Safety- A Team Sport

Human Factors & Teamwork & Communication

TeamSTEPPS - Strategies & Tools to Enhance Performance & Patient Safety

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PATIENT SAFETY
AHRQ
Agency for Healthcare Research and Quality
Advancing Excellence in Health Care · www.ahrq.gov
TRICARE

Birth of Human Factors, KP

Interesting Conversations

- Robert Helmreich
  - You already have the right people
  - Work on your reporting and systems
  - “What you do is more complicated than any other industry- that’s a fact, NOT a compliment”
  - If you only have the bandwidth for one thing, work on briefings

This is not rocket science

- Based on observations of what people already do more or less well
- Clearly correlates with downstream harm
  - Undesired state
  - 30 day outcomes from surgery
  - ICU mortality…
- Reinforce our good habits

Resilience Engineering for Complex Systems

- Your people, not just your protocols, create safety
- Key Processes in Resilience:
  - Monitoring and Exploring System Performance
  - Responding and Reacting to Events
  - Anticipating and Foreseeing what is next
  - Learning and Reorganizing System
- https://www.youtube.com/watch?v=PGLYEDpNu60
  - Fairbanks et al, JC Journal on Quality and Patient Safety, Aug 2014, 376-383
- Case Study: More data collection by RNs intraop?

A Tale of 2 Results

- CT ordered, performed several days later, abnormal result
- Fetal Heartrate is not reassuring
- Now add EPIC

Your Turn

- Your project
- Safety is created by the system?
- Safety is created by the people?
- Safety is created by both?

Objectives for Today

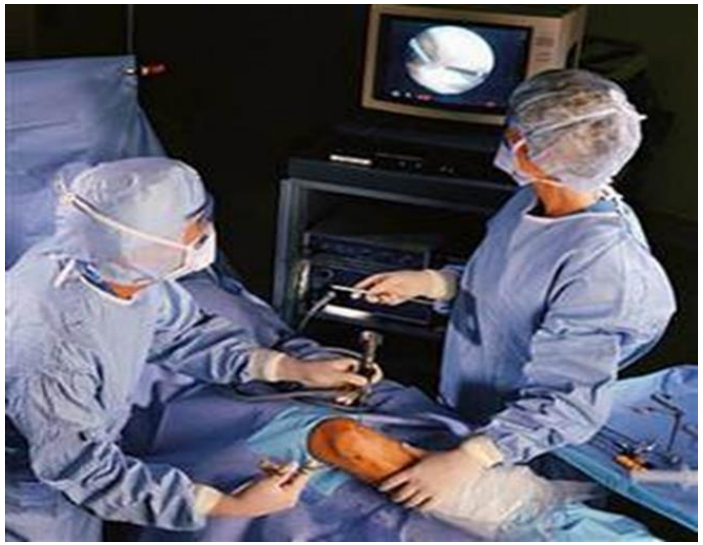
- Use closed-loop (call-out, check-back) communication
- Demonstrate SBAR for clear, concise information-sharing
- Describe the main roles of a leader
- Discuss difference between briefings, huddles & debriefings
- Pick a target for your own practice!

Why Is Healthcare Risky?

- We work in complex systems not well engineered to safely support the work
- Patients are complicated
- Medicine does not inherently have a culture of team work

Our Inconvenient "Medical Truths"

- We rely on personal vigilance & hard work, not systems
- We are trained to be perfect; knowledge and competence are equated with the absence of error
- Medical culture rewards perfection, frowns upon error
- Focus on individual, rather than mutual, accountability

