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A Safety Culture Transformation at a Children's Hospital

Tom Peterson, M.D.
Helen DeVos Children's Hospital

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In 2009, We Passed the 10 Year Anniversary of the IOM Report – "To Err is Human"

Are Hospitals Safer in 2011?

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Hospitals fall short on safety, quality: Leapfrog

Business Insurance, April 15, 15:13:00, 2009

Most U.S. hospitals still have a long way to go before they meet even minimum safety and quality standards, according to the 2008 Leapfrog Hospital Survey Results report.

"Health care for so long has operated behind a curtain," she said. "We haven't fully understood the level of quality that we're dealing with.

Indeed, Laurel Pickering, executive director of the New York Business Group on Health, said **none of the 50 members of her coalition are using Leapfrog data** in their negotiations with insurers and health care organizations.

By contrast, **insurers do use the Leapfrog report**, along with their own claims data, to determine which hospitals to include in their provider networks, according to an industry spokesman.

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We don't really know.

Charles Vincent *BMJ November 2008 337:1205 1207*

> Considerable efforts have been made to improve patient safety and it is natural to ask...are patients any safer? The answer to this simple question is curiously elusive...we believe that the **lack of reliable information** on safety and quality of care is hindering improvement in safety across the world.

Paul Sharek, Chief Clinical Safety Officer, Lucile Packard Children's Stanford. Feb. 09 presentation at CNMC Safety Rounds

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A 2010 Update

13.5% (1 out of every 7) of hospitalized Medicare patients suffer an adverse event

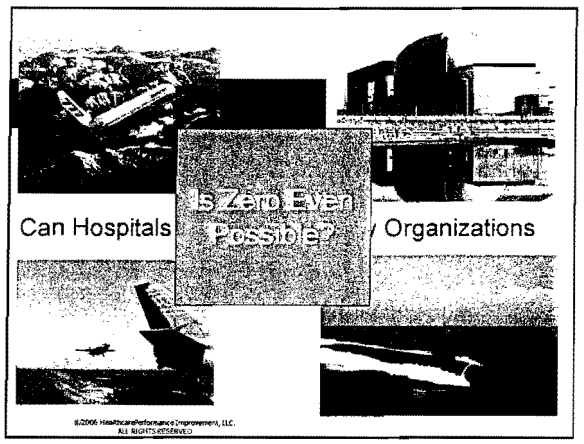
15,000 patients die per month due to medical mistakes

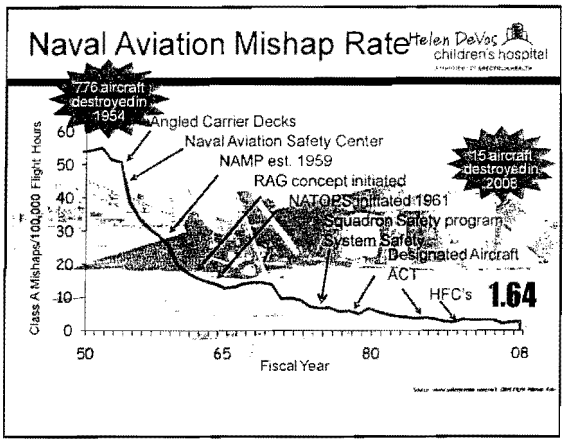
44% of all events rendered as preventable

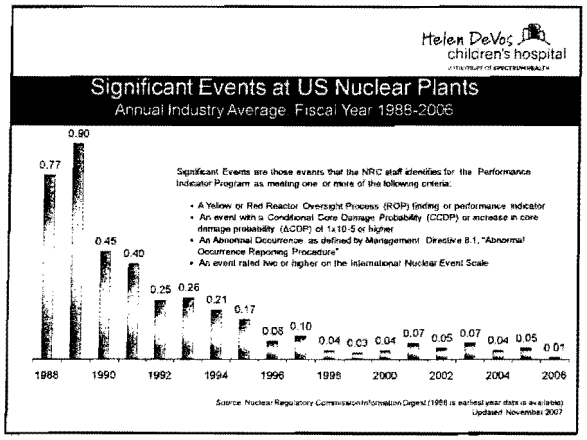
Annual costs equate to $3.8 billion in Medicare alone

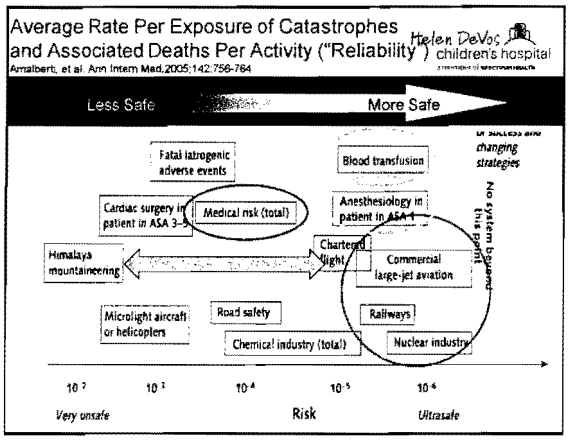
25.1 per 100 admitted patients harmed by adverse drug events

