IS YOUR EMERGENCY PARIMENTPHDAIRCREADS?

Michelle Hackett, RN, BSN, CEN Maureen Luetje, DO



WHAT IS PEDIATRIC READINESS?

The Pediatric Readiness Project was created as national quality improvement initiative,

To improve the quality and consistency of care for children in US EDs,

To address the highly variable care of children that is seen across emergency departments.



Pediatric readiness is assessed by criteria that falls into 6 different domains of readiness:



Administration and Coordination



Personnel training and competencies



Quality improvement plan



Patient safety and Family-Centered Care



Policies and procedures



Equipment and supplies

Policy Statements

Care of Children in the Emergency Department: Guidelines for Preparedness

Approved by the ACEP Board of Directors September 2000 and the AAP Board of Directors December 2000.

This document has been reviewed by and is supported in concept by:

Ambulatory Pediatric Association; American Association of Poison Control Centers;

American College of Surgeons; American Hospital Association; American Medical

Association; American Pediatric Surgical Association; American Trauma Society;

Brain Injury Association, Inc; Emergency Nurses Association; Joint Commission

on Accreditation of Healthcare Organizations; National Association of Children's

Hospitals and Related Institutions; National Association of Emergency Medical

Technicians; National Association of EMS Physicians; National Association of

School Nurses; National Association of State Emergency Medical Services

Directors; National Committee for Quality Assurance; Society for Academic

Emergency Medicine.

Development of this statement would not have been possible without the generous support for the initial November 15-16, 1998, minimum standards consensus meeting funded by project #98-0156(P) from the US Department of Health and Human Services, Health Resources and Services Administration, and Maternal and Child Health Bureau.

Immunization of Pediatric Patients

Approved by the ACEP Board of Directors January 2000. ACEP on Fax document no. 4136.

The Role of Emergency Physicians in Emergency Medical Services for Children

Approved by the ACEP Board of Directors March 2000.

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47/1/114067

doi:10.1067/mem.2001.114067

Care of Children in the Emergency Department: Guidelines for Preparedness

See editorial, p. 389.

[American College of Emergency Physicians and the American Academy of Pediatrics. Care of children in the emergency department: guidelines for preparedness. *Ann Emerg Med.* April 2001:37:423-427.]

INTRODUCTION

Children requiring emergency care have unique and special needs. This is especially so for those with serious and life-threatening emergencies. There are a variety of components of the emergency care system that provide emergency care to children that are not limited to children. With regard to hospitals, most children are brought to community hospital emergency departments (EDs) by virtue of their availability rather than to facilities designed and operated solely for children. Emergency medical services (EMS) agencies, similarly, provide the bulk of out-of-hospital emergency care to children. It is imperative that all hospital EDs and EMS agencies have the appropriate equipment, staff, and policies to provide high quality care for children. This statement provides guidelines for necessary resources to ensure that children receive quality emergency care and to facilitate, after stabilization, timely transfer to a facility with specialized pediatric services when appropriate. It is important to realize that some hospitals and local EMS systems will have difficulty in meeting these guidelines, and others will develop more comprehensive guidelines based on local resources. It is hoped, however, that hospital ED staff and administrators and local EMS systems administrators will seek to meet these guidelines to best ensure that their facilities or systems provide the resources necessary for the care of children.

APRIL 2001 37:4 ANNALS OF EMERGENCY MEDICINE 423

Origins of Peds Readiness... 2001

American Academy of Pediatrics (AAP) and American Academy of Emergency Physicians (ACEP) developed a joint policy statement: "This statement provides guidelines for necessary resources to ensure that children receive quality emergency care and to facilitate, after stabilization, timely transfer to a facility with specialized pediatric services when appropriate."

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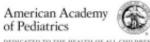
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Origins of Peds Readiness... 2001

- I. Administration & Coordination of the ED for the care of children
- II. Guidelines for Physicians and other Practitioners Staffing the ED
- III. QI Guidelines for the ED
- IV. Policies, Procedures and Protocols in the ED
- V. Support Services For the ED
- VI. Equipment, Supplies & Medications for Children in the ED

- The Emergency Medical Services for Children Program (EMSC) develops a steering committee for this
 - Assessment of all U.S. hospitals to determine their compliance with the 2001 Joint Policy Guidelines.
 - −This was a survey sent by mail... response rate of ~29%
- Most hospitals were unaware of the national guidelines
- Few had all the essential equipment and care policies listed in the guidelines.

- AAP, ACEP, and the Emergency Nurses Association (ENA) release an updated joint policy statement
- Endorsed by 22 national organizations



FROM THE AMERICAN ACADEMY OF PEDIATRICS

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

Joint Policy Statement—Guidelines for Care of Children in the Emergency Department

AMERICAN ACADEMY OF PEDIATRICS
COMMITTEE ON PEDIATRIC EMERGENCY MEDICINE
AMERICAN COLLEGE OF EMERGENCY PHYSICIANS
PEDIATRIC COMMITTEE
EMERGENCY NURSES ASSOCIATION
PEDIATRIC COMMITTEE

KEY WORD

pediatric emergency preparedness

ABBREVIATIONS

ED-emergency department

EMSC—emergency medical services
EMSC—emergency medical services for children

QI—quality improvement PI—performance improvement

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commercial involvement in the development of the content of

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abstract

Children who require emergency care have unique needs, especially when emergencies are serious or life-threatening. The majority of ill and injured children are brought to community hospital emergency departments (EDs) by virtue of their geography within communities. Similarly, emergency medical services (EMS) agencies provide the bulk of out-of-hospital emergency care to children. It is imperative, therefore, that all hospital EDs have the appropriate resources (medications, equipment, policies, and education) and staff to provide effective emergency care for children. This statement outlines resources necessary to ensure that hospital EDs stand ready to care for children of all ages, from neonates to adolescents. These guidelines are consistent with the recommendations of the Institute of Medicine's report on the future of emergency care in the United States health system. Although resources within emergency and trauma care systems vary locally, regionally, and nationally, it is essential that hospital ED staff and administrators and EMS systems' administrators and medical directors seek to meet or exceed these guidelines in efforts to optimize the emergency care of children they serve. This statement has been endorsed by the Academic Pediatric Association, American Academy of Family Physicians, American Academy of Physician Assistants, American College of Osteopathic Emergency Physicians, American College of Surgeons, American Heart Association, American Medical Association, American Pediatric Surgical Association, Brain Injury Association of America, Child Health Corporation of America, Children's National Medical Center, Family Voices, National Association of Children's Hospitals and Related Institutions, National Association of EMS Physicians, National Association of Emergency Medical Technicians, National Association of State EMS Officials, National Committee for Quality Assurance, National PTA, Safe Kids USA, Society of Trauma Nurses, Society for Academic Emergency Medicine, and The Joint Commission. Pediatrics 2009:124:1233-1243

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PEDIATRICS Volume 124, Number 4, October 2009 1253

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- I. Administration and Coordination of the ED for the care of Children
- II. Physicians, Nurses, and other Health Care Providers who staff the ED
- III. QI/PI in the ED
- IV. Improving Pediatric Patient Safety in the ED
- V. Policies, Procedures & Protocols for the ED
- VI. ED Support Services
- III. Equipment, Supplies, & Medications for the care of pediatric patients in the ED



FROM THE AMERICAN ACADEMY OF PEDIATRICS

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

Joint Policy Statement—Guidelines for Care of Children in the Emergency Department

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- A national steering committee of stakeholders was assembled to implement a public health initiative to address the previously reported disparate state of pediatric readiness of EDs.
- The first step of this initiative, known as the National Pediatric Readiness Project (NPRP), was a web-based assessment of ED readiness for children, as measured by compliance with the 2009 national guidelines.
- A 55-question web-based assessment based on the sections of the 2009 guidelines addressing:
 - Coordination of patient care, physician/nurse staffing and training, quality improvement activities, patient safety initiatives, policies and procedures, and availability of pediatric equipment.
- Hospital demographics were also collected:
 - ED configuration, annual overall volume, pediatric patient volume

- The objectives of the first phase of the NPRP were to:
 - Assess all EDs of all 50 states and all US territories for compliance with the guidelines (pediatric readiness)
 - To identify gaps and barriers to implementation of the guidelines for future quality initiatives
 - To evaluate the effect of the presence of physician and nurse pediatric emergency care coordinators (PECCs) on pediatric readiness.

NPRP 1st Edition - 2013

- ❖ More than 4,000 EDs participated, yielding a response rate of more than 82%.
- The national median pediatric readiness score: 69/100

- 498% of all the responders work in a non-pediatric ED
- *83% of all pediatric ED visits occur at a non-pediatric ED
- ❖69% of all EDs see less than < 14 pediatric patients per day

Original Investigation

A National Assessment of Pediatric Readiness of Emergency Departments

Marianne Gausche-Hill, MD; Michael Ely, MHRM; Patricia Schmuhl, BA; Russell Telford, MA; Katherine E. Remick, MD; Elizabeth A. Edgerton, MD, MPH; Lenora M. Olson, PhD, MA

IMPORTANCE Previous assessments of readiness of emergency departments (EDs) have not been comprehensive and have shown relatively poor pediatric readiness, with a reported weighted pediatric readiness score (WPRS) of 55.

