Financial Leadership as an Element of Safe, Highly Reliable Care

Panel 2 // March 7, 2014 // 10:30-11:45am

Attaining High Reliability and Safety for Patients – Collaborating for Change. Patient Safety Collective of the Southwest (PSCS). March 6-7, 2014; Albuquerque, NM
Overview

- Brief background on Sentara and HPI
- Why talk about high reliability and HRO’s?
- The link between clinical and financial performance
- Sentara’s journey and lessons learned
- The promise of high reliability as a chassis to improve multiple dimensions of performance
Sentara Healthcare

- Formed through a series of mergers of community hospitals
- 11 hospitals; 2,580 beds; 3,825 physicians on staff
- 13 long term care/assisted living centers
- 4 Medical Groups (750+ Providers)
- 450,000-member health plan
- $4.7B total operating revenues
- 26,000+ employees
- AA/Aa2 bond ratings
- Sentara Quality Care Network (SQCN)
- Sentara eCare® HIMSS Analytics Stage 7 and HIMSS Davies Award
- AHA Quest for Quality Award 2004, John M. Eisenberg Award 2005

HPI – A Reliability Company

*Methods based on science and facts*

- Science of human error and event prevention
- Practical experience in high-reliability industries including nuclear power and aviation

*Experienced-based mentoring*

- Over 540 hospitals across 62 health systems
  - Includes medical group practices, home care, LTC
- Safety and Reliability Collaboratives including 118 hospitals
- Consulting team with HRO experience and healthcare experience (clinicians, non-clinicians, and physicians)
Reliability: The Patient’s View

Effective
Evidence-based & appropriate

Equitable
Equal quality for all

Patient Centered
Value patients as people

Safe
No harm

Timely
Reduce waits & delays

Efficient
Avoid waste

Adapted from the Institute of Medicine: Crossing the Quality Chasm: Six Aims for Improvement

Reliability…
From the Patient’s Perspective

1. Don’t Harm Me
2. Heal me
3. Be nice to me

...in this order
High reliability organizations (HROs) “operate under very trying conditions all the time and yet manage to have fewer than their fair share of accidents.”

Managing the Unexpected (Weick & Sutcliffe)

Risk is a function of **probability** and **consequence**. By decreasing the probability of an accident, HRO’s recast a high-risk enterprise as merely a high-consequence enterprise. HROs operate as to make systems ultra-safe.

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**Commercial Aviation**

U.S. and Canadian Operators Accident Rates by Year


1935 – Advent of the checklist
1945 – Fitts & Jones study of cockpit design

Source: Boeing, 2007 Statistical Summary, July 2008

Slide 10
Nuclear Powered Submarines

- 5,500 cumulative years of nuclear reactor operations
- 127 million miles submerged (265 round trips to moon)
- Zero Reactor Accidents
- Operated by 20 year olds
High Reliability Organizations

HROs "operate under very trying conditions all the time and yet manage to have fewer than their fair share of accidents."

3 Principles of Anticipation

“Stay Out of Trouble”
- Sensitivity to Operations
- Preoccupation with Failure
- Reluctance to Simplify

2 Principles of Containment

“Get Out of Trouble”
- Commitment to Resilience
- Deference to Expertise

High Reliability in Healthcare

- Three changes needed for healthcare organizations to become highly reliable:
  - Leadership commitment to the goal of high reliability
  - Culture that supports high reliability must be implemented
  - Robust process improvement tools must be used

Chassin and Loeb; Health Affairs April 2011
Operational and Financial Challenges

“Safety is never the only goal in systems that people operate. Multiple interacting pressures and goals are always at work. There are economic pressures; pressures that have to do with schedules, competition, customer service, public image.”

-Sidney Dekker
The Field Guide to Understanding Human Error

Waste Reduction Driver Diagram
Institute for Healthcare Improvement

“Dark Green Dollars” Reducing waste and associated costs for a direct impact on the operating budget


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Example: Cost of Complications

Table 1. Estimates of Costs and LOS Associated to the 5 Major Health Care-Associated Infections for the US Adult Inpatient Population at Acute Care Hospitals

