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

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HEALTHCARE EMERGENCY PREPAREDNESS INFORMATION GATEWAY

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

October 17, 2023

ASPR
Administration for Strategic Preparedness and Response

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Rachel Lehman
Acting Program Director, ASPR TRACIE

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ASPR Key Priorities

ASPR TRACIE: Three Domains

TECHNICAL RESOURCES

- 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- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences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

ASSISTANCE CENTER

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

1-844-5-TRACIE

INFORMATION EXCHANGE

- 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

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Michael Anderson, MD, MBA, FAP, FCCM, FAARC

Senior Advisor, HHS ASPR

Moderator

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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

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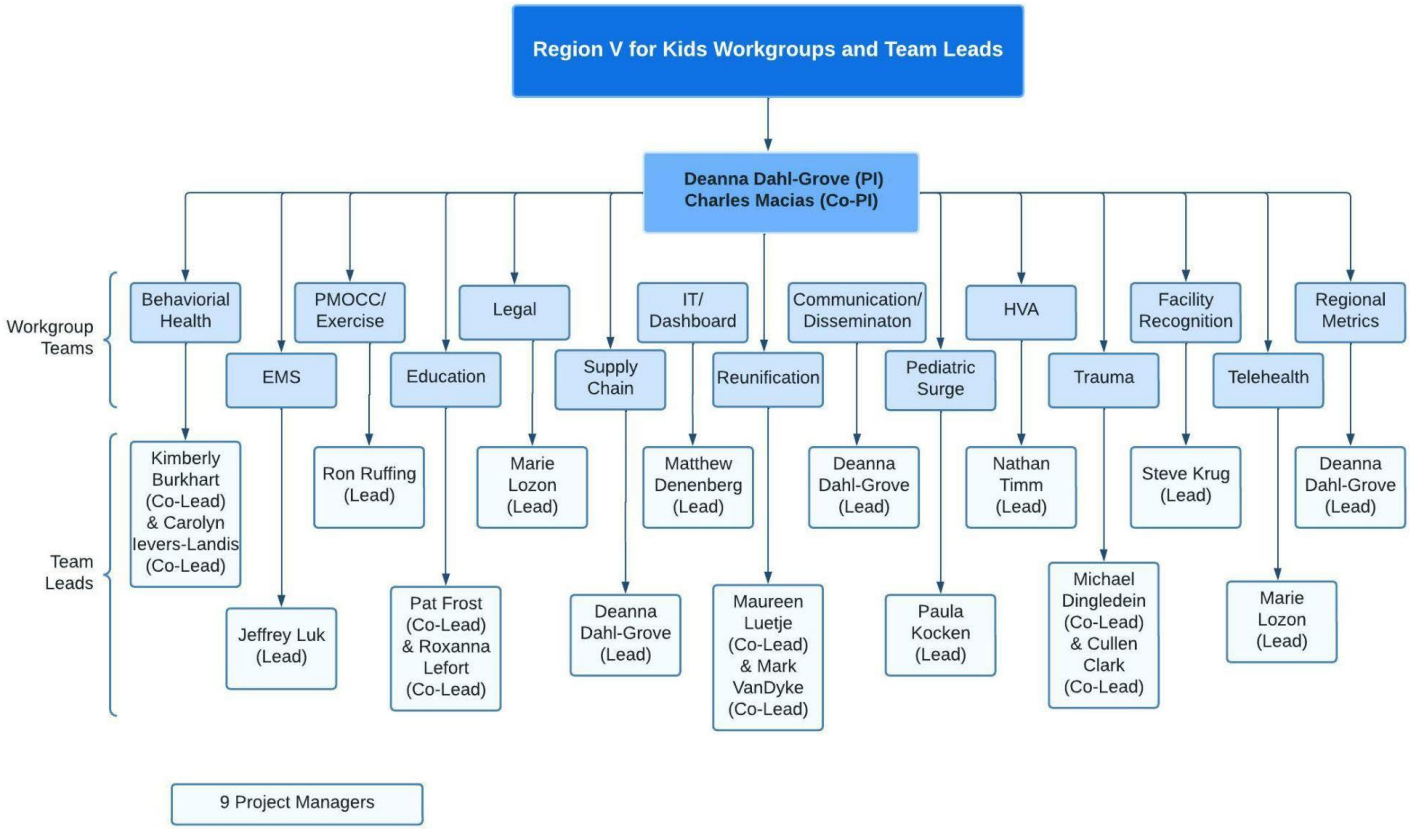
Region V for Kids
- Who We Are and Where the Work is Done

- 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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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

