

4495 Miles... Building the Pediatric Readiness Trail



Today's Plenary Session

Hosted by



KATE REMICK, MD

EIIC Executive Lead|Hospital Domain



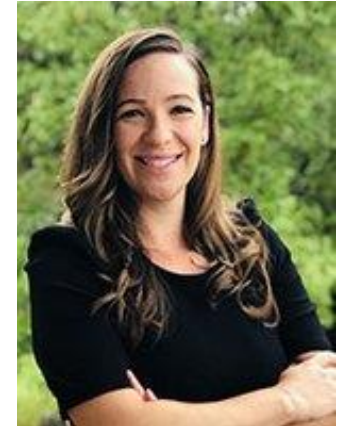
DIANA FENDYA, MSN, RN

EIIC Trauma/Acute Care Specialist



KRYSTLE BARTLEY, MA

EIIC Senior Project Manager



MEREDITH RODRIGUEZ, PhD

EIIC Project Manager

Special Guests

Renee Escamilla

Alaska, EMSC State Partnership Manager

Erica Kane

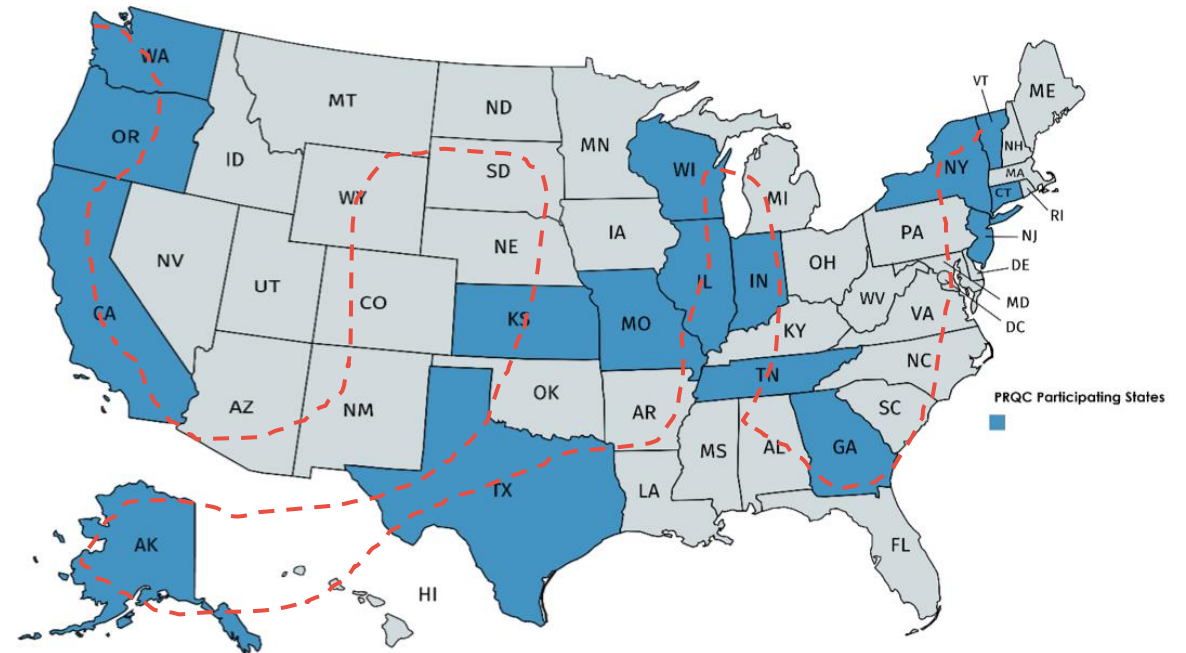
Wisconsin, EMSC State Partnership Manager

Rachel Ford, MPH

Oregon, EMSC State Partnership Manager

4495 Miles: Building the Pediatric Readiness Trail

- Collaboration of 117 EDs across 17 states
- Characterized by:
 - Pediatric champions and Trainers
 - Quality improvement science
 - Support from subject matter experts
 - Pediatric readiness interventions:
 - 1) weight in kg,
 - 2) abnormal vital signs,
 - 3) interfacility transfers,
 - 4) disaster planning
- Improvement monitored by dashboards that highlight structural, process, and outcome measures



Talking Points

- Impetus for Launching National PR Collaborative
- Collaborative Demographics
- Collaborative Design
- Strategies to Engage EMSC State Partnership Managers
- First-Hand Experiences from the Perspective of SP Managers

Background: The National Pediatric Readiness Project

GOAL: To Ensure High Quality Emergency Care for All Children



Addressing gaps from the 2013 national assessment....

Background: NPRP Results

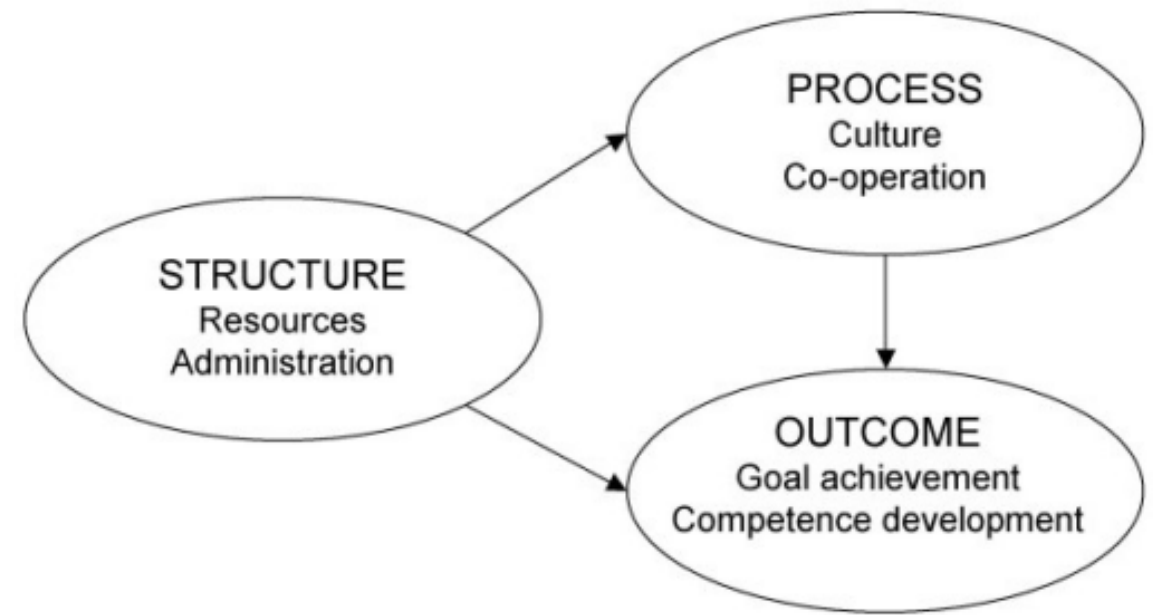
83% of EDs across the US participated in the assessment (n=4,149)

- Presence of physician (47.5%) and nurse (59.3%) pediatric emergency care coordinators (PECC);
- Presence of QI plans that include children (45.1%);
- Process to ensure pediatric weights are measured in kilograms (67.7%);
- Presence of inter-facility transfer guidelines (70.6%);
- Presence of disaster plans that include pediatric-specific needs (46.8%).

Background

Top 3 Barriers to Pediatric Readiness

- Cost of training personnel
- Lack of educational resources
- Lack of a QI plan for children



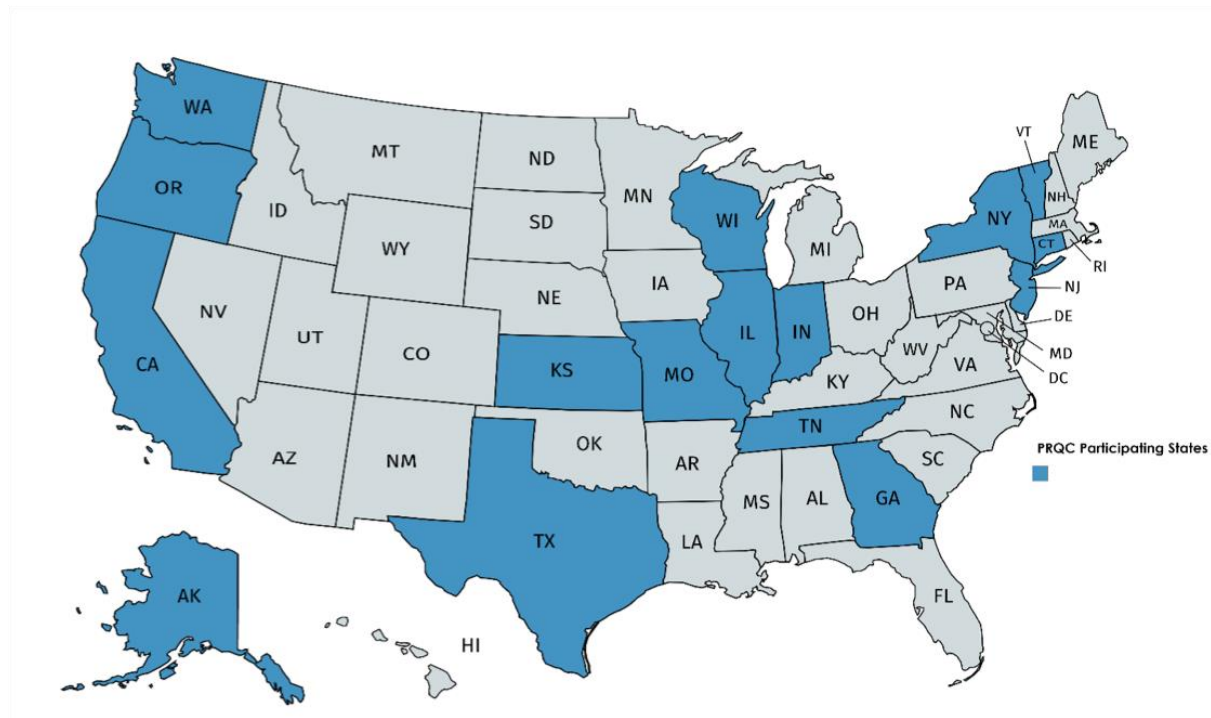
What does it mean to be pediatric ready?

Developing A Roadmap to
Ensuring High Quality
Emergency Care for
Children

Pediatric Readiness Trail...