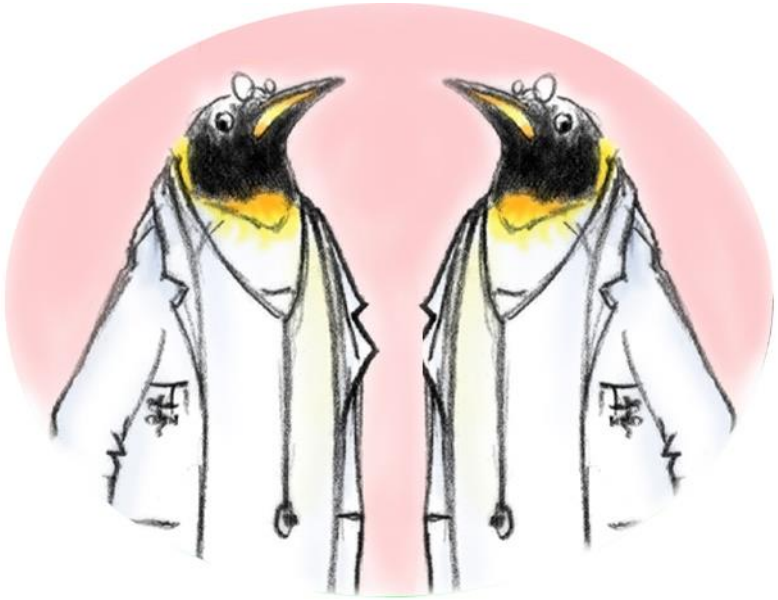


The Solution…TEAMS

- Teams are better than individuals at identifying issues & trouble-shooting
- Even the most heroic leader benefits from a thought partner and an extra set of eyes, ears, and hands during a challenging situation…
- Perhaps even more so in a routine, high volume, mundane situation

What Defines a Team?

Two or more people who interact dynamically, interdependently, and adaptively toward a common and valued goal, have specific roles or functions, and have a time-limited membership



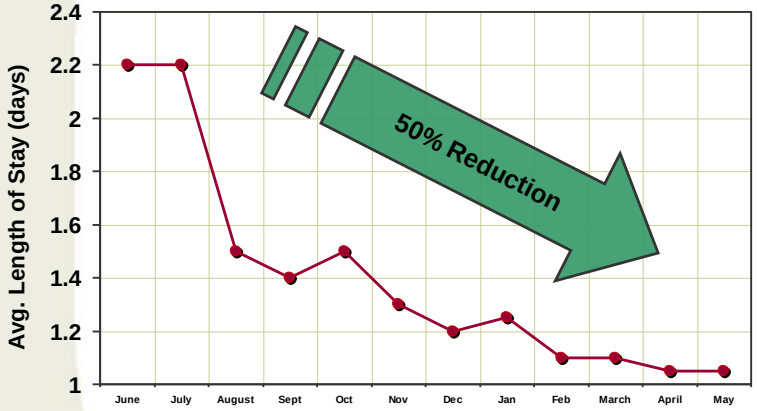
OR Teamwork & Communication Affects Clinical Outcomes

- KP IRB study to better understand issues in the OR
- 300 procedures observed
- Teams scored on scientifically developed behavioral markers
- Behavioral markers were associated with threats to patient safety and clinical outcome (<30 days)

Mazzocco K, Petitti DB, Fong KT, Bonacum D, Brookey J, Graham S, Lasky RE, Sexton JB, Thomas EJ. Surgical team behaviors and patient outcomes. Am J Surg. 2009 May;197(5):678-85.

Does Teamwork Training Matter In Healthcare?

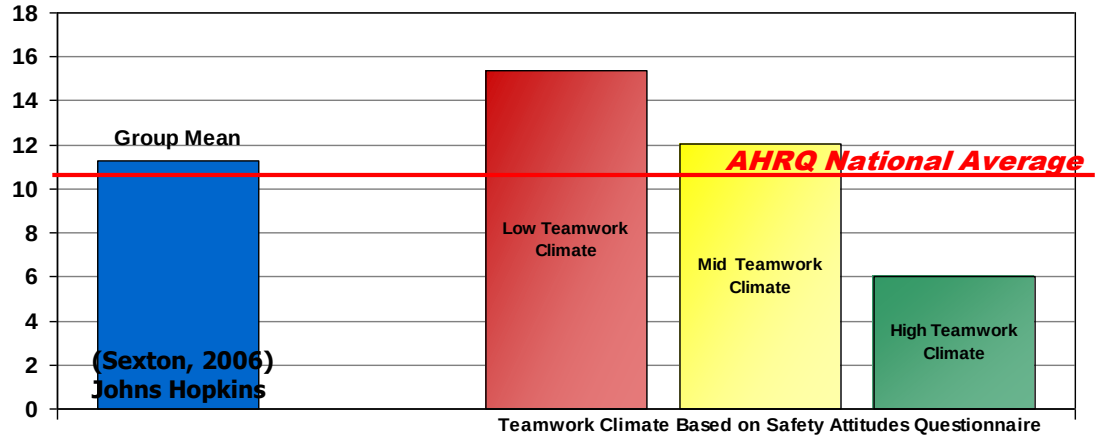
Length of ICU Stay After Team Training



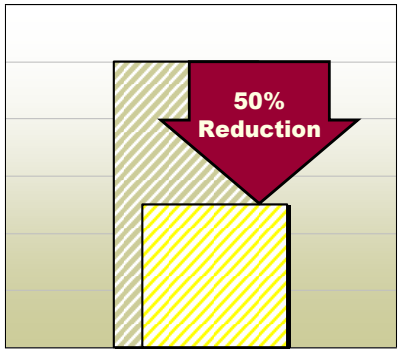
(Pronovost, 2003)
Johns Hopkins
Journal of Critical Care Medicine

