

T3: Translating Evidence to Operations

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Learning Objectives

Participants will:

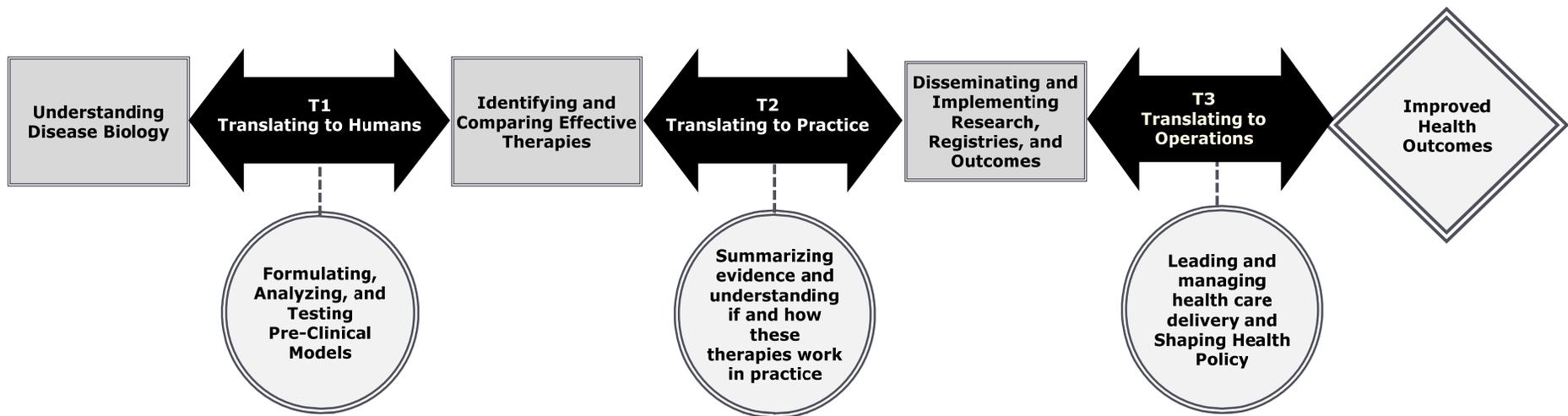
- Learn the QSRG Improvement Framework
- Review the Michigan effort to reduce CLABSIs
- Understand the Hopkins Collaborative Model
- Explore “On the CUSP: STOP-BSI”
- Learn how to enhance existing collaborative efforts
- Devise a linking strategy