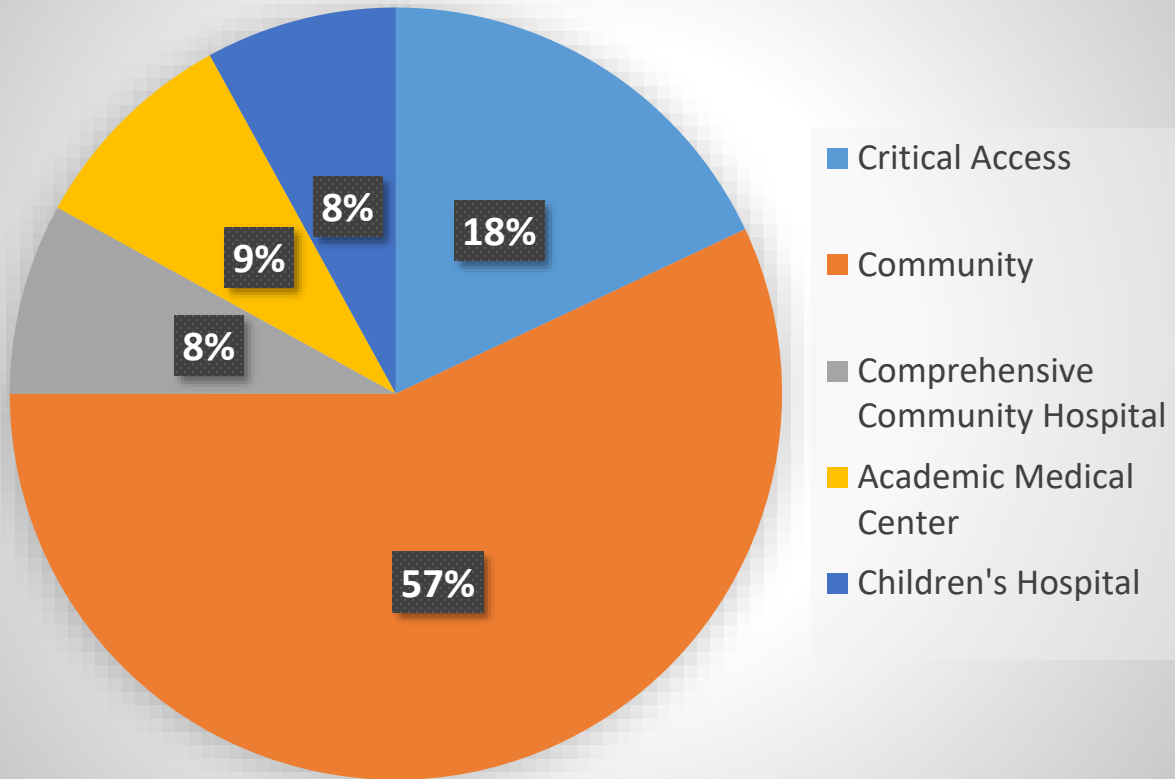
Spans 16 Teams Across 17 States

Alaska, California, Connecticut, Georgia, Illinois, Indiana, Kansas, Missouri, New Jersey, New York, Oregon, Rhode Island, Tennessee, Texas, Vermont, Washington, Wisconsin

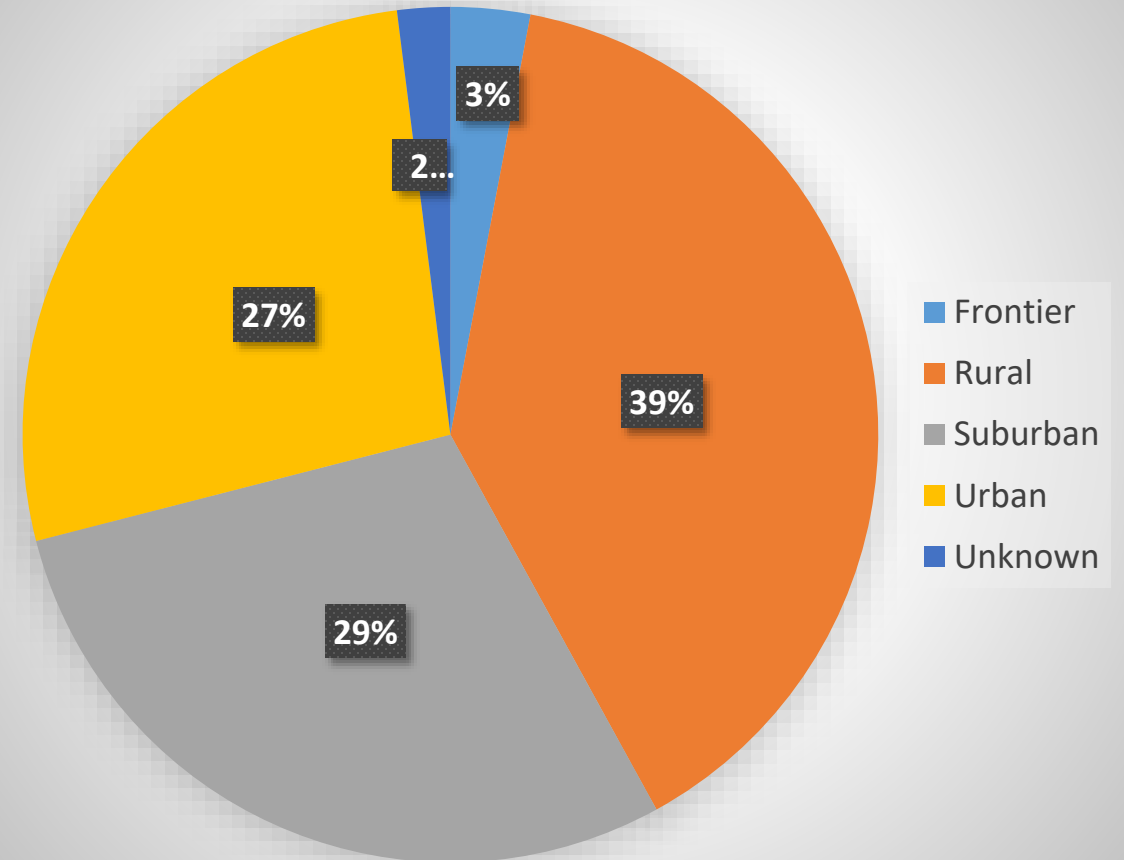


Who We Are

Types of Hospitals

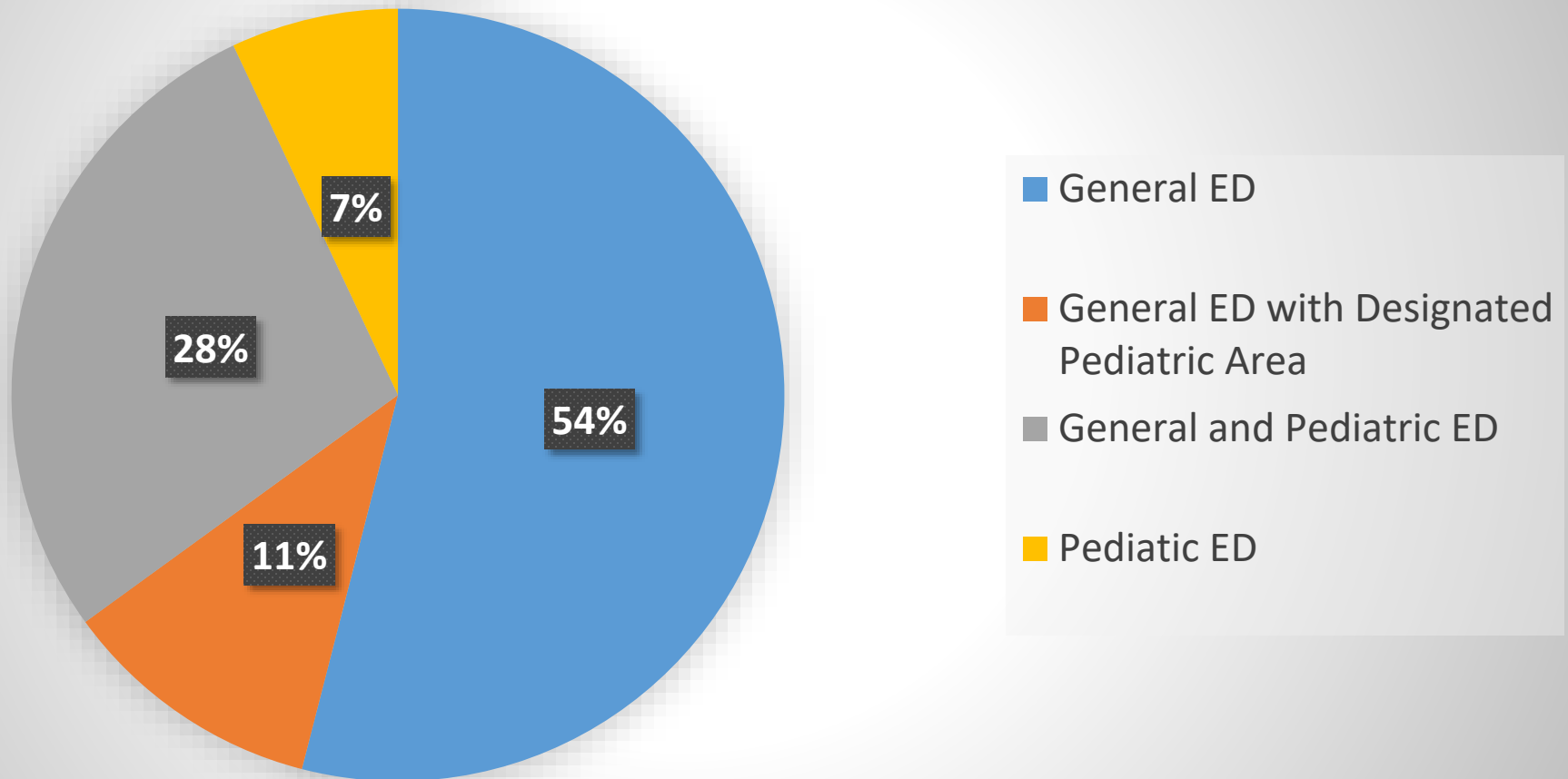


Geographic Representation



Who We Are

ED Configuration



Who We Represent

- 
- Annual ED Volume Range 1,250 – 175,000
 - Pediatric Annual Volume Range 100 – 150,000

1,484,965 PEDIATRIC ED VISITS PER YEAR

5% of total pediatric ED visits per year in US



By April 2020, the median pediatric readiness score for participating sites will collectively improve by 10-points.

Participating sites will develop aim statements specific to their selected intervention bundle(s).

