Resources Shared during the ASPR TRACIE Medical Leaders Virtual Conference

On February 7 and 8, ASPR TRACIE hosted a virtual conference where subject matter experts discussed the spectrum of their medical leadership responsibilities and some of the specific challenges they have faced in this role.

[Medical Leadership in Disaster Preparedness and Response Virtual Conference Agenda](#)

[Medical Leadership in Disaster Preparedness and Response Virtual Conference Bios](#)

The following resources (listed alphabetically) were shared in the chat over the two-day period:

- [ASPR TRACIE-Developed Resources](#)
- [Other Resources](#)
- [Executive Leadership Courses](#)

ASPR TRACIE-Developed Resources

[ASPR TRACIE Hospital Mass Casualty Response Plan Considerations](#)

The term "mass casualty incident" (MCI) refers to the combination of patients and care requirements that require mobilization of additional resources to meet the demand. MCIs generally occur without warning and a concise plan is needed to ensure rapid and efficient response. The considerations in this document can assist hospitals in developing a new—or vetting an existing— MCI plan.

[Augmenting Rural Hospital Capacity in California: Lessons Learned from COVID-19](#)

The COVID-19 pandemic challenged all aspects of health care, and rural areas were hit particularly hard. Many rural hospitals do not have the capacity to accommodate patient surge, may not have the on-site capabilities to treat very ill patients, and may be challenged with providing care in place versus transferring patients, especially during a pandemic. ASPR TRACIE met with subject matter experts from California who helped manage the response to the pandemic across the state to learn more about how they worked with hospital staff particularly in Imperial County (a rural area bordered by San Diego, Riverside, and Yuma [Arizona] counties, and Mexico) to augment capacity and accommodate patient surge.

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

[CBRN Resources Page](#)

These ASPR TRACIE-developed resources can help our stakeholders prepare for, respond to, and help communities recover from chemical/biological/radiological/nuclear incidents.

[Climate Change and Health Care System Considerations Topic Collection](#)

The resources in this Topic Collection (TC) highlight planning considerations, educational and planning resources, and lessons learned from a variety of natural and human-caused disasters and provide guidance for health care practitioners who are committed to addressing climate change and the impacts on health care systems. It contains sections for health care emergency planners on education and training, health care system resiliency, guidance and reports, and health equity.

[COVID-19 Resources](#)

This page highlights resources identified or developed to address current response and recovery operations to novel coronavirus 2019 (COVID-19). Please refer to CDC's Coronavirus Disease 2019 webpage for the most up-to-date clinical guidance on COVID-19 outbreak management.

[Crisis Standards of Care during COVID-19: Summary of State Actions](#)

In Spring 2022, ASPR TRACIE conducted a review of open-source materials to determine crisis standards of care (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. This summary document provides key findings from the review and recent literature, and challenges and suggestions for future work to help ensure a more equitable, uniform response in the future.

[Crisis Standards of Care Topic Collection](#)

This Topic Collection includes resources on understanding crisis standards of care, including education and training resources; lessons learned; plans, tools, and templates; and studies and reports.

[Disasters and Healthcare Disparity Topic Collection](#)

Healthcare inequity has always been a challenge across the U.S. The rate of disasters has increased over the years and the COVID-19 pandemic has ravaged the country, striking communities of color and other underserved populations especially hard. Healthcare professionals and emergency managers may benefit from a better understanding of the complex relationships that affect fair access to healthcare. The resources in this Topic Collection

highlight these considerations, factors, and lessons learned from a variety of natural and human-caused disasters and provide guidance for healthcare practitioners who are committed to addressing healthcare disparity.

[Ethical Dilemmas During and Beyond COVID-19](#)

While ethical dilemmas existed in healthcare prior to the COVID-19 pandemic, this crisis presented healthcare workers with unprecedented challenges during patient surges related to adequate supply and ensuring equitable access to treatment and vaccines. ASPR TRACIE met with subject matter experts to learn more about how they managed ethical challenges during the COVID-19 pandemic and their thoughts on adjusting expectations for the future.