Patient Safety Challenges

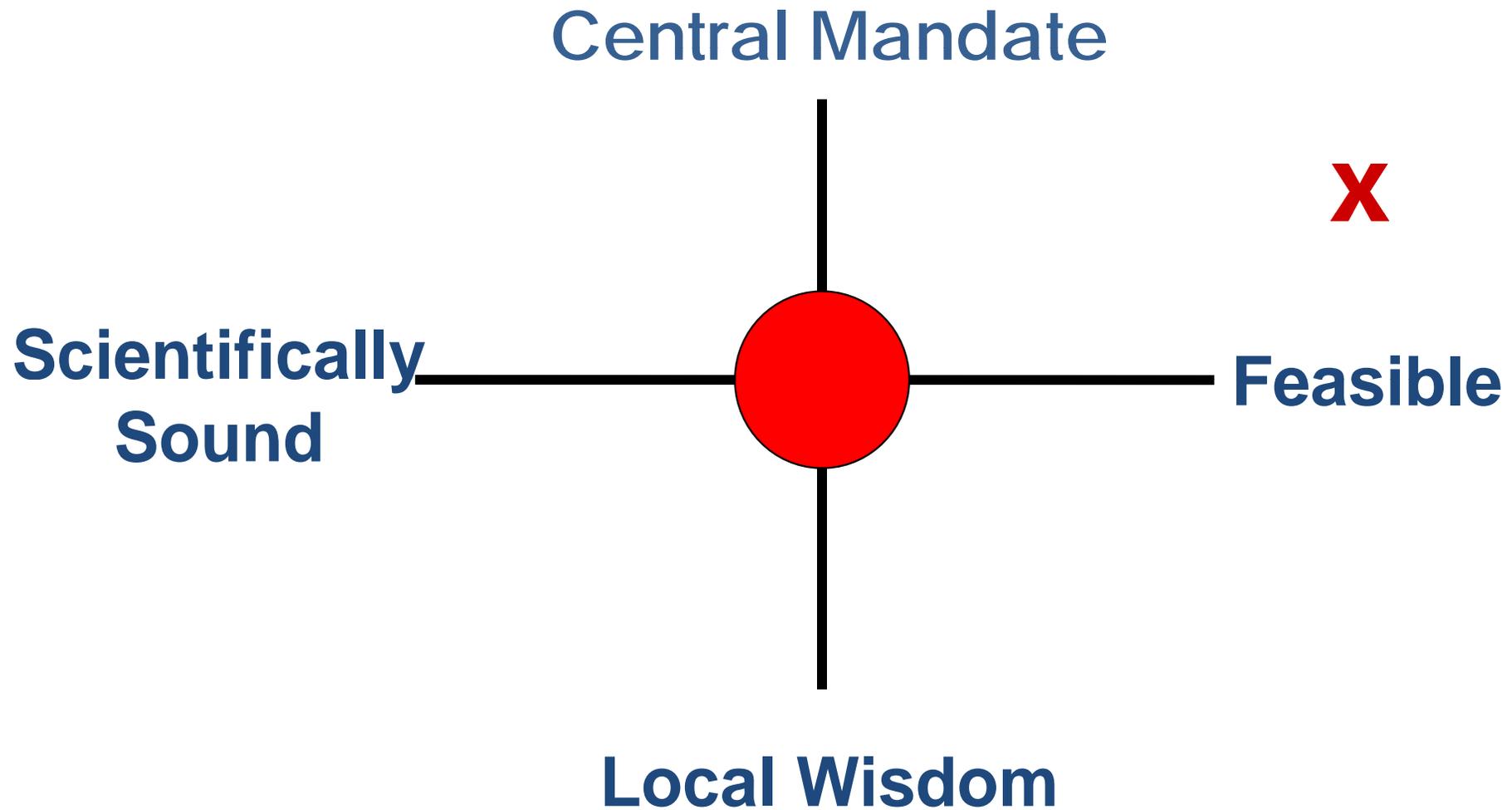
- Measuring Patient Safety
- Translating Evidence Into Practice (TRiP)
- Identifying and Mitigating hazards
- Improving Culture and Communication
- Building Capacity and Organizing for Safety

Focusing on the End Point

Translational Research Model



Current Status of Improvement Efforts



Please answer each question with a score of 1 to 5.
1 is below average, 3 is average and 5 is above average

- How smart am I
- How hard do I work
- How kind am I
- How tall am I
- How good is the quality of care we provide

What Was KICU Project?

- Partnership between 127 ICU teams, ICPs, MHA, BC/BS MI and JHM

Collaborative Work Model

- Formal letters of commitment
 - Content~ Hopkins
 - Coordination~ MHA & Hopkins
 - Context~ Local Sites
- Bi-monthly conference calls
- Bi-annual workshops
- Monthly Data Submission
- Ohana

Team Agreement

- Ohana
- Harm is Untenable
- Valid measures
- Rigorous data collection and evaluation
- Patients as the North Star

Central Line Associated Bloodstream Infections :CLABSI

"Low Hanging Fruit" ~ ~Must Learn to Climb the Tree

Arjun, Oct 19

Common: (45,000-164,000 annually*)

Costly: (10-18 billion annually*)

Often lethal : (6,000 20,000 annually*)

Largely preventable:

- hundreds of ICU's
- median CLABSI rate zero
- Sustained 5 years

* Estimates of PREVENTABLE infections deaths and costs based on existing literature