OR Teamwork Climate and Postoperative Sepsis Rates

(per 1000 discharges)

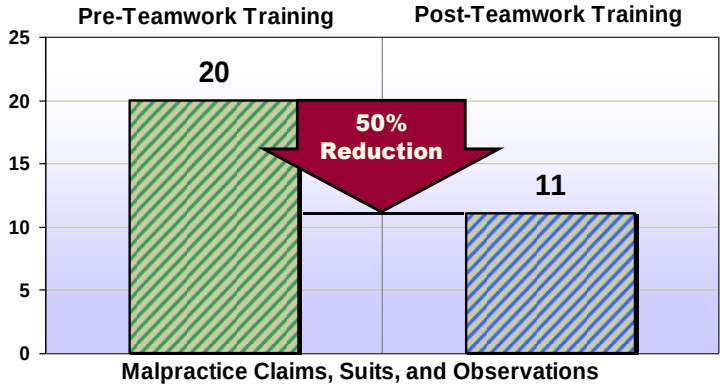


Adverse Outcomes



(Mann, 2006)
Beth Israel Deaconess Medical Center
Contemporary OB/GYN

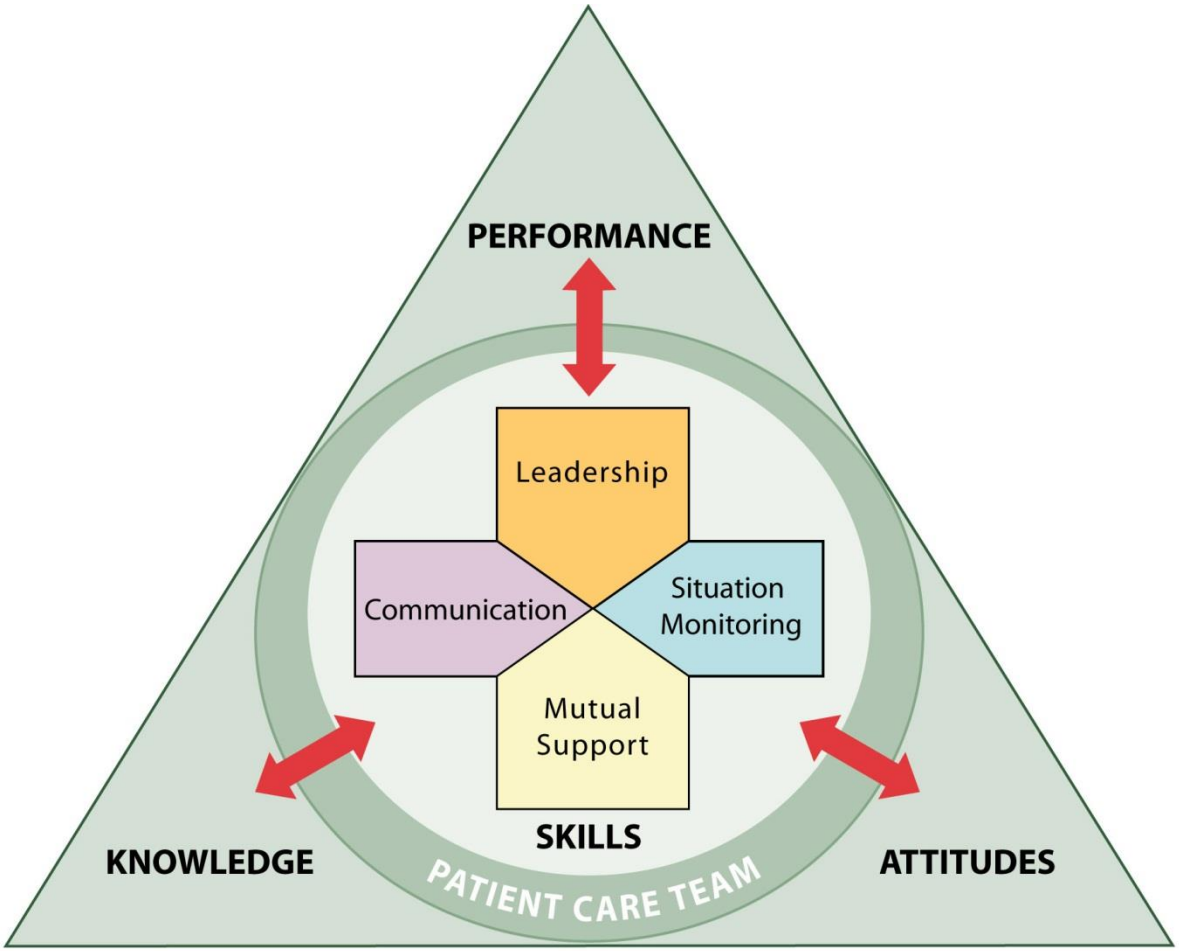
Indemnity Experience



What is TeamSTEPPS?

