

Overview of STOP-BSI Program

Peter Pronovost, MD, PhD

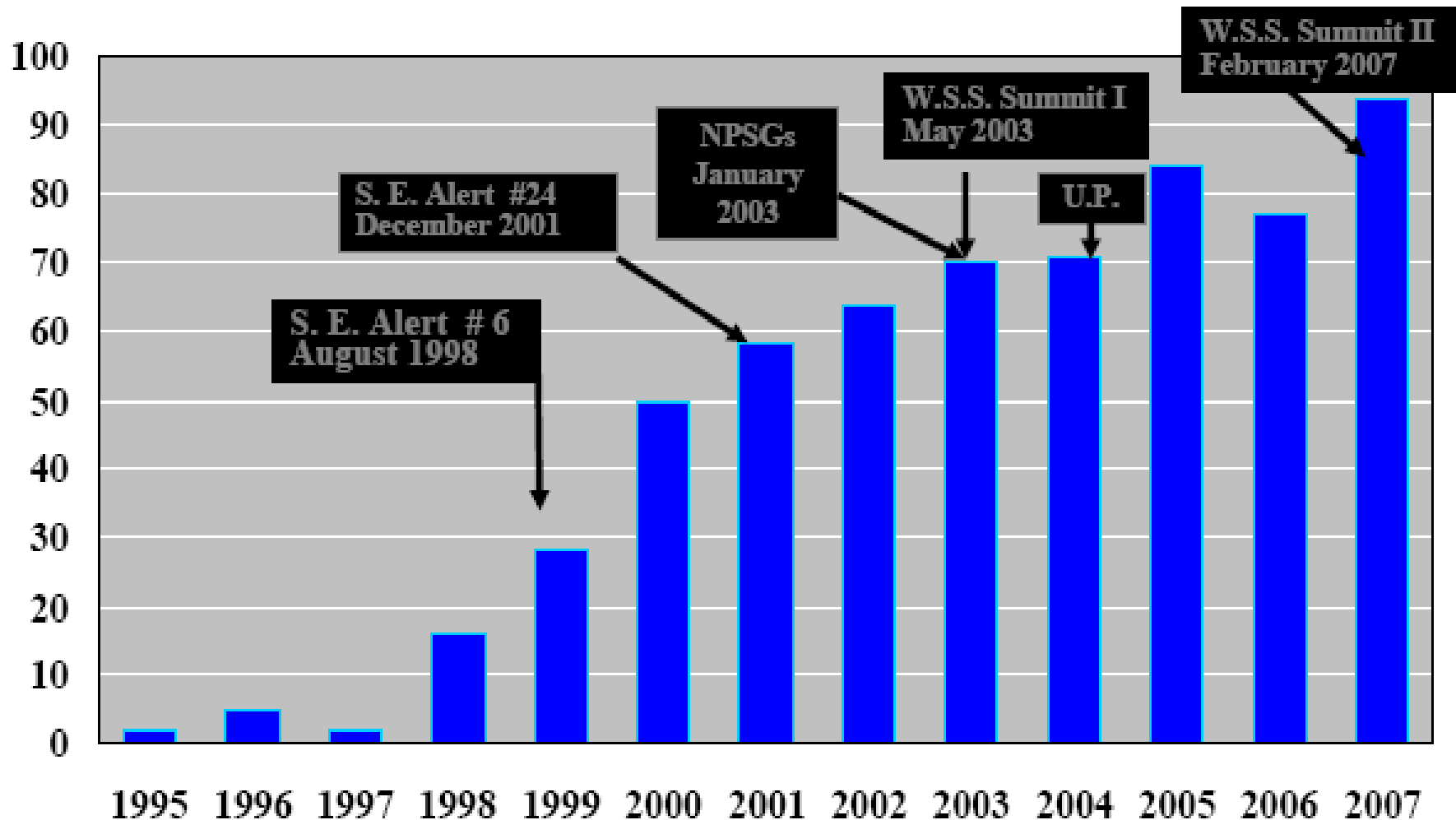
Leading Change: Who Are We and
Where Are We going?





