

Pediatric Program of Care: Efforts in Creating High-Reliability Systems



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Pediatric Program

- Strives to create a culture focused on quality care delivery
- Requires collaboration and the adoption of high-reliability processes
- We embed such systems within our infrastructure



Outline

- Enhanced Pediatric Pre-admission Process
- Pediatric CLABSI Prevention Bundle
- Opportunities for Growth

Enhanced Pre-Admission Process

Building Bridges to Support Care

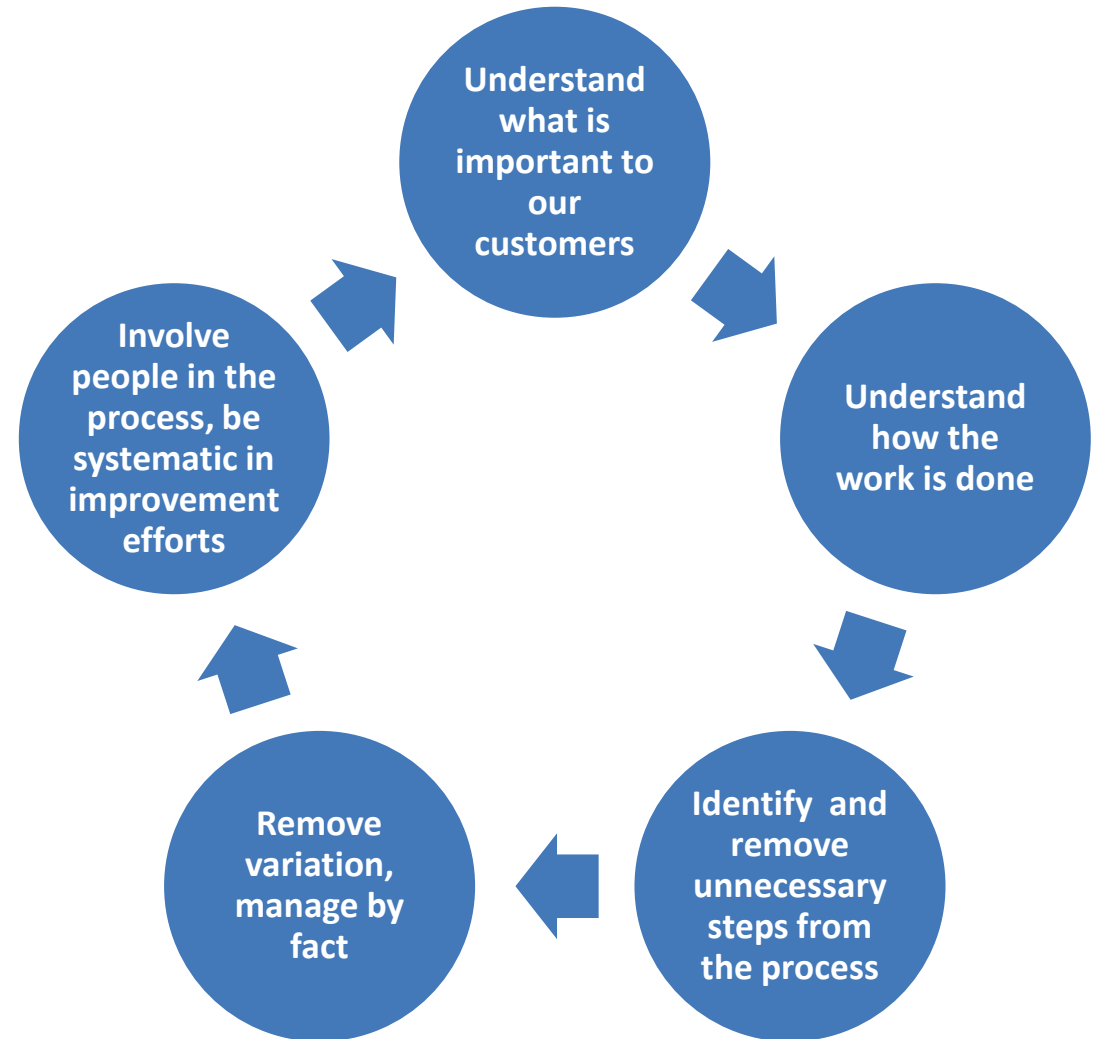
- Early on
 - Clinical forums
 - Shadowed staff
 - Engaged families
 - Monitored and reviewed patient safety reports (ORS/ STARS)
- Over time
 - Trends
 - Strengths
 - Opportunities for improvement in care coordination

