

Pressure Ulcer Reduction Improvement Strategies at a Pediatric Academic Medical Center

Ed Mendez, RN, MPH & Pat Schaffer, RN, MSN

Sources: Institute for Healthcare Improvement (IHI), Institute of Medicine (IOM),
CCHMC's: Strategic Plan, Pursuing Perfection Website, I2S2 website,
Patient Safety Collaborative, Patient Services PI Web page



change the culture

we have been able to make an impact on the quality of care for our patients and our staff. We have been able to make an impact on the quality of care for our patients and our staff. We have been able to make an impact on the quality of care for our patients and our staff.



Cincinnati Children's Hospital Medical Center

- 511 Registered Beds
- 11,000 Employees; Over 3,000 RN's
- Ranked 2nd in NIH Pediatric Funding
- Top 10 Pediatric Hospitals U.S. News & World Report 2005, 2006, 2007, 2008, 2009
- Received the 2008 Picker Award for Excellence in honor of significant achievements in family-centered care
- Awarded Magnet Designation February 2009



Objectives

- Describe how improvement science was used to reduce pressure ulcers including:
 - developing a SMART aim
 - use of a key driver diagram
 - tests of change
 - a prevention bundle of strategies
- Identify how medical devices contribute to risk of patients developing pressure ulcers.

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Housewide Prevalence Survey January, 2007

- Conducted our first survey for Pressure Ulcers
 - 206 patients
- Results
 - All pressure ulcers: 10.7%
 - Facility Acquired pressure ulcers: 9.2%

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Identified a Comparative Benchmark: 2003 National Pediatric Pressure Ulcer Multisite Prevalence Survey

- 1064 patients surveyed
- All Pressure Ulcers: 4.0%
- Facility Acquired: 2.7%

McLane, et al, JWOCN, July/August, 2004

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Housewide Early Prevention Steps April, 2007

- Educational module created and available to all staff
- Two admissions questions added to electronic documentation
 1. Does your patient have a pressure ulcer?
 2. Does your patient have any other types of skin breakdown?

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Patient Safety Collaborative August, 2007

Pressure Ulcer Safety Collaborative

Leaders: Pattie Bondurant, MN, RN & David Pruitt, M.D

Subject Matter Expert: Ann Marie Nie, RN, CWOCN

1. RCNIC (Regional Center for Newborn Intensive Care)
2. PICU (Pediatric Intensive Care Unit)
3. TCC (Trach/vent Transitional Care Center)
4. A4C Inpatient Rehabilitative Unit

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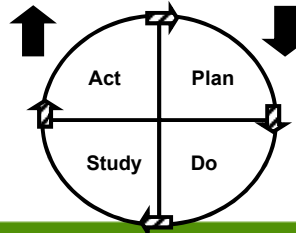


The Improvement Model

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

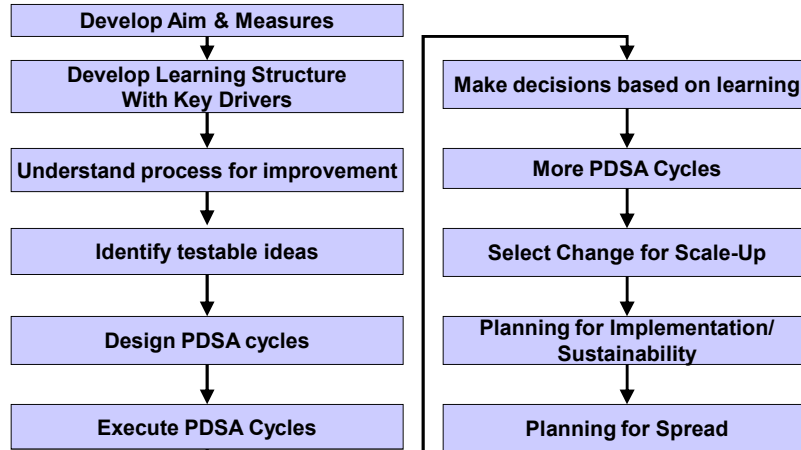


THESE ARE THE WAYS
TO MAKE YOUR ORGANIZATION BETTER

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Doing an Improvement Project Team Roadmap



change the outcomes

To view another example of this process see our NDNQI Poster #88:
Improvement Science Education: A Roadmap to Changing Patient Outcomes



