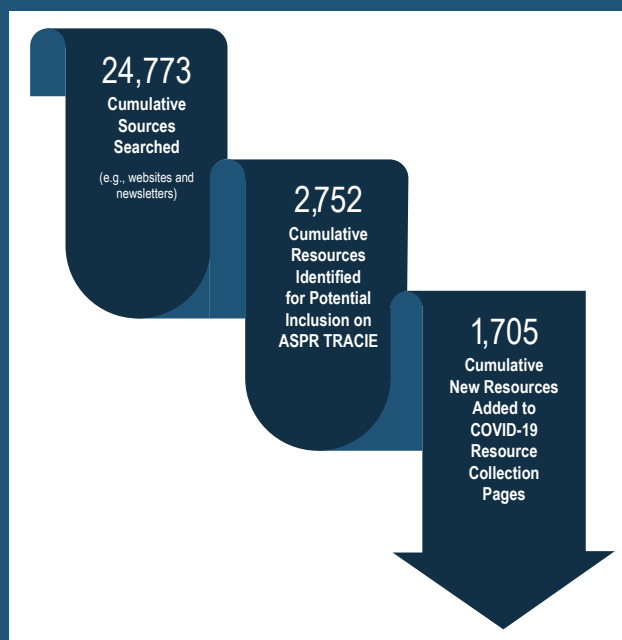
Throughout 2022, ASPR TRACIE maintained our COVID-19 Resources page that houses hundreds of resources specific to improving the preparedness, response, and recovery efforts of healthcare entities. This includes [20 COVID-19 Healthcare Planning Resource Collections](#), and the creation of new and maintenance of existing resources that highlight healthcare innovations in near real-time:

- » [Closing the COVID-19 Test to Treatment Gap](#) (Webinar)
- » [COVID-19 After Action Report Resources and Examples](#) (Updated TA Response)
- » [COVID-19 Decedent Management: Experiences from New York City](#)
- » [COVID-19 Decedent Management: MI-MORT in Action](#)
- » [COVID-19 Resources for Returning to the Office for Mental Health Outpatient Services](#) (TA Response)
- » [COVID-19 Vaccine Quick Links](#) (Updated)
- » [Crisis Standards of Care during COVID-19: Summary of State Actions](#)
- » [Ethical Dilemmas During and Beyond COVID-19](#)
- » [Ethical Issues Related to COVID-19 Treatments](#)
- » [Healthcare System Preparedness for Secondary Disasters during COVID-19](#) (Updated TA Response)
- » [Impact of COVID-19 on Solid Organ Donation and Transplantation](#) (Speaker Series Recording)
- » [Infection Prevention and Control: Incorporating Lessons Learned in Managing Special Pathogens](#) (Webinar)
- » [Medical Operations Coordination Centers \(MOCC\)/ Patient Load-Balancing: Summary of Lessons Learned during COVID-19](#)
- » [Scaling Hospital COVID-19 Restrictions](#) (TA Response)
- » [The Impact of the Pandemic on Oral Health](#) (Speaker Series Recording)
- » [The National Guard's Response to COVID-19](#)
- » [The Pandemic's Impact on Radiology Practices](#) (Speaker Series Recording)
- » [The Role of Kentucky National Guard in the COVID-19 Response](#) (Speaker Series Recording)

### CONTINUOUS MONITORING: COVID-19 Resources

ASPR TRACIE continually monitors federal and international public health guidance and reports, stakeholder organization websites and newsletters, and reputable traditional and social media for COVID-19 information and resources. This illustrates our cumulative monitoring through December 31, 2022, which informed updates to existing COVID-19 resources and the development of ASPR TRACIE resources to address new and persistent challenges throughout the pandemic.