OBJECTIVES To assess US EDs for pediatric readiness based on compliance with the 2009 guidelines for care of children in EDs; to evaluate the effect of physician/nurse pediatric emergency care coordinators (PECCs) on pediatric readiness; and to identify gaps for future quality initiatives by a national coalition.

DESIGN, SETTING, AND PARTICIPANTS Web-based assessment of US EDs (excluding specialty hospitals and hospitals without an ED open 24 hours per day, 7 days per week) for pediatric readiness. All 5017 ED nurse managers were sent a 55-question web-based assessment. Assessments were administered from January 1 through August 23, 2013. Data were analyzed from September 12, 2013, through January 11, 2015.

MAIN OUTCOMES AND MEASURES A modified Delphi process generated a WPRS. An adjusted WPRS was calculated excluding the points received for the presence of physician and nurse

RESULTS Of the 5017 EDs contacted, 4149 (82.7%) responded, representing 24 million annual pediatric ED visits. Among the EDs entered in the analysis, 69.4% had low or medium pediatric volume and treated less than 14 children per day. The median WPRS was 68.9 (interquartile range [IQR] 56.1-83.6). The median WPRS increased by pediatric patient volume, from 61.4 (IQR, 49.5-73.6) for low-pediatric-volume EDs compared with 89.8 (IQR, 74.7-97.2) for high-pediatric-volume EDs (P < .001). The median percentage of recommended pediatric equipment available was 91% (IQR, 81%-98%). The presence of physician and nurse PECCs was associated with a higher adjusted median WPRS (82.2 [IQR, 69.7-92.5]) compared with no PECC (66.5 [IQR, 56.0-76.9]) across all pediatric volume categories (P < .001). The presence of PECCs increased the likelihood of having all the recommended components, including a pediatric quality improvement process (adjusted relative risk, 4.11 [95% CI, 3.37-5.02]). Barriers to guideline implementation were reported by 80.8% of responding

CONCLUSIONS AND RELEVANCE These data demonstrate improvement in pediatric readiness of EDs compared with previous reports. The physician and nurse PECCs play an important role in pediatric readiness of EDs, and their presence is associated with improved compliance with published guidelines. Barriers to implementation of guidelines may be targeted for future initiatives by a national coalition whose goal is to ensure day-to-day pediatric readiness

JAMA Pediatr. doi:10.1001/jamapediatrics.2015.138 Published online April 13, 2015.

 Supplemental content at jamapediatrics.com

Author Affiliations: Author affiliations are listed at the end of this

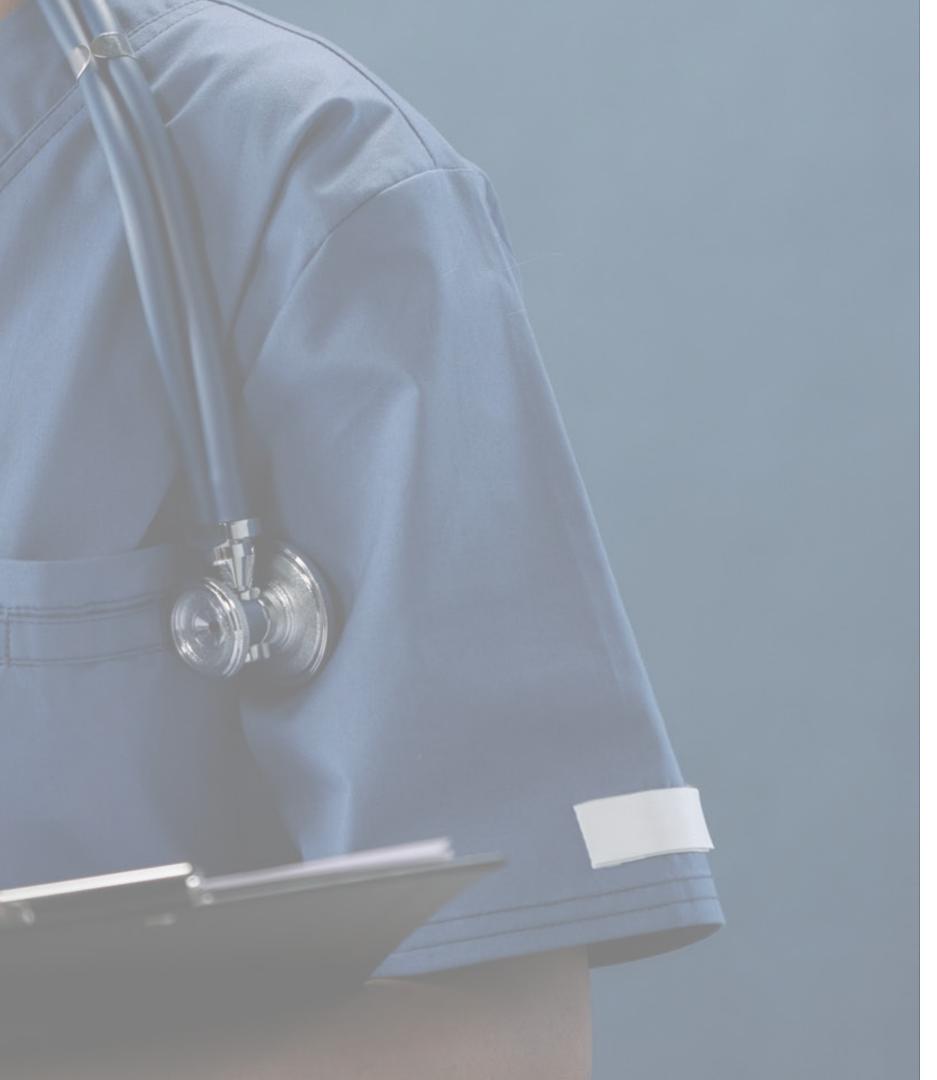
Gausche-Hill, MD, Department of Emergency Medicine, Harbor-University of California Los Angeles, Medical Center, 1000 W Carson St, PO Box 21, Bldg D9, Torrance, CA 90509 (mgausche@emedharbor.edu).

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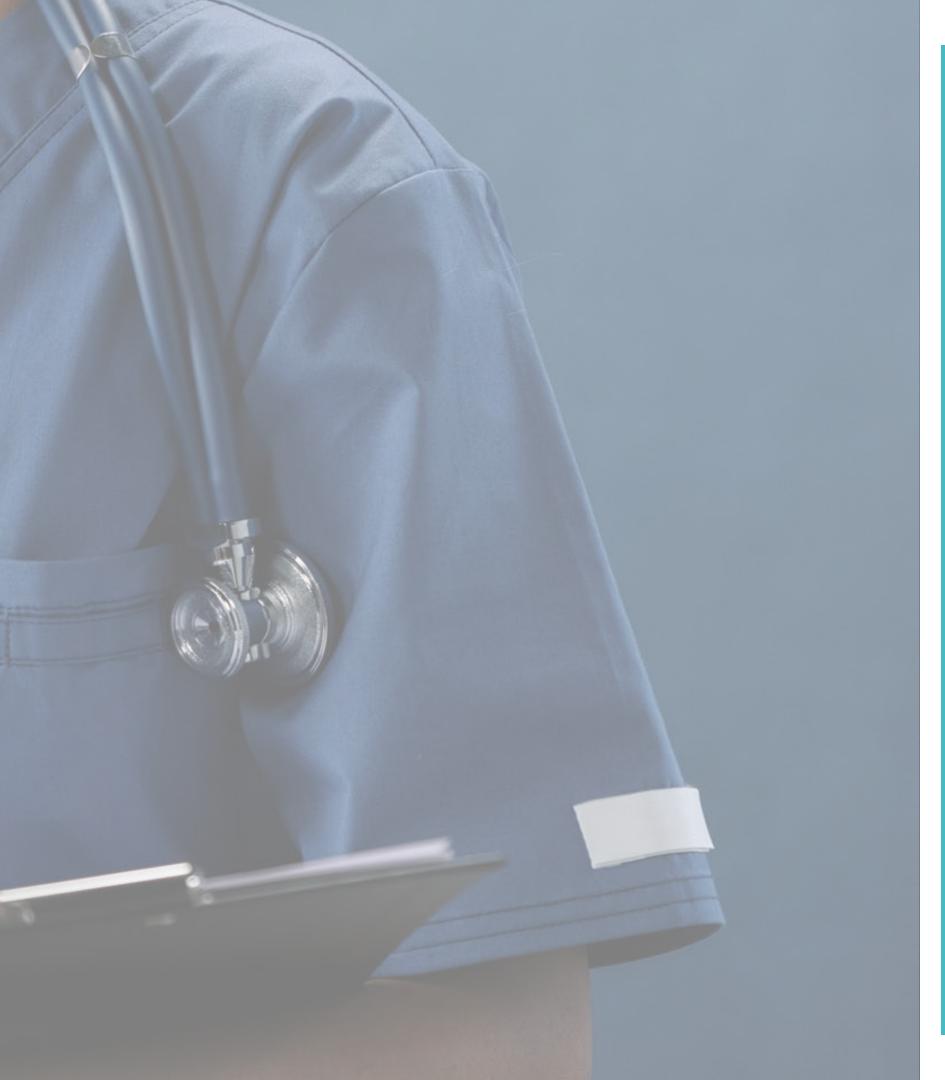
- ❖99% reported that staff are trained on the location of pediatric equipment in the ED and have a way to ensure proper sizing of resuscitation equipment and dosing of medications.
- ❖91% of recommended pediatric equipment is stocked.
- ❖67% reported weighing children in kilograms only. 75% of those also recorded weight in kilograms in the medical record.
- ❖71% of EDs have a written transfer guideline in place.
- ❖90% have a child maltreatment policy.



