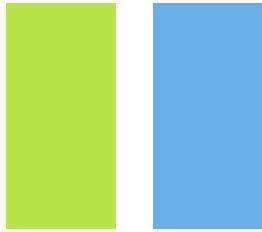


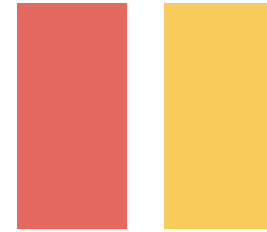


# Closing the Gap Pediatric Disaster Planning

Niki Shimko, MSN CCRN CPN C-NPT



# CONTENTS

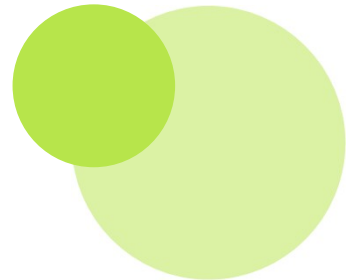
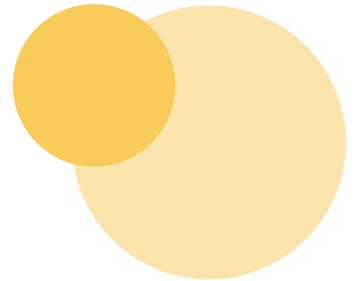


1

Identify critical elements of Pediatric preparedness and response relative to emergency disaster planning.

2

Learn to incorporate vulnerable population considerations in policies and protocols.



# ONE



WHO is here?



slido



**Do you have a PECC?**

① Start presenting to display the poll results on this slide.

slido



**What are your identified gaps in pediatric disaster preparedness?**

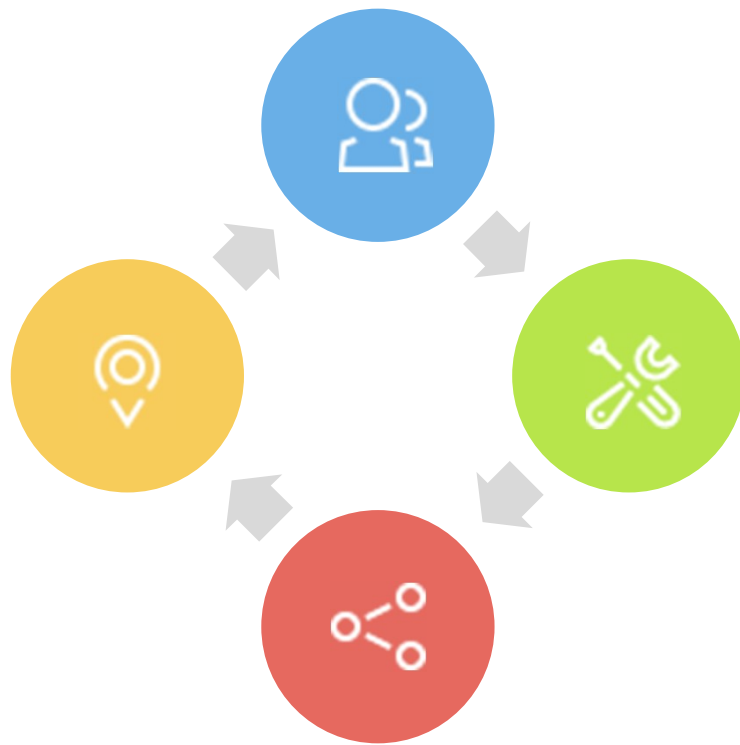
① Start presenting to display the poll results on this slide.

TWO



WHY prepare for  
kids?

# Why peds specifically?



- 1 Physical and emotional differences
- 2 Adult Dependent
- 3 25% of the population
- 4 Many not prepared nationally

# Children As (Partial Listing)

- 1838 Blaukaans River, South Africa
- 1974 Maalot School occupation
- 1995 Murrah Building, Oklahoma
- 1998 Elementary school, Jonesboro
- 1999 Columbine High School, Colorado
- 2000- Intifada, Israel
- 2003 Jerusalem Children's Bus
- 2004 Baghdad US troops giving
- 2004 Beslan, Russia (186 dead, 200 children)
- 2006 Platte Canyon High School, Colorado
- 2011 Norway (69/77 dead, 5 children)
- 2012 France Ozar Hatorah Toulouse
- 2012 - Sandy Hook Elementary School, Connecticut (28 dead (20 children), 2 injured)
- 2014 Syria: Chemical Weapons
- 2015 Nigeria, Pakistan Schools
- 2015 IRAQ/Syria: Killings, Slavery
- 2015 Paris Theatre (89)
- 2016 Truck Attack France
- 2017 Concert attack England
- Mass Shooting Nevada
- 2023 Middle East Conflict

*And the list goes on...and on*

## Parkland

14 children, 3 adults

## Boston Marathon

11 children, 54 adults

## Newtown

20 children, 6 adults

## Asiana Crash

26 children, 27 adults

## Haiti Earthquake

~53% of patients were children

>Half a million children impacted





# National GAP

## SILOS

Numerous silos among community partners in planning, training, exercise, and response

## Lack of Resources

For community physicians to build confidence in their care.



## Training

Deficits in training and capabilities for transporting pediatric patients among emergency and non-emergency ambulance providers

## Lack of PECC

Lack of designated pediatric champion in the emergency departments and among EMS providers

## Other Gaps



Children and  
Youth with special  
needs

Family  
Reunification  
Plans



Decon

Decon standards for  
Children are  
different.

No Peds Disaster  
Response  
Pediatric disaster  
specialty capable  
teams are no longer  
present in the  
National Disaster  
Medical System.