[Ethical Issues Related to COVID-19 Treatments](#)

Incorporating ethical principles of healthcare when resources are strained is a daily challenge; healthcare workers across the U.S. had to manage extraordinary patient loads and issues associated with treatment and vaccine distribution throughout the COVID-19 pandemic. ASPR TRACIE met with subject matter experts to learn more about how they managed ethical challenges during the COVID-19 pandemic in their states (Minnesota, Washington, and Pennsylvania) and their thoughts on adjusting expectations for the future.

[Extreme Heat Events: Lessons from Seattle's Record-Breaking Summers](#)

Triple digit temperatures are affecting areas of the U.S. that historically never experienced them, including the City of Seattle, where home and facility air conditioning is rare or is not designed for extreme temperatures. This article features health care stakeholders sharing how lessons learned during the 2021 heat dome event and robust regional and local collaboration and communications during the pandemic facilitated connections during the heat wave in the summer of 2022.

[Healthcare Coalition Engagement in COVID-19 Assessment (Infographic)](#)

This infographic highlights findings from a multi-phased effort that included an online survey open to all healthcare coalitions about various aspects of their response to the pandemic and eight focus groups with a subset of survey respondents.

[Healthcare Coalitions](#)

While ASPR TRACIE strives to ensure all of our resources are applicable to Healthcare Coalitions and other stakeholders, the resources on this page can be particularly helpful to coalitions in

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

achieving the Health Care Preparedness and Response Capabilities. Resources on this page include ASPR TRACIE- and locally developed plans, tools, and templates.

[Health Equity Officer Job Action Sheet (PDF)](#)

This job action sheet (JAS) is modeled after the Hospital Incident Command System (HICS) JAS. It was initially developed by Hennepin Healthcare in Minneapolis, MN and was reviewed and modified by national experts. While not an official HICS component, health care planners may tailor it to their systems interested in incorporating a dedicated health equity officer position. Access the Word version here: https://files.asprtracie.hhs.gov/documents/health-equity-officer-job-action-sheet.docx

[Homecare and Hospice Topic Collection](#)

The resources in this Topic Collection include reports, toolkits, and guidance specific to homecare for providers and patients.

[Issue 18: Innovations in Health Care Capacity Management](#)

The articles in this issue focus on the experiences and lessons learned by health care facilities and systems during the early phases of the pandemic and beyond, to include the "tripledemic" (respiratory syncytial virus, influenza, and COVID-19) that affected children across the U.S. in the winter of 2022-2023. We examine the history and evolution of the Southwest Texas Regional Advisory Council with a focus on their efforts to load patients during mass casualty incidents and public health emergencies. Subject matter experts from California discussed the unique characteristics and challenges faced by Imperial County and how tents and the use of an alternate care site bolstered patient care. Our final article highlights the experiences of a Navajo Area Indian Health Service hospital as they work around the clock to locate appropriate receiving facilities and provide care in place while simultaneously managing staffing shortages.

[Managing a Pediatric Tripledemic: Lessons Learned from 2022](#)

During the winter months in 2022-2023, hospitals in the state of Washington were overwhelmed by pediatric patients suffering from influenza, COVID-19, and respiratory syncytial virus (RSV). In this article, subject matter experts provide an overview of the health care coalition, the state's pediatric capabilities, and how they used their Medical Operations Coordination Center (MOCC) and health care coalitions to balance patient loads throughout the state during this "tripledemic."

[Managing Patient Surge in Rural Areas: Experiences from Gallup Indian Medical Center](#)

In many rural areas, patient transfer is a common practice, though often strained by various factors (e.g., distance to receiving hospitals, geography, available mode of transport, and available staff to treat, transport, and receive patients). ASPR TRACIE met with Dr. Emily Bartlett, an emergency medicine physician who has worked at the Gallup Indian Medical Center in New Mexico (GIMC) since 2020 to learn more about how the center determined which patients to transport and which to treat in place as they overcame related challenges (e.g., no available beds in the region, not enough staff to accomplish patient transport). She was joined by Brandon Wyaco, Public Information Officer from the Navajo Area Indian Health Service.

[Mass Violence Resources Page](#)

Mass violence incidents require efficiency and coordination among multiple response entities. Efforts may need to be directed toward doing the greatest good for the greatest amount of people, which is counter to day-to-day trauma triage. These ASPR TRACIE-developed resources based on lessons from multiple jurisdictions can help our stakeholders prepare for, respond to, and help their communities recover from these traumatic events.

