

Sustaining a Culture of Safety and Quality in our Pediatric Intensive Care Unit

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BACKGROUND

The pediatric mortality rate for nosocomial catheter associated blood stream infections (CABS) and ventilator associated pneumonia (VAP) are significant. Catheter associated urinary tract infections (CAUTI) also adversely affect hospitalized patients by increasing morbidity and length of stay. All increase health care costs and are preventable.

Lack of Focused Approach to Safety and Quality in our PICU

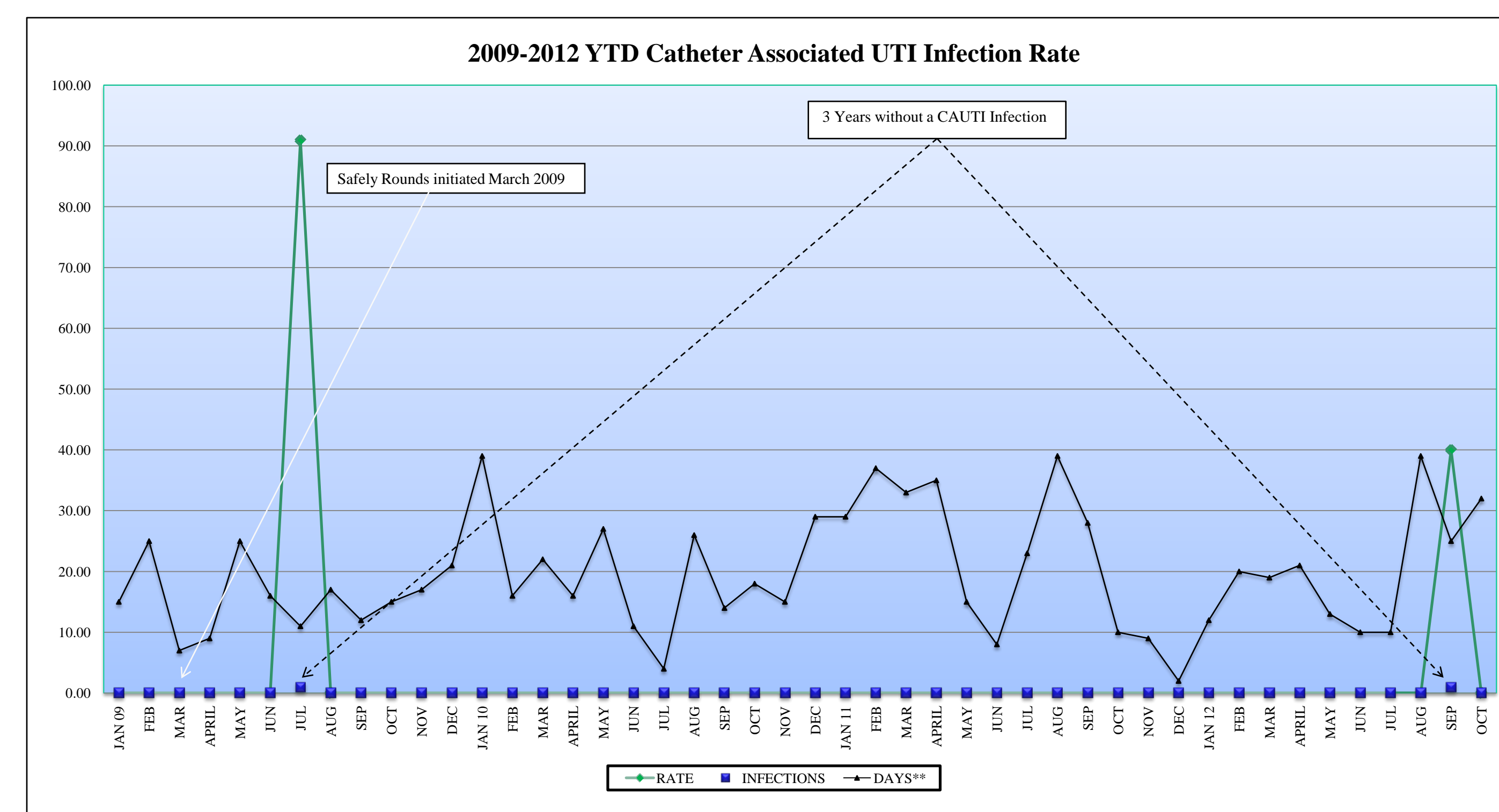
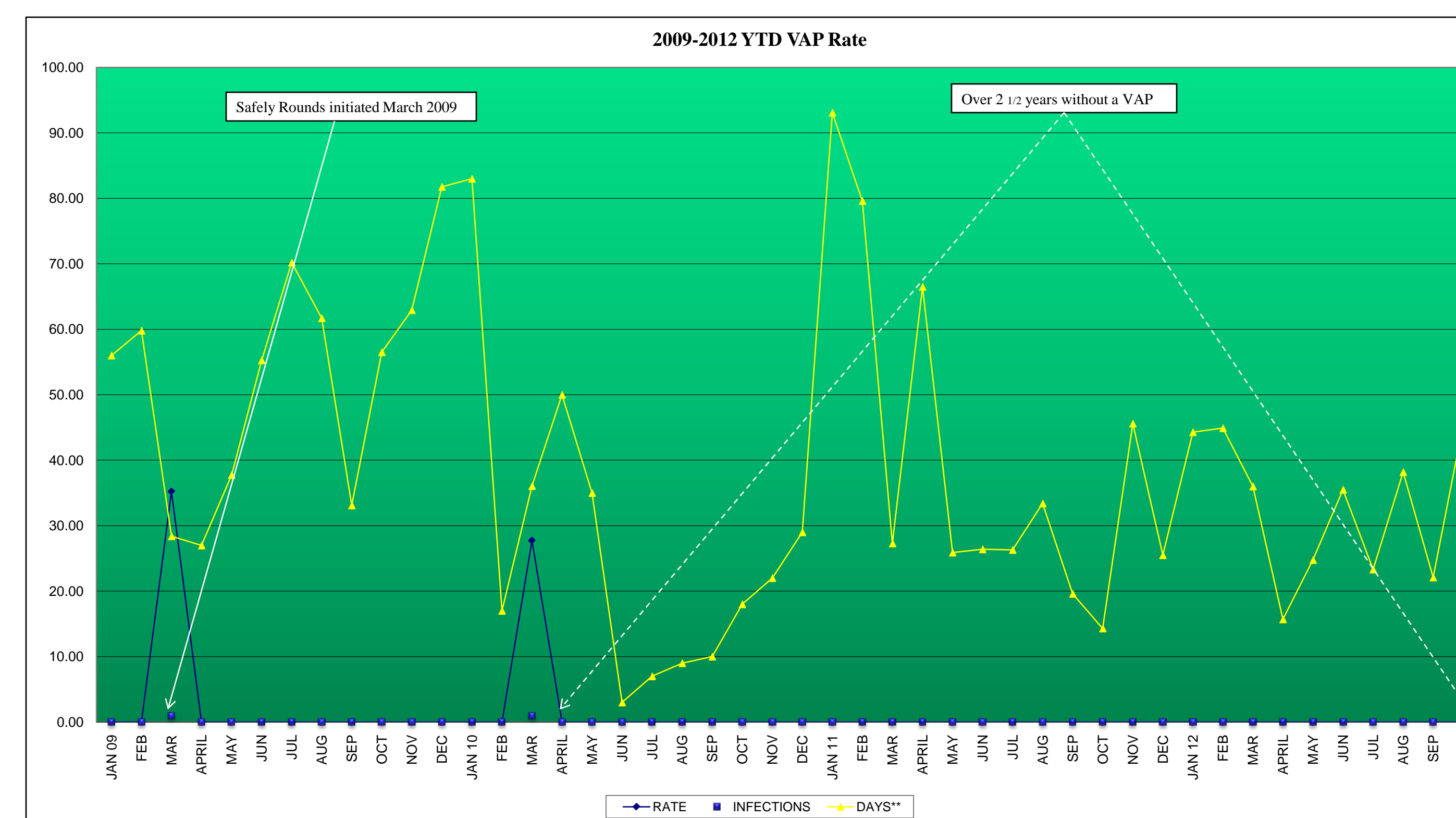
