On the CUSP: Stop CAUTI

Comprehensive Unit-based Safety Program (CUSP)

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Learning Objectives

- To understand the steps in CUSP
- To learn how to investigate a defect
- To understand some teamwork tools such as Daily Goals, AM Briefing, Shadowing

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A Success Story in American Health Care:

Eliminating Infections & Saving Lives in Michigan

The Michigan Keystone ICU Project saved over 1,500 lives and $200 million by reducing health care associated infections.

Office of Health Reform,
Department of Health and Human Services

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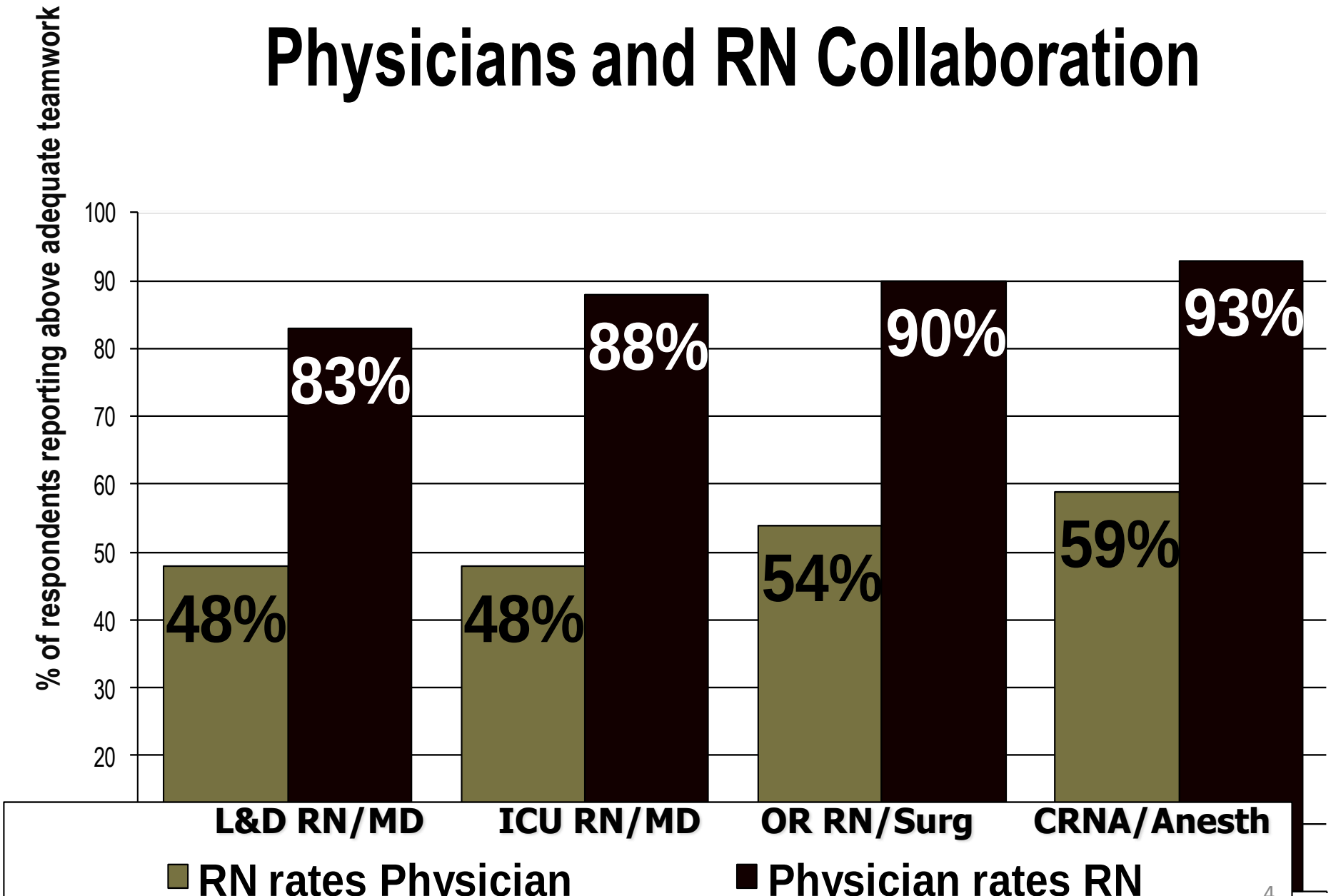
Physicians and RN Collaboration