Collaborative Structure

Pediatric Readiness Quality Collaborative

PRQC Admin Team



KATE REMICK, MD

EIIC Executive Lead Hospital Domain



DIANA FENDYA, MSN, RN

EIIC Trauma/Acute Care Specialist



KRYSTLE BARTLEY, MA

EIIC Senior Project Manager



MEREDITH RODRIGUEZ, PhD

EIIC Project Manager



Michael Ely MHRM
NEDARC Director



Lenora Olson PhD, MA
Principal Investigator



Hilary Hewes MD
Co-Investigator



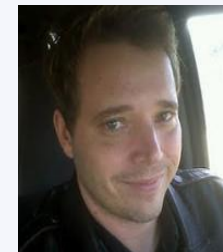
Patty Schmuhl BA
Data Manager



Eddie Zamora MPH
Business Data Analyst



Harshan Nagulapally
Data Warehouse Analyst



John Brumett
Data Warehouse Applications Manager

Advisory Committee

Previously Held by Martha Gohlke of New York
EMSC State Partnership Manager

Sue Tellez
American Academy of Pediatrics

Sam Shahid, MBBS, MPH
American College of Emergency Physicians

Cathy Olson, MSN, RN
Emergency Nurses Association

Jeffrey Susman, MD
American Academy of Family Physicians

Christy Edwards, MPH
Office of Rural Health

Lisa Gray, MSN, BSN, RN, CPN
Pediatric Trauma Society

Barbara Gaines, MD
American College of Surgeons

Mona Jabbour, MD
Translating Emergency Knowledge for Kids – Canada

Beverly Guttman, MSW, RSW
Ontario Provincial Council for Maternal and Child Health

Subject Matter Experts

WEIGHING CHILDREN IN METRIC UNITS

Sue Cadwell, RN, MSN

Assistant Vice President, Women's & Children's Services, Hospital Corporation of America (HCA)/Clinical Services Group

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

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

Jeffin Bush, RN

Director for Emergency Services, Hospital Corporation of America (HCA)/Clinical Services Group

Subject Matter Experts

RECOGNITION AND NOTIFICATION OF ABNORMAL VITAL SIGNS IN PEDIATRIC PATIENTS

Madeline Joseph, MD, FAAP, FACEP

Professor of Emergency Medicine and Pediatrics, Assistant Chair of Pediatric Emergency Medicine Quality Improvement, Department of Emergency Medicine, University of Florida College of Medicine-Jacksonville, Florida President, Florida Chapter of the American Academy of Pediatrics

Sally K. Snow, BSN, RN, CPEN, FAEN

Independent Pediatric Emergency Department/Trauma Nurse Consultant

Subject Matter Experts

INTER-FACILITY TRANSFERS FOR PEDIATRIC PATIENTS

Lisa Nichols, MBA, BSN, RN, CCRN

Trauma Program Manager, Dell Children's Medical Center of Central Texas

George A. (Tony) Woodward, MD, MBA

Medical Director Emergency Services, Seattle Children's

Past Chair of the American Academy of Pediatric Transport Section

Subject Matter Experts

DISASTER PLANNING FOR A PEDIATRIC POPULATION

Steven Krug, MD, FAAP

Professor of Pediatrics, Northwestern University Feinberg School of Medicine
Chief of Emergency Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago
Chairperson of the American Academy of Pediatrics (AAP) Disaster Preparedness Advisory Council

Brent Kaziny, MD, MA, FAAP

Assistant Professor of Pediatrics, Baylor College of Medicine
Section of Emergency Medicine, Texas Children's Hospital
Director of the EMSC Innovation and Improvement Center's Disaster Preparedness Domain

Patricia Frost, RN, MS, PNP

Director of Emergency Medical Services, Contra Costa Health Services

Ireal Johnson Fusco, MD

Pediatric Emergency Medicine Fellow
Dell Children's Medical Center at the University of Texas at Austin

Sarita Chung, MD

Associate Physician in Medicine, Division of Emergency Medicine
Assistant Professor of Pediatrics and Emergency Medicine, Harvard Medical School

Oscar Enriquez, EMT

Emergency Preparedness Coordinator, Dell Children's Medical Center of Central Texas

Collaborative Teams



Training Site

A comprehensive medical center or children's hospital that treats a high annual volume of pediatric patients (>10,000) and has an established clinical quality, patient safety, and risk management program.

Affiliate Sites

Any ED/acute care hospital (may be a free-standing or satellite ED) that agrees to work closely with a Training Site to implement a pediatric QI program in their emergency department.

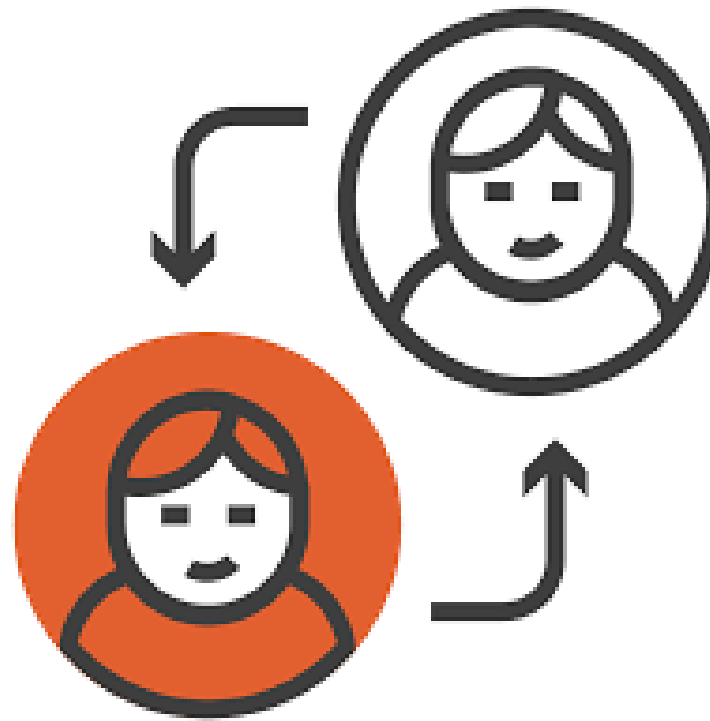
Team Structure

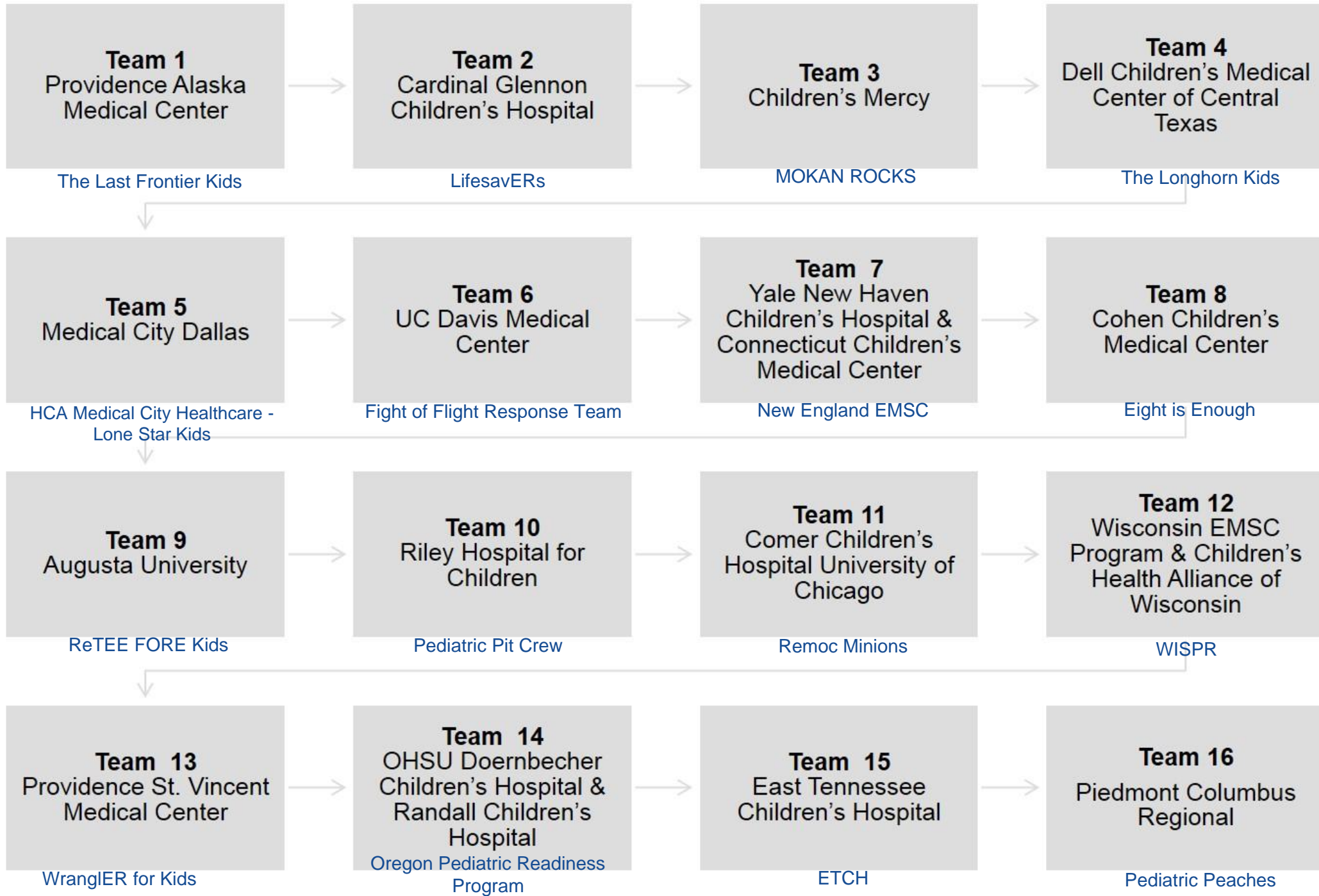
PEDIATRIC CHAMPION

A physician and/or nurse at an Affiliate Site, identified by the site's Hospital Administrator and ED Leadership, who agrees to implement a pediatric QI program and participate in associated team-based activities.

TRAINER

A physician and/or nurse at a Training site, who serves in the role of PECC, disseminates educational content to Affiliate Sites, and prepares Pediatric Champions to develop and implement a pediatric QI program.





