



**T R A C I E**  
HEALTHCARE EMERGENCY PREPAREDNESS  
INFORMATION GATEWAY

Access the recording here: <https://attendee.gotowebinar.com/recording/4875119543413744224>

Access speaker bios here:  
<https://files.asprtracie.hhs.gov/documents/pediatric-surge-lessons-learned-roundtable--speaker-bios.pdf>

# ASPR TRACIE Roundtable: Lessons Learned from the Pediatric Tripledemic- Systems, Staff, Space, and Supplies

October 17, 2023



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**Rachel Lehman**  
**Acting Program Director, ASPR TRACIE**

# ASPR Key Priorities



# ASPR TRACIE: Three Domains



- Self-service collection of audience-tailored materials
- Subject-specific, SME-reviewed “Topic Collections”
- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences



[asprtracie.hhs.gov](https://asprtracie.hhs.gov)



- Personalized support and responses to requests for information and technical assistance
- Accessible by toll-free number (1844-5-TRACIE), email ([askasprtracie@hhs.gov](mailto:askasprtracie@hhs.gov)), or web form ([ASPRtracie.hhs.gov](https://asprtracie.hhs.gov))



1-844-5-TRACIE



- Area for password-protected discussion among vetted users in near real-time
- Ability to support chats and the peer-to-peer exchange of user-developed templates, plans, and other materials



[askasprtracie@hhs.gov](mailto:askasprtracie@hhs.gov)



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Michael Anderson, MD, MBA, FAP, FCCM, FAARC  
Senior Advisor, HHS ASPR  
Moderator

# Additional Resources

- [ASPR Pediatric Disaster Care Centers of Excellence](#)
- [ASPR TRACIE Pediatric/Children Topic Collection](#)
- [ASPR TRACIE Pediatric Surge Resources](#)
- PDCOE Sessions at the [2023 National Healthcare Coalition Preparedness Conference](#):
  - 11/28, 12:45pm: EMS Pediatric Disaster Issues Among Various States
  - 11/29, 11am: Beyond Resilience for Those Who Care for Children
  - 11/29, 11am: Pediatric Surge- Improving the Next Response
  - 11/29, 1pm: Expanding Pediatric Disaster Expertise
  - 11/30, 10:30am: The Pediatric RSV Surge of 2022: Lessons Learned



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## Deanna Dahl-Grove, MD, FAAP

Associate Professor, Rainbow Babies and Children's Hospital; Co-Principal Investigator, ASPR Region V for Kids; HRSA Hub Site Principal Investigator for Pediatric Pandemic Network (PPN); Emergency Medical Services for Children (EMSC) Innovation and Improvement Center (EIIC) Disaster Domain Co-Lead