- ❖ 45% of EDs have a quality improvement plan addressing the needs of children.
- ❖50% report missing of some of the recommended policies, procedures, or protocols.
- 47% of ED respondents reported having a disaster plan that addresses children
 even in high-volume hospitals, only 67.4% reported having a disaster plan that

includes the specific needs of children.

- ❖48% reported a physician PECC
- ❖59% reported a nurse PECC
- ❖42% have both PECCs



- **❖** What is a PECC?
 - Pediatric Emergency Care Coordinator
 - ❖ PECCs can be a nurse or a physician (ideally, both).
 - PECCS do not require any special expertise.
 - ❖ A PECC does not need to be dedicated solely to this role.
- ❖ The presence of physician and nurse PECCs significantly increased the pediatric readiness score, regardless of pediatric volume.
 - *2x as likely to have pediatric policies in place
 - **4**X more likely to have a quality improvement plan that addressed the needs of children.



What are the Barriers?

- ❖ Barriers to guidelines implementation were reported by **81**% of ED respondents:
 - **Cost of training (54%)**
 - **Lack of educational resources (49%)**
- Few respondents (12%) reported a **lack of** interest in meeting the guidelines as a barrier.



- The NPRP launches its second national assessment - 2021
 - What is the state of Pediatric Readiness in U.S. EDs During the Covid-19 Pandemic?
- 5,150 EDs were reassessed and 3,647 EDs responded.(70.8% response rate)
- National Median score = 69.5

The National Pediatric Readiness (NPRP) Assessment is based on the 2018 Policy Statement: Pediatric Readiness in the Emergency Department and was developed by NPRP collaborative partners. It is intended to be used to evaluate overall pediatric readiness in Emergency Departments. Users agree they will not adapt, alter, amend, abridge, modify, condense, make derivative works, or translate the assessment. The project is funded in part by HRSA's EMSC Data Center grant award UJ5MC30824. For more information, write to PedsReady@hsc.utah.edu

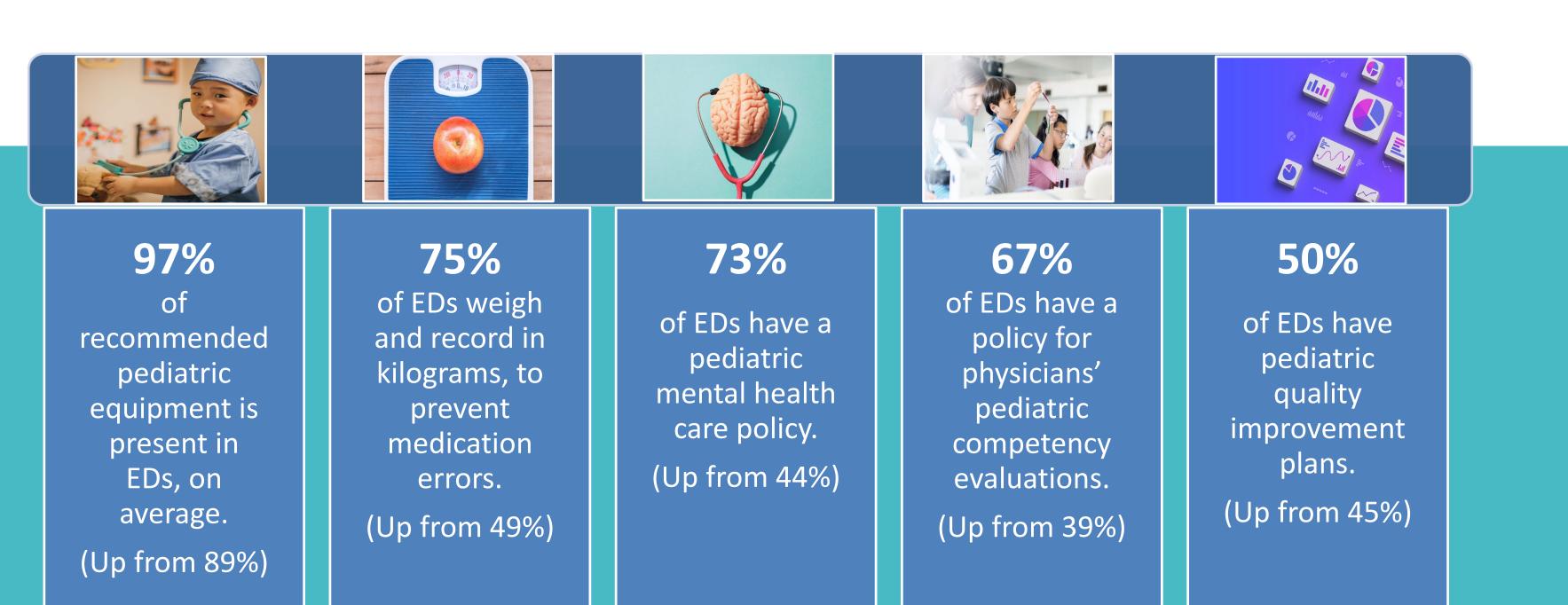
PEDIATRIC READINESS ASSESSMENT

Before we begin, please provide us with the following information, in case we need to contact you to clarify any of your responses:

1. Name:
2. Title/Position:
3. Phone number:
4. Email:
Name of your facility/hospital:
Physical street address of your facility/hospital:
7. City your facility/hospital is located in:
Zip code of your facility/hospital:
From this point forward, we will <u>use the term "hospital"</u> to indicate a hospital or facility where your emergency department is located.
Does your hospital have an emergency department (ED) that is open 24/7?
Yes No (You do not need to complete the assessment. Thank you for your time.)
These first few questions will help us understand the infrastructure of your hospital and emergency department.
10. Which of the following best describes your hospital? (Choose one)
General Hospital (a non-specialized facility treating adults and children for all medical and trauma conditions with or without a separate pediatric ED)
Children's Hospital within a General Hospital (children's hospital located completely within a larger hospital which also sees adults)
Children's Hospital (a stand-alone, specialized facility which offers services exclusively to children and adolescents)
Critical Access Hospital (a non-specialized facility that is typically 35 miles from another hospital and maintains no more than 25 inpatient beds)
Page 1 of 19 National Pediatric Readiness Project Assessment

Comparisons from 2013 \rightarrow 2021 Assessment

Scores improved in 5 of the 6 domains:



Comparisons from 2013 → 2021 Assessment

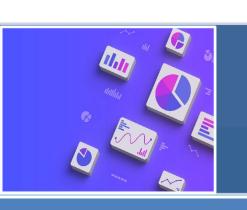
Scores decreased in 1of the 6 domains:













97%

of recommended pediatric equipment is present in EDs, on average.

(Up from 89%)

75%

of EDs weigh and record in kilograms, to prevent medication errors.

(Up from 49%)

73%

of EDs have a pediatric mental health care policy.

(Up from 44%)

67%

of EDs have a policy for physicians' pediatric competency evaluations.

(Up from 39%)

50%

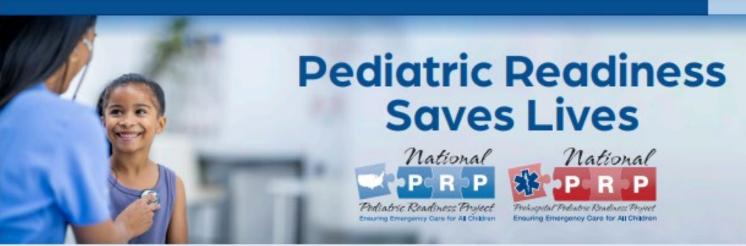
of EDs have pediatric quality improvement plans.

(Up from 45%)

29%

of EDs have a physician + nursing PECC role

(Down from 42%)



Research has shown high pediatric readiness in emergency departments (EDs)—or scoring > 87 points on the National Pediatric Readiness Project Assessment—improves outcomes for children. While prehospital research is ongoing, a similar impact is anticipated in EMS settings.

High pediatric readiness in EDs is associated with:

76%

lower mortality

60%

injured children²

LEAST 1,400

children's lives saved across the US each year²

"Emergency Department Pediatric Readiness and Mortality in Critically III Children" Pediatrics, 2019, Ames et al. "Emergency Department Pediatric Readiness and Short-term and Long-term Mortality Among Children Receiving Emergency Care" JAMA Network Open, 2023, Newgard et al.



The Power of PECCs:

Designating an individual to serve as a pediatric champion at an ED or EMS agency (also known as a pediatric emergency care coordinator or PECC) is one of the best ways to increase readiness for children.



Research on the impact of prehospital pediatric readiness will be supported by the launch of the *Prehospital* Pediatric Readiness Project Assessment in 2024.