The REAL Cost of CLABSI's

- Dollars, Debilitation, Death
- Pain, Suffering, Professional Disillusionment



Hopkins Improvement Model*

The Comprehensive Unit based Safety Program CUSP

1. Educate staff on science of safety
2. Identify defects
3. Assign executive to adopt unit
4. Learn from one defect per quarter
5. Implement teamwork tools



Interventions to Reduce Central Line Associated Bloodstream Infections CLABSI

1. Wash Hands Prior to Procedure
2. Use Maximal Barrier Precautions
3. Clean Skin with Chlorhexidine
4. Avoid Femoral Lines
5. Remove Unnecessary Lines

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Leading Change

	Senior leaders	Team leaders	Staff
Engage <i>adaptive</i>	<i>How does this make the world a better place?</i>		
Educate <i>technical</i>	<i>What do we need to know?</i>		
Execute <i>adaptive</i>	<i>What do we need to do?</i>		
	<i>What keeps me from doing it?</i>		
Evaluate <i>technical</i>	<i>How can we do it with my resources and culture?</i>		
	<i>How do we know we improved safety?</i>		

Pronovost: Health Services Research 2006

Engage

- Partner with HEIC, ID experts
- Increase awareness about morbidity and mortality associated with CLABSI
- Make harm visible
 - Tell stories
 - Post # infections
- Estimate impact of improvement

Educate

- Educate staff and senior leaders about CDC guidelines
 - Develop a resource notebook
 - Develop policies and procedures
 - CDC guidelines and Fact SheetPower point slides for In-service education
- Consider a quiz to evaluate provider knowledge
- Emphasize that CLABSIs can be eliminated and benchmarking should be abandoned

Execute

Interventions for CLABSI Prevention:

- Hand Hygiene
- Use of Maximal Barrier Precautions
- Chlorhexidine for Skin Antisepsis
- Avoid femoral lines
- Remove Unnecessary Lines

MMWR. 2002;51:RR-10

Execute

Interventions to Improve Culture

CUSP

- Science of Safety Training
 - Understand Principles of Safe Design
 - Standardize when you can
 - Use independent checks for key processes (checklists)
 - Learn when things go wrong
 - Realize these principles apply to technical and adaptive work
 - Teams make wise decisions with diverse and independent input
- Staff Safety Assessment ~Identify Defects
 - How is the next patient likely to be harmed on my unit?
 - How might I prevent that harm?