ON THE CUSP:
STOP HAI

Wrong-site Surgeries Reviewed by Year

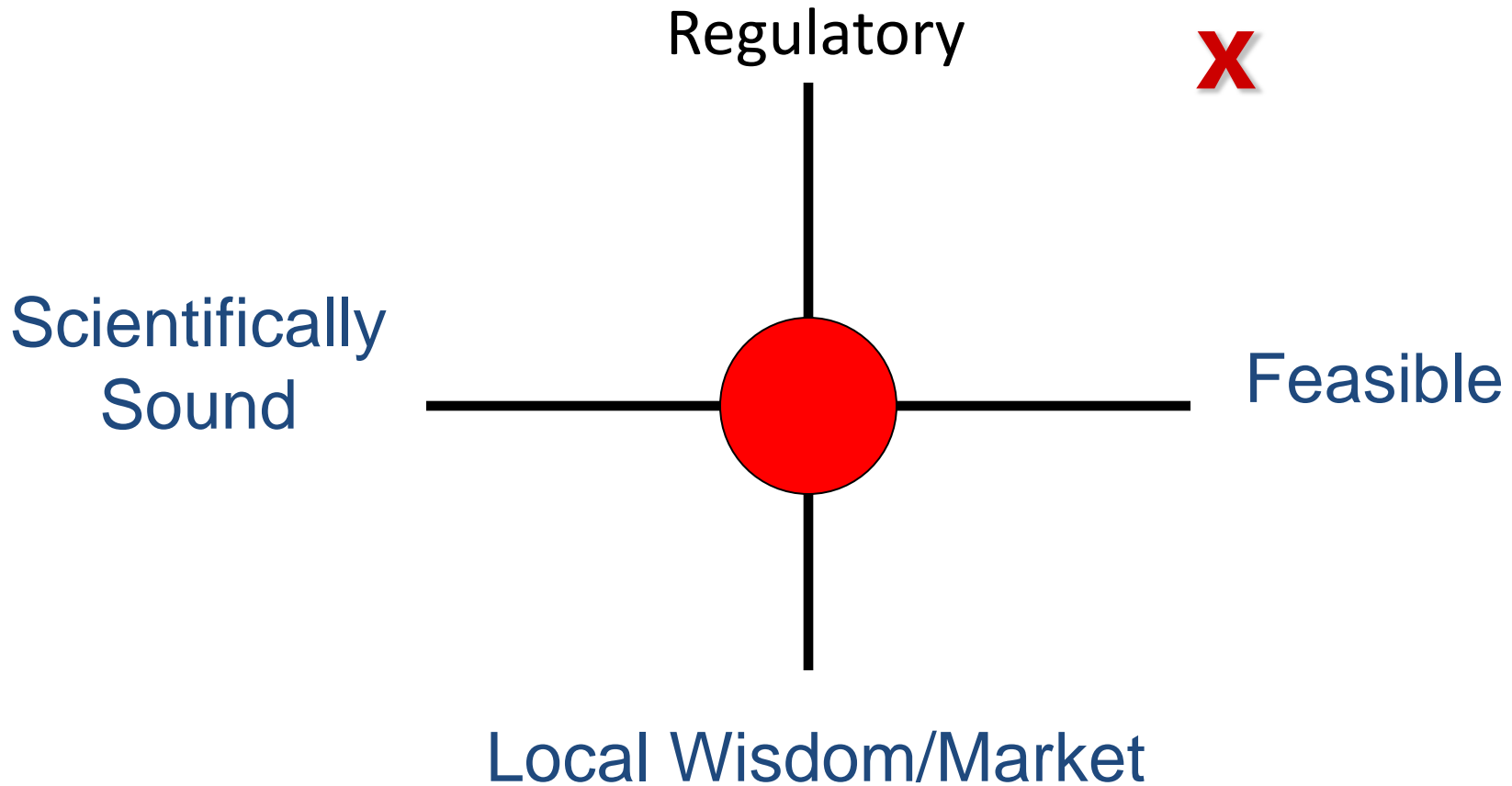


Please answer each question with a score of 1 to 5. 1 is below average, 3 is average and 5 is above average