COLLABORATIVE PHASES

FIVE PHASES OF PEDIATRIC READINESS QUALITY COLLABORATIVE

1 Development

Subject-matter experts develop intervention bundles and select quality measures that address a hospital's infrastructure, processes, and outcomes of care

2 Orientation

Addresses the administrative aspects of launching a quality improvement collaborative. Host introductory meetings/webinars; compiling team profiles /characteristics; stakeholder engagement; legal/regulatory issues; assessing ED's Pediatric Readiness

3 Mobilization

Establish cadence for team meetings; exposure to QI education; extensive education on intervention bundles; convening local QI teams; developing plans for implementation, data collection and submission

4 Implementation

Declare site-specific aims; Roll-out interventions from targeted bundle(s); measure performance; provide feedback to care team regarding progress

5 Sustainability & Spread

- **Sustainability:** Locking in the progress that hospitals have made already and continually building upon it; and
- **Spread:** Actively disseminating best practice and knowledge about every intervention and implementing each intervention in every available care setting.

Intervention Bundles

Bundle 1: Weighing of Children in Metric Units

Sub-Aim Statement

By April 2020, at least 85% of pediatric patients will have their weight measured and recorded exclusively in kilograms.

Intervention Bundles

Bundle 2: Recognition and Notification of Abnormal Vital Signs in Pediatric Patients

Sub-Aim Statement

By April 2020, 100% of pediatric patients with abnormal vital signs will be identified by healthcare providers in the emergency department.

Intervention Bundles

Bundle 3: Interfacility Transfers for Pediatric Patients

Sub-Aim Statement

By April 2020, 100% of sites implementing the Interfacility Transfer bundle will have a comprehensive plan that address the following pediatric-specific components:

- Defined process for initiation of transfer*
- Process for selecting the appropriate receiving center and staffed transport service*
- Process for patient transfer and copy of signed informed consent*
- Plan for transferring medical records and personal belongings*
- Plan for providing patients and families with information regarding the transfer process along with details about the receiving center.*

Intervention Bundles

Bundle 4: Disaster Planning for a Pediatric Population

Sub-Aim Statement

By April 2020, 100% of sites implementing the disaster bundle will have a plan that address four essential domains of pediatric disaster preparedness:

- *Disaster coordination*
- *Coalition-building*
- *Surge capacity*
- *Essential resources and equipment*



SP Managers & PRQC

Pediatric Readiness Quality Collaborative

State Partnership Managers

- Inform and recruit sites to participate in the collaborative
- Facilitate communication between sites and EMSC program
- Function as a resource and/or consultant for pediatric readiness
- Inform participating sites about EMSC initiatives that directly influence pediatric readiness and improve systems for pediatric emergency care
- May serve as team member/trainer at the discretion of the teams

Communication Strategy

Phase 1

- E-introductions between SP Managers and Team Trainers
- Held Meet & Greet During PRQC In-Person Session (Austin)

Phase 2

- SP Managers receive PRQC newsletter
- Access to calendar with dates and call-in details for events
- Formal messaging about plans for re-assessing Pediatric Readiness

SP Manager Engagement

- 2018: Hosted call for only SP Managers to share overview of PRQC and opportunities for engagement
- SP Managers might consider reaching out to trainers/pediatric champions during sustainability phase to ensure that improvement efforts are reported to EMSC



SP Managers Road Trip

Representing Alaska, Wisconsin, and Oregon

ALASKA

Pediatric Readiness Quality Collaborative

The Last Frontier Kids

Training Site

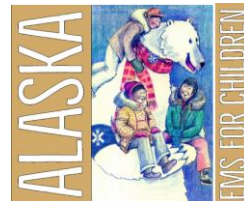
Providence Alaska Medical Center
Anchorage, Alaska

Affiliate Site

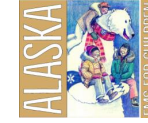
Providence Seward Medical Center
Seward, Alaska

Alaska EMS For Children

Alaska DHSS
Juneau, Alaska

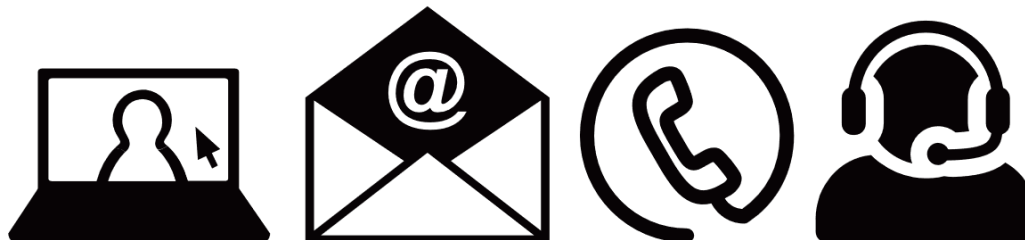


Alaska EMSC's Activities

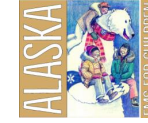


Support and Assist Training and Affiliate Champions

- ▶ Schedule Meetings
- ▶ Reach out and Collect information
- ▶ Communicate and Share



Alaska EMSC's Role



- ▶ **In the Beginning**

Very Low Key-Resource

A resource to my team when called upon.

- ▶ **Midway Through**

High Involvement-Project Manager and Admin

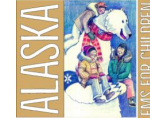
Helped to rebuild and support The Last Frontier Kids.

- ▶ **Current**

Part of the Training Team-Advocate/ Information Resource/ Admin

Engage team leaders regularly and participate in activities/meetings.

Benefits to Alaska EMSC



- ▶ Encourage Pediatric Champions
- ▶ Strengthen Team Focused Groups
- ▶ Develop Partnerships
- ▶ Increase Quality of Pediatric Emergency Care
- ▶ Offer QI Strategies and Educational Activities

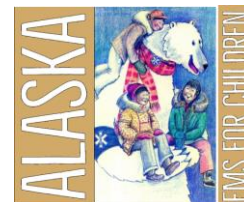
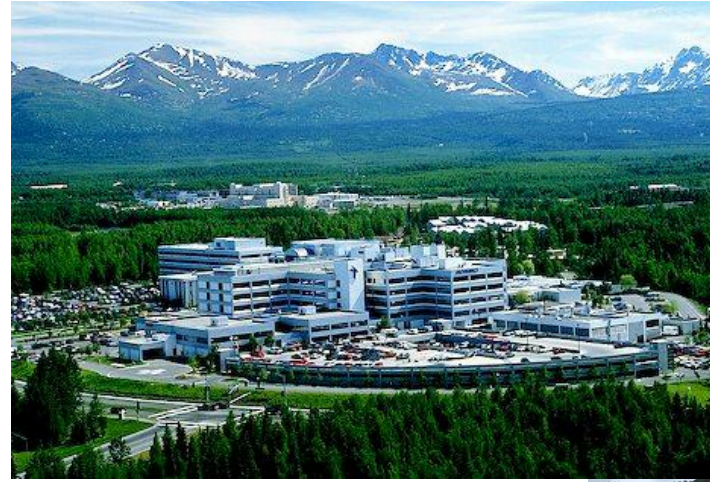
Activities planned after April 2020...

- ▶ Providence plans to continue work as a trainer site with a focus on data collection and the hopes of engaging other potential AK trainee sites.

Reneé Escamilla
Alaska EMS for Children
Program Coordinator

907-465-5467

Renee.Escamilla@Alaska.gov

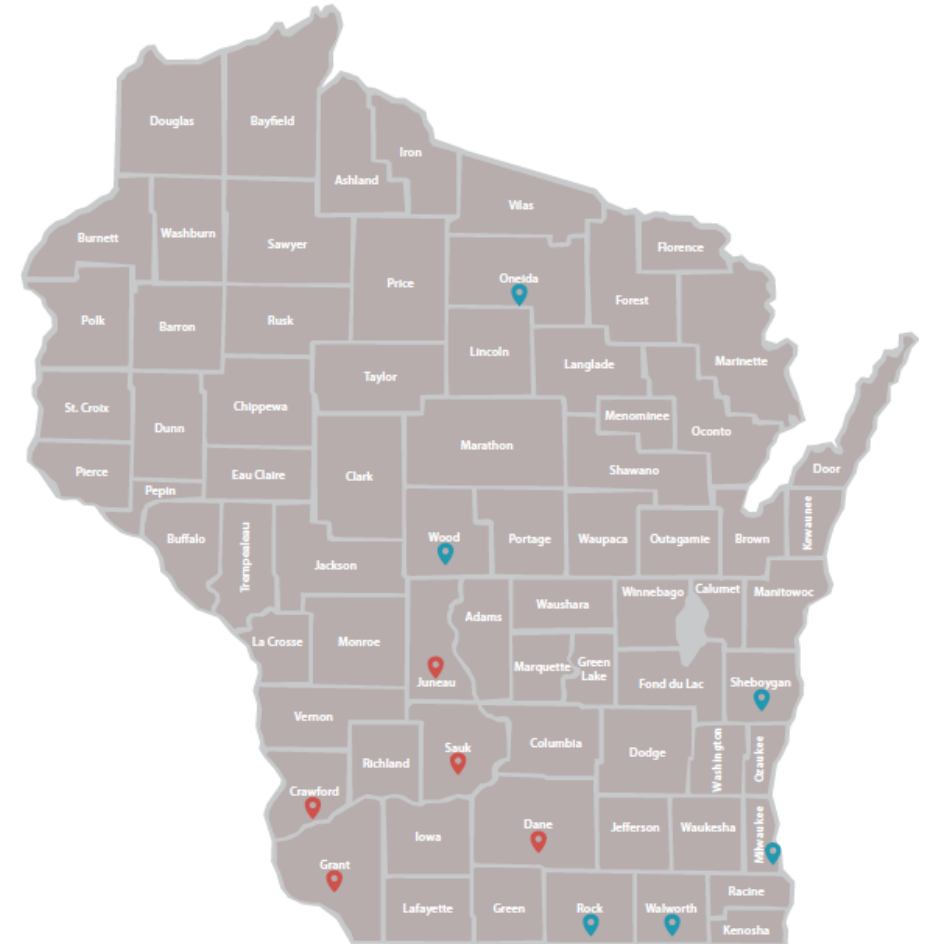


WISPR Team

Erica Kane
Wisconsin, EMSC State Partnership
Manager

Team 12 – WISPR

- 11 affiliate hospitals
- Mix of rural and urban
- 25 – 505 beds
- Peds volume: Low (<1,800), Medium, (1,800-4,999) and Medium High (5,000-9,999)



WISPR Training Team

- Subject matter expert trainers
 - Dr. Lorin Browne (WI EMSC Co-Chair)
 - Dr. Michael Kim (WI EMSC Co-Chair)
 - Ben Eithun (WI EMSC Trauma Rep)
 - Matt Pinsoneault (WI EMSC EMS Rep)
- Trainer coordinator
 - Erica Kane (WI EMSC SP Program Manager)

My WISPR role...