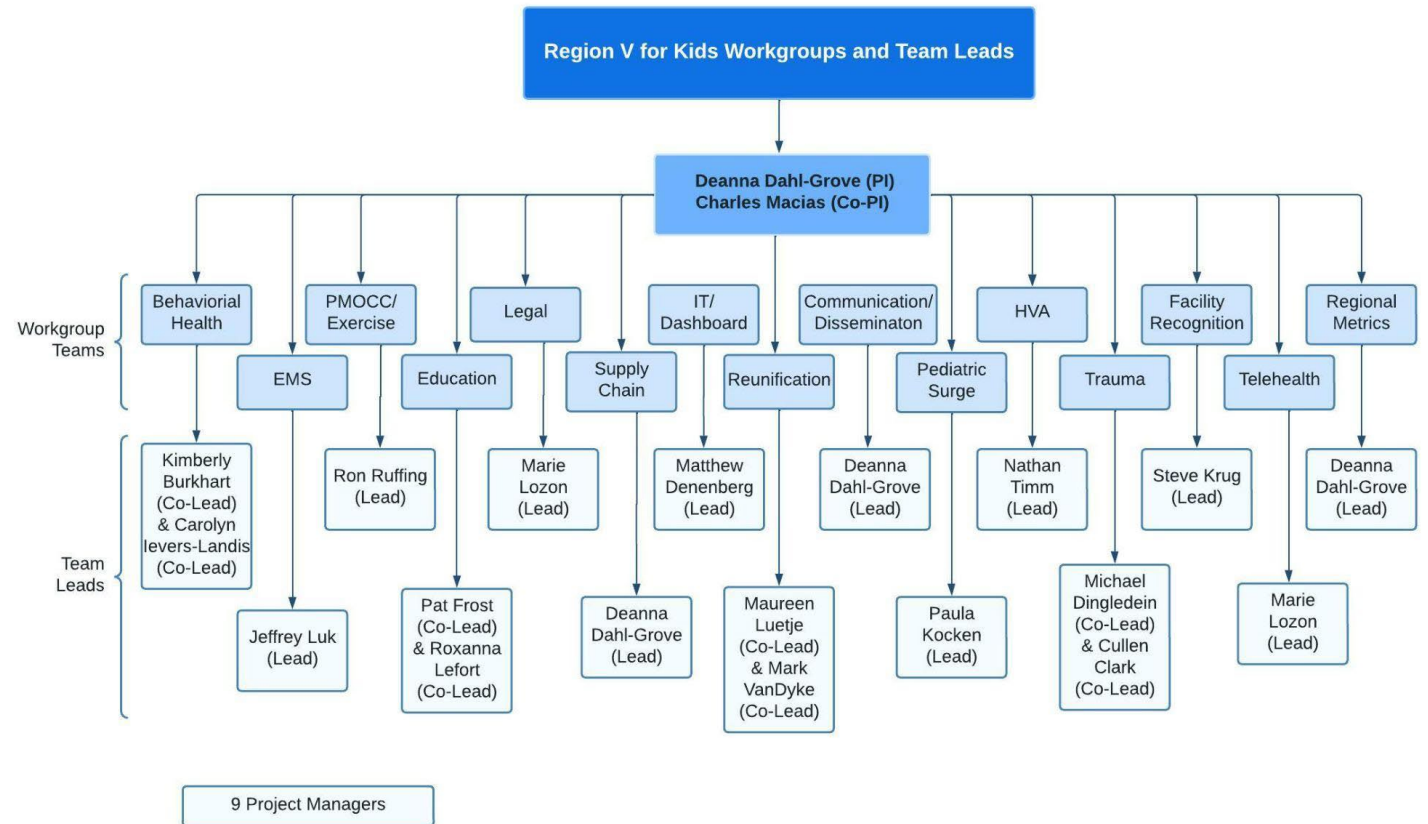


# Region V for Kids

## - Who We Are and Where the Work is Done



- 9 children's hospitals in 6 states serving nearly 12 million children and families
- In collaboration with Emergency Medical Services for Children Innovation and Improvement Center



# Region V for Kids - Summary from Tripledemic Response



## Stuff

- Use of MDI instead of nebulizer (medications shortage)
- EMR real-time drug shortage updates

## Staff

- JIT support via tele-health for healthcare professionals caring for children in non-children's hospitals
- Buddy system for staff extension
- Nonclinical staff to support nonclinical patient and unit needs (stocking)

## Systems

- Changed age in designated units (NICU and Adult)
- Implemented incident command and engaged hospital leadership
- Used regional bed tracking
- Coordinated communication with partners