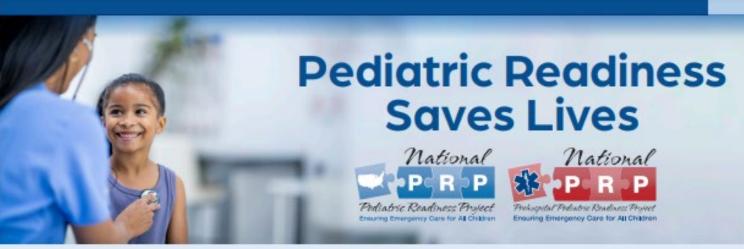
You can help save children's lives. www.pediatricreadiness.org

The EMSC Innovation and Improvement Center is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award (U07MC37471) totaling \$3M with 0 percent financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS or the U.S. government. For more information, visit HRSA.gov. 230511



Presentation to hospitals with a high pediatric readiness score is associated with decreased mortality. Efforts to increase ED readiness for pediatric emergencies may improve patient outcomes.

-- Pediatrics Sept 2019



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-- JAMA June 2021



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How can EDs improve Readiness

3 components of readiness have the <u>largest</u> <u>impact:</u>

- 1. Designating **PECCs** ideally both a physician and a nurse
- 2. Implementing pediatric-specific quality improvement plans
- 3. Ensuring staff includes physicians **board-certified** in emergency medicine or pediatric emergency medicine.



ProHealth Care Emergency Departments: Pediatric Readiness

- Waukesha Memorial Hospital Level III Trauma 39,000 annually in ED.
 - 7% Peds
 - <5 Pediatric Intubations</p>
 - <5 Pediatric Deaths</p>
- Oconomowoc Memorial Hospital- Level III Trauma 13,000 annually in ED.
 - 11% Peds
 - 1-2 Pediatric Intubations
 - Rare Pediatric Deaths
- ➤ Mukwonago Hospital 12,000 annually in ED
 - 13% Peds
 - Rare Pediatric Intubations or Deaths



Pediatric readiness assessm and cohort

- > After Christmas parade, more focus was placed on our Pediatric Readiness and care
- > Prior to, I had been doing the assessing, auditing, teaching, supplies on my own.
- I was very excited that we were able to participate in the program!
- Through the Pediatric Readiness Assessment, we identified our main gap was having Pediatric Specific Policies
- > We also identified the need to improve the education of our nursing staff and Providers

2021 score of **68** \longrightarrow 2024 score of **85.9**

Policies

- We found that very few of our policies contained specific wording with regards to Pediatrics. We "rarely" admit Pediatrics (outside of NICU) to our facilities.
- We decided to create an "Emergency Department Pediatric Care" Policy, encompassing many of the areas from the assessment
- Areas covered in the policy
 - Clinical Pediatric Care Triage and Assessment, Weight, Vitals, Triage Narrator, Consent for treatment, Pain scales, use of Collaborative Practice Protocols, Identification of and activation of alerts, reassessment, and medication dosing and administration
 - ➤ MCI SALT triage, Broselow tape with ID bands, Pediatric patients not being alone, family reunification, and Pediatrics involved in all MCI Drills
 - ➤ Maltreatment Assessment annual education to all ED staff, use of Social Work, Law enforcement, and SANE RNs
 - ➤ ED Disposition- Admission, Transfer, Death includes bereavement
 - ➤ Car Seat Distribution after MVCs
 - > Education of patients and families
 - **▶** ED Staff Education
 - **≻**PECC

POLICIES



- Keeping in mind that a lot of this we were already doing- as not a change in practice- but having it in writing. Some areas were covered in our ED specific standards of care.
- Staff can now easily find answers in one location and not searching through multiple policies
- Current work includes adding an addendum to our MTP Policy for Pediatrics and more specifics to our MCI plans.

NURSING STAFF EDUCATI

- Annual Skills Fair Ped Code Scenario, Panda Infant Warmer
- All new staff have 1:1 education on Pediatric Supplies, etc
- Scavenger hunt for all staff with Peds Supplies, including "rarely" used items
- "Look on the wall" Location finding signs in Pediatric Room with Emergency Pediatric Equipment and their locations listed- also includes any door codes/cabinet lock codes
- Education committee monthly hands-on education training: Panda warmer, trauma supplies

Pediatric Central Line kits

• ED Supply Room - Top shelf Cart #3 (4 & 5 French)

Pediatric Chest Tubes

- Chest Tube Carts in rooms 3 & 4 14, 18, 20, 24 French
- In IR 8, 10, 12, 14 French

Cuffed ET Tubes

Colored Code Cart Drawers

Intubation Blades and Handles

- Bin on top of Peds Supply Cart
- Colored Code Cart drawers Handle in bottom drawer

Pediatric Magill Forceps

- Yellow Bin on top of Peds Supply Cart
- Bottom Drawer of Peds Code Cart

Pediatric Trach Tubes

• Room 1 Difficult Airway cart bottom drawer

Neonatal Airway/Monitoring Supplies

On Panda Warmer

Pediatric and Infant Oxy Mask and NC

• Bottom drawer of Peds Supply Cart

OB Delivery Kit and C Section Kit

• Cabinet under scale (1, 2, 3 turn Right)

Pediatric & Infant LP Trays

ED Supply Room

Ed provider Education

- ED Provider Equipment review- took providers through the department and discussed where Emergency Peds equipment was
- Included review of IO placement, use of jet ventilator, Glidescope, and Panda Warmer
- Found that many providers had not used the Panda Warmer and had minimal training/exposure to Infant and Neonatal care
 - Hands on class with NICU Educator revieing Panda and Neonatal Emergency Care
 - Some Providers taking full NRP Class
 - Discussion to have as an annual training



Recent Impacts

Providers cared for a critically ill infant a few weeks after their equipment walkthrough- remembered where things were and what we had

ED Nursing staff reported being able to find items quickly by "Looking on the wall"

Why do we care?

There are ~ 5,000 EDs in the US

ED Visits/yr

•141 million

Pts < 15 yrs

•28 million

•(20%)

General EDs

•23 million

•(82%)

< 15 peds/day

•16 million

•(70%)

Why do we care?

There are ~ 134 EDs in Wisconsin

WI ED Visits/yr

• 1.8 million*

Pts < 15 yrs

•360,000

• (~20%)

General EDs

• 295,200

• (82%)

< 15 peds/day

• 206,640

• (70%)

Why do we care?

There are ~ 134 EDs in Wisconsin

WI ED Visits/yr

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•360,000

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General EDs

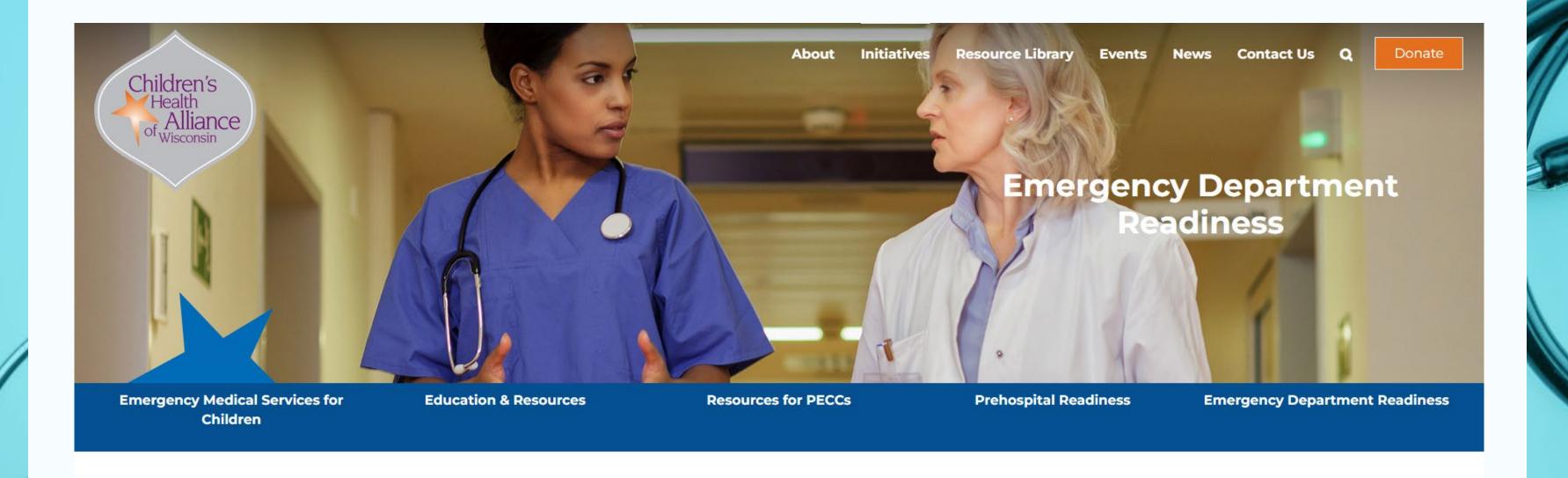
• 295,200

• (82%)

< 15 peds/day

• 206,640

• (70%)



Emergency Department Readiness

Most sick and injured children seek initial emergency care at the community emergency department (ED) in closest proximity to where they live. It is critical that all EDs have the appropriate resources, capacity, and trained staff to provide effective emergency care for children. Is your department pediatric ready?