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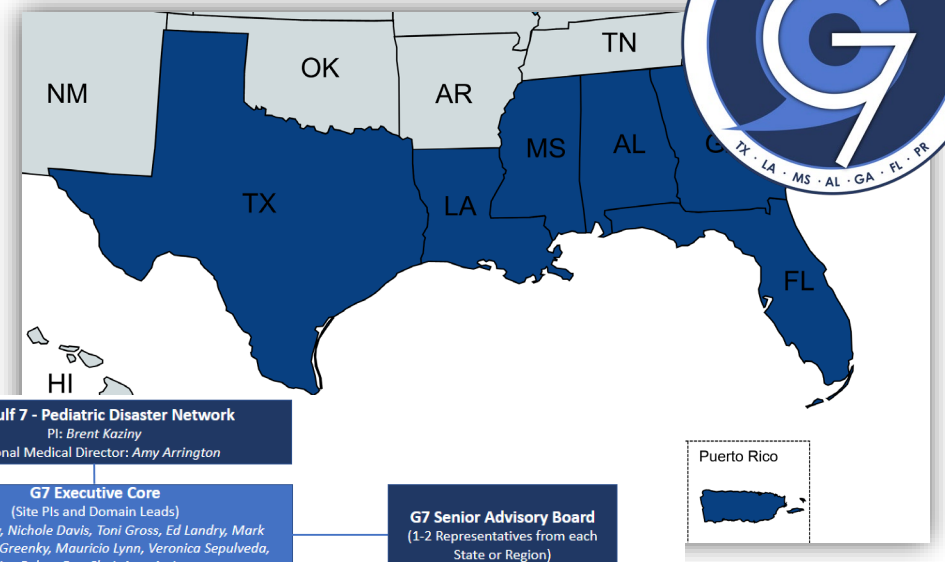
The Gulf 7 – Pediatric Disaster Network (G7)

- 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 TEEX for Year 1 activities
  - Drills and education



The Gulf 7 - Pediatric Disaster Network
PI: *Brent Kaziny*
Regional Medical Director: *Amy Arrington*

Federal Partnerships
(PPN, WRAP-EM, RVK, SRDRS, NETEC)

G7 Executive Core
(Site PIs and Domain Leads)
Brent Kaziny, Nichole Davis, Toni Gross, Ed Landry, Mark Baker, David Greenky, Mauricio Lynn, Veronica Sepulveda, Claire Gahm, Ben Choi, Amy Arrington

G7 Senior Advisory Board
(1-2 Representatives from each State or Region)

Domains

Education	Communities of Practice	Informatics & Technology	Operations & Logistics	Clinical Resources
PM: Emory Co-Leads: *David Greenky* *Nichole Davis*	PM: SETRAC Co-Leads: *Toni Gross* *Claire Gahm*	PM: TCH Co-Leads: *Ed Landry* *Ben Choi*	PM: UAB Co-Leads: *Mark Baker* *Brent Kaziny*	PM: UM Co-Leads: *Mauricio Lynn* *Amy Arrington*

Workgroups

G7 Exercise *Nichole Davis* Curriculum Dev *Veronica Sepulveda* TEEX Course *Nichole Davis* Drills/Exercises *Veronica Sepulveda* Digital Presence *David Greenky*	Prehospital *Kathryn Kothari* Hospital *Liliana Morales-Perez* Coalition *Lori Upton* State Partners *Ireal Johnson-Fusco* Federal Partners *Brent Kaziny*	Telehealth *Robert Ball* Situational Awareness *Ben Choi* Regional Metrics *Ben Choi* Quality Improvement *Ed Landry*	Legal *Brent Kaziny* Deployable Teams/PMOCC *Jennifer Watts* *Mark Baker* PHVA *Brent Kaziny* Reunification *Nichole Davis* Supply Chain *Lori Upton*	CYSHCN *Jennifer Benjamin* CBRNE *Shea Duerring* HID *Amy Arrington* *Andi Shane* Mental Health *Julie Kaplow* Trauma/Burns Ann-Christina Brady *Mauricio Lynn* Surge *Mauricio Lynn*

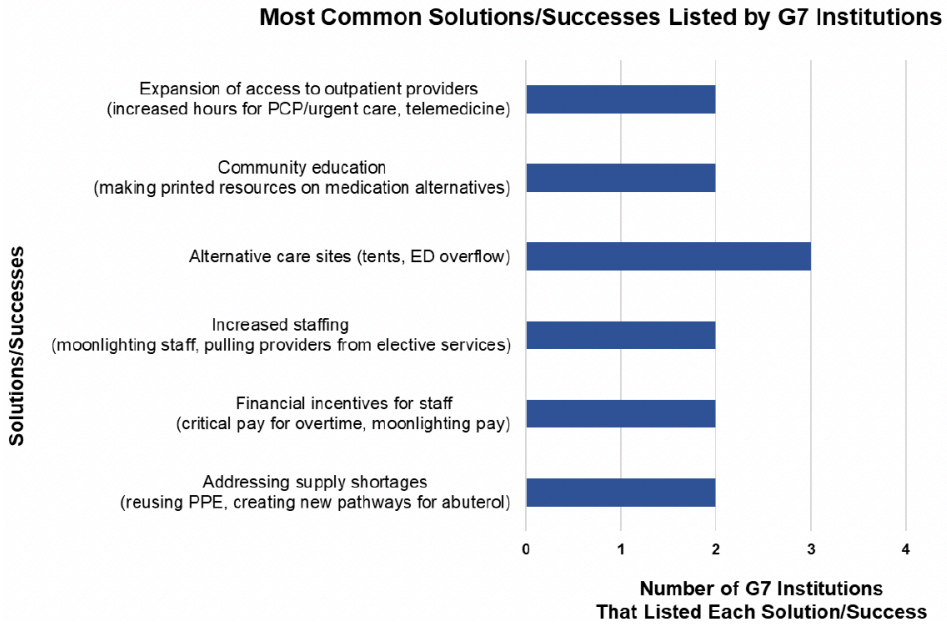
The Gulf 7 – Pediatric Disaster Network Summary from Tripledemic Response

