DISASTER RESPONSE COLLABORATIVE

INFORMATIONAL WEBINAR

“Disaster Response for Children’s Hospitals: Strategies for Effective Planning and Response

Monday, March 18, 2024: 1:00 to 2:00 pm CST

Acknowledgements & Disclaimer

The Pediatric Pandemic Network is supported in part by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of cooperative agreements U1IMC43532 and U1IMC45814 with 0 percent financed with nongovernmental sources.

DISASTER RESPONSE COLLABORATIVE

Reminders

We are sorry that the chat box was disabled.

Add questions to Q&A box

Questions will be answered during the presentation or Q&A session at the end

The webinar is being recorded. You will be notified when the recording and slides are available online

DISASTER RESPONSE COLLABORATIVE

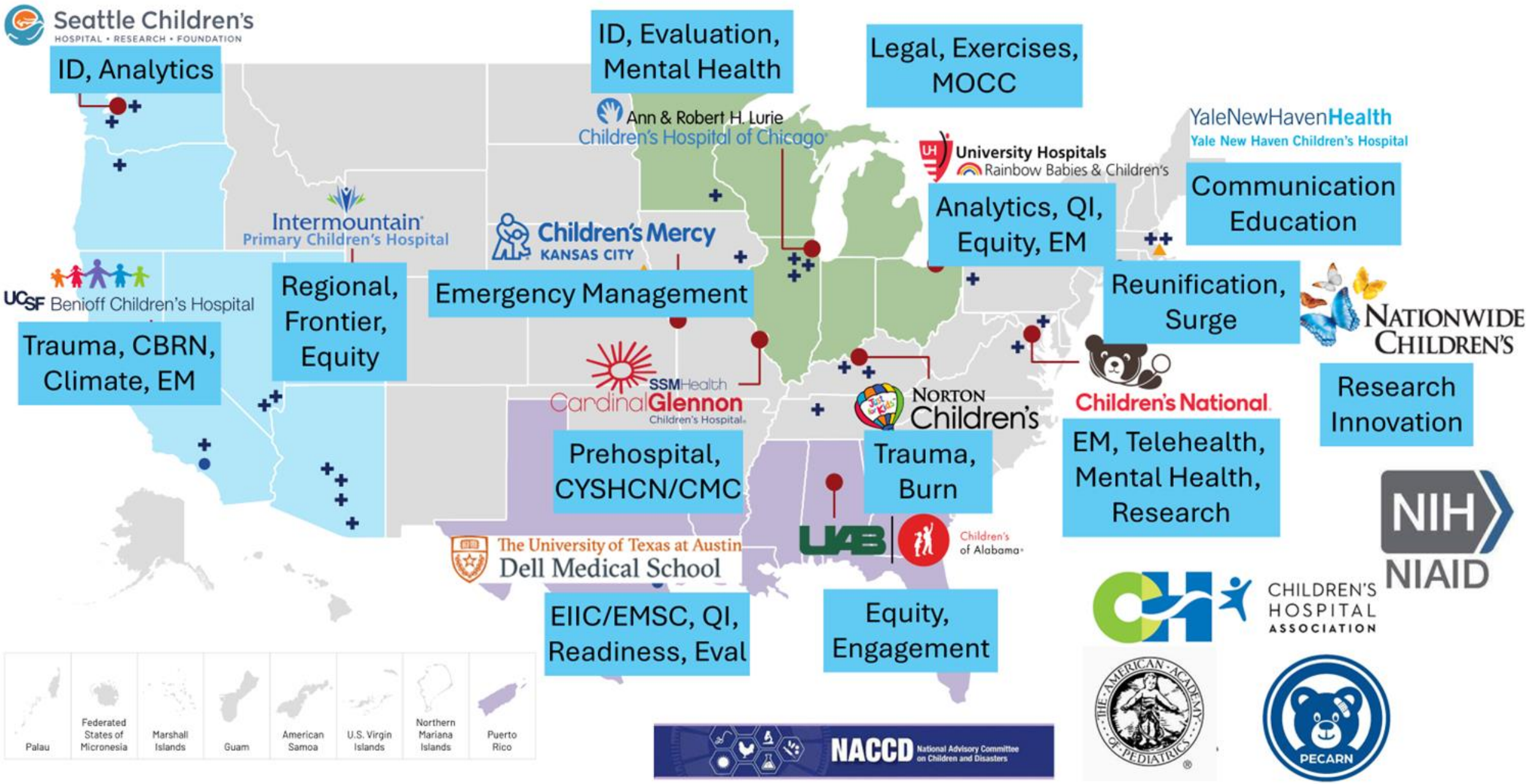
Kevin M McCulley

Chief Operating Officer

Pediatric Pandemic Network

The Time is NOW!

PPN Hub Sites and Key Partners



NIH NIAID

CHILDREN'S HOSPITAL ASSOCIATION

NACCD National Advisory Committee on Children and Disasters

THE AMERICAN ACADEMY OF PEDIATRICS

PECARN

Recent task-force initiatives:

- Climate task force
- CYSHCN/Children with Medical Complexity

HRSA MCHB

ADVISORY COMMITTEES

EXECUTIVE CORE: PPN PI TEAM

NETWORK OPERATIONS TEAM

SERVICE CORES	CORE/EVERYDAY DOMAINS	DISASTER MANAGEMENT DOMAINS
Analytics	Infectious Diseases	Capacity/Capability (Surge)
Community Engagement	Medical Home	CBRN*
Education	Mental/Behavioral Health	Deployable Assets
Communication/Dissemination	Pediatric Readiness	Drills/Exercises
Evaluation	Prehospital	Health Information Portability
Health Equity	Telehealth	Reunification
Legal	Trauma/Burns	Supply Chain
Quality Improvement		
Research & Innovation		

Support Structure

*CBRN: Chemical, Biological, Radiological, and Nuclear

READINESS

RESILIENCY

- Rainbow Babies & Children's – lead site
- Children's National Hospital - lead site

RESPONSE

- Norton Children's Hospital
- Primary Children's Hospital
- Seattle Children's Hospital

RESEARCH


UTAH DEPARTMENT OF
HEALTH


GOLD CROSS
AMBULANCE
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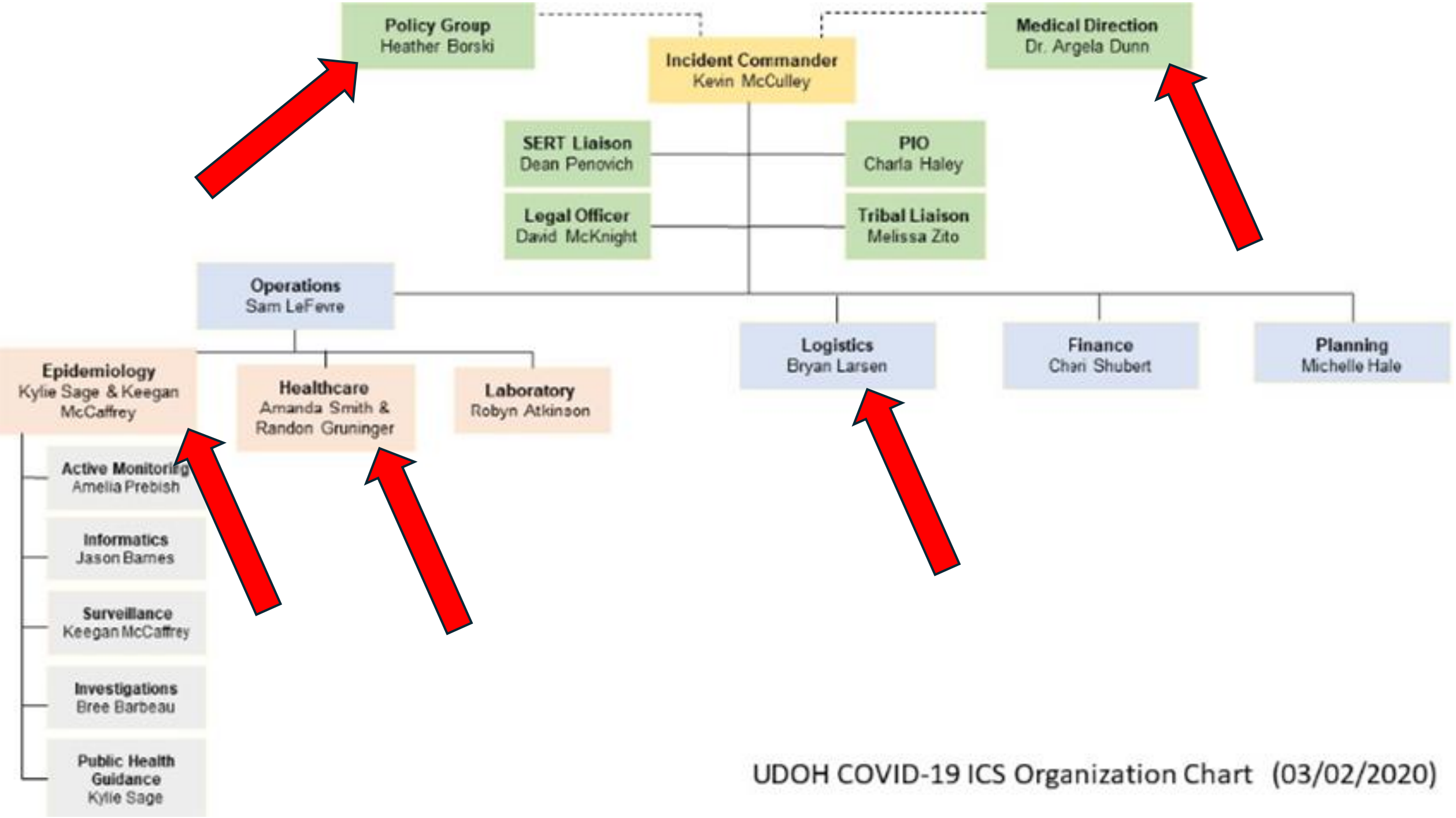
N45FG