Aim Statements

- Answers the first question:
 - What are trying to accomplish?
- **S - Specific**
- **M - Measurable**
- **A - Actionable**
- **R - Relevant**
- **T - Time bound**

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Patient Safety Pressure Ulcer Collaborative Aim Statement

To reduce the number of pressure ulcers in RCNIC, PICU, TCC and A4 Rehab by 50% (from May 2007) by February 2008

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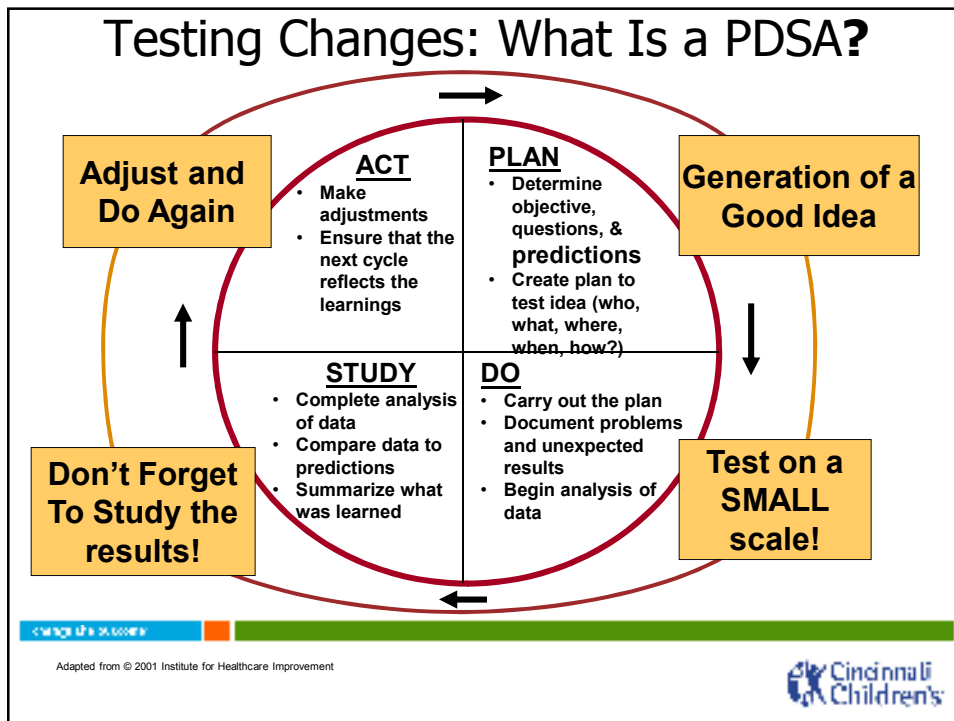
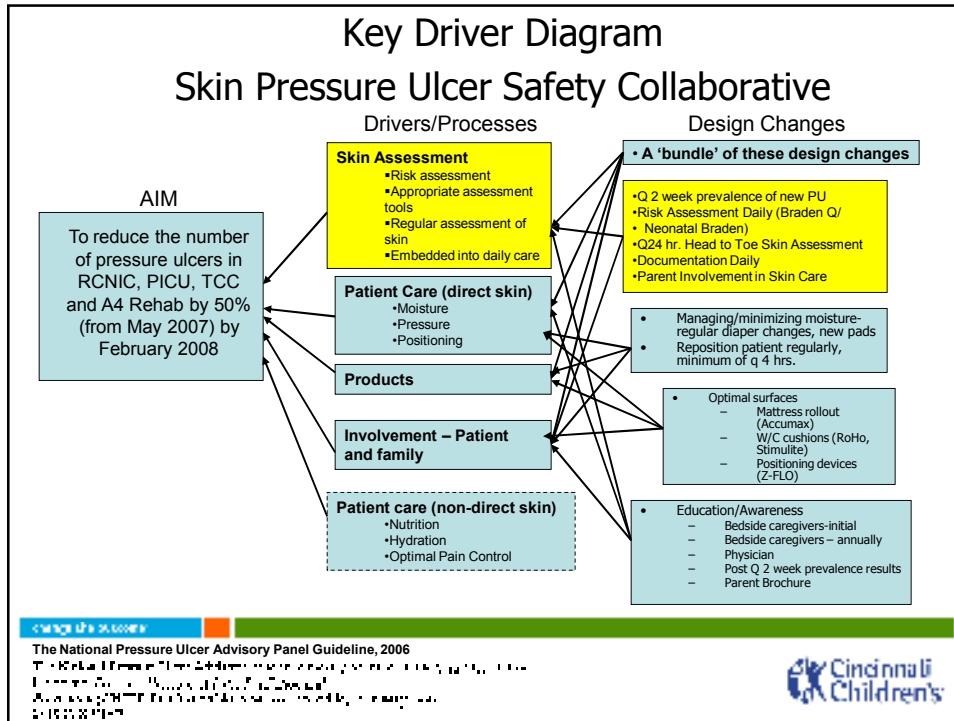
Using Evidence Based Decision Making we developed Components of our Pressure Ulcer Prevention Program