## Space

- Expanded into PACU and off-hours outpatient space



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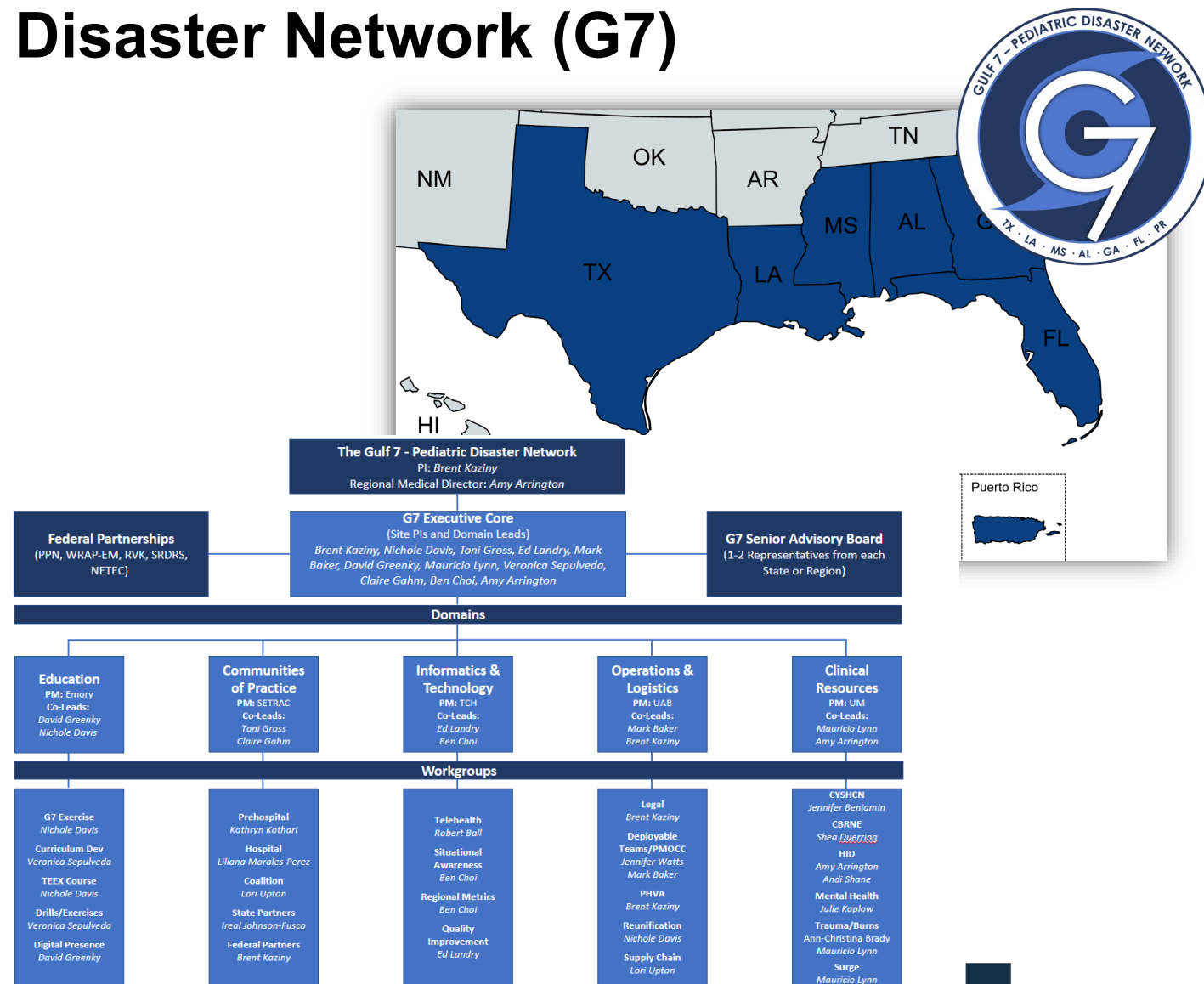
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## **Brent Kaziny, MD, MA, FAAP**

Principal Investigator, Gulf 7 - Pediatric Disaster Network; Director of Pediatric Readiness Section of Emergency Medicine, Medical Director of Emergency Management, Co-Chair of the Emergency Management Committee, Texas Children's Hospital/Baylor College of Medicine

# The Gulf 7 – Pediatric Disaster Network (G7)

- 7 hospitals and 1 HCC in 6 states and Puerto Rico serving nearly 17 million children and families
- Collaboration with NETEC, SRDRS, EIIC, and PPN
- Implemented numerous tools developed by existing COEs
- Partnered with TEEEX for Year 1 activities
  - Drills and education



# The Gulf 7 – Pediatric Disaster Network Summary from Tripledeemic Response



## Space

- Symptom-based isolation rather than pathogen-based
- Metrics to discharge 50% of patient eligible by 11 AM
  - Facilitated by daily/twice daily meeting during surges

## Stuff

- Creative solutions to medication shortages (e.g., Albuterol)
- Supply chain dashboards to assess par levels