## Gaps in Pediatric Disaster Preparedness (source materials)

2015 National Pediatric Disaster Conference Arizona

Chest Consensus: Care of the Critically Ill and Injured During Pandemics and Disasters: CHEST Consensus Statement

<http://journal.publications.chestnet.org/> on 03/23/2015

e90S:Evidence-Based Medicine [ 146#4 CHEST OCTOBER 2014 SUPPLEMENT

**AJPH: American Journal of Public Health:**

Child's Health Is the Public's Health: Progress and Gaps in Addressing Pediatric Needs in Public Health Emergencies

National Pediatric Disaster Conference: Arizona 2022

New York City Pediatric Disaster Coalition:  
Pediatric Disaster Surge Plan Gap Analysis 2023





## Florida 2021 National Pediatric Readiness State Summary

### 2021 Pediatric Readiness Response Rate

Numerator: **170**  
 Denominator: **295**  
 Response Rate: **58%**

### 2013-14 Pediatric Readiness Response Rate

Numerator: **127**  
 Denominator: **209**  
 Response Rate: **61%**

### 2021 Average State Score

**75**

State AVERAGE Hospital Score out of 100 (n=170)

### 2021 Median State Score

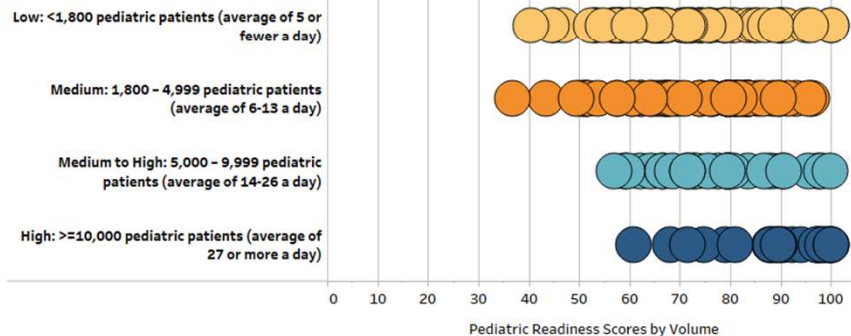
**76**

State MEDIAN Hospital Score out of 100 (n=170)

The overall 2021 National Pediatric Readiness scores (based on the 2018 Joint Policy Guidelines) are not directly comparable with the 2013-14 state scores (based on the 2009 Joint Policy Guidelines). These were two unique assessments based on two different published sets of guidelines. Questions were added/removed and point values changed based on the new guidelines. Although the overall scores are not comparable, several individual questions remained the same and these components can be compared over time.

Filter chart below by urbanicity:  
 All

### 2021 Distribution of Scores by Volume



## 2021 National Pediatric Readiness Gap Report

### 2021 National Pediatric Readiness Response Rate

Numerator: **3,647**  
 Denominator: **5,150**  
 Response Rate: **70.8%**

### 2013-14 National Pediatric Readiness Response Rate

Numerator: **4,150**  
 Denominator: **5,017**  
 Response Rate: **82.7%**

### 2021 Average National Score

**71**

National AVERAGE Hospital Score out of 100 (n=3,557)

### 2021 Median National Score

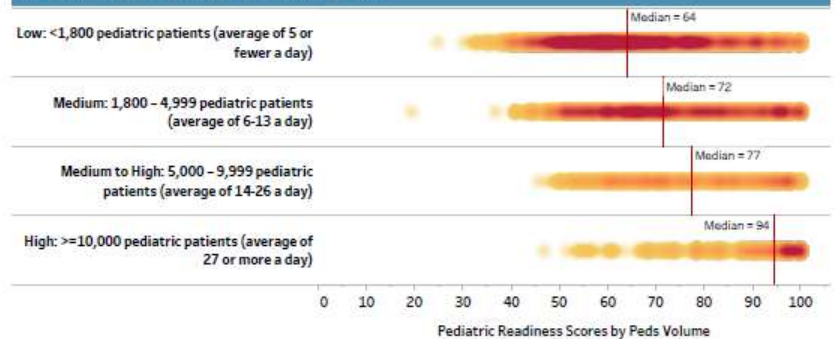
**70**

National MEDIAN Hospital Score out of 100 (n=3,557)

The overall 2021 National Pediatric Readiness scores (based on the 2018 Joint Policy Guidelines) are not directly comparable with the 2013-14 national scores (based on the 2009 Joint Policy Guidelines). These were two unique assessments based on two different published sets of guidelines. Questions were added/removed and point values changed based on the new guidelines. Although the overall scores are not comparable, several individual questions remained the same and these components can be compared over time.

NOTE: There are 89 records in this dataset that did not have answers to all the scored questions and are not included in the scores shown above.

### 2021 Distribution of National Scores by Volume

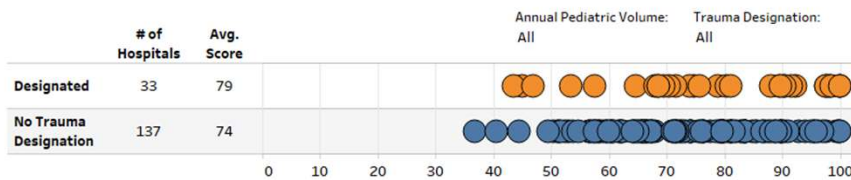


### Breakdown of Scores by Volume Type:

Urbanicity: All

Annual Pediatric Volume	# of Hospitals	Avg. Score	Median Score	Min. Score	Max. Score
Low: <1,800 pediatric patients (average of 5 or fewer a day)	63	70	68	40	100
Medium: 1,800 – 4,999 pediatric patients (average of 6-13 a day)	56	73	76	37	96
Medium to High: 5,000 – 9,999 pediatric patients (average of 14-26 a day)	28	78	79	57	100
High: >=10,000 pediatric patients (average of 27 or more a day)	23	89	91	61	100
<b>Grand Total</b>	<b>170</b>	<b>75</b>	<b>76</b>	<b>37</b>	<b>100</b>

### Breakdown of Scores by Trauma Designation



### Average Scores By Section

Section	Missing Records	Avg Section Score	Possible Score
Guidelines for Administration and Coordination of the ED for the Care of Children (19 pts)	0	7.8	19
Physicians, Nurses, and Other Health Care Providers Who Staff the ED (10 pts)	0	6.2	10
Guidelines QI/PI in the ED (7 pts)	0	3.0	7
Guidelines for Improving Pediatric Patient Safety in the ED (14 pts)	0	13.5	14
Guidelines for Policies, Procedures, and Protocols for the ED (17 pts)	0	12.1	17
Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED (33 pts)	0	32.3	33

