



# Fireside Chat Patient Safety

August 8, 2023



# Acknowledgments

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Thank you for joining!



Session is being recorded and posted online along with slides



Utilize the Q&A feature to ask questions



Place your name in the chat for nursing and social work credit



Discussion will follow presentation

# Objectives

After participating in this session, attendees will be able to:

- Describe how these measures impact a sites pediatric readiness
- Be familiar with resources that are available to you as you embark on your QI journey
- Explain the importance of weighing and recording a pediatric patient's weight in kilograms

# Speakers

## **Marianne Gausche-Hill, MD, FACEP, FAAP, FAEMS**

Medical Director, Los Angeles County EMS Agency  
Professor of Clinical Emergency Medicine and Pediatrics,  
David Geffen School of Medicine at UCLA  
Clinical Faculty, Harbor-UCLA Medical Center,  
Departments of Emergency Medicine and Pediatrics



## **Timothy W. Staed, MD FAAP**

Emergency Room Physician, Cardinal Glennon Children's Hospital  
Adjunct Professor Department of Pediatrics Saint Louis University  
Associate PI, CGCH Pediatric Pandemic Network (PPN)



## **Heidi Ruff RN BSN CEN**

Pediatric Nurse Coordinator  
Henry Mayo Newhall Hospital



# Where do parents take their children when they have an emergency?

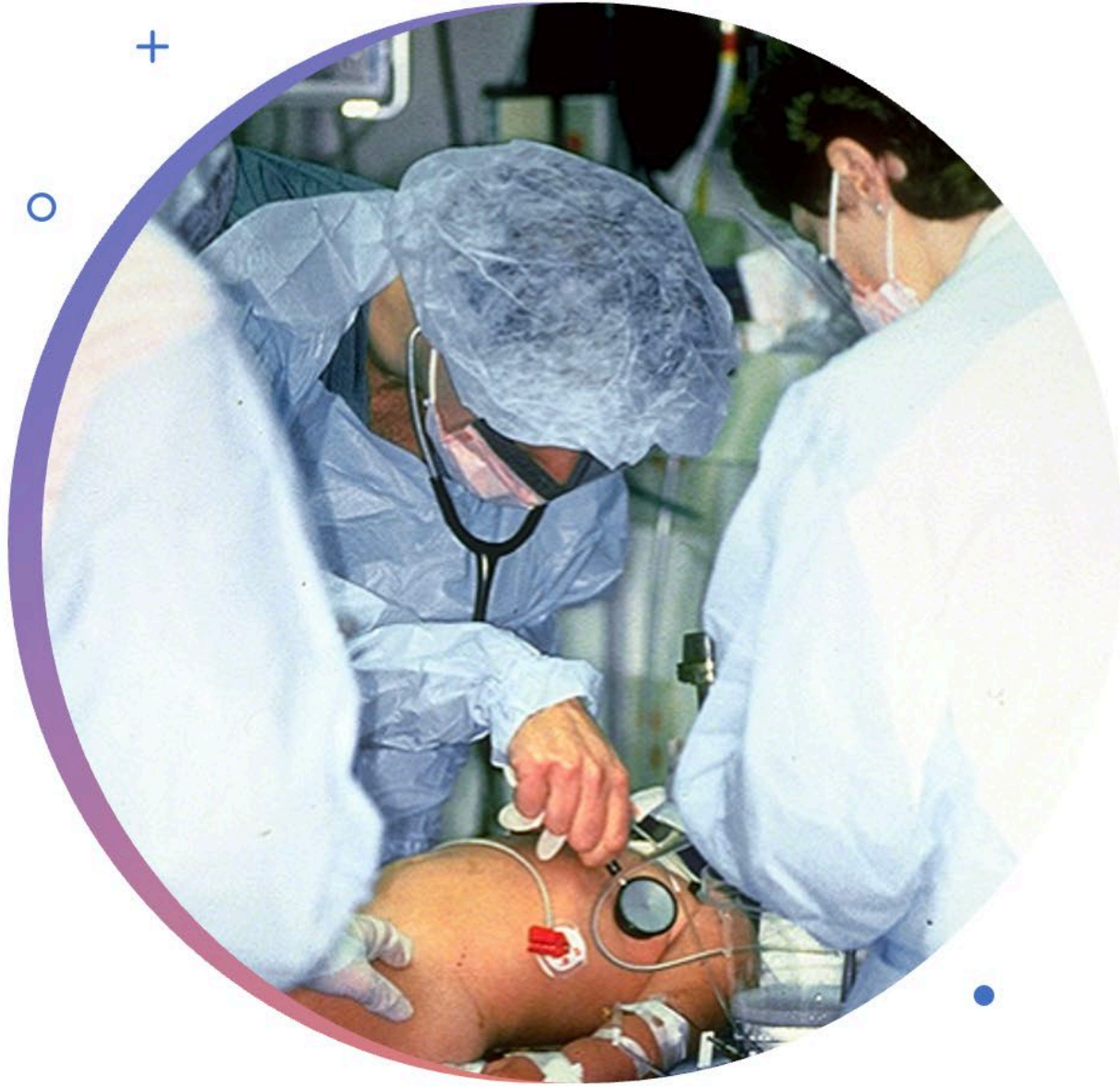
- >80% seek care in their local ED (28 Million)
- Of the local EDs
  - > 90% are general EDs
  - < 10% are pediatric specific/designated peds area
- Of those general EDs >70% see less than 15 children a day