Standardize



Execute

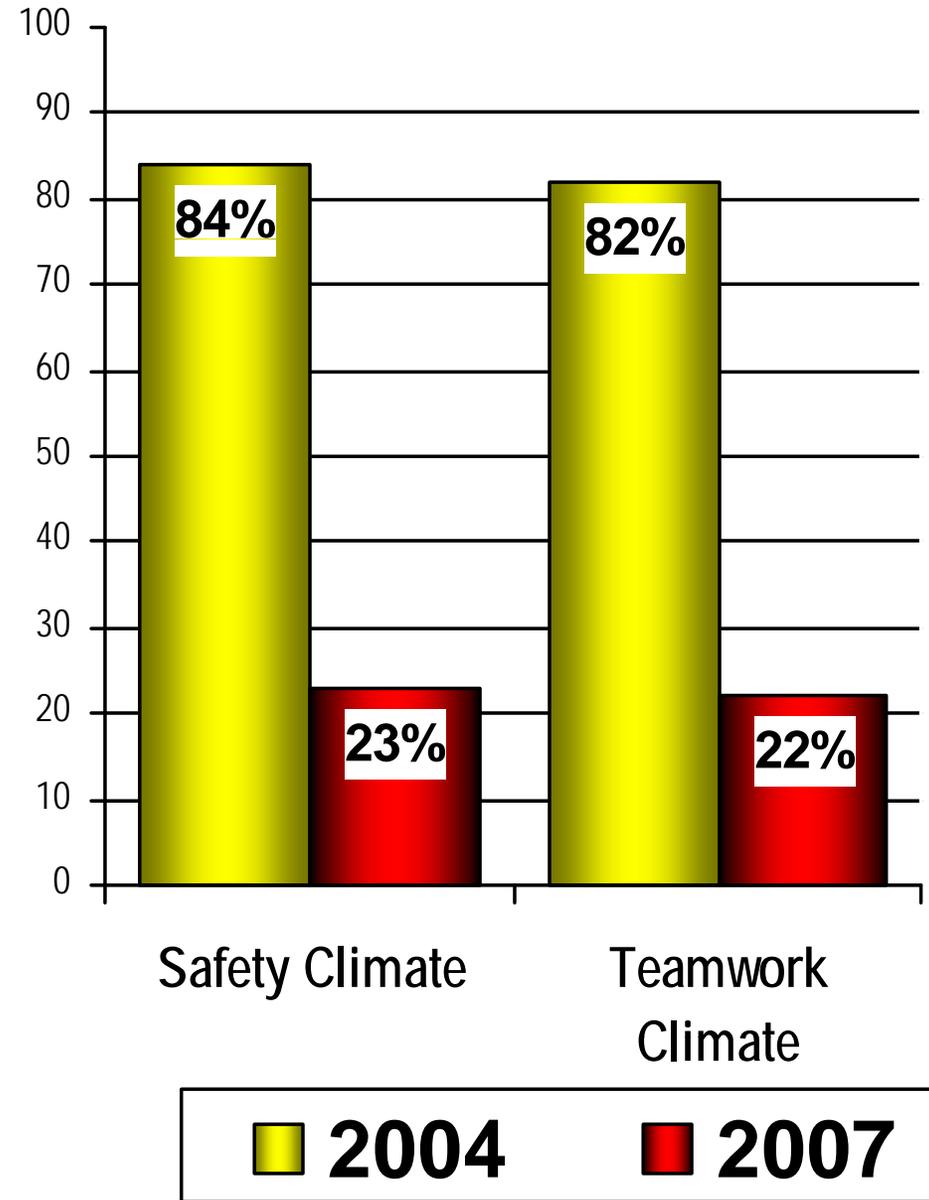
Interventions to Improve Culture

CUSP

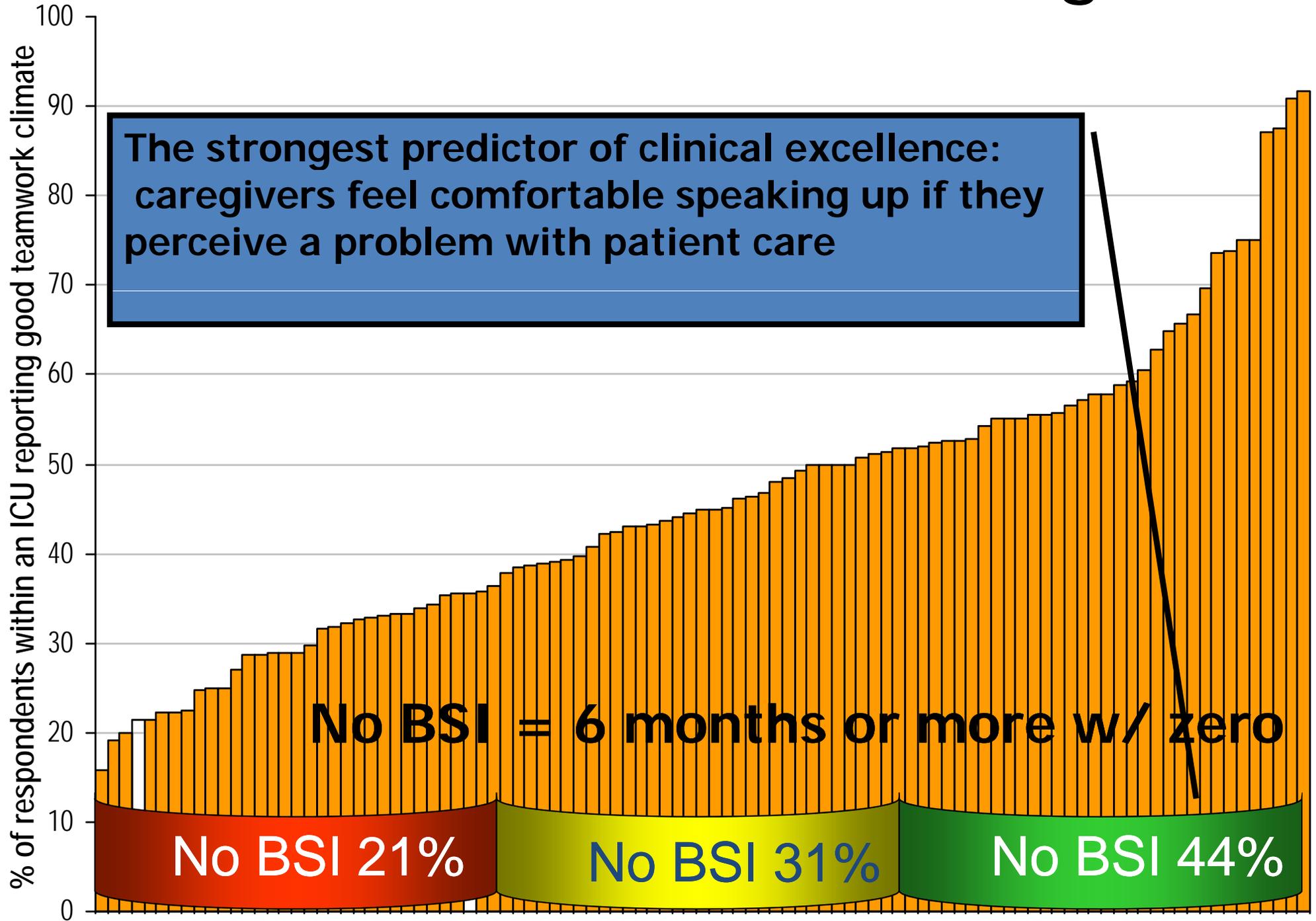
- Partner with an Executive
 - Executive becomes part of the improvement team
- Learn from Defects
 - One page “Root Cause Lite”: Move from first order problem solving to second order problem solving
- Implement Teamwork Tools
 - Shadowing
 - Morning Briefings
 - Daily Goals

"Needs Improvement" Statewide Michigan CUSP ICU Results

- Less than 60% of respondents reporting good safety climate = "needs improvement"
 - Statewide in 2004 84% needed improvement, in 2006 41%
 - Non-teaching and Faith-based ICUs improved the most
 - Safety Climate item that drives improvement: *"I am encouraged by my colleagues to report any patient safety concerns I may have"*

