

# Central Line Associated Blood Stream Infection reduction utilizing a business improvement model: the Four Disciplines of Execution

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## Objective

The objectives of the study are:

1. To decrease hospital acquired infections (HAI)
2. To demonstrate the applicability of a business productivity improvement method in the healthcare setting.

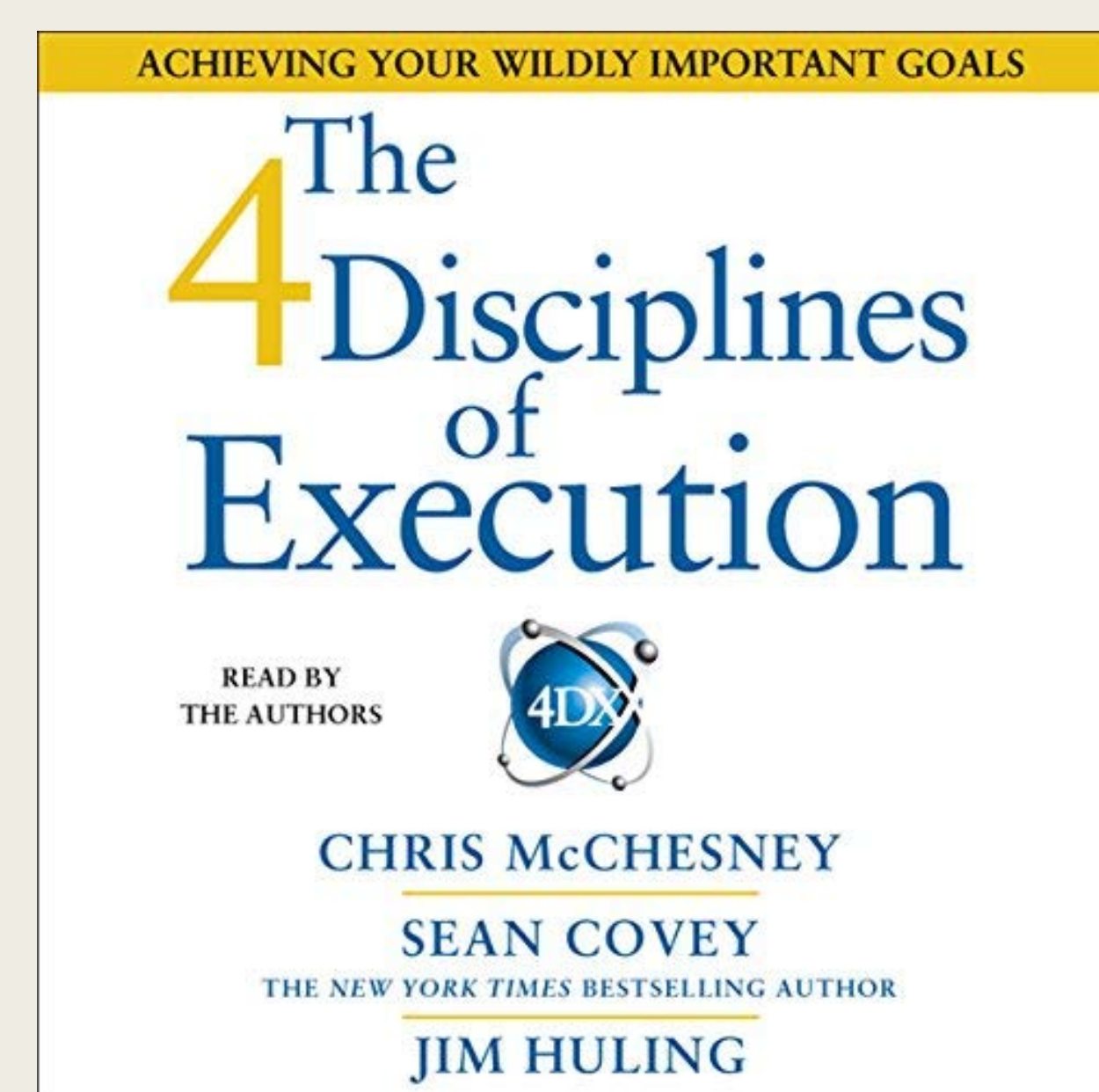
## Introduction

In July of 2018, the Burn ICU had very high Central Line Associated Blood Stream Infection (CLABSI) rate. The unit leadership initiated a quality improvement project to decrease CLABSI rates.