- An evidence-based **patient safety curriculum designed for health care professionals**
- Developed by Department of Defense's Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality
- Scientifically rooted in more than 20 years of research and lessons from the application of teamwork and communication principles
- A source for **ready-to-use materials** and a training curriculum to successfully integrate teamwork principles into all areas of your health care system

Team Strategies & Tools to Enhance Performance & Patient Safety



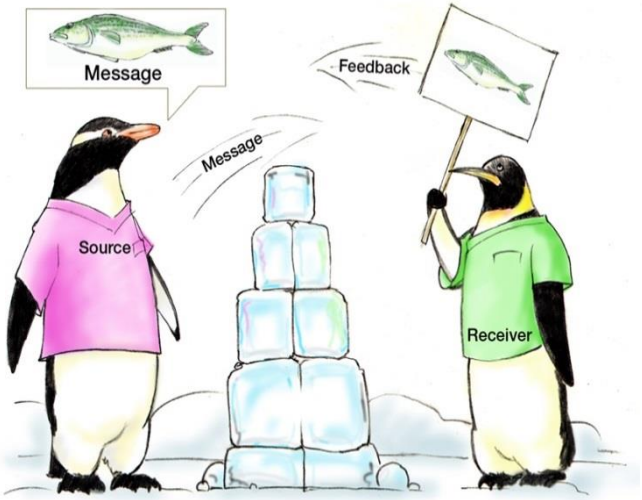
Team STEPPS Framework

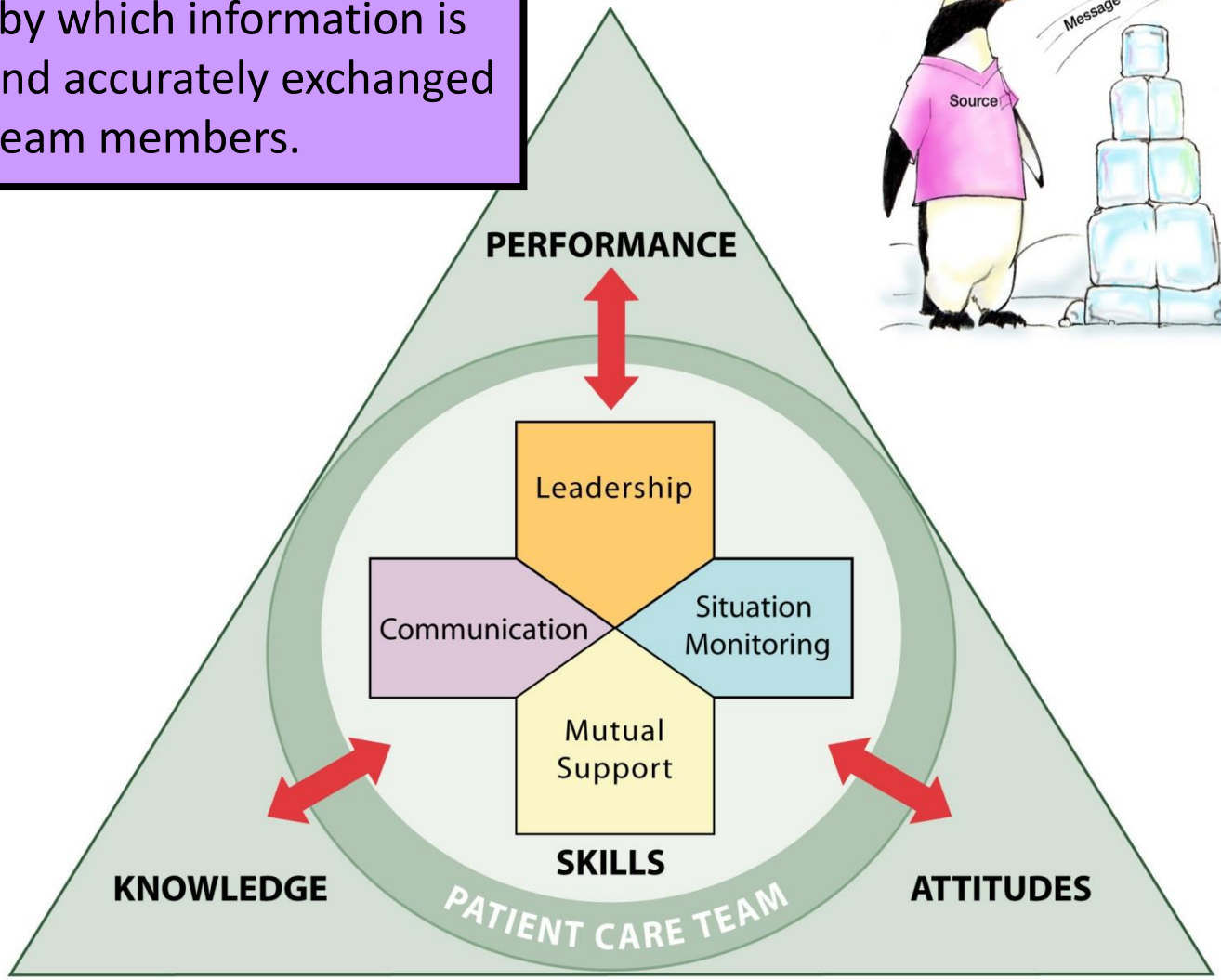
- Communication: SBAR, call-outs, check-backs, hand-offs
- Leadership: Model Teamwork, Manage Resources, Facilitate Team Events (Briefs, Huddles, Debriefs) & Conflict Resolution
- Situation Monitoring/Awareness & Shared Mental Model:

  STEP, Cross-Monitoring, I'M SAFE
- Mutual Support: Task Assistance, Feedback, Assertion, Conflict Skills (2 Challenge Rule, CUS, DESC Script)

Communication

Process by which information is clearly and accurately exchanged among team members.





Review of Skills

100 Level Skills	200 Level Skills	300 Level Skills
Request	Huddle	CUS
Call-Out	Debrief	Two-Challenge Rule
Cross-Check	Handoff	DESC
Check-Back	Cross- Monitoring	I'M SAFE
SBAR	STEP	
Brief	Task Assistance	
	Shared Mental Model	

Briefing- Fundamental Leadership Skill

- Builds the team- Names are Critical
- Shares the plan
- Opens the door to communication
  - Explicitly disavow perfection
- What is the primary determinant of whether or not a briefing happens in the workplace?

Briefing "How To" Checklist

- Get the team's attention, set a positive tone, introductions with names
- Describe the plan including relevant background information…and contingencies
- Explicitly ask for input from each team member; have a 2-way conversation
- Specifically ask team members to speak up with concerns or questions


PERFORMANCE
Leadership
Communication
Situation Monitoring
Mutual Support
SKILLS
KNOWLEDGE
PATIENT CARE TEAM
ATTITUDES

Leadership

Effective Team Leaders

- Organize the team
- Make decisions with input of team members
- Empower members to speak up & challenge
- Actively promote & facilitate good teamwork
- Effectively manage conflict & resources

Actions of Expert Leaders

- Set the stage *actively* and *positively*
- Share the plan
- Flatten the hierarchy
- Continuously invite the other team members to offer input and voice concerns

Leadership Exercise

- Think about the best team you were ever on
- What was the leadership style on that team?

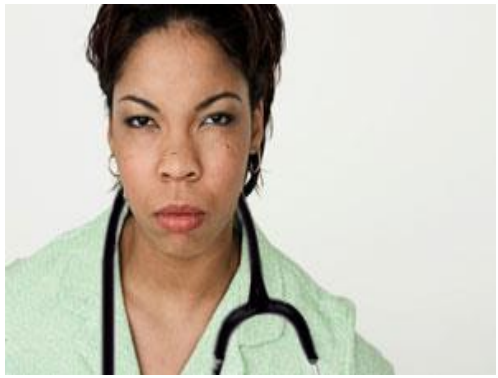
Psychological Safety

The belief that a team is safe for interpersonal risk taking. In such a setting, staff are more likely to speak up if they perceive a threat to safety. Psychological safety has a profound impact on team performance.

- Is safety set as a focus?
- Are staff rewarded for speaking up?
- Are people treated with respect 100% of the time?

Information Exchange Strategies
Clear – Concise - Timely

- SBAR:
  - Situation
  - Background
  - Assessment
  - Recommendation
- Call-Out
- Check-Back
- Hand-Off



Closed-Loop

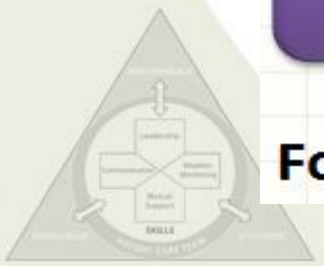
SBAR provides the framework…

- Situation—Reason for communication
- Background—What is the clinical background or context?
- Assessment—What do I think the problem is?
- Recommendation—What would I recommend?

