National PRQC

Pediatric Readiness Quality Collaborative

Ensuring Emergency Care for All Children

Learning Session
03-March 2020

Hosts:

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

Please mute your phone or computer. Thank you!

ACKNOWLEDGEMENTS

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HRSA
Maternal & Child Health

LEARNING SESSION DISCLOSURES

Note Faculty/Speakers and Planners for this learning session:

Kate Remick, MD

Diana Fendya, MSN (R), RN

Meredith Rodriguez, PhD

Krystle Bartley, MA

have no conflicts of interest. Additionally, no commercial support has been received for this activity.

Should participants detect any bias in this presentation please note such on the evaluation or reach out to Diana Fendya, nurse planner for continuing education.

National PRQC
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TO OBTAIN NURSING CEs

This continuing nursing education activity was approved by the Emergency Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation for 1.5 contact hours.

- Sign into the webinar: name, email address and name of your facility.
- At the completion of the presentation a link will be provided which will take you to a short evaluation form which you will need to complete.
- The evaluation must be completed within 2 weeks:
  https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=C3CHENDRY8
- Within 48 hours of receiving your evaluation, your certificate will be sent to you electronically.

AGENDA

03-MARCH-2020 LEARNING SESSION

Team Presentations– 40 min

Remoc's Minions
MOKAN Rocks
Oregon Pediatric Readiness
New England EMSC

Sustainability – 5"

Engaging Hospital Leadership
Community Practices

Final Tasks– 10 min

Final Team Presentations
NPRP Assessment
Exit Survey
Certificate of Appreciation

Housekeeping – 5"

Meredith Rodriguez

TEAM PRESENTATIONS

THE UNIVERSITY OF CHICAGO MEDICINE

Comer Children's

PRQC Project: Comer

Katie Valentino DNP, APRN, FNP-BC

Patrick Dolan MD FAAP

Diana Yan MD

Gabe Campos DNP, APRN, PCNS-BC, CEN, CPEN

Comer Children's Hospital

- **Pediatric Emergency Department**
  - Total Volume
    - ~40,000 per year
  - Provider Coverage
    - 24 Hours
    - 7 Days a Week
- **Fast Track**
  - ESI Level 3, 4 & 5
  - Fast Track Volume
    - ~10,000 per year
  - Nurse Practitioner Coverage
    - 12 Hours
    - 6 Days a Week

Project Design

- **PRQC focus area**
  - Abnormal vital signs
- **Location**
  - Fast trac
- **Gap**:
  - Fast track area noted to have quick turn around; some abnormal vitals are not being reviewed by provider or repeated as needed/per the ED's assessment & vital sign policy
- **Aim**:
  - Improve communication and reviewing of abnormal vitals by fast track providers
- **Process:**
    - Best practice alert that triggers if last vitals are abnormal
    - Fire BPA if patient is being discharged

Vital Sign Cut Offs

Systolic Blood Pressure 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	0	50	80	400
Infant	Days 183 (6 mo)	0	60	100	400
Toddler	Days 365 (1 yo)	0	70	120	400
Pre-school	Days 730 (2 yo)	0	70	120	400
School Age	Days 2190 (6yo)	0	80	130	400
Young Adult	Days 5510 (15 yo)	0	90	140	400

Vital Sign Cut Offs

Diastolic Blood Pressure 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	0	25	60	200
Infant	Days 183 (6 mo)	0	40	70	200
Toddler	Days 365 (1 yo)	0	40	80	200
Pre-school	Days 730 (2 yo)	0	40	80	200
School Age	Days 2190 (6yo)	0	50	90	200
Young Adult	Days 5510 (15 yo)	0	60	90	200

Vital Sign Cut Offs

Heart Rate 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	0	100	200	400
Infant	Days 183 (6 mo)	0	80	180	400
Toddler	Days 365 (1 yo)	0	80	150	400
Pre-school	Days 730 (2 yo)	0	70	150	400
School Age	Days 2190 (6yo)	0	60	130	400
Young Adult	Days 5510 (15 yo)	0	60	120	400

Vital Sign Cut Offs

Respirations 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	0	30	60	150
Infant	Days 183 (6 mo)	0	30	60	150
Toddler	Days 365 (1 yo)	0	24	40	150
Pre-school	Days 730 (2 yo)	0	20	40	150
School Age	Days 2190 (6yo)	0	15	30	150
Young Adult	Days 5510 (15 yo)	0	12	20	150