The Cheesecake Factory
The Cheesecake Factory


UTAH DEPARTMENT OF
HEALTH
OPERATIONS CENTER

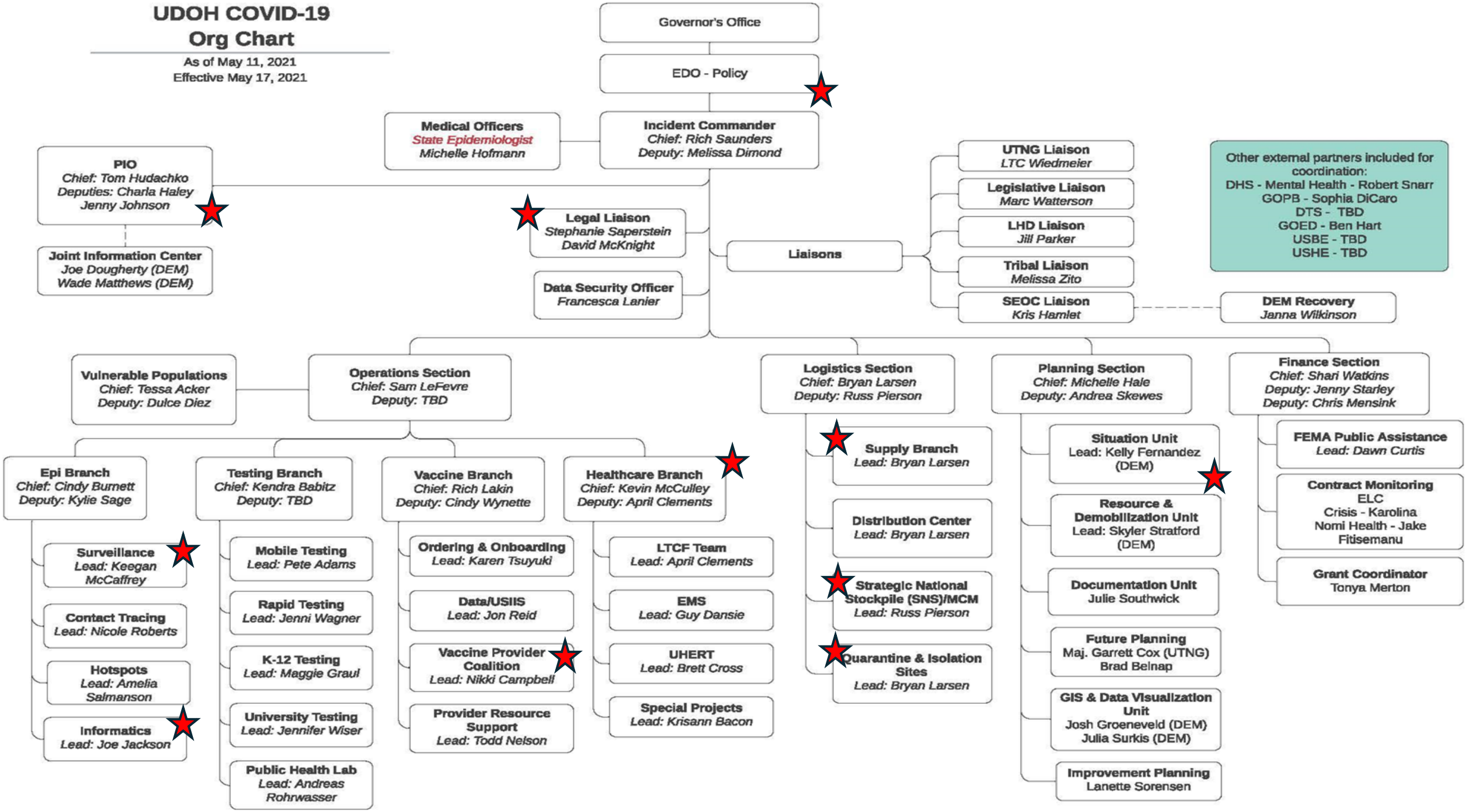


UDOH COVID-19 ICS Organization Chart (03/02/2020)


CAUTION

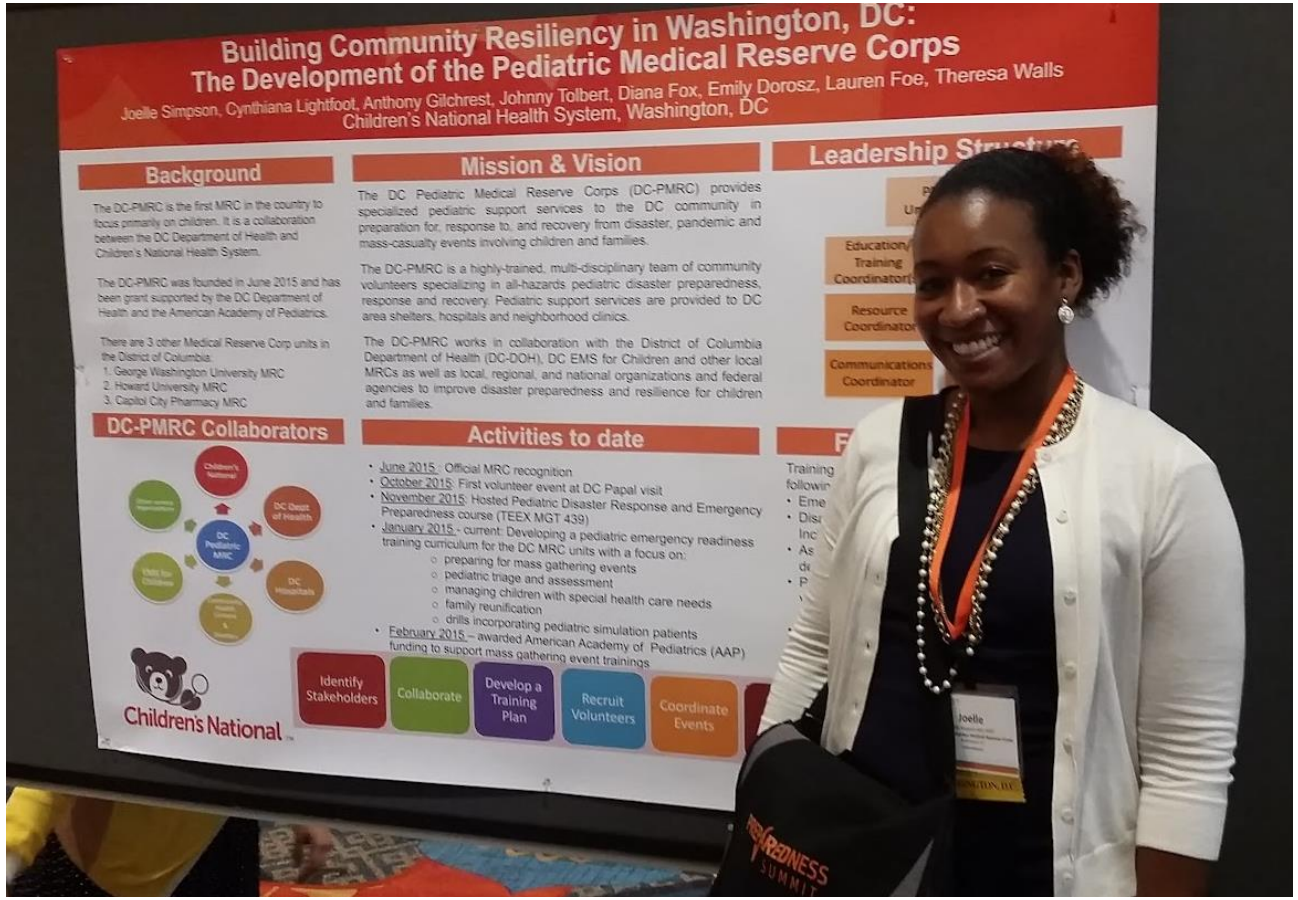
UDOH COVID-19 Org Chart

As of May 11, 2021
Effective May 17, 2021



Joelle Simpson, MD, MPH

Associate Professor, Pediatrics and Emergency Medicine
Chief of Emergency Medicine
Medical Director for Emergency Preparedness
Children's National Hospital