#### *Cumulative Resource Monitoring*



While COVID-19 continued to challenge our stakeholders in 2022, two separate but related topics affected U.S. hospitals regardless of location, size, or structure: crisis standards of care (CSC) and patient load-balancing. In Spring 2022, ASPR TRACIE reviewed challenges faced, lessons learned, and ideas for the future and summarized our findings in the following two reports:

## CSC During COVID-19: Key Findings

ASPR TRACIE conducted a review of open-source materials to determine CSC actions taken by each state during the COVID-19 pandemic. This included a review of relevant CSC declarations and media accounts of crisis conditions at healthcare facilities. The team requested additions and validation of the collated information from ASPR regional field personnel, state preparedness directors, and state hospital preparedness program directors. The [results of the review](#) were validated by representatives from 80% of states; select findings revealed:

- » While most states had a CSC plan prior to COVID-19, many were based on protocols for ventilator triage, relied on scoring that was problematic during a pandemic, and/or were biased against certain members of the population. No state reported using their triage protocols.
- » Only 8 states declared CSC despite documented crisis conditions existing in 48 states. In several states, alternate care sites were set up at non-hospital locations without any declarations of crisis conditions.
- » Many states allowed hospitals to declare CSC on their own; this was inconsistent with the goal of regional consistency of care.
- » Just 12 states provided specific legal relief (e.g., liability protections) to providers during COVID-19.
- » There is a significant need to update CSC guidance and plans in light of COVID-19 lessons learned.

## Medical Operations Coordination Centers (MOCC)/Patient Load-Balancing: Summary of Lessons Learned during COVID-19

[This report](#) summarizes findings from a review of lessons learned ASPR TRACIE conducted with 10 states that utilized a MOCC or similar patient load-balancing structure during the COVID-19 pandemic. Sections cover key findings from select MOCCs established prior to and during the COVID-19 pandemic and challenges, gaps, and potential opportunities/considerations for other jurisdictions establishing MOCCs in the future. Select findings include:

- » Hospital participation in the MOCC was voluntary for 8 of the 10 respondents.
- » Ensuring a consistent level of available care and maximizing use of available beds was primarily achieved via bed brokering on a conference call or the provision of virtual critical care support for in-place care as practical.
- » Hospitals in rural areas were significantly impacted by limited access to referral centers and benefited from regional coordination, particularly when beds were available.
- » Authority over MOCCs varied; most were linked to the state's department of health or an executive order by the governor.
- » Some MOCCs only focused on COVID-19 patients while others coordinated a mix of intensive care unit, medical/surgical, intermediate care, extracorporeal membrane oxygenation (ECMO), and pediatric transfers.
- » Seven of 10 MOCCs involved EMS or were managed by the state EMS agency.
- » The number of patients placed ranged from less than 10 to approximately 9,800.

# NEW AND UPDATED TOPIC COLLECTIONS

ASPR TRACIE stakeholders rely on us to collect and highlight the “best in show” when it comes to our Topic Collections. We created two new Collections and refreshed the following in 2022:

## NEW

- » [Climate Change and Healthcare System Considerations](#)
- » [Disasters and Healthcare Disparity](#)

## UPDATED

- » [Burns](#)
- » [Chemical Hazards\\*](#)
- » [Coalition Administrative Issues](#)
- » [Coalition Models and Functions](#)
- » [Coalition Response Operations](#)
- » [Cybersecurity](#)
- » [Ebola/VHF](#)
- » [Family Reunification and Support](#)
- » [Fatality Management](#)
- » [Healthcare Facility Evacuation/Sheltering](#)
- » [Hospital Patient Decontamination](#)
- » [Influenza Epidemic/Pandemic](#)
- » [Mass Gatherings/Special Events](#)
- » [Patient Movement and Tracking](#)
- » [Pharmacy](#)
- » [Populations with Access and Functional Needs\\*](#)
- » [Pre-Hospital Patient Decontamination](#)
- » [Risk Communications/Emergency Public Information and Warning](#)
- » [Veterinary Issues](#)
- » [Workplace Violence\\*](#)
- » [Zika](#)

\* comprehensively reviewed with SME input

## MOST VISITED PAGES IN 2022

1. [Hazard Vulnerability/Risk Assessment Topic Collection](#)
2. [Emergency Operations Plans/Emergency Management Program Topic Collection](#)
3. [CMS Emergency Preparedness Rule Resources Page](#)
4. [Continuity of Operations/Business Continuity Planning Topic Collection](#)
5. [Technical Resources Page](#)

## MOST DOWNLOADED ASPR TRACIE RESOURCES IN 2022

1. [SOFA Score: What it is and How to Use it in Triage](#)
2. [Healthcare Provider Shortages: Resources and Strategies for Meeting Demand](#)
3. [EPIMN Module 1: Mass Casualty Incident Response](#)
4. [Long-Term Care Requirements: CMS Emergency Preparedness Final Rule](#)
5. [Climate Change Resilience and Healthcare System Considerations](#)