- 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



Finding the sweet spot



Goals

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



Project Organization

- Partner with HRET, MHA, JHU, State Hospital Associations
- State wide effort coordinated by Hospital Association
- Use collaborative model
(2 face to face meetings, monthly calls)
- Standardized data collection tools and evidence
- Local ICU modification of how to implement interventions
- Now all 50 states and several countries



Improving Care

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

www.safercare.net



Measure



**Have We Created a Safe Culture?
How Do We know We Learn
from Mistakes?**

**How Often Do we Harm?
Are Patient Outcomes
Improving?**

CUSP
**Comprehensive Unit based
Safety program**

(TRiP)
Translating Evidence Into Practice

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

1. Summarize the evidence in a checklist
2. Identify local barriers to implementation
3. Measure performance
4. Ensure all patients get the evidence



IMPROVE

Intervention to Eliminate CLABSI



Translating Evidence into Practice

- Envision the problem within the larger health care system
- Engage Collaborative multi-disciplinary teams centrally (stages 1,2 & 3) and locally (stage 4)

1. Summarize the Evidence

- Identify Interventions associated with improved outcomes
- Select interventions with the largest benefits and lowest barriers to use
- Convert interventions to behaviors

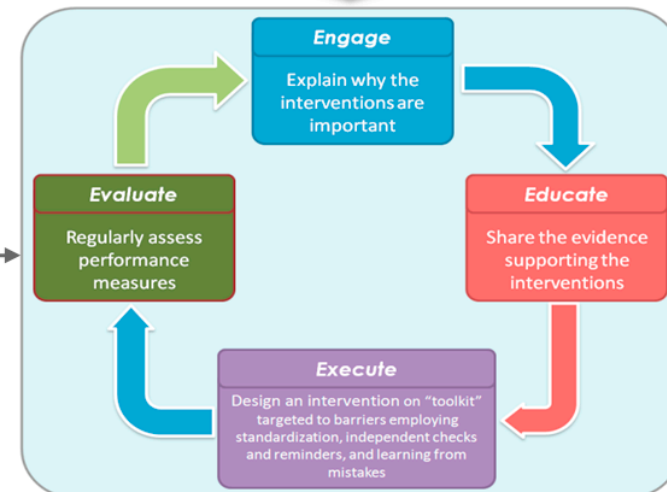
2. Identify local barriers to implementation: understand the process and context of work

- Observe staff performing the interventions
- "Walk the process" to identify defects in each step of intervention implementation
- Enlist all stakeholders to share concerns and identify potential gains / losses associated with intervention implementation

3. Measure Performance

- Select Measures (Process and/or outcome)
- Develop and pilot test measures
- Measure Baseline Performance

4. Ensure all patients receive the interventions



Evidence-based Behaviors to Prevent CLABSI

- Remove Unnecessary Lines
- Wash Hands Prior to Procedure
- Use Maximal Barrier Precautions
- Clean Skin with Chlorhexidine
- Avoid Femoral Lines

MMWR. 2002;51:RR-10



Identify Barriers

- Ask staff about knowledge
 - Use team check up tool
- Ask staff what is difficult about doing these behaviors
- Walk the process of staff placing a central line
- Observe staff placing central line



Ideas for ensuring patients receive the interventions: the 4Es

- Engage: stories, show baseline data
- Educate staff on evidence
- Execute
 - Standardize: Create line cart
 - Create independent checks: Create BSI checklist
 - Empower nurses to stop takeoff
 - Learn from mistakes: review infections
- Evaluate
 - Feedback performance
 - View infections as defects



Pre CUSP Work

- Create an ICU team
 - Nurse, physician administrator, others
 - Assign a team leader
- Measure Culture in the ICU
(discuss with hospital association leader)
- Work with hospital quality leader to have a senior executive assigned to ICU team



Comprehensive Unit-based Safety Program (CUSP)

An Intervention to Learn from Mistakes and Improve Safety Culture

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

Pronovost J, *Patient Safety*, 2005



Learning from Mistakes

- What happened?
- Why did it happen (system lenses)
- What could you do to reduce risk
- How to you know risk was reduced
 - Create policy / process / procedure
 - Ensure staff know policy
 - Evaluate if policy is used correctly

Pronovost 2005 JCJQI



Teamwork Tools

- Call list
- Daily Goals
- AM briefing
- Shadowing
- Culture check up
- TEAMSTepps

Pronovost JCC, JCJQI



Can We Do this?