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



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Christopher Newton, MD, Professor of Surgery, LUCSF; Chair, Department of Surgery, UCSF Benioff Children's Hospital Oakland; PI - WRAPEM (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

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COVID-19 and Winter Surge

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

6 States
~14 Million Children

<u>COE Activity:</u>

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

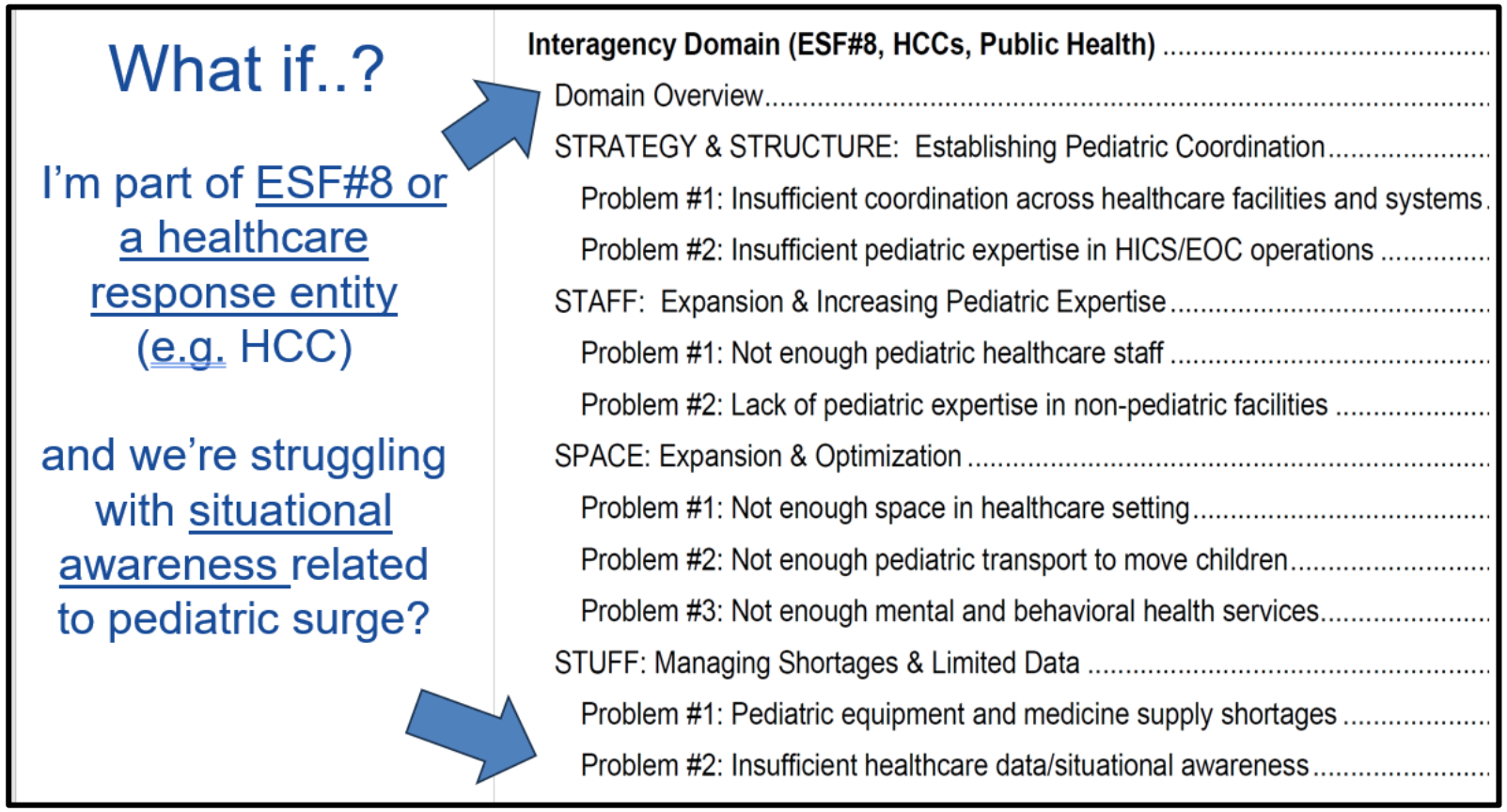
“Pediatric Surge Playbook”

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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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

asprtracie.hhs.gov

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askasprtracie@hhs.gov