# Why National Pediatric Readiness Project?

- Children are NOT on a hospital's RADAR screen on a day-to-day basis
- With the average ED seeing < 13 children a day, few critical pediatric patients stimulate the ED or the hospital to take action to ensure preparedness/readiness!
- With no one minding the store, readiness wanes...





## Shared Vision for the Care of Children in the Emergency Department

- All hospital emergency departments should be fully prepared to care for ill and/or injured children



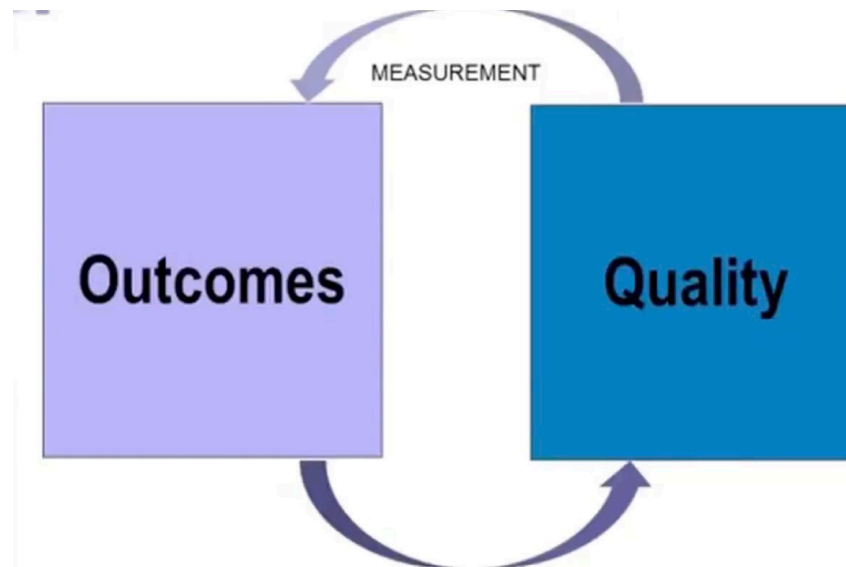
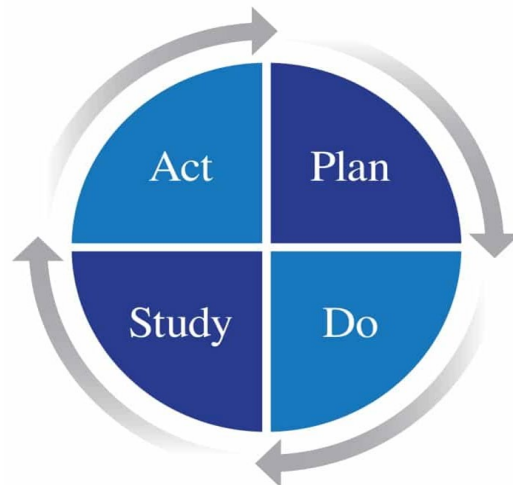


# The National Pediatric Readiness Project (NPRP)



Aim: Ensure high quality emergency care for all children

- Phase 1: 2013 national self-assessment
- Phase 2: QI efforts ([www.pediatricreadiness.org](http://www.pediatricreadiness.org))
- Phase 3: 2021 national re-assessment



# 2021 National Assessment of Pediatric Readiness of U.S. Emergency Departments During the COVID-19 Pandemic<sup>1</sup>

If all EDs were pediatric ready, at least 1,400 children's lives could be saved each year.<sup>2</sup>

In 2021, the National Pediatric Readiness Project – led by the federal Emergency Medical Services for Children Program<sup>3</sup> in partnership with the American Academy of Pediatrics, the American College of Emergency Physicians, and the Emergency Nurses Association – assessed EDs' pediatric capabilities according to the latest national guidelines. The results were published in *JAMA Network Open* in July 2023.