SBAR Exercise

Situation	• The punch line- 7-10 seconds, what is going on?
Background	• Pertinent, brief, related and to the point
Assessment	• What you found/think is going on
Recommendation	• What you want/ request/recommend and when

Followed by a respectful response, discussion, and plan.



SBAR

- During what has been a routine allergy testing, the patient becomes distressed and develops flushing and wheezing
- The RN is the first to note the dramatic changed and does a SBAR. What might they say?

Hand-Offs in Health Care

"It is in inadequate handoffs that safety often fails first."
March 1, 2001, Institute of Medicine Report "Crossing the Quality Chasm.

Trading One Set of Problems for Another… Shorter Resident Hours Means More Hand-Offs

- 2008 IOM Report on Resident Duty Hours concluded that it was unsafe for residents to work more than 16 hours without sleep
- 2011 ACGME Duty Hour Standards restricted interns to 16 consecutive hours of work and requires programs to:
  - Ensure and monitor structured handoffs
  - Teach resident handoff skills and ensure competence

Simplified I-PASS Hand-Off

I	Illness Severity	• Stable, "watcher," unstable
P	Patient Summary	• Summary statement • Events leading up to admission • Hospital course • Ongoing assessment • Plan
A	Action List	• To do list • Timeline and ownership
S	Situation Awareness and Contingency Planning	• Know what's going on • Plan for what might happen
S	Synthesis by Receiver	• Receiver summarizes what was heard • Asks questions • Restates key action/to do items

Starmer A, Spector N, Srivastava R, Allen A, Landrigan CP, Sectish TC. Pediatrics 2012; 129(2): 201-4

Team Events

- Briefings – planning
- Huddles – problem solving
- Debriefs – process improvement

Leaders are responsible for assembling the team and facilitating team events

But anyone can request a briefing, huddle, or debriefing.

Debriefing Purpose & Checklist

- Brief informal info exchange & feedback
- Occurs after an event or shift
- Reconstruct key events
- Analyze what occurred
- Designed to improve enhance team performance and clinical outcomes

TOPIC	
What did we do well?	☑
What didn't work as well?	☑
What systems problems did we find?	☑
What teamwork glitches did we find?	☑
What will we do differently next time?	☑

How do you debrief your project / meeting / situation?

Debriefing

How do you debrief your projects / meetings / situations?

Routine clinic days?

Task Assistance

Team members foster a climate in which it is expected that assistance will be actively *sought* and *offered* as a method for reducing the occurrence of error.

"In support of patient safety, it's expected!"

Putting it All Together

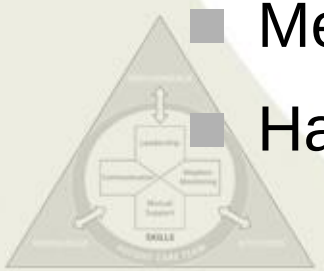
Teams that perform well:

- Hold shared mental models
- Have clear roles and responsibilities
- Optimize resources
- Have strong team leadership
- Engage in a regular discipline of feedback
- Develop a strong sense of collective trust and confidence
- Create mechanisms to cooperate and coordinate
- Manage and optimize performance outcomes

(Salas et al. 2004)

CRITICAL TeamSTEPPS Considerations

- The Right Projects- System 2 issues
- Start with 100 level skills
- How are your briefings?
- Focus on one unit
- Pick a skill you do every day
- Observe and Coach
- Measure and link to other measures
- Have fun!



"We can't change the human condition, but we can change the conditions under which humans work."

--James Reason, PhD

CONFIDENTIAL

Preoperative Smoking Cessation

TPMG Quality and Operat

Surgeon General Report, 1964

- First, even 50 years later, studies are continuing to elucidate new ways tobacco causes death and disability among both smokers and people exposed to secondhand smoke—new diseases it causes or complicates. Tobacco is, quite simply, in a league of its own in terms of the sheer numbers and varieties of ways it kills and maims people. Second, despite progress both in the United States and globally, proven strategies have not been fully implemented to protect children, support smokers who want to quit, and prevent myocardial infarctions, strokes, cancers, and other tragic and expensive health consequences of smoking.

  - Frieden, JAMA. 2014;311(2):133-134.

