Title of Application for Application for Hospital Quality Institute C. Duane Dauner Award 2018:
Establishing a Commitment to High Reliability Across an Integrated Health Care Delivery System

Topical Area of Focus:
Workforce Safety, Patient Safety, Quality Improvement, and Patient Experience

Brief statement by an executive leader in support of the application:

Sharp HealthCare has been on a journey of excellence since 2001 when we launched our cultural transformation initiative, The Sharp Experience. It was then that we established our vision to be the best place to work, practice medicine and receive care. Since then, Sharp has been deliberately establishing foundations for continuous improvement across all of our Pillars of Excellence, including the widespread deployment of Lean Six Sigma (LSS), TeamSTEPPS and Just Culture, as well as incorporating the Baldrige, Nursing Magnet, and Planetree frameworks and principles. Every program has taken us to a new level of sophistication and performance. This pursuit to become the best coupled with the foundations built over fifteen years helped create a readiness to adopt a commitment to high reliability in 2014.

Shifting a culture is one of the most difficult challenges and we knew what it would take: full engagement of leaders, physicians, and staff; the right team structure; inclusion of clinical and non-clinical departments; some quick wins; accountability; and measures for sustainability. Although it’s still early on our journey, the results have been astounding. Seeing a significant and sustained reduction in harm rates for both patients and team members makes all the continued focus and efforts worthwhile. High-reliability organizing is an ongoing process that is never perfect nor complete; there’s always more work to do. We are proud to share our challenges and successes from our journey so far with the aim of helping others improve the reliability of their healthcare systems as together we serve the communities of California.

Dan Gross, DNSc, RN, Executive Vice President, Sharp HealthCare
2. Executive Summary

Sharp HealthCare is the largest integrated healthcare system in San Diego. In 2014, Sharp leaders committed to advancing The Sharp Experience by adopting a strategy to incorporate reliability science into the culture. After a thorough diagnostic organizational assessment, analysis of findings, creation of teams, and the following tactics were deployed:

1. Established a ‘Safety First’ mindset and a culture of learning
2. Expansion of the strategic plan for workforce safety
3. Deployment of reliability science principles and tools via leader and staff training
4. Hardwired Reliability Huddles
5. Broadened deployment of Lean Six Sigma
6. Adopted a global harm measurement and optimized the cause analysis program

Key measures of success include:

- Serious Safety Event Rate (SSER): Decreased 48% (1.61 to 0.84 per 10,000 adjusted patient days) which equates to approximately 50 fewer patients per year who did not suffer serious harm (moderate to severe harm or death).
- Days Between Employee Injuries: Days between events improved 92% (1.2 to 2.3 days) which equates to approximately 108 fewer workers being injured per year.
- AHRQ Culture of Safety Survey: Increased 4% for relevant survey items.

Sustainment strategies are now underway and continuous improvement is occurring. The aim is to scale these improvement efforts across California by sharing the method and measurement.

3. Background and relevance of the problem being addressed and effort undertaken

Community Context: Reliability in health care quality and safety requires clear global harm measurement criteria and focused interventions for leadership, culture and process improvement. Currently, there is a lack of consensus on harm measurement criteria and the necessary organizational interventions to achieve high reliability. The improvement effort described in this application will help better define how healthcare systems can achieve high reliability and methods to measure progress.

Organizational Context: Despite over a decade of transforming the culture via The Sharp Experience, and deploying improvement initiatives such as Lean Six Sigma, TeamSTEPPS, Just Culture, Baldrige, and Magnet, Sharp had lower than top decile performance in mortality, readmission, and infection rates. Culture of Safety Survey scores were flat, serious patient harm was occurring every 3.1 days, and workforce injuries were occurring every 1.2 days. Safety science was rapidly expanding and expectations of value-based care were increasing. Sharp leaders realized that radical mindset and cultural optimization was necessary to meet the needs of Sharp’s workforce, patients and their families, physicians, and the community. An organization-wide commitment to high reliability principles and tools was necessary.
4. Describe the effort, including the scope, process, strategies and tactics utilized, challenges encountered and how they were addressed.

4.a. An Expansive Scope

From the beginning, leaders were committed to integrating high-reliability work beyond quality and safety to all the work done in the organization. Coupling the commitment of high reliability to The Sharp Experience journey - across all Pillars of Excellence - was crucial for adoption and sustainment in all departments throughout the organization and all disciplines, including physicians (See Appendix A, Figure 1).