## Methods

The process implemented is called the “Four Disciplines of Execution” (4DX) based on a book by Sean Covey.

1. Establish a “Wildly Important Goal”, also known as a Lag Measure.
2. Design Lead Measures: discrete & controllable .
3. Keep score: with a score board.
4. Cadence of Accountability: weekly meeting to review the scoreboard together and make *individual commitments* to improve practice.



## 1. Wildly Important Goal

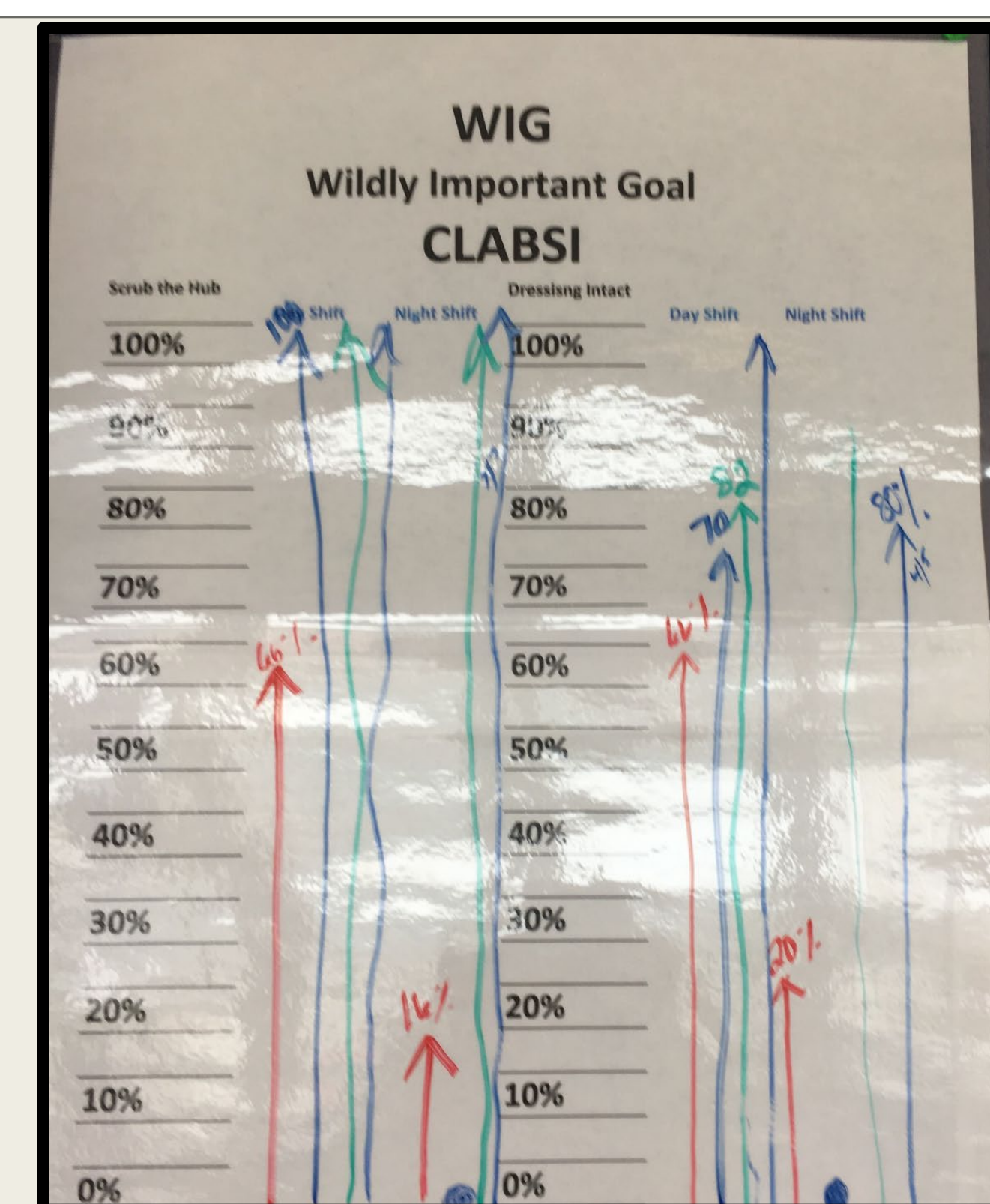
Reduce CLABSI rate from **7.15** to **3.5** per 1000 patient line days by July 2019

## 2. Lead Measures

Lead 1: 90% Clean dressings → weekly  
 • Clean=intact AND not soiled  
 Lead 2: 90% Scrub the hub for >= 15 seconds → weekly

## 3. Keep score

Score board was based on RN observations of each other’s practice.