- Support for subject matter trainers
- Recruited affiliate sites
- Schedule and facilitate monthly team meetings
- Ensure affiliate sites complete required surveys, paperwork, DUAs, etc...
- Schedule site visits, one-on-one calls between subject matter expert trainers and affiliate sites
- Troubleshoot data entry system issues
- First point of contact for affiliate sites
- Coordinate mileage re-imbursement and travel

Sustainability

- Open meeting for ED pediatric champions to discuss QI projects
- Affiliates continue to utilize PRQC data entry system, if available
- Secure additional funding to support pediatric readiness activities
- Recruit more EDs
- Focus on healthcare systems?

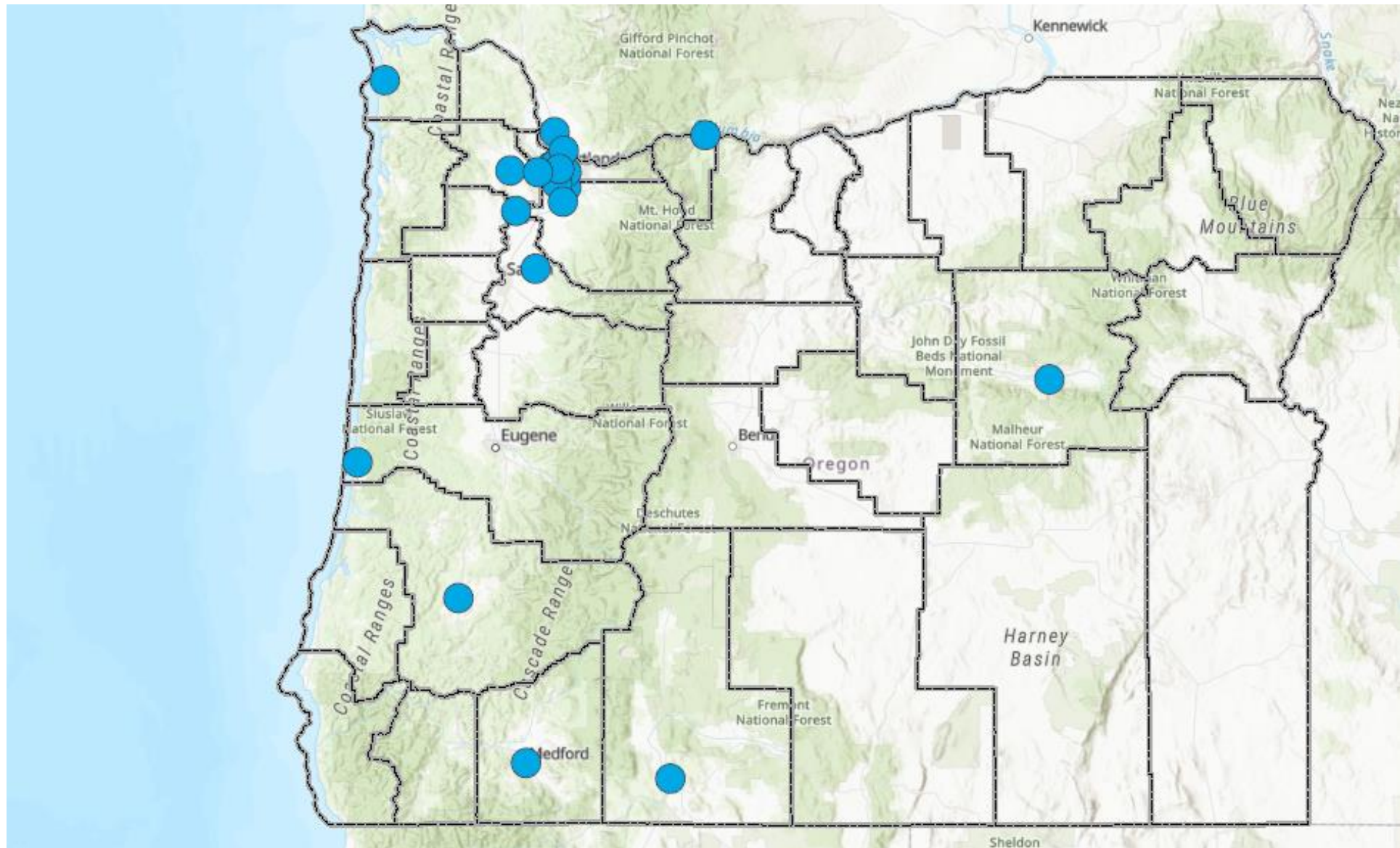
Impact of PRQC in WI

- Increased momentum for WI EMSC
- Strengthened existing ED partnerships, and fostered new partnerships
- Improve overall peds readiness scores
- Tangible changes in EDs
 - EMR optimization for abnormal vitals/weight in kilos
 - Integrating pediatrics disaster plans

RACHEL FORD, MPH

OREGON EMSC





PROJECT ROLE

- Recruit and Inform
- Outreach and Support
- Gather and Share
- Encourage

PRQC & OREGON

- Framework
- Relationships

FUTURE OREGON PEDIATRIC READINESS PROGRAM

- Two Teams into One
- External Support

Resources, Tools, and Communication

Pediatric Readiness Quality Collaborative

Snapshot of our Progress

- Data entry began on April 14th, 2019
- To date: 2,695 patient encounters reviewed
 - represents 84 EDs
 - includes all 4 interventions



Process and Outcome Measures

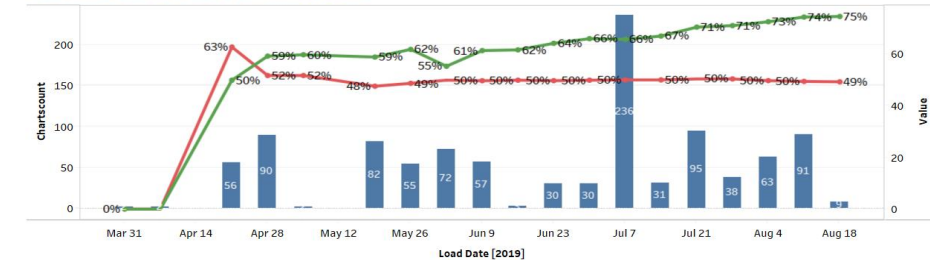
Team Name
All
Site Acronym
All
Intervention Bundle
All

Overall Process/Outcome Measures Information

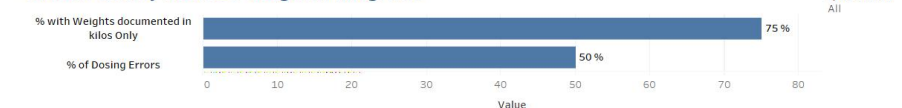
Intervention Bundle	Sum of Sites Participating	Max Current Cycle	Total # of Charts Entered	Measure Name	Average Measure Value
Weight in Kilograms	31	4	1,044	OM1 - % of Dosing Errors	51%
				PM1 - % with Weights Documented in Kilos Only	78%
				PM1 - % of Patients with standard vitals	57%
Abnormal Vital Signs	40	4	1,445	PM2 - % of Patients with abnormal vitals included in notification process	32%
				PM3 - % of Patients with pain assessed	75%
				PM4 - Median time from recognition of abnormal vital signs/pain to first intervention	34.0 min
				PM1 - Median time from arrival to transport	233.5 min
Interfacility Transfer	11	1	206	OM1 - % of Transferred patients who were discharged from ED at receiving center	0%
				PM2 - % of Transfers met minimum criteria	75%
				PM3 - % of Families that received transfer packet	0%

Chartscount
Cumulative % of Weights Documented in Kilograms
Cumulative % of Dosing Errors

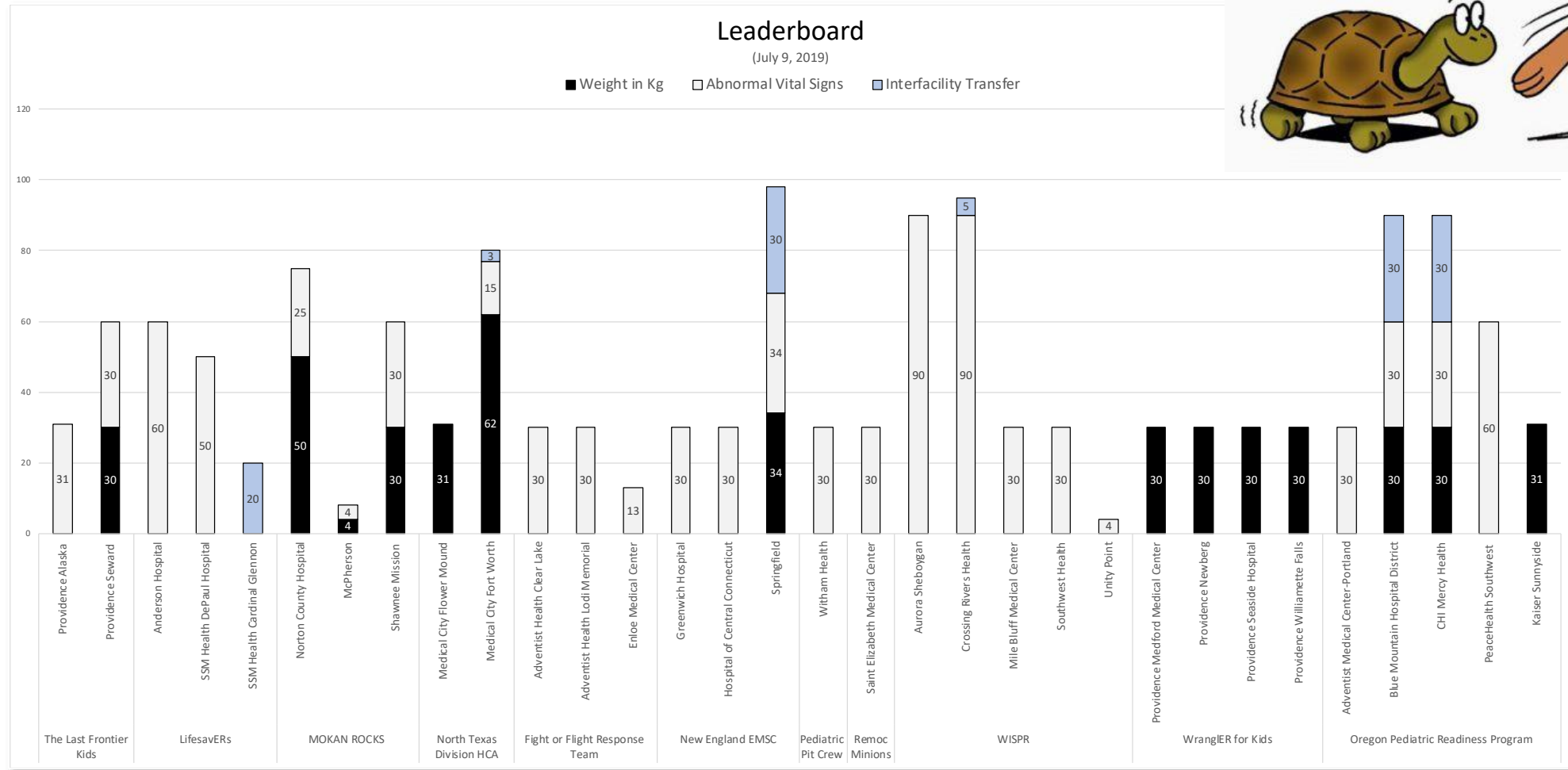
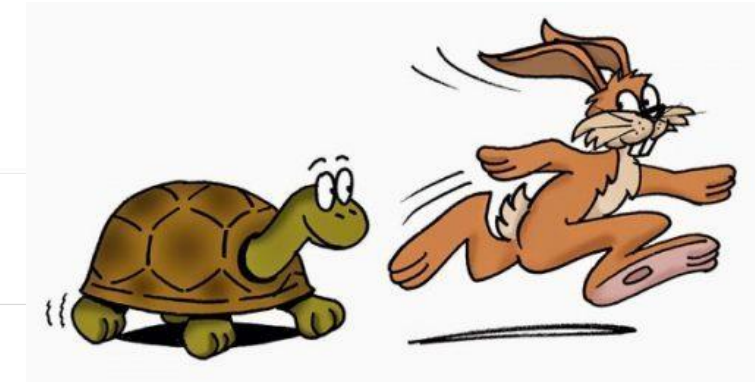
PDSA Metrics for : Weight in Kilograms