Pediatric Pandemic Network

- Lead PI, PPN
- Hub Site Leader - Washington DC
- Podcast Presenter (Origins)

https://pedspandemicnetwork.org/ready-prep-go/origins/

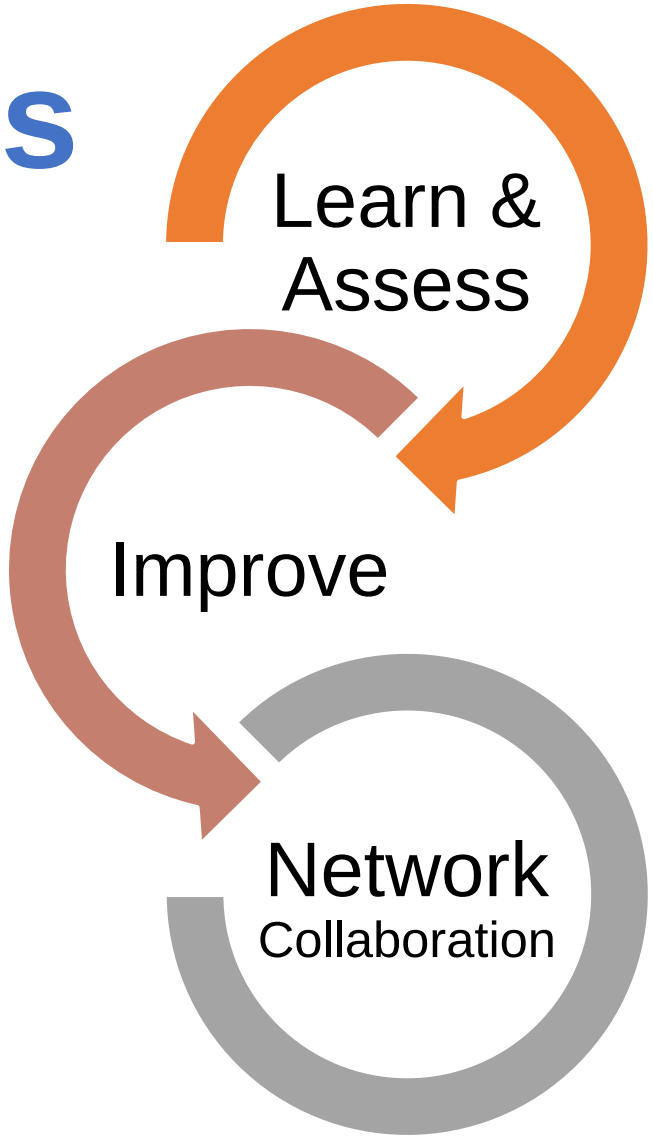
The “WHY”?

- Prioritizing Children and Pediatrics
- Address Leadership Priorities
  - **Motivation**
  - **Money**
  - **Metrics**
- Advocate for Collaboration – come together in a disaster
- Connect in with PPN hub sites and Pediatric Disaster Care Centers of Excellence
- QI science and strategies can advance change much more quickly using evidence-based approaches

PPN and Collaboratives

DNC: Support in-hospital pediatric preparedness infrastructure, outreach

DRC: Enhance pediatric disaster response capability and capacity



https://pedspandemicnetwork.org/

DISASTER RESPONSE COLLABORATIVE

Katherine Remick, MD, FAAP, FACEP, FAEMS
Associate Professor, Pediatrics and Surgery/Perioperative Medicine
Associate Chair, Quality, Innovation, and Outreach
Co-Director, National EMS for Children Innovation and Improvement Center
Dell Medical School at the University of Texas at Austin
Medical Director, San Marcos/Hays County EMS System

DISASTER RESPONSE COLLABORATIVE

What is the current state of pediatric disaster preparedness in the U.S.?

- <50% of hospitals include pediatric-specific needs in disaster plans.
- Deficiencies in day-to-day operational readiness are exacerbated during a disaster.
- Current state and local disaster plans often do not include specific considerations for children and families.
- General hospitals often “rely” on children’s hospitals during disaster events.

DISASTER RESPONSE COLLABORATIVE

Pediatric Disaster Capacity and Capabilities of our Hospital System

- Among the ~200 children's hospitals:
  - 90.8% with NICU
  - 89.4% with PICU
  - 96.3% with peds ward
  - 72% with newborn nursery
- All hospitals (~5000):
  - 27.9% with NICU
  - 9.7% with PICU
  - 30.8% with peds ward
  - 56.3% with newborn nursery

EMSC Innovation and Improvement Center

Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies

https://media.emscimprovement.center/documents/EIICDisasterChecklist_Current081822.pdf

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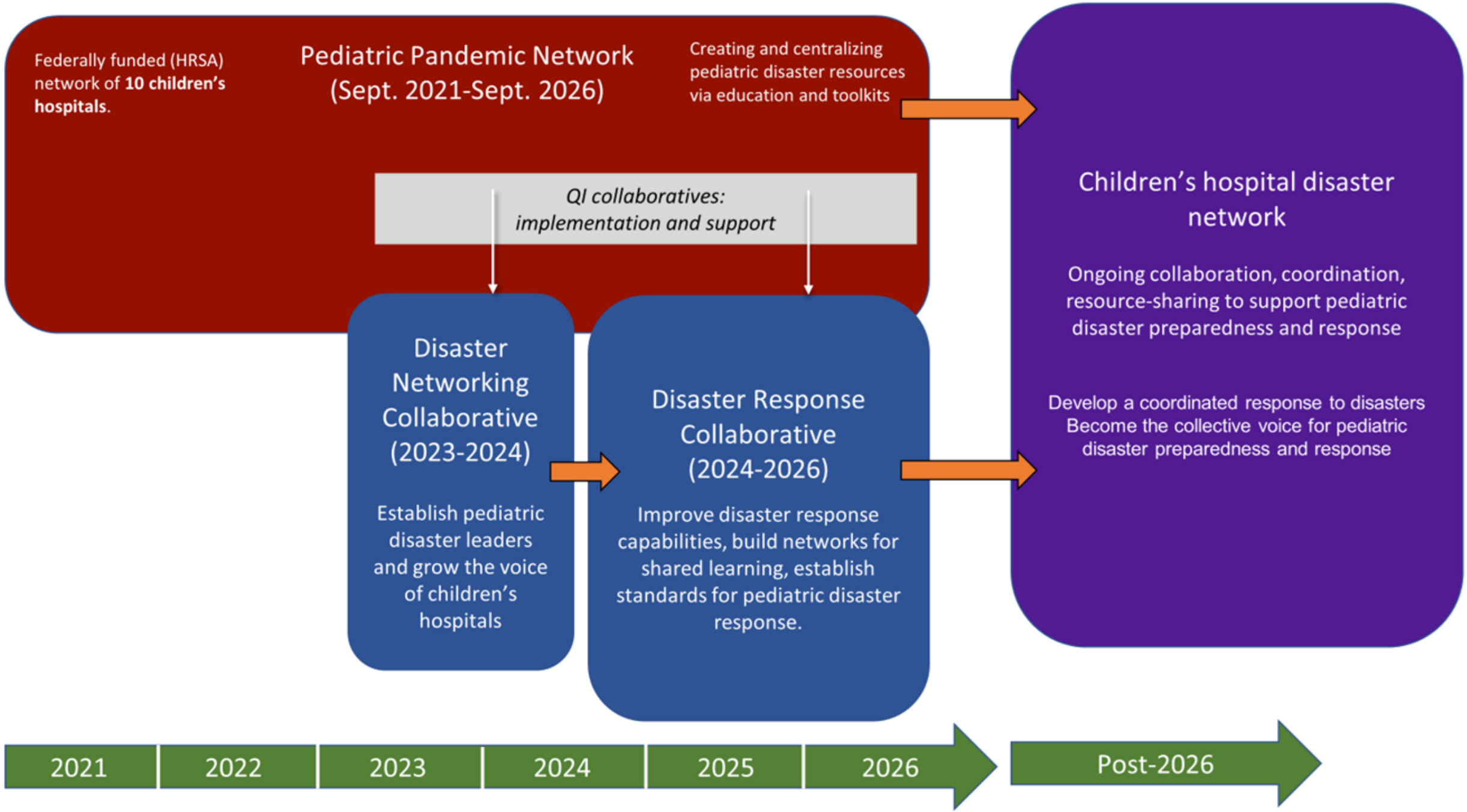
DISASTER RESPONSE COLLABORATIVE

