Safety Management System: Development and Implementation Across a Health Network

2019 DNV GL Healthcare Symposium
Cincinnati, OH
November 6, 2019

Paul M. Lambrecht, CPHQ, FACHE
Vice President
Quality & Patient Safety

Katharine Perez
Coordinator & Data Analyst
Quality & Patient Safety
Objectives

1. Participants will learn a basic approach to foster the buy-in for a culture of safety and adoption of high reliability organizing with all stakeholders.

2. Participants will learn what a Safety Management System is and how it integrates with the Quality Management System in an ISO-Certified healthcare system.

3. Participants will learn the key components of the well-defined Safety Management System.

4. Participants will learn how to apply the necessary learning systems to sustain and continuously improve the Safety Management System.
So Where is Inspira?
## 2018 Annual Volumes

<table>
<thead>
<tr>
<th>Service</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>26,519</td>
</tr>
<tr>
<td>Births</td>
<td>2,976</td>
</tr>
<tr>
<td>ED Visits</td>
<td>159,943</td>
</tr>
<tr>
<td>Surgeries</td>
<td>17,149</td>
</tr>
<tr>
<td>Physician Office Visits</td>
<td>161,071</td>
</tr>
<tr>
<td>Urgent Care Visits</td>
<td>88,438</td>
</tr>
<tr>
<td>Prehospital Patient Encounters</td>
<td>43,556</td>
</tr>
<tr>
<td>Total Employees</td>
<td>5,782</td>
</tr>
<tr>
<td>Total Providers</td>
<td>1,328</td>
</tr>
</tbody>
</table>

## In one day at Inspira...

1368 Patient Encounters (*1 every “63” seconds*)

- 73 Admissions
- 438 ED Visits
- 441 Physician Office Visits
- 242 Urgent Care Visits
- 47 Surgeries
- 8 Births
- 119 Prehospital Patient Encounters
Safety is Foundational

Commit to ZERO HARM

3rd Leading Cause of Death in the U.S.

1 in 25 hospitalized patients develop a preventable hospital infection

440,000 Americans die from preventable medical errors

~$2,013 per discharge
Patient Injury/Error related costs to hospitals
Strategy to Action

Key Strategic Initiative: Quality & Patient Safety

Align and engage all medical, clinical, and operational staff in quality efforts across the network to foster highest possible performance.

Board Priority

Achieve Zero Harm

Annual Work Plan

High Reliability Organizing & the Culture of Safety
Why a Safety Management System?

“Most healthcare organizations haven’t seen rapid improvements in safety because they’ve tended to deploy disconnected, local tactics.”

Carol Stockmeier, MHA
Press Ganey
The Link to ISO 9001 Certification

- ISO 9001 provides a model for a quality management system which focuses on the **effectiveness of the processes** in a business to achieve desired results.
- The standard promotes the adoption of a process approach emphasizing the requirements, added value, process performance and effectiveness, and continual improvement through objective measurements.
The key is consistency…

<table>
<thead>
<tr>
<th>Focus</th>
<th>Quality</th>
<th>Experience of Care</th>
<th>Engagement</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Focus</td>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Best Practice</td>
<td>Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Centered</td>
<td>Experience of Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People Centered</td>
<td>Engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Focus</td>
<td>Efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*performed as intended consistently over time*
The Well-Defined Safety Management System

- Commitment to Safety
- Building a Culture of Safety
- Reinforcing & Promoting Safety Culture
- Building a Learning Organization
Commitment to Safety

Building a Culture of Safety

Reinforcing & Promoting Safety Culture

Building a Learning Organization

Inspira Health Safety Management System
ZERO HARM

Leading a Culture of Safety: A Blueprint for Success

A Framework for Safe, Reliable, and Effective Care

Institute for Healthcare Improvement
SAFE & RELIABLE HEALTH

inspira HEALTH
Safety Statement

• Inspira has identified “Quality and Safety” as one of our core values (pillars).

• The Inspira Board has identified Achieving Zero Harm as one of our strategic priorities for Quality & Patient Safety.

• The development of a statement of our formal commitment to patient and workforce safety is underway.
Our Position on a Just Culture

• We believe that all people are human first, then either an expert or novice second.
• We treat people with dignity and respect.
• We exist to serve others – our patients, their families, our staff and providers.
• When a mistake occurs, we must first seek to understand.
• We believe there should be no punishment for honest mistakes.
• Everything our people did made sense to them when they did it...our job is to understand why it made sense and have it make less sense next time.
• We must understand our leader’s and individual’s obligations to provide safe care.
• We must be safer together – every day, every patient, every touch.
Commitment to Safety

Building a Culture of Safety

Reinforcing & Promoting Safety Culture

Building a Learning Organization

Inspira Health Safety Management System
Inspira Health
Leader and Universal Safety Bundle

Leadership Safety Bundle

Universal Safety Bundle
Relationship Skills

I - Introduce
Smile and greet others
Introduce using preferred names & explain roles

C - Confirm
Confirm patient’s name; purpose for being here
Communicate positive intent of our actions

A - Ask
Ensure understanding; provide opportunities for others to ask questions

R - Reassure
Listen with empathy and intent to understand; address concerns

E - Educate
Provide explanations and review instructions
Personal Safety Assessment
Inspira Health Safety Management System

- Commitment to Safety
- Building a Culture of Safety
- Reinforcing & Promoting Safety Culture
- Building a Learning Organization
Red Rules

The use of two (2) patient identifiers

The completion of a “purposeful” time out
Communication of Lessons Learned

• Department Huddles
• Daily Safety Briefing
• System-Level Meetings
  • Patient Safety Committee
  • Quality Management Committee
• Cascading Communication Meetings
  • Network Directors
  • Campus Managers
  • Open Employee Communication Meeting
• Executive Level Meetings
  • Operations Leadership Group Meeting
  • Medical Executive Committees
  • Board of Trustees
Safety Tool of the Month

Safety is our Top Priority for our Patients and Staff

Phonetic and Numeric Clarifications

be inspira HEALTH

Safety Behavior: Communicate Clearly
Safety Tool: Phonetic and Numeric Clarification
Reward and Recognition
The winners in each category have achieved “infection free” performance for the following time periods:

- Bronze (1 year)
- Silver (2 years)
- Gold (3 years)
- Platinum (4 years)
- Diamond (5 years)
Healthcare Quality Week Activities
Major force in the reinforcement and sustainment of our Safety Culture and focus on Zero Harm.

Safety Coaches
A safety coach is an Inspira employee who volunteers to promote our culture of safety & high reliability.
Safety Coach – Monthly Meeting

Agenda

- Safety Message
- Review of Serious Safety Event Rates
- Looking Back: Safety Coach Rounding Debriefing
- Looking Forward: Briefing on Next Month’s Coaching Activity
- Guest Speaker/Learning Activity/Simulation
- Round Table
- Closing Comments
Being a Safety Coach allows me to educate my co-workers and peers, relay information that is helpful to them, and explain how and why the tools are valuable.” –Lisa Grace, Health Information Management
Quality and Patient Safety

Safety is our Top Priority for our Patients and Staff

Continuous Use and Reference Use Protocol

Safety Tool of the Month

Looking Back:
Our Safety Behavior for the month of August was Apply a Questioning Attitude using our Safety Tool Validate and Verify.

Looking Forward:
Our Safety Behavior for the month of September is Know Why and Comply using our Safety Tool Continuous Use and Reference Protocol.

4 C’s of Rounding - Rounding to Influence

Connect to a Core Value

Can-Do
Concerns
Commitment

Connect to a Core Value: Use a story or metric to let staff know why the topic is of importance to us.

Can-Do: Assess, review and tally what we all can do (expectations) to demonstrate our core values (what is the expectation)?

Concerns: Ask about any barriers that prevent consistently meeting expectations (what makes it hard for you to do this every time)?

Commitment: Ask for a personal commitment to making the expectation a work habit – and encouraging others to as well! (Can I count on you to do this? Here is how I am going to follow up.)

Practice positive, reinforcing feedback: aim for 5 times more positive feedback than negative or corrective feedback. Seek out opportunities to catch people doing it right and to thank them for a job done well.
Safety Coaches – Make Safety Fun!