Current Quality Metrics : Weight in Kilograms



Leaderboard



Goal: Stimulate friendly competition among sites

Tools: Implementation Toolkit



Implementation Toolkit

September 2018 – December 2019

This toolkit will assist Pediatric Champions with launching the Pediatric Readiness Collaborative's initiatives at their local hospital. Feel free to adapt the proposed framework to unique needs of your hospital and the patients it serves.

OVERVIEW OF COLLABORATIVE

Overview of Collaborative

BACKGROUND

The 2006 Institute of Medicine Report, *Emergency Care for Children: Growing Pains*, noted the emergency and trauma care for children creates special challenges for providers and hospitals have unique anatomical, physical, psychological and social needs dictated by both their development. In 2009, *Guidelines for Care of Children in the ED* were published. The consensus based upon the best available evidence for the emergency care of children, were authored by experts from the American Academy of Pediatrics (AAP), the American College of Emergency (ACEP) and the Emergency Nurse Association (ENA) and endorsed by 17 professional organizations. "Guidelines" provide a framework and foundation for assuring the right resources are available emergency care to children regardless of illness or injury. They address:

- Administration and Coordination
- Physicians, Nurses, and Other Healthcare Providers
- Quality Improvement
- Patient Safety
- Policies, Procedures, and Protocols
- Support Services
- Equipment, Supplies, and Medications

In 2013, the Health Resources Services Administration's (HRSA) Emergency Medical Services (EMS) Program, in collaboration with the AAP, ACEP, ENA and state EMS, programs embarked on Assessment of Emergency Department Pediatric Readiness. Objectives of the assessment were US states and territories' EDs for pediatric readiness, and evaluate the effect of a physician pediatric emergency care coordinator (PECC) on pediatric readiness.

Assessment Results:

- More than 4100 hospital EDs or 82% of America's hospitals participated in the assessment represented ~24 million pediatric ED visits.
- The overall weighted pediatric readiness score for all participating facilities was 69.
- Major identified gaps included:
 - Interfacility transfer guidelines
 - QI processes that include pediatric specific metrics
 - Disaster plan that includes pediatric specific needs
 - Weight recorded in kilograms
 - Presence of a pediatric emergency care coordinator/champion

Quality improvement science has been proven to be a timely and effective approach for healthcare and centers to integrate best practices and evidence based guidelines. Quality improvement collaboratives further support these efforts, allowing teams to learn from one another, test improve quality, and use their collective experience and data to understand, implement, and best practices for common adoption. The Health Resources and Services Administration, in collaboration with the Institute for Healthcare Improvement (IHI), developed the Pediatric Readiness Collaborative (PRQC) to address these challenges.

Page 1

KEY 1: BUILD-A-TEAM

KEY 1: Build-a-Team

"The achievements of an organization are the results of the combined effort the commitment of the Pediatric Champion, hospital leadership, and the entire quality improvement efforts set forth will positively impact the pediatric the following lists as models for building your local PRQC team – the lists are not exhaustive."

Gate Champion Team (Strongly Preferred)	Local PRQC Improvement Team (Recommendations)
• Designated PRQC Pediatric Champion	• Expanded group of representatives from ED care team
• Essential Stakeholder Representing the ED Care Team (i.e., A Physician, Advanced Practice Provider, Charge Nurse, Nurse, Technician)	• Quality Improvement Specialists (Quality/Patient Safety; Risk Management)
• ED Leadership (Physician & Nursing)	• Nurse Educator (ED and/or Hospital)
• Executive Sponsor	• Data Support and/or EMR Specialist
	• Joint Practice Team (if available)

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EXAMPLE OF QI CONCEPT: PDSA WORKSHEET

Example of QI Concept: PDSA Worksheet

PDSA Worksheet (short version)

1. Define your aim, the overall goal you wish to achieve. 2. Plan the first (or next) test of change toward achieving the aim. 3. Do the test, record and study the results. 4. Act to modify the plan and begin your next test.

Aim: Five weeks from today, I will be able to run 5.3 miles in 50 minutes.

Describe your first (or next) test of change:

This week, I'll leave work by 5:30 PM twice, and go for a 30- to 40-minute run.

Person responsible:	When to be done:	Where to be done:
Caitlin (me)	Tuesday and Thursday	80 office

Plan

List the tasks needed to set up this test:	Person responsible:	When to be done:	Where to be done:
Pack gym clothes the night before and bring them to work	Caitlin (me)	Monday and Wednesday night	At home
Keep an eye on the clock!	Caitlin (me)	Tuesday and Thursday evening	At home

Predict what will happen when the test is carried out:	List the measures that will determine predictions are correct:
This change will increase the amount of time I spend running because I'll have more time to run.	Number of times I left work by 5:30 Minutes run per week



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COMMON WEBSITES & LINKS

Common Websites & Links

PRQC File-Sharing Site

<https://hcm-box.com/v/prqc>

Content:

- Learning Session Slides & Recording
- Data Use Agreement Content
- Intervention Bundles
- Foundational Articles
- 2018-2019 Calendar

Continuing Medical Education/Continuing Nursing Education Credit (PRQC Learning Sessions & Webinars)

<https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=DWHMXA44R8>

Pediatric Readiness Assessment

www.pedsrcady.org

Site Visit #1 Survey

<https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=D4YP7AMRN3>

Environmental Scan

<https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=CLK37DTARD>

Declare Intervention Bundles & Submit Contact Info for QI & Data Stewards

<https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=CXELJK8BCE>

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Tools: Intervention Bundles



Weighing of Children in Metric Units

INTERVENTION BUNDLE #1

Data Collection

#	Variable / Question	Data Type	Responses
	Select intervention bundle for reporting period	site	1 - Weight in Kilograms / 2 - All Vitals / 3 - Interfacility Transfers Disaster Planning
	Select key drivers for reporting period	site	1 - Policy Statement / 2 - Infrastr Changes / 3 - EMR Optimization Education / 5 - Knowledge Reinl 6 - Prescribing Patterns / 7 - Me Administration / 8 - Patient/Fan Engagement
	Weight Policy	site	1 - Yes (Upload) / 2 - No
	Does the policy specify that weight be measured in KG only?	site	1 - Yes / 2 - No
	Does the policy specify that weight be recorded in KG only?	site	1 - Yes / 2 - No
	Date of Birth	patient	MM: DD: YYYY
	Date/Time of Arrival	patient	MM: DD: YYYY hh:mm
	Mode of Arrival	patient	1 - Ambulance, either air or grou Walk-in, this include car, taxi, bus 3 - Other or Unknown
	Triage Level	patient	Color; Numeric; Other; Unknown
	Weight in Medical Record	patient	1 - Yes / 2 - No
	Weight Measurement Unit	patient	1 - Kilograms / 2 - Pounds / 3 - Bo
	Patient Weight as Entered in Chart	patient	0-275 (kg) / 0-500 (lbs)
	Target Medication Administered	patient	1 - Yes / 2 - No
	Medication given (select all that apply)	patient	1 - Acetaminophen / 2 - Ceftriax Decadron / 4 - Dextrose 10% / 5 25% / 6 - Epinephrine (Intramus Fentanyl / 8 - Fosphenytoin / 9 - / 10 - Lorazepam / 11 - Midazol Morphine / 13 - Normal Saline B Ondansetron / 15 - Phenytoin / 1 Toradol
	Medication Dosage	patient	0-1000
	Medication Unit	patient	mcg/mg/ml (branching accordn selected)

Version 2.0 | 7.16.2018

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KEY DRIVER 4: EDUCATION

Change Strategies:

- Develop training/educational content for care team
- Learning objectives should include: proper use of length-based tape, necessity of weight measurement required in cases of resuscitation, safety issues (e.g., number of reported medication errors), methods of measuring weight, nomograms, family engagement, your site's guidelines, and reinforce that weight should not be estimated but measured
- Identify training modality (e.g., online, in-person, staff-meetings, peer to peer, electronic medical record alerts)
- Identify strategies to increase families' engagement

KEY DRIVER 5: KNOWLEDGE REINFORCEMENT FOR CARE TEAM

Change Strategies:

- Posters in triage area
- Direct feedback to care team following chart audits
- Develop script/cards (weight conversion for families) for use by triage nurse

KEY DRIVER 6: MEDICATION ORDERING PATTERNS (DEEP DIVE FOR OUTCOME MEASURE)

Change Strategies:

- Integrate a process to track the number of incidences when an incorrect dose of a medication was ordered for a patient based on their weight
- Track high risk conditions with common errors in prescribing and administration
- Monitor family engagement in medication administration
- Integrate a tool that nurses can reference to ensure that medication dosing is appropriate (use standard nomograms as reference)
- Integrate a nurse to nurse cross-check to ensure that medication dosing is appropriate. If site has bandwidth to accommodate this effort, consider cross-check for high-risk patients/medications or cross-checks during off peak hours in the ED.