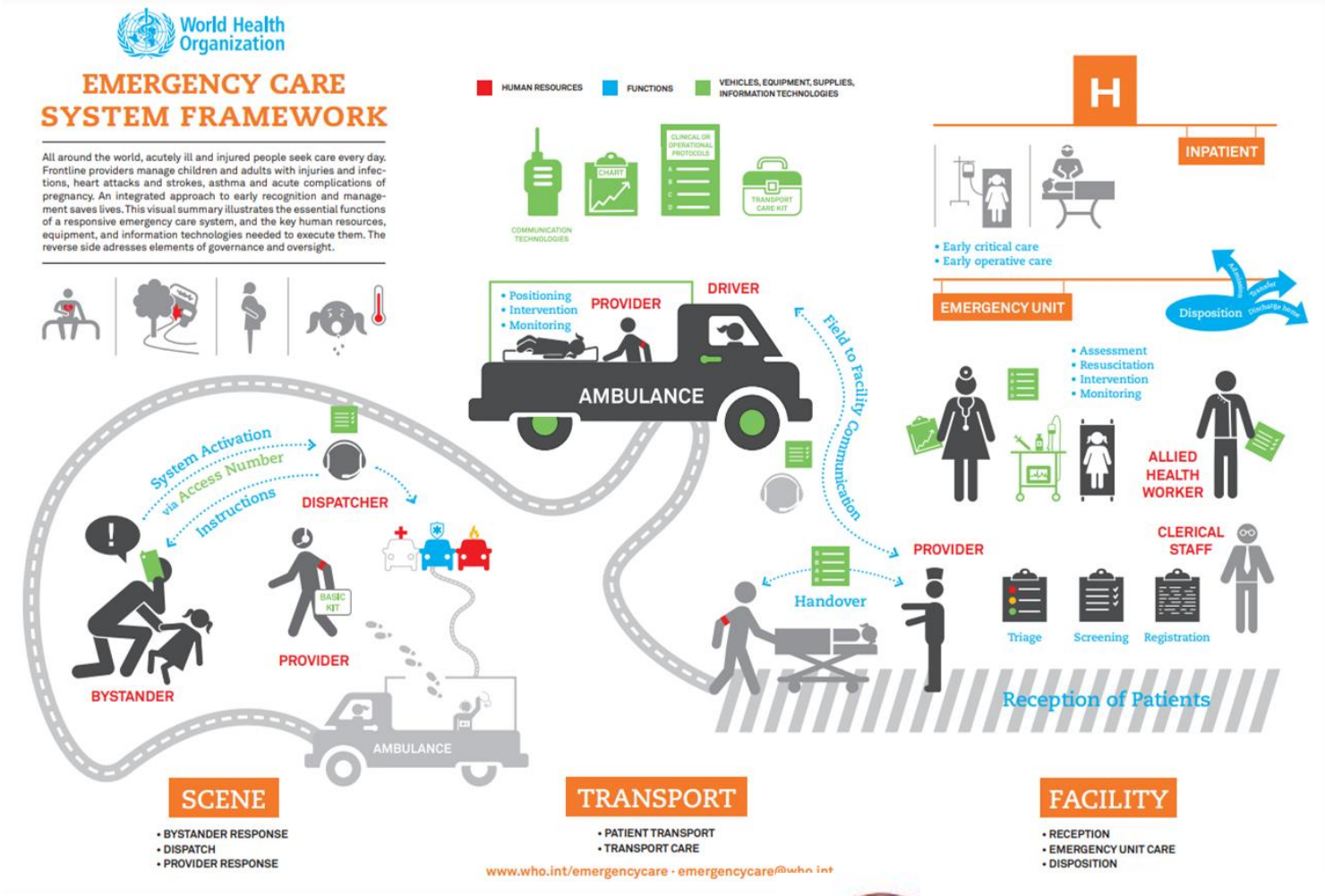

Federally funded (HRSA) network of **10 children's hospitals**.
Pediatric Pandemic Network (Sept. 2021-Sept. 2026)
Creating and centralizing pediatric disaster resources via education and toolkits
QI collaboratives: implementation and support
Disaster Networking Collaborative (2023-2024)
Establish pediatric disaster leaders and grow the voice of children's hospitals
Disaster Response Collaborative (2024-2026)
Improve disaster response capabilities, build networks for shared learning, establish standards for pediatric disaster response.
Children's hospital disaster network
Ongoing collaboration, coordination, resource-sharing to support pediatric disaster preparedness and response
Develop a coordinated response to disasters
Become the collective voice for pediatric disaster preparedness and response
2021
2022
2023
2024
2025
2026
Post-2026

Transforming the Healthcare System

- Active vs passive engagement
- Passive dissemination = 15-20yrs
- Quality improvement methodology
  = 3-5yrs

<u>Driving transformation</u>:

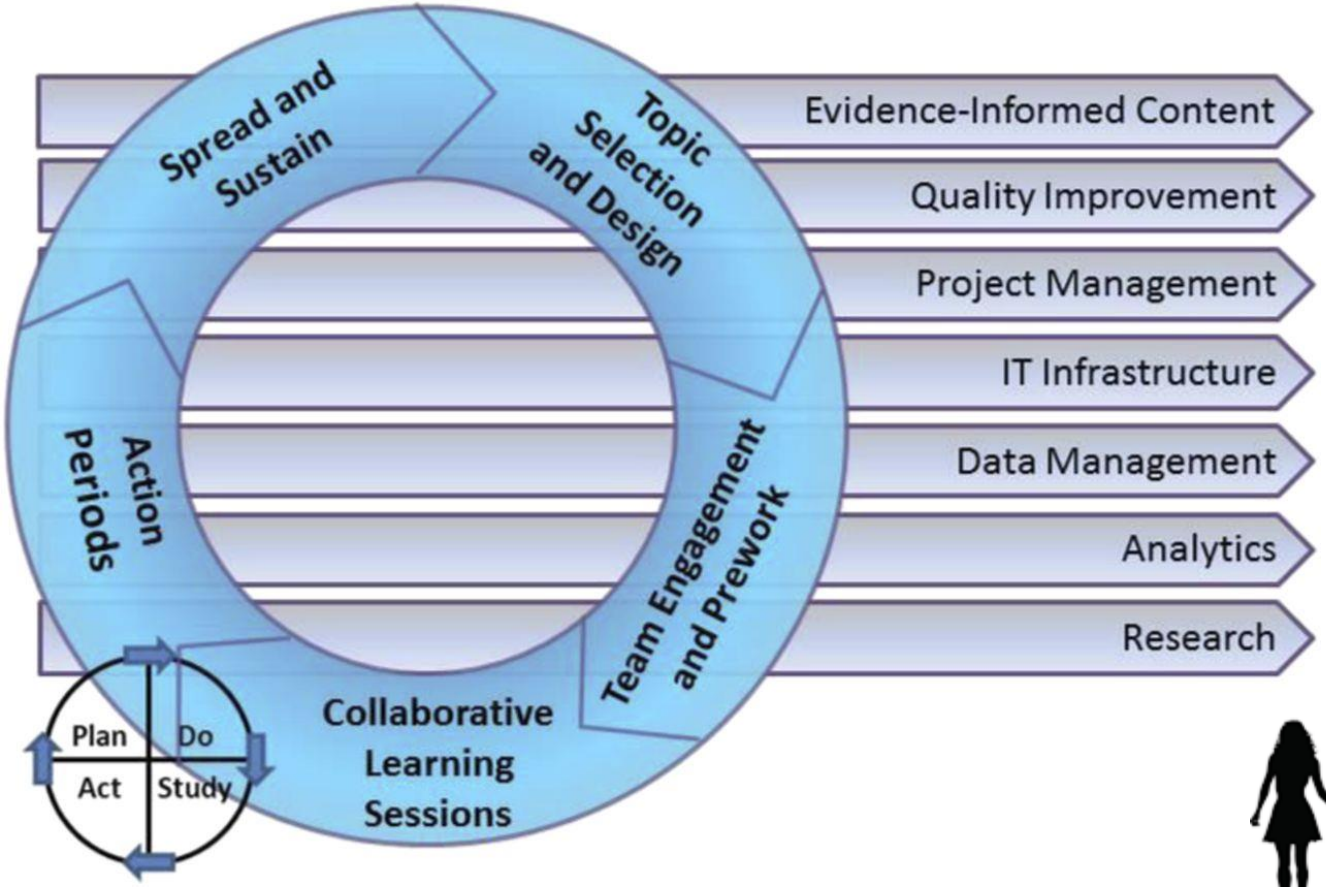
- Research to practice (diverse settings)
- Shared learning
- Data analytics to measure impact



PEDIATRIC PANDEMIC NETWORK
DISASTER RESPONSE COLLABORATIVE

Quality Improvement Collaboratives

Collaboration across institutions
Incentives to support engagement



DISASTER RESPONSE COLLABORATIVE

Terao, Hoffman, et al, 2019

A Tale of Two Collaboratives

Disaster Network Collaborative

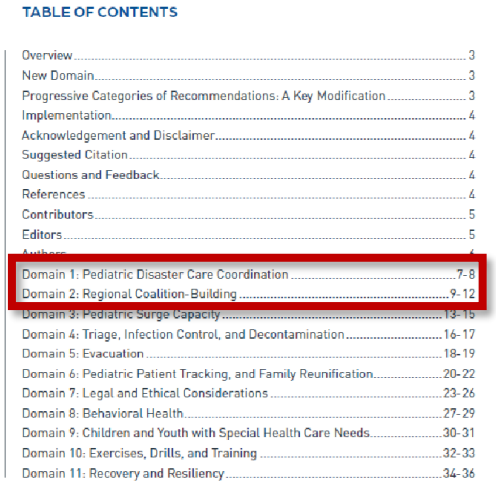
Foundational Elements for Children's Hospitals

- C-suite commitment and support
- Strengthen local pediatric disaster leadership
- Collaborate with healthcare coalition

EIIC
EMSC Innovation and Improvement Center

Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies

DISASTER RESPONSE COLLABORATIVE



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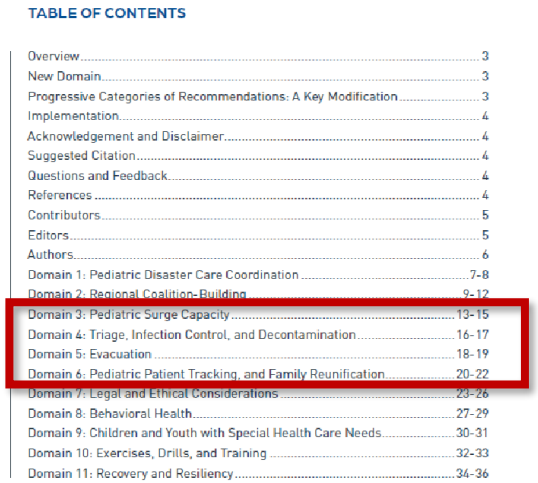
Disaster Response Collaborative

Moving Towards Robust Pediatric Disaster Response

- Assess and strengthen pediatric disaster capabilities
- Establish standards for pediatric disaster response
- Strengthen the network of children's hospitals

