What is High Reliability and Why Does Healthcare Need it?

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Institute for Healthcare Improvement
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Session Objectives

- Describe the key characteristics of high-reliability organizations and methods to measure these characteristics
- Reflect on their own organization’s performance in these areas
- Identify effective methods for engaging key leadership groups
Current State of Quality

- Routine safety processes fail routinely
  - Hand hygiene
  - Medication administration
  - Patient identification
  - Communication in transitions of care
- Uncommon, preventable adverse events
  - Surgery on wrong patient or body part
  - Fires in ORs, retained foreign objects
  - Infant abductions, inpatient suicides

How Have Others Done It?

- “High reliability organizations” manage very serious hazards extremely well
  - Commercial aviation, nuclear power
- What do they all have in common?
  - Highly effective process improvement
  - Fully functional safety culture
- Discover and fix unsafe conditions early
- “Collective mindfulness”
High Reliability Science

- Research has defined how HROs produce sustained excellence over time
- No health care organizations function at this high level of sustained safety
- No guidance on how to transform organizations from low to high reliability
- How do we create blueprints for health care to build high reliability?

Leadership

Trust

Improve

Report

Safety Culture
From Health Affairs

THE QUALITY JOURNEY

By Mark R. Chassin and Jerod M. Loeb

The Ongoing Quality Improvement Journey: Next Stop, High Reliability

ABSTRACT Quality improvement in health care has a long history that includes such epic figures as Ignaz Semmelweis, the nineteenth-century obstetrician who introduced hand washing to medical care, and Florence Nightingale, the English nurse who determined that poor living conditions were a leading cause of the deaths of soldiers at army hospitals. Systematic and sustained improvement in clinical quality in particular has a more brief and less heroic trajectory. Over the past fifty years, a variety of approaches have been tried, with only limited success.
High Reliability Self-Assessment

- Four stages of maturity: beginning, developing, advancing, approaching
- **Leadership**: Board, CEO, physicians, quality strategy, quality measures, IT
- **Safety culture**: trust, accountability, identifying unsafe conditions, strengthening systems, assessing safety culture
- **Performance improvement**: methods, training, spread through organization
Joint Commission
High Reliability Initiatives

 High Reliability Resource Center
 High Reliability Self Assessment Tool (HRST)
  • Final stages of alpha testing
  • Will be field tested in 2013
 Statewide initiative in South Carolina: engage hospitals in working toward high reliability
 Tools for helping get to zero: Center for Transforming Healthcare and TST

Leadership

 All components of leadership must be committed to the goal of high reliability: Board, management, MD and RN leaders
 Commitment means setting the ultimate goal of zero major quality failures, zero harm
 Strategy and measures directed at most problematic patient harm risks
 IT supports all major quality improvement efforts; safe adoption is practiced
Safety Culture

- Aim is not a “blame-free” culture
- A true safety culture balances learning with accountability
- Must separate blameless errors (for learning) from blameworthy ones (for discipline, equitably applied)
- Assess errors and patterns uniformly
- Establish one code of behavior

Sentinel Event Alert on Intimidating Behaviors

Intimidating and disruptive behaviors can foster medical errors (1, 2, 3) contribute to poor patient satisfaction and to preventable adverse outcomes (1, 4, 5) increase the cost of care (1, 5) and cause qualified clinicians, administrators and managers to seek new positions in more professional environments (1, 6). Safety and quality of patient care is dependent on teamwork, communication, and a collaborative work environment. To assure quality and to promote a culture of safety, health care organizations must address the problem of behaviors that threaten the performance of the health care team.
What Behaviors are Intimidating?

- Wide range: impatience to physical abuse
- Most common?
  - Refusal to answer questions, return calls; condescending language or voice; impatience with questions
  - About ¼ of nurses and pharmacists personally experienced these from MDs more than 10 times in past year
- Media misrepresented as “disruptive MDs”

Accountability

- Health care also fails to apply disciplinary procedures equitably and uniformly
- Lack of uniform accountability also erodes trust, stifles reporting of unsafe conditions
- Belief in a completely “blame-free culture” further impairs progress toward accountability
- Striking the balance is critical:
  - Learning from blameless errors
  - Accountability for adhering to safe practices
Robust Process Improvement

- Systematic approach to problem solving:
  (RPI = lean, six sigma, change management)
- The Joint Commission has fully adopted RPI
  - Improve processes and transform culture
  - Focus on our customers, increase value
- The Joint Commission is adopting all components of safety culture
- We measure RPI and safety culture and report on strategic metrics to Board.