Benefits of Surgical Smoking Cessation

Unique perioperative moment

Smoking Cessation Improves Surgical Outcomes

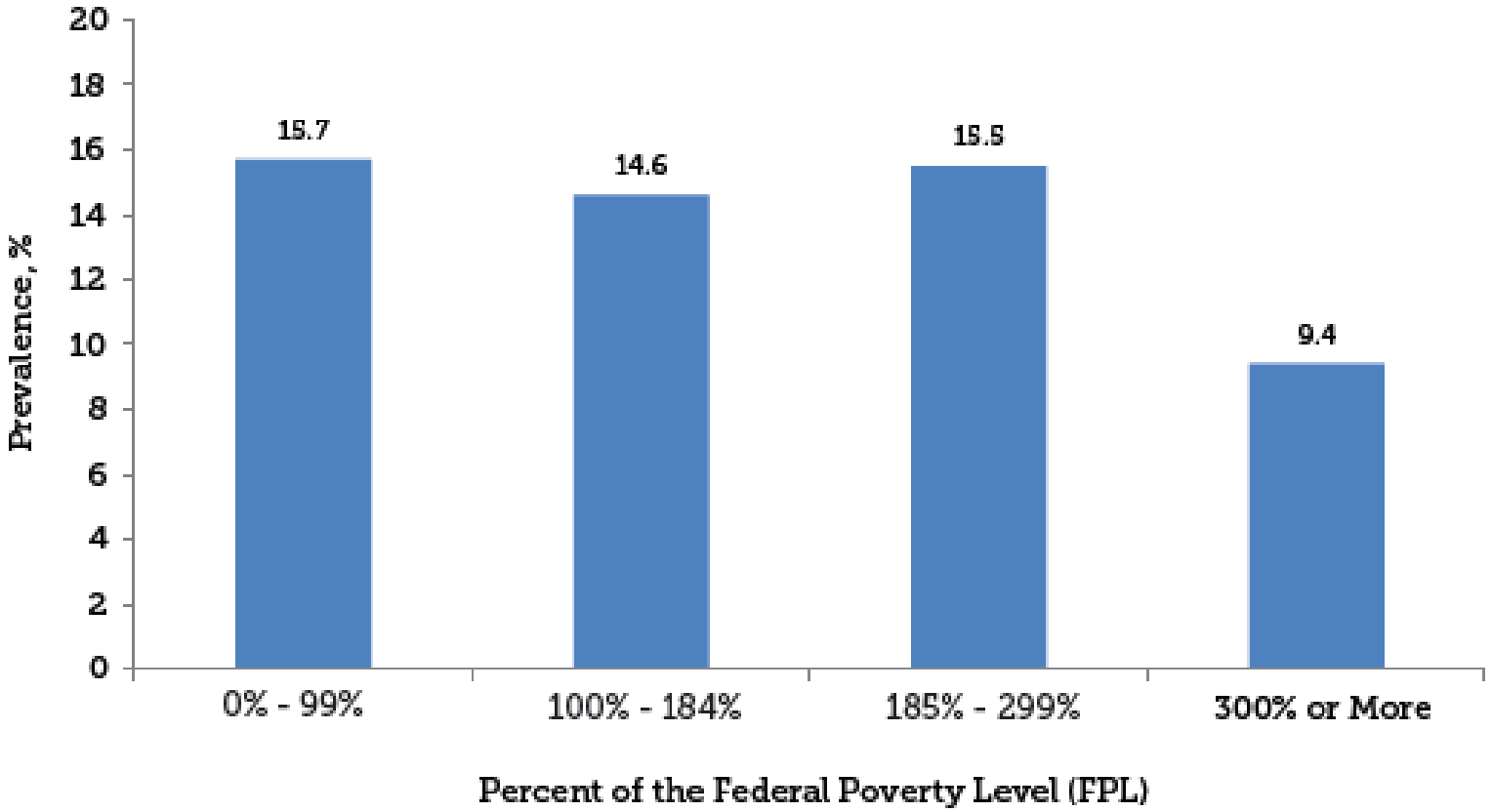
Cigarette smoking increases cardiovascular, respiratory and wound-related complications

Surgery May Promote Smoking Cessation

Teachable moment:
Quit rates 30 day post major inpt procedure 21%[1]
25% one year quit rate is attainable
Early KP pilots show even better quit rates

1 Warner DO Smoking behavior and perceived stress in cigarette smoking undergoing elective surgery Anes 2004;100:1125-37

Figure 1.6. California adult smoking prevalence by percent of the federal poverty level (FPL), 2013–2014



Note: Respondents aged 18+ were asked to report current cigarette smoking behavior and annual household income (poverty level derived from household income). Data for 2013 and 2014 were pooled together.
Source: California Health Interview Survey, 2013–2014.