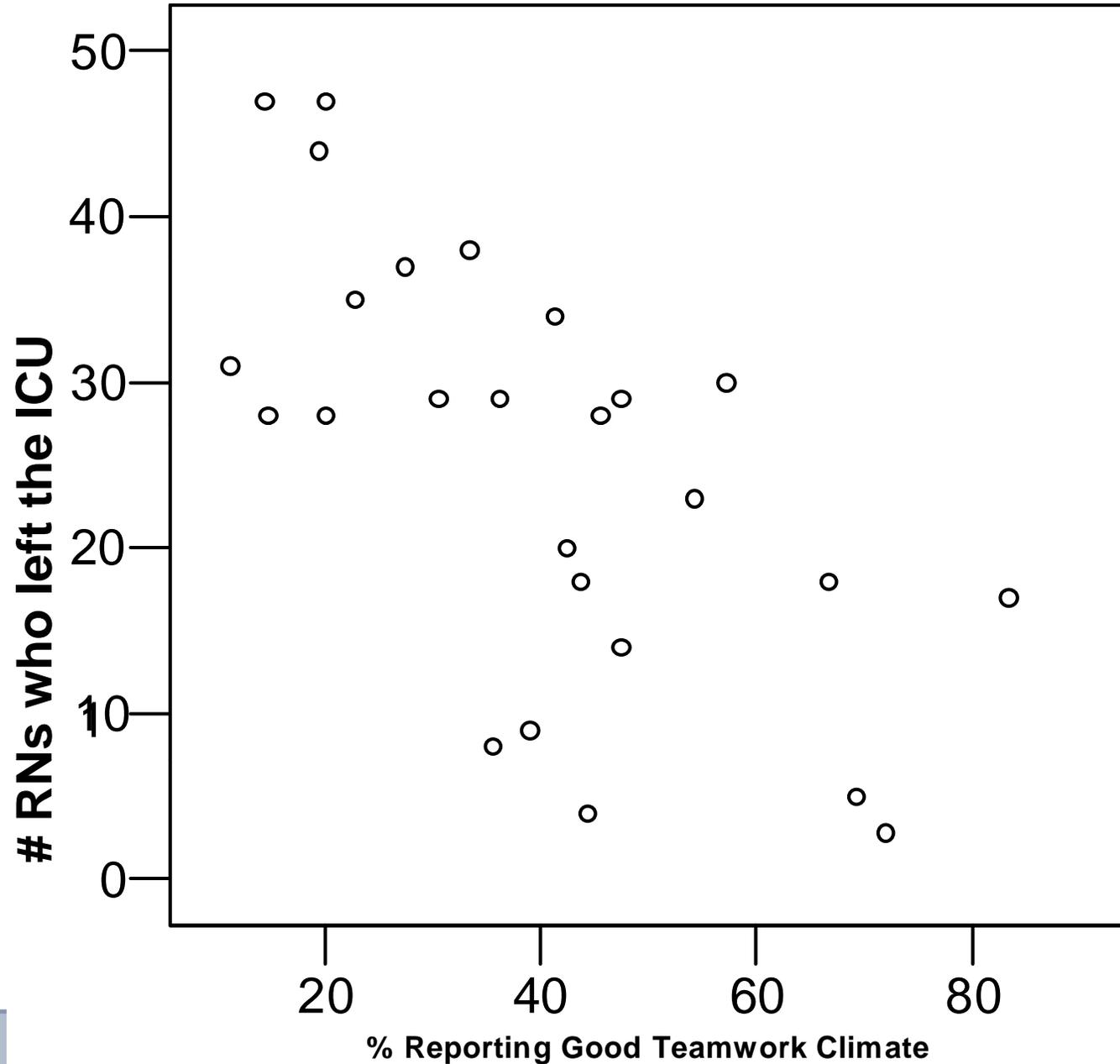


Teamwork Climate Across Michigan ICUs



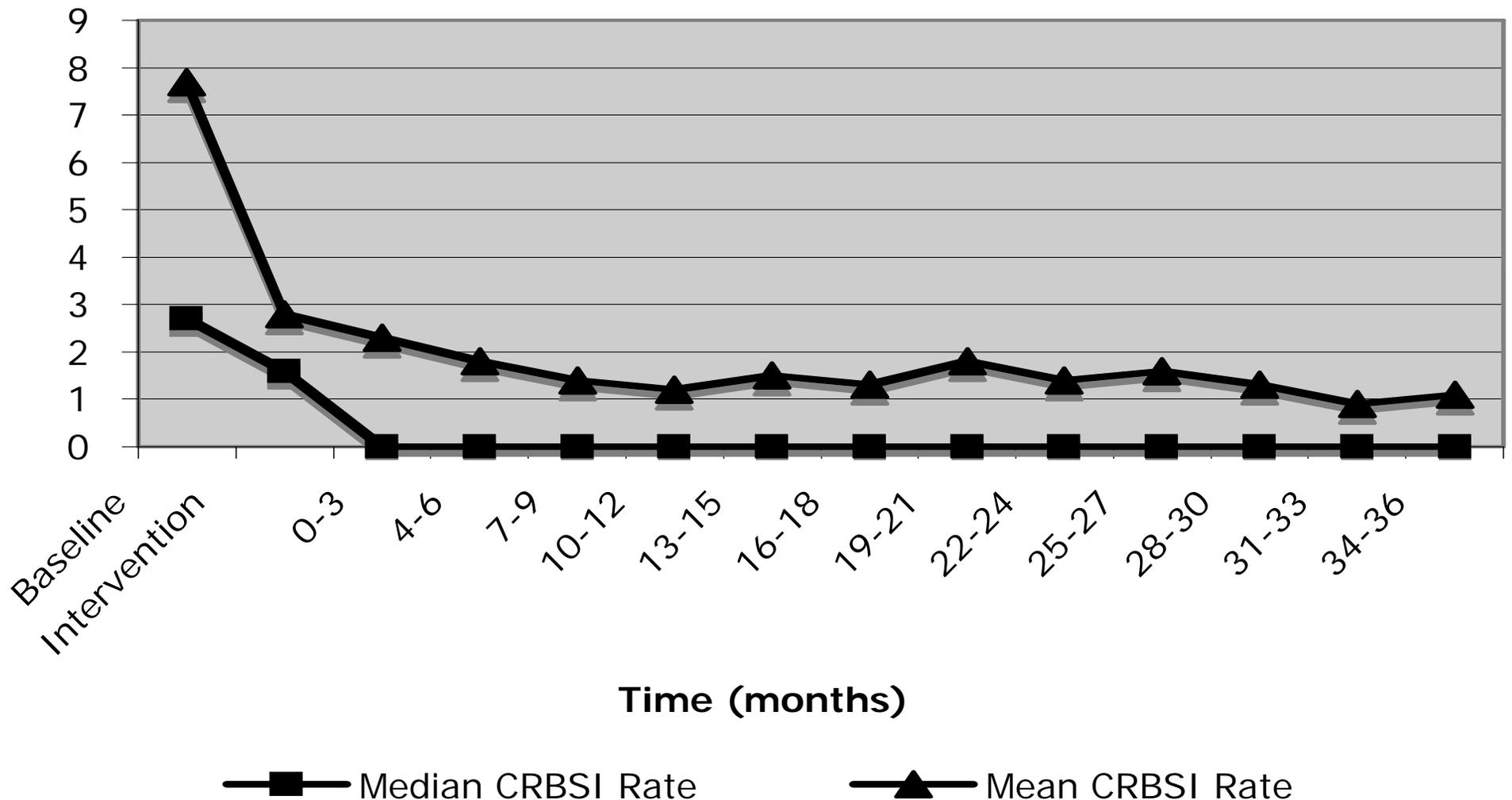
RN Turnover and Teamwork Climate: 26 Keystone ICUs reporting

$r = -.650, p < .001$



CRBSI Rate Over Time

Median and Mean CRBSI Rate



On the CUSP: STOP-BSI

Goals: Technical and Adaptive

- To work to eliminate central line associated blood stream infections (CLABSI); state mean < 1/1000 catheter days, median 0
- To improve safety culture by 50%
- To learn from one defect per month

Project Organization

- State wide efforts coordinated by HRET and State Hospital Associations; Content by Hopkins Quality and Safety Research Group (QSRG)
- Use collaborative model (face to face meetings, monthly calls)
- Standardized data collection tools and evidence
- Local ICU modification of how to implement interventions

On the CUSP: Stop BSI

CUSP

1. Educate staff on science of safety
2. Identify defects
3. Assign executive to adopt unit
4. Learn from one defect per quarter
5. Implement teamwork tools



CLABSI

1. Wash Hands Prior to Procedure
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Lessons to Consider

- Listen
- Offer don't Dictate
- Acknowledge, don't judge
- Look for common ground
- Consider what you can contribute, not what you can change

Lessons to Consider

- Project goals must drive measurement
 - Care most about patient level goals; others are predictor variables
- Design data collection and management plan at outset
 - Reduce bias in data collection
- Give up on *quantity* not *quality* of data
 - Central Development/ local implementation
- Strive for scientifically sound, feasible, useable
- Create learning community

Courage

“Never doubt that a small group of thoughtful committed citizens can change the world. Indeed, it’s the only thing that ever has.”

Margaret Meade