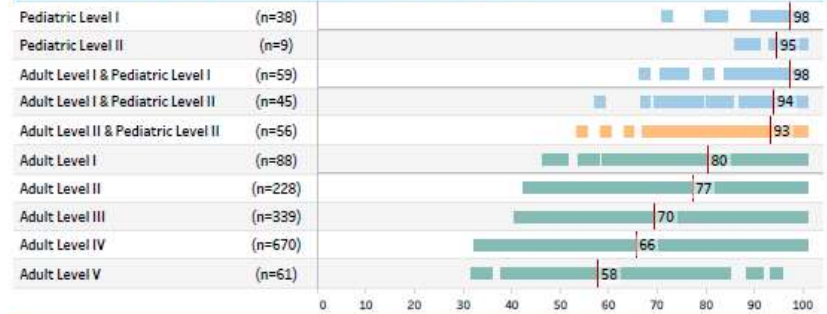
NOTE: If there are missing values from any of the assessments (specifically from PDF assessments), they are shown in the "Missing Records" column. This indicates records that were missing scored questions and could not be included in the calculation of the average section score.

### Breakdown of National Scores by Volume Type

Annual Pediatric Volume	# of Hospitals	Avg. Score	Median Score	Min. Score	Max. Score
Low: <1,800 pediatric patients (average of 5 or fewer a day)	1,806	66	64	25	100
Medium: 1,800 – 4,999 pediatric patients (average of 6-13 a day)	1,103	73	72	20	100
Medium to High: 5,000 – 9,999 pediatric patients (average of 14-26 a day)	367	77	77	46	100
High: >=10,000 pediatric patients (average of 27 or more a day)	281	90	94	47	100
<b>Grand Total</b>	<b>3,557</b>	<b>71</b>	<b>70</b>	<b>20</b>	<b>100</b>

NOTE: There are 89 records in this dataset that did not have answers to all the scored questions and are not included in the scores shown above.

### Distribution of Trauma Designation by Score (Median Score Red Line)



### National Average Scores By Section

Section	Missing Responses	Avg Section Score	Possible Score
Guidelines for Administration and Coordination of the ED for the Care of Children (19 pts)	3	7.0	19
Physicians, Nurses, and Other Health Care Providers Who Staff the ED (10 pts)	31	5.6	10
Guidelines QI/PI in the ED (7 pts)	11	2.8	7
Guidelines for Improving Pediatric Patient Safety in the ED (14 pts)	7	12.7	14
Guidelines for Policies, Procedures, and Protocols for the ED (17 pts)	36	11.2	17
Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED (33 pts)	41	31.8	33

NOTE: If there are missing values from any of the assessments (specifically from PDF assessments), they are shown in the "Missing Responses" column. This indicates records that were missing scored questions and could not be included in the calculation of the average section score.

Guidelines for Policies, Procedures, and Protocols for the ED (17 points)

	KPI	2021 Number of EDs that Have Item	2021 Percent that Have Item	2013-14 Percent that Had Item	Difference Between Assessments
Involving families and caregivers in medication safety processes		118/170 (Missing = 0)	69.4%		
Family and guardian presence during all aspects of emergency care, including resuscitation		123/170 (Missing = 0)	72.4%		
Education of the patient, family, and caregivers on treatment plan and disposition		124/170 (Missing = 0)	72.9%		
Bereavement counseling		98/170 (Missing = 0)	57.6%		
Disaster plan includes availability of medications, vaccines, equipment, supplies, and appropriately trained providers		73/170 (Missing = 0)	42.9%		
Disaster plan includes decontamination, isolation, and quarantine of families and children		75/170 (Missing = 0)	44.1%		
Disaster plan includes minimization of parent-child separation and methods for reuniting separated children with their families		75/170 (Missing = 0)	44.1%		
All disaster drills include pediatric patients		70/170 (Missing = 0)	41.2%		
Disaster plan includes pediatric surge capacity for both injured and non-injured children		70/170 (Missing = 0)	41.2%		
Disaster plan includes access to behavioral health resources for children		65/170 (Missing = 0)	38.2%		
Disaster plan includes care of children with special health care needs		69/170 (Missing = 0)	40.6%		
Written inter-facility transfer guidelines		136/170 (Missing = 0)	80.0%	86.5%	-6.5% ▼

Guidelines for Policies, Procedures, and Protocols for the ED (17 points)

	KPI	2021 Number of EDs that Have Item	2021 Percent that Have Item	2013-14 Percent that Had Item	Difference Between Assessments
Involving families and caregivers in medication safety processes		2,060/3,636 (Missing = 10)	56.7%		
Family and guardian presence during all aspects of emergency care, including resuscitation		2,131/3,636 (Missing = 10)	58.6%		
Education of the patient, family, and caregivers on treatment plan and disposition		2,228/3,636 (Missing = 10)	61.3%		
Bereavement counseling		1,672/3,635 (Missing = 11)	46.0%		
Disaster plan includes availability of medications, vaccines, equipment, supplies, and appropriately trained providers		1,556/3,635 (Missing = 11)	42.8%		
Disaster plan includes decontamination, isolation, and quarantine of families and children		1,616/3,635 (Missing = 11)	44.5%		
Disaster plan includes minimization of parent-child separation and methods for reuniting separated children with their families		1,580/3,636 (Missing = 10)	43.5%		
All disaster drills include pediatric patients		1,359/3,636 (Missing = 10)	37.4%		
Disaster plan includes pediatric surge capacity for both injured and non-injured children		1,457/3,636 (Missing = 10)	40.1%		
Disaster plan includes access to behavioral health resources for children		1,400/3,637 (Missing = 9)	38.5%		
Disaster plan includes care of children with special health care needs		1,368/3,636 (Missing = 10)	37.6%		
Written inter-facility transfer guidelines		2,603/3,639 (Missing = 7)	71.5%	70.5%	1.0% ▲