Don’t Just Talk the Talk

by Nicole Adrian, contributing editor

The Joint Commission tackles its own processes with lean and Six Sigma

In 50 Words Or Less
- Don’t Just Talk the Talk focuses on creating a productive and safe environment
- The series presents real-world examples of how to improve processes
- The series includes strategies for enhancing communication and collaboration
- The series aims to inspire and guide healthcare organizations in adopting effective practices.
Delivering products at no added cost

- TJC: $20M; 9 other major donors
- AHA, BCBSA, BD, Cardinal Health, Ecolab, GE, GSK, J&J, Medline

2009: hand hygiene, wrong site surgery and hand-off communications

2010: colorectal surgery SSIs

2011: safety culture, preventable HF hospitalizations, and falls with injury

2012: sepsis mortality, insulin safety
Participating Hospitals

- Atlantic Health
- Barnes-Jewish
- Baylor
- Cedars-Sinai
- Cleveland Clinic
- Exempla
- Fairview
- Floyd Medical Center
- Froedtert
- Intermountain
- Johns Hopkins
- Kaiser-Permanente
- Mayo Clinic
- Memorial Hermann
- Nebraska Medical Center
- New York-Presbyterian
- North Shore-LIJ
- Northwestern
- OSF
- Partners HealthCare
- Sharp Healthcare
- Stanford Hospital
- Texas Health Resources
- Trinity Health
- Virtua
- Wake Forest Baptist
- Wentworth-Douglass

Current State of Improvement

Usual approaches: best practices, toolkits, protocols, checklists, “bundles”

- Describe a specific set of process steps that must be followed to solve a problem
- ICU central line protocol, VAP bundle

They produce consistent results only in limited circumstances

- Process varies little from place to place
- Causes of failure are few and common
A New Way is Delivering Results

- Complex processes require more sophisticated problem-solving methods
- Three crucial and consistent findings:
  - Many causes of the same problem
  - Each cause requires a different strategy
  - Key causes differ from place to place
- Next generation of best practices will use RPI to produce solutions---customized to an organization’s most important causes

Some Important Causes of Hand Hygiene Failures

1. Faulty data on performance
2. Inconvenient location of sinks or hand gel dispensers
3. Hands full
4. Ineffective education of caregivers
5. Lack of accountability

➤ Each requires a very different strategy to eliminate
Causes of Hand Hygiene Failure Differ Markedly by Hospital

<table>
<thead>
<tr>
<th>Main Causes of Failure to Clean Hands</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ineffective placement of dispensers or sinks</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
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<td>Hand hygiene compliance data are not collected or reported accurately or frequently</td>
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<td>Lack of accountability and just-in-time coaching</td>
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<td>Safety culture does not stress hand hygiene at all levels</td>
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<td>x</td>
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<td>x</td>
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<td>Ineffective or insufficient education</td>
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<td>x</td>
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<td>x</td>
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<td></td>
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<td>Hands full</td>
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<td>Wearing gloves interferes with process</td>
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<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>Perception that hand hygiene is not needed if wearing gloves</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
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<tr>
<td>Health care workers forget</td>
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<td>x</td>
<td></td>
<td></td>
<td>x</td>
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<td>Distractions</td>
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Each letter = one hospital

Results are Consistent

More sophisticated improvement methods (RPI) required for complex problems
- Measure and discover specific causes
- Identify how causes vary among different organizations and settings
- Target interventions to specific causes to maximize effectiveness
- Avoid wasting resources by targeting

This is the Center’s unique capability
Targeted Solutions Tool (TST)

- Uses secure, established extranet channels
  - No added cost, voluntary, confidential
  - Simplified, RPI-driven problem solving
- Educational, no jargon, no special training
- Guides users to customized, proven solutions
- Targeting only your causes means you don’t use resources where they aren’t needed
- 2010: hand hygiene; 2012: wrong site surgery and hand-off communication
Hand Hygiene TST: 2 Years On

- 744 projects are using interventions
- **Baseline** = 56% (n = 90,979)*  
  - Improve = 79% (n = 300,788)*  
  *p<0.0001

<table>
<thead>
<tr>
<th>Unit</th>
<th>Baseline</th>
<th>Improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult critical care</td>
<td>62%</td>
<td>74%</td>
</tr>
<tr>
<td>Emergency dept.</td>
<td>53%</td>
<td>76%</td>
</tr>
<tr>
<td>Adult med-surg</td>
<td>49%</td>
<td>79%</td>
</tr>
<tr>
<td>Long term care</td>
<td>55%</td>
<td>74%</td>
</tr>
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- 20% have improved to 90% or greater

Bloodstream infections fell by 2/3

Cleveland MetroHealth Medical Center increases hand washing, reduces infections
Published: Saturday, September 03, 2011, 5:05 AM Updated: Saturday, September 03, 2011, 7:44 AM

By Sarah Jane Tribble, The Plain Dealer

CLEVELAND, Ohio — Who would have thought that Mom could be so right?

It turns out that by simply washing their hands more, the doctors and nurses at MetroHealth Medical Center have drastically reduced the hospital’s infection rates and improved overall patient health.

The hospital, whose staff members...
The Joint Commission and High Reliability

- Consistent excellence is the vision
- Leadership + safety culture + RPI
- All Joint Commission programs and activities are aligning around this aim:
  - Accreditation, performance measurement
  - JCR education, publication, consulting
  - Center-developed improvement solutions
- Help customers improve no matter where they are on the journey to high reliability