Department of HHS, Nov. 2010
Landrigan et al, New Eng Jour Med, Nov, 2010









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Creating a Safety Culture

- Expectations
- Accountability
- Level playing field (authority gradient)
- Reporting
- Metrics

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Creating a Safety Culture

- Transparency
- Physician leadership
- Executive support
- Situational awareness
- High reliability principles

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Safety and Quality One in the Same

Rely on basically the same principles

High reliability characteristics apply to both

Improving safety improves quality, and vice versa

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The Basics of a Patient Safety Culture Transformation

Prevention

Detection

Correction

Sustainment

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The Basics of a Patient Safety Culture Transformation

Prevention

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Prevention "Creating the Culture"

Learned Behaviors

1. Pay attention to detail
2. Support the Team
3. Questioning attitude
4. Clear communication

Clear the air

- Lessen the authority gradient
- Limit intimidation
- Safe environment for reporting
- Full transparency

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The Basics of a Patient Safety Culture Transformation

Detection

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Detection

Develop metrics

SSER

Days since last event

Days between events

Lagging, realtime

Develop a standardized classification

SSE, PCE, NME, ADE/1000

Effective reporting

Efficient and supported incident reporting

Adverse drug events in real time

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How Do We Measure Preventable Harm?

Joint Commission Definition of Sentinel Event: An unexpected occurrence involving death or serious physical or psychological injury, or risk thereof

- Notice that it avoids the causation question

Serious Safety Event: those events occurring from a deviation from generally accepted performance standards and resulting in moderate to severe patient harm or death.

- The SSER is calculated monthly as the number of Serious Safety Events for the previous 12 months per 10,000 adjusted patient days for the same time period.

Flowchart & Guide

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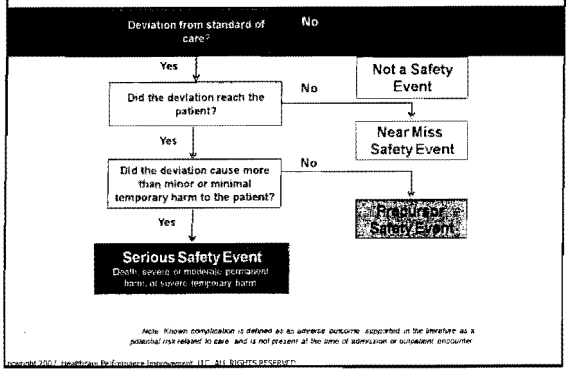
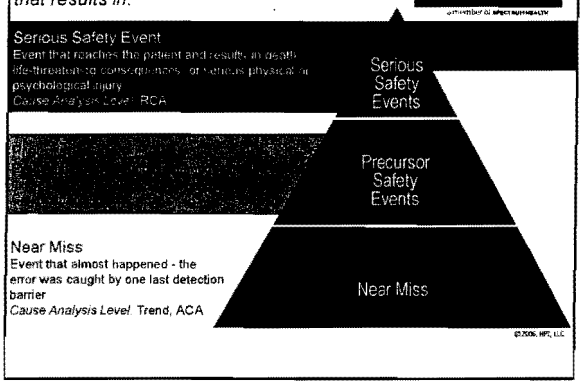


Note: Known complication is defined as an adverse outcome supported in the literature as a potential risk related to care and is not present at the time of admission or outpatient encounter

Variation from standard of care that results in:

SEC Safety Event Classification



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The Basics of Improving Patient Safety

Correction

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Correction

Learn the Science
- Human and System Failure mode methodologies
- Taxonomies
- Error types

Root Cause/Common Cause analysis
- Expand RCA expertise to units
- Real time reporting and determination

Full integration with Risk Management
- Work as a team
- Classify all events in a database
- Share transparently and frequently

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The Basics of Improving Patient Safety

Sustainment

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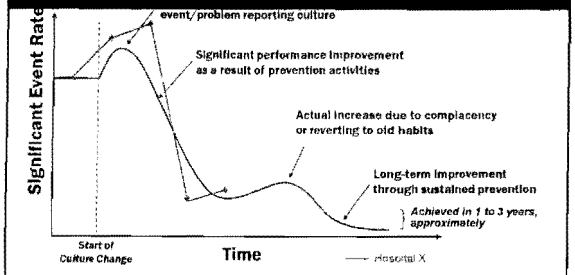
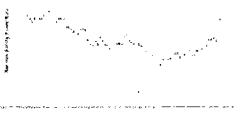
Typical Improvement Curve



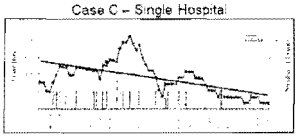
Early Adopters Loose the Gains

Case A – Single Hospital

Case B – Multi-Hospital System



Case C – Single Hospital



OHPI

Slide 5

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Mindfulness: Weick

Implementing High Reliability Principles

"Together these processes produce a collective state of mindfulness. To be mindful is to have an enhanced ability to discover and correct errors that could escalate into a crisis."