The National Pediatric Readiness Assessment (NPRP) is a tool your ED can use to measure your level of pediatric readiness and to aid in identifying gaps that may exist in your preparation to provide pediatric emergency care.

The assessment addresses essential domains of preparedness identified by the 2018 American Academy of Pediatrics Policy Statement - Pediatric Pediatri

Goal:

We aim to reduce health inequity through implementation of a pilot health workforce development resource, the Pediatric Readiness Program for Community Emergency Departments (Pediatric Readiness).

We want to catalyze systems change, to ensure hospital staff implement and maintain best practices, and ensure that all children have access to high-quality emergency care.

Impact:

- Provide an implementation guide and collaborate with EDs that are interested in improving their pediatric readiness.
- Improve quality of emergency care for children, near where they live.
- Improve Pediatric Readiness score by at least 10% for participating EDs.





Wisconsin 2021 National Pediatric Readiness State Summary

2021 Pediatric Readiness Response Rate

Numerator: 101
Denominator: 132
Response Rate: 77%

2021 Average State
Score

67

State AVERAGE Hospital Score out of 100 (n=96) 2021 Median State
Score

68

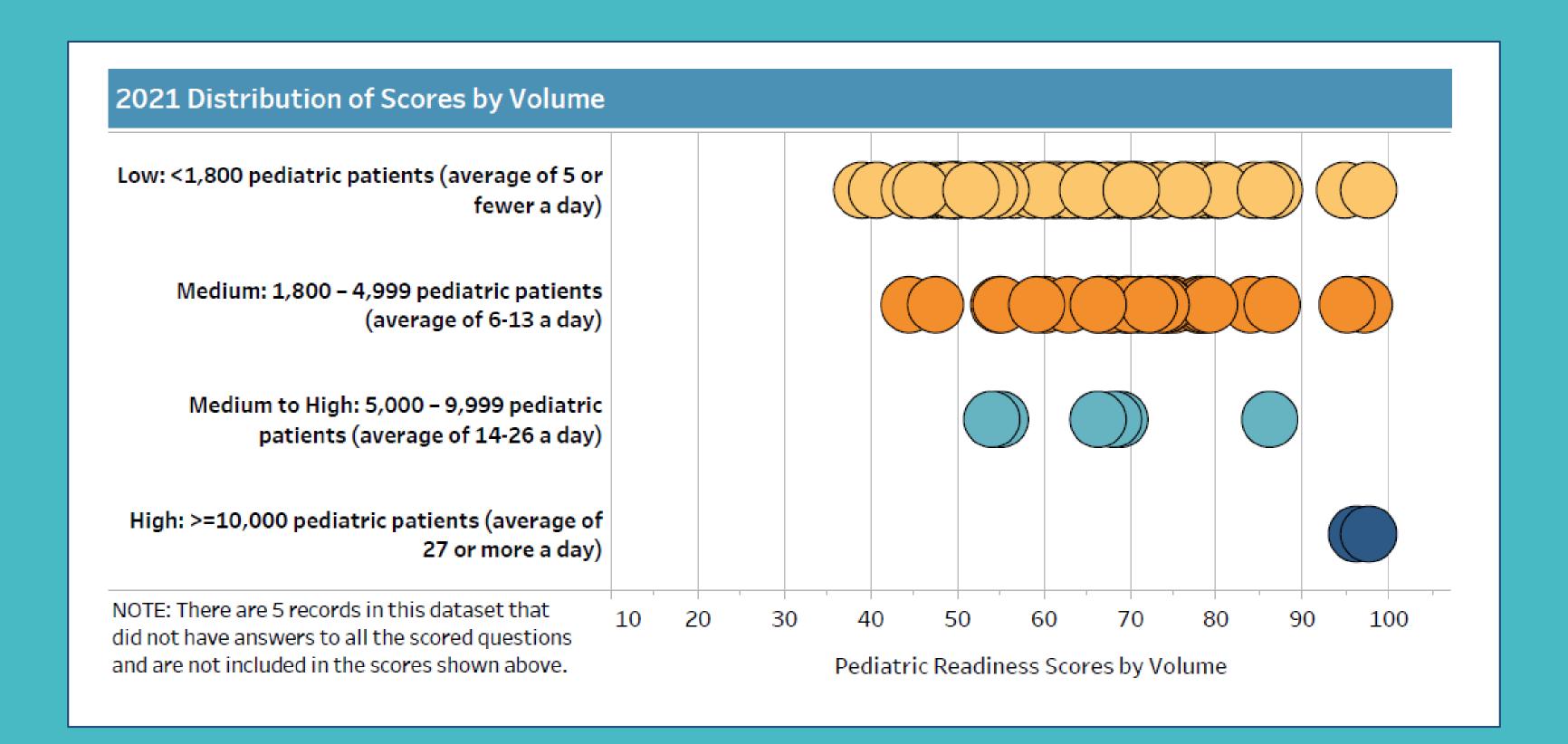
State MEDIAN Hospital Score out of 100 (n=96)

NOTE: There are 5 records in this dataset that did not have answers to all the scored questions and are not included in the scores shown above.

2013-14 Pediatric Readiness Response Rate

Numerator: 111 Denominator: 128 Response Rate: 87%

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.



Breakdown of 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)	59	64	65	39	98
Medium: 1,800 - 4,999 pediatric patients (average of 6-13 a day)	29	71	71	44	97
Medium to High: 5,000 - 9,999 pediatric patients (average of 14-26 a day)	6	66	67	54	86
High: >=10,000 pediatric patients (average of 27 or more a day)	2	97	97	96	98
Grand Total	96	67	68	39	98

NOTE: There are 5 records in this dataset that did not have answers to all the scored questions and are not included in the scores shown above.

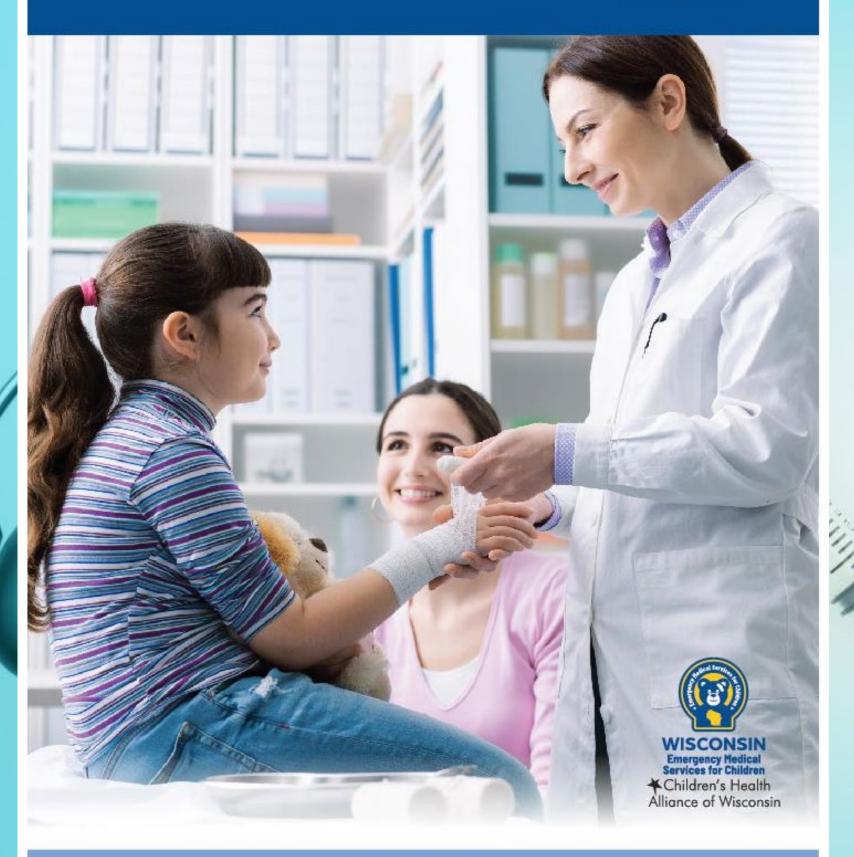
Breakdown of Scores by Trauma Designation

	# of Hospitals	Avg. Score						Annual P	ediatric	Volume:	Trauma All	Designation:
Designated	82	67				\bigcirc						
No Trauma Designation	14	67							\square			
			10	20	30	4()	50	60	70	80	90 10

NOTE: There are 5 records in this dataset that did not have answers to all the scored questions and are not included in the scores shown above.