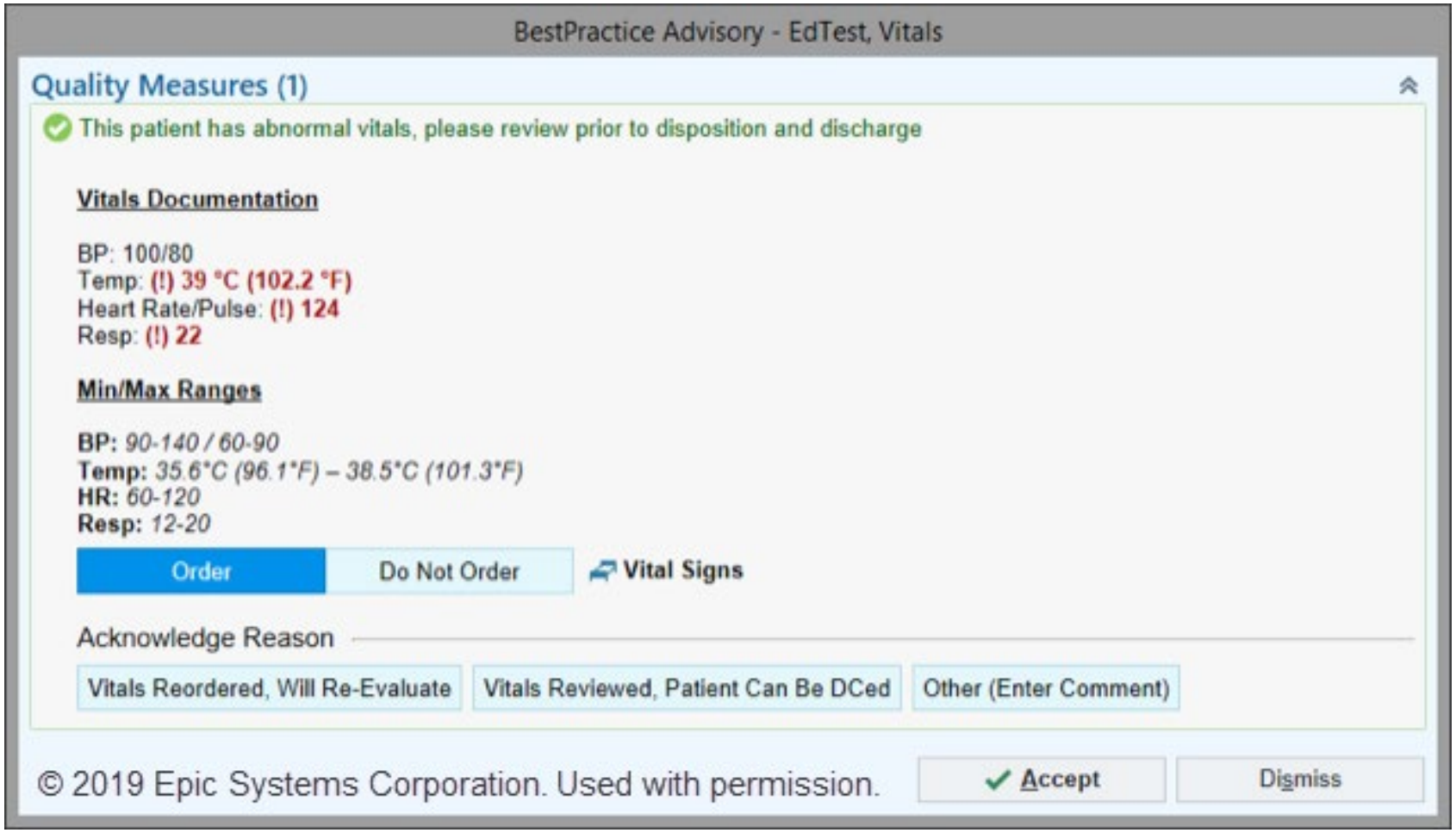
Vital Sign Cut Offs

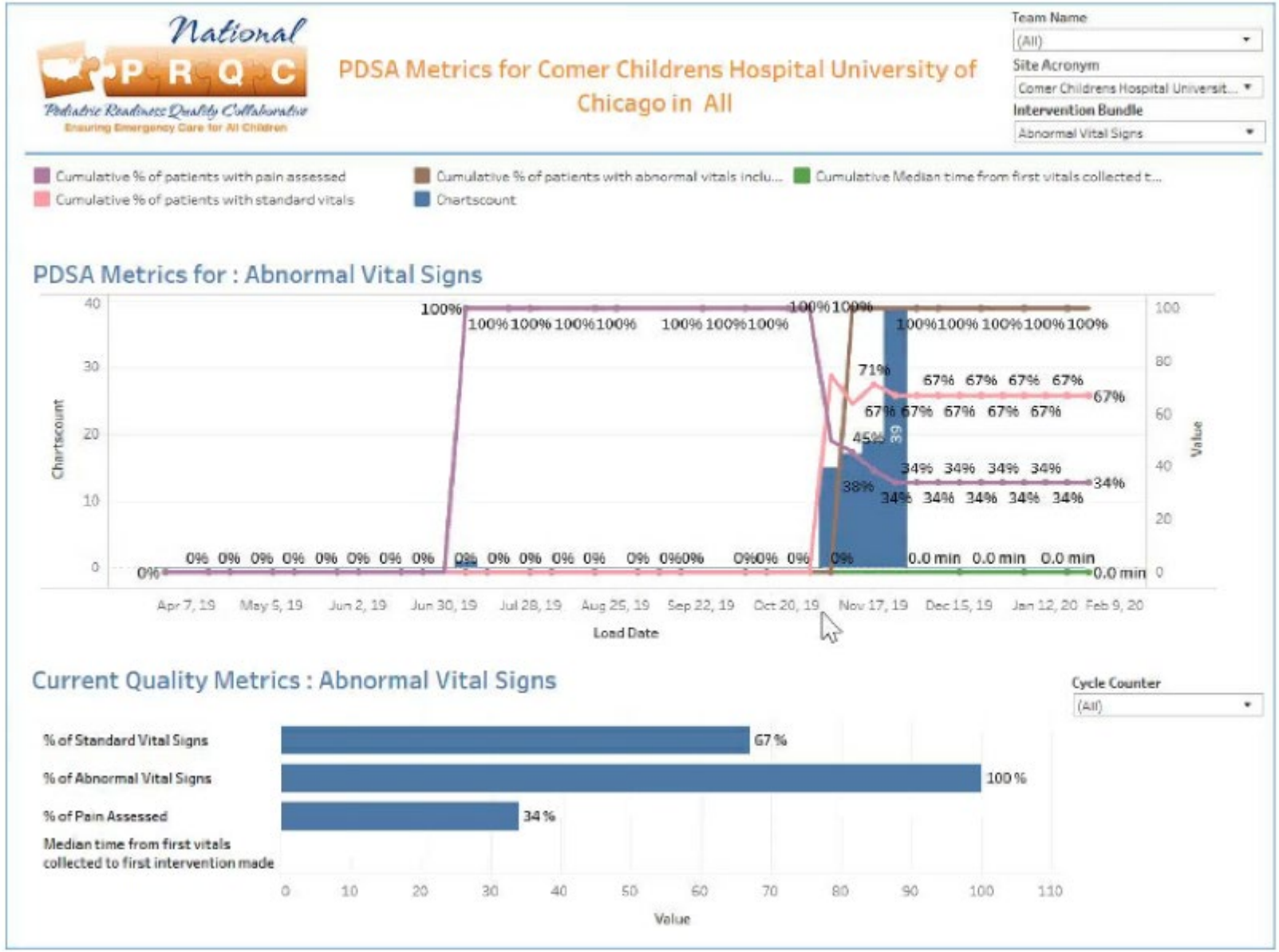
Temperature 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F
Infant	Days 183 (6 mo)	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F
Toddler	Days 365 (1 yo)	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F
Pre-school	Days 730 (2 yo)	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F
School Age	Days 2190 (6yo)	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F
Young Adult	Days 5510 (15 yo)	10°C / 50°F	35.6°C / 96.1°F	38.5°C / 101.3°F	49°C / 120.2°F

Vital Sign Cut Offs

Pulse Oximetry 	Age Context Start	Minimum	Warning Minimum	Warning Maximum	Maximum
Newborn	Days 0	0%	90%	100%	100%
Infant	Days 183 (6 mo)	0%	90%	100%	100%
Toddler	Days 365 (1 yo)	0%	90%	100%	100%
Pre-school	Days 730 (2 yo)	0%	90%	100%	100%
School Age	Days 2190 (6yo)	0%	90%	100%	100%
Young Adult	Days 5510 (15 yo)	0%	90%	100%	100%

EPIC Best Practice Alert




National PRQC
Pediatric Readiness Quality Collaborative
Ensuring Emergency Care for All Children
PDSA Metrics for Comer Childrens Hospital University of Chicago in All
Team Name
(All)
Site Acronym
Comer Childrens Hospital Universit...
Intervention Bundle
Abnormal Vital Signs
Cumulative % of patients with pain assessed
Cumulative % of patients with standard vitals
Cumulative % of patients with abnormal vitals inclu...
Chartscount
Cumulative Median time from first vitals collected t...
PDSA Metrics for : Abnormal Vital Signs
Chartscount
Value
Load Date
Apr 7, 19
May 5, 19
Jun 2, 19
Jun 30, 19
Jul 28, 19
Aug 25, 19
Sep 22, 19
Oct 20, 19
Nov 17, 19
Dec 15, 19
Jan 12, 20
Feb 9, 20
Current Quality Metrics : Abnormal Vital Signs
Cycle Counter
(All)
% of Standard Vital Signs
67 %
% of Abnormal Vital Signs
100 %
% of Pain Assessed
34 %
Median time from first vitals collected to first intervention made
Value

Process and Outcome Measures

SiteAcronym (For multiple sites)

Comer Childrens Hospital Univers...