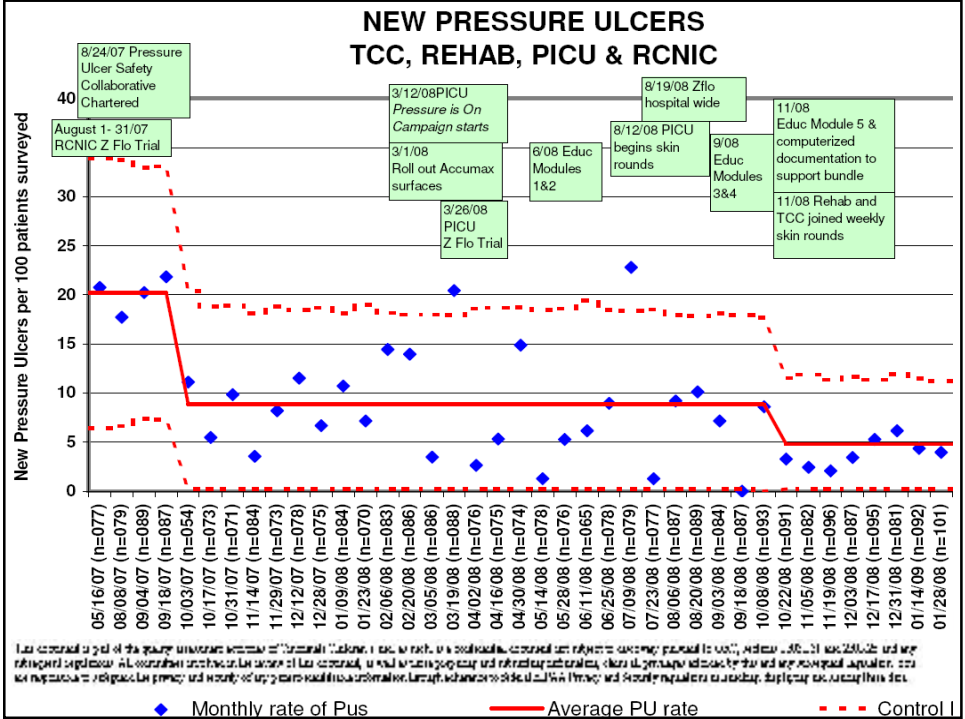
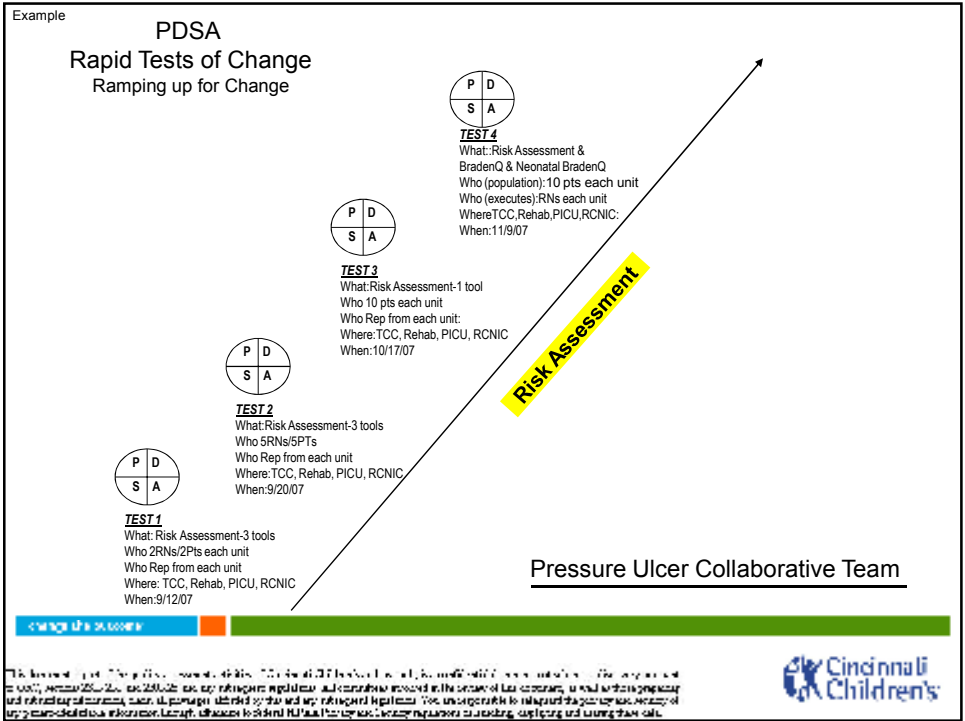
1. Risk Assessment
2. Head to Toe Assessment/Skin Care
3. Nutrition
4. Mechanical Loading and Support Surfaces
5. Education