**Would you be prepared?**



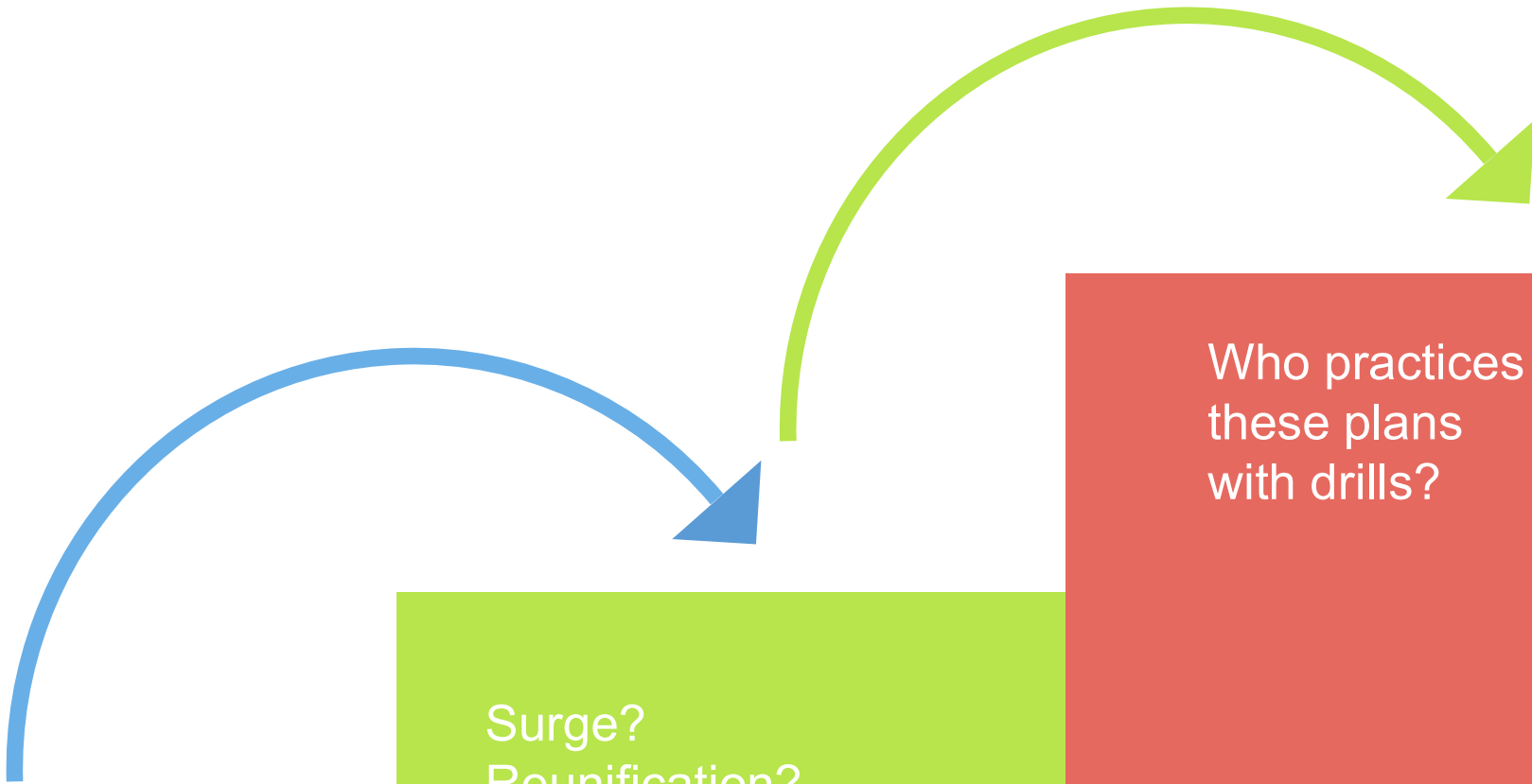


# Pediatric Disaster

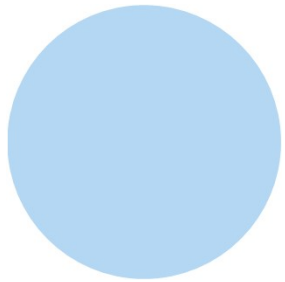
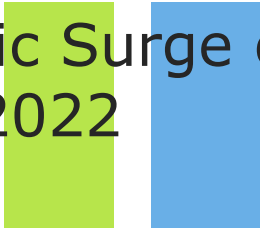
Who has  
pediatric  
disaster plans?

Surge?  
Reunification?  
Decontamination?  
Special Needs?

Who practices  
these plans  
with drills?



# Pediatric Surge of 2022



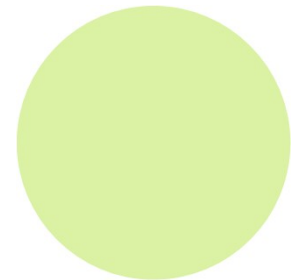
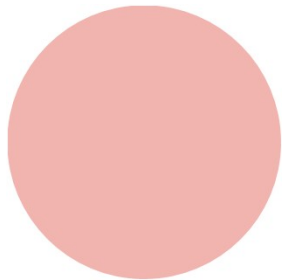
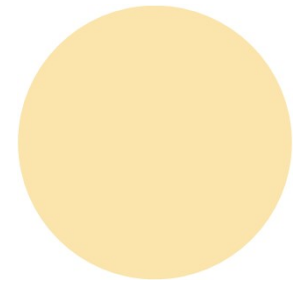
## Tripledemic