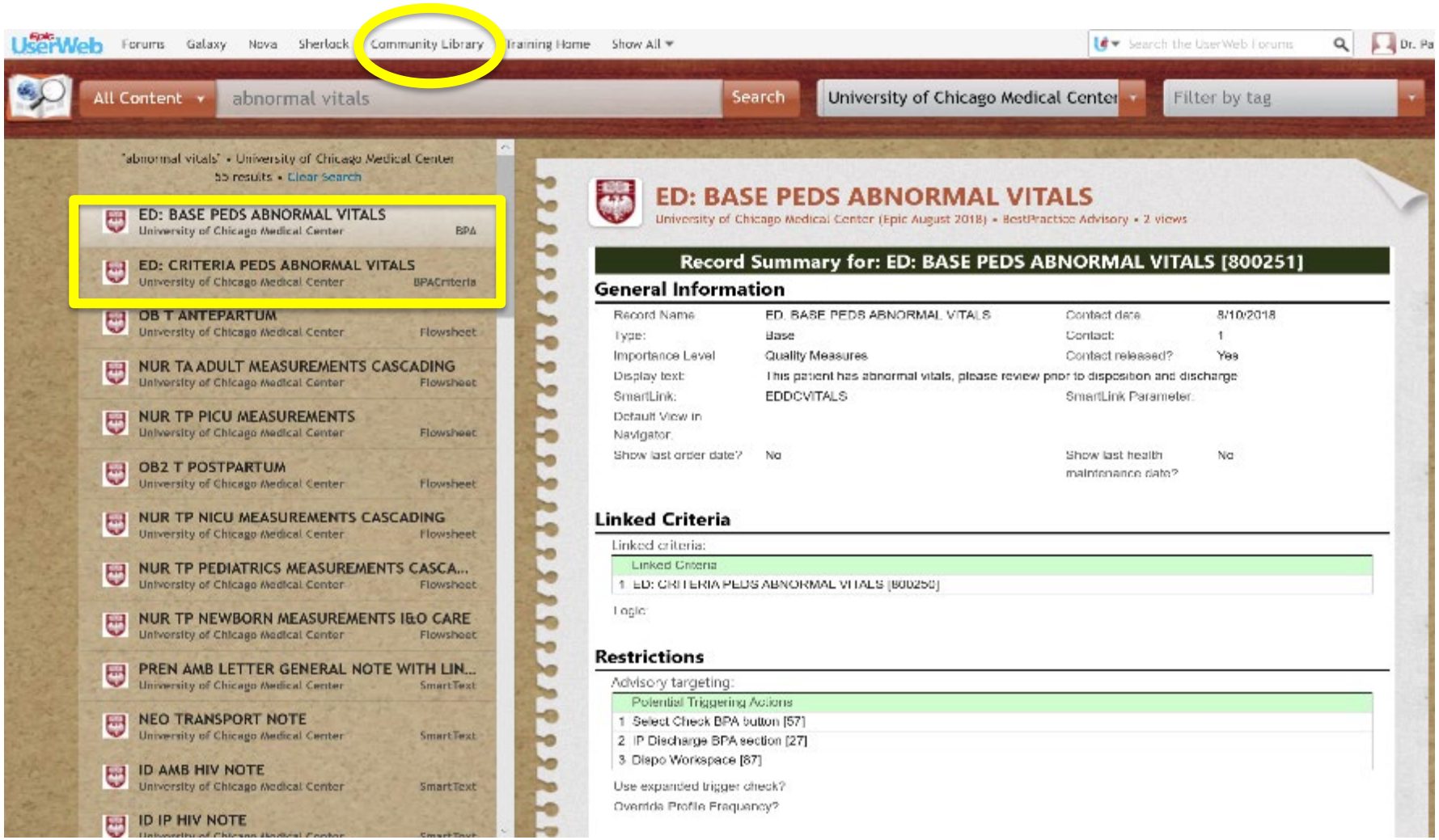
Intervention Bundle

Abnormal Vital Signs

Comer Childrens Hospital University of Chicago - Overall Process/Outcome Measures Information

Intervention Bundle	Total # of Sites Participating	Current Cycle (My Site / Median All Sites)	Total # of Charts Entered (My Site/Median all Sites)	Measure Name	Measure Value (My Site/Median All Sites)
Abnormal Vital Signs	62	2/0	91/34.5	PM1 - % of Patients with standard vitals	67% / 63%
				PM2 - % of Patients with abnormal vitals included in notification process	100% / 37%
				PM3 - % of Patients with pain assessed	34% / 84%
				PM4 - Median time from recognition of abnormal vital signs/pain to first intervention	- min / 34.5 min

EPIC User Group



EPIC Build

ED: BASE PEDS ABNORMAL VITALS

University of Chicago Medical Center (Epic August 2018) • BestPractice Advisory • 2 views

Record Summary for: ED: BASE PEDS ABNORMAL VITALS [800251]

General Information

Record Name:	ED: BASE PEDS ABNORMAL VITALS	Contact date:	8/10/2018
Type:	Base	Contact:	1
Importance Level	Quality Measures	Contact released?	Yes
Display text:	This patient has abnormal vitals, please review prior to disposition and discharge		
SmartLink:	EDDCVITALS	SmartLink Parameter:	
Default View in Navigator:			
Show last order date?	No	Show last health maintenance date?	No

Linked Criteria

Linked criteria:

	Linked Criteria
1	ED: CRITERIA PEDS ABNORMAL VITALS [800250]

Logic:

Restrictions

Advisory targeting:

	Potential Triggering Actions
1	Select Check BPA button [57]
2	IP Discharge BPA section [27]
3	Dispo Workspace [87]

Use expanded trigger check?

Override Profile Frequency?

Follow-up Actions

Active Guidelines URL:

Active Guidelines description:

Follow-up Orders

Follow-up place single orders:

	Place Single Order	Preference List Type	Order Mode	Frequency
1	BPA - ED COER VITALS [298361]	BestPractice	Inpatient	Manually Once

Remove All Triggering Orders?

Thank you!

Questions?

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MOKAN ROCKS

- MOKAN ROCKS
  - (Missouri/Kansas Readiness On Call for KidS)
- Olivia Kaullen, MHA, RRT, RRT-NPS, CPHQ
  - PRQC facilitator

MOKAN ROCKS – our team

10 Affiliates

- McPherson
- Norton
- Atchison
- Hays
- Ransom Memorial
- Russell Regional Hospital
- Shawnee Mission
- Smith County
- Trego
- Via Christi-Pittsburg

MOKAN ROCKS

Characteristics of affiliates –

- Mostly rural facilities
- CAH
- # pediatric patients seen:
  - Most see less than 5 a day (<1800/year) and 6-13/day (1800-4999/year)
- Average PR score: about 60
- Common gaps in PR:
  - Very spread out other than only one team prepared for disaster. They will complete the "Vitals" bundle UPDATE: several teams have done at least some work toward bettering their disaster preparedness!