Teamwork Disconnect

- MD: Good teamwork means the nurse does what I say

- RN: Good teamwork means I am asked for my input

Culture linked to clinical and operational outcomes in healthcare:

- Wrong Site Surgeries
- Decubitus Ulcers
- Delays
- Bloodstream Infections
- Post-Op Sepsis
- Post-Op Infections
- Post-Op Bleeding
- PE/DVT
- RN Turnover
- Absenteeism
- VAP

Data provided by Bryan Sexton

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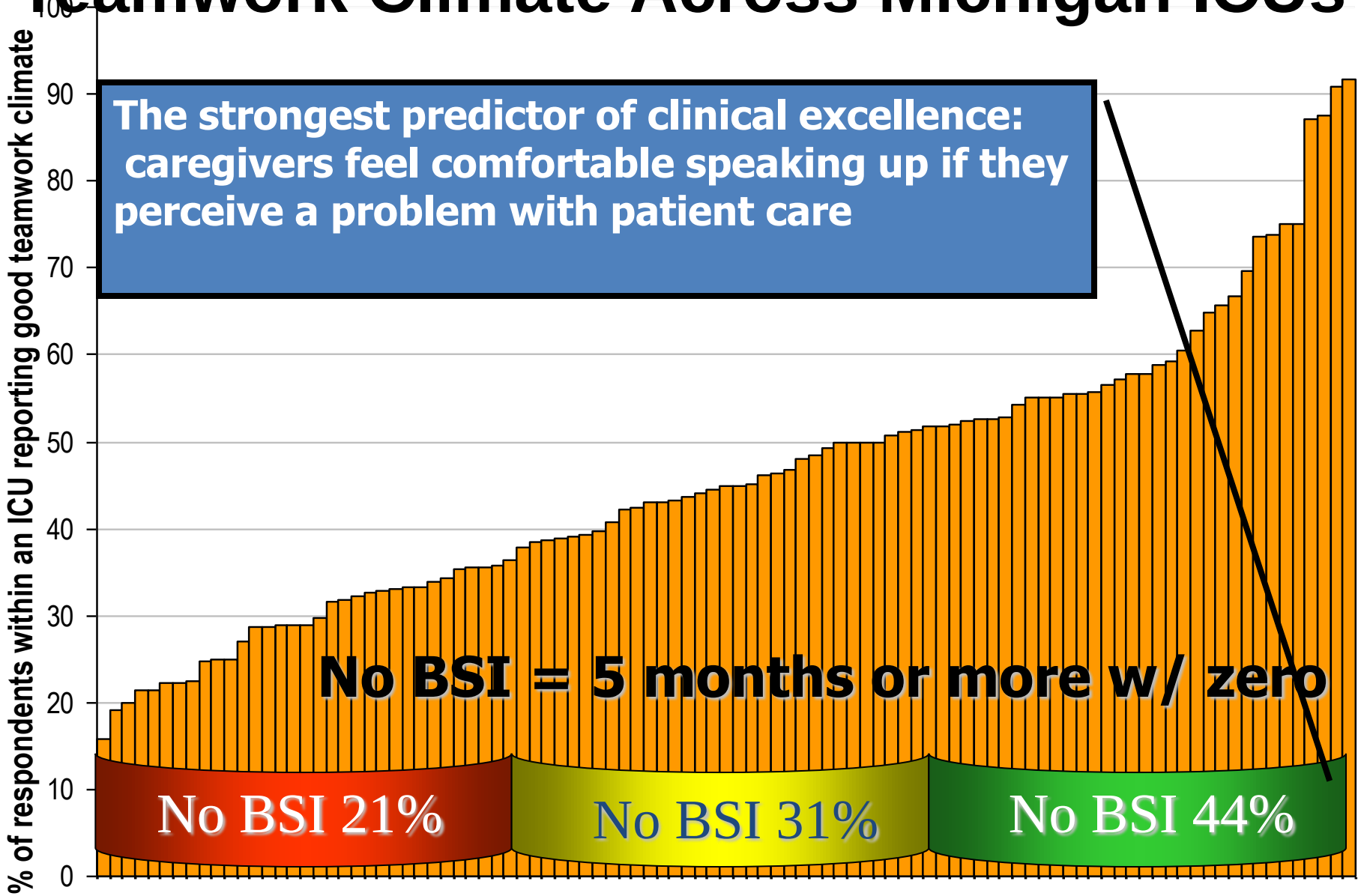
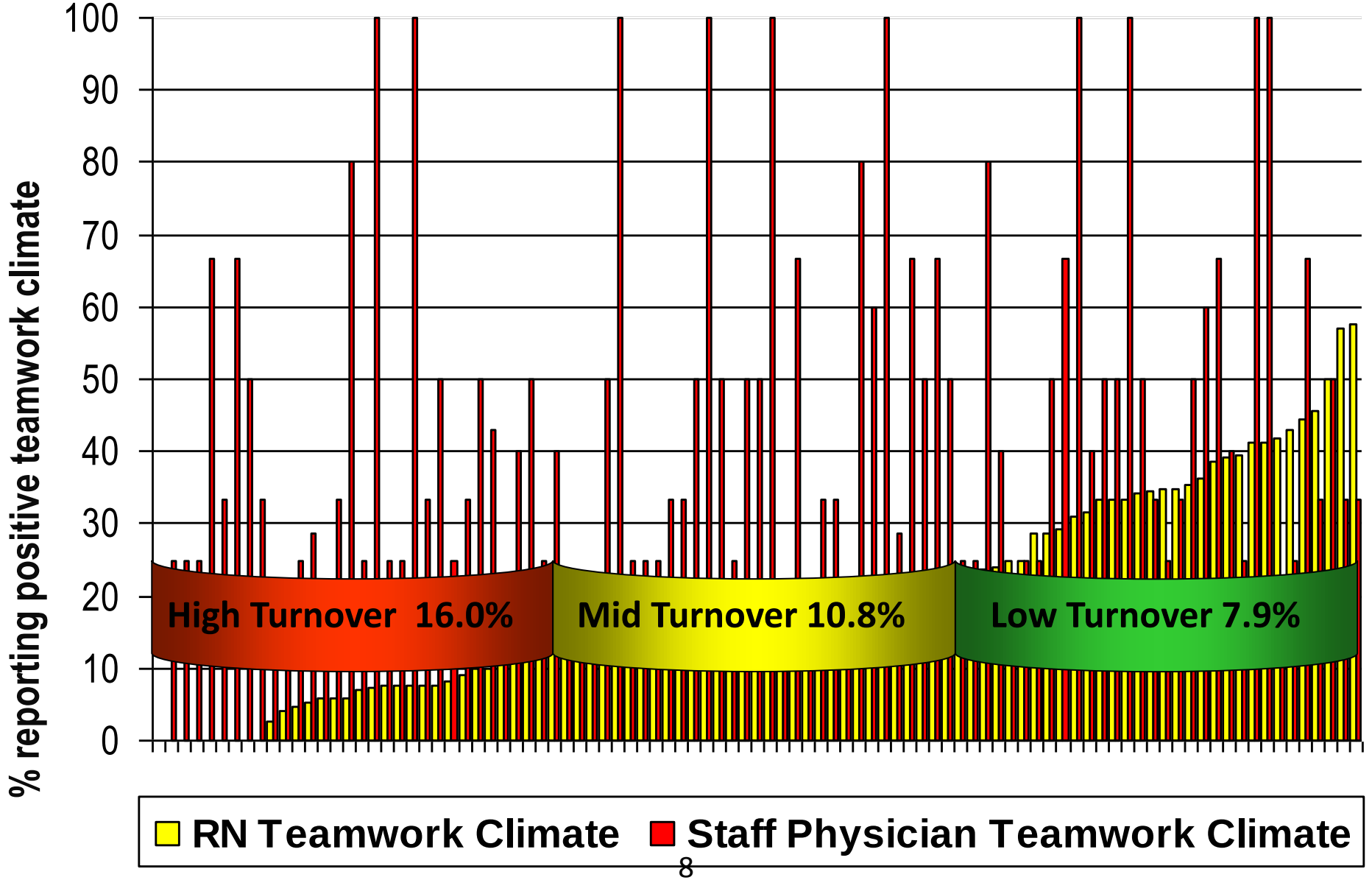
Teamwork Climate Across Michigan ICUs