## 4. Cadence of Accountability

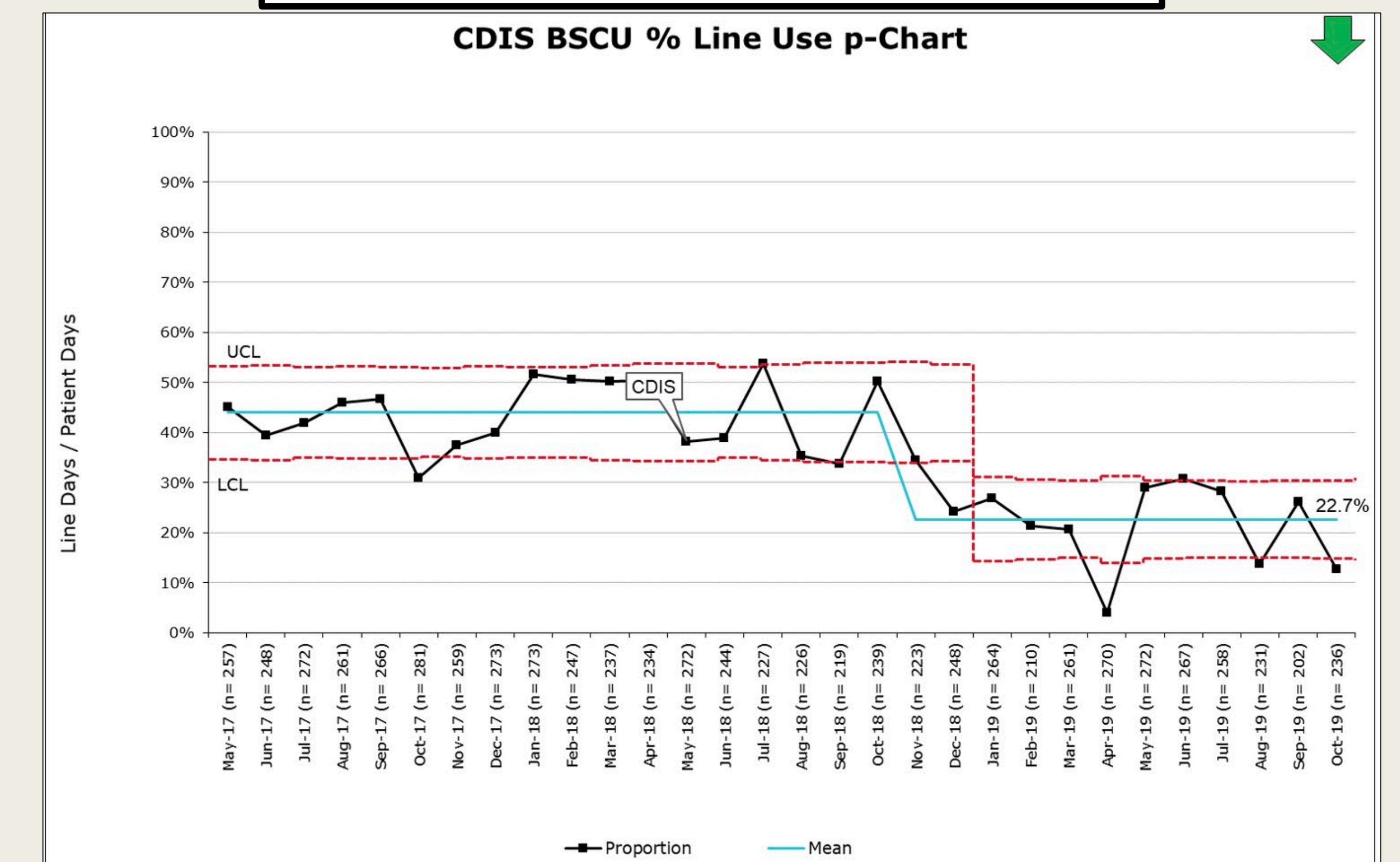
Weekly “WIG” meeting in which “disruptive innovations” emerged