- Badge buddies
- Locking scales
- Hard stops in the EMR for vitals
- Collaboration for Disaster Preparedness
- Addition of Laura Kemerling, RN, MSN, C-NPT Transport EMS Outreach Coordinator

Questions?

March 3, 2020

Team Update

Oregon Pediatric Readiness Program

Tuality Healthcare – Where we're at

- Baseline data completed
- First intervention:
  - Initiated; statistical data has not been entered
  - Goal: All pediatric patients have an accurate weight recorded in EMR and are weighed in kilograms
- Second intervention:
  - All pediatric patients will have documentation of a full set of vital signs; including temperature, respiratory rate, pulse oximetry, heart rate, blood pressure and mental status when indicated.

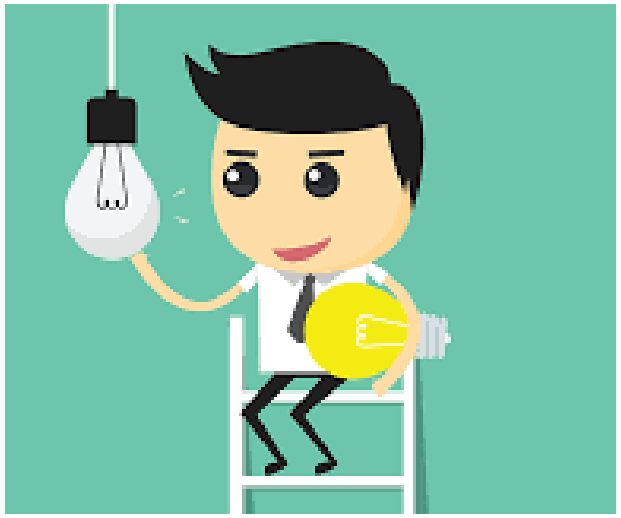
WHAT'S BEEN GOOD, WHAT'S BEEN HARD

Successes

- Goal setting with guidance of *Pediatric Readiness in the Emergency Department* from the American Academy of Pediatrics.
- Monthly phone meeting that includes education session and check-ins with Oregon team have been helpful.
- Monthly education with ED staff: we have made changes to guidelines for processing pediatric patients through our emergency department.

Challenges

- Data entry and interpretation
- Turnover in pediatric emergency care coordinator position. For the most part the role has been filled by a man[illegible] right person to key.



Promising Practices

Questions?

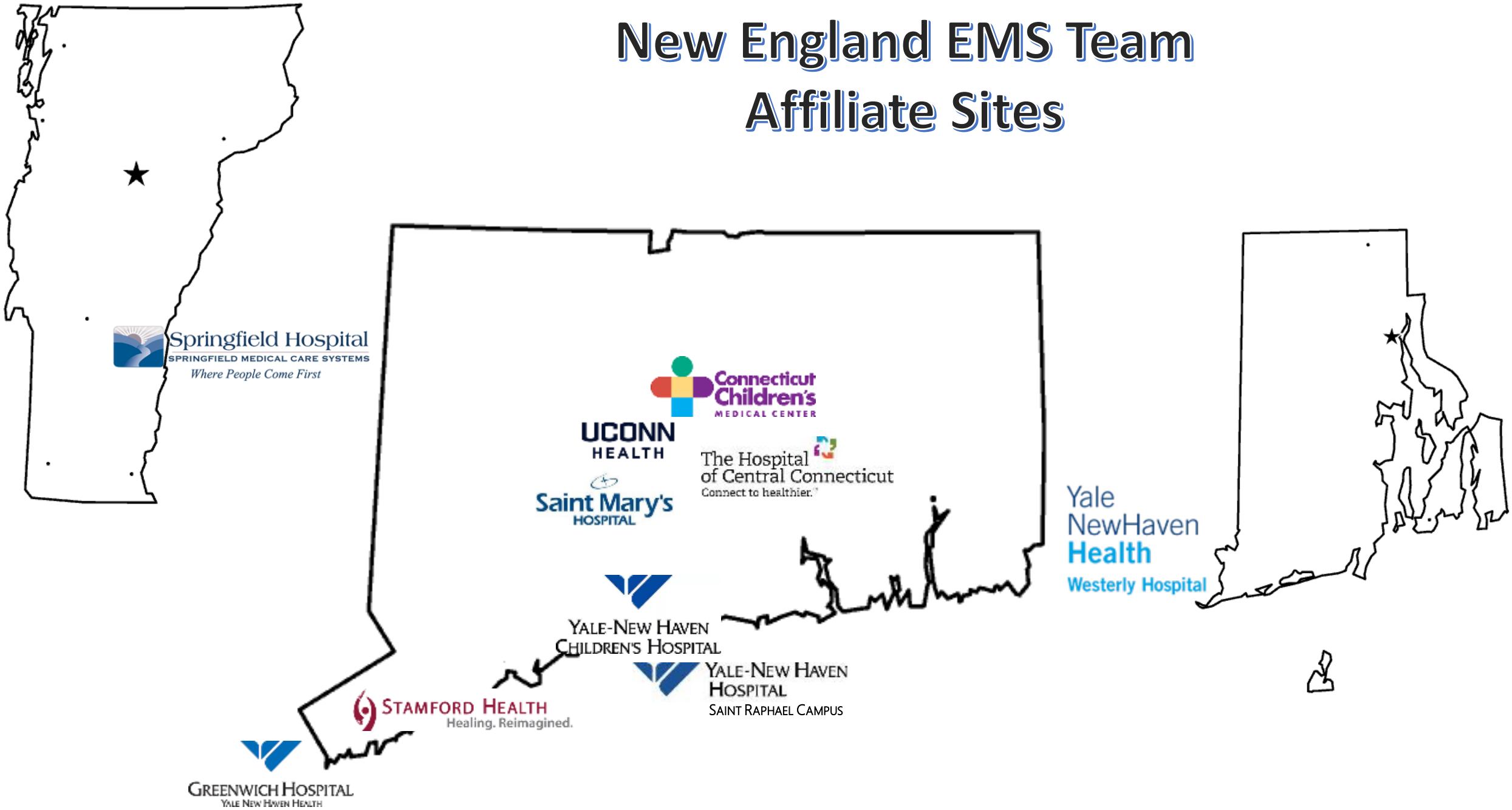
National PRQC
Pediatric Readiness Quality Collaborative
Ensuring Emergency Care for All Children