[Medical Operations Coordination Cells Toolkit (Second Edition; MOCC 2.0)](#)

This toolkit offers flexible and modifiable guidance, developed by the U.S. government, aimed to assist regional, state, local, tribal and territorial governments to ensure load-balancing across healthcare facilities and systems so that the highest possible level of care can be provided to each patient during the COVID-19 pandemic.

[On-Campus Health Care Facility Armed Assailant Planning Considerations](#)

Health care planners can use this checklist to help prepare their facilities to mitigate, respond to, and recover from an active shooter or armed assailant situation on campus.

[Patient Movement, MOCCS, and Tracking Topic Collection](#)

The resources in this Topic Collection include guidance and templates related to patient movement and tracking that can be customized to fit the needs of most health care providers.

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

[Populations with Access and Functional Needs Topic Collection: People Experiencing Homelessness Category](#)

The resources in this Topic Collection highlight recent case studies, lessons learned, tools, and promising practices for working with individuals with disabilities and others with access and functional needs.

[Responder Safety and Health Topic Collection](#)

The resources in this Topic Collection focus on safety strategies (e.g., preventing fatigue, ensuring the availability and correct use of personal protective equipment) and maintaining behavioral health (e.g., working through stress and preventing/addressing compassion fatigue).

[The Evolution of Patient Load Balancing: The Southwest Texas Regional Advisory Council](#)

Regional patient load balancing is an art and science that has evolved across the U.S., particularly over the past few years. ASPR TRACIE interviewed Eric Epley of the Southwest Texas Regional Advisory Council— who was the Council's first official hire in 1998 and currently serves as the executive director/chief executive officer (CEO)—to learn more about how the Council has evolved and promising practices in load balancing and other trauma-related efforts.

[The LGBTQI+ Community and Disaster Preparedness and Response Topic Collection](#)

The resources in this Topic Collection highlight key considerations for LGBTQI+ populations and the health care providers, emergency management planners, and first responders who serve them during and after disasters. Topics covered include health care and health insurance resources, lessons learned from natural disasters, COVID-19, mass violence, and mpox, and resources that can help health care providers and planners incorporate LGBTQI+ people into planning processes and community health surveillance efforts.

[Rural Disaster Health Topic Collection](#)

Rural areas are served by a variety of healthcare facilities and practitioners who face specific challenges associated with workforce and other resource shortages, socioeconomic factors that add to resident health risks, and public health issues that often compete with the ability to plan for and respond to natural and human-caused events. Tribal communities (many of which are located in rural areas) have the autonomy to respond to and manage incidents that occur on their lands. These resources highlight guidance for and lessons learned by healthcare practitioners who serve rural and tribal communities.

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

[Virtual Medical Care Topic Collection](#)

The resources in this Topic Collection highlight lessons learned from recent events and strategies for implementing virtual medical care during a disaster.

[Workplace Violence Topic Collection](#)

The resources in this Topic Collection highlight some of the most current information and guidance that can assist emergency managers tasked with developing and maintaining workplace violence prevention programs and other guidelines to ensure the resiliency of their facilities.

Other Resources

[About NHTSA EMS](#)

This website from the National Highway Traffic Safety Administration (NHTSA) provides information on reducing death and disability by supporting emergency medical service (EMS) providers across the U.S. It includes information on NHTSA's national vision for EMS, collaboration across federal agencies, efforts to support EMS leaders in their jobs, and evaluating system performance.

[Association Between Caseload Surge and COVID-19 Survival in 558 U.S. Hospitals, March to August 2020](#)

The authors assessed the effects of hospital surge on COVID-19 mortality through a retrospective cohort study of administrative hospital data. They found an association between surge and mortality risk and suggested that nearly one in four COVID-19 deaths studied could be attributed to hospital surge.

[Climate Change and Health Equity Actions](#)

This website contains information on the Office of Climate Change and Health Equity' three primary goals: reduce the impact of climate change for people living in the U.S. (especially the most vulnerable), improve the sustainability and resilience of the U.S. health system, address social determinants of health while addressing climate change through domestic actions and the coordination of departments in the federal government.

[CONVERGE Training Modules](#)

The Natural Hazards Center is developing these modules "to advance social science and interdisciplinary extreme events research efforts through identifying, mapping, and training a

diverse group of researchers." Two modules are currently available: Social Vulnerability and Disasters and Disaster Mental Health.