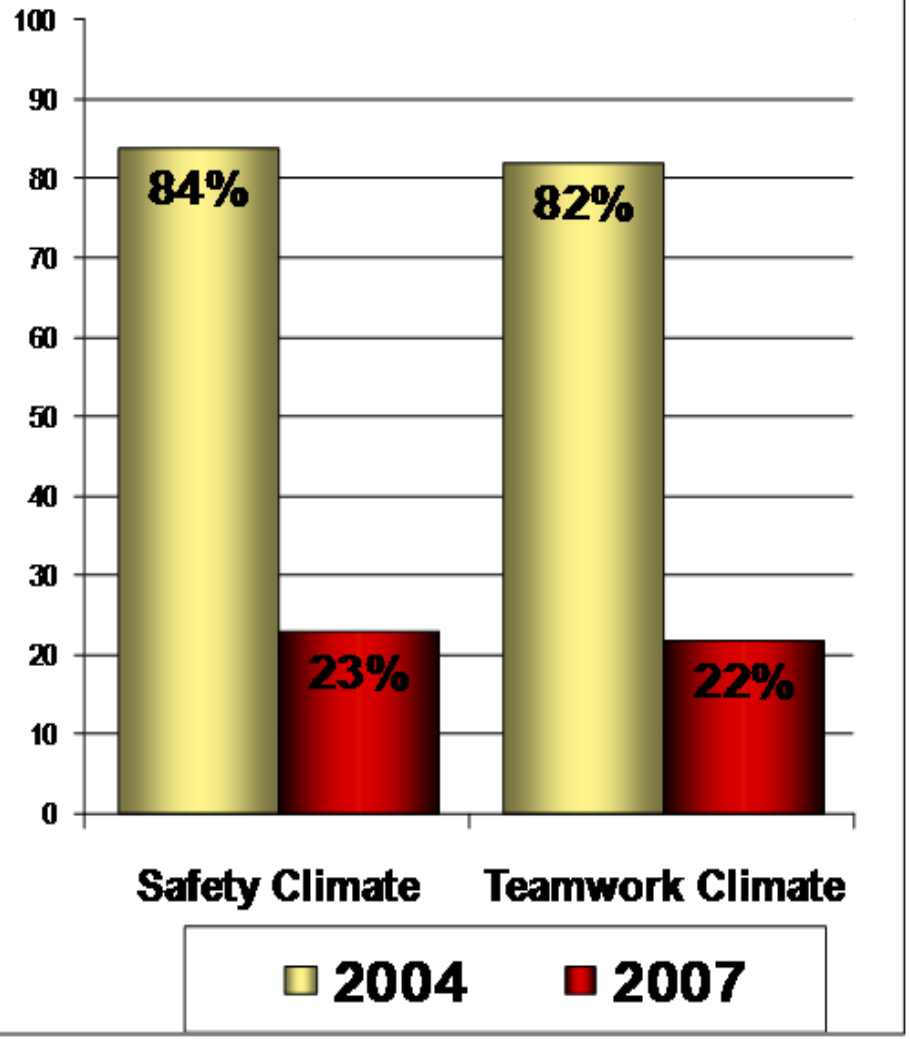
Health Services Research, 2006;41(4 Part II):1599.

Teamwork Climate & Annual Nurse Turnover



“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 2007 23%
  - 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*”



Pre CUSP Work

- Create an CUSP CAUTI team
  - Nurse, physician, administrator, infection control, others
  - Assign a team leader

- Measure Culture in your clinical unit (discuss with hospital association leader)

- Work with hospital quality leader to have a senior executive assigned to your unit based 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://www.safercare.net
2. Identify defects
3. Assign executive to adopt unit
4. Learn from one defect per quarter
5. Implement teamwork tools

Timmel J, et al. Jt Comm J Qual Patient Saf 2010;36:252-260.