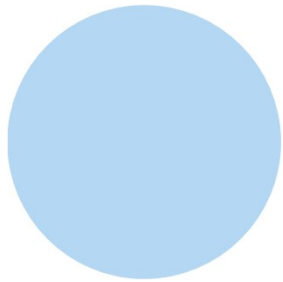
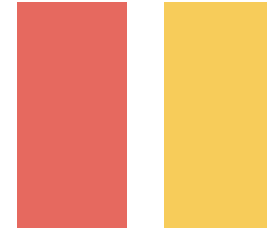
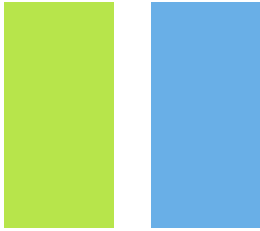
RSV, Flu, Covid

Consolidation of Pediatric Services over the years

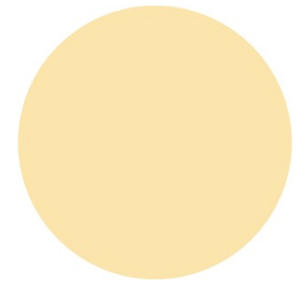
Children's Hospitals were at Capacity

Community Hospitals with less capability, limited equipment, limited peds nurses, no inpatient services, and increased anxiety

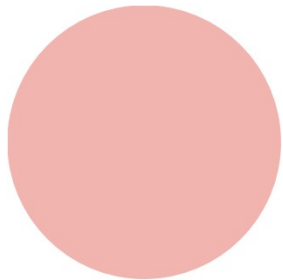




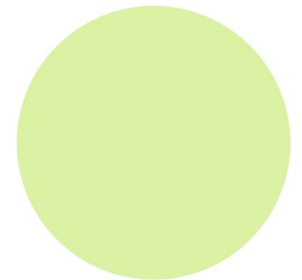
Staff  
Telehealth options  
Buddy system experience paired up with non-pediatric staff



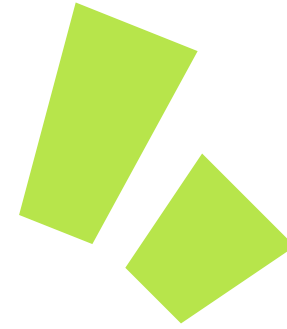
Space  
Lack of space at community hospitals



System  
Develop a Pediatric Medical Coordinating Call  
Identify gaps in the region  
Training



# Surge



## Short term surge

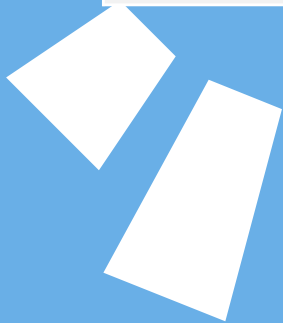
Do you have a plan for uninjured, unaccompanied children?

What team members do you need to add?

Pediatric safe room?

Have you drilled?

How long do you keep them?