Gaps in Pre-Admission Process

- Opportunities
 - Unplanned/unscheduled visits
 - Unidentified medical needs
 - Lack of standardization of information within the pre-admission forms
- Impact
 - Care coordination
 - Allocation of resources
 - Misinterpretation of care needs
- Formed Interdisciplinary team
 - Drill down
 - Retrospective review and comparison of pre-admission form/process

Improvement Strategies Using Six Sigma Principles

- Formed an interdisciplinary team
- Conducted analysis
- Collected data & defined metrics
- Analyzed findings



Findings

- Evaluation
 - Retrospective review & comparison
 - 5 days of pre-admission forms
 - 160 pre-admit forms, from 13 institutes
- Findings
 - 40 form types, 25 common fields, 3 submission processes
- Analysis
 - Forms captured information specific to a particular protocol or branch
 - Correlation between variability and opportunities for improvement
- Results
 - Suggested that standardization of the pre-admit form/ process could improve communication, care coordination, and minimize potential safety risks

High-Reliability Pre-Admission Enhancements

- Formed specialty teams and engaged champions
 - Design and enhancement of the pre-admission form and process
- Form Design
 - Drop down menus, smart logic, auto populating fields
 - Mandatory fields and alerts
 - High-risk screening questions
 - Patient location
- Educated
 - Across disciplines, institutes, and branches
 - Slogan “going green”

Enhanced Pre-Admission Process

- November 2017: Phase 1
 - Transitioned from a manual to an electronic process
 - EMR (CRIS)
 - Report capabilities
 - Continued to accept paper pre-admission forms
 - Operationalized
- Example: Pre-admission/Encounter Request

Inpatient Admission Pre-Admit form should be entered 2 weeks before admission. Outpatient and Day Hospital Encounter Pre-Admit form should be entered 1 week before encounter.						
Pre Admission Orders						
	Order	Date of Encounter	Time of Encounter	Reason for Visit	Provider to Notify Upon Arrival	Response
- Pediatric Admitting Orders - 3 item(s)						
<input checked="" type="checkbox"/>	1NW Pre-Admission Request					
<input type="checkbox"/>	1NW Pediatric Day Hospital Encounter					
<input type="checkbox"/>	1H-Pediatric Outpatient Clinic Encounter					
<div><div></div></div>						
If requesting a cardiac monitor please enter a PACC Consult. Enter an ENT CONSULT if patient has a Tracheostomy. Enter a NUTRITIONAL CONSULT if patient has special dietary needs, formula or TPN.						

Pre-Admission Form

- General Information

General Information			
Date of Admission:	Time of Admission:	Estimated Discharge Date:	Age on Admission:
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Diagnosis:	Reason for Visit:		
<input type="text"/>	<input type="text"/>		

- Institute Information

Institute Information			
Primary Institute:	Protocol Number:		
<input type="text"/>	<input type="text"/>		
Provider to Notify Upon Arrival:	Phone Number of Institute Contact:		
<input type="text"/>	<input type="text"/>		
Responsible LIP:	LIP Phone:	LIP Pager:	On-call Provider for LIP:
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- Significant Medical History

Significant Medical History

Phase 1: Post-Implementation Challenges

- Challenges
 - Security setting limited user access (expected)
 - Customized form request
 - Manual electronic schedule submission
- Interventions
 - Met with institute partners, held forums, compiled feedback
 - Reconvened with design team
 - Made enhancements
 - Created electronic schedule submission process
 - Tested and created new education
- March 2018: Phase 2
 - Schedule upload capabilities, enhanced logic and user access

Outcomes

- Impact of Change
 - Improved care coordination, scheduling processes and understanding of care needs
 - Reduction in system errors (Example: contact information)
- Outcomes
 - Positive feedback from nursing and institute users
 - Increased utilization
 - Request to use throughout the Clinical Center
- Conclusion
 - High-reliability initiative played a vital role in improving processes
 - Standardized form allows information to be communicated in a consistent and efficient manner, promoting patient safety and a quality care delivery model