## About Responding EDs

**3,647**

EDs responded of 5,150 surveyed. 3,557 were used for analysis.

**81%**

treat fewer than 10 children each day.

**98%**

are not within a pediatric-specific hospital (i.e., they see adults and children).

**MEDIAN SCORE: 69.5** OUT OF **100**



**EMSC**  
Quality Improvement  
Collaboratives

## Improved Pediatric Readiness

Scores improved in five of six domains since the last assessment in 2013.<sup>4</sup>  
Examples of improvements include:

**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 48% ↓

**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 38% ↓

**50%**

of EDs have pediatric quality improvement plans.

↑ up from 45% ↓



## A Key Concern

The presence of pediatric emergency care coordinators (PECCs)—key drivers of readiness—declined, likely due to staffing shortages tied to the COVID-19 pandemic.

**29%** of EDs have both a physician and nurse PECC.

↓ down from 42% ↓



## How EDs Can Improve Readiness

A score of **at least 88** is associated with significantly improved survival.<sup>1,5</sup>  
Three components of readiness have the largest impact:

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



*National Pediatric Readiness Project*  
Ensuring Emergency Care for All Children

Learn about pediatric readiness  
or access resources at [pediatricreadiness.org](https://pediatricreadiness.org).  
Take the assessment at [pedsready.org](https://pedsready.org).

1. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2801050>  
2. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2800400>  
3. The program is part of the Health Resources and Services Administration's Maternal and Child Health Bureau.  
4. <https://jamanetwork.com/journals/jamapediatrics/fullarticle/221485>  
5. <https://pubmed.ncbi.nlm.nih.gov/3144254/>

# Weighing Pediatric Patients; a Patient Safety Event

## Patient Safety Risks Unique to Children in the ED

- Weight-based rather than standardized dosing
  - Measurements in pounds requires calculation

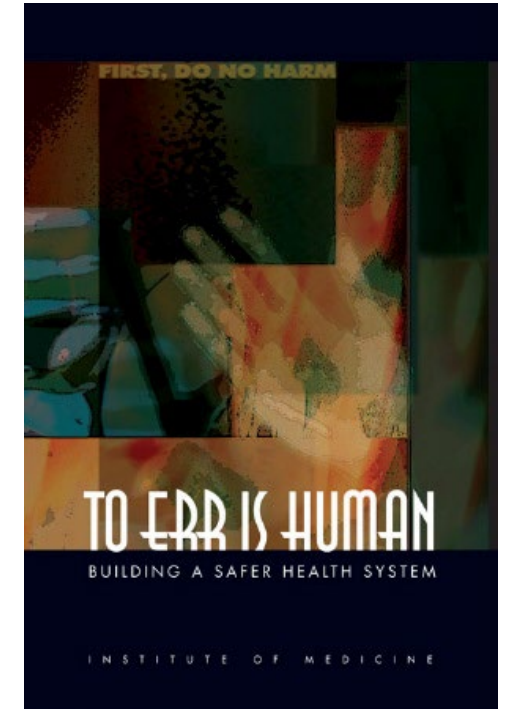
A process to ensure pediatric weights are measured and recorded in kilograms



# To Err is Human – Building a Safer Health System

“Building a safer system means designing processes of care to ensure that patients are safe from accidental injury.”

Dosing errors comprise more than 40% of fatal medication errors

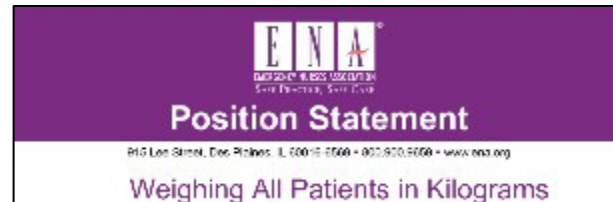


Phillips, J., et al (2001). Retrospective analysis of mortalities associated with medication errors. *American Journal of Health-System Pharmacy*, 58(19), 1835–1841.