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To Achieve a High Reliability Organization

A strong safety foundation and culture

A safety infrastructure

Real, and actionable metrics

Full transparency

Physician and administrative leadership

Risk management as part of the team

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High Reliability Principles

Value driven units
Measures and metrics that are real time, make sense, and achievable

Reluctance to simplify
Encourage diverse opinions and perspectives

Preoccupation with failure
Regard even the "inconsequential" errors as symptoms something is wrong

Deference to expertise
Refer to front line expertise

Sensitivity to operations
Pay attention to front line issues

Situational awareness
Knew what is going on (perception), risks that exist (comprehension), and potential future consequences of the situation (projection)

Commitment to resilience
Expect errors, detect quickly, bounce back and respond to them

Weick. Managing the Unexpected: Assuring High Performance in an Age of Complexity. Jossey Bass 2001

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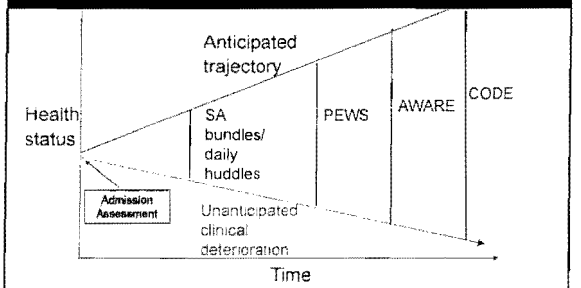
Clinical Deterioration with Situational Awareness



Dr. Steve Muething, MD CCHMC

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Pediatric Early Warning

Pediatric Early Warning Score (PEWS)

Adapted from: Royal Alexandra Hospital for Sick Children, Brighton-Paediatric Early Warning Score

	0	1	2	3	Score
Behavior	Playing/ Appropriate	Sleeping	Irritable	Lethargic or Confused OR Reduced response to pain	
Cardiovascular	Pink or Capillary refill 1-2 seconds	Pale or Capillary refill 3 seconds	Grey or Capillary refill 4 seconds OR Tachycardia of 20 above normal rate	Grey and mottled or capillary refill 5 seconds or above OR Tachycardia of 30 above normal rate or Bradycardia	
Respiratory	Within normal parameters no retractions	> 10 above Normal Parameters using accessory muscles OR 30+% FiO2 or 3+ lpm/min.	>20 above normal parameters retractions OR 40+% FiO2 or 6+ lpm/min	5 below normal Parameters with retractions and/or grunting OR 50% FiO2 or 8+ lpm/min	

Score 2 extra for ½ hourly nebulizers or persistent vomiting following surgery

Green = 0-2 Score

Yellow = 3 -4 Score

Red= 5 or > Score

High Reliability Microsystems ("HRU's")

- Nurse-Physician Co-leadership
- Unit level outcomes
- Unit level innovation and improvement
- Learning system across microsystems
- Locus of Prioritization of goals
- High Reliability Unit pilot

Keys to Sustaining a Safety Culture

Increase physician leadership
- Safety coaches
- Team/HRU leaders
- Lead by example

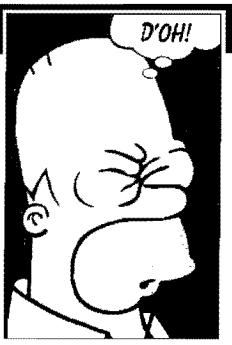
Continuous enforcement and support of behaviors
- They then all become habits

Start early
- Nursing and medical students, interprofessional approach
- Residents
- Staff orientation

Keep safety as a priority
- Regardless of staff changes, revenue crunches, or new leadership
- Starting meetings, safety stories
- Always reporting events, or non-events
- Constant good catch reporting

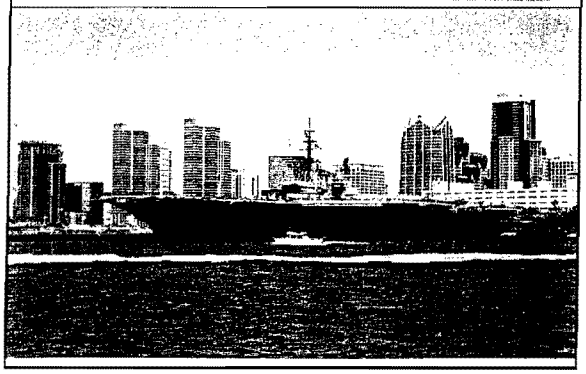
Drive toward high reliability units

Paul Sherak said it best: "This safety work is hard!"



*Special thanks to Paul Sherak for this slide.

Are we an HRO Yet?



Not Yet!