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PEDIATRIC WEIGHT CONVERSION

Pound	Ounce	kg	Pound	Ounce	kg	Pounds	kg	Pounds	kg
5	5	2.4	13	4	6.0	22	10	66	30
5	8	2.5	13	7	6.1	24	11	68	31
5	12	2.6	13	11	6.2	26	12	71	32
5	15	2.7	13	14	6.3	29	13	73	33
6	3	2.8	14	2	6.4	31	14	75	34
6	6	2.9	14	5	6.5	33	15	77	35
6	10	3.0	14	9	6.6	35	16	79	36
6	13	3.1	14	12	6.7	37	17	82	37
7	1	3.2	14	16	6.8	40	18	84	38
7	4	3.3	15	3	6.9	42	19	86	39
7	8	3.4	15	7	7.0	44	20	88	40
7	11	3.5	15	10	7.1	46	21	90	41
7	15	3.6	15	14	7.2	49	22	93	42
8	3	3.7	16	2	7.3	51	23	95	43
8	6	3.8	16	5	7.4	53	24	97	44
8	10	3.9	16	9	7.5	55	25	99	45
8	13	4.0	16	12	7.6	57	26	101	46
9	1	4.1	16	16	7.7	60	27	104	47
9	4	4.2	17	3	7.8	62	28	106	48
9	8	4.3	17	7	7.9	64	29	108	49
9	11	4.4	17	10	8.0				
9	15	4.5	17	14	8.1				
10	2	4.6	18	1	8.2				
10	6	4.7	18	5	8.3				
10	9	4.8	18	8	8.4				
10	13	4.9	18	12	8.5				
11	0	5.0	18	15	8.6				
11	4	5.1	19	3	8.7				
11	7	5.2	19	6	8.8				
11	11	5.3	19	10	8.9				
11	14	5.4	19	13	9.0				
12	2	5.5							
12	6	5.6							
12	9	5.7							
12	13	5.8							
13	0	5.9							

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Tools: IHI Open School



Institute *for*
Healthcare
Improvement

 Institute for
Healthcare
Improvement

Welcome, Meredith | [My IHI](#) | [Log Out](#) | [Contact Us](#)

CoursesCertificates

Teaching Materials and Lesson Plans (Preview)

Contents

- [How to Use These Teaching Materials](#)
- [Pre- / Post- Curriculum Assessment](#)
- [QI 101: Introduction to Health Care Improvement](#)
- [QI 102: How to Improve with the Model for Improvement](#)
- [QI 103: Testing and Measuring Changes with PDSA](#)
- [QI 104: Interpreting Data: Run Charts, Control Charts, and Other Measurement Tools](#)**
- [QI 105: Leading Quality Improvement](#)
- [PS 101: Introduction to Patient Safety](#)
- [PS 102: From Error to Harm](#)
- [PS 103: Human Factors and Safety](#)
- [PS 104: Teamwork and Communication in a Culture of Safety](#)
- [PS 105: Responding to Adverse Events](#)
- [TA 101: Introduction to the Triple Aim for Populations](#)
- [L 101: Introduction to Health Care Leadership](#)
- [PFC 101: Introduction to Patient-Centered Care](#)

QI 104: Interpreting Data: Run Charts, Control Charts, and Other Measurement Tools







[View course \(3 lessons, 1 hour 30 minutes\)](#)[Download course summary](#)

Learning Objectives

- Draw a run chart that includes a baseline median, a goal line, and annotations.
- Describe the difference between common and special cause variation.
- Explain the purpose of a Shewhart (or control) chart.
- Apply four rules to identify non-random patterns on a run chart.
- Explain when and how to use the following tools for understanding variation in data: histograms, Pareto charts, and scatter plots.

This course is part of a lesson plan to teach **essential QI tools**. Additional materials related to these learning objectives are also recommended below.

Essential QI Tools (available by subscription)

 Lesson Plan	 Lecture
 Assignment	 Exercise
 Reading	 Exam

This content is part of the Educator's Toolkit, available exclusively to Open School group subscribers. [Learn about subscription options](#)

Members-Only Website

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for Children

IIC

Innovation &
Improvement Center

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QI Collaboratives

Education

Our Impact

Home / QI Collaboratives / National Pediatric Readiness Quality Collaborative (PRQC) / Members-Only

Members-Only

General Overview

A total of 16 Teams are participating in the Pediatric Readiness Quality Collaborative. Our mission is to improve the capabilities and quality of care provided to pediatric patients across the nation, as assessed by the [National Pediatric Readiness Project Assessment](#). Using a train-the-trainer model, participants are supported through targeted quality improvement education, the provision of tools and resources to support local efforts, and sharing of [best practices](#) with guidance from [subject matter experts \(SMEs\)](#) in this field.

The [PRQC Administrative Team](#) along with our SMEs and trainers provides [QI training](#) covering the following topics: strategies to identify gaps in care/needs assessments; creating SMART aims; developing key driver diagrams; integrating QI tools (e.g., process maps, SWOT analyses, fishbone diagrams); the Model for Improvement; sustainability and dissemination techniques.

Each Trainer works with Pediatric Champions at each of the Affiliate Sites to develop and implement QI plans targeting key gaps in pediatric readiness. The collaborative focuses on the following topics ([Intervention Bundles](#)): 1) A patient safety initiative focused on collecting and documenting pediatric patients' weight in kilograms; 2) Developing a notification process for abnormal vital signs; 3) Ensuring inter-facility transfer guidelines are patient and family centered; 4) Establishing disaster plans that include children. Each intervention bundle forms the basis for local and regional quality improvement efforts as part of the collaborative activities.



Members-Only

Calendar

Intervention Bundles

Best Practices

All Things Data & QI

Learning Sessions

Fireside Chats

Newsletters

Member List

COMMON WEBSITES AND LINKS

> QI & Data Steward RedCap Survey

Our Aim: By April 2020, teams will collectively improve their

Communication: Monthly Newsletter

Subscribe: QECA@texaschildrens.org

List upcoming events & announcements

Sent out monthly to ALL participants
Trainers, Affiliates, SMEs, Advisory Committee,
Partners, SP Managers

Leaderboard to stimulate
friendly competition among
sites

News & Events
from our Partners

Summarize
monthly events.

Share
resources and
best practices

Welcome new
sites to the
collaborative

PRQC Newsletter
July 30, 2019

Dear PRQC Participants,

July was a busy month! We began the month with a strong push to get all baseline charts entered into the data entry system. Both the **Wranglers for Kids** and **The Last Frontier Kids** completed baseline data entry for all their sites by the July 12th deadline on [page 4](#). If you do not have all your baseline charts entered, please try to get as possible in order to keep pace with the collaborative. Going forward, we will feature only the top 10 sites and their PDSA cycle count.

Speaking of **baseline data entry**, four teams (Wranglers for Kids, MOC and the Last Frontier Kids) shared their experiences and **best practices** performing a first PDSA cycle during our July Learning Session. Each team shared some great tips. See [page 4](#) for more. We really enjoyed hearing from both our trainers and affiliate sites on the call. We can't wait to hear from more teams during our next Learning Session (August 27 @ 11:00 CDT). We also want to hear more from you in general. We are introducing a new collaborative tool, **Microsoft Yammer**, that we hope will encourage collaboration (see [page 2](#)).

At this point, you should be entering into your first **PDSA cycle**. This can be a challenging step as you choose a change strategy and begin to establish a culture of change in your ED. See [page 3](#) for tips and tricks on how to plan/perform your first PDSA cycle.

Lastly, the Data Coordinating Center (DCC) introduced helpful changes to the Tableau Dashboards. It is now easier to see your cumulative performance over time on the run charts. We delve more into the Tableau Dashboard updates on [page 5](#).

Once again, thank you all for the great effort in getting baseline data entered. Let's keep the momentum going! If you need help or are unsure of your next steps, please don't hesitate to reach out to either your trainer or the PRQC Administrative Team.

Keep up the great work!
T ePRQCAdmin Team

Congratulations to our newest participants!

The Wranglers Kids	ETCH
Dell Children's Medical Center of Central Texas	Sweetwater Hospital Association
Dell Seton Medical Center at the University of Texas	LifesaverE
Seton Southwest Healthcare	St. Elizabeth O'Fallon
Seton Medical Center Austin	MOKAN ROCKS
Seton Smithville Regional Hospital	Via Christi Hospital, Pittsburgh
Seton Highland Lakes Hospital	WMSPR
Seton Medical Center Williamson	Wheaton Franciscan Healthcare, Franklin
Seton Medical Center Hayes	The Howard Young Medical Center
Seton Northwest Hospital	
Seton Edgar B. Davis Hospital	

EMSCPulse

Subscribe here

Want More News from the EIC?

The EMSC Pulse is published about every 4 weeks and includes information on all EMSC activities as well as news and events from our partners. Read the latest issue [here](#).

Leaderboard

July Learning Session

Our July Learning Session was all about you! Four teams presented on their experiences entering baseline data, best practices and challenges. We have summarized their wonderful presentations in to a few unifying points below. If you missed these excellent presentations, please be sure to [watch the webinar](#), review the [slides](#) or read the [detailed summary](#) of the Learning Session.

Baseline Data Entry

- Many found it easier to manually review charts rather than pull a report.
- Collect data on a paper and then enter into the DES all at once.
- Keep track of the system-generated ID number and the MRN on the paper chart or keep an excel file.

Challenges

- High rate of turnover at both the staff and leadership level
- Lack of overall best documentation practices
- Ensuring data accurately reflects care (e.g. pulling actual versus stated weight)

Best Practices

- Continuous trainer contact with affiliate sites keeps momentum
- Reverse site visits (affiliate sites spend a day shadowing at the training site)
- Reinforce education by reviewing charts with nurses and having him/her sign-off.
- Establish a multidisciplinary, physician led/championed, pediatric committee to review goals and data.

SBAR chart shared by The Last Frontier Kids. Download and edit here.

Situation	We are conducting a first PDSA cycle on improvement of personnel work for the pediatric population.
Background	Healthcare's role in disaster preparedness is becoming increasingly important. As part of the quality improvement (QI) work with the collaborative, PRQC is focusing on improving our recognition of abnormal vital signs and the provider's response. A PDSA cycle is a structured method for testing changes in a controlled environment. The goal of this cycle is to improve the accuracy of vital signs.
Assessment	Our ongoing project is to improve the accuracy of vital signs. The assessment of the situation is that the current process is not working.
Request	For the next three months, we will be conducting a first PDSA cycle. The goal is to improve the accuracy of vital signs. The request is that we have a multidisciplinary team to review the data and provide feedback.