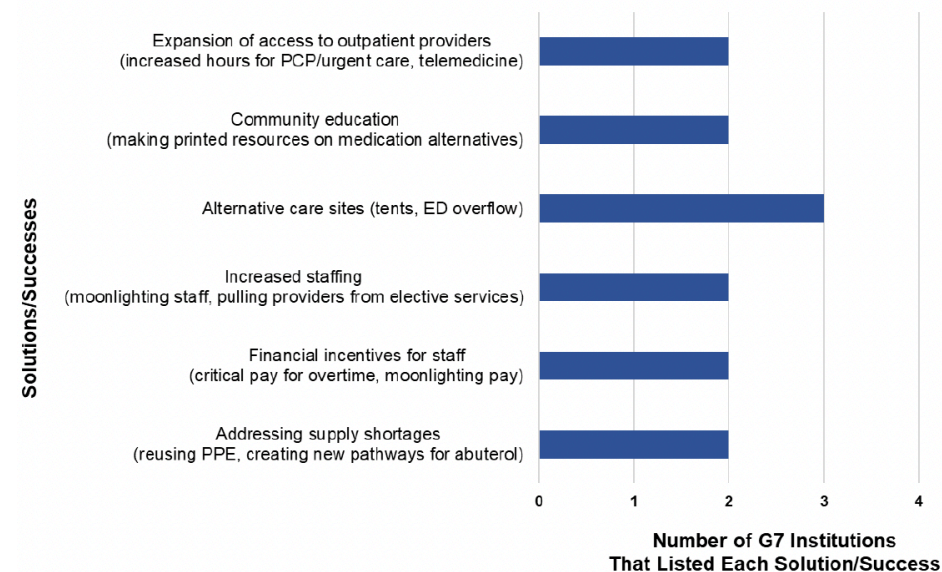
## Staff

- Hiring of additional nursing staff to provide testing resources and assist other nurses on shift
- Additional shift in PICU for APPs
  - Shorter in length
  - Allowed for physicians to create a hybrid of clinical and administrative work that aided in maintaining a better work-life balance

## Systems

- Expanded hours for urgent care
- Expanded access to urgent care televisits
- Transitioned WCC to sick visits in outpatient clinics

Most Common Solutions/Successes Listed by G7 Institutions





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**Christopher Newton, MD**, Professor of Surgery, LUCSF; Chair, Department of Surgery, UCSF Benioff Children's Hospital Oakland; PI - WRAP-EM (ASPR peds disaster COE); Co-PI: Pediatric Pandemic Network

**Mary King MD, MPH**, Associate Professor of Pediatrics, Univ. of Washington; Pediatric Intensivist, Seattle Children's; Medical Director, Pediatric Trauma Intensive Care Unit, Harborview; WRAP-EM, WA State Lead



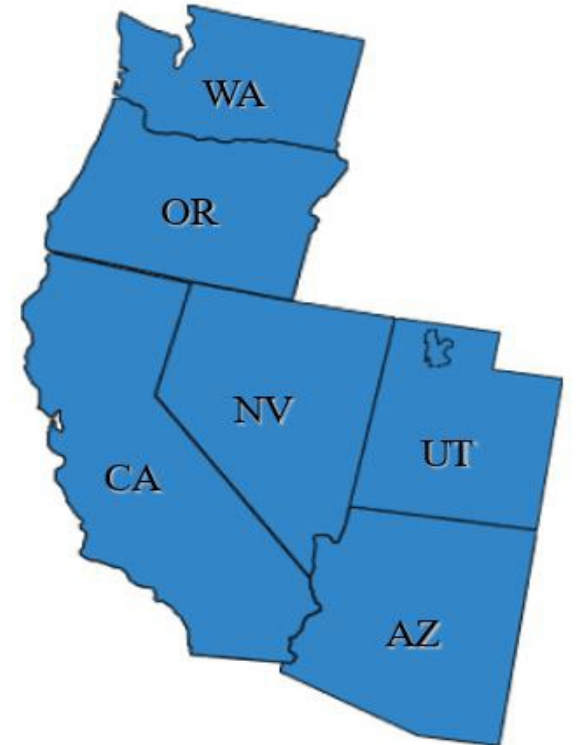
# COVID-19 and Winter Surge

- Recurrent “contingency state” 2019-2023
- Adult and peds surge impact

## COE Activity:

- Surge focus group “library project”
- Weekly “active threats” open call
- Multiple town halls
- Shared lessons learned
- Tools and templates
- Legal/crisis standards documents