Decon



Water pressure  
Water temperature

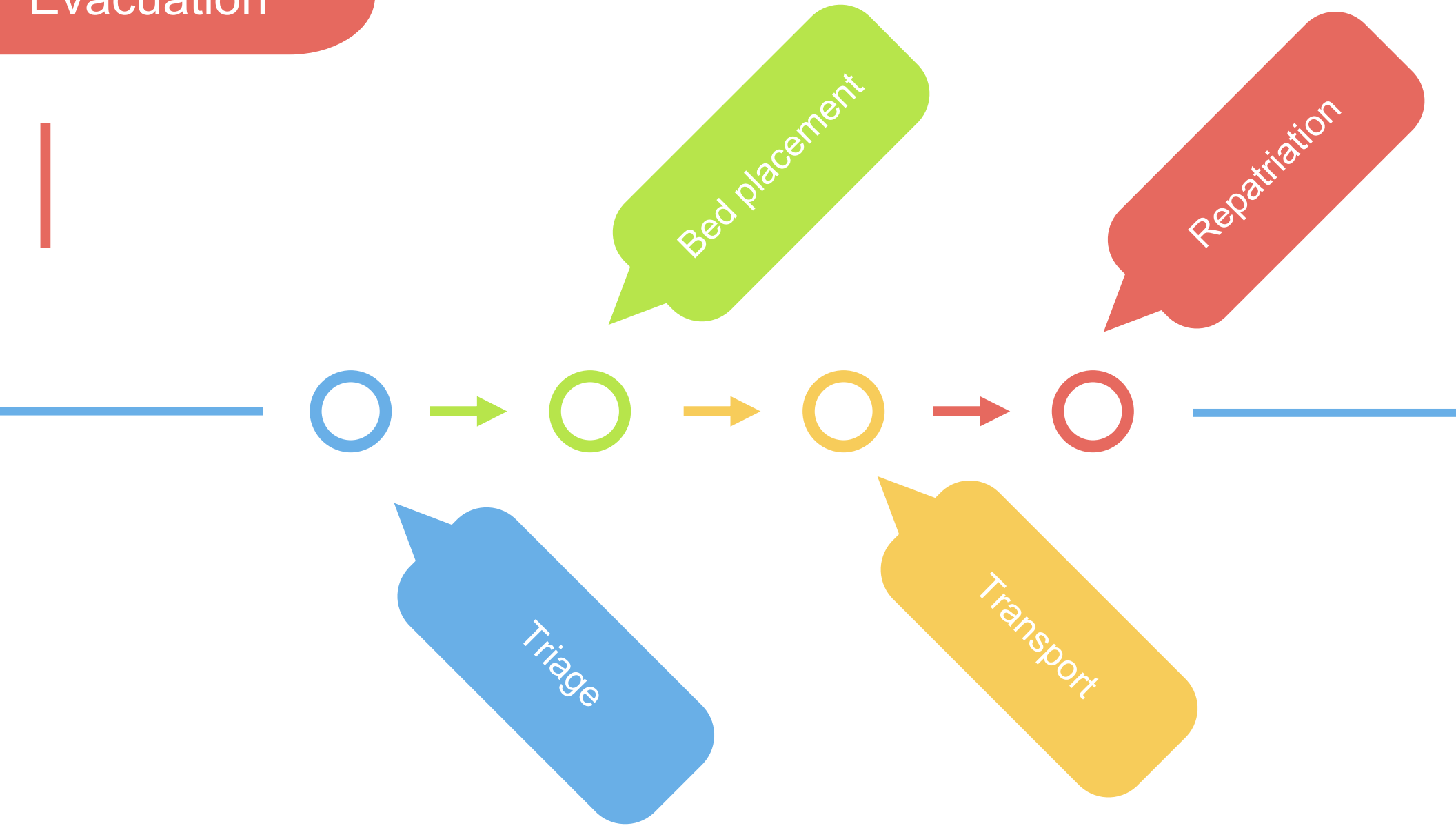


Age  
considerations

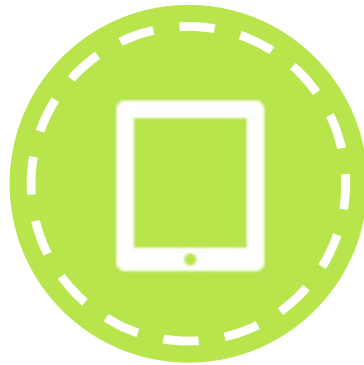
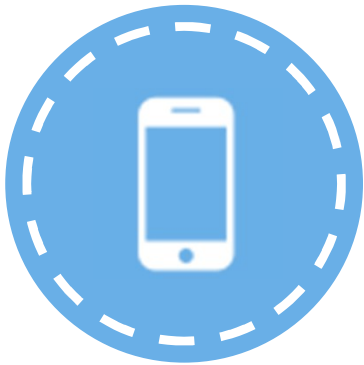
Airway



# Evacuation



# Reunification



What resources do you have?  
What form of ID is acceptable?  
School system?



# Mental Health



What resources do you have?

What resources do you need?

What if a bus full of autistic children?

What about special needs kids?

What extra resources do you need?



slido



**What have you learned that is a new gap identified? Or what will you take away from here to work on?**

① Start presenting to display the poll results on this slide.

WITH THREE





Resources

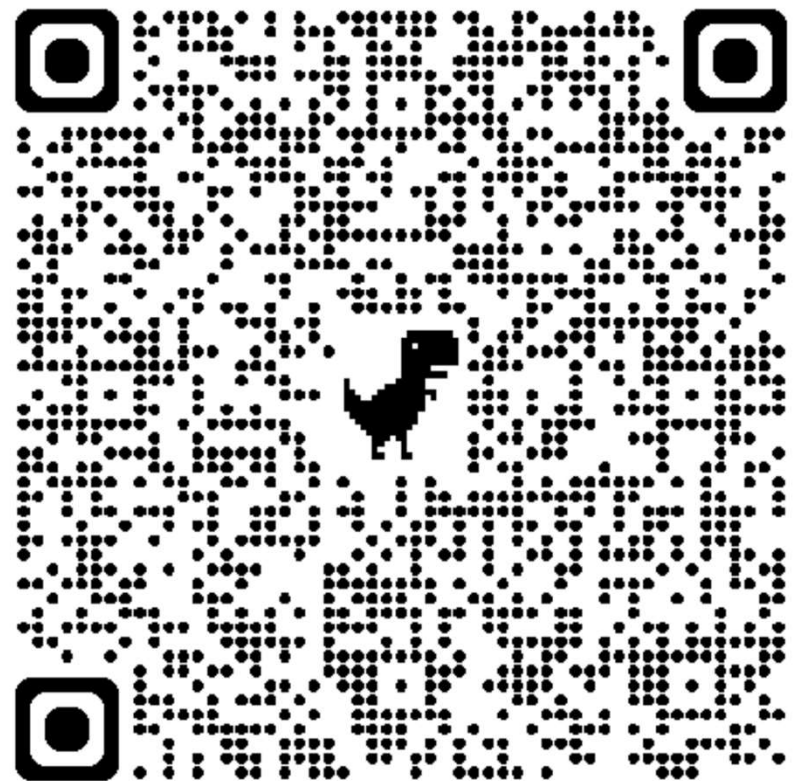
# Organizations



National Pediatric Disaster Coalition



American  
Academy of  
Pediatrics  
Disaster and  
Children



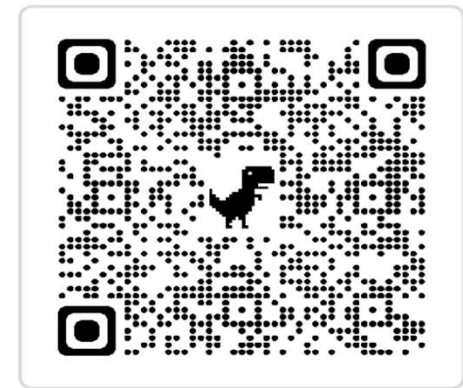
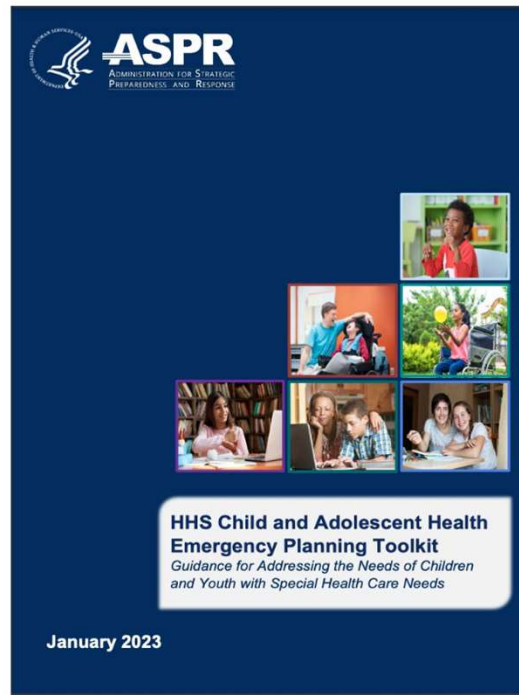


Administration for Strategic Preparedness and Response (ASPR)  
Health and Human Services (HHS)  
Child & Adolescent Health Emergency Planning Toolkit