EIIC
EMSC Innovation and Improvement Center

Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies



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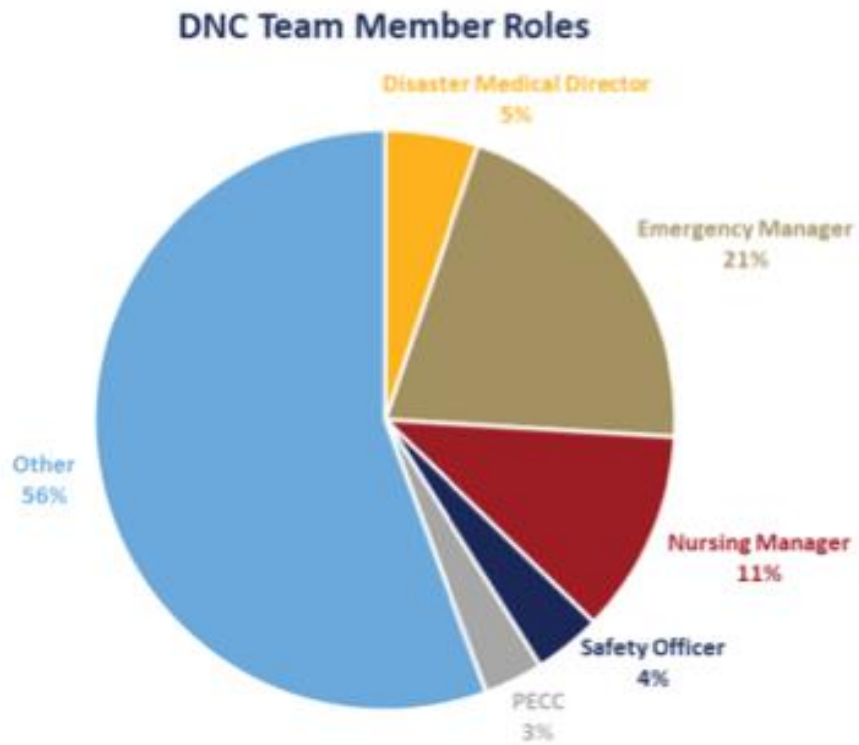
Jonathan Eisenberg, MD, FAAP

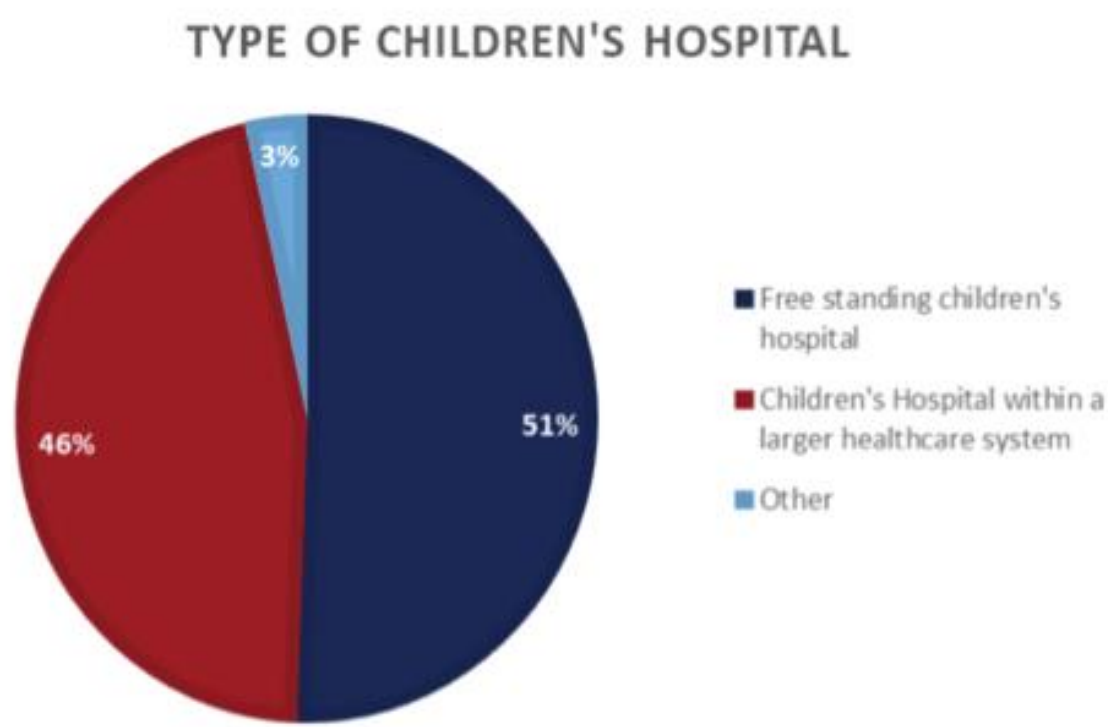
Assistant Professor, Pediatrics
UT Austin, Dell Medical School
Attending, Dell Children's Medical Center

Pediatric Pandemic Network
Disaster Networking Collaborative
QI Service Core

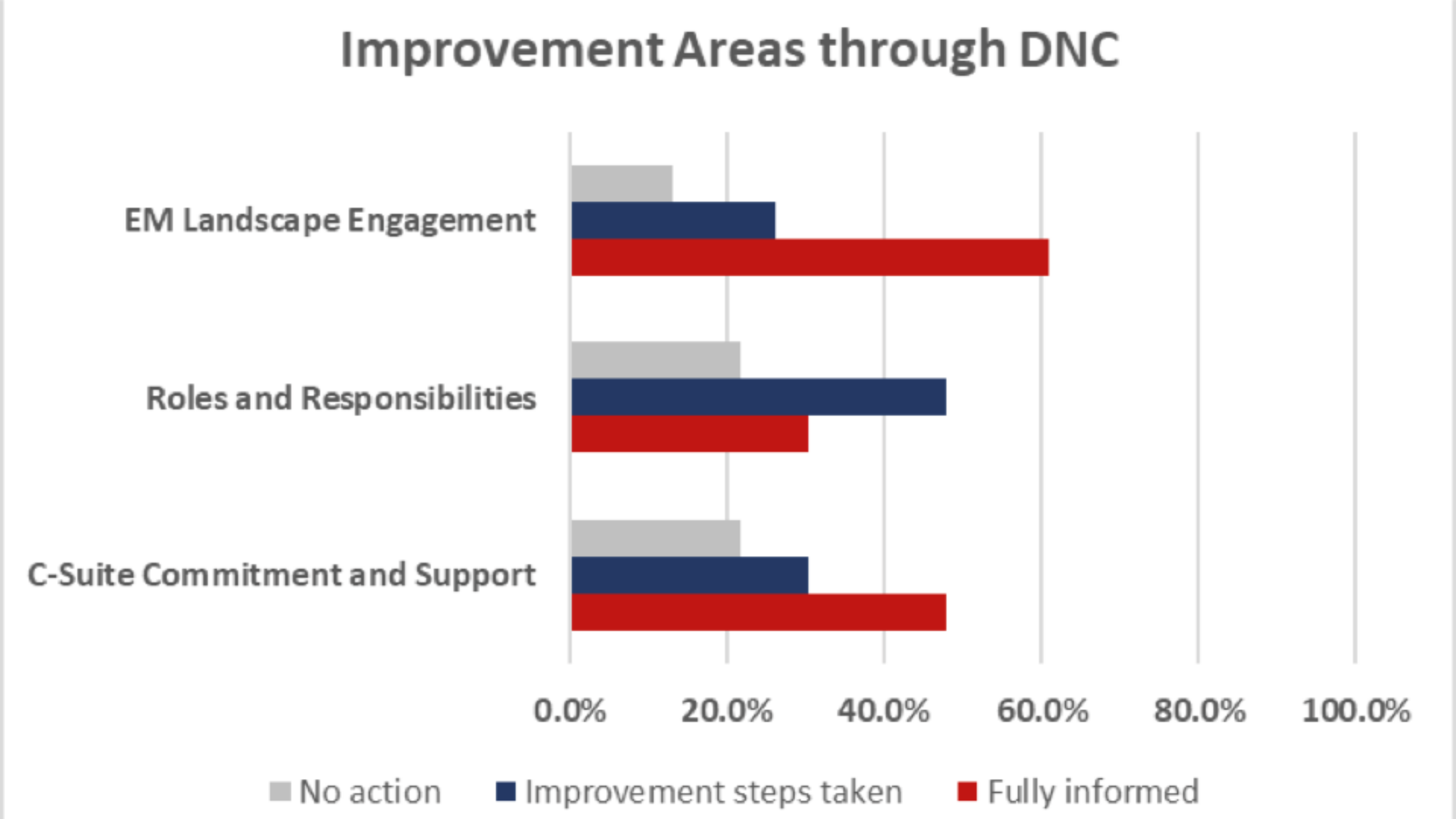
DISASTER RESPONSE COLLABORATIVE

DNC: what we have learned





DISASTER NETWORKING COLLABORATIVE


Improvement Areas through DNC
EM Landscape Engagement
Roles and Responsibilities
C-Suite Commitment and Support
0.0%
20.0%
40.0%
60.0%
80.0%
100.0%
No action
Improvement steps taken
Fully informed

Lessons Learned

- “More is better”: forming a robust/engaged **team** from various areas in the hospital helped get the work done
- C-suite **commitment and support** is critical for pediatric preparedness. This lays the groundwork for response
  - Pediatric disaster roles can be enhanced through provision of job descriptions, protected time, and financial support
  - Hospital leadership is aware when asked about disaster planning requirements
- It’s not easy - but having a **collaborative** to guide teams and provide resources helps
- Join (continue) the journey - Children’s hospitals should all join the Disaster Response Collaborative (DRC) - **practice what we study**

DISASTER RESPONSE COLLABORATIVE

Disaster Response Collaborative (DRC) Goals

1. Augment pediatric disaster response capabilities of children's hospitals
2. Assess current state of pediatric disaster response among participating children's hospitals
3. Establish a sustainable network of children's hospital leaders actively participating in pediatric disaster planning and response
4. Create a forum to drive a coordinated response among children's hospitals in times of a national disaster/surge event
5. Support teams to drive evidence-based or consensus-driven regional pediatric disaster planning and response (with HCCs, other hospitals, EMS, public health, etc.)