Pediatric — — — — — READINESS IMPLEMENTATION GUIDE

/ersion 2 - 2023



www.chawisconsin.org

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What is Wisconsin Emergency Medical Services for Children (WI EMSC)? - page 3

What is pediatric readiness? - page 4

What is the National Pediatric Readiness Program (NPRP) Assessment? - page 4

How do we take the NPRP Assessment? - page 4

How is our score determined? - page 5

What does our score mean? - page 5

NPRP Question	Sections	Points	Toolkit Page Numbe			
Administration and Coordination of Care – 19 points						
22-24	Physician Pediatric Coordinator	9.5	11			
25-27	Nurse Pediatric Coordinator	9.5	13			
Physicians, Adv	ranced Practice Providers (APPs), Nurses, Oth	ner ED Healthcare	Providers – 10 points			
28-33	Pediatric competencies for physician credentialing	5	16			
34-37	Pediatric competencies in nurse credentialing	2.5	18			
38-42	Maintenance of specialty certification for nurses	2.5	20			
Quality Improvement – 7 points						
	Patient Care Review Process	1.4				
	Quality Indicators for Children	1.4				
43-44	Collection of Pediatric Data	1.4	22			
	Pediatric Improvement Plans	1.4				
	Using Outcome-Based Measures	1.4				
Pediatric Patient Safety – 14 points						
45-46	Weights in Kilograms	3	25			
47-51	Vital Sign Processes	6.5	27			
52	Pre-Calculated Medication Dosing	3	30			
53	Interpreter Services	0.5	32			
54-55	Mental Status and Pain Assessment	1	33			
Policies, Procedures, and Protocols – 17 points						
56	Pediatric Triage Policy	2	36			
57	Prescribed Pediatric Policies	9	38			
60-61	Family-Centered Care Policy	2	48			
62-67	Pediatric Disaster Preparedness	2	50			
68-69	Transfer Guidelines for Children	2	53			
Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED – 33 points						
71-73	General Supplies Management	9	57			
	Monitoring Equipment	3				
74	Resuscitation Equipment	2	58			
	Airway Equipment	19				

Administration and Coordination of Care (19pts total)

- Pediatric Physician Coordinator=9.5pts
- Pediatric Nurse Coordinator=9.5pts

Resources Emergency Medical Services for Children Innovation and Improvement Center (EIIC) ED NPRP Toolkit How to Initiate the Conversation on Acquiring a Pediatric Champion Sample Pediatric Coordinator Job Description Sample Pediatric Nurse Coordinator Job Description (Appendix A) Sample Pediatric Nurse Liaison Policy

Physicians, APPs Nurses and other ED Providers (10 points total)

- Physician credentialing for pediatric competencies = 2.5pts
- Physician credentialing for maintenance of certification = 2.5pts
- ED nurse credentialing for pediatric competencies = 2.5pts
- ED nurse credentialing for maintenance of certification = 2.5pts

Resources

Pediatric Basic Life Support (PBLS)

Pediatric Advanced Life Support (PALS)

Advanced Pediatric Life Support (APLS).

Neonatal Resuscitation Program (NRP)

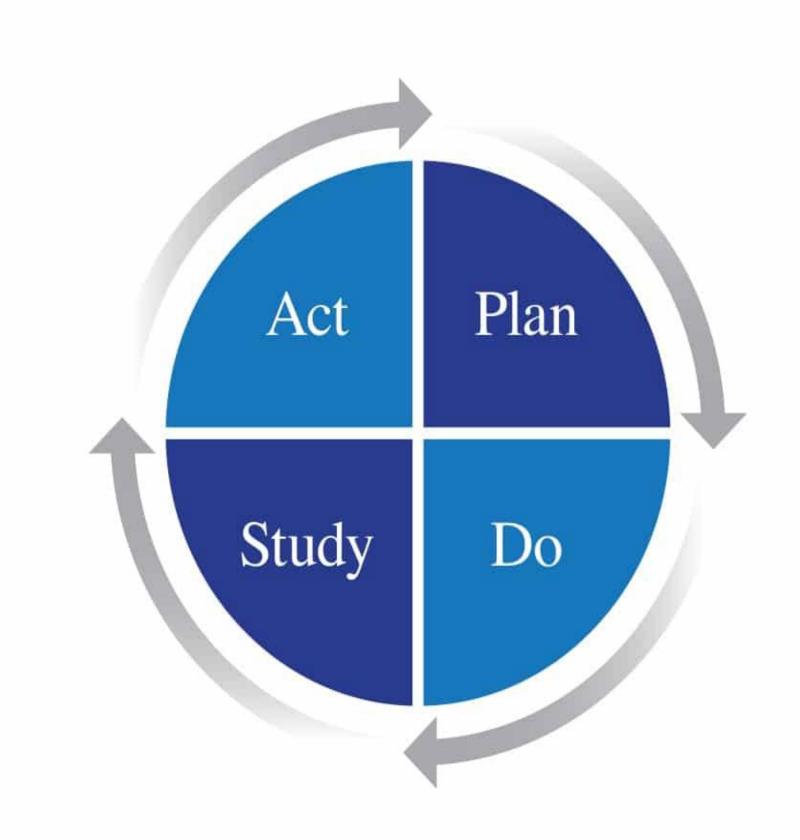
International Trauma Life Support (ITLS) (formerly Basic Trauma Life Support)

Advanced Trauma Life Support (ATLS)

- 1. Maintenance of Specialty Certification
 - a. Certification of Emergency Nursing (CEN)
 - b. Certification of Pediatric Emergency Nursing (CPEN)
- 2. Pediatric-Specific Training Certifications
 - a. <u>Emergency Nurses Pediatric Course</u>
 - Pediatric Basic Life Support (PBLS) (e.g., Healthcare Provider CPR certification or Basic Life Support)
 - c. Pediatric Advanced Life Support (PALS) or
 - d. Advanced Pediatric Life Support (APLS)
 - Neonatal Resuscitation Program (NRP)
 - International Trauma Life Support (ITLS) (formerly Basic Trauma Life Support)
 - g. Advanced Trauma Life Support (ATLS)
 - h. Pediatric-specific continuing medical education
- 3. Examples of Hospital-Specific Competency Evaluations
 - a. Pediatric triage
 - b. Pediatric assessment
- 1. Maintenance of National Specialty Certification
 - a. <u>Emergency Certificate of Added Qualifications (CAQ) Physician</u>
 Assistanthttps://bcen.org/cen/
 - b. Pediatric CAQ Physician Assistant
 - Acute Care Nurse Practitioner
 - Emergency Nurse Practitioner
 - e. Pediatric Nurse Practitioner
- Pediatric-Specific Training Certifications
 - a. <u>Pediatric Basic Life Support (PBLS)</u> (e.g., Healthcare Provider CPR certification or Basic Life Support)
 - b. Pediatric Advanced Life Support (PALS) or
 - Advanced Pediatric Life Support (APLS)
 - Neonatal Resuscitation Program (NRP)
 - e. International Trauma Life Support (ITLS) (formerly Basic Trauma Life Support)
 - f. Advanced Trauma Life Support (ATLS)
 - g. Pediatric-specific continuing medical education

Quality Improvement (7pts total)

- Patient care review process = 1.4pts
- Identification of quality indicators for children = 1.4pts
- Collection of pediatric emergency care data = 1.4pts
- Improvement plans for pediatric emergency care = 1.4pts
- Using outcome-based measures = 1.4pts



High-yield, pediatric-specific, QI plans that you may consider implementing in your department:

- Measuring and documenting weight in kilograms for patients < 18 years of age
- Instituting a method to identify age-based abnormal pediatric vital signs
- Ensuring necessary pediatric equipment is stocked and maintained
- Supporting the role of on-site pediatric coordinator
- Improving parent/caregiver understanding of discharge instructions
- Decreasing door to provider time
- Decreasing total length of stay time
- Reducing pain in children with acute fractures
- Reducing the number of children with minor head trauma who receive a head CT
- Instituting a protocol for suspected child maltreatment

- Improving the use of systemic corticosteroids in children with acute asthma exacerbation
- Implementing an evidence-based management plan for bronchiolitis
- Reducing the use of antibiotics in children with viral illnesses
- Reducing return visits within 48 hours resulting in admission
- Reducing medication error rates

Resources

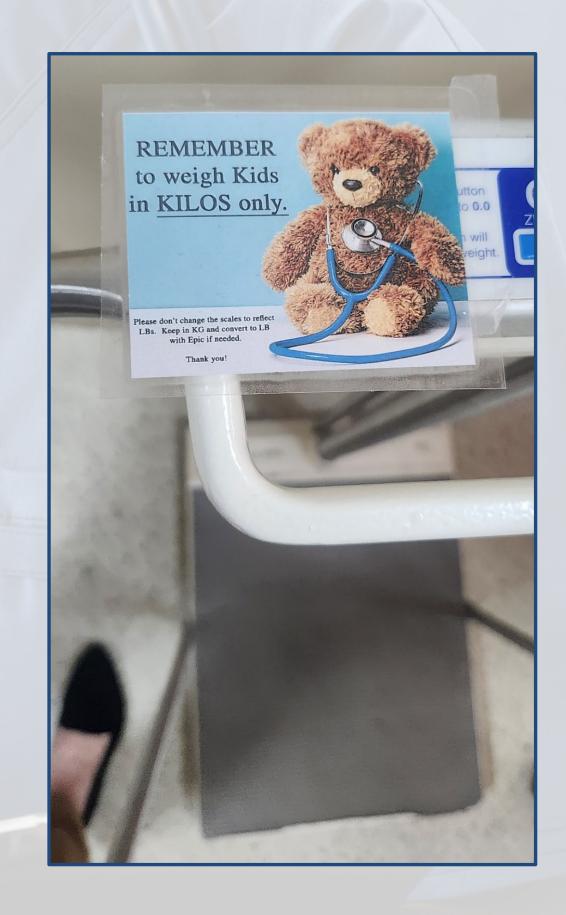
Webinar: Pediatric Readiness Data: An Opportunity to Improve Quality of Care in Your Emergent
Department