- Bookmarks
- Badge Buddies
- Communication Boards
- Safety Coach Binders
- Safety Peep’s

[Image of a green board with various safety-related items and a badge saying Keep Calm and Sbar.]
Insperia Health
Safety Management System

Commitment to Safety
Building a Culture of Safety
Reinforcing & Promoting Safety Culture
Building a Learning Organization
Building a Learning Organization
Local Learning Systems

- The Local Learning System is comprised of 2 parts –
  - The Learning Board
  - Relevant data and action plans
- The Learning Board has three sections
  - RED for new ideas
  - YELLOW for ideas in action
  - GREEN for ideas that moved to results
- The GREEN section represents the units “trophy case”.
- The Data & Action Plans component are up next...
Components of the Learning System
Components of the Learning System

- Harm Measures
- Workforce Injury
- Culture Measures
- Climate Measures
- Engagement Measures
- Cause Analysis
- Common Cause Analysis
- Self-Assessment
- Independent Assessment
- Operating Experience
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Indicator Desired Direction</th>
<th>Benchmark</th>
<th>Target 2018 YE</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAFE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Serious Safety Event Rate (SSER)</td>
<td>▼</td>
<td>IHN</td>
<td>n/a</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>2 Bar Code Medication Administration (BCMA)</td>
<td>▼</td>
<td>IHN</td>
<td>95</td>
<td>92.65</td>
<td>96.94</td>
<td></td>
<td></td>
<td>96.94</td>
</tr>
<tr>
<td><strong>Healthcare Associated Infections</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Central Line Associated Blood Stream Infection</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>4 Catheter Associated Urinary Tract Infection</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5 SSI - Colon Surgery</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>6 SSI - Abdominal Hysterectomy</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>7 C. difficile</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>8 MRSA</td>
<td>▼</td>
<td>NHSN</td>
<td>1</td>
<td>n/a</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Patient Safety Indicators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 HAC - Foreign Object Retained</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0.02</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>10 HAC - Air Embolism</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>11 HAC - Falls (significant) and Trauma</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0.43</td>
<td>0.34</td>
<td>0.12</td>
<td></td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>12 PSI-3: Pressure Ulcer Rate</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0.44</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>13 PSI-6: Iatrogenic Pneumothorax</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0.29</td>
<td>0.4</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>14 PSI-8: Postoperative Hip Fracture</td>
<td>▼</td>
<td>CMS</td>
<td>0.11</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>15 PSI-9: Postoperative Hemorrhage/Hematoma</td>
<td>▼</td>
<td>CMS</td>
<td>2.6</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>16 PSI-10: Postoperative Kidney Injury w/Dialysis</td>
<td>▼</td>
<td>CMS</td>
<td>1.3</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>17 PSI-11: Postoperative Respiratory Failure</td>
<td>▼</td>
<td>Leapfrog</td>
<td>8.23</td>
<td>3.8</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>18 PSI-12: Perioperative PE/DVT</td>
<td>▼</td>
<td>Leapfrog</td>
<td>3.84</td>
<td>2.1</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>19 PSI-13: Postoperative Sepsis Rate</td>
<td>▼</td>
<td>CMS</td>
<td>5.23</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>20 PSI-14: Postoperative Wound Dehiscence</td>
<td>▼</td>
<td>Leapfrog</td>
<td>0.85</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>21 PSI-15: Unrecognized Abdominal Accidental Puncture or Laceration</td>
<td>▼</td>
<td>Leapfrog</td>
<td>1.29</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
In 2017 employee incidents were occurring every 6.4 days.

In 2018 employee incidents were occurring every 8.1 days.
Overall Patient Safety Grade: Hospitals (2018)

Inspira Health Network Patient Safety Grade
Relative to AHRQ 2016 Benchmark

- E - Failing
- D - Poor
- C - Acceptable
- B - Very Good
- A - Excellent

<table>
<thead>
<tr>
<th>Grade</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>25th %tile</th>
<th>Median</th>
<th>75th %tile</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>0.6%</td>
<td>0.6%</td>
<td>1.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>4.5%</td>
<td>4.8%</td>
<td>3.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>17.4%</td>
<td>18.5%</td>
<td>15.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>41.0%</td>
<td>40.8%</td>
<td>41.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>36.5%</td>
<td>35.2%</td>
<td>38.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overall Patient Safety Grade: Ambulatory (2018)

Relative to AHRQ 2016 Benchmark

1) AHRQ 2016 was released in 2017; 2018 benchmark was not made available to other survey vendors.
Workforce Engagement Measure

Patient Safety Grade by Engagement Category

% Receiving Patient Safety Grades

<table>
<thead>
<tr>
<th>Engagement Category</th>
<th>A</th>
<th>B</th>
<th>C or lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disengaged</td>
<td>16.9%</td>
<td>29.8%</td>
<td>53.3%</td>
</tr>
<tr>
<td>Ambivalent</td>
<td>19.4%</td>
<td>45.2%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Content</td>
<td>35.5%</td>
<td>50.3%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Engaged</td>
<td>62.3%</td>
<td>32.8%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Engaged employees nearly 4x more likely to grade patient safety as an “A” than disengaged employees.

