Applying the Science of High Reliability to Eliminate Patient Harm

Project Summary:
Sutter Health Central Valley experienced a cluster of Serious Safety Events between December 2011 and January 2013 resulting in patient harm. Once we decided to pursue the use of high reliability science for safety, we invested time to gain full engagement of our physicians and healthcare teams. Over three months, the Chief Medical Officer and Quality Executive traveled to the facilities to share stories of harm and educate on the application of high reliability science to improve safety and operational excellence. Key milestones for hard-wiring a safety culture:

- Development of a Steering Committee and Planning Team
- Establish a Safety Dashboard
  - The Steering Committee determined that every medical staff leader and employed leader would attend a series of in-person training on leader standard work. Nine hours of training was delivered to nearly 600 leaders. The Planning Team established project plans and timelines.
  - Development of error prevention tools, organized into a SAFE toolkit based on what we believe about safety and what we do to address our beliefs. Our certified trainers taught over 400 classes in three-hour sessions to nearly 4,700 active medical staff members and employees.
  - Implementation of a Gold Standard to improve our safety coach and decrease harm.
  - The Safety Coach Program launched in October 2015. Front line staff were trained to be safety coaches who would coach and coordinate their teammates on error prevention tools, providing feedback and capturing safety stories.
  - The Safety Dashboard was established to track safety training compliance.

Examples of our Strategies, Tools and Standard Work

Tools and Improvement Strategies Employed

- SAFE Toolkit
- Three-Phase Approach
- Leader Standard Work
- Error Prevention Tools
- Cause Analysis Approach
- Lessons Learned

Safety Design

Overall Goal: Establish Safety as a Core Value

Recommendations:
- Leadership
  - Leader Standard Work
  - My role is to create a culture of safety with a focus on performance excellence.
  - Error Prevention Team
  - Implementing error prevention programs and processes to prevent harm, especially from system failures.
- Cause Analysis
  - Implementing a root cause analysis to fully understand the drivers of harm and focus on prevention.
- Lessons Learned
  - Implementing lessons learned through training, coaching, and peer-to-peer learning to improve safety outcomes.

Thank you to our project leaders: Ash Gokli, MD, Julie Meyers, RN, Steve Mitrnick, MD, David Shiba, MD, Bruce Laverty, MD, Betty Lopez, RN, Kristie Marion, RN, Philip Yu, MD, Dave Thompson, Gary Zufelt, Dayram Kumar, Tina Pollock, Doug Archer, Catherine Larsen, Terry Lynch, Kimberly Talton, Nora Huzlin, Julie Jeffreys, Dave Bins, Susan Denker, and Keetie Stone

Leader Tools: Leader Standard Work

1. Message on Mission
   - Start meetings with a safety message
   - Safety first in decisions
   - Protect those who ask the safety question
   - Rounding for influence

2. Manage Operations
   - Daily Check-in
   - Swift chain of command
   - Top Ten for Safety and Quality

3. Build and Reinforce Accountability
   - 5-1 Feedback
   - Fire and Accountable Culture (PMDG)
   - Action Plans (level 1 / level 2)

4. Lead Learning
   - Harris Report
   - Cause Safety/Process Improvement guide
   - Learning Boards

Safety Training Results:

- Trained 3,802 staff, 870 physicians, nearly 600 leaders, and 50 Root Cause Analysis (RCA) experts

Positive Outcomes:

- 24% reduction in Serious Safety Events (SSE) in 2016
- One Hospital – 750 days since last SSE; One Hospital – 441 days since last SSE
- Foundation – 400% increase in reporting of potential safety events
- No safety events identified by outside entities as a first notice

Lessons Learned – What we would do again:

- Investing in safety culture was the absolute right thing to do.
- Engaging physicians early on was key to success, including involvement in harm classification, RCAs, huddles, and safety improvements.
- Tremendous time investment in laying the foundation created buy-in, acceptance and a turning platform for safety improvement.
- Board, senior leadership and medical executive ownership was critical.
- Investing in interdisciplinary training and including physicians in the training was powerful and reinforced team-based safety approaches.
- Daily safety huddles keeps safety in the forefront and clearly in focus.

Establishment of gold-standard root cause analysis approaches with rigorous training. We trained and re-trained to reinforce this key strategy.

Ongoing challenges:

- Training of front line leaders early in the implementation phase on how to conduct initial investigations of reported potential safety events.
- Establish a good mechanism to capture and share stories of near misses/great catches as well as a rigorous approach to spreading lessons learned and insuring accountability.