# TECHNICAL ASSISTANCE AND INFORMATION EXCHANGE, 2022

Our team takes pride in delivering the highest quality TA to all of our stakeholders. Our 99% user satisfaction rating confirms that this domain remains a helpful and well regarded resource. In 2022, we responded to over 1,200 requests (approximately 100 per month) and our website was viewed more than 270,000 times. Our top three downloaded TA requests highlight the significant variation in our users' needs and also our ability to work closely with our Cadre of SMEs and our federal partners to provide information on current and emerging threats in a timely manner. Finally, our Information Exchange membership grew by 945 members, illustrating the value our stakeholders place in having a password-protected location they can visit to share information with their colleagues.

## TECHNICAL ASSISTANCE, 2022



**1,205**  
Total  
Requests



**100**  
Requests/  
Month



**272,807**  
Website  
Views



**22,734**  
Views/  
Month



**945**  
New Information  
Exchange Users



**79**  
New Users/  
Month

### TOP THREE DOWNLOADED TA REQUESTS DEVELOPED IN 2022

1. [Cybersecurity Select Lessons Learned](#)
2. [Mpox Resources](#)
3. [Pediatrics and High Flow Nasal Cannulas](#)

## ONGOING MARKETING AND COMMUNICATIONS

ASPR TRACIE strives to incorporate our stakeholder and partner preferences for receiving and sharing information (and encouraging others to submit useful resources into ASPR TRACIE). In addition to continuing to promote our resources through our partner newsletters and distribution lists, we also:

- » **Released 10 [Express Messages](#) in 2022.** We use the *Express* to announce new and updated ASPR TRACIE resource and distill and highlight other key resources and events for our stakeholders, saving them time and effort.
- » **Published 2 issues of [The Exchange](#).** In 2020, we decided to dedicate one page of each issue to a specific theme and provide links to the articles we created and related resources. This allowed us to develop and link to many more articles and supporting documents and tools, while enabling readers to quickly identify topics of interest and access articles using the smallest number of clicks possible. In 2022, we covered ethics in COVID-19 and disasters and decedent management during disaster and the pandemic.

### MARKETING AND COMMUNICATIONS



10

Express  
Issues



36

Presentations  
to Stakeholders  
and Partners



54

New  
Resources



2

Exchange  
Issues



17

Webinars and  
Speaker Series  
Recordings



51

Updated  
Resources

# ASPR TRACIE DOMAINS AT-A-GLANCE

Each of the three domains (TR, AC, and IE) provides users with unique, tailored support. Demand for resources, technical assistance, and peer-to-peer support continued to increase in 2022.



## TECHNICAL RESOURCES

- » A [self-service collection](#) of disaster medical, healthcare, and public health materials, searchable by keywords.
- » Maintained [20 COVID-19 Resource Collections](#).
- » Created **55 new and updated 51 resources** (including webinars, speaker series presentations, quick sheets, and published TA responses).
- » Conducted **17 webinars and speaker recordings** and **36 presentations to stakeholders and partners**.
- » Maintained numerous topic-specific resource pages.



## ASSISTANCE CENTER

- » Personalized [support and responses to requests for information and TA](#). Accessible by toll-free number (1844-5-TRACIE), email ([askasprtracie@hhs.gov](mailto:askasprtracie@hhs.gov)), or form.
- » Maintained user satisfaction rating of 99%
- » Provided a cumulative **11,036 TA responses since 2015: 1,205 in 2022 alone**.
- » Worked with our SME Cadre (**over 1,200 professionals** from all levels of government, academia, and the private sector) to develop Topic Collections, answer requests for assistance, and develop new resources.
- » Access [select TA responses](#) through the years.



## INFORMATION EXCHANGE

- » An area for [password-protected discussion](#) among vetted users to include peer-to-peer exchange of user-developed templates, plans, and other materials (free registration required) Comprised of over **11,500 members** and popular discussion threads to include COVID-19 and HCC resources.
- » Membership in the Information Exchange (IE) continues to rise steadily, with a monthly average of new IE members at 130 per month.