Pressure Ulcer Prevention Points, National Pressure Ulcer Advisory Panel, 2007

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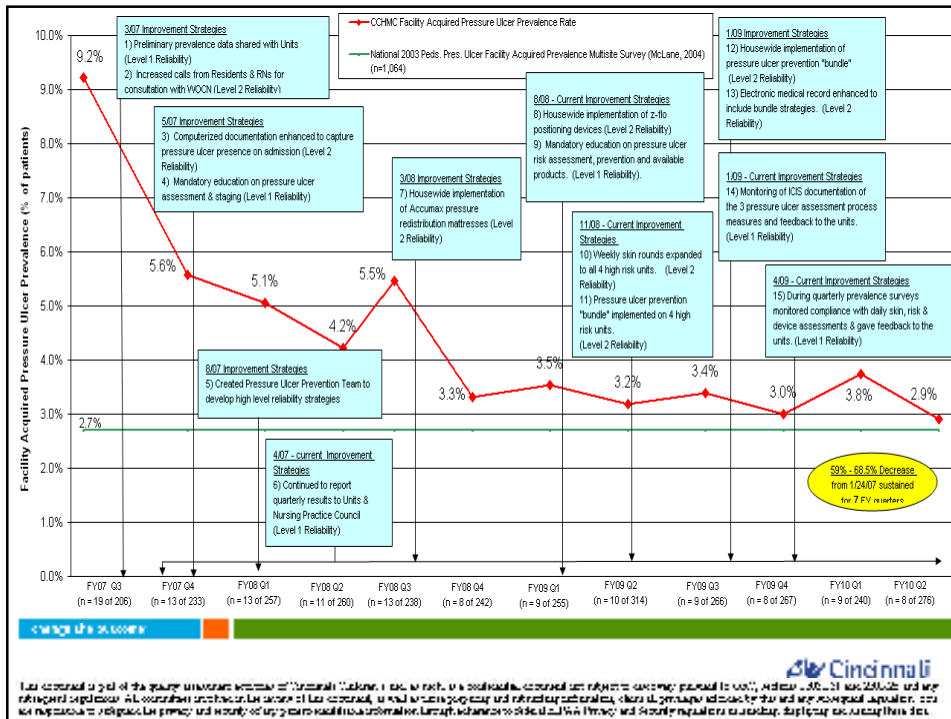
Housewide Spread January 2009

Pediatric Pressure Ulcer Prevention Bundle

Comprehensive Assessment				
Risk Assessment <ul style="list-style-type: none"> > 28 days of age, use modified Braden Q upon admission and daily ≤ 28 days of age, treat as high risk All RCNIC patients, treat as high risk 				
Skin Assessment <ul style="list-style-type: none"> Daily head-to-toe 				
Device Protection Assessment <ul style="list-style-type: none"> Every shift 				
Interventions				
Positioning	Moisture	Surface	Nutrition	Family
Based on the modified Braden Q assessment, reposition patients at moderate to high risk a minimum of every 2 hours. Reposition patients at low risk a minimum of every 4 hours.	Manage and minimize moisture by checking common moisture sites every 2 to 4 hours, and intervening as needed.	Use pressure reduction surfaces for beds and chairs.	Good nutrition is the first line of defense for prevention of pressure ulcers.	Involve and educate families in pressure ulcer prevention strategies and treatments.

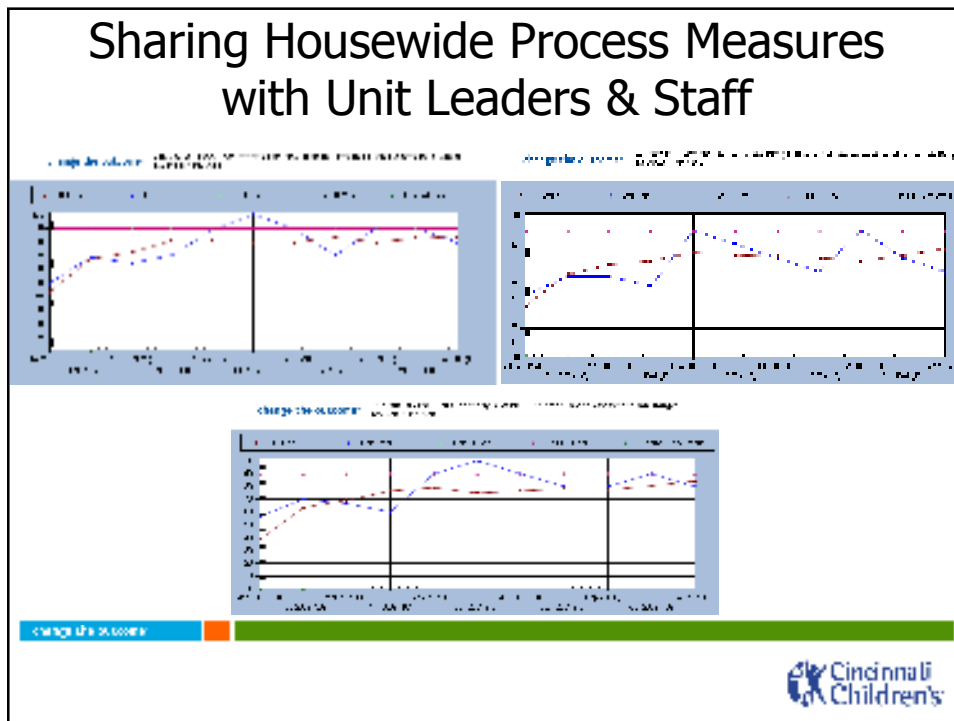
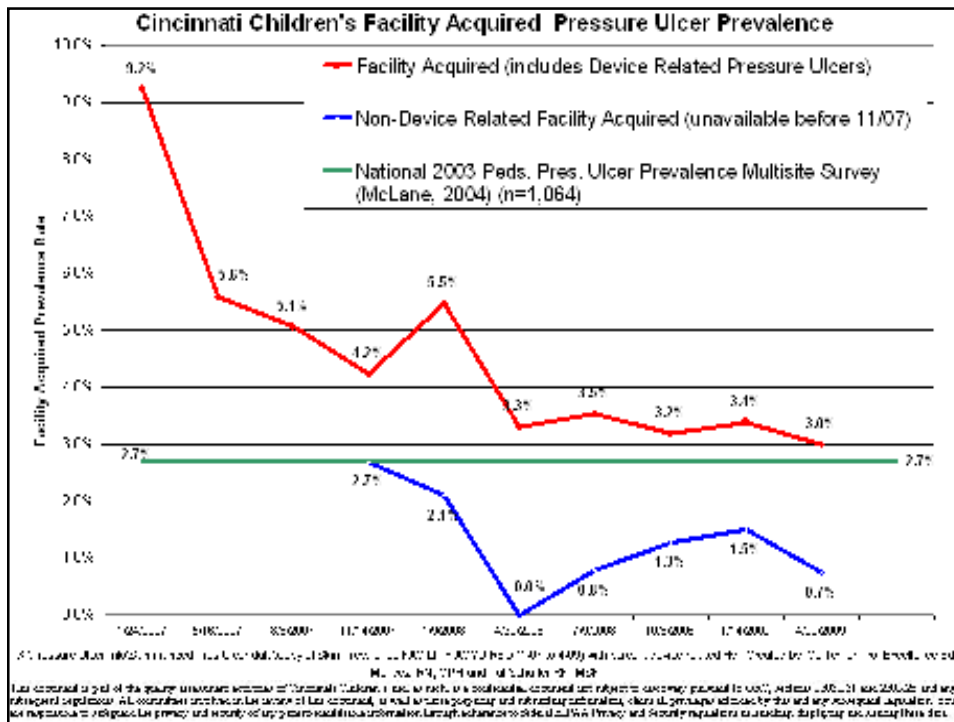
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change the way we



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Intermediate Improvement Science Series Project

August 2009

Led by: Pat Schaffer, RN, MSN

Team includes: Ed Mendez, RN, MPH

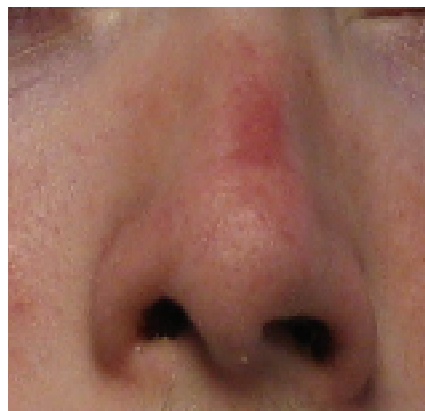
Improving Medical Device Assessment on A4C Rehab Unit to Impact the Reduction of Pressure Ulcers (in process)

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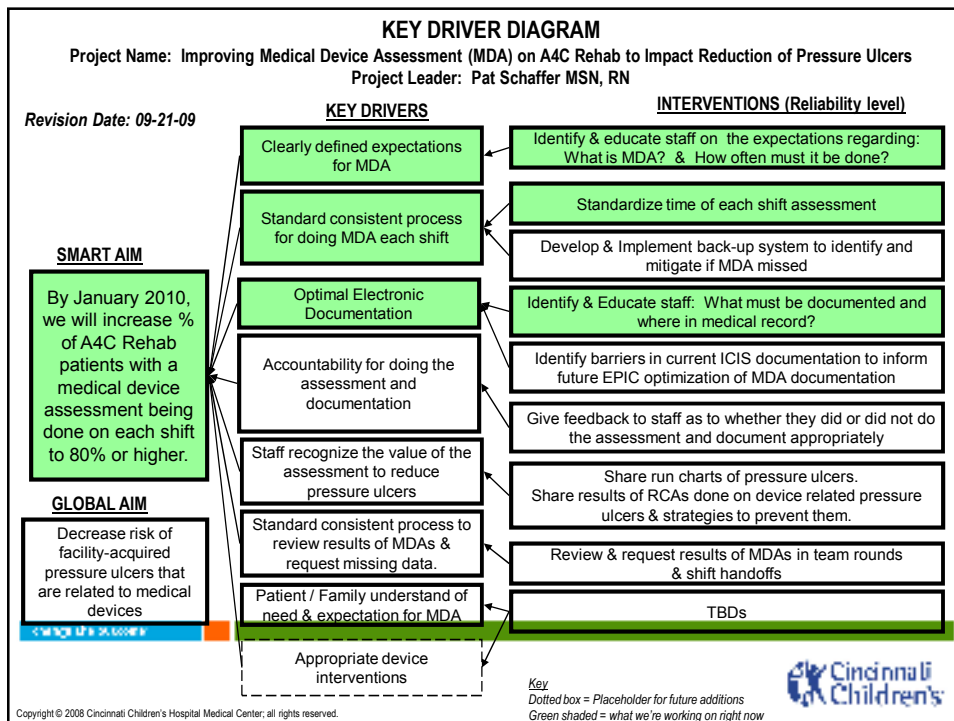
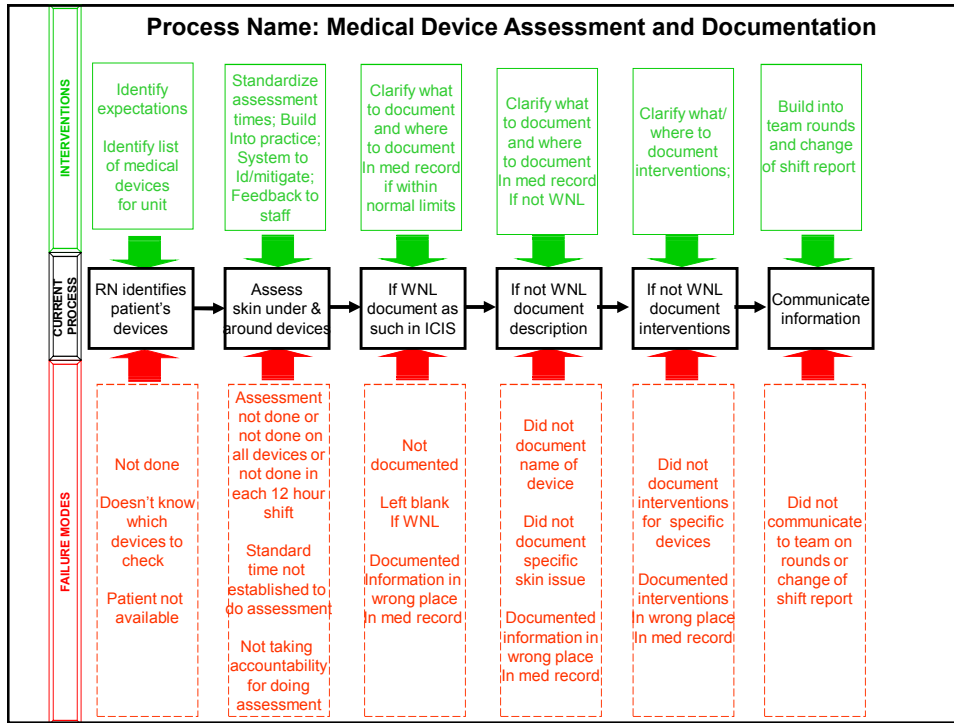
Mechanical Device Assessment