## Disruptive Innovations

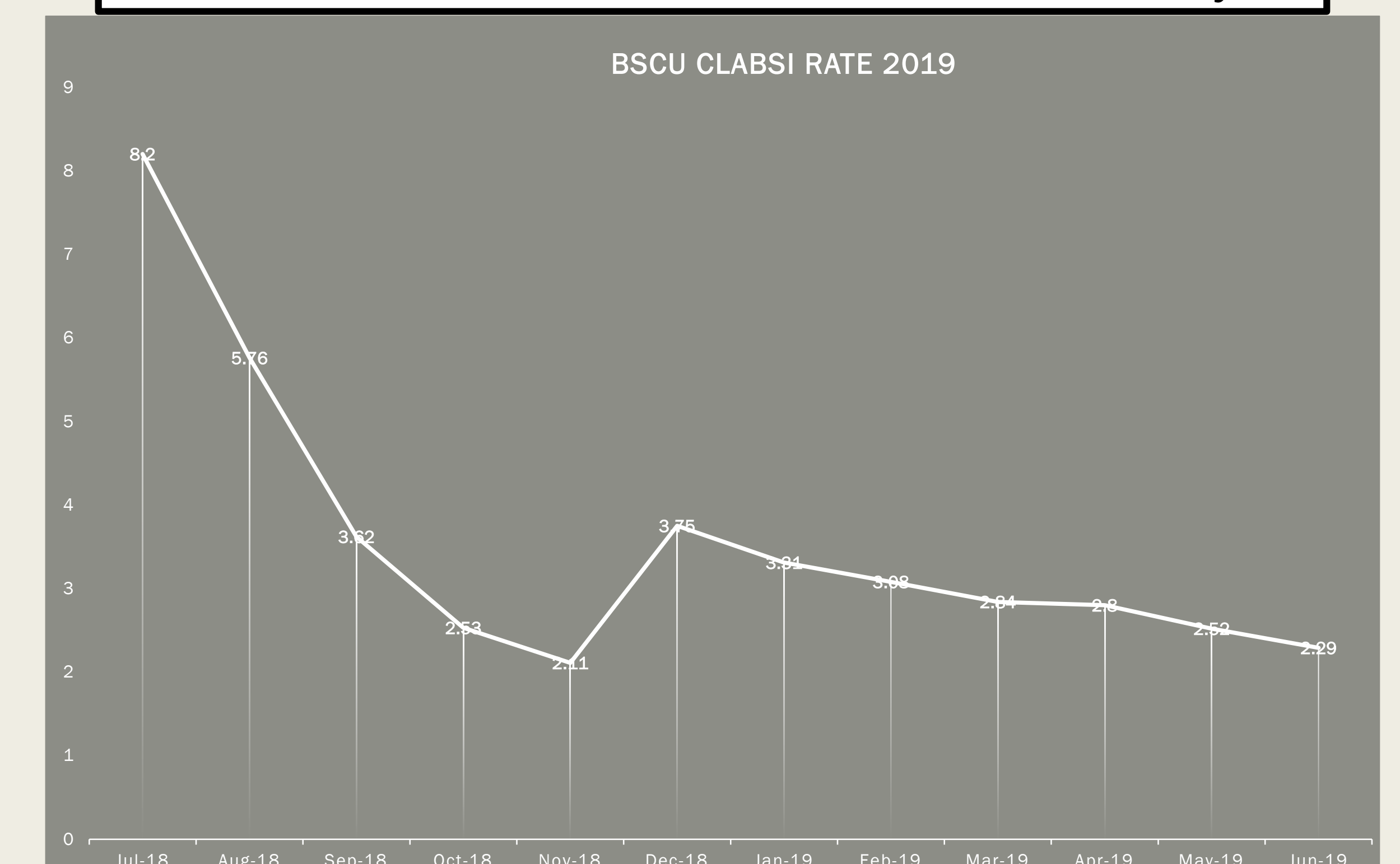
- Line culture rules (ABA Consensus)
- Engaged interventional radiology
- RN initiated Peripheral IV expertise
- Line indication tool
- Hardwired: no cultures drawn without call to Burn MD

## Results

Reduced Central Line Use by Nearly 50%



CLABSI rate decreased from 7.39 to 2.29 over 1 year



## Conclusions

This process allowed engagement of the whole team, allowed for MD and RN problem solving and accountability, and resulted in dramatic improvement in HAI rates in the Burn ICU.

## Applicability to Practice

This business-based method of improvement can be safely and effectively used for quality improvement in the healthcare setting.

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## Disclosures: None