# Review of Position Statement

1. Patient weights are measured, recorded, and displayed in a prominent place on the medical record in kilograms only.
2. Multiple types of scales are available in the emergency setting, all configured to record weights in kilograms only (e.g., examples are stretchers with built-in scales, built-in floor scales, chair scales, and portable standing scales).
3. For patients under 18 years of age, clinical decision support (CDS) functions are used to compare entered weight with expected weight (e.g., based on growth charts) and provide real-time alerts whenever under-dose or overdose is suspected.
4. Electronic medical records (EMRs) only allow for weight entries in kilograms.
5. Institutions consider integrating digital scales with the EMR to eliminate or reduce the need for data entry.
6. The patient's actual weight is considered part of the mandatory nursing assessment, is taken at each visit, and is repeated as warranted in response to changes in the patient's condition unless life-threatening circumstances do not allow it.
7. The patient's weight in kilograms is included in all inter- and intra-disciplinary patient hand-offs.
8. The patient's weight in kilograms is included on any prescription issued for a patient



# Weight Kg Process Map

Measure

- Where does this occur?
- Are these scales locked in kilograms?
- Length-based measurement charts



Record

- EMR controls in place?
- Strategies for combating alarm fatigue



Interpret

- Conversion charts for staff/parents
- Does this number make sense:

MGH Method:		
Year	Weight (kg)	ETT
1	10	4.0
5	20	5.0
10	30	6.0

# Medication Errors

## Little People Big Problems

Children 3 times as likely to have medication errors in the ED

Types of medication errors specific to children:

1. Wrong weight – they grow!
2. Miscalculation – mg/kg; ml/kg; units/kg; mg/ml x ml/kg; etc...
3. Wrong units of measurement – Kilograms vs. Pounds



# Medication Errors

## Little People Big Problems

Estimates that 25% - 35% of medication errors come from mistaking pounds and kilograms (1kg = 2.2 pounds):

Pounds substituted for Kilograms

Really 22 kg but listed as 22 pounds give 0.4 x dose

Kilograms substituted for Pounds

Really 22 pounds but listed as 22 kg give 2.2 x dose

# Medication Errors

## Little People Big Problems

1kg = 2.2 pounds

30 kg = 66 pounds

If a patient is really is really 30 kg but is listed as 66 kg...

### Drugs with narrow TI

Levothyroxine  
Fosphenytoin  
Phenytoin  
Vancomycin  
Gentamycin  
Phenobarbital  
Amiodarone  
Carbamazepine  
Clonidine

### Opiates

Fentanyl  
Morphine

### Anxiolytics

Versed  
Diazepam  
Ativan

### Other

Heparin  
Insulin

# Medication Errors Timeline

**2007**

Institute of Medicine  
*Issues medication error report*  
Notes that children are uniquely vulnerable to medication errors.

**2008**

Joint Commission Issues Sentinel Event Alert  
Children 3 times more likely than adults to suffer medication errors in Emergency Room

**2012**

ENA policy states: Weigh in Kilograms only

## 2013 & 2017

AAP affirms ENA policy on Weigh in Kilograms only

## 2018

Pediatric Readiness Quality Collaborative Launched  
*To assist state programs in accelerating their progress in improving the pediatric readiness of EDs through new interventions- including weight in kilograms*

## 2021

AAP affirms ENA policy on Weigh in Kilograms only

## June 2023

Second cohort of the Pediatric Readiness Quality Collaborative launched. .



# Medication Errors

## Little People Big Problems

EMSC PRQC Weight in Kilograms (WinK) conclusion:

- Large cohorts like EMSC PRQC can significantly increase number of ED's weighing in kilograms only
- Need more data to demonstrate the effect on medication dosing errors



# Data Distribution

- Start with your core team
  - PECC RN and MD
  - ED Manager
  - ED Director
  - ED Charge Nurse
  - Pharmacy



