VON QI Team Improvement Story

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Dr. Rachel Umoren is an Assistant Professor of Pediatrics at the University of Washington. She graduated with a medical degree from the University of Calabar in 2003 and completed her pediatric residency and neonatal fellowship training at Riley Hospital for Children, Indianapolis, Indiana in 2012. She has advanced training in clinical research and quality improvement with a Masters in Clinical Research from Indiana University (2010) and Certificate in Patient Safety and Quality from the University of Washington (2016). She also has advanced training in educational scholarship as a graduate of the Academic Pediatric Association Educational Scholars Program (Cohort VI). Dr. Umoren's research centers on the evaluation of emerging technologies such as virtual simulation for health professional training. These innovative strategies enable neonatal educators to implement and test quality improvement processes with the goal of improving neonatal care and decreasing infant mortality.

David Loren MD
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Dr. Loren is an assistant professor and clinician-educator at all of our clinical practice sites where he teaches and supports medical students, residents and fellows. His scholarly work intersects practical medical ethics, quality improvement and communication. He is a principle investigator and co-investigator on several projects studying communication of unanticipated outcomes and disclosure of medical errors.

2016 NICQ & iNICQ Symposium, Monday, September 12, 2016
VON QI Team Improvement Story

Objective: Synthesize the features of well-designed and executed tests of change.

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NICQ Next²

Teams and Teamwork

Rachel Umoren MD & David Loren MD
University of Washington

2016 NICQ & iNICQ Symposium
September 12, 2016

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NICQ Next²

Disclosure

The University of Washington team does not have any financial arrangement or affiliations with a commercial entity, nor any off-label uses of teamwork to disclose.

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Our Team

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Children's Hospital of California at Mission
Children's Memorial Hermann Hospital
Inova Fairfax Hospital for Children
Janet Weis Children's at Geisinger Medical Center
Joe DiMaggio Children's Hospital
Medical University of South Carolina (MUSC)
New Hanover Regional Medical Center - Betty H. Cameron Women & Children's Hospital
The Medical Center at Columbus Regional
University of Washington
WakeMed Health & Hospitals
Wesley Medical Center
West Virginia University (WVU) School of Medicine

*Give or take a few 100 miles

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Level IV - WWAMI

50 beds, single room

~1,200 deliveries/year
~520 admits/year

UW Medicine
UNIVERSITY OF WASHINGTON MEDICAL CENTER

220 RNs
8 NNPs
12 Neos
7 Fellows
20 RTs
3 Nutritionists
2 Pharmacists
3 SLPs
3 PTs
2 SW
1 DC coordinator
120 residents
>12 Family Advisors

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AIM's

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Improvement Story

Teamwork Training to Enhance NICU Patient Safety and Outcomes

"How do we turn a team of experts into an expert team?"

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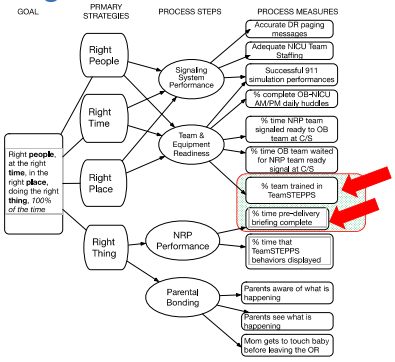
Aims

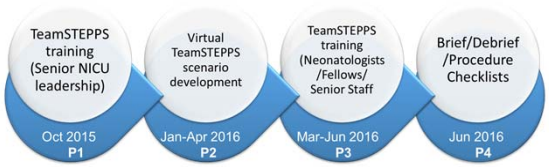
Right people
at the right time
in the right place
doing the right thing
100% of the time

Driver	Key Question
1. Competence	Right **people** with the right mix of KSA's?
2. Cooperation	Right **attitudes** about and willingness to team?
3. Coordination	Demonstrate necessary teamwork **behaviors**?
4. Communication	**Communicate** effectively with each other and outside?
5. Cognition	Possess a **shared understanding** (e.g., priorities, roles, vision)?
6. Coaching	Leader and/or team members demo **leadership behaviors**?
7. Conditions	Have favorable **conditions** (e.g., resources, culture)?

Driver Diagram



Interventions



TeamSTEPPS

Measurement

"Inner circle" - Delivery Room behaviors

"Outer circle"

- NICU intubations

NIE AIR NEO

- Physiologic stability during intubation
- Lowest heart rate (bpm)
- Lowest pulse oximetry saturation (%)
- Teamwork score (Scale 1-7)

- Teamwork Perceptions Questionnaire (TPQ)

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Results

59 deliveries

31 weeks mean GA

79% of the time briefing done

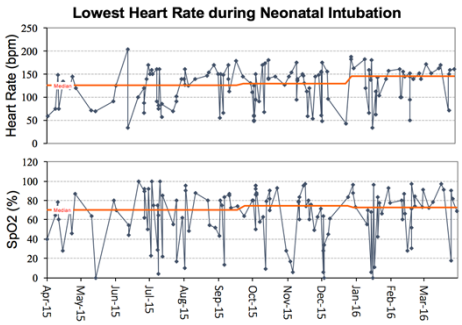
14% not documented

53% of the time a parent was in the ISR

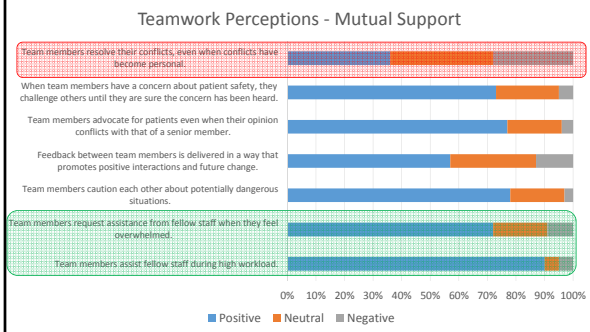
68% of the time mom saw her baby in the OR

7% of the time mom was under GA

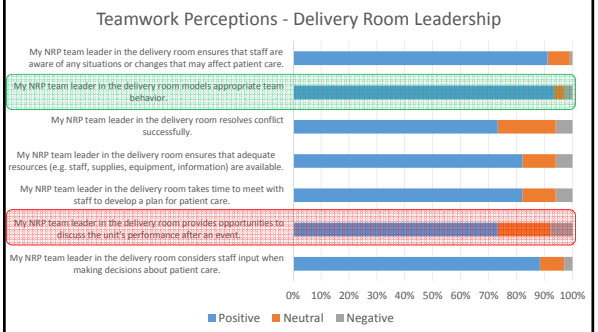
Results



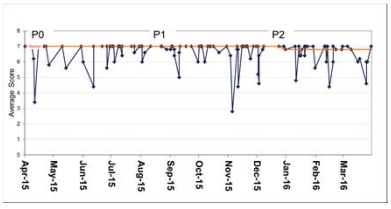
Results



Results

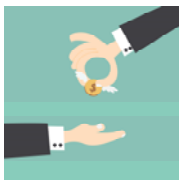


Key Learnings



Assessment of Teamwork During Neonatal Intubation

Key Learnings



Slide 13

DL1 David Loren, 9/9/2016

DL [2]1 place snapshot of driver here with relevance circle
David Loren, 9/9/2016

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Next Steps

- Expand teamwork training
- Virtual and in-situ simulations
- Expanding situational checklists
- Parent touching baby in OR
- Parent engagement

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