DO YOU NEED HELP WITH DOMAIN 4: DISASTER PREPAREDNESS?

PRQC Disaster Preparedness Subject Matter Experts and our partners at the American Academy of Pediatrics want to see you succeed. They have offered one-on-one coaching with hospitals in need of help.

If you would like to work with them, please email us at qeeca@texaschildrens.org

News & Events From Our Partners

Updated ASPR Pediatric Topic Collection

The US Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) aims to meet the information and technical assistance needs of regional ASPR staff, health care coalitions, health care entities, health care providers, emergency managers, public health practitioners, and others working in disaster medicine, health care system preparedness, and public health emergency preparedness.

One of the key resources within the ASPR TRACIE Web site is a [Pediatric Topic Collection](#). The resources in this Topic Collection offer information for health care facilities, health care coalitions, and other health and medical providers about the special care and resources needed for children prior to, during, and after a disaster. The American Academy of Pediatrics staff assisted with an update of the Pediatric Topic Collection in 2019. Articles within the Topic Collection are organized by the following categories listed below.

- Must Reads
- CBRNE and Terrorism
- Education and Training
- Guidelines and Protocols
- Lessons Learned
- Mental and Behavioral Health
- Natural Disasters
- Pediatric Surge Capacity
- Plans, Tools, and Templates
- Trauma Care and Triage
- Agencies and Organizations

If you are aware of a resource that is new or currently not included within the Pediatric Topic Collection, please email DisasterReady@aap.org with the title and a link to the resource for posting consideration.

Emergency Nurses Association Announces Recipient of 2019 Pediatric Readiness Improvement Award

This ENA award recognizes a member who has demonstrated outstanding efforts to improve readiness in caring for children in the emergency care setting. **Karen Kaskie, BSN, RN, CEN, CPEN, CFRN**, of South Dakota was named the 2019 recipient.

Karen currently works full time as a RN Simulation Specialist at a large, regional health care system. She is involved in a number of critical access and rural locations. Karen provides simulation scenarios to a multitude of professionals including, EMTs, and first responders. When she travels on, she also reviews pediatric resources and provides pediatric care. One of her favorite simulations is an airway. She provides pediatric reference materials from her equipment size charts/posters and badge cards. Karen hopes to promote the pediatric readiness assessment and throughout a variety of emergency environments ranging from first responder vehicles, critical access EDs, urban EDs, and flight teams. Karen is also involved in government affairs advocacy efforts of ENA where she participated in the action alert supporting pediatric readiness on airlines.

Through simulation and rural outreach, Karen is immersed directly into the environment of some of the most frontier and vulnerable settings in South Dakota that may lack resources. She empowers nursing staff to host open and candid conversations promoting organizational readiness and excellence in pediatric care, emphasizing the importance of safety in all aspects of pediatric care especially those that are high risk and low frequency.

Congratulations, Karen, and thanks for your ongoing support of pediatric readiness!

American College of Emergency Physicians

ENA EMERGENCY NURSES ASSOCIATION

Communication: Email Recaps



LEARNING SESSION

JULY 16, 2019

PRESENTERS:

Kate Remick, MD
Krystle Bartley, MA
Diana Fendya, MSN (R), RN
Meredith Rodriguez, PhD
NEDARC Representatives

LINKS:

[Link to Recording](#)
[PowerPoint Slides](#)
[RedCap CNE Survey](#)

RedCap CNE Survey QR Code



*Survey expires July 30, 2019

Next Learning Session:
August 27, 2019
11:00 – 12:30 CDT



SUMMARY

During this Learning Session four of our teams (Wranglers for Kids, MOKAN ROCKS, WISPR and the Last Frontier Kids) presented on their experiences and best practices regarding baseline data collection, their process for data submission, and their decision-making process for PDSA cycles. Krystle Bartley reviewed the timeline for PDSA cycles and NEDARC reviewed their most recent updates to the Tableau Dashboards.

KEY TAKEAWAYS:

State of the Collaborative

- The deadline for baseline data entry was **July 12, 2019**. Thank you to all who made the push and got your data entered. Entering data by this date (or as close as possible) will help ensure you perform 3-4 PDSA cycles by the end of the collaborative.
- Remember, you must complete the [RedCap QI/Data Steward](#) Declaration survey in order to get access to the Data Entry Systems
- PDSA Cycle Timeline: Pace Yourself for the Marathon
Plan to begin collecting and entering data by the following dates:

Mile Marker 1: Baseline Data

Goal: Must be submitted by July 12

Mile Marker 2: 1st PDSA

Goal: July 16 to Labor Day (September 2)

Mile Marker 3: 2nd PDSA

Goal: Labor Day to Halloween

Mile Marker 4: 3rd PDSA

Goal: Halloween to MLK (January 20)



Team Presentations:

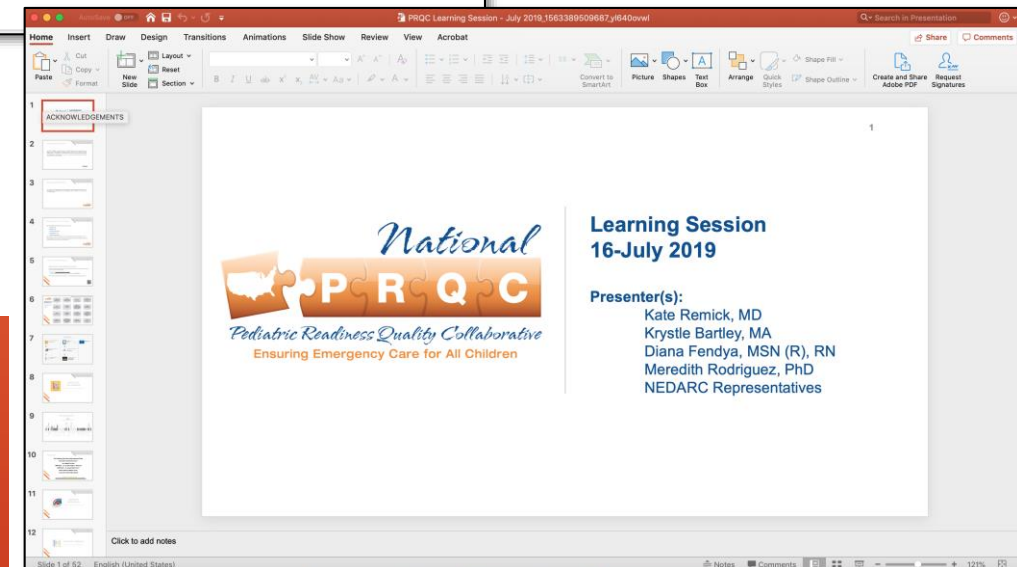
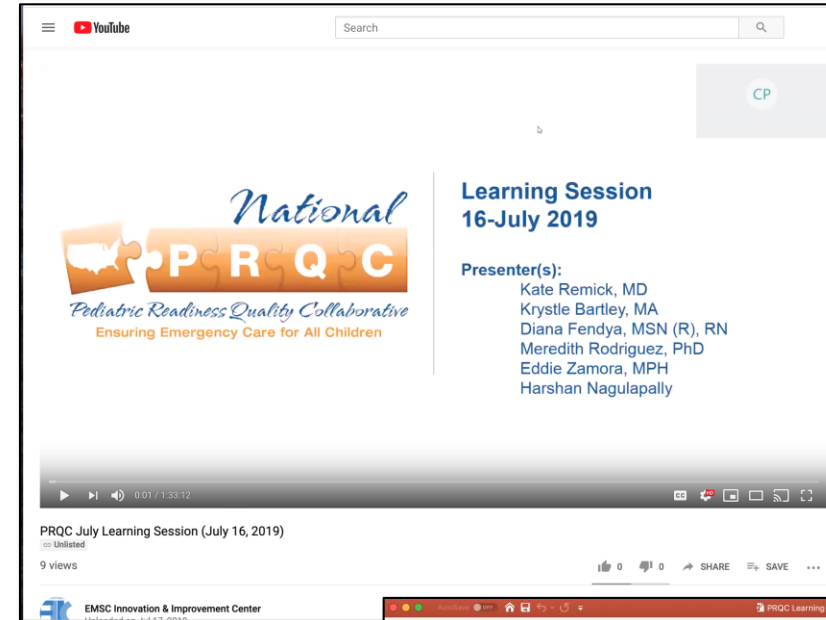
Wranglers for Kids

Baseline Data Sampling

- Sampling strategy: randomly selected charts, pull a report from EPIC and then manually checked for medications and doses
- Approximately 1.5-2 hours to get baseline data entered for each site

Challenges

- EPIC can choose stated or actual weight. Report pulled either weight. Need to make sure they're getting actual weights entered.



Collaboration Tool: Microsoft Yammer



Office 365

Post a new update, ask a question, poll the group and more

Include with Office365

Add members with institutional email address

Share a file or image with the group

Create a group (team-specific page)

Add #hashtags to organize topics

Send private messages to one or more members

Like, reply to share a post

Pin important files

Pediatric Readiness Quality Collaborative (PRQC) PRIVATE EXTERNAL

Click here to add a description to this group.

NEW CONVERSATIONS ALL CONVERSATIONS FILES SEARCH

Update Question Poll Praise Announcement

Share something with this group...

Meredith Rodriguez – Wednesday at 02:22 PM

Hey all,

I wanted to share with you the most recent white paper, *Quality Improvement in Emergency Medical Services for Children (EMSC)*.

The purpose of this paper is to describe for EMSC grantees and stakeholders how quality improvement (#qi) is an effective method for testing and spreading the delivery of optimal, effective pediatric emergency medicine. This paper gives a brief overview of the QI approach, explores QI measures and the potential approaches to measurement in emergency care, dis... [expand](#)

Quality Improvement in Emergency Medical Services for Children (EMSC)

Quality Improvement in Emergency Medical Services for Children White Paper July 2019

Pediatric Readiness Quality Collaborative (PRQC) > Fi...

LIKE REPLY SHARE ...

Seen by 5

MEMBERS (361)

INFO Edit

Welcome to the PRQC Yammer page!

Use this page to communicate with fellow PRQC Participants. Post an update, ask a question, poll participants, share a resource or best practice.

If you have any issues, please email us at QECA@texaschildrens.org or mrodriqu@bcm.edu

GROUP ACTIONS

View Group Insights

PINNED Add

Updated 2019 Calen...

PRQC Members-Only...

Tableau Dashboard

DES (Bundles 1-3)

Keeping the Course...

- Please email us at qeca@texaschildrens.org if you have any questions or interest in joining the distribution list
- Consider future collaborations with PRQC sites in your state
- Join future learning sessions to stay abreast of our progress