**6 States**  
**~14 Million Children**





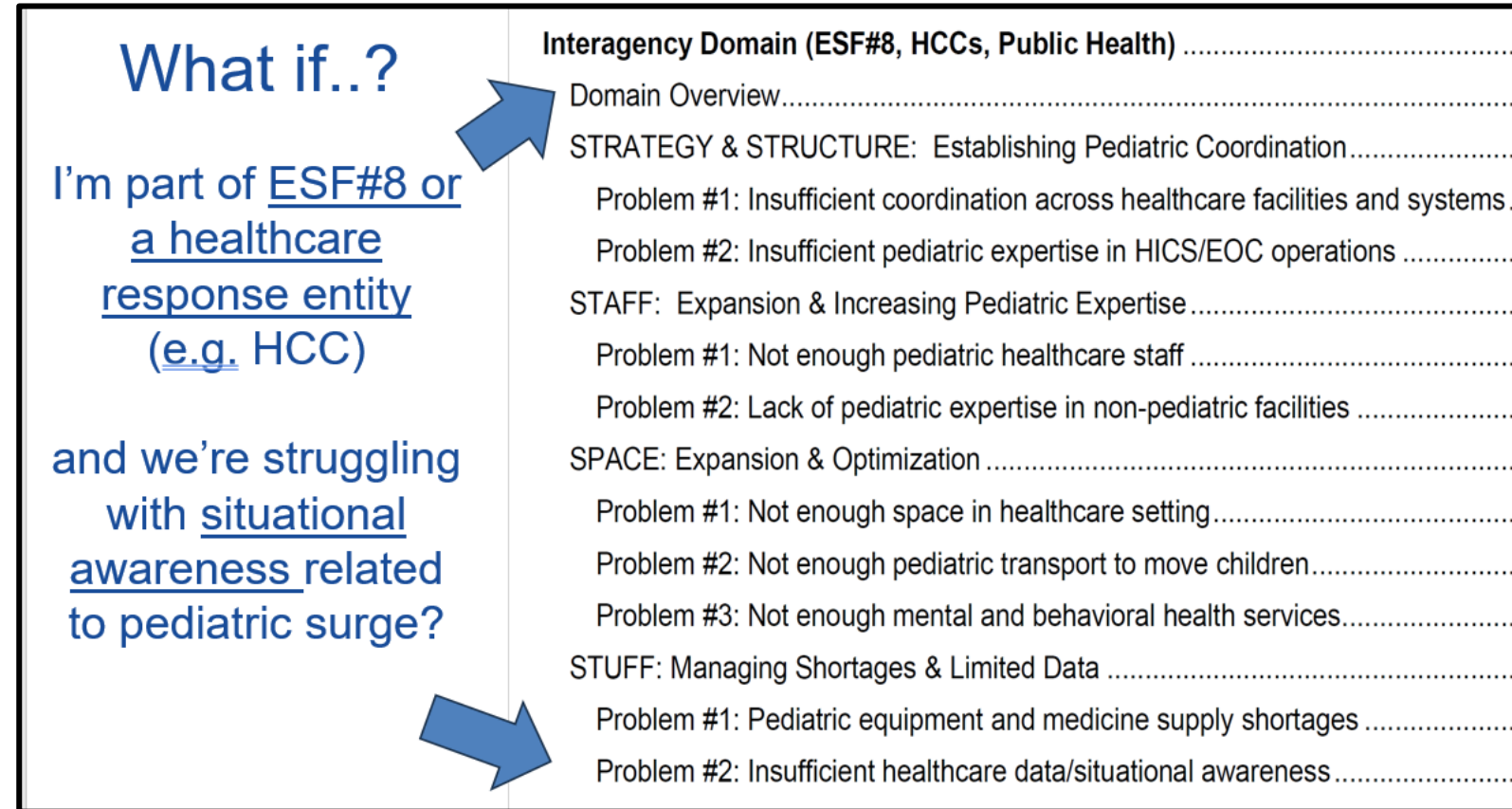
# “Pediatric Surge Playbook”

## Surge Playbook:

- Organized into sections depending on role:
  - Hospital
  - Agency
  - PMOCC

## Utility

- JIT/real-time tool
- Resource library linked into the tool



<https://wrap-em.org/index.php/jit-resources/pediatric-surge-playbook>



# Interagency Domain (ESF#8, HCCs, Public Health)

## Domain Overview

### Purpose & Scope

This section includes considerations, strategies, and resources to manage pediatric surge for interagency groups. Interagency groups may include coordinating entities and associations such as Healthcare Coalitions (HCCs), Public Health, and others such as ad-hoc Emergency Support Function #8 (ESF#8) response structures. Whereas response capabilities, plans, and structures are radically different depending on the locale, implementation of these strategies and resources should happen within the context of the local community, the coordinating entities, existing plans, and the pediatric surge incident itself.