Comprehensive  
Guidance &  
Resource

Compendium of  
Resources for all  
phases

6-page list of trusted  
national, federal and  
state organizations



<https://aspr.hhs.gov/at-risk/Documents/HHS-Child-Adolescent-Health-Emergency-Planning-Toolkit-7Feb2023.pdf>

# New Disaster *Response* Collaborative



- [Recording](#) and [slides](#) from the Disaster Response Collaborative launch webinar held on March 18, 2024 now available
- Each team leader for a children's hospital may register a team of 2 or more participants. Only one registration per hospital is needed.
- Learn more and register [today](#)



**DISASTER  
RESPONSE  
COLLABORATIVE**

# One Page Overview



## FLORIDA EMSC

A STATE PARTNERSHIP PROGRAM

### NATIONAL PERFORMANCE MEASURES



PEDIATRIC READINESS



DISASTER PREPAREDNESS




FAMILY PARTNERSHIPS





#### Mission

*Partnering with EDs, EMS agencies, disaster preparedness organizations, and families in the care of ill and injured children to enhance pediatric readiness across the continuum of care*

 [PEDReady@jax.ufl.edu](mailto:PEDReady@jax.ufl.edu)

 904-244-4986

 [flemsc.emergency.med.jax.ufl.edu/](http://flemsc.emergency.med.jax.ufl.edu/)

 [@floridaemsforchildren](https://www.facebook.com/floridaemsforchildren)

 [@flmsforchildren](https://www.instagram.com/flmsforchildren)



#### Program Manager:

Katelyn Perl, MS, CHES®

#### Program and Medical Director:

Phyllis Hendry, MD, FAAP, FACEP

# Resources Flyer (updated)



Updated 03/27/2024



Partnering with Florida emergency departments, emergency medical service agencies, disaster preparedness organizations, and families in the care of ill and injured children to enhance pediatric readiness across the continuum of care

## JUMPSTART AND START BADGE BUDDY



Pediatric mass casualty triage tool



## PEDIATRIC EMERGENCY ABCS & MORE



Information needed to manage a pediatric emergency all in one place



## COMMUNICATION CARDS



Cards to communicate with adult and pediatric patients and their families, especially those who are nonverbal and do not speak English

Spanish and English



Haitian Creole and English



## PEDIATRIC PAIN & FEVER DOSING GUIDE

PEDIATRIC PAIN AND FEVER DOSING GUIDE												
Weight-based dosing for Acetaminophen and Ibuprofen												
Medication	Acetaminophen (10-15 mg/kg/4 hours)						Ibuprofen (5-10 mg/kg/6-8 hours)					
	Age	Weight	Dose	Frequency	Max Daily Dose	Notes	Age	Weight	Dose	Frequency	Max Daily Dose	
Acetaminophen	2-5 years	10-15 kg	100-150 mg	Every 4 hours	750 mg		6 months - 2 years	6-12 kg	5-10 mg	Every 6-8 hours	30 mg	
	6-11 years	16-30 kg	150-300 mg	Every 4 hours	1000 mg		2-5 years	10-15 kg	5-10 mg	Every 6-8 hours	30 mg	
	12-17 years	31-50 kg	325-650 mg	Every 4 hours	1000 mg		6-11 years	16-30 kg	5-10 mg	Every 6-8 hours	30 mg	
Ibuprofen	6 months - 2 years	6-12 kg	5-10 mg	Every 6-8 hours	30 mg		2-5 years	10-15 kg	5-10 mg	Every 6-8 hours	30 mg	
	3-5 years	16-30 kg	5-10 mg	Every 6-8 hours	30 mg		6-11 years	16-30 kg	5-10 mg	Every 6-8 hours	30 mg	
	6-11 years	31-50 kg	5-10 mg	Every 6-8 hours	30 mg		12-17 years	31-50 kg	5-10 mg	Every 6-8 hours	30 mg	

Weight-based dosing for Acetaminophen and Ibuprofen  
Available as a magnet



[pedready@jax.ufl.edu](mailto:pedready@jax.ufl.edu)



904-244-4986



[femsc-emergency.medjax.ufl.edu/](http://femsc-emergency.medjax.ufl.edu/)



@floridamscforchildren



@femscforchildren

Funded by Florida EMSC State Partnership Program (HRSA)



# Prehospital PECC Flyer

- Intended to provide an overview of the role and responsibilities of a prehospital PECC
- If you are interested in becoming a prehospital PECC or know someone who may be, email [pedready@jax.ufl.edu](mailto:pedready@jax.ufl.edu)



Updated 12/07/2023



## RESPONSIBILITIES


- Ensures that the pediatric perspective is included in the development of EMS protocols
- Ensures that EMS providers from their agency follow pediatric clinical practice guidelines
- Promotes pediatric training opportunities
- Ensures the availability and correct use of pediatric medications, equipment, and supplies per agency protocols
- Promotes agency participation in pediatric prevention programs
- Works to incorporate pediatrics into disaster plans and training
- Collaborates with local hospital PECC(s)
- Promotes family-centered care
- Works to include the needs of children with special healthcare needs in agency protocols, procedures, or guidelines

 [PEDReady@jax.ufl.edu](mailto:PEDReady@jax.ufl.edu)

 904-244-4986

 [flemsc.emergency.med.jax.ufl.edu/](http://flemsc.emergency.med.jax.ufl.edu/)

 [@floridaemsforchildren](https://www.facebook.com/floridaemsforchildren)

 [@flmsforchildren](https://www.instagram.com/flmsforchildren)



Funded by Florida EMSC State Partnership Program (HRSA)

Help us make all EMS agencies in Florida **PEDReady!**

# ED PECC Flyer

- Intended to provide an overview of the role and responsibilities of an ED PECC
- If you are interested in becoming an ED PECC or know someone who may be, email [pedready@jax.ufl.edu](mailto:pedready@jax.ufl.edu)




## WHAT IS AN ED PECC?


A designated liaison who champions pediatric emergency care in the hospital or stand alone ED setting. A PECC can be a nurse, physician, or advanced practice provider.