Opportunities for Growth

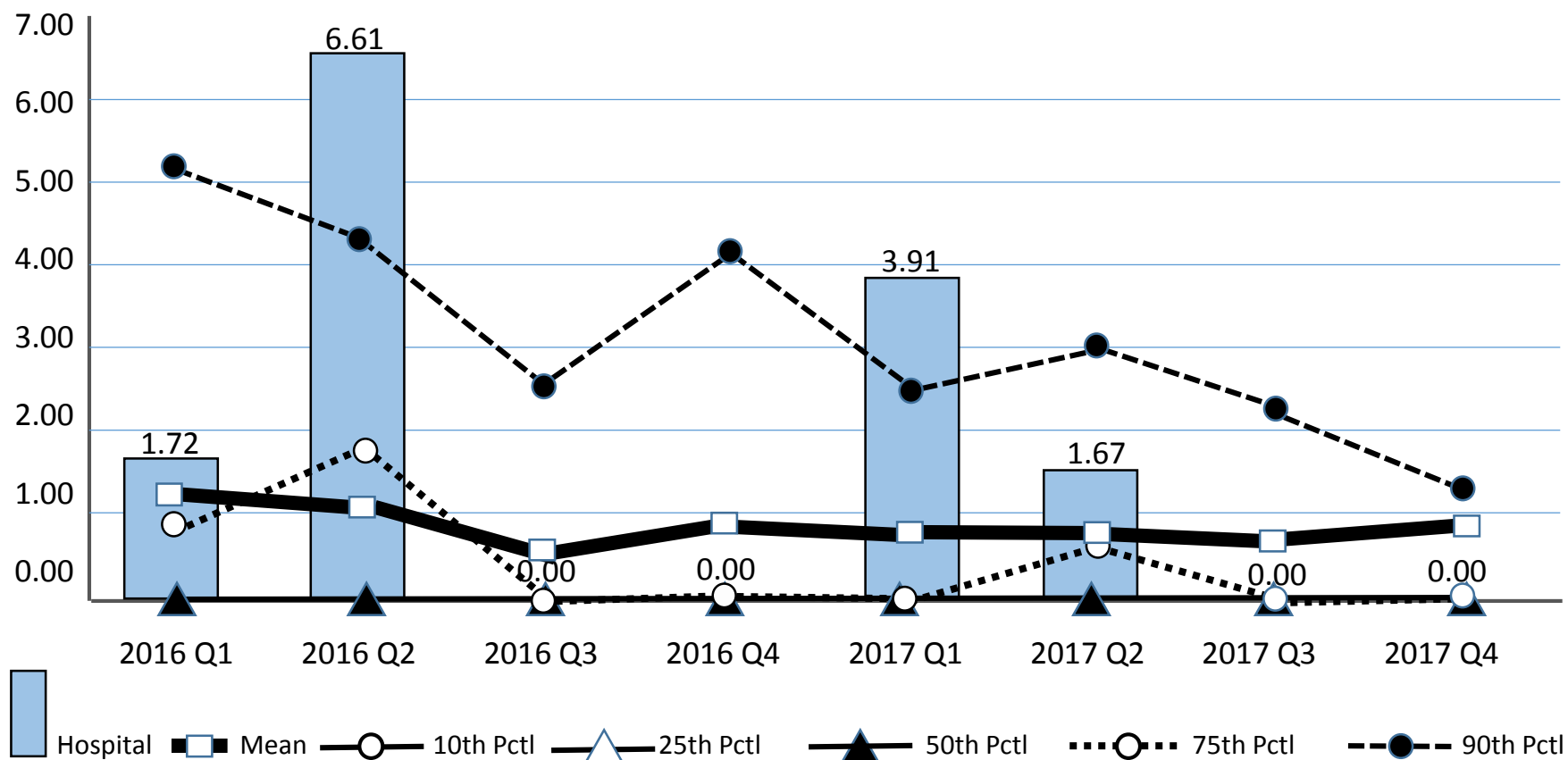
- Phase out team-specific forms
- Go 100% paperless for pre-admission requests
- Work with the Pediatric Consult Team to automate pediatric screening process
- Expand this process to adult clinical care areas

Pediatric CLABSI Prevention Bundle

CLABSI Rates

Unit: 1 NW Pediatrics

Measure: Central Line Associated Blood Stream Infections per 1000 Central Line Days