[Council on Children and Disasters (COCD)](#)

The COCD, organized by the American Academy of Pediatrics, focuses on equitable disaster preparedness and response for children and young people. The website provides information on the council, benefits and criteria for membership, leadership, and initiatives and events.

[Crisis Standards of Care: Lessons from New York City Hospitals' COVID-19 Experience](#)

The authors explore how crisis standards of care (CSC) were implemented in New York City during the COVID-19 pandemic. In the future, they recommend that clinicians be more involved in CSC planning, and that CSC be formally and quickly declared with resource-specificity.

[Crisis Standards of Care and COVID-19: What Did We Learn? How Do We Ensure Equity? What Should We Do?](#)

This discussion paper reviews some of the lessons learned related to crisis standards of care principles and practices during the COVID-19 pandemic and identifies issues and action steps for the future.

[Definition of Frontier](#)

This document provides information on definitions relevant to rural health, such as the development of frontier and remote methodology, how frontier places are outlined in the Affordable Care Act, the Center for Medicaid & Medicare Services "super rural" designation, telehealth designations, and Bureau of Primary Health Care criterion.

[Disaster Medicine](#)

This webpage from the American Board of Physician Specialties provides information on certification in the field of disaster medicine. It includes eligibility requirements, application requirements, exam processes, dates, and fees, recertification, and policies relevant to the certification process.

[Disaster Management and Emergency Preparedness](#)

This website provides information on a Disaster Management and Emergency Preparedness (DMEP) course developed by the American Academy of Surgeons and subject matter experts. It includes information on course objectives, continuing education credits, and future courses.

[EMSC Innovation and Improvement Center Innovation and Improvement Center](#)

Formed in 2016, the Emergency Medical Services for Children Innovation & Improvement Center (EIIC) leverages quality improvement science, the experiential knowledge of its co-lead organizations and the expertise of multiple professional societies and federal organizations to improve health care outcomes for children in emergency settings.

[Frequency and Risk of Emergency Medical Service Interhospital Transportation of Patients With Acute Lower Respiratory Tract Illness During the COVID-19 Pandemic in the US](#)

This article discusses challenges associated with transport of critically ill COVID-19 patients to manage patient surge and ensure patient loads are balanced among hospitals. The authors compared data before and during the pandemic pulled from an emergency medical services database to determine the association of patient transport with severe deterioration of a patient's condition in patients with lower respiratory tract illness. They found that patient transport did not increase cardiac arrest, advanced airway placements, or noninvasive positive pressure ventilation, including during subsequent waves of COVID-19.

[Hospital Planning for Contingency and Crisis Conditions: Crisis Standards of Care Lessons from COVID-19](#)

The authors highlight gaps in contingency and crisis standards of care planning uncovered during the COVID-19 pandemic and provide recommendations for hospitals that can help ensure an effective, fair response in the future.

[How the U.S. Health Care System Contributes to Climate Change](#)

The authors describe how health care in the U.S. contributes to greenhouse gas emissions, focusing on three different scopes of impact: direct emissions, indirect emissions from electricity, and all other indirect emissions. They also provide information on carbon neutrality for health care, why reducing health care's carbon footprint is important, and next steps toward reducing health care system emissions.

[Impact of Surge Strain and Pandemic Progression on Prognostication by an Established COVID-19-Specific Severity Score](#)

The authors of this article analyzed the modified 4C (m4C) score, a tool that predicted hospital capacity during the COVID-19 pandemic. They found that mortality prediction according to m4C was more robust during patient surges and less effective during later waves. They conclude that

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

crisis standards of care guidelines should be frequently reassessed to ensure resources are allocated adequately.

[Mass Critical Care Surge Response During COVID-19: Implementation of Contingency Strategies – A Preliminary Report of Findings From the Task Force for Mass Critical Care](#)

This article presents ten new suggestions from the Task Force for Mass Critical Care based on the response to COVID-19 to help hospitals and communities operationalize strategies to avoid crisis standards of care. These suggestions focus on staffing, load-balancing, communications, and technology.