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Science of Safety

- Understand system determines performance
- Use strategies to improve system performance
  - Standardize
  - Create independent checks for key process
  - Learn from mistakes
- Apply strategies to both technical work and team work

Identify Defects

- Review error reports, liability claims, sentinel events or M and M conference

- Ask staff how will the next patient be harmed

Prioritize Defects

- List all defects
- Discuss with staff what are the three greatest risks

Learning From Defects to Enhance Morbidity and Mortality Conferences

	Defect	Interventions
Fellow 1	Unstable oxygen tanks on beds	Oxygen tank holders repaired or new holders installed institution-wide
Fellow 2	Nasoduodenal tube (NDT) placed in lung	Protocol developed for NDT placement
Fellow 3	Medication look-alike	Education, physical separation of medications, letter to manufacturer
Fellow 4	Bronchoscopy cart missing equipment	Checklist developed for stocking cart
Fellow 5	Communication with surgical services about night coverage	White-board installed to enhance communication
Fellow 6	Inconsistent use of Daily Goals rounding tool	Gained consensus on required elements of Daily Goals rounding tool use
Fellow 7	Variation in palliative care/withdrawal of therapy orders	Orderset developed for palliative care/withdrawal of therapy
Fellow 8	Inaccurate information by residents during rounds	Developing electronic progress note
Fellow 9	No appropriate diet for pancreatectomy patients	Developing appropriate standardized diet option
Fellow 10	Wrong-sided thoracentesis performed	Education, revised consent procedures, collaboration with institutional root-cause analysis committee
Fellow 11	Inadvertent loss of enteral feeding tube	Pilot testing a 'bridle' device to secure tube
Fellow 12	Inconsistent delivery of physical therapy (PT)	Gaining consensus on indications, contraindications and definitions, developing an interdisciplinary nursing and PT protocol
Fellow 13	Inconsistent bronchoscopy specimen laboratory ordering	Education, developing an orderset for specimen laboratory testing

Am J Med Qual 2009;24(3):192-5.

Executive Partnership

- Executive should become a member of the CUSP CAUTI team
- Executive should meet monthly with the CUSP CAUTI team
- Executive should review defects, ensure the CUSP CAUTI team has resources to reduce risks, and hold team accountable for improving risks and catheter associated urinary tract infections

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Learning from Mistakes

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

Pronovost 2005 JCJQI

To Evaluate Whether Risks were Reduced

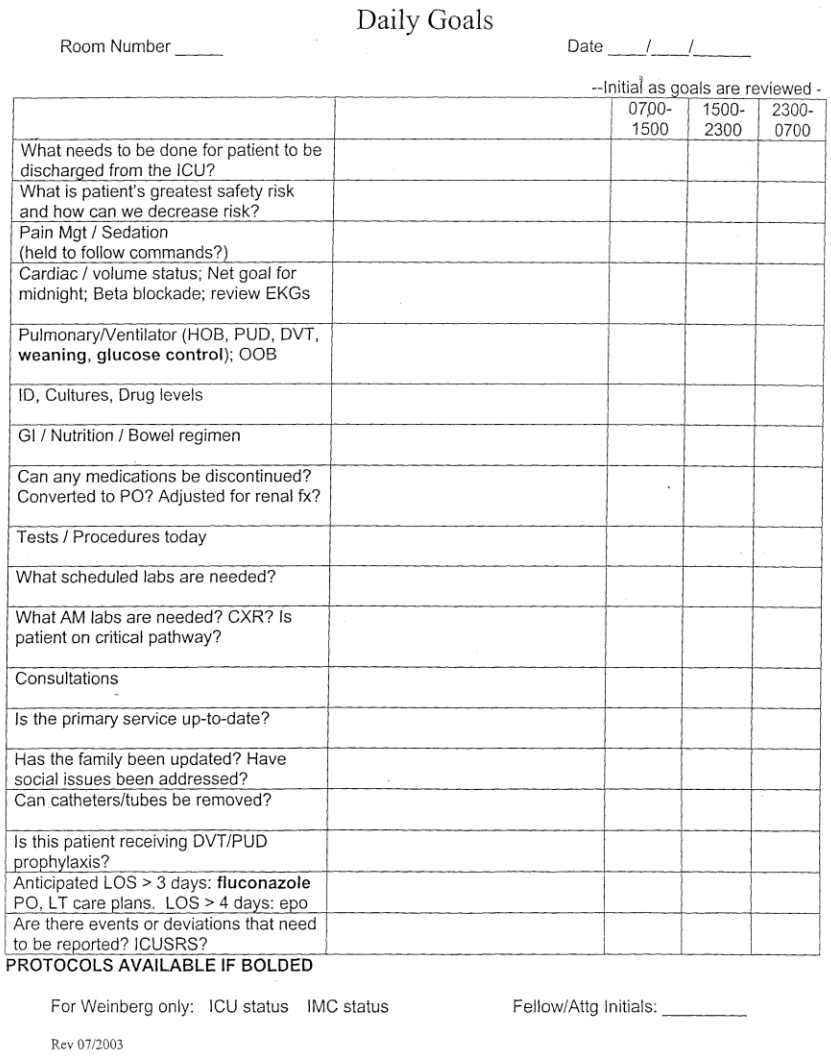
- Did you create a policy or procedure
- Do staff know about the policy
- Are staff using it as intended
- Do staff believe risks have been reduced