Safety Score Card

Keystone ICU Safety Dashboard

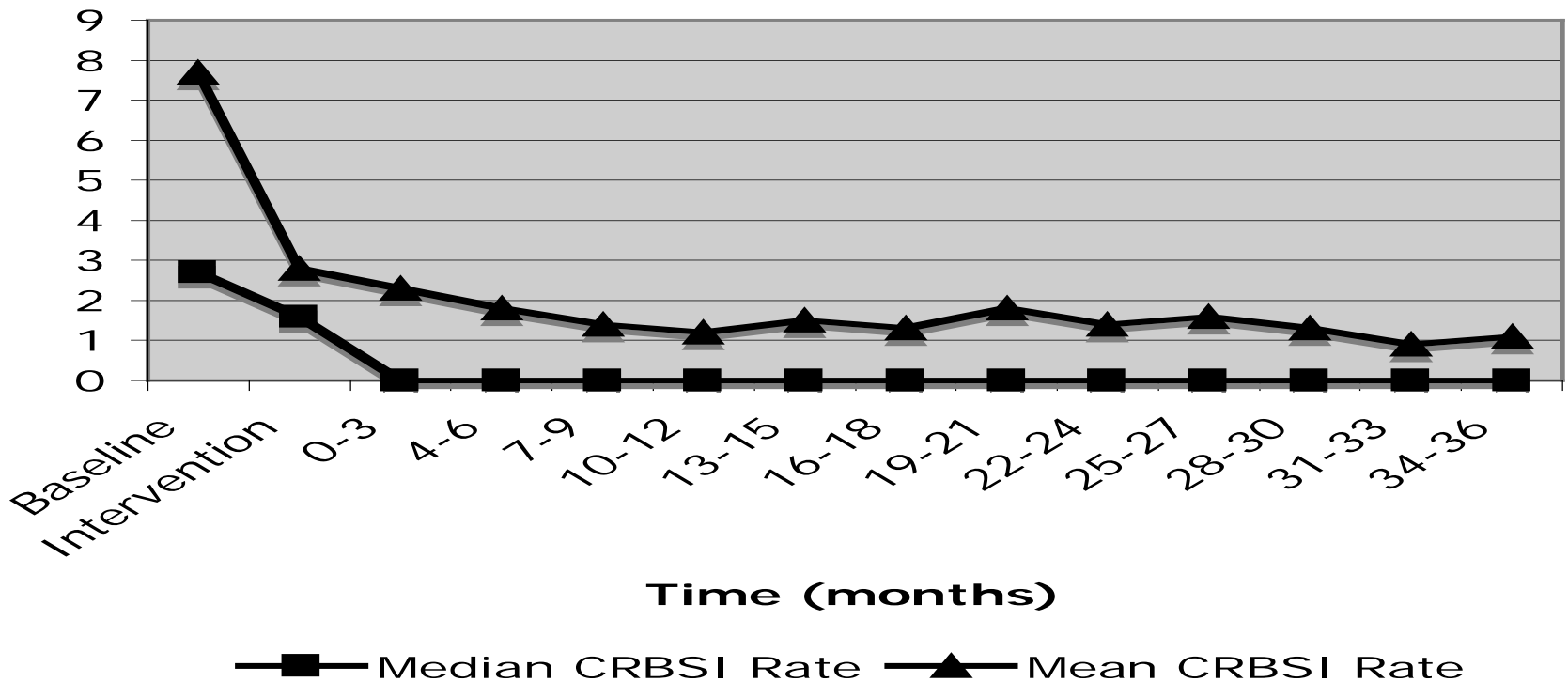
	2004	2006
How often did we harm (BSI) (<i>median</i>)	2.8/1000	0
How often do we do what we should	66%	95%
How often did we learn from mistakes*	100s	100s
Have we created a safe culture % Needs improvement in		
Safety climate*	84%	43%
Teamwork climate*	82%	42%

CRBSI Rate Summary Data

Study Period	No. of ICUs	No. of Infections	Catheter Days	Infection Rate		IRR (95% CI)
				Median (Q1, Q3)	Mean (SD)	
Baseline	55	2 (1, 3)	551 (220, 1091)	2.7 (0.6, 4.8)	7.7 (28.9)	Reference
During Implementation	96	1 (0, 2)	447 (237, 710)	1.6 (0, 4.4)	2.8 (4.0)	0.81 (0.61, 1.08)
After Implementation						
Initial Evaluation Period						
0-3 mo	95	0 (0, 2)	436 (246, 771)	0 (0, 3.0)	2.3 (4.0)	0.68 (0.53, 0.88)
4-6 mo	95	0 (0, 1)	460 (228, 743)	0 (0, 2.7)	1.8 (3.2)	0.62 (0.42, 0.90)
7-9 mo	96	0 (0, 1)	467 (252, 725)	0 (0, 2.0)	1.4 (2.8)	0.52 (0.38, 0.71)
10-12 mo	95	0 (0, 1)	431 (249, 743)	0 (0, 2.1)	1.2 (1.9)	0.48 (0.33, 0.70)
13-15 mo	95	0 (0, 1)	404 (158, 695)	0 (0, 1.9)	1.5 (4.0)	0.48 (0.31, 0.76)
16-18 mo	95	0 (0, 1)	367 (177, 682)	0 (0, 2.4)	1.3 (2.4)	0.38 (0.26, 0.56)
Sustainability Period						
19-21 mo	89	0 (0, 1)	399 (230, 680)	0 (0, 1.4)	1.8 (5.2)	0.34 (0.23, 0.50)
22-24 mo	89	0 (0, 1)	450 (254, 817)	0 (0, 1.6)	1.4 (3.5)	0.33 (0.23, 0.48)
25-27 mo	88	0 (0, 1)	481 (266, 769)	0 (0, 2.1)	1.6 (3.9)	0.44 (0.34, 0.57)
28-30 mo	90	0 (0, 1)	479 (253, 846)	0 (0, 1.6)	1.3 (3.7)	0.40 (0.30, 0.53)
31-33 mo	88	0 (0, 1)	495 (265, 779)	0 (0, 1.1)	0.9 (1.9)	0.31 (0.21, 0.45)
34-36 mo	85	0 (0, 1)	456 (235, 787)	0 (0, 1.2)	1.1 (2.7)	0.34 (0.24, 0.48)