[Minnesota Department of Health: Crisis Standards of Care](#)

This website includes links to several critical crisis standards of care (CSC) resources and tools including the MN CSC Framework (released in November 2018) which provides an overview of the actions the state will take in response to a CSC situation. The framework also includes operational annexes for Ethics, Legal, EMS, Hospitals, and Public Engagement. The site also contains other resources including a summary report on community engagement, pandemic, and other resources.

[Motorcoach Run-Off-the-Road and Rollover](#)

This accident report provides information on a 2008 highway accident involving a motorcoach in Mexican Hat, Utah. It provides information on the accident, an analysis of factors which influenced the outcomes, conclusions, and recommendations.

[NAEMSP Position Statements](#)

These position statements from the National Association of Emergency Medical Services (EMS) Physicians cover topics such as physician training programs, prehospital hemorrhage control, principles for equitable and inclusive EMS workforces, and EMS care of hospice patients.

[National Household Survey](#)

FEMA's National Household Survey tracks personal disaster preparedness among individuals and families in the U.S. It includes questions on actions, attitudes, and motivations across disasters such as earthquakes, floods, wildfires, hurricanes, winter storms, extreme heat, or tornadoes.

[Oxygen Conservation Strategies During COVID-19 Surges](#)

The authors discuss strategies to use less oxygen in resource constrained settings, such as Los Angeles during the COVID-19 pandemic or in low- and middle-income countries. Health care facilities may reduce the need for oxygen by using a reservoir device to reduce oxygen delivered

by nasal cannula, using liquid oxygen or mobile 3,000-gallon units to refill secondary oxygen systems, or analyzing equipment for oxygen leakage.

[Pediatric Pandemic Network](#)

This project aims to empower health care systems and communities across the nation to provide high-quality, equitable care to children every day and in crises, including pandemics and natural disasters. Access their searchable database of resources here: https://resources.pedspandemicnetwork.org/

[Preintubation Sequential Organ Failure Assessment Score for Predicting COVID-19 Mortality](#)

The authors reviewed a U.S. cohort of 15,000 ventilated patients with COVID-19 hospitalized between January 1, 2020, and February 14, 2021 to validate the predictive capacity of the pre-intubation SOFA score. They found the tool has low accuracy for predicting mortality and recommend reviewing triage pathways.

[Project ECHO](#)

The Extension for Community Health Outcomes (known as Project ECHO) was created to help healthcare providers in rural and underserved areas with information they need to treat conditions such as Hepatitis C, chronic pain, and behavioral health disorders. In the event of a disaster, one or more of ECHO's "hubs" could assist with virtual healthcare education and consultation / provider collaboration.

[State Capacity Coordination Centers to Facilitate Access to Acute Care: A National Survey and Analysis](#)

The authors of this article discuss state capacity coordination centers (SCCC), also known as medical operations coordination centers (MOCCs), which are a tool to facilitate load balancing during surges. The authors surveyed SCCCs to understand their prevalence, design, and performance. They found that 43.2% of the 44 states that responded to the survey reported using an SCCC and all of those respondents planned to continue SCCC operations after the pandemic.

[This Is What We Do: Academic Medicine Rising to the Challenge of COVID-19](#)

The trailer and documentary on this website highlight the role of academic medicine in the response to the COVID-19 pandemic.

[Using a Web Platform for Equitable Distribution of COVID-19 Monoclonal Antibodies: A Case Study in Resource Allocation](#)

The authors of this article sought to incorporate ethical considerations into equitable distribution of monoclonal antibodies (mAbs) for COVID-19. The centralized access platform assessed patient criteria compared with the mAbs emergency use authorization and created a scoring system to prioritize eligible patients in times of scarcity.

[U. S. Healthcare & Public Health Sector Coordinating Council](#)

This website provides information on the U.S. Healthcare and Public Health Sector Coordinating Council, including the impact of COVID-19 on the sector and how the council represents private sector health care and public health critical infrastructure.

Executive Leadership Courses

[Crisis Leadership Training Program](#) (Harvard T. Chan School of Public Health)

This program offers courses to public, private, and non-profit sector leaders on crisis leadership practice and leadership.

[Executive Leaders Program (ELP)](#)

This leadership program aims to develop learners' skills in innovation and policies, understand complex problems, act decisively and consistently, and strengthen collaboration to improve national security.

TRACIE
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY