Our Journey To High Reliability

March 25, 2015
A Call To Action
Exhibit ES-1. Overall Ranking

<table>
<thead>
<tr>
<th>Country Rankings</th>
<th>1.00-2.33</th>
<th>2.34-4.66</th>
<th>4.67-7.00</th>
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<tbody>
<tr>
<td>AUS</td>
<td>3</td>
<td>1</td>
<td>5</td>
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<tr>
<td>CAN</td>
<td>6</td>
<td>5</td>
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<td>GER</td>
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<td>2</td>
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<td>NETH</td>
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<td>3</td>
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<tr>
<td>NZ</td>
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<tr>
<td>UK</td>
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<td>7</td>
<td>2</td>
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<tr>
<td>US</td>
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<td>6</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>OVERALL RANKING (2010)</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
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<tbody>
<tr>
<td>Quality Care</td>
<td>4</td>
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<td>1</td>
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<tr>
<td>Effective Care</td>
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<td>5</td>
<td>1</td>
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<td>Safe Care</td>
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<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
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<tr>
<td>Coordinated Care</td>
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<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Patient-Centered Care</td>
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<td>6</td>
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<td>7</td>
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<td>Access</td>
<td>6.5</td>
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<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>6.5</td>
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<tr>
<td>Cost-Related Problem</td>
<td>6</td>
<td>3.5</td>
<td>3.5</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>7</td>
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<tr>
<td>Timeliness of Care</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Efficiency</td>
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<td>6</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>7</td>
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<td>Equity</td>
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<td>5</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Long, Healthy, Productive Lives</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Health Expenditures/Capita, 2007</td>
<td>$3,357</td>
<td>$3,895</td>
<td>$3,588</td>
<td>$3,837*</td>
<td>$2,454</td>
<td>$2,992</td>
<td><strong>$7,290</strong></td>
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</tbody>
</table>

Note: * Estimate. Expenditures shown in $US PPP (purchasing power parity).
Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organization for Economic Cooperation and Development, OECD Health Data, 2009 (Paris: OECD, Nov. 2009).
Key Points

• Errors are Caused by Faulty Systems, Processes, and Conditions that Lead People to Make Mistakes or Fail to Prevent Them

• Preventable Medical Errors are Estimated to Cost more than $20 Billion per year in Hospitals Nationwide

• Identify and Learn from Errors by Developing Reporting Systems

• Implement Safety Systems in Health Care Organizations to Ensure Safe Practices at the Delivery Level

98,000 People Die Each Year in the US from Preventable Medical Errors
How to Make Surgery Safer

Going under the knife is riskier than it should be. What hospitals are doing to reduce human error.

Unkind Cuts

Surgery problems in the U.S. by the numbers

39 The number of times a week a surgeon leaves a foreign object such as a sponge or a towel inside a patient’s body after an operation.

20 The number of times a week a surgeon performs the wrong procedure on a patient.

20 The number of times a week a surgeon operates on the wrong site.

157,000 The number of surgical-site infections in 2013.
Kina’ ole (flawlessness)

Doing the right thing in the right way, at the right time, in the right place, to the right person, for the right reason, with the right feeling, the first time.

“Don’t harm me, heal me, be nice to me. Nothing is more fundamental or simple than those three expectations.”

Art Uehi-Jima, President & CEO

Fiscal Year 2012 Playbook, Queen’s Medical Center, Honolulu, HI
“We can’t praise Aultman’s fine staff enough. The reason dad is still with us is because of the superior care he received at Aultman Hospital.”
Broken Trust

“I hope you never experience the emotional, life changing events that have taken place with me and my family.”
Our Journey Begins...2009
As an Aultman Team Member

Safety is Our Top Priority

- Work to Provide a Safe Environment
- Always Communicate Safety Concerns
- Participate in Safety Education
- Recognize Safety Excellence
- Contribute My Ideas to Improve Safety
- Immediately Stop Any Process if a Safety Concern is Present
Our Interest Deepens...2011
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)

By doing things as intended consistently over time the probability of an accident occurring decreases. Operating as a High Reliability Organization makes systems ultra-safe.
Commercial Aviation

U.S. and Canadian Operators Accident Rates by Year

Source: Boeing, 2007 Statistical Summary, July 2008

- 1935 – Advent of the checklist
- 1945 – Fitts & Jones study of cockpit design
How Safe Is Healthcare?

- Healthcare (1 of ~600)
- Driving in the US
- Mountaineering
- Chartered Flights
- Chemical Manufacturing
- Bungee Jumping
- European Railroads
- Nuclear Power
- Scheduled Commercial Airlines

Ultra Safe (<1/100K)

Total lives lost per year

Number of encounters for each fatality
Aultman’s Journey Towards High Reliability
Doing Things As Intended Consistently Overtime
## Creating a Culture of Safety

### Bad Apple Theory
- People Who Make Mistakes are Poor Performers
- System Performance is Assured by Removing Poor Performers

### Systems Thinking
- All People are Fallible and Experience Errors
- System Factors are the Major Cause of Error
- Reliable Outcomes can be Obtained Using the Right Mix of People and Processes
Human Error- A Symptom, Not Cause

Human Error is not the Cause of Failure, but a **Symptom of Failure**

Human Error- Should be the **Starting Point** of Our Investigations, Not the Conclusion

To Learn from Failure, **Identify Inappropriate Acts**

**PREVENT**
The Errors

**DETECT & CORRECT**
The System Weaknesses

**The Swiss Cheese Effect**

Events of Harm Are Not Due to Just One Error
Human Error Classification

- Skill-Based Errors
- Rule-Based Errors
- Knowledge-Based Errors
## Skill-Based Errors

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Familiar, Routine Acts that can be Carried Out Smoothly in an Automatic Fashion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Type</td>
<td>Slips</td>
</tr>
<tr>
<td></td>
<td>Lapses</td>
</tr>
<tr>
<td></td>
<td>Fumbles</td>
</tr>
<tr>
<td>Error Prevention Themes</td>
<td>Self Checking- Stop and Think Before Acting</td>
</tr>
<tr>
<td>Error Probability</td>
<td>1:1000</td>
</tr>
</tbody>
</table>
## Rule-Based Errors

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Problem Solving in a Known Situation According to Set of Stored “Rules,” or Learned Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wrong Rule</td>
</tr>
<tr>
<td></td>
<td>Misapplication of a Rule</td>
</tr>
<tr>
<td></td>
<td>Non-Compliance with Rule</td>
</tr>
<tr>
<td>Error Prevention Themes</td>
<td>Educate if Wrong Rule</td>
</tr>
<tr>
<td></td>
<td>Think a Second Time if Misapplication</td>
</tr>
<tr>
<td></td>
<td>Reduce Burden, Increase Risk Awareness, Improve Coaching Culture</td>
</tr>
<tr>
<td>Error Probability</td>
<td>1:100</td>
</tr>
</tbody>
</table>

"Apply Wrong Rule to Wrong Situation"
<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Problem Solving in New, Unfamiliar Situation for Which the Individual Knows No Rules - Requires a Plan of Action to be Formulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Type</td>
<td>Formulation of Incorrect Response</td>
</tr>
<tr>
<td>Error Prevention Themes</td>
<td>Stop and Find an Expert</td>
</tr>
<tr>
<td>Error Probability</td>
<td>3:10 to 6:10</td>
</tr>
</tbody>
</table>

“Take What we Know and Wing It”
To Be Successful...

- **Understandable and Supported** at Leadership Level (blunt end)

- **Understandable and Embraced** at Frontline Level (sharp end)
Changing Behaviors

Set Expectations

Educate & Build Skills

Reinforce & Build Accountability

MIND THE GAP
Set Expectations

**Tools** for High Reliability

Evidence-Based Human Error Prevention Techniques

**Tones** for Teamwork

Reduces Power Distance and Level Authority Gradient
1. Pay Attention to Detail
2. Communicate Clearly
3. Think Critically
4. Cross Monitor
5. Speak Up for Safety Using ARCC
TOOLS for High Reliability

1. Pay Attention to Detail

Self-Check Using STAR

Stop
Think
Act
Review
2. Communicate Clearly

- 3-Way Repeat-Back and Read-Back
- Clarifying Questions
- Phonetic & Numeric Clarifications

**SBAR** to Pass Information

**Situation**

**Background**

**Assessment**

**Recommendation**
3. Think Critically

- Questioning Attitude
- Validate and Verify
4. Cross Monitor

• Peer-Coach
• Peer-Check
• 5:1 Feedback
5. Speak Up for Safety Using ARCC

**Geert Hofstede’s Power Distance**
- Extent to Which the Less Powerful Expect and Accept that Power is Distributed Unequally
- Leads to Strong Authority Gradients, Which is the Perception of Authority as Perceived by the Subordinate

**United States**
- Overall, Moderate to Low Power Distance
  (38th of 50 Countries)

**In Healthcare**
- High Between Certain Professional Groups

**TOOLS for High Reliability**

Ask a Question
Request a Change
“I Have a Concern”
Use Chain of Command

*Aultman*

Leading Our Community to Improved Health
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Smile and say hello</td>
</tr>
<tr>
<td>7</td>
<td>Introduce yourself, your role and refer to others by their preferred name</td>
</tr>
<tr>
<td>8</td>
<td>Listen actively with empathy and intent to understand</td>
</tr>
<tr>
<td>9</td>
<td>Communicate the positive intent of your actions</td>
</tr>
<tr>
<td>10</td>
<td>Provide opportunities for others to ask questions</td>
</tr>
</tbody>
</table>

**YOU CAN COUNT ON ME EVERY TIME**
Educate & Build Skills
Reinforce & Build Accountability

- Reliability Coaches
- Daily Check-In
- Safety First in Meetings
- Rounding for Purpose
- 5:1 Feedback
Lessons Learned
recognize mistakes
observe what works
document them
share them

Share your HRO tools and tones
success stories!
safetycounts@aultman.org

SAFETY COUNTS: EVERY TIME
YOU CAN COUNT ON ME EVERY TIME.
LEADING OUR COMMUNITY TO IMPROVED HEALTH
Journey to
High Reliability Organization