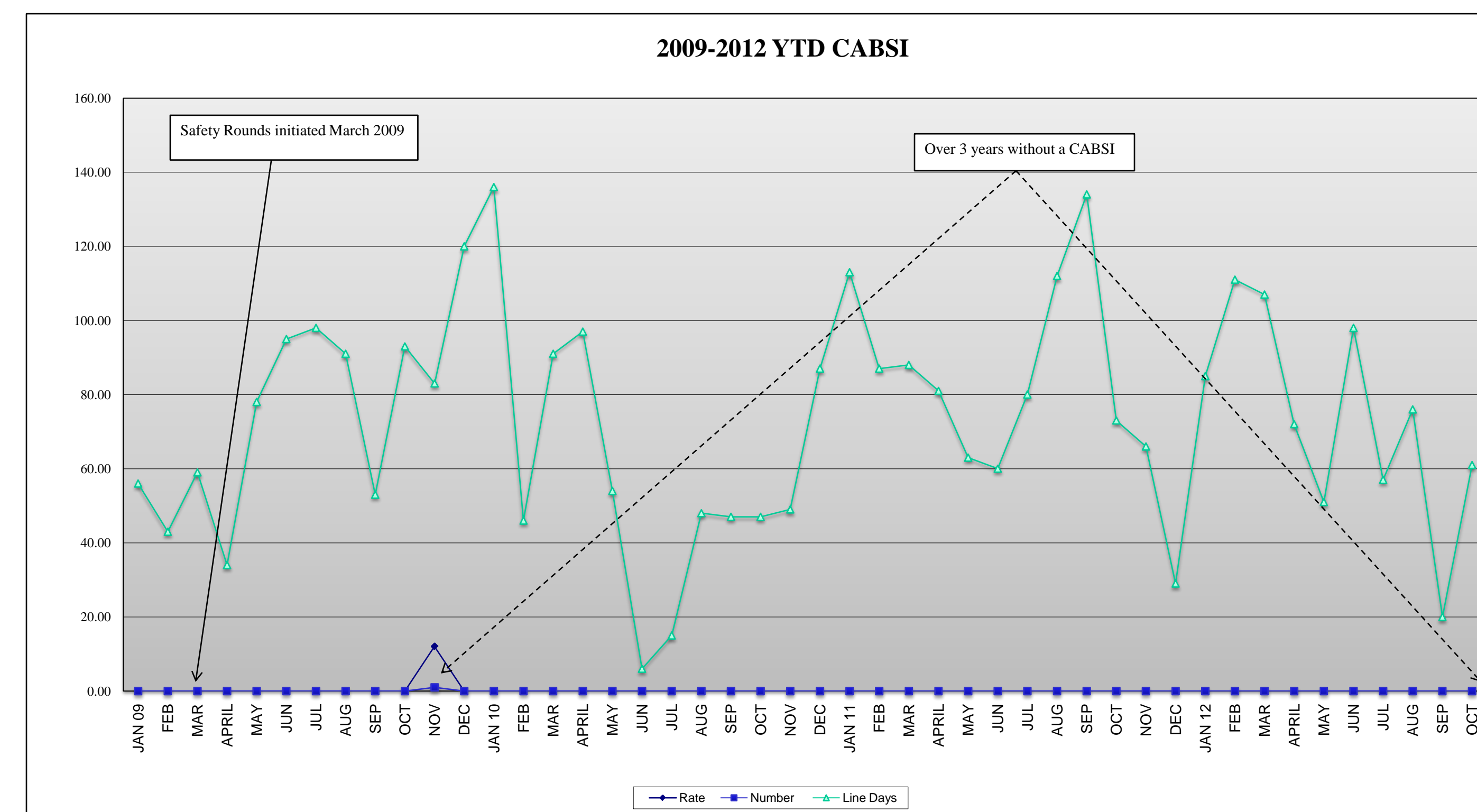
In our Pediatric Intensive Care Unit there was no organized format in which to proactively address these safety and quality issues while on patient rounds, bedside report or administrative rounds. A collaborative group which consists of pediatric leadership and staff focused on the acronym of **SAFETY**.