White Paper: Quality Improvement in Emergency Medical Services for Children

Emergency Department Pediatric Performance Measures Toolkit

Pediatric Patient Safety in the ED (14 pts Total)

- Weighing all children only in kilograms (1.5 points)
- Recording all weights in kilograms (1.5 points)
- Obtaining standard vital signs in all patients (1 point)
- Obtaining other vital signs based on severity of illness (2.5 points)
- Process to notify abnormal vital signs to physicians (3 points)
- Process for the use of pre-calculated drug dosing (3 points)
- 24/7 interpreter service (0.5 points)
- Assessing mental status and pain in all children (1 point)



Pediatric Patient Safety in the ED (14 pts Total)

- Weighing all children only in kilograms (1.5 points)
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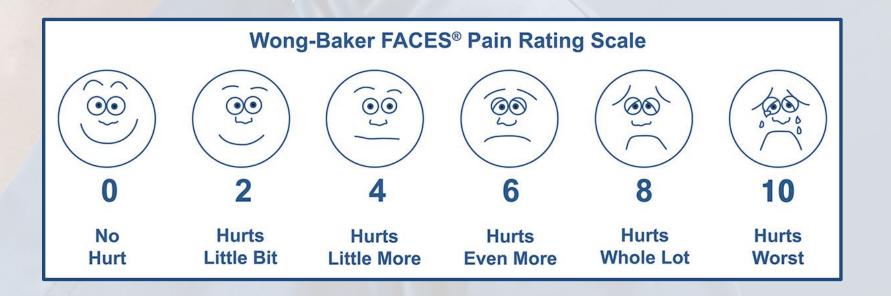
First 5 Minutes - App



Carrier 😤	8:58 AM			
< w	/eight: 12	kg	-	
Drug	Dose	Amount		
Dysrhythmia Drug	S	100		
Lidocaine 2%	12 mg	0.6 ml		
Adenosine	1.2 mg	0.4 ml		
Neurological Drug	S			
Naloxone	1.2 mg	1.2 ml		
Lorazepam	1.2 mg	0.6 ml		
Phenobarbital	240 mg	3.7 ml		
Fosphenytoin	240 mg PE	4.8 ml		
Mannitol 20%	6 gm	30 ml		
Hypertonic Saline 3%	60 ml	60 ml		
RSI Drugs				
Fentanyl	12 mcg	0.24 ml		
Midazolam	1.2 mg	1.2 ml		
Etomidate	3.6 mg	1.8 ml		
Ketamine	24 mg	0.48 ml		
Succinylcholine	12 mg	1.2 ml		
Vecuronium	1.2 mg	1.2 ml		
Rocuronium	12 mg	1.2 ml		
Equipment				
Endotracheal Tube		4 - 4.5 mm ID (cuffed preferred)		
Blade	#1 Mille	#1 Miller or Macintosh		
Nasogastric Tube	Pediatr	Pediatric Sump Tube		
Endotracheal Tube S	Suction 8 FR			

Pediatric Patient Safety in the ED (14 pts Total)

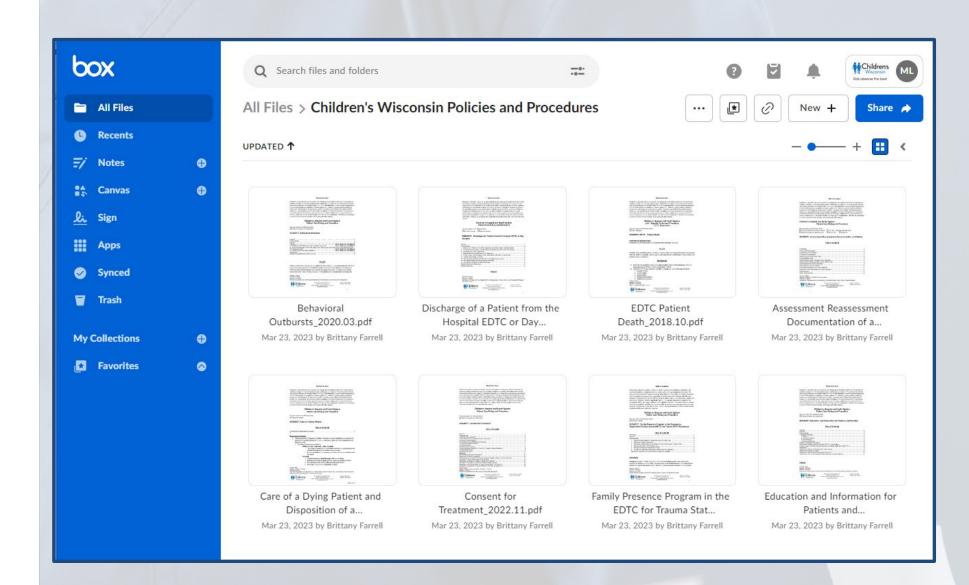
- Weighing all children only in kilograms (1.5 points)
- Recording all weights in kilograms (1.5 points)
- Obtaining standard vital signs in all patients (1 point)
- Obtaining other vital signs based on severity of illness (2.5 points)
- Process to notify abnormal vital signs to physicians (3 points)
- Process for the use of pre-calculated drug dosing (3 points)
- 24/7 interpreter service (0.5 points)
- Assessing mental status and pain in all children (1 point)





Policies and Procedures (17pts total)

- Pediatric Triage Policy (2 points)
- Pediatric Patient Assessment and Reassessment (1.5 points)
- Immunization Assessment (1.5 points)
- Child maltreatment (1.5 points)
- Death of a Child in the ED (1.5 points)
- Reduced-dose Radiation for CT and X-rays (1.5 points)
- Behavioral Health Issues (1.5 points)
- Family-Centered Care Policy (2 points)
- Pediatric Disaster Preparedness (2 points)
- Written Transfer Guidelines for Children (2 points)

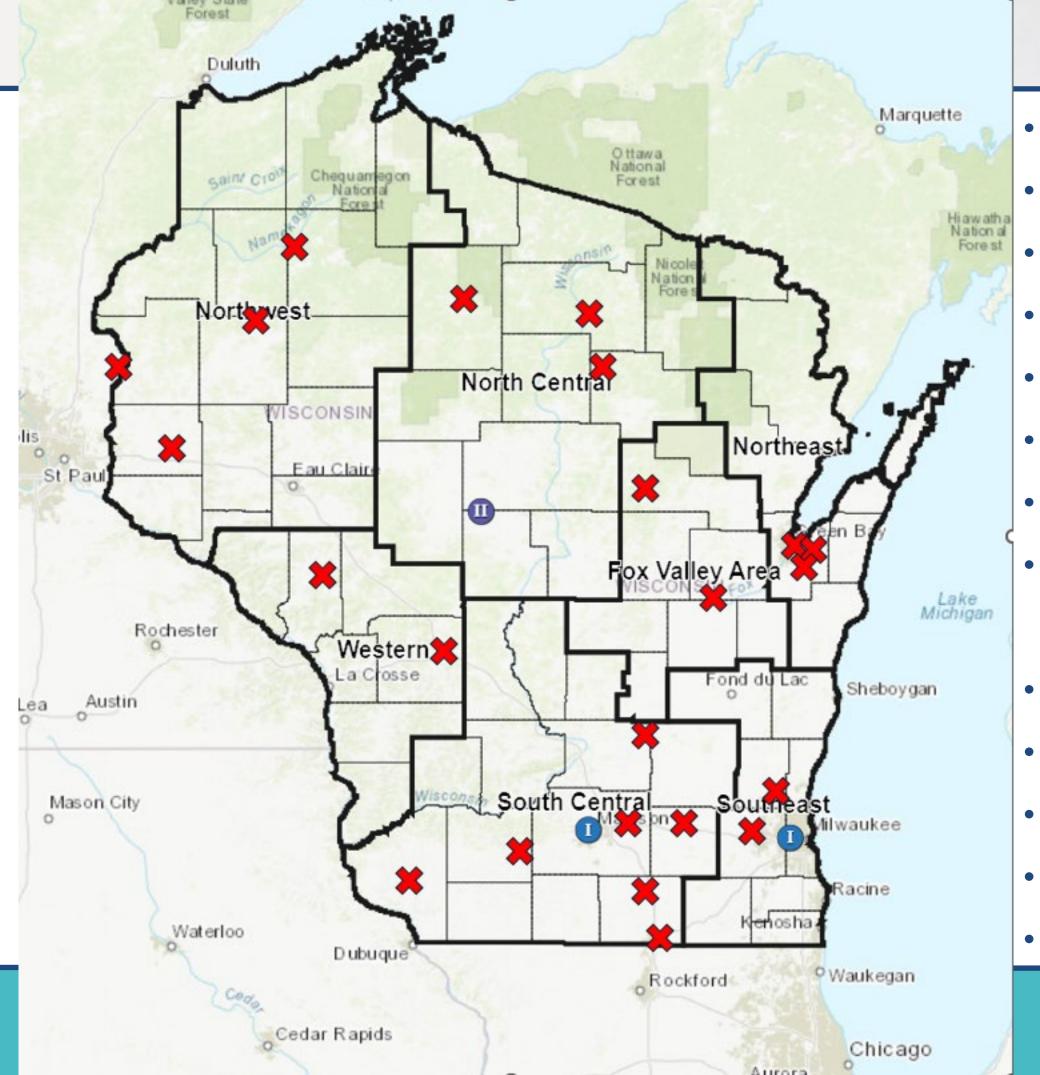


Equipment and Supplies Management (33 pts total

- 9 points for General Supplies
 Management
- 3 points for Monitoring Equipment
- 2 points for Resuscitation Equipment
- 19 points for Airway Equipment