DISASTER RESPONSE COLLABORATIVE

DRC Collaborative Structure Overview

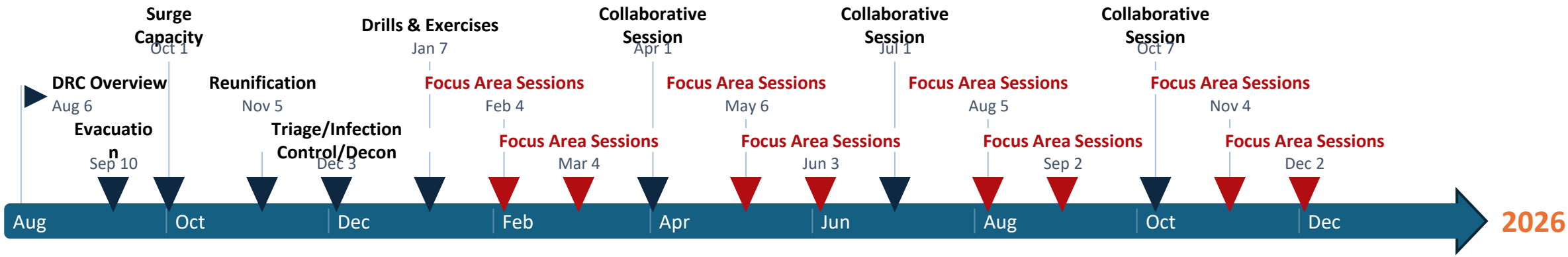
Phase 1

- Overview and in-depth intro to focus areas
- Using a tabletop exercise, pre- and post- drills to monitor, demonstrate improvements in response
- Teams will select focus area for improvements

Phase 2

- Each focus area meets once per month, alternating with quarterly collaborative sessions
- Exercises/drills/simulations
- Team reports on improvement projects
- Expand to regional and children’s hospital network approach

DRC Timeline



Building a Robust Team: Who to Include?

- Multidisciplinary team
- Start strong (large team)
- Leveraging strengths of members
- Each person brings a unique perspective, expertise
- Value the input of all

Barriers and Successes

Turnover

Staff may change positions or opt out

Biggest barrier – identify additional members to assist

Ensure the team has 4-5 members initially, if you can, so there is a buffer

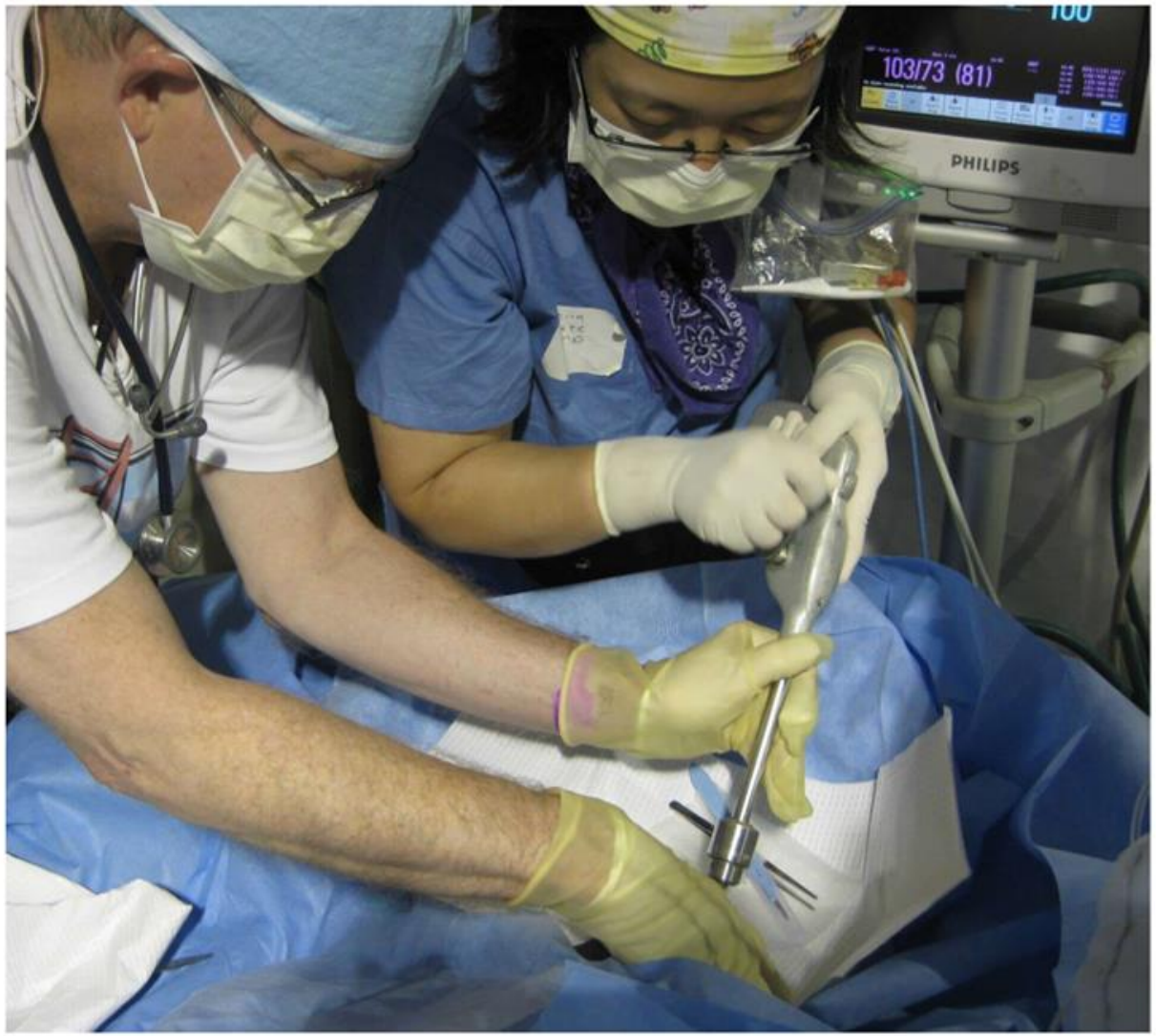
Progressing Towards the Goal

- Stay focused on what the team decided to work on (the goal)
- Also have a SMART aim
- Communicate, communicate, communicate…
- Accountability

Preparedness & Response Planning Takes Time and Effort

- More about “the why”… to network, engage, enhance skills, access experts and resources, improve performance, measure improvements, innovate, address risk and liability reduction, and support resiliency.
- Form a robust/engaged team and register for the Disaster Response Collaborative now!
- In early 2025, teams will select one of four focus areas and decide how best to improve pediatric disaster response capacity and capability specific to **that topic**.
- Teams can identify options to test improvements with a tabletop exercise and pre- and post-drills with tools and mock patients provided.
- Become a champion; encourage <u>all</u> children’s hospitals to register for and join the DRC!

DISASTER RESPONSE COLLABORATIVE



Sarita Chung MD FAAP
Director, Disaster Preparedness
Division of Emergency Medicine
Boston Children's Hospital

Pediatric Pandemic Network
co-lead:
Capacity and Capability
Family Reunification

Disaster Checklist and Focus Areas
Engaging the DRC to support the PPN

Evacuation

Family Reunification

Surge Capacity

Triage/Decontamination

DISASTER RESPONSE COLLABORATIVE

The Disaster Checklist

EMSC Innovation and Improvement Center

Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies

https://media.emscimprovement.center/documents/EIICDisasterChecklist_Current081822.pdf

Domain 1: Pediatric Disaster Care Coordination
Domain 2: Regional Coalition-Building
Domain 3: Pediatric Surge Capacity
Domain 4: Triage, Infection Control, and Decontamination
Domain 5: Evacuation
Domain 6: Pediatric Patient Tracking and Family Reunification
Domain 7: Legal and Ethical Considerations
Domain 8: Behavioral Health
Domain 9: Children and Youth with Special Health Care Needs
Domain 10: Exercises, Drills, and Training
Domain 11: Recovery and Resiliency

Focus Area: Evacuation

- **Plan**
  - Triggers/metrics for evacuation
  - Plan to prioritize order in which to evacuate patients based on medical and support needs
  - Agreements regarding reception of patients
  - System to track patients and supplies that leave hospital
- **Supplies**
  - Pediatric-specific evacuation equipment (e.g., bassinets, newborn apron)
  - Materials for specialized patients (e.g., ventilator-dependent) and trained staff
- **Drills/Education**
  - Ensure staff know where to find evacuation equipment and protocols
  - Inc. evacuation of specialized patients (e.g., high acuity) into disaster drills
- **Transport Services**
  - Use a systematic approach to identify pediatric transport needs (e.g., TRAIN® matrix)