If actions taken by interagency groups within this section are inadequate, readers should consider if [facility level actions](#) have been implemented and evaluate if establishing a [Pediatric Medical Operations Cell \(PMOCC\)](#) would meet operational needs. Most problems identified within this playbook are addressed from both facility/system and interagency perspectives.

Challenges addressed in this section include:

- [Insufficient coordination across healthcare facilities and systems](#)
- [Insufficient pediatric expertise in HICS/EOC operations](#)
- [Not enough pediatric healthcare staff](#)
- [Lack of pediatric expertise in non-pediatric facilities](#)
- [Not enough space in healthcare settings](#)
- [Not enough pediatric transport to move children](#)
- [Not enough mental and behavioral health services](#)
- [Pediatric equipment and medicine supply shortages](#)
- [Insufficient healthcare data/situational awareness](#)

Example: Challenges

Example: Link outs

Example: Summary recs

- The WRAP-EM Crisis Standards of Care Table can serve as a tool to assist preparedness and response activities.
- The Society of Critical Care Medicine (SCCM) Crisis Care Staffing Model may be referenced to explore crisis staffing approaches.

### Supporting Tools & Resources

- [Crisis Standards of Care: Guideline Table for Conventional, Contingency, and Crisis Situations \(WRAP-EM\)](#)
- [Nursing Staffing Models - ICU Staffing Plan: Contingency & Crisis Model \(Society of Critical Care Medicine\)](#)
- [Design for Implementation of a System-Level ICU Pandemic Surge Staffing Plan \(Harris, et al.\)](#)
- [Crisis Standards of Care - A Toolkit for Indicators and Triggers \(Institute of Medicine of the National Academies\)](#)
- [Crisis Standards of Care Resources \(National Academy of Medicine\)](#)

### **Problem #2: Lack of pediatric expertise in non-pediatric facilities**

According to the EIIC Pediatric Readiness Assessment [80% of children](#) receive emergency care in community hospital emergency departments. These non-pediatric specific facilities have varying degrees of experience, equipment, and confidence in the management of seriously ill children. When faced with a surge of sick or injured children during a community incident or disaster, these same community hospitals are on the front lines of responding to their community regardless of their expertise.

The exclusion of the needs of children in disaster planning and hospital incident command operations further complicates response where pediatric resources are required. These factors are further complicated by limited pediatric hospital bed availability that is concentrated primarily in highly urban settings.

Inadequacy of pediatric hospital beds to support pediatric surge result in consequences for community hospitals:

1. Pediatric beds are not available for transfer to a higher level of care.
2. Available pediatric center beds must be triaged for the most critically ill children.
3. Community hospital emergency departments and facilities will be required to hold on to sick and injured children for hours, days or weeks depending on the incident.

Depending on the incident and related needs, telehealth may be a potent strategy to support non-children's hospitals in the care, triage, and transfer decisions of children, however, pediatric telehealth infrastructure including logistics, staffing and technology must be developed and accessible to be helpful on a large scale during a disaster. Additionally, simultaneously engaging resources designed to support physicians providing care to pediatric patients, such as reference guides and just-in-time trainings, is an effective strategy to augment existing high-acuity pediatric expertise.



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## Roundtable

# Systems

- What were some key successes in information sharing over the past few years?
- Using MOCC and similar constructs to make the best use of the specialty resources is a key driver for successful responses. What are some best practices and opportunities in regional transfer coordination?

# Staff

- Staffing was a key constraint during the peak of the pandemic. How have things changed since then for better or worse?
- What are some opportunities to augment staffing in key areas?
- Burnout and moral distress remain key issues; what are some opportunities to ease these burdens and keep our workers engaged and resilient?

# Space

- What are some opportunities for expanding outpatient and inpatient pediatric care?
- How do we expand telemedicine services to support both patient visits and provide specialty advice?

# Supplies

- Supply chains have been uniquely challenged over the past few years and pediatric patients have very specific supply and medication needs; what are some best practices for ensuring reliable supply chains and enough “on the shelf” when we need it?
- What are some opportunities to coordinate strategies when we have shortages of specific medications or products nationally that impacts pediatric care?

# Question & Answer



# Contact ASPR TRACIE



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