Monitoring Equipment	Resuscitation Equipment				
 (0.5 points each) Neonatal blood pressure cuff Infant blood pressure cuff Child blood pressure cuff Defibrillator with pediatric and adult capabilities including pads and/or paddles Pulse oximeter with pediatric and adult probes Continuous end-tidal CO₂ monitoring device 	 (0.5 points each) •22-gauge catheter-over-the-needle •24-gauge catheter-over-the-needle •Pediatric intra-osseous needle •IV administration sets with calibrated chambers or an infusion pump •with the ability to regulate rate and volume of infusion 				
Airway Equipment					
 (0.575 points each) Endotracheal tubes: cuffed or uncuffed, 2.5mm Endotracheal tubes: cuffed or uncuffed, 3.5mm Endotracheal tubes: cuffed or uncuffed, 4.5mm Endotracheal tubes: cuffed or uncuffed, 5.5mm 	•Endotracheal tubes: cuffed or uncuffed, 3.0mm •Endotracheal tubes: cuffed or uncuffed, 4.0mm •Endotracheal tubes: cuffed or uncuffed, 5.0mm •Endotracheal tubes: cuffed or uncuffed, 6.0mm				
(0.576 points each) •Laryngoscope blades: straight, size 0 •Laryngoscope blades: straight, size 2	Laryngoscope blades: straight, size 1Laryngoscope blades: curved, size 2				
Pediatric-sized Magill forceps					
•Nasopharyngeal airways: infant-sized	Nasopharyngeal airways: child-sized				
Oropharyngeal airways: size 0 (50mm)Oropharyngeal airways: size 2 (70mm)	Oropharyngeal airways: size 1 (60mm)Oropharyngeal airways: size 3 (80mm)				
•Stylets for pediatric/infant-sized endotracheal tubes					
 Bag-mask device, self-inflating (infant/child) Masks (infant size) to fit bag-mask device 	•Masks (neonatal size) to fit bag-mask device•Masks (child size) to fit bag-mask device				
Simple oxygen face masks: standard infantNon-rebreather masks: infant-sized	Clear oxygen masks: standard childNon-rebreather masks: child-sized				
•Nasal cannulas: infant	•Nasal cannulas: child				
•Suction catheters: at least one in range 6-8F	•Suction catheters: at least one in range 10-12F				
•Supplies/kit for pediatric patients with difficult airways (e.g., supraglottic airways, needle cricothyrotomy supplies, surgical cricothyrotomy kit, and/or video laryngoscopy)					

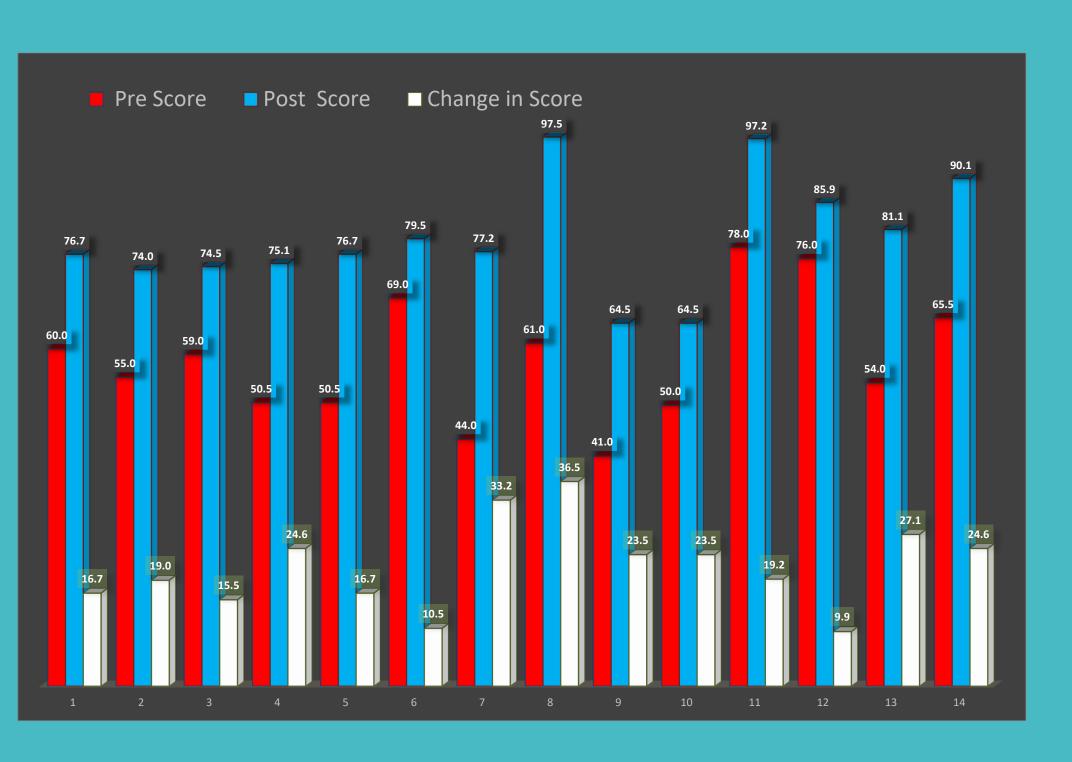
- Aspirus Rhinelander
- Aurora Summit
- Aurora Oshkosh
- FroedtertMenomonee Falls
- Froedtert West Bend
- Grant Regional
- HSHS St. Vincent
- Prairie Ridge Health
- SSM Ripon
- St. Croix Regional
 Medical Center
- Tomah Health



- Aspirus Langlade
- Aspirus Wausau
- Aurora BayCare
- Bellin Green Bay
- Beloit Memorial
- Fort HealthCare
- Gunderson Tri-County
- Indianhead MedicalCenter
- Mercy Health System
- ProHealth Waukesha
- Tamarack Health- Ashland
- Upland Hills
- Western WI Health

Pre and Post NPRP Assessment scenes

percentage increase of **37**%



• Cohort 1: 11 EDs

• Cohort 2: 13 EDS

• Data for 14 EDs

– Mean pre score: 58.1

- Mean Post score: 79.6

- Improvement: **21.5** {37.0% (13.1% - 75.5%)}

Areas for improvement

<u>deficits</u>

- Transfer guidelines
- Triage policy
- Quality improvement
- Physician competency & board certification

<u>Gitical deficits</u>

- Physician PECC
- RN maintenance of specialty certification
- Policy for immunization
- Disaster plan

Forward momentum

expansion

- Continued recruitment
- Facility recognition program
- Health systems engagement
- Measure outcomes and disseminate
- Advocacy

Ripon Press 8/16/2023

"If it wasn't for the program, pediatric supplies would have never been placed in a centralized location, which would have delayed care and increased the team's stress."

Desiree Stensrud, RN
SSM Ripon Community Hospital Inpatient Nursing Supervisor

"We couldn't be more thankful every day... for that I truly think it saved his life,"



Fon du Lac NBC 26 8/9/2023



Desiree Stensrud, RN SSM Ripon Community Hospital, Inpatient Nursing Supervisor

"Our facility had recently joined a pediatric readiness program when this situation happened. Through our work with that program, a specific trauma room and cabinet had been designated and stocked with pediatric supplies.

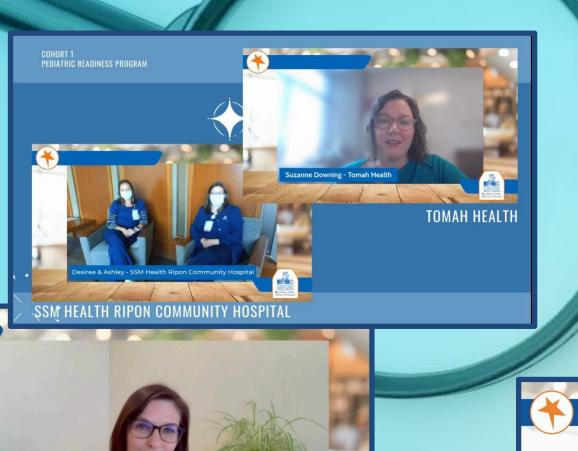
Previously, theses supplies were intermixed with adult supplies so it pressured staff and took precious time locating necessary items. Having all pediatric resources in one location was incredibly helpful for staff in this situation."

The program also helped the hospital organize pediatric equipment by the child's weight, allowing them to use the proper equipment to treat kids of different sizes, and this came in handy for little Vinny as well.

"They knew how heavy he was, and they had this really nice, organized binder," Nick remembers.

For his parents, these improvements put them at ease. "We couldn't be more thankful every day... for that I truly I think, you know, it saved his life," Caitlin said.

























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