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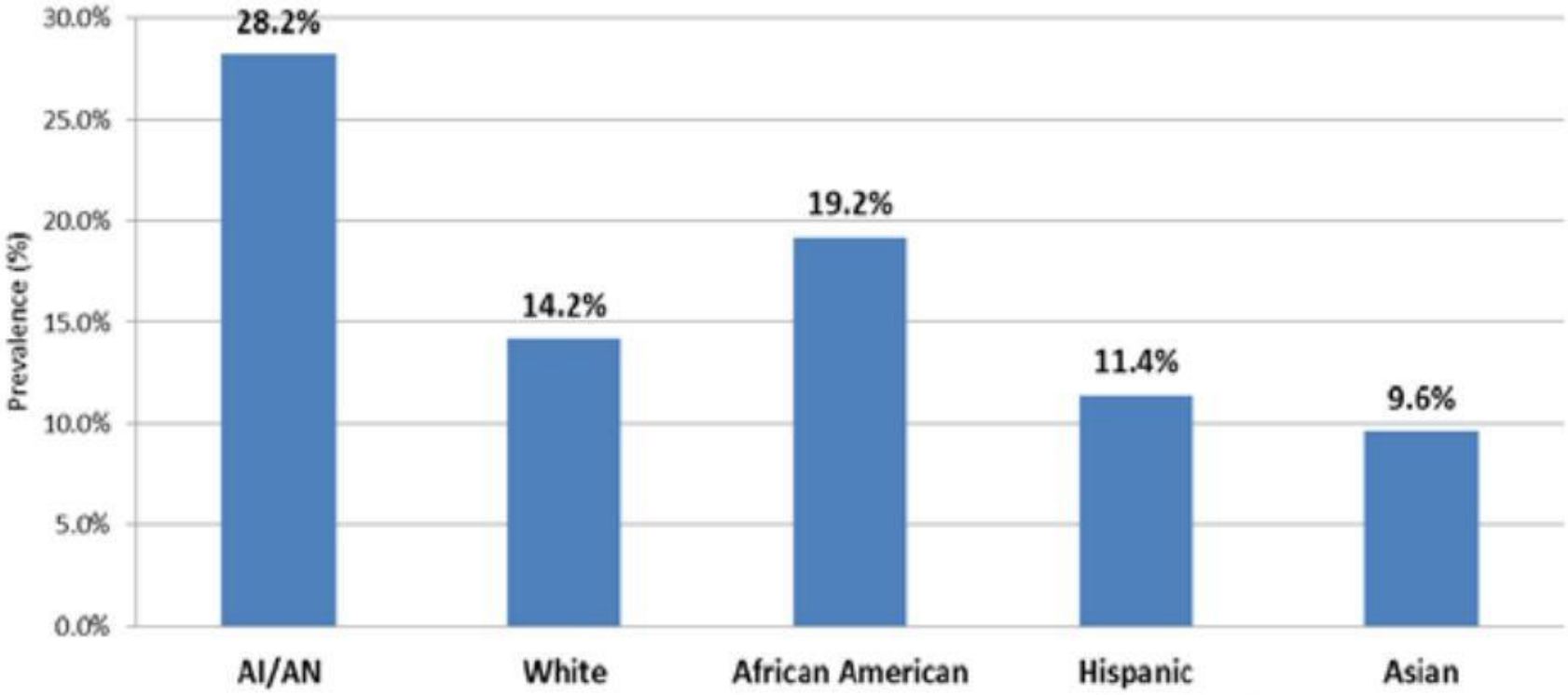
Figure 1: Prevalence of Cigarette Smoking among Adults in California, by Race/Ethnicity, 2011-2014



Data source: California Behavioral Risk Factor Surveillance System /California Adult Tobacco Survey (BRFSS/CATS) 2011-2014 pooled data. The CATS data are collected as part of the BRFSS. The data are weighted to the 2010 California population (weighted to 2000 California population for 2011 data.). Prepared by: California Department of Public Health, California Tobacco Control Program, November, 2016

APIC for Access and Operations Jan 2016

Another day in the pre-op clinic…..

- You evaluate a 65-year old 3 days prior to elective hip replacement
- He has smoked for 50 years and has moderate COPD
- He has tried to quit smoking several times before without success

What should you do about your patient's smoking?

A. Don't discuss it as it will upset him
B. Advise him to continue smoking because quitting now will increase his risk of pulmonary complications
C. Advise him that he stop smoking for as long as possible before and after surgery and get him help to do so
D. Postpone the case until he quits smoking

Achievements to Date

- Half of patients *measured* are smoke-free on the day of surgery
  - Twice the level we expected from the literature
- Nicotine prescriptions filled at 3x KP historical rate
- Project implementation moving forward