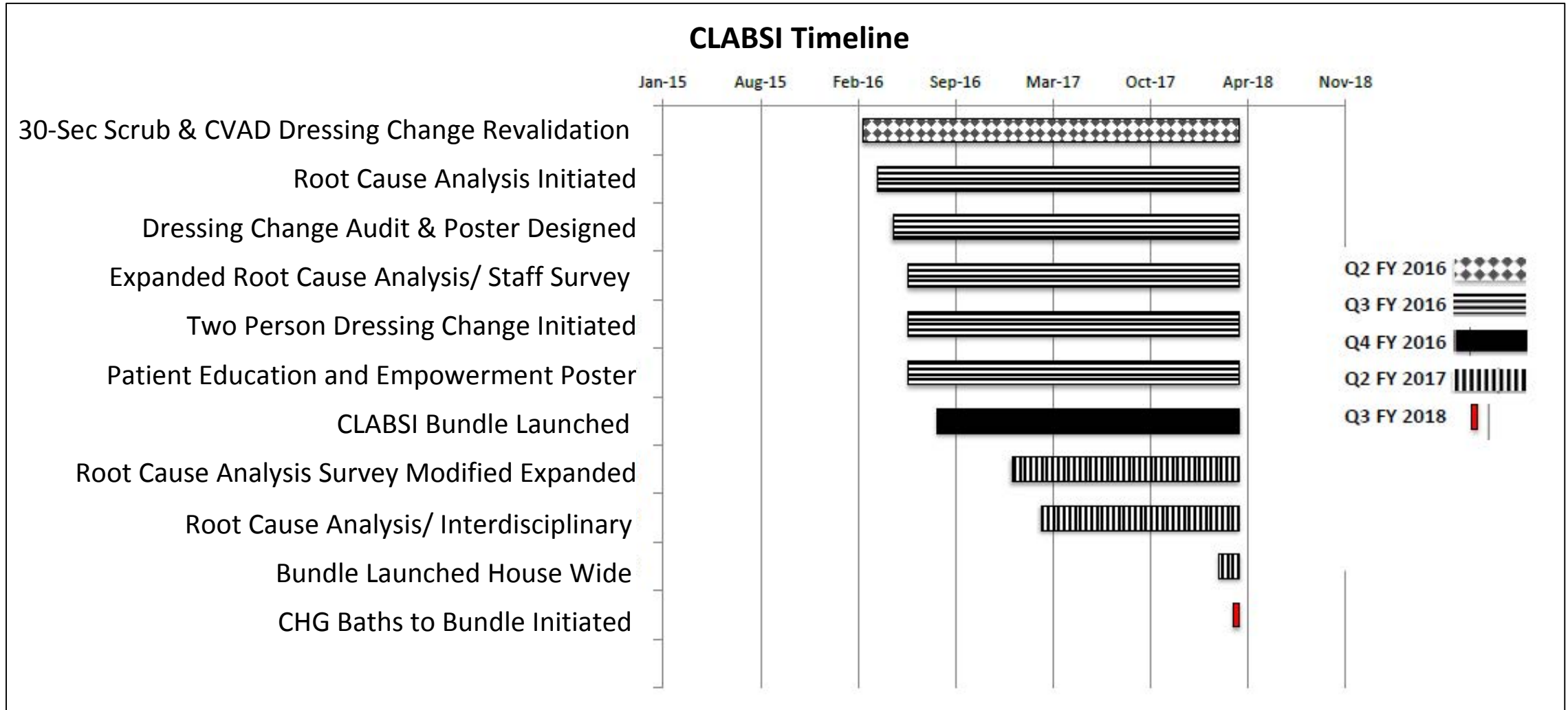
Prevention Strategies

- Conducted Root Cause Analysis (RCA)
 - Organism, risk factors, vulnerabilities
 - Partnered with Epidemiology
- Explored best practices and evidence for prevention techniques
- Determined and trained staff on those specifics
- Developed pediatric CLABSI bundle
- Pilot