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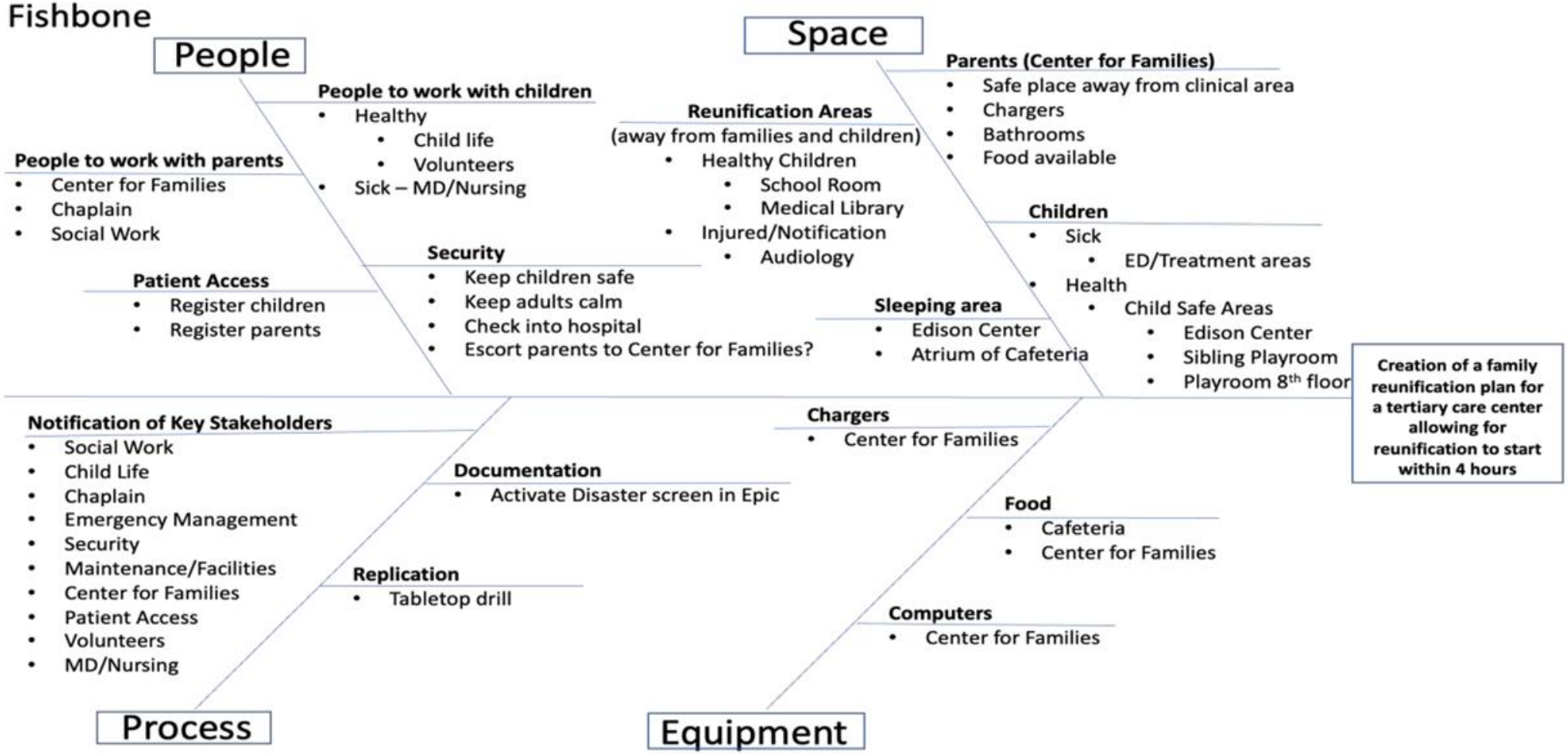
Focus Area:
Pediatric Patient Tracking and Family Reunification

- **Tracking and reunification**
  - Process to track an unaccompanied child in the ED
  - Child identification form
  - How will unaccompanied children be definitely identified?
- **Family reunification planning**
  - Planning team and procedures for Family Reunification Center, Pediatric Safe Area, Family Reunification Site, private notification area
  - Family intake form
  - Procedures for staff social media usage
- **Space Use**
  - Areas in the hospital that can serve as the center, safe area, and sites above
  - Medical oversight/supervision/activities in the Pediatric Safe Area
- **Staff**
  - Staffing plans and ratios
  - Family reunification team with community partners

DISASTER RESPONSE COLLABORATIVE

Fishbone



Pintea, M, et al. in progress

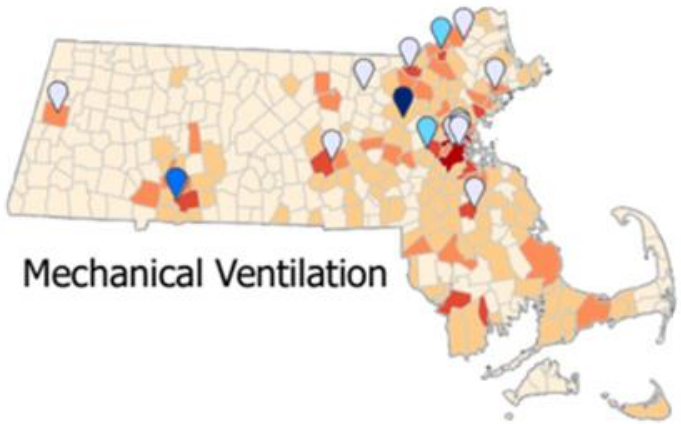
Focus Area: Pediatric Surge Capacity

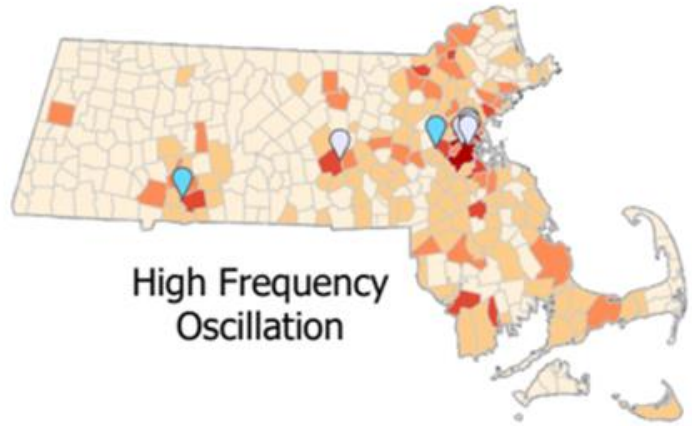
****no notice short-term events****

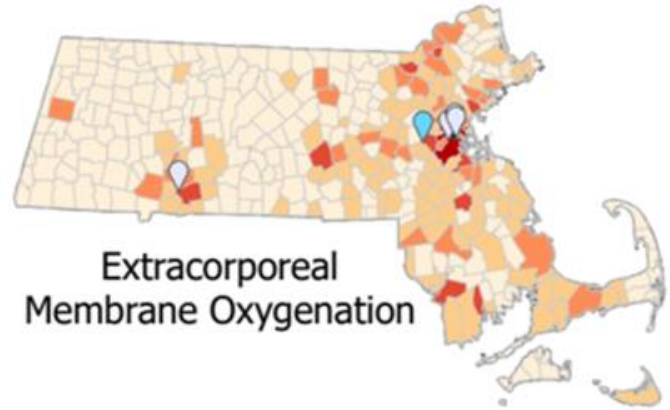
- **Planning**
  - Ways to augment baseline capabilities
    - ED and surgical capacity
    - Ability to care for patients for 48-72 hours
  - Determine maximum capacity in different scenarios
  - Prioritize patients for discharge and transfer
- **Surgical Capabilities**
  - Access to and capabilities in pediatric surgical subspecialties
- **Space**
  - Alternative spaces in the institution (and plans) for their use
  - Identify capacity at which transfer to alternate care sites would be necessary
- **Equipment and Supplies**
  - Plans to arrange for sufficient quantities of equipment, medications, food, etc to meet surge targets
  - Investigate ability (and have protocols) to use non-pediatric materials for pediatric use
- **Staff**
  - Process, relationships, or MOUs for bringing in additional staff from other departments or institutions
  - Keep families together, and readiness to implement pediatric patient tracking and reunification
  - Training in pediatric disaster response; notification system
  - Leverage internal staff expertise to increase to surge targets
  - Family reunification models

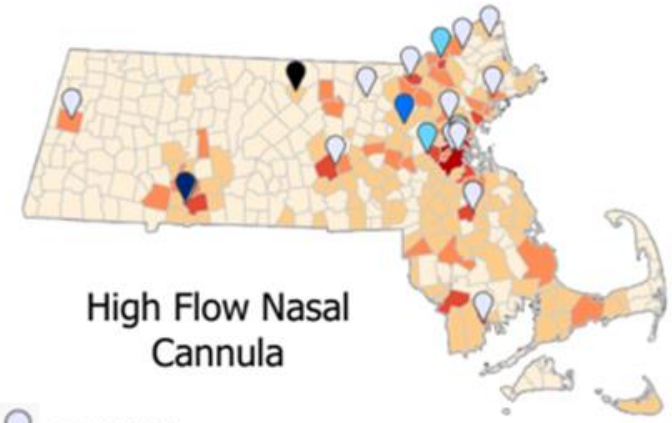
DISASTER RESPONSE COLLABORATIVE

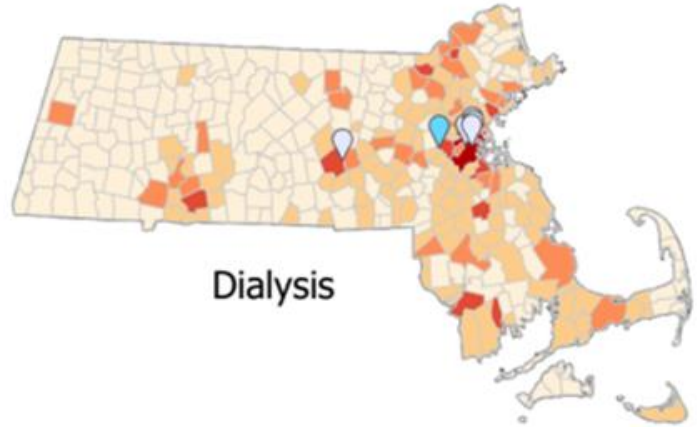
Youngest Age Range for Pediatric Therapy Administration during Normal Operations

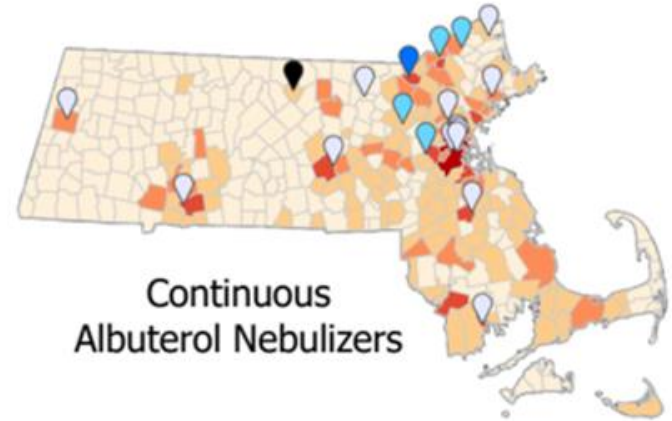












ages 0<1
ages 1-5
ages 6-11
ages 12-15
ages 16-17

Town Population
70 - 13,440
>13,440 - 35,329
>35,329 - 81,045
>81,045 - 20,6518
>20,6518 - 675,647

Li J, Baker et al. A Statewide Assessment of Pediatric Emergency Care Surge Capabilities. *Pediatrics*. 2023 Apr 1;151(4

Massachusetts Department of Public Health (MDPH), Office of Preparedness and Emergency Management (OPEM). Boston Children's Hospital.