4.b. A Solid Foundation

The contribution of the foundational elements of culture, leadership, and continuous improvement cannot be underscored enough when determining the success of a high reliability commitment. The cultural impact of The Sharp Experience, the quarterly Leadership Development Sessions, and the organizational capability of improvement work was well established since the early 2000’s. Additionally, in regard to the primary metric of patient harm, the strategic plan for patient safety had been embedded for over a decade (See Appendix A, Figure 2).

4.c. Planning for a Broad, Systematic Engagement

Sharp’s commitment to high reliability as the next major step in advancing The Sharp Experience was decided at a leadership retreat that involved executives, physician leaders, and improvement specialists. Once the organizational commitment to add high reliability to The Sharp Experience journey was apparent, the structure of the initiative was determined and the search for an external consultant began. Building upon the success of the structure used to develop The Sharp Experience, a cross-sectional team of 26 leaders became ‘The Model Developers.’ Model Developers spent six months reviewing high reliability literature and discussing the applications to Sharp. These in-depth discussions resulted in the formation of six action teams (See Appendix A, Figure 3).

The external consultant, Healthcare Performance Improvement, LLC (HPI) was selected to conduct a Comprehensive Reliability Culture Engagement. This engagement included a Diagnostic Assessment, a Reliability Operating System Implementation, and a Sustainment Strategy (See Appendix A, Figure 4).

The Diagnostic Assessment comprised three major components: a) analysis of three years’ of patient safety events, b) analysis of three years’ of worker injury events, and c) a Reliability Governance Assessment. The top common causes of patient and worker safety events were determined (See Appendix A, Figure 5).

The Reliability Governance Assessment involved an extensive review of documents and data; focus-group interviews of 898 team members, leaders and physicians; and rounding in clinical and non-clinical departments. The assessment demonstrated that Sharp was just above average in most categories. The major strength identified was a resounding personal commitment by team members, leaders and physicians to do their best. The major opportunity for improvement that was identified was team members feeling safe to speak up for safety.

The background, diagnostic assessment, and proposed next steps were presented to all Board of Director members to obtain feedback and support of the high-reliability strategy and approach.

Next, the diagnostic assessment results and proposed approach were shared at an all-day retreat with 200 leaders, physicians, and front-line team members. The purpose of this ‘Strategy Session’ was to
engage and receive feedback from these key stakeholders to shape the HRO Strategies and Tactics (See Photos in Appendix B). Sharp’s Marketing Team was engaged to create a High Reliability Model (See Appendix A, Figure 6)

4.d. Strategies and Tactics Utilized

Six high reliability strategies and tactics were implemented across Sharp HealthCare.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Tactic Purpose, Results, and Continuous Improvement and Sustainment (CI&amp;S)</th>
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</thead>
</table>
| Establish Safety First Mindset and a Culture of Learning | • Added Safety as Sharp’s 5th Core Value and 7th Pillar  
• Annual Pillar Award Program now recognizes 18 safety improvements by individuals, teams or departments  
• Established norm to open meetings with a safety story  
• Added a question on speaking up for safety to the Employee Opinion Survey for all employees  
• Added ‘Mutual Respect’ as a Behavior Standard to reinforce and refresh a culture of professionalism and teamwork that fosters respect, learning, and joy |
| Establish Workforce Safety as an Equal Priority | • Openly address workforce safety events in Reliability Huddles  
• Deliberate focus on workforce safety through action teams on:  
  • Safe patient mobilization  
  • Slips, trips and falls  
  • Needle sticks  
  • Blood and body fluids  
  • Repetitive motion injuries  
• Worker Injury cause analysis and Safety Event Classification (SEC) fully deployed |
| Deploy Reliability Science Principles and Tools | The HRO Curriculum Team customized the curricula for:  
  a. High Reliability Leader Skills (See Appendix A, Figure 7)  
    • All leaders were trained before the ‘HRO Skills for All’ was deployed  
  b. High Reliability Skills for All (See Appendix A, Figure 8)  
    • A combination of on-line modules and in-person workshop content  
    • Over 230 trainers were certified to deliver the workshop  
    • 99% of ~18,000 team members, volunteers and partners were trained in 14 months  
    • Over 200 key physicians have completed the training |
| Hardwired Reliability Huddles | • Established tiered Reliability Huddles to help maintain awareness of operations; share risk and priorities; and create a learning culture.  
• A requirement for leaders in all departments to hold daily huddles and a Leader Tool Kit was developed to help ensure sustainability  
• Information from department Reliability Huddles cascades to the entity-wide Huddle daily, then information is cascaded out back to the departments. |
| Integrate Continuous Process Improvement by Expanding Lean Six Sigma | • Incorporated key elements into the HRO Training  
• Implemented Learning Boards in departments across the organizations  
• Created a new electronic project repository to align, prioritize, track, share, and spread LSS projects  
• Trained additional Yellow and Green Belts and began deployment of Daily Management System (DMS) (See Appendix A, Figure 9; photos in Appendix B) |
<table>
<thead>
<tr>
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<th>Tactic Purpose, Results, and Continuous Improvement and Sustainment (CI&amp;S)</th>
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</table>
| Deploy Harm Measurement: Cause Analysis Program for better understanding of human factors and system failures | - Created systems and structures to determine the SSER and Days Since Last SSE using HPI Safety Event Classification System (See Appendix A, Figure 10)  
- Adopted evidence-based\cite{8,9} Cause Analysis, Response, and Evaluation (CARE) Program (See Appendix A, Figure 11) and the creation of a second victim program, CAREforYou  
- Integrated key elements of CARE into the physician peer review systems  
- Adopted an evidence-based event classification taxonomy to determine SSER for all safety events including physician peer review events  
- Trained 153 Cause Analysts  
- Trained 80 team members, leaders and physicians as CAREforYou Peer Supporters  
- CARE Program and Patient Safety SEC fully deployed with inter-rater reliability and continuous improvement in place |

4.e. Challenges Encountered and How They Were Addressed

Challenge #1: Full workforce engagement
- Focusing work in support of all Pillars of Excellence, and across all departments including Sharp Health Plan and Sharp medical groups and ambulatory clinics.
- Thoughtful efforts to engage physicians including Chief Medical Officers (CMO) as Model Developers
- Resolving accountability for implementing Reliability Huddles in all departments
- Making high reliability concepts and practices relevant to non-clinical team members by focusing on: reducing employee harm, eliminating waste and defects in their work, and performance on service expectations.

Challenge #2: Alignment and integration with existing initiatives.
- Ensuring communications about the commitment to reliability is part of The Sharp Experience.
- Messaging that reliability science principles are a core component of excellence.
- Synergizing with Sharp Rees Stealy (SRS) Medical Group Lean Transformation and deployment of Daily Management System by assigning a LSS Black Belt to the Lean core team and the SRS CEO and CMO as a Model Developers. (See photo in Appendix B)
- Using the Do No Harm Annual Patient Safety Conference to highlight and embed reliability principles
- Incorporating and building upon existing systems and structures such as: Lean Six Sigma (See Appendix A, Figure 12), TeamSTEPPS (see Appendix A, Figure 13), Behavior Standards (See Appendix A, Figure 14), Great Catch Program, Just Culture, and Leader Rounding
- Deploying an electronic rounding tool for patient experience to support Rounding to Influence.

Challenge #3: Changing workforce mindset to focus on safety first
- Creating new measurement systems to help mobilize commitment and accountability
- Deploying cause analysis concepts and tools to spread understanding of human factors and system failure modes
- Integrating worker safety stories as reflections when starting meetings (as appropriate)
- Fostering a culture where it is safe to discuss risks and events via Great Catch program, feedback and accountability systems, and coaching on Just Culture practices.

Challenge #4: Transparency and inter-rater reliability with patient harm identification and classification
• Creating new committees responsible for developing standard definitions and processes for resolution of safety event classification challenges.
• Forming the CareforYou (second victim) Program to increase psychological safety in reporting and provide needed support to caregivers.

Challenge #5: Scope and costs of training
• Establishing a training proposal with Return on Expectation and Return on Investment
• Using blended training model (e.g., online and workshops) to reduce costs while optimizing learning
• Establishing an HRO Cost Center to track costs and avoid department budget variances

5. Describe the results of the efforts.

The outcome measures chosen for the high reliability initiative reflect the priority from the patient perspective, “Don’t hurt me, heal me, be nice to me”. Hence, the primary measures focus on safety and secondary measures address all other Pillars of Excellence.

Measure 1: Serious Safety Event Rate (SSER)
• Serious Safety Event Rate (SSER): Decreased 48% (1.61 to 0.84 per 10,000 adjusted patient days) which equates to approximately 50 fewer patients per year who did not suffer serious harm.
  (See Appendix A, Figure 15)

Measure 2: Employee Harm
• Days Between Employee Injuries: Days between events improved 92% (1.2 to 2.3 days) which equates to approximately 108 fewer workers being injured per year.
  (See Appendix A, Figure 16)

Measure 3: Culture of Safety Survey Scores
• AHRQ Culture of Safety Survey: Increased 4% for relevant survey items.
  (See Appendix A, Figure 17)

6. Discuss the significance of the results. How do the results demonstrate outstanding achievement?

The significance at a global community level is that progress is occurring on developing clear global harm measurement criteria and focused interventions for leadership, culture and process improvement.

The significance at the organizational level is that the high reliability commitment goes well beyond just training; it includes new structures, standards, expectations, behaviors, tools, and measures. The tone of the organization has changed and high reliability concepts and skills are part of a common language. Culture changes are obvious in the below in just a few examples where use of High Reliability Skills are becoming “the way we do things around here”.

• Front-line team members have been trained and empowered to use A3 Problem Solving
• SBAR to improve clinical communications between caregivers has become widely accepted practice
• The broad acceptance of Standard Work enables handover communications projects
• Using the Speaking Up skill at Sharp Health Plan to improve electronic documentation system deployment.
• The use of the Validate and Verify skill has helped to improve the registration process which is reducing the number of overlap and duplicate patient records
• Cross-monitoring and Radio-frequency identification is now commonplace as sponges are counted in the operating rooms
7. Describe sustainability and scaling of the achievements

Sharp’s High Reliability Initiative began with sustainability in mind. The generic training model included three parts: a) define clear expectations, b) skill build, and c) mind the gap (accountability and coaching). For over a year post implementation, the HPI Consultants strategically rounded with leaders to identify and coach departments that required additional support in demonstrating Reliability Skills as well as identify best practices to spread.

Organizational structures are in place to provide ongoing coordination of High Reliability activities:

- System HRO Steering Committee and Implementation Team at each entity (See Appendix A, Figure 18)
- Reliability Huddles are hard-wired
- Common measurements and regular feedback is provided at the system and entity level
- Key measures are included in the incentive-based performance management system
- The System Safety Steering Committee adopted a methodology for determining best practice spread
- Sharp’s intranet includes a High Reliability webpage (see Appendix A, Figure 19)

Continuous Improvement and Sustainability of High Reliability Skills

- Curriculum is revised periodically
- New employees are required to complete training within 90 days of hire
- New leaders are required to complete training within six months
- Leaders routinely solicit feedback on Reliability Huddles effectiveness
- Added high-reliability tactics to Sharp’s Strategic Plan and embedded principles and tools into relevant policies, job descriptions, and orientation programs.
- Balanced standardization with innovation by allowing “freedom within fences” for each entity in the sustainment plan development. Certain requirements were established and then each entity was invited to be creative in their ongoing sustainment strategies.

To foster continuous learning and improvement, Sharp leaders have expanded collaboration (sharing out and adopting in) within the context of the patient safety community including:

- Mayo Clinic
- CHA Hospital Quality Institute
- Hospital Improvement and Innovation Network
- TeamSTEPPS Annual Conference
- HSAG SNF Collaborative
- HPI Safety Summit
- Participation on national Press-Ganey/HPI SEC Advisory Panel
  - Focus on innovation: contributing to the development of a psychological harm classification system
8. Describe key lessons learned and any advice to colleagues who might try to undertake a similar effort.

Lesson Learned #1: Commitment at the Top with Regular and Frequent Communications

Beginning with the commitment of executive leadership and all Board of Directors is critical to the success of any cultural transformation as financial and personnel resources will be required. Regular and frequent communication from the top was conducted to address resistance, confusion and accountability.

Lesson Learned #2: Integrate the ‘Voice of the Non-Clinical Team Members and Leaders’

- The majority of the healthcare workforce is made up of clinicians with whom the importance of reliability is readily grasped.
- However, support services such as information systems, food and nutrition services, supply-chain, finance, housekeeping, and biomed-engineering also benefit from incorporating reliability science.
- To engage non-clinicians, non-clinical leaders were included in the HRO Steering, Curriculum, and Implementation Teams;
  - non-clinical examples were used in training;
  - clinical and non-clinical leaders were paired in training;
- Reliability Huddles were required in all departments including Marketing and Human Resources.

Lesson Learned #3: Getting people to speak up takes more than encouragement and tools

- Recognition, communication and escalation of clinical concerns is complex challenge in a non-academic setting. A new program focused on bedside rescue is necessary to prevent failure to rescue events.