## RESPONSIBILITIES


- Ensures that the pediatric perspective is included in ED policies and protocols
- Promotes pediatric training opportunities
- Ensures availability and correct use of pediatric medications and equipment
- Promotes hospital and ED participation in pediatric-related prevention programs
- Ensures disaster plans address the needs of children
- Collaborates with local emergency medical services PECC(s)
- Promotes family-centered care
- Addresses the care of children with special healthcare needs
- Please note: hospital EDs are encouraged to have a physician and nurse PECC

 [PEDReady@jax.ufl.edu](mailto:PEDReady@jax.ufl.edu)

 904-244-4986

 [flemsc.emergency.med.jax.ufl.edu/](http://flemsc.emergency.med.jax.ufl.edu/)

 @floridaemsforchildren

 @flemsforchildren



# Additional Resources: National Pediatric Disaster Coalition



Support the development of a unified medical and health emergency management community to prepare, respond, and recover from emergencies and disasters.

## VALUES

1. Multi-discipline inclusiveness
2. Mutual respect
3. Leadership that prioritizes the growth and well-being of others
4. Non-competitive collaboration
5. Integrity
6. Advocacy



# Disaster and Families of Children with Disabilities: What Every Health Care Provider Needs to Know

To Access and Link to  
4-minute Video, Infographic  
& Teaching Checklist Scan QR Code





**Are the Families of Children with Disabilities  
and Medical Needs In Your Community  
Disaster Ready?**

**Now They Can Be!**

**Connect to the "*Be Ready*" Toolkit  
An ADA, Multi-lingual Just-in-Time Videos,  
and Infographics**



**For Toolkit Scan QR Code  
or Visit <https://bit.ly/2XYrxJJ>**





# Health & EM Provider Training



[https://emscimprovement.center/domains/preparedness/asprcoe/eglpcdr/cyshcn/toolkit/need\\_to\\_know/](https://emscimprovement.center/domains/preparedness/asprcoe/eglpcdr/cyshcn/toolkit/need_to_know/)

## Children with Disabilities and Disaster : What Every Health Care Provider Needs to Know

**The CDC estimates that 1 in 5 children in the US has a special health care need.**

Children with disabilities rely on their parents and caretakers including school personnel to assure their safety in a disaster. Families of disabled children need "facilitated" pre-event disaster risk reduction planning.

**Families vary in their understanding of what they need to prepare for in a disaster as does their ability to cope with disaster preparedness information.**

Disaster preparedness including equipment troubleshooting should be a regular part of discharge planning of every medically complex child. It should be reviewed at the first follow-up visit after discharge and periodically as the child's medical needs change.

**Parents of children with disabilities report that they can be easily overwhelmed with information.**

Disaster readiness information is best shared using a variety of methods including 1:1 instruction, online forums, videos, brochures, and applications. Educational material should be provided in the language the family understands and be American Disabilities Act (ADA) compliant.

**Families may not know what will happen if their child is at school during a disaster.**

Parents and school leaders should be advised to discuss emergency and disaster procedures as part of the child's Individual Education Plan (IEP). Parents should know how to communicate with the school and reunify with their child during a disaster.

**Medically complex children who depend on technology to survive are prone to equipment failures during a disaster.**

Families with children who have disabilities are more likely to seek disaster risk reduction resources.

**Children with disabilities rely on their parents and caretakers including school personnel to assure their safety in disaster.**

Disaster information is best shared in-person, with one-on-one training, and via online forums hosted by schools and service organizations. Brochures, videos, and web-based resources for use by medical personnel should be available. Assure that there are plans for schools to send emergency messages to parents and families via phone, text and/or social media.

**Families of children with disabilities in disaster-prone areas are known to be less resilient and struggle to recover from disasters.**

These families have higher rates of adverse consequences when disaster strikes including life threats, food insecurity, poverty, disrupted access to health care, medication, medical supplies, and homelessness.












**Primary Care Providers can play a critical role in assuring that caregivers know what to do in a disaster.**

When disaster preparedness is included as part of routine anticipatory guidance, families are more likely to engage in home preparedness activities.

Current anticipatory guidance does not address disaster readiness as part of essential child safety. It is the responsibility of the provider to include this information.

**Families of children with disabilities report that they need help connecting to local resources for sheltering in place and evacuation.**

Disaster risk reduction relies on the primary and specialty care health providers being willing to communicate to the family the importance of being informed, making a plan, and building a kit.

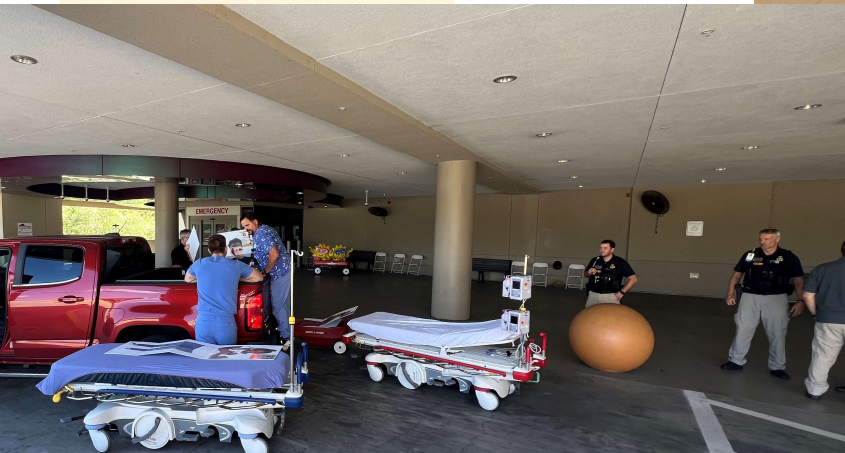












# Pediatric Training & Exercise Kits



***Disasters in  
Seconds*** 

Disaster Drills & Triaging Tiny Traumas





One day you will  
tell your story  
of how you've  
overcome what  
you're going  
through now,  
and it will become  
part of someone  
else's survival  
guide. ♡



Questions





**THANKS**