# Data Distribution

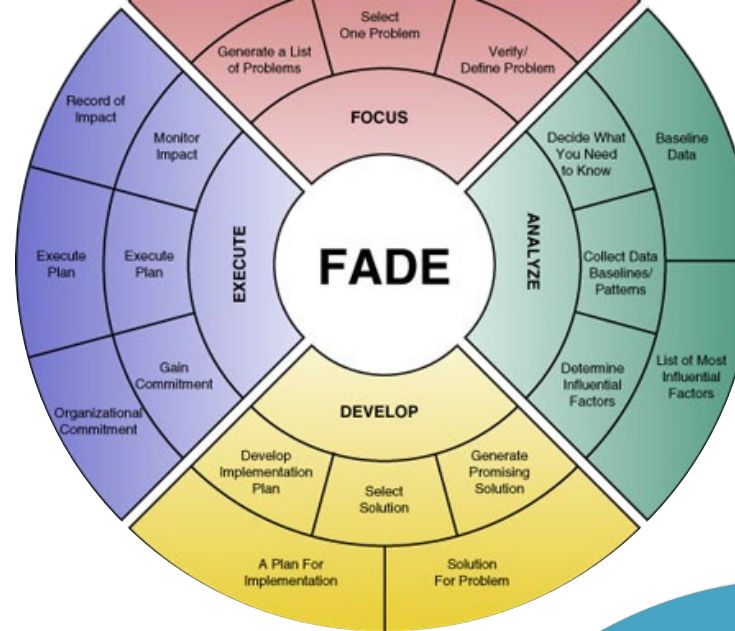


- Branch out to other pertinent stakeholders
  - Emergency Services Committee
  - Emergency Department Staff Meeting
  - Pharmacy Staff Meeting
  - Pediatric Committee Meeting



# Plan

- How do you and your team plan to affect change on pediatric weight in kilograms at your facility?
  - Education
  - Checks and balances
  - Pediatric specific protocols



# Goal

- Increase Patient Safety
- Decrease Medication Errors
- Share what works for your facility...this could save a child's life



# Quality Measures

Phase of Care	Quality Measures
Assessment	Percentage of pediatric patients with their weight documented in kilograms only

# Q&A Session



## Complete Registration for the Data Platform

- Share demographics
- Provide data platform users
- *Include name, email, phone # of POA signatory*
- *Upload signed POA to data portal registration*



## Register for the Collaborative Session

- August 15, 2023
- 1:00-2:30 pm CT
- Topic: Introduction to QI and Data Sampling



## QI and Data Sampling



August 15, 2023

## Data Literacy in a QI Project



September 5, 2023

# Join Us for Upcoming Sessions!

# Please Complete Session Evaluation

*Thank you!*



# Nursing - CE contact hours

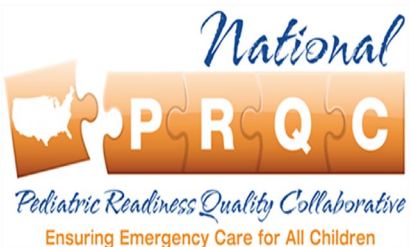
Fireside Chat #5: August 8, 2023

1. Enter your first and last name in the **chat** if you have not done so already
2. Scan the QR code/use link to access session evaluation
3. Submit completed evaluation by 1700 (Pacific) on 8/10/2023 to be eligible for CE hours



<https://bit.ly/PRQCFireside5>

If you have any questions, please contact Robin Goodman  
[robin.goodmanrn@gmail.com](mailto:robin.goodmanrn@gmail.com)



BRN CE Provider: Pediatric Liaison Nurses Los Angeles County. Provider approved by the California Board of Registered Nursing, Provider # 15456, for 1 Contact Hours



# Social Work Professionals – CEU's

## Fireside Chat #5: August 8, 2023

1. Enter your first and last name in the **chat** if you have not done so already
2. Scan the QR code/use link to access session evaluation



[https://utexas.qualtrics.com/jfe/form/SV\\_5oG5ux41kCMCVjU](https://utexas.qualtrics.com/jfe/form/SV_5oG5ux41kCMCVjU)

**ENA**  
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**NURSING 2023**

  
San Diego, California  
Sept. 21–23 | #EN23  
[ena.org/EN23](http://ena.org/EN23)

## Pediatric Readiness activities

- Special Interest Group Session
  - **Pediatric Emergency Care Coordinators/Pediatric Champions**  
Friday, September 22 (9:30 am – 10:15 am)
- Fast Track Session
  - **The Kiddos are Coming! Is Your ED Ready for Children?: Exploring the Importance of Pediatric Readiness**  
Saturday, September 23 (8:00 am – 8:30 am)
- Fast Track Session
  - **Is Your ED Pediatric Ready? The Answer May Surprise You!**  
Saturday, September 23 (4:30 pm – 5:00 pm)
- Poster Q&A Session
  - **PECCs Make a Difference: How a Designated PECC Can Improve Pediatric Readiness**  
Friday, September 22 (2:30 pm @ monitor 4)

