Advanced Leadership for Safety

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James L. Reinertsen, M.D.

jim@reinertsengroup.com

Summary

- Our healthcare system is still unsafe—for patients and staff!
- Safety is a dynamic NON-event. Measures of yesterday's harm do not tell you how safe you are today, or will be tomorrow.
- Advanced safety leaders also address four "leading indicator" questions:
  - How reliably do you perform key safety processes?
  - How well do you sense and respond to operational issues that affect safety?
  - How well do you anticipate and prepare for future safety risks?
  - How well do you learn (and integrate the learning) from past safety events?

How safe is YOUR hospital?

The most common way to answer the question “How safe is your organization?” is to describe how much harm has occurred (or not occurred) in the past.

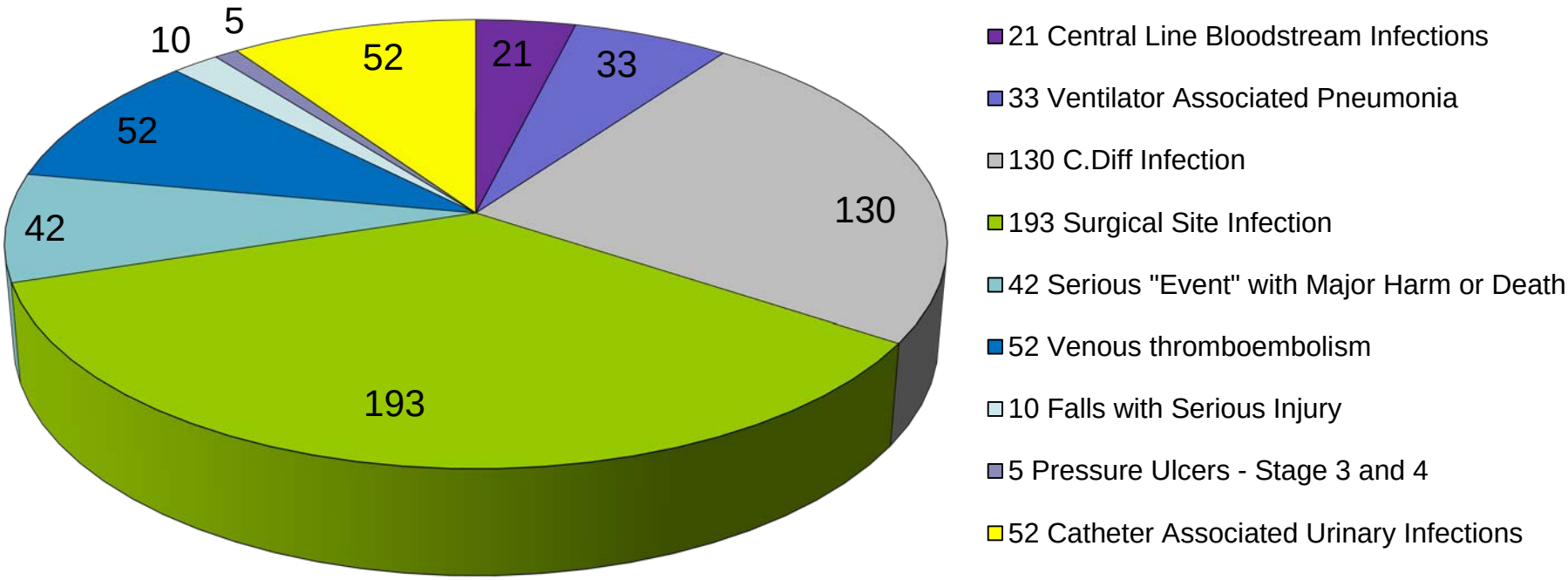
This produces answers such as…

- ***Our mortality rates are lower than would be expected given the level of severity of our patient population.***
- ***In the last two years, we have reduced pressure ulcers by 31%.***
- ***We have about 15 “serious safety events” every year.***
- ***We haven’t had a surgical fire in 3 years***

“Harm in the past,” for a 2-hospital system in the US

538

Patients Harmed in 2012
(Conditions Not Present on Admission)



These answers describe how harmful you were yesterday.