The New England EMS Team

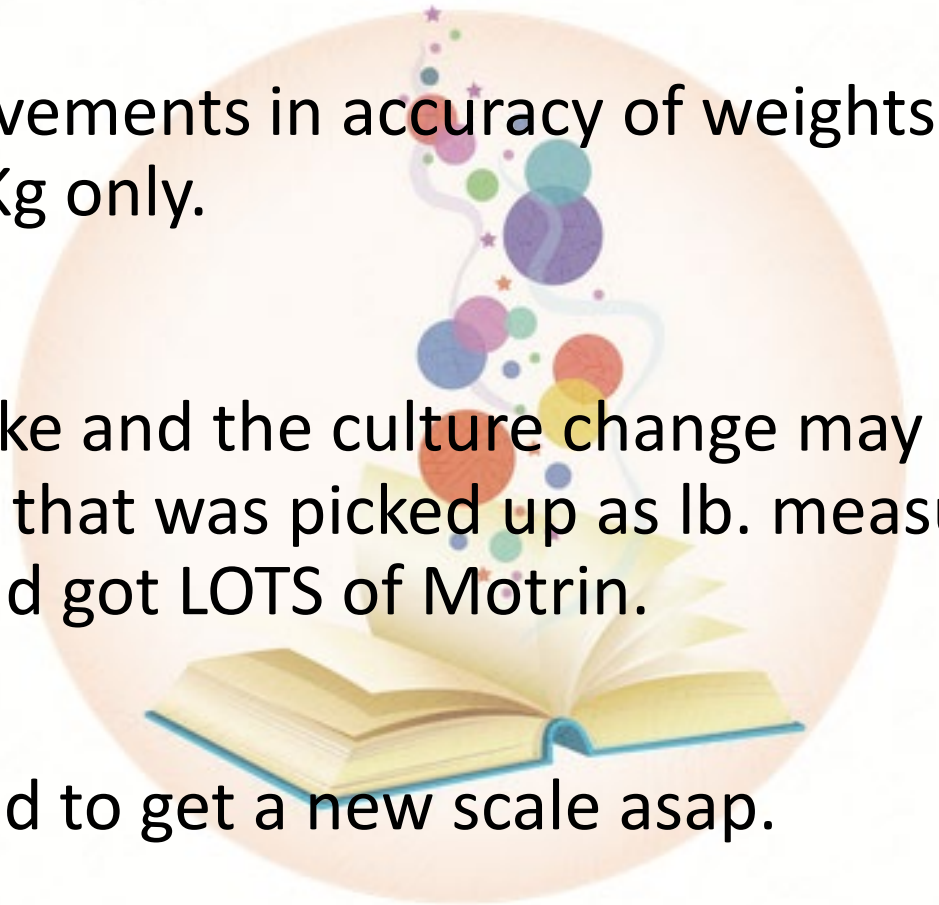
Victoria Barnes, RN
Cristina Carusone-Biceglia
Michael Goldman, MD
Mariann Kelley, MD
Marc Auerbach, MD
Thomas Martin, MSN

Training Team Organization:
Yale-New Haven Children's Hospital
Connecticut Children's Medical Center

New England EMS Team
Affiliate Sites



Patient Safety



Noted great improvements in accuracy of weights from education and replacing scale to Kg only.

Then the scale broke and the culture change may have contributed to a medication error that was picked up as lb. measurement but entered in Kg – and the child got LOTS of Motrin.

This incident helped to get a new scale asap.

Their NPRQC Journey

Site	Successes	Challenges	Lessons Learned
Greenwich Hospital	• Nearly always PEM-staffed, who are sticklers for vital signs – great documentation! • Great teamwork and communication between PEM team and RNs.	• Set an ambitious AIM acknowledging up front that there would be limitations to the metric for what happens in real life. • Measurement strategy and frequency may not be sensitive enough to demonstrate our progress. • Staff turnover	• Maybe our site not best suited for involvement in the project, though we acknowledge everyone can improve! • Did not do a great job defining our denominator
Hospital of Central Connecticut	• AIM – baseline 43%, now at 94%! • Professional recognition – Evelina was promoted! • Success story will be featured in a podcast as part of the upcoming New England Regional EMS Forum - March 9th in Waltham, Massachusetts. • Patient handoff improved • Development of regional relationships	BP needed/accurate?	Lots of calls Cumbersome data entry process
St. Mary's Hospital	• Full set of vals at triage, including BP • All scales, including trauma stretcher, are locked in kg • Streamlined the triage process at the main triage ○ If busy, they were putting children right into the "pediatric waiting area" without triage or vitals. ○ This has been changed to a system where children are skipping triage only if they can be directly roomed. ○ If they will have to wait in the pediatric waiting area, they will be triaged with a full set of vitals first.	Despite education, a resistance of entering weights in kg in main triage ○ Staff is used to entering in lbs., as they do with adult population ○ Argument that weight is automatically converted to kg in EPIC ○ Staff revert to old practices once they were not being directly observed Staff turnover	For a career development standpoint, being able to speak about the work and effort put into improving the quality of patient care. Dr. Hellstrand is grateful for having had this opportunity.
St. Raphael's Campus	• The team has been compiling disaster resources and sharing across the Health System • Worked to ensure that all children under the age of six into pediatric gowns and weights in kilograms. • Working on telemedicine follow-up to help reduce 72-hr bounce backs, this includes pediatric patients	• Upper Leadership - Team had chosen Disaster bundle. After having started, the team was informed that there was already a policy in place for disasters and to follow that. • Had to readjust focus - improving other pediatric-specific triage items.	Pioneers in their field – had chosen Disaster bundle because they had already conducted QI initiatives involving the other bundles before NPRQC initiative.

Site	Successes	Challenges	Lessons Learned
Stamford Hospital	• Coalition building with regional EMS crews, expanding RN capabilities, role of security • Roles / responsibilities of a pediatric disaster coordinator have been approved • Held Disaster lecture and drill		
Springfield Hospital	• Identified areas of improvement • Drafted new policies on EMR Optimization, Interfacility Transfers, Red Flag VS, Glasgow Coma Scale, and Notification Procedures • Implemented Direct Bedding	• More than 40 positions eliminated due to budget cuts • Leadership/Staff turnover • Filed for bankruptcy	
UCONN Health	• Direct feedback for pediatric transfers to Connecticut Children's Medical Center • On point with assessments with regards to the need for transfer, consultation and/or admission. • Common transfer indications discovered - orthopedic injuries, abdominal pain/diseases, & respiratory illnesses	• Difficulty with DUA approval • Sharing information outside of our own health system (HIPPA) – i.e. CCMC	• Interfacility transfer documentation can become a reality, requires time.
Yale New Haven Westerly Hospital	**Baseline Data** –30 randomized charts from the year 2018 **0% total compliance**—weights obtained in *BOTH* lbs and kg; **Post-Intervention Data – 72% compliance!!!** **Development of regional and pre-hospital relationships**	• Purposeful sampling showed that practices in action but not always being documented. • Noted a deficit in escalation of vital signs • Had some technical issues with logging into data system. • Staff turnover • Subjective interpretation of pain scales – do we all interpret the same? • Lengthy data entry process	• Wt in Kg was an ideal bundle to start with. • VS escalation is ongoing project. • Providers and RNs all willing to participate • Opportunity to educate

What's Next?

- Ensure colleagues are recognized for their efforts locally, regionally and nationally
- MOC & CEU Process Clarified
- Continue to foster relationship with affiliate sites
- Work to ensure sustainability – come up with ways as to how?

Thank you for all your tireless dedication to improving the quality of care that our pediatric population receives – you are changing lives!