<table>
<thead>
<tr>
<th>Health Care-Associated Infection Type</th>
<th>Cost, 2012 S/US (in Total, ICU, d)</th>
<th>LOS (in Total, ICU, d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Site Infections</td>
<td>20,785 (19,500-22,667)</td>
<td>11.2 (10.5-11.9)</td>
</tr>
<tr>
<td>MRSA</td>
<td>42,300 (40,000-44,670)</td>
<td>23.0 (14.3-33.7)</td>
</tr>
<tr>
<td>Central Line-associated bloodstream infections</td>
<td>45,914 (39,105-53,245)</td>
<td>10.4 (6.9-15.2)</td>
</tr>
<tr>
<td>MRSA</td>
<td>58,614 (16,760-137,755)</td>
<td>15.7 (7.9-36.5)</td>
</tr>
<tr>
<td>Catheter-associated urinary tract infections</td>
<td>996 (603-1,189)</td>
<td>NR</td>
</tr>
<tr>
<td>Ventilator-associated pneumonia</td>
<td>40,144 (36,286-44,226)</td>
<td>13.1 (11.9-14.3)</td>
</tr>
<tr>
<td>Clostridium difficile infections</td>
<td>11,285 (9118-13,745)</td>
<td>3.3 (2.7-3.8)</td>
</tr>
</tbody>
</table>

Abbreviations: ICU, intensive care unit; LOS, length of hospital stay; MRSA, methicillin-resistant Staphylococcus aureus; NR, not reported.

* Data are reported as mean (95% CI) values.
* Estimates obtained from literature and 100,000-trial Monte Carlo simulations using triangular distribution.
* Estimates obtained from literature and 100,000-trial Monte Carlo simulations, using general distribution.

Total annual cost for top 5 HAI’s in US $9.8 billion

Better Health Outcomes = Lower Cost

<table>
<thead>
<tr>
<th>Measure</th>
<th>Annualized Cost Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfusion safety</td>
<td>$ (3,267,711)</td>
</tr>
<tr>
<td>ICU CLABSI</td>
<td>$ (575,000)</td>
</tr>
<tr>
<td>Non-ICU CLABSI</td>
<td>$ (918,000)</td>
</tr>
<tr>
<td>C diff</td>
<td>$ (394,944)</td>
</tr>
<tr>
<td>Surgical Site Infections</td>
<td>$ 56,000</td>
</tr>
<tr>
<td>ICU Vent Days</td>
<td>$ (1,400,000)</td>
</tr>
<tr>
<td>Hospital Acquired Conditions</td>
<td>$ (1,016,720)</td>
</tr>
<tr>
<td>TOTAL COST REDUCTION</td>
<td>$ (7,516,375)</td>
</tr>
</tbody>
</table>
External Initiatives: CMS

- Medicare Advantage Star Rankings
- ACO 33 Quality Measures
- CMS Hospital Pay for Performance

Employer Safety
Case Study - Multihospital System

- 358 HAI’s (hospital acquired infections) avoided
- 77% Annualized Reduction in Serious Safety Events
- $4.6 Million in Dark Green Dollars (reduction in claims and lawsuits) over three years
- 17% Reduction in worker compensation claims ($900,00 savings)

Performance Pillars

<table>
<thead>
<tr>
<th>Patient Safety</th>
<th>Associate Safety</th>
<th>Clinical Quality</th>
<th>Customer Satisfaction</th>
<th>Employee Satisfaction</th>
<th>Physician Satisfaction</th>
<th>Financial Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>Tactics</td>
<td>Goals</td>
<td>Tactics</td>
<td>Goals</td>
<td>Tactics</td>
<td>Goals</td>
</tr>
<tr>
<td>Performed As Intended, Consistently Over Time</td>
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</tr>
</tbody>
</table>
A Change in Course

- Looked **outside of healthcare**
  (experience from other risk-averse, technology based industries such as nuclear power and aviation)
- Belief that to improve our outcomes we have to change **our behaviors**

**Culture = Shared Values & Beliefs**

↓

Behaviors

↓

Outcomes

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**Sentara Serious Safety Event Rate**

Sentara Hampton Roads Hospitals

80% Reduction Since 2003

Each monthly data point is a rolling 12-month average of serious events of harm expressed per 10,000 adjusted patient days
## Other Sentara Dashboard Trends

<table>
<thead>
<tr>
<th>Complication</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAP</td>
<td>98%</td>
</tr>
<tr>
<td>CLABSI</td>
<td>93%</td>
</tr>
<tr>
<td>CR-UTI</td>
<td>62%</td>
</tr>
<tr>
<td>Inpatient Falls w/Injury</td>
<td>34%</td>
</tr>
<tr>
<td>Hospital-acquired decubiti (Stage 2 or higher)</td>
<td>44%</td>
</tr>
</tbody>
</table>

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## Sentara Leapfrog Results

![Sentara Leapfrog Results](image-url)
ROI Case Study - HPI Client - Multihospital System
Losses (settlements, defense, and liability costs) decreased following a safety culture transformation and are significantly less than national rates.