Teamwork Tools

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

Daily Goals

- What needs to be done for the patient to be discharged?
- What is the patients greatest safety risk?
- What can we do to reduce the risk?
- Can any tubes, lines, or drains be removed?



Daily Goals

Room Number _____ Date ____/____/_____

--Initial as goals are reviewed -

		0700-1500	1500-2300	2300-0700
What needs to be done for patient to be discharged from the ICU?				
What is patient's greatest safety risk and how can we decrease risk?				
Pain Mgt / Sedation (held to follow commands?)				
Cardiac / volume status; Net goal for midnight; Beta blockade; review EKGs				
Pulmonary/Ventilator (HOB, PUD, DVT, **weaning, glucose control**); OOB				
ID, Cultures, Drug levels				
GI / Nutrition / Bowel regimen				
Can any medications be discontinued? Converted to PO? Adjusted for renal fx?				
Tests / Procedures today				
What scheduled labs are needed?				
What AM labs are needed? CXR? Is patient on critical pathway?				
Consultations				
Is the primary service up-to-date?				
Has the family been updated? Have social issues been addressed?				
Can catheters/tubes be removed?				
Is this patient receiving DVT/PUD prophylaxis?				
Anticipated LOS > 3 days: **fluconazole** PO, LT care plans. LOS > 4 days: epo				
Are there events or deviations that need to be reported? ICUSRS?				

PROTOCOLS AVAILABLE IF BOLDED

For Weinberg only: ICU status IMC status Fellow/Attg Initials: _____

Rev 07/2003

Pronovost, Berenholtz, Dorman. J Crit Care 2003

AM Briefing

- Have a morning meeting with charge nurse and unit attending

- Discuss work for the day
  - What happened during the evening
  - Who is being admitted and discharged today
  - What are potential risks during the day, how can we reduce these risks

Shadowing

- Follow another type of clinician doing their job for between 2 to 4 hours

- Have that person discuss with staff what they will do differently now that they walked in another person's shoes

CUSP Lessons Learned

- Culture is local
  - Implement in a few units, adapt and spread
  - Include frontline staff on improvement team
- Not linear process
  - Iterative cycles
  - Takes time to improve culture
- Couple with clinical focus
  - No success improving culture alone
  - CUSP alone viewed as ‘soft’
  - Lubricant for clinical change

CUSP & CAUTI Interventions

CUSP	CAUTI
1. Educate on the science of safety 2. Identify defects 3. Assign executive to adopt unit 4. Learn from Defects 5. Implement teamwork & communication tools	1. Care and Removal Intervention Removal of unnecessary catheters Proper care for appropriate catheters 2. Placement Intervention Determination of appropriateness Sterile placement of catheter

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CUSP is a Continuous Journey

- Add science of safety education to orientation
- Learn from one defect per month, share or post lessons (answers to the 4 questions) with others
- Implement teamwork tools that best meet your teams needs
- Details are in the CUSP CAUTI manual

References

- Pronovost P, Weast B, Rosenstein B, et al. Implementing and validating a comprehensive unit-based safety program. J Pat Safety. 2005; 1(1):33-40.

- Pronovost P, Berenholtz S, Dorman T, Lipsett PA, Simmonds T, Haraden C. Improving communication in the ICU using daily goals. J Crit Care. 2003; 18(2):71-75.

- Pronovost PJ, Weast B, Bishop K, et al. Senior executive adopt-a-work unit: A model for safety improvement. Jt Comm J Qual Saf. 2004; 30(2):59-68.

- Thompson DA, Holzmueller CG, Cafeo CL, Sexton JB, Pronovost PJ. A morning briefing: Setting the stage for a clinically and operationally good day. Jt Comm J Qual and Saf. 2005; 31(8):476-479.

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