METHODS

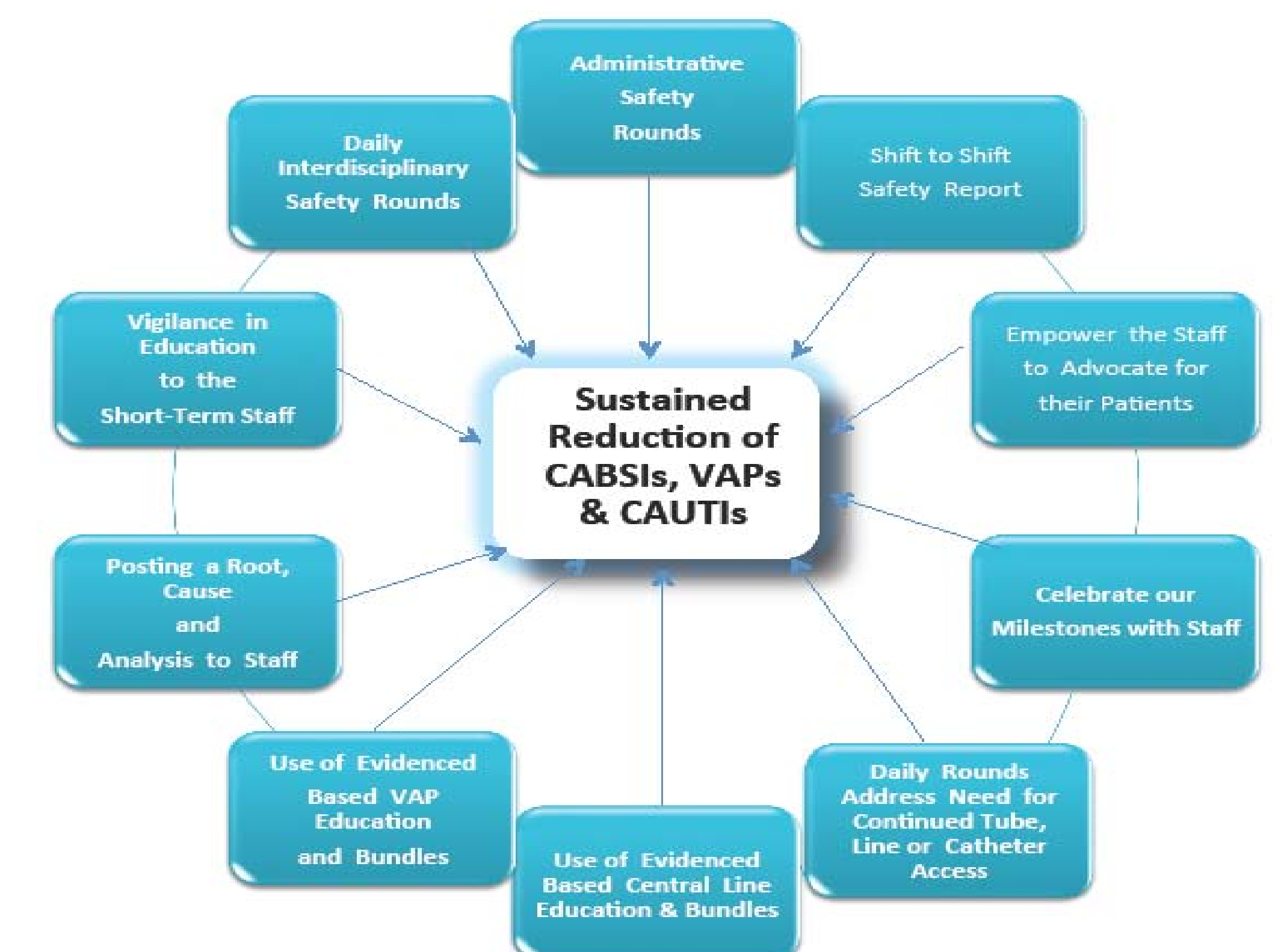
Listed below are the elements of the acronym, **SAFETY**:

- S** **Skin Assessment** - The staff discuss and implements methods to promote optimal skin integrity, discusses aberrant findings, and seeks consultation with the skin care practitioner as needed.
- A** **Access** - On rounds the staff consider the necessity of all indwelling devices such as central lines, Foley Catheters, endotracheal or nasotracheal tubes. We use evidence based guidelines from NACHRI and the CDC and then created our own bundles, monitor compliance and post to staff.
- F** **Family** - We evaluate the level of family support and stressors and consult with supportive services on an individual basis as needed.
- E** **Exit/End of Life Care** - Case Management and Social Service are consulted to meet all of our patient's needs including *End of Life* upon discharge. By expediting discharge we can increase patient satisfaction and *Press Ganey* scores.
- T** **Therapeutics** - There is monitoring of any endocrine function impairments that may impact drug dosing and administration timing. Both high risk medications using the **CINCH** method and similar sounding medications require double verification.
 - C** Chemotherapy
 - I** Insulin
 - N** Neuromuscular Blockade and Narcotics
 - C** Concentrated Electrolytes
 - H** Heparin and Hypertonic Saline
- Y** **Your Concern** - Concerns addressing any facet of the patient's or staff's safety and quality are addressed and escalated until resolution occurs.

RESULTS IN GRAPHS AND TABLES



METHODS



RESULTS

	2006-2008	2009-2012	p-value (fisher exact test)
CABS/line days	3/4390	1/3106	0.33
CAUTI/catheter days	6/1597	2/807	0.27
VAP/ventilator days	7/2435	2/1649	0.16

While there is no statistical significance, clinically there is a definite decrease in CABS/CAUTI/VAP since introduction of our SAFETY initiative.

By using the SAFETY Acronym in nursing shift report, interdisciplinary rounds and administrative Safety Rounds we have achieved a sustainable reduction of CABS, VAP and CAUTI.

REFERENCES

Centers for Disease Control and Prevention. Guidelines for the Prevention of Intravascular Catheter-Related Infections, MMWR 2002; 51(No. RR-10):1-29.

Miller, M., et al., Decreasing PICU Catheter Associated Blood Stream Infections: NACHRI's Quality Transformation Efforts, Pediatrics 2010, 125:206-213.

www.cdc.gov/hicpac/cauti/001_cauti.html

www.cdc.gov/nhsn/PDFs/pscManual/6pscVAPcurrent.pdf

We would like to thank our outstanding staff for their commitment and dedication to the works of quality and safety in each and every patient that they encounter.