They don’t describe how safe you are right now, or how safe you will be tomorrow.

Besides, our rear-view mirror only sees 1/10th of the harm

Trigger Tool Record Review of 854 Surgical In-Patients in 11 US Hospitals…

- Found 14.6% of patients had a Surgical Adverse Event (SAE)
- 44% of SAEs caused increase LOS or readmit
- **8.7% of SAEs required life-saving intervention or resulted in permanent harm or death**
- ***"…Most of the events identified by Trigger Tool review had not been detected or reported via any other existing mechanism."***

Detection of Adverse Events in Surgical Patients Using the Trigger Tool Approach. Griffin FA, Classen DC Qual. Saf. Health Care 2008; 17: 253-258

In the US, Mandatory Public Reports Capture only 10% of the Harm

For Medicare Hospitalized Patients

- 13.5% (1 out of 7) had an adverse event but..
  - …only 0.6% had an NQF Serious Reportable Event
  - …and only 1.0% had a Medicare "Healthcare Acquired Condition"
- 1.5% had an adverse event that contributed to death
  - ~ 15,000 deaths in October 2008 alone!

"44% of the harm was preventable"

A fit mountaineer attempting Everest has about the same risk of dying from mishap as a Medicare patient going into the hospital

And that's just the start of it. What about…

Harm Due To…

- Wrong or delayed diagnosis
- Poorly coordinated care
- Over-use of services that cannot possibly help, but subject the patient to risk and cost
- Low-volume hospitals and doctors doing complex procedures
- Nights, weekends, and holidays
- …

A case in the risk management files of a large teaching hospital

- 42 y.o. man arrives in ER on April 24 at 0200, sent from rural hospital, “difficulty walking, rule out epidural abscess”
- ER doc writes holding orders, “call Neurosurgery”
- No bed in Neurosurgery, admitted to Orthopedics
- MRI ordered 0300
- Over several hours, leg weakness steadily worsens, arm weakness noted by Ortho nurses
- Neurosurgeon response: “Don’t bother me until the MRI is read.”
- Sent to radiology 1200
- MRI completed 1630
- MRI read 1930
- Patient now with near-complete quadriparesis, rushed to emergency neurosurgery
- 23 days in hospital, 6 weeks in nursing home, eventually discharged home in wheelchair

A detail:

April 24, 2010, was a Saturday

One more detail:

This case did not generate a root cause analysis, sentinel event review, or "Hospital Acquired Condition report." It was never discussed at the senior management level. It was simply considered "one of those unfortunate things that happens."

Why is our rear-view mirror so foggy?

- We show “rates per 1000 device days” rather than counts of patients harmed
- Comforting language: “…within the expected range for a hospital of our size and complexity”
-

Why is our rear-view mirror so foggy? (2)

- Incident Reporting
  - Voluntary
  - Depend on staff ***noticing*** events <u>and</u> ***coming forward*** with report
  - **<u>Dramatically under-report the actual harm (by 10-20X at least)</u>**
  - Why?
    - Complications and harm are “expected and normal”
    - Fear: more work, punishment (formal and informal)
    - Why bother? They won’t do anything about it!

Why is our rear-view mirror so foggy? (3)

- ***Explaining away the problem e.g.***
  - “It was an expected complication of the procedure”

When you hear “Expected Complication,” ask these 4 questions

1. Was the procedure indicated in the first place?
2. Was this potential complication discussed in advance, and all preventive measures taken?
3. When the complication occurred, was it promptly recognized?
4. When recognized, was it appropriately managed?

If the answer to any question is “NO,” it’s not an “expected complication!!

Kerry Johnson, HPI

Harm in the Past: Summary

- Our current harm reports show only a fraction of the problem.
- Leaders need to apply advanced trigger tool methods to begin seeing a much clearer picture of “harm in the past.”
- Past harm is a lagging indicator. Are you really that good, or have you just been lucky?