N

Focus Area:
Triage/Infection Control/Decontamination

- **Chemical, biological, or infectious disease agent exposure**
  - Existing protocols
  - Triggers to activate enhanced protocols
  - Triage and isolation areas
  - PPE and training/experience in donning and doffing
- **Decontamination**
  - Hospital (outside area) and process when contamination is warranted
  - Keep families together - when possible allow families to wash children or maintain modesty
  - Pediatric considerations and equipment

DISASTER RESPONSE COLLABORATIVE

Brent Kaziny, MD, MA, FAAP

PI The Gulf-7 - Pediatric Disaster Network
EIIC Co-Director, Disaster Preparedness DomaIN
Attending Physician, Medical Director of Emergency Management
Texas Children's Hospital

DISASTER RESPONSE COLLABORATIVE

What We Hope to Accomplish - We Need Your Help - Be a Champion!

DISASTER RESPONSE COLLABORATIVE

Top 10 Reasons to Join the DRC!

1. Network
2. Engage
3. Healthcare Resiliency
4. Access
5. Resources
6. Improve Performance
7. Measure
8. Skill Enhancement
9. Innovate
10. Risk and Liability Reduction

Plus: while you may already feel well-prepared, there is ALWAYS something to learn and improve on!

DISASTER RESPONSE COLLABORATIVE

Riley Hospital Job Action Sheets

Riley ED Mass Casualty Activation – A POD ED Attending Quick Sheet

Huddle with your team to gather info (how many/ages/ETA/decon?)

- ED Charge Nurse assumes Coordination Command of ED
- Decide YOU *(or B-pod MD)* are MD Clinical Command with Trauma – manages critical patients in A-pod
- Contact Trauma Surgery Attending -Diagnotes
  - Give situation report
  - Review triage plan and roles (see reverse)
  - Discuss OR availability and need for AlertMedia MCI Home Call-In

RAPIDLY move A-pod patients to other areas of the ED, floors, PICU, or home

- Charge to assign a RN to lead A-pod Decompression
  - Review board with this RN and residents - decide quick dispo for each pt (move/admit/discharge)
- Assign a resident in charge of patient handoff to accepting providers for admissions
- Assign another resident to rapidly discharge safe dc pts

Triage, Treat, Track, and Repeat Triage

- Charge RN to activate Disaster Registration (with SPA team) and white board tracking
- Quick Review of MCI Triage (see reverse) ->Red pts in Apod
- Provide care for "OR READY/RED" patients waiting for ICU or OR (intubations, chest tubes, blood, etc)
- Assign residents to assist with frequent re-triage in A-pod
- B-pod MD to assist with treatment of "OR WAIT" pts
- Track patients – Where are they going?

Riley ED Mass Casualty Incident – Charge RN Quick Sheet

Inform

- Get report (how many/ages/ETA/decon)
- Huddle with fellows and attendings
- Inform AA and request RN support if needed
- Instruct Unit Secretary to send MCI page and provide information for the page

Assign Roles

- Assign 2 experienced Triage Charge roles
  - 1 for ambulance bay and 1 for waiting room
  - Review Quick MCI Triage (back of this sheet)
- Assign 2 ED Decompression Charge roles
  - 1 to move all patients OUT of A-pod
  - 1 to move B-pod patients out or up
  - Have them review the board with respective docs to make quick dispo decisions
    - Move patients out/up rapidly

Triage, Treat, Track and Repeat Triage

- Activate Disaster Charting/Registration Plan to track pts
- Discussions with Incident Command:
  - **Staff** – Who do we need? RNs, techs, EVS, pharmacy, SW, chaplain? Recruit from hospital, or call in from home?
  - **Space** – Get creative with ED space (hallways, quiet rms, MRI, etc)
  - **Stuff** – Common shortages: chest tubes/water seals, blood/tubing, gurneys, wheelchairs, linens

Riley ED Mass Casualty Incident – AA Quick Sheet

- What happened?
- How much time do we have?
- How many patients are expected? *(Expect half of patients to arrive within first hour)*
- What ages are expected?
- Will decontamination be needed?

Establish Command and Control
MEET WITH ED CHARGE RN & ED MDs ASAP

- Obtain additional RN Support:
  - Send RNs down to help care for/move non-trauma patients in the ED (PICU/Floor RNs)
  - Discuss activation of hospital labor pool & hospital IC
- **Recruit EVS/Supplies/Security/Registration to the ED**
- Notify hospital safety officer, Unit Director (UD), and Daily Administrator (DA)
- Alert/establish hospital incident command

Decompress Emergency Department
GET ALL POSSIBLE PATIENTS UP & OUT

- Find available RNs to help pull patients up to floor
- Assist with opening beds/space upstairs
- Work with OR and PACU to open space
- Help identify additional care space if needed

Manage Incident/Implement Incident Command
DO THE GREATEST GOOD FOR THE GREATEST NUMBER OF PEOPLE

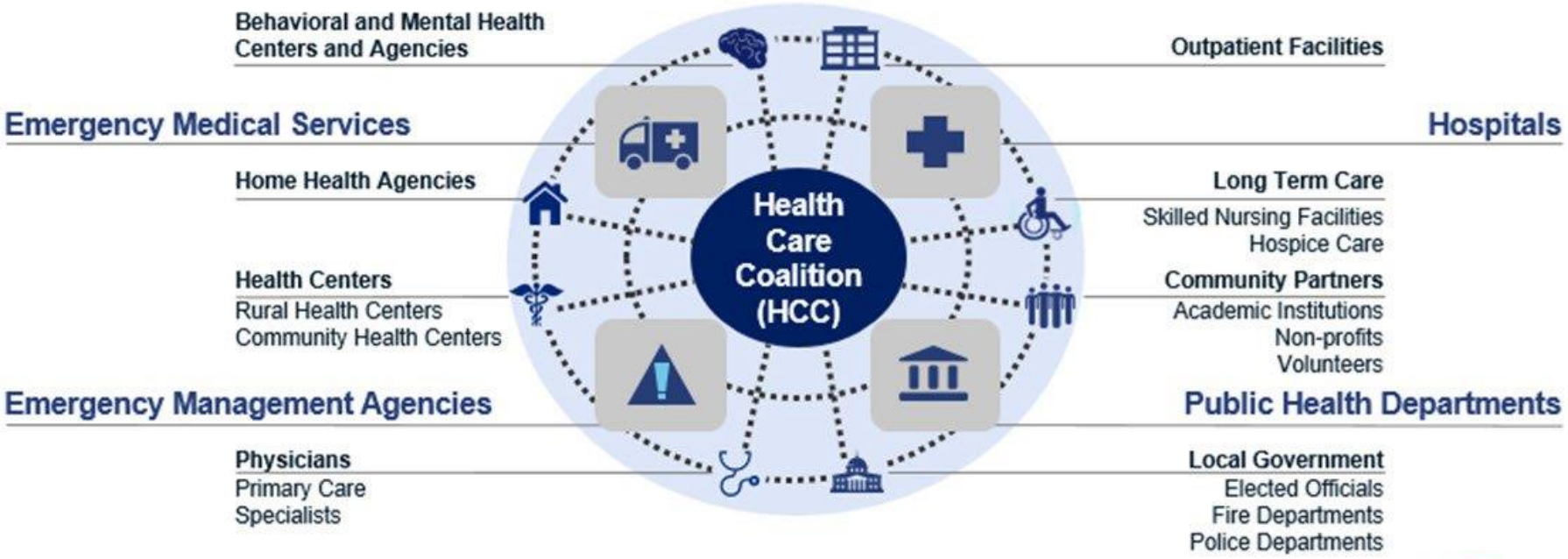
- Coordinate with ancillary departments (i.e. pharmacy, supply) for additional needs.
- Ensure hospital command is set up to:
  - Activate Family Support Center if needed
  - Implement Public Information Officer (PIO) plan
  - Security is handling traffic control

DISASTER NETWORKING COLLABORATIVE

Healthcare Coalitions

What is a Healthcare Coalition?

A HCC is a group of individual health care and response organizations in a defined geographic location. HCCs play a critical role in developing health care delivery system preparedness and response capabilities.



[Image Courtesy of ASPR]

DISASTER NETWORKING COLLABORATIVE

DISASTER RESPONSE COLLABORATIVE

DRC Registration is Open!

Register Now

Encourage Others!

SCAN ME

Disaster Response Collaborative Registration Link
https://redcap.seattlechildrens.org/surveys/?s=84ADH8M8KPKNM4AD

Website and resources to follow. First session August 6, 2024.

Discussion

CONTACT US

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