Source: Advisory Board Survey Solutions
Cause Analysis Program – a refresh...

- As part of our high reliability work we elected to refresh our Cause Analysis Process.
- We further enhanced our learning by –
  - Aligning the roles of the participants around reducing harm – it is a Board driven priority for all
  - Training all leaders in high reliability organizing, safety science and process improvement activities – leaders taken an active role in leading safety initiatives
  - Engaging front line staff in improving processes through our learning systems, executive rounding and safety coaches
Cause Analysis Program

Meeting #1
- Convene Core Team
- Review facts of case (SBAR)
- Determine reportability & level of analysis
- Determine interviewees and interviewers
- Safety Message as needed

Meeting #2
- Review findings of document review
  - Medical record
  - Policy & Procedure
- Review interview findings
- Draft Action Plan elements
- Assign Executive Sponsor

Meeting #3
- Present Final Action Plan & Measures
- Action Plan & Measures reported to System Patient Safety Committee
- Shared learnings

Document Review & 1:1 Interviews

Finalize Action Plan & Measures
Assessment of Safety Program

- Self-Assessment
  - RCA Look Back/Annual Review
  - Safety Coach Rounding
  - Executive Patient Safety Rounds
  - Internal Audit Process (RISI)
- Independent Assessment
  - Third Party Consultant
  - DNV
Operating Experience

While it is wise to learn from experience, it is wiser to learn from the experience of others.

Rick Warren

- Patient Safety Organization
- The Joint Commission
  - Sentinel Event Alerts
- ECRI Institute
  - Top Ten Issues in Patient Safety
- Becker’s
- Local experiences
So what has this work meant to Inspira; our patients and our staff?
Days Since Last Serious Safety Event:

188
Number of Days between Serious Safety Events at Inspira Health in 2018.

Number of Days between Serious Safety Events at Inspira Health in 2019.
Inspira Hospitals
August 2015 - June 2019

Rolling 12-month average of serious safety events per 10,000 adjusted patient days

Serious Safety Event Rate (SSER)

# of Serious Safety Events

Serious Safety Events (SSE)  Serious Safety Event Rate (SSER)
Increase in Safety Event Reporting

Summary of Safety Events - Hospitals

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3495</td>
<td>5280</td>
<td>4817</td>
<td>4407</td>
</tr>
</tbody>
</table>

51% Increase

Summary of Safety Events - Ambulatory

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>106</td>
<td>124</td>
<td>819</td>
</tr>
</tbody>
</table>
Increase in “Quality Concern” Reporting

Summary of Safety Concerns - Hospitals

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>720</td>
<td>1702</td>
</tr>
</tbody>
</table>

Summary of Safety Concerns - Ambulatory

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>
Professional Liability Experience

• Our expectation is that as our experience with high reliability continues and we are successful in driving toward ZERO HARM, our professional liability claim frequency and overall costs will decrease.

• It is too early to determine a trend – our claim count decreased by two in 2016 and held constant in 2017.

• We will see what 2018 and beyond brings...
Our Overall Keys to Success

• Governance, Medical Staff Leadership and Senior Management Commitment
• Project Management
• Leader Rounding
• Safety Coaches
• Robust Cause Analysis Program
• Integrate high reliability into standard work
What’s Next...?

- High Reliability Organizing in Mullica Hill
- Enhance Workforce Safety in High Reliability
- Finalize our Safety Statement and Position on a Just Culture.
- Expand the PMDG to the Medical Staff
- Universal Skill & Leader Training for Emergency Medical Services
- Incorporating Virtual Reality & Clinical Simulation into patient safety education
- Continue the drive to ZERO!
Questions...
Networking Welcome!

Paul M. Lambrecht, MJ, MHA, CPHQ, FACHE
Vice President, Quality & Patient Safety
Inspira Health
lambrechtp@ihn.org

Katharine (Katy) Perez
Coordinator & Data Analyst, Quality & Patient Safety
Inspira Health
perezk@ihn.org