To get a more complete answer to the question "How safe are we?," leaders must also ask questions about "leading indicators"

- How **reliably** do we perform our key safety processes?
- How well do we **sense and respond to operational issues** that affect safety?
- How well do we **anticipate and prepare** for future safety risks?
- How well do we **learn from, and integrate the learning,** from past safety events?

Vincent, Burnett, and Carthey: The Measurement and Monitoring of Safety. Health Foundation, 2013

Reliability: What Are We Talking About?

- Key clinical processes are carried out as specified, ***regardless of…time of day, day of week, which team members are present, which doctor is on call, whether the ER is jammed…***

Characteristics of Different Levels of Process Reliability: (Amalberti, Nolan)

Chaos	80-90%	97-99%	10^{-3} , 10^{-4}	10^{-5}
No written specifications. Processes are custom-crafted each time	Standard specifications in policies and guidelines, then staff are trained and expected to perform	Specifications become standard work through high reliability methods	Anticipate and contain failures through HRO culture. Loss of autonomy.	Loss of identity. Error-proofing.
Doctor examines patient, writes orders on blank sheet of paper, gives them to a nurse to execute	Watch 5 people doing the process, see 5 different processes.	Watch 5 people doing the process, see one process.	Pre-task safety briefings, pre-occupation with failure, deference to expertise, …	Equivalent actor
Most chronic and acute disease treatment in the US	Handwashing, barrier precautions, care guidelines…	Top hospitals infection control "bundles"	Blood banking	Safety in anaesthesia

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Errors in these processes don’t usually lead to an immediate catastrophe

If you specify the desired process, train staff to do it, and then expect them to do their best…

You will NEVER get better than 90% reliability!

Beyond Inservices

- Turn “standards” into **“STANDARD WORK”**
  - Reality Rounding
- Make the desired process the default
- Use redundancy
- Harness the process you wish to make reliable to existing habits and patterns of work
- Level-load work

Reality Rounds: A Leadership Practice to Improve Reliable Implementation of Key Safety Processes