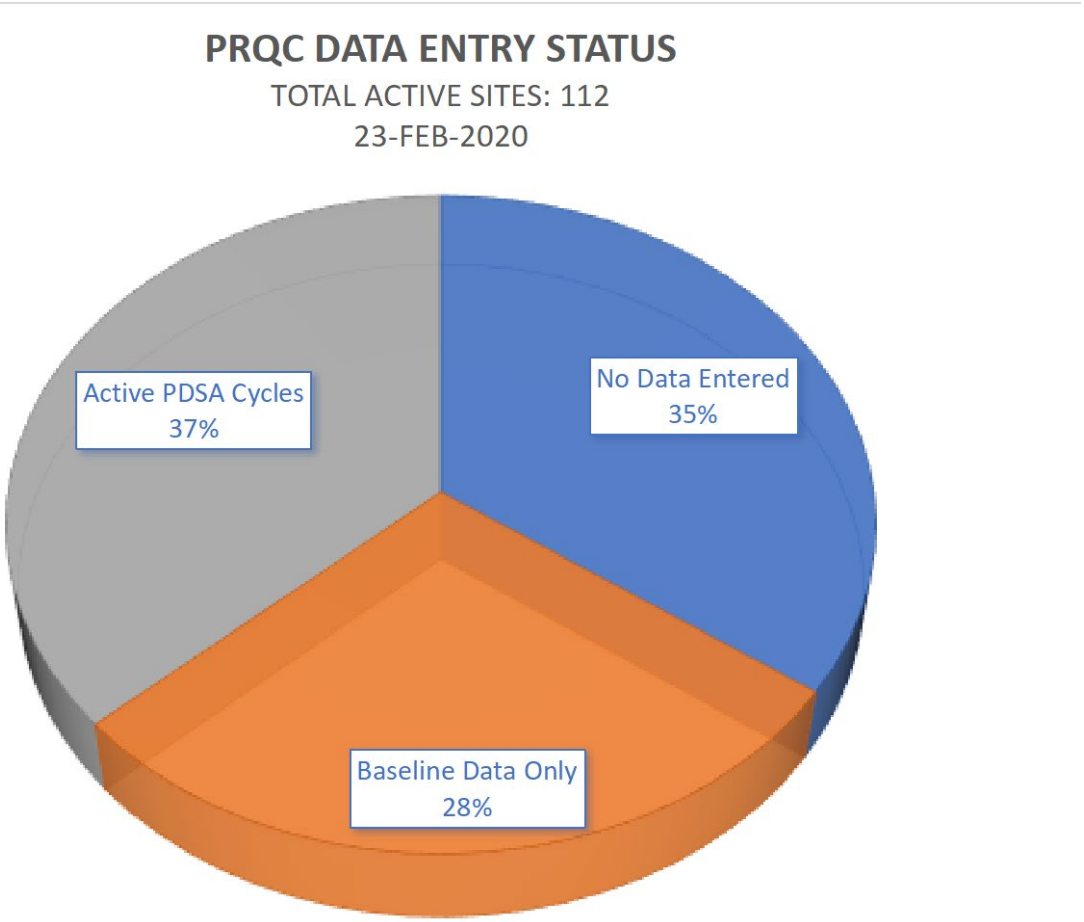



Celebrating Successes!

Participation Summary

Team Summary	
Teams	16
Sites	120 (112 active + 8 training)
Dropped	21
State Representation	17 AK, CA, CT, GA, IL, IN, KS, MO, NJ, NY, OR, RI, TN, TX, VT, WA, WI

Over 6700 charts reviewed!



Best Practices

Weight in Kilograms

- New scales
- Policy changes
- Hospitals in network

Abnormal Vital Signs

- Badge buddies/ Posters (based on PALS)
- Formal policy
- Staff Education
  - Importance of a full set of vitals
  - Tips/tricks on collecting vitals
  - 1:1 chart feedback, staff huddles, or posting staff performance
- EHR integration

Interfacility Transfer

- Policy changes (establish criteria)

Disaster Preparedness

- Rapid intake / admit / discharge paper forms
- Involvement of child life: “goodie bags”

Teams

- Monthly team meetings
- 1:1 Communication with champions
- Monthly pulse checks
- SP manager engagement

FINAL TASKS

Sustainability Planning

- Sujit Iyer, MD

C-Suite

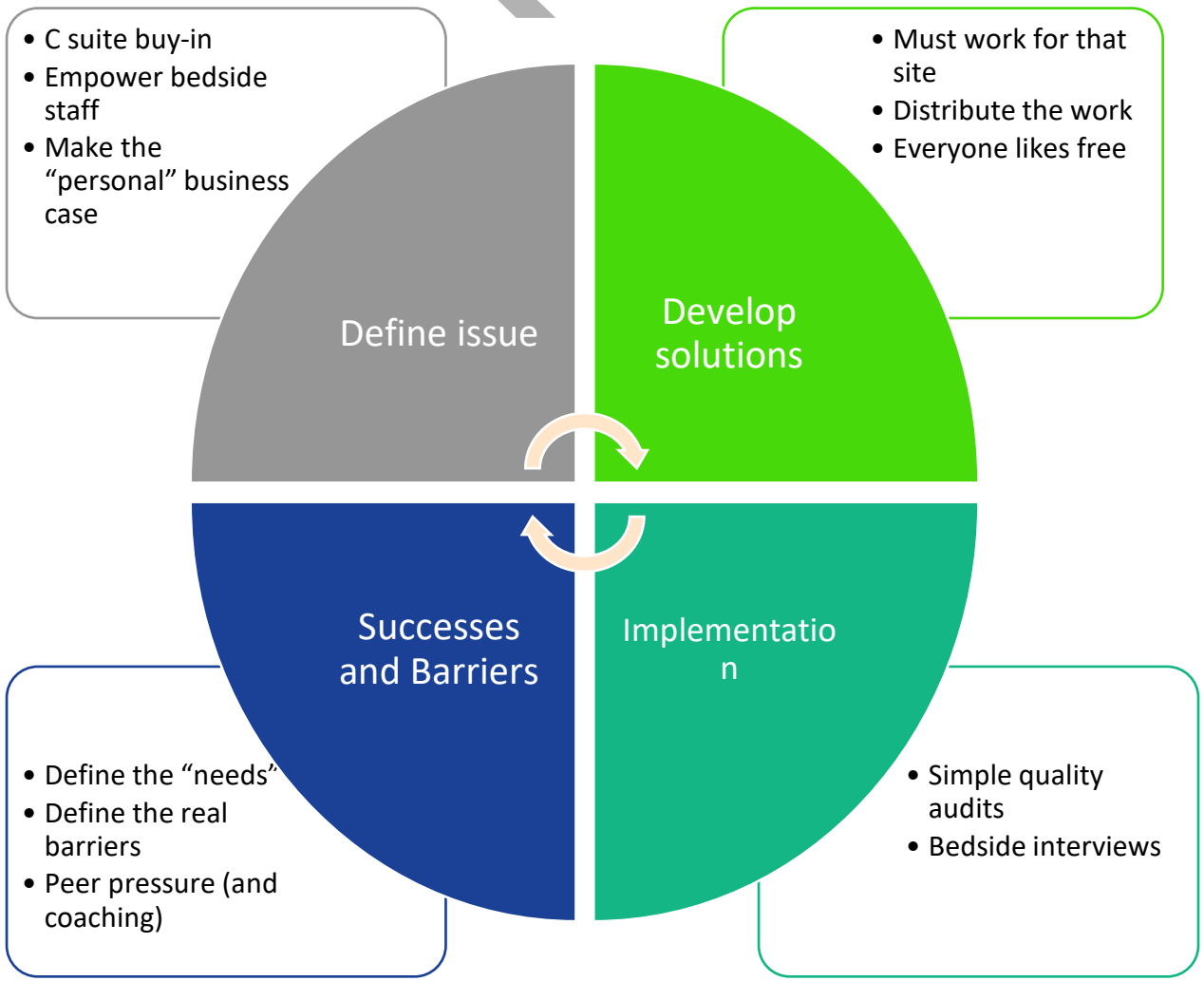
- Public Reputation
- Market Share
- ROI