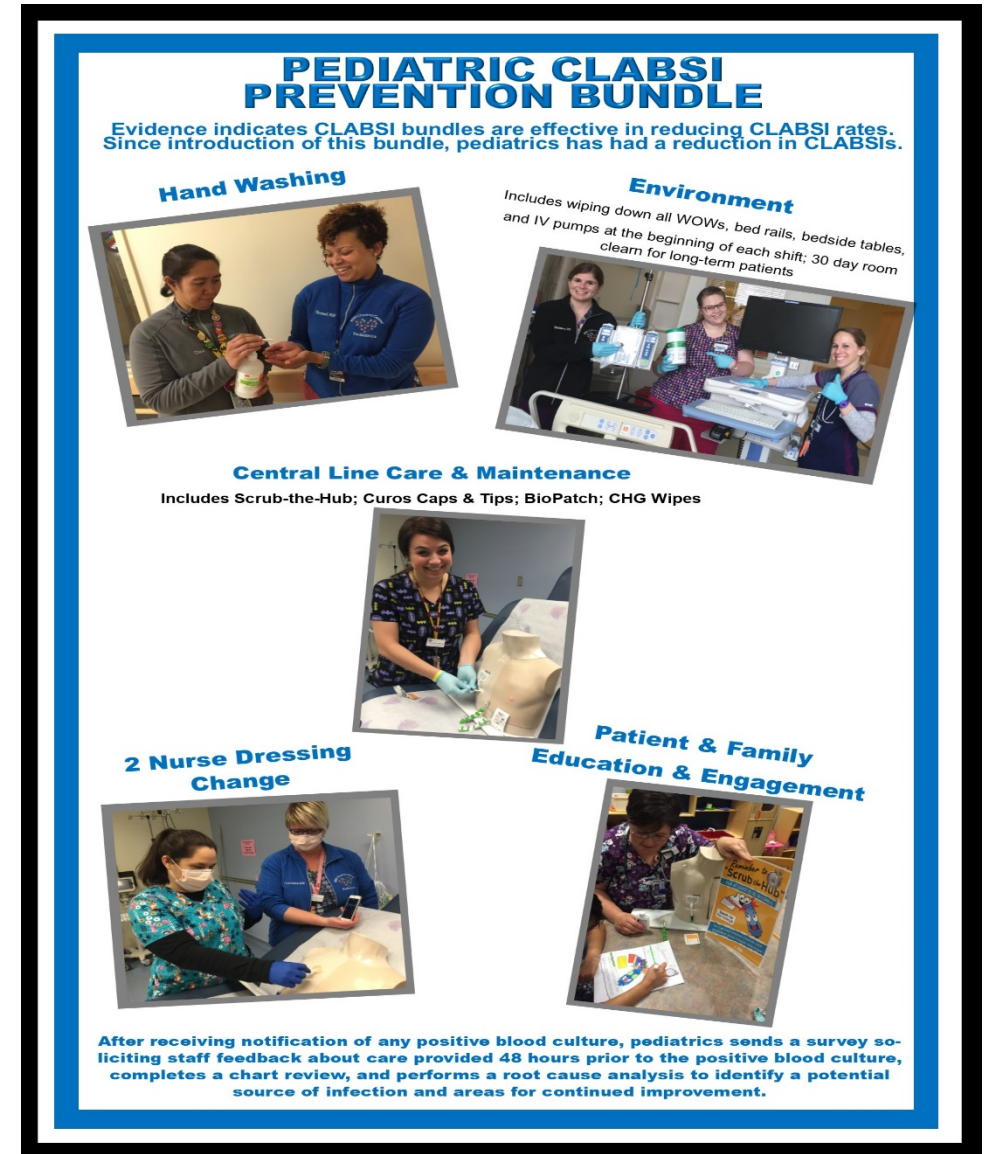
CLABSI Prevention Collaboration

- Graph: Depicts individual efforts that helped inform the bundle framework



Pediatric CLABSI Prevention Bundle

1. Hand Washing
2. Environment of Care
3. Central Line Care & Maintenance
4. Two RN Dressing Change
5. Patient-Family Education and Engagement



Education poster for staff

Staff Perception of Changes

Two-Person Dressing Change:

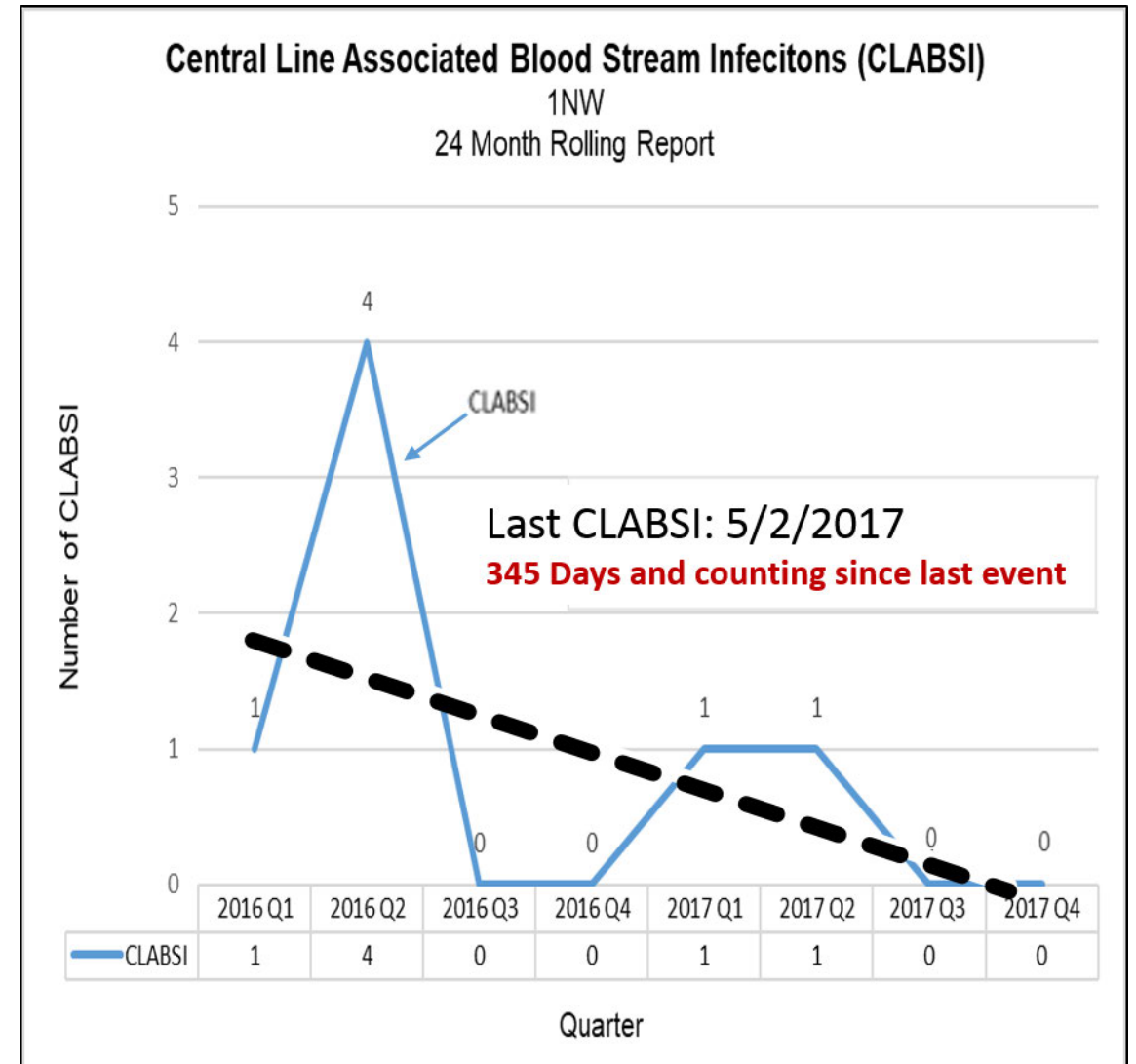
- “The second nurse is helpful as a ‘runner’ for supplies, a timer for scrub and dry times, assists with maintaining sterile technique.”
- “Parents have said that our dressing changes are efficient and very thorough with two nurses.”
- “I do not feel intimidated and know that our two nurse dressing change is what is best for the patient’s own safety and benefit.”

Environment:

- “While cleaning, I’m able to provide patient/family education, and helps families be aware of their environment.”
- “Wiping down surfaces was easy, not time consuming, and the wipes were readily available.”
- “It’s also a trigger to not keep so much ‘stuff’ on surfaces.”

CLABSI Prevention Outcomes

- Post-implementation
 - 345 days and counting
- Impact
 - Bundle is now being implemented in adult clinical areas
- Sustainability measures
 - Performance boards, huddle
 - Patient safety and quality meetings
 - Patient-family engagement



Opportunities for Growth

- Chlorhexidine gluconate (CHG) bath wipes
- Daily discussion of central line removal at rounds

Summary

- Systematic approaches to evaluate patient outcomes and create improvement strategies have been instrumental in driving change
- Commitment to patient safety through the implementation of high reliability care models

Acknowledgements

- Pediatric Program of Care, Staff
- Pediatric Program of Care, Education & Leadership Team
- Executive Leadership Team
- Institute Representatives
- Pediatric Consult Service
- Pediatric Care Committee Members
- Pre-admit Steering Committee Members
- Pre-admit Design & Technical Team
- Data Management Team
- Safety and Quality Representatives