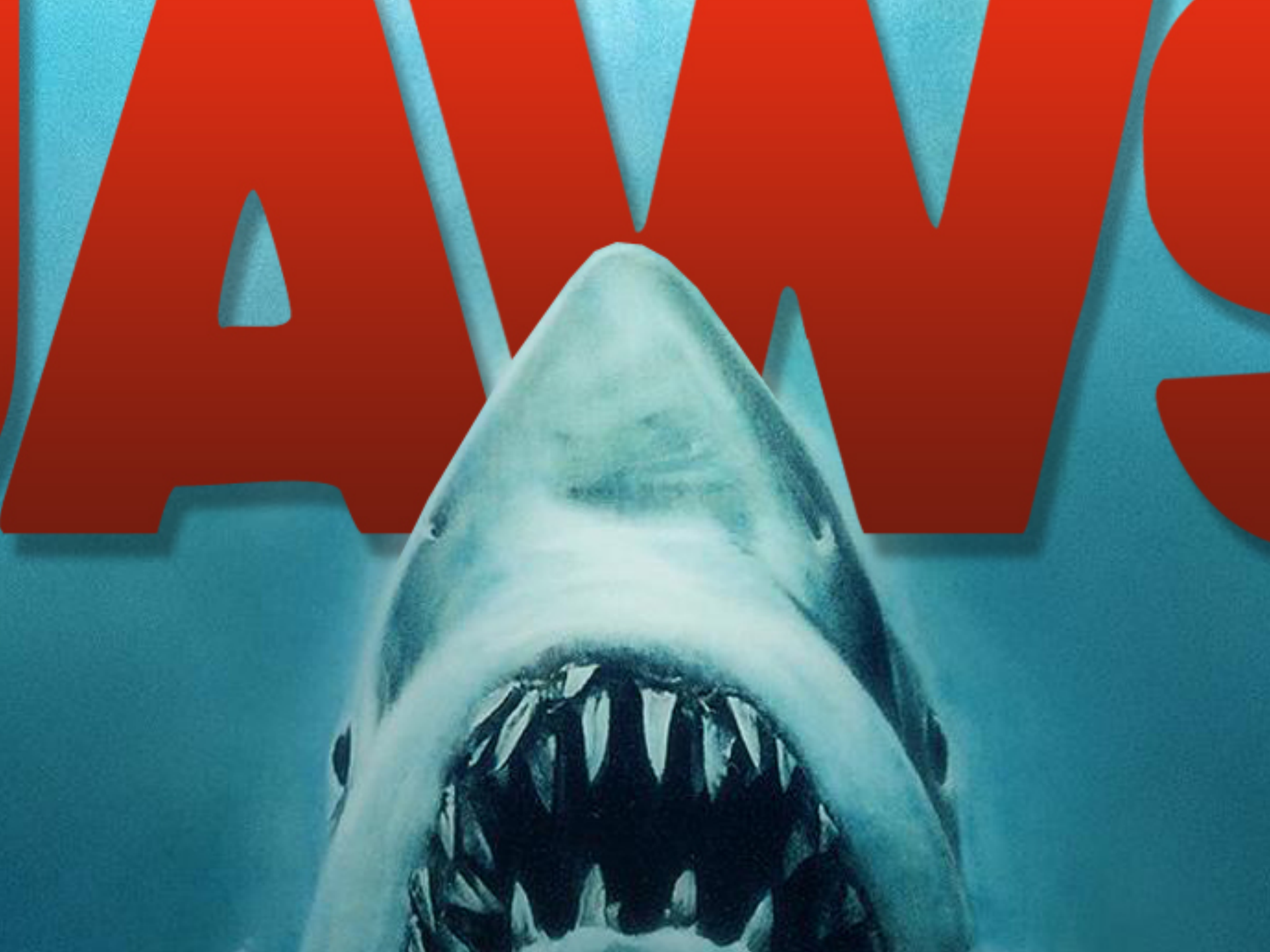
1. Pick a process that is critical to your aims
2. Develop a scripted set of questions designed to expose operational barriers to implementation of that process, and to drive positive feedback to staff who know and implement the process
3. Commit the leadership team to round
   - CEO 1 hour per month
   - Director 1 hour per week
   - Unit manager 1 hour per day
4. Fix the operational problems you learn about
5. Pick another process, and repeat

An example script:

- Hi, I'm ____, the Medical Director. Do you have a minute to chat about the hospital's work in infection control?
- I see this patient has a urinary catheter. Could you tell me the elements of the "bundle" for preventing infections in this patient?
- Great job! So here's a question. Which of the elements of the bundle is hardest for you and the other nurses to implement?
- Thanks. Let's move beyond bundles: are there any other things that worry you about patients getting infections in our hospital?
- Thanks!

Sensitivity to Operations

- "Safety is a ***dynamic*** non-event" (Reason)
- Timely Sensing and Responding to
  - Ebbs and flows in volume
  - Staffing problems
  - "Organizational entropy"
  - Unexpected events
    - Equipment failure
    - Natural disaster
    - Epidemic
  - Etc.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Examples of Leadership Practices that Improve Sensitivity to Operations

- **<u>"Supervisor" without direct patient care responsibility on every unit</u>**
- ThedaCare Manager "Standard Work"
  - 8-10 am Go to the Gemba
- House-wide Daily Safety Briefings

House-wide Daily Safety Briefings: Another Leadership Practice to Build "Sensitivity to Operations"

- 15 minute daily meeting of key operational leaders, led by Chief Executive
- Agenda:
  - Report on house-wide safety status: "It's been 31 days since our last Serious Safety Event and 5 Days since our last employee lost work day event."
  - Brief scripted report on any safety issues yesterday, any anticipated safety risks today, from each manager, including security, facilities, bio-med…
  - Brief follow-up on any previous open safety issues
- *Note: Generally works best around 830 or 9 am, allows managers to have their own "pre-huddles" with their teams.*
- ***Don't skip Saturday and Sunday!***
- ***Don't ignore nights!***

Let’s move on to “How well do you anticipate and prepare for future safety risks?”