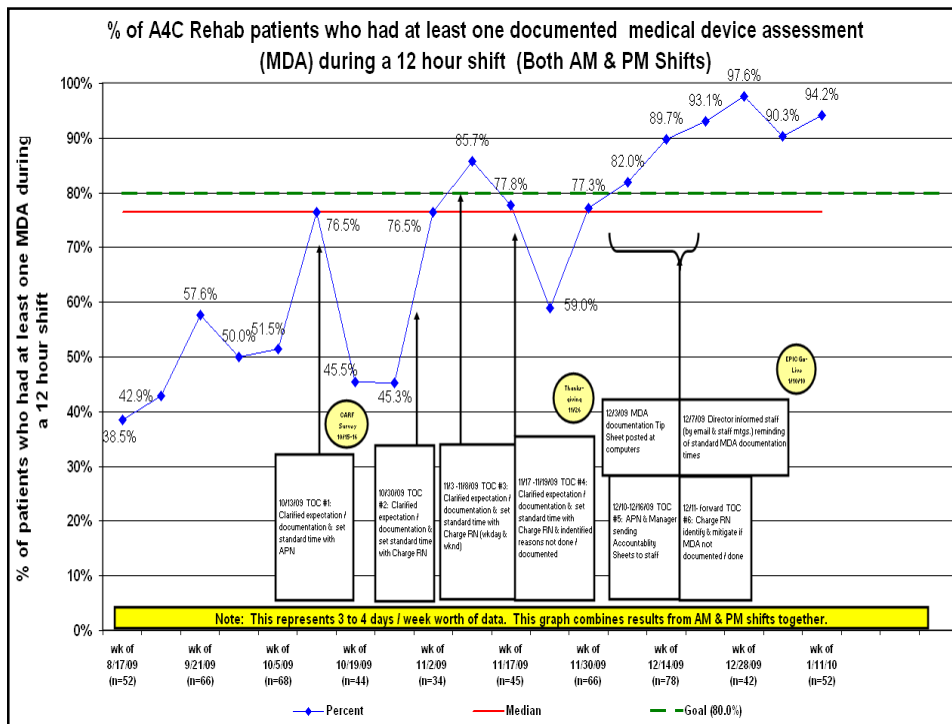
- Mechanical Device Assessment to be performed every shift
- Devices:
trachs, Cpap/BiPap mask,
pulse ox probes, casts,
splints, oxygen tubing,
etc.



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Next Steps to continue to reduce risk of Pressure Ulcers at CCHMC

- Further developing skin champions on all inpatient units
- Continued housewide implementation of the Pediatric Pressure Ulcer Prevention Bundle (providing compliance with process measures)
- Focusing further on prevention strategies related to mechanical devices
- Further analysis of pressure ulcer data to identify causes of failures
- Continue housewide quarterly prevalence survey
- Cost savings analysis underway
- Continue skin research activities & publish our learnings
- Optimize documentation for medical device assessment in our new Electronic Medical Record (EPIC) implemented 1/10/10.

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Questions?



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