Sentara Hospital Loss Cost Per Bed
By Claim Date

National Losses  |  System Losses  |  System Frequency

2003  |  2004  |  2005  |  2006  |  2007  |  2008  |  2009  |  2010
$0  |  $500  |  $1,000  |  $1,500  |  $2,000  |  $2,500  |  $3,000  |  $3,500
0.0  |  0.5  |  1.0  |  1.5  |  2.0  |  2.5  |  3.0  |  3.5

Sentara Losses  |  Nat'l Losses
Sentara Frequency  |  Nat'l Frequency

Journey to Reliability – Process + People

Optimized Outcomes

Human Factors Integration
- Intuitive design
- Obvious to do the right thing
- Impossible to do the wrong thing

Reliability Culture
- Core values & vertical integration
- Behavior expectations for all
- Hire for fit
- Fair, just and 200% accountability

Process Design
- Evidence-based best practice
- Focus & Simplify
- Tactical improvements (e.g. process bundles)
Actions to Create a Reliability Culture

Organization’s Values & Beliefs

Individual & Team Behaviors

Our Outcomes in SAFETY as well as in quality, satisfaction, and financial performance

1. Elevate safety – NO HARM – as the core value that is reflected in the words and actions of leaders, medical staff, and employees.

2. Adopt behavior expectations for error prevention a “people bundle” for all (leaders, staff, and medical staff) and engrain the behaviors as individual and team work habits.

3. Adopt a Leadership Method techniques for (1) reinforcing and building accountability for performance expectations and (2) detecting system problems and correcting causes.

A “People” Bundle

1. Pay Attention to Detail
   - STAR (Stop/Think/Act/Review)

2. Communicate Clearly
   - Repeat Backs & Read Backs
   - Clarifying Questions
   - Phonetic & Numeric Clarifications
   - SBAR

3. Have a Questioning Attitude
   - Validate & Verification

4. Handoff Effectively
   - 5P’s (Patient/Project, Plan, Purpose, Problems, Precautions)

5. Never Leave Your Wingman
   - Peer Checking
   - Peer Coaching
Process Bundle + People Bundle

Codes Outside the ICU  Surgical Site Infections
Central Line Infections  Hand Hygiene

Culture

Leveraging Senior Leaders

leverage  the use of a small initial investment to gain a very high return in relation to one’s investment, to control a much larger investment, or to reduce one’s own liability for any loss

High Leverage Tools & Techniques for Senior Leaders

• Core Value
• Daily Check-In
• Rounding to Influence (RTI)
• Top 10 Safety List

Impact
Visibility, Relevance
Degree of Influence

High

Investment
Time, Money,
Other Resources
Low

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Benefits of Daily Check-In
a house-wide safety huddle

Leadership Awareness
- For the senior leader: awareness of what's happening at the front line by staying in touch with your people
- For operational leaders: awareness of "what's going on" in other areas and cross-department impact

Problem Identification & Resolution
- Early notification of issues
- Breaking down silos – all directors to pool ideas and resources in solving problems and potential problems

Accountability for Safety
- "Talking about perfect care has become easier" – more aggressive in leadership for Zero events
- Dialogue about how we are at risk, how we can reduce our risk, and how we can support each other

Lessons Learned
- Safety is “good operations” and contributes to improved financial results
- The things we do to improve safety and reliability can also improve other dimensions of performance
- Creating a culture of high reliability and safety requires leadership focus
- A culture of high reliability and safety is:
  - More than just a culture of continuous improvement
  - More than just a “fair and just” culture
- It’s a journey…
Powered by a Reliability Operating System

- Patient Safety
- Associate Safety
- Clinical Quality
- Customer Satisfaction
- Employee Satisfaction
- Physician Satisfaction
- Financial Strength

Goals
Tactics

Reliability
Performed as Intended, Consistently Over Time

Magnet
Good to Great
Relationship Based Care
Finance
Crucial Conversations
Exceptional Experiences
Diversity and Inclusion
Connect to Purpose
Lean Process Improvement
Engaged Partners
Safety Culture
Thank you

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In compliance with the ACCME/NMMS Standards for Commercial Support of CME Jim Hinton has been asked to advise the audience that he has no relevant financial relationships to disclose or does have relevant financial relationships to disclose which he will disclose here.

Questions?

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