ED Leaders

- Competing interests
- Staff training vs patient need (bang for the buck)
- Patient safety
- Staff resources

Bedside Staff

- Initiative of the month
- Perceived need for improvements
- Who are the local experts they trust



Sustainability Planning

Engaging Hospital Leadership

- PowerPoint Slides (click link)
- Link to recording: https://youtu.be/FfocfUpUrcI

Dr. Sujit Iyer
Dell Medical Center Children's Hospital
The Longhorn Kids

1. Final Team Presentations

Showcase your work: successes, best practices, impact of the collaborative on your institution, plan for sustaining efforts

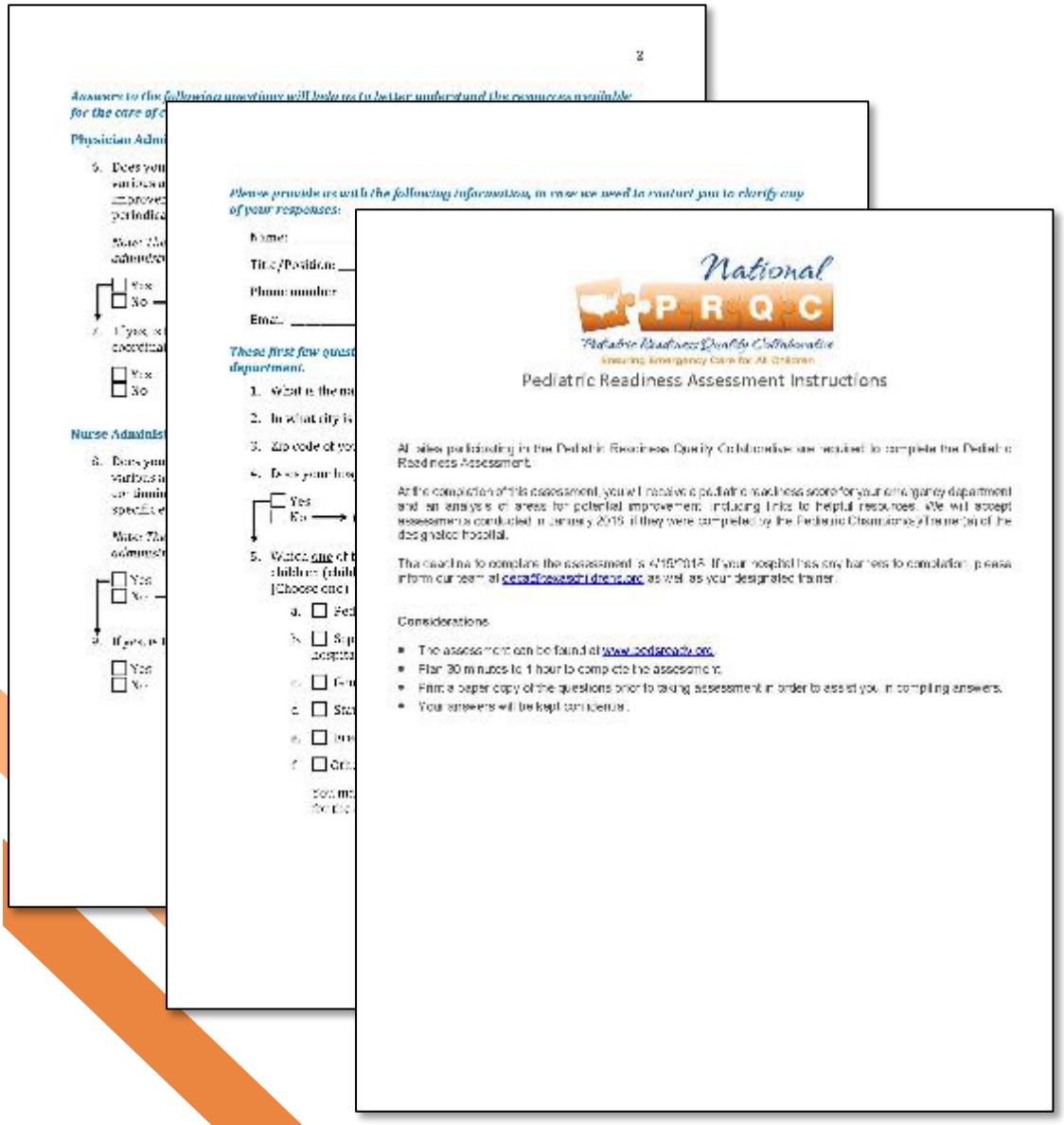
April 7, 2019

Eight is Enough
ETCH
Fight or Flight Response Team
LifesavERs
Pediatric Peaches
ReTEE for Kids
WISPR

April 21, 2019

Lone Star Kids
Longhorn Kids
MOKAN Rocks
New England EMSC
Oregon Pediatric Readiness
Pediatric Pit Crew
Remoc's Minions
WranglER for Kids

2. Complete the NPRP Assessment



- **Required** to achieve collaborative SMART Aim
- Same assessment completed at the beginning of the collaborative
- PRQC-specific website
- Open April 1- 30

If your hospital will be unable to complete the NPRP Assessment during this window, you may complete the paper version. Email Meredith for more details

3. Exit Survey

- Participation **Required**: Affiliate sites and participating training sites
- Asking for feedback
  - Structure of internal teams
  - Overall design of the collaborative
  - Data Entry System
  - Opportunity to sign up to be part of a focus group for future collaborative
  - Input recipient(s) for Certificate of Appreciation signed by HRSA for display in your ED

Join: NPRP Community of Practice

- Receive access to resources and activities including projects, webinars, and surveys
- For more information: https://emscimprovement.center/collaboratives/pediatric-readiness-community-practice-nprp-cop/

NPRP CoP Webinars

Webinar #3

January 16, 2020

After viewing this webinar, attendees will be able to:

1. Understand how the Pediatric Readiness Survey can be used to develop uniformity in pediatric emergency care in a rural health care system's EDs
2. Understand how the Pediatric Readiness Project can be instrumental in development of a de novo pediatric emergency medicine program
3. Report the four barriers to improving pediatric readiness across a health system/hospital and strategies to address them

Download presentation slides here.