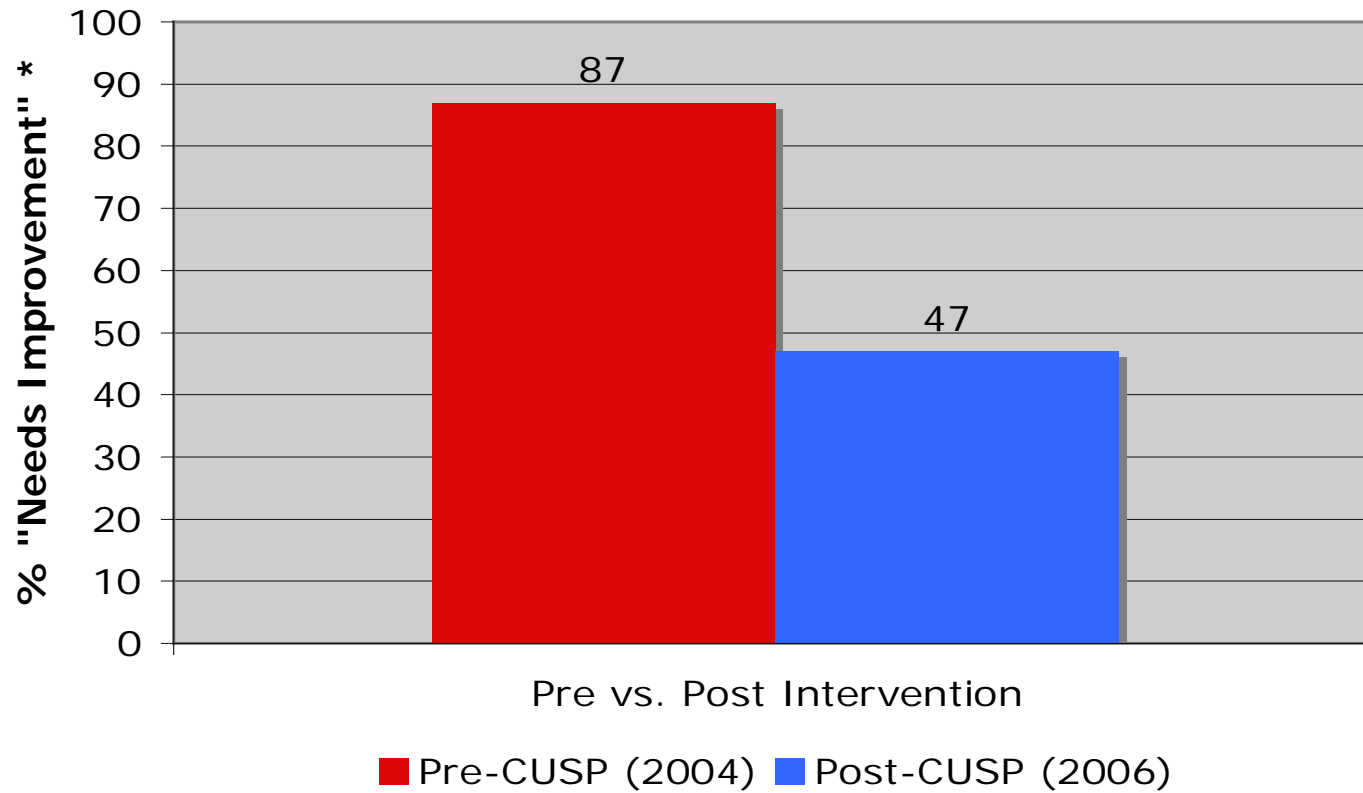
CRBSI Rate Over Time

Median and Mean CRBSI Rate



Michigan ICU Safety Climate Improvement

Effect of CUSP on Safety Climate

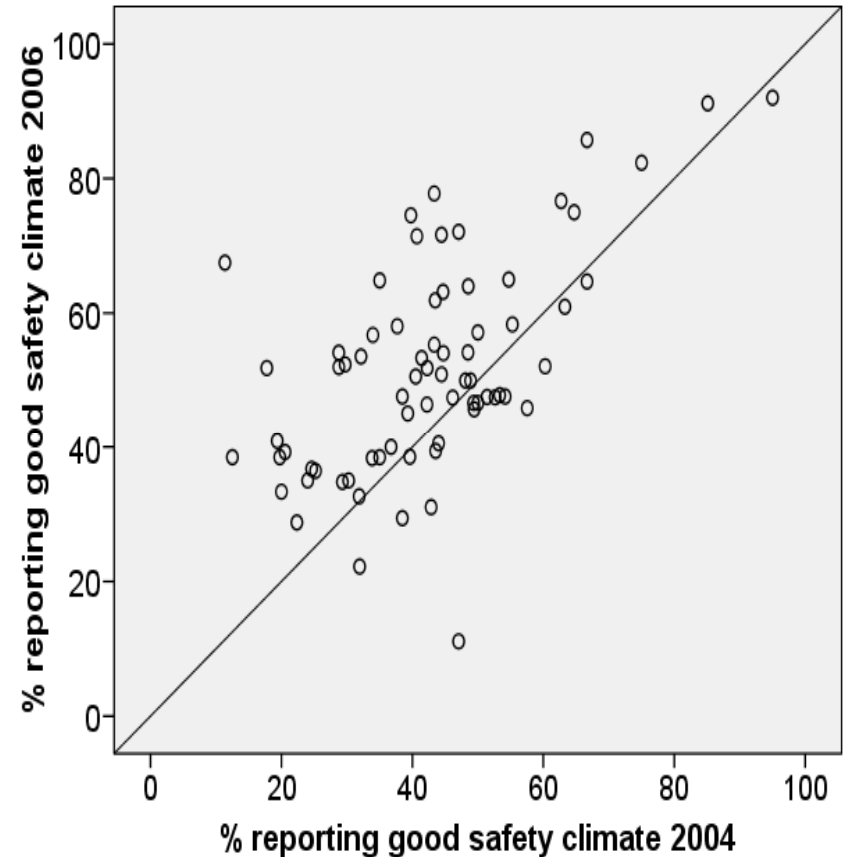
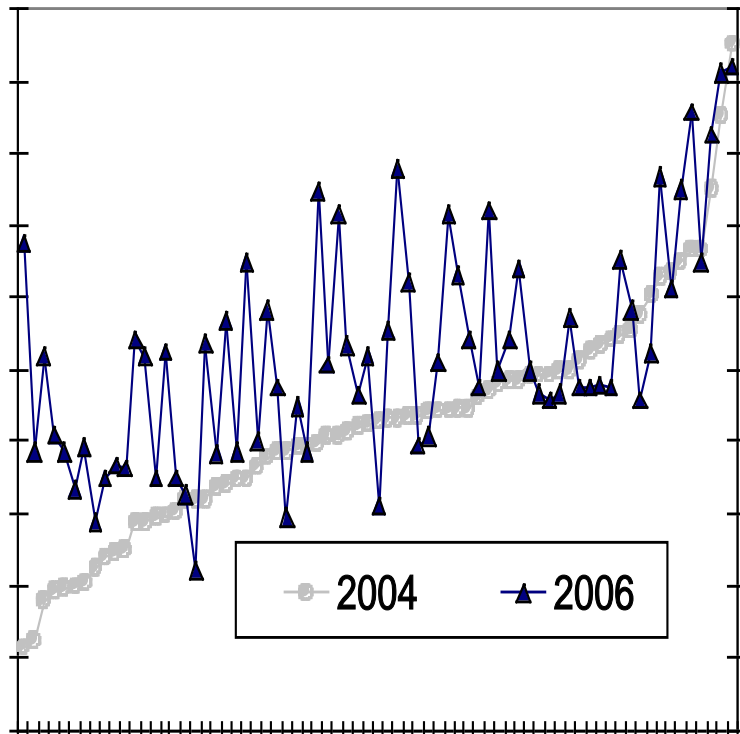


* "Needs Improvement" - Safety Climate Score <60%



Michigan ICU Safety Climate Score Distributions

Michigan ICU Safety Climate 2004 and 2006



Leading Change

- Technical Work
 - Work for which there is known science
 - Evidence and Measures
- Adaptive work
 - Work for which there is no science
 - Requires changes in values attitudes belief
- Need to get both technical and adaptive work right
- Adaptive work is usually why programs falter

Strategies for Adaptive Work

- Clarify what hill you will climb and invite others to determine how to climb it
- Surface real and perceived loss- the flip
- Create Containing Vessel to communicate- monsters in the bathroom
- Tune into WIFM- Pepperoni Pizza
- Keep the temp pressure in the pressure cooker just right: not too hot and not too cold
- Value the dissenter

Heifetz: leadership without easy answers



Focus and Execute



ON THE CUSP:
STOP HAI

Action Items

- Review content of website at www.safercare.net
 - Toolkits
 - Slide sets
 - Manuals
 - Project Management Checklists
 - Pre-Implementation Checklist
 - CEO/ Senior Leader Checklist
 - Infection Preventionist Checklist



ON THE CUSP:
STOP HAI

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