Capital Budget Request: Another Robot for Urologic Surgery

- What if…a small hospital in your system made a request for a surgical robot?
  - Meets ROI threshold based on volume projections
  - Suburban competitor just got one, advertises heavily
  - Two urologists want it, have already completed training by the manufacturer (Intuitive)
  - Management concerned urologists might leave for competitor if they don’t get a robot

This seems to be a no-brainer. Do you have any other questions?

Taylor vs Intuitive: A Cautionary Tale (1)

- Harrison Medical Center (253 licensed beds) bought a robot in 2008. Dr. Scott Bildsten, an experienced urologist, underwent training at Intuitive, and based on that training, was credentialed to do robotic prostate procedures. His first unsupervised case was a disaster.

Taylor vs Intuitive: A Cautionary Tale (2)

"The patient underwent a robotic-assisted radical prostatectomy that was complicated by a markedly prolonged operating time (15 hrs) and conversion to the open procedure. He experienced a collection of complications, including a rectal laceration leading to reoperation and colostomy, sepsis, acute renal and respiratory failure, stroke, and incontinence--complications that ultimately led to his death."

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Hospital Credentialing and Privileging of Surgeons

A Potential Safety Blind Spot

Jason C. Pradarelli, BS[1,3]; Darrell A. Campbell Jr, MD[2,4]; Justin B. Dimick, MD, MPH[1,4]

Taylor vs Intuitive: A Cautionary Tale (3)

Acknowledging their responsibility for ensuring patient safety, the attending surgeon, his private practice, and the hospital all settled individual malpractice lawsuits for undisclosed amounts without proceeding to trial.

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Taylor vs Intuitive: A Cautionary Tale (4)

- **Intuitive, the manufacturer on whose training program the hospital had relied to grant Dr. Bildsten his robotic privileges, was NOT found to be liable.**

How well do you anticipate and prepare for future safety risks?

- How many new technologies and procedures are brought into your hospital each year?
- Are your standards for privileging new technical procedures high enough?
- Is the volume needed to meet your ROI threshold lower than the volume needed for safety?

Key Point

Build a safety case as carefully as you build a business case!

- The volume you need to justify safety might be higher than that needed to justify the financial investment
- The healthcare system board is ultimately responsible for making the safety decision—not the manufacturer!

Could this happen in your organization?

- Three surgical fires in 18 months?
- Seven wrong site surgeries within a year?

….despite Root Cause Analyses, Sentinel Event Reviews….?

An example of "Learning and Integration of Learning" From Things That Went Wrong

- At McLeod, every surgical case has a serious debrief, by the team in the OR
  - Dr. Mike Rose (and his assistant!) drive 100% compliance
  - 88,000 cases over 5 years
- Things that go wrong are categorized and severity-rated, by the team
  - 11 categories e.g. anesthesia, nursing, equipment, pre-op, surgeon….
  - 5 levels (level 1 = no harm, 5 = death)
  - 6,800 "things that went wrong" (7.5%)

McLeod Surgery Brief-Debrief System (2)

- Action is taken on all defects, within hours on category 4 and 5 events
  - Team in OR recommends actions
  - Senior leaders immediately notified
  - Actions spread to all relevant parts of system
  - e.g. obese orthopedic patient fall from table due to accidental “beanbag” deflation

McLeod Surgery Brief-Debrief System (3)

- Results
  - Surgical mortality rate decreased 40%
  - Surgical complications (Premier) decreased 30%
  - Labor hours per case 19.6 to 9.0
  - Dramatic increase in staff morale

mrose@mcleodhealth.org

Vice President Surgical Services

Advanced health care safety leaders must develop answers to these “leading indicator” questions

- How well are we performing our key safety processes? (Reliability)
- How safe are we right now? (Sensitivity to Operations)
- How safe are we going to be in the future? (Anticipation and Preparedness)
- How well are we responding to past events? (Integration and Learning)

Vincent, Burnett, and Carthey: The Measurement and Monitoring of Safety. Health Foundation, 2013

Leaders are responsible for everything in an organization, especially what goes wrong.

Paul O’Neill

Safety is not one of several competing strategic priorities.

It is a moral imperative.