Webinar #2

September 17, 2019

PowerPoint Slides:

- Katherine Remick, MD, FAAP, FACEP, FAEMS: *Developing a Regionalized System forPediatric Quality Improvement in theEmergency Department*

Defining the PECC Role

- Presence of a PECC = Improved Pediatric Readiness
- What does the PECC do?
  - Is it a supported position?
  - Is it a shared role?
  - Who is serving in this role?
- EMSC hoping to better define the role to support ongoing efforts
  - Brief survey to follow to better understand how you have been supported in your efforts and the tasks you have undertaken

Expanding the Impact and Spreading the News…

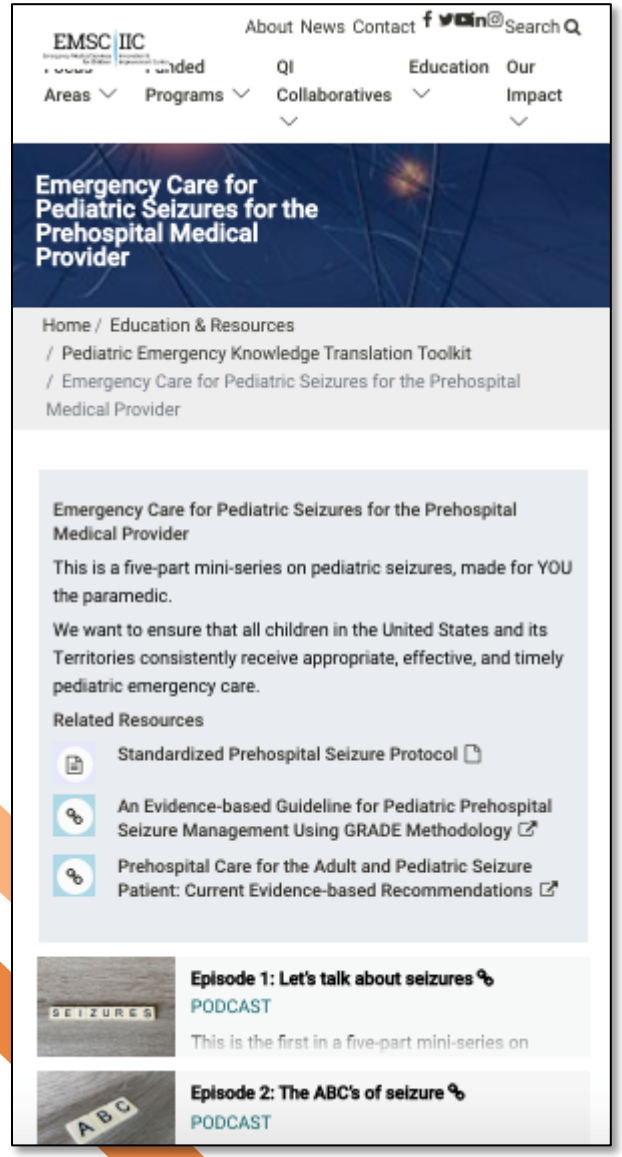
- Lorin Brown
- Patrick Dolan
- Michael Goldman
- Deborah Huang
- Sujit Iyer
- Michael Kim
- JustinMcAllister
- Tim Staed
- Diana Yan

HOUSEKEEPING

All Teach, All Learn Culture

- All working together
- Share what works!
- Get help and advice from others
- Consider sharing resources/policies: badge buddies, staff education tools/PowerPoint presentations,

New EIIC Resources



- New Resource Library (modeled after TREKK.ca)
- First Condition: Seizure management
- Prehospital Provider
  - 5-part series: 4 podcasts and 1 video
  - Standardized protocol
- More to come!

ASPR TRACIE: Pediatric Surge Annex Webinar

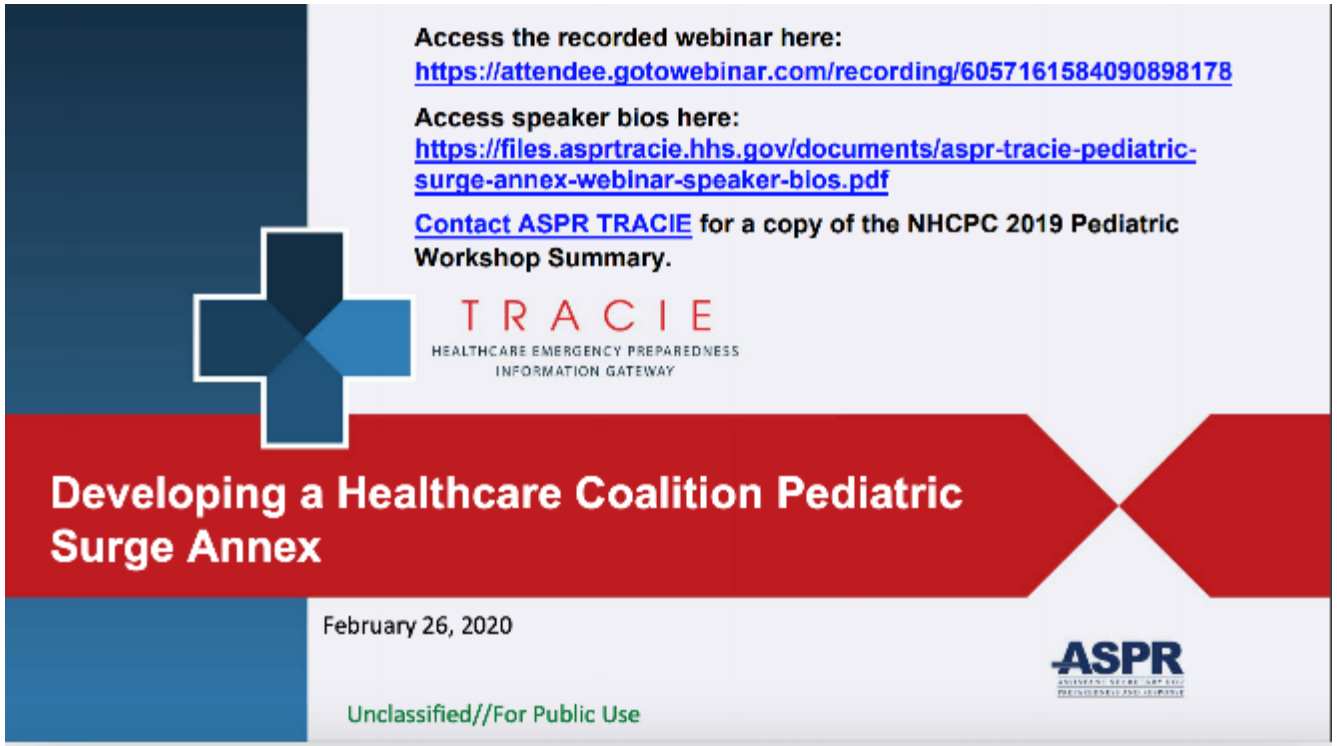
PowerPoint Slides

https://files.asprtracie.hhs.gov/documents/aspr-tracie-developing-pediatric-surge-annex-webinar-final.pdf.

Recording

https://register.gotowebinar.com/recording/6057161584090898178.

**You will be asked to enter your name and email address prior to accessing the recording.*



Key Information

CNE Link: https://tch-redcap.texaschildrens.org/REDCap/surveys/?s=C3CHENDRY8

Google: EMSC PRQC (Password also)

Email: qeca@texaschildrens.org | dcc_prqcsupport@hsc.utah.edu