Lesson Learned #4: Include Physician Peer Review Events in the SSER

Many organizations do not include peer review events in their SSER because of the complexity of managing change in those arenas. Medical staff leaders were eager to incorporating reliability science into the peer review as a move from a punitive system to a learning system. Changing the mindset was accomplished via CME offerings including Sharp’s ‘All-Physician-Assembly’ and with the addition of a few questions to the peer review forms.

Lesson Learned #5: Tips in Training 18,000+ people in 14 months

Certify instructors as not all volunteers are capable of engaging an audience. Coach those that don’t pass certification and replace those who don’t have the necessary skills.

- Ensure a wide variety of clinical and non-clinical trainers and partner them in instructor pairs
- Train leaders first then staff and physicians second
- Dedicate a team of administrative personnel for logistics and recognize their efforts frequently.
- Establish regular progress reports and accountability

In summary, a commitment to high reliability is not a destination rather a journey; the more we learn the more we realize there is to learn and improve.
Appendix A: Figures

Figure 1: High Reliability Crosses all Sharp HealthCare Pillars of Excellence

![Reliability diagram showing how reliability performed as intended, consistently over time]

Figure 2: Sharp HealthCare’s Strategic Plan for Patient Safety

![Strategic plan diagram focusing on organizational learning, culture, teamwork, design, and technology]

Organizational Learning

- Culture: Just, transparent, learning culture
- Teamwork: Strategies to improve teamwork and communication
- Design: Processes and systems to support patient safety
- Technology: Tools to enhance safety and reduce error

Patient Engagement

Continuous Improvement
Figure 3: High Reliability Action Teams

**High Reliability Action Teams**
1. Workforce Safety
2. Mutual Respect
3. Teamwork and Collaboration
4. Reliability Huddles
5. Continuous Process Improvement
6. Measurement Systems

Figure 4: HPI Comprehensive Reliability Culture Engagement

Figure 5: Common Causes of Patient and Worker Safety Events

<table>
<thead>
<tr>
<th>Common Causes of Patient and Worker Safety Events</th>
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<tbody>
<tr>
<td><strong>Patient Safety</strong></td>
</tr>
<tr>
<td><strong>People Causes</strong></td>
</tr>
<tr>
<td>• Critical Thinking (Situational Awareness, Failure to Validate/Verify, Mindset, Tunnel Vision)</td>
</tr>
<tr>
<td>• Non-Compliance (Indifference, Shortcut, Overconfidence)</td>
</tr>
<tr>
<td>• Attention on task (Inattention, Distraction, Habit Intrusion, Fatigued, Lapse)</td>
</tr>
<tr>
<td><strong>System Causes</strong></td>
</tr>
<tr>
<td>• Culture (lacking: vision, collaboration, operational leadership, high reliability mindset)</td>
</tr>
<tr>
<td>• Process (inefficiencies, workflow, handoffs, process design)</td>
</tr>
<tr>
<td><strong>Worker Safety</strong></td>
</tr>
<tr>
<td>• Approximately 70% were due to attention failures and 10% from lack of compliance.</td>
</tr>
<tr>
<td>• Only 12% of system failures and 21% of individual failures were known, indicating a need for better cause analysis of worker injuries.</td>
</tr>
</tbody>
</table>
Figure 6: Sharp HealthCare’s High Reliability Definition and Model

High Reliability Definition:
“Sharp is committed to ensuring highly reliable systems, structures, processes and behaviors to achieve zero defects and zero harm to employees, physicians, patients and their families.”

Sharp’s HRO Model

A safe culture is one where people plan ahead for possible failures and speak up when they see something.

Reliable processes guide us toward zero defects and zero harm.

Everyone on the team is important and adds value.

We are always looking for ways to get better.

Everyone plays a part in reliability.

Our high-reliability model is founded on The Sharp Experience.
Leading High Reliability
Summary Sheet

At Sharp HealthCare, it is our vision to be the best place to work, practice medicine and receive care. We are committed to achieving zero defects and zero harm to employees, physicians, and patients and their families.

Mutual respect is the cornerstone to ensuring zero defects and zero harm, as reflected in the foundational tools of The Sharp Experience Behavior Standards, Must Haves and AIDET.

Sharp HealthCare leaders commit every day to:

Set and lead a high-reliability mindset
I create a safe and reliable environment.
I address problems, remove barriers, and allocate resources that enable staff to do their work safely and reliably.

Build skills and accountability
I set expectations and reinforce practices and skills through role modeling, coaching and the use of accountability systems.

Learn and improve as a team
I create an environment that encourages continuous individual and organizational learning and improvement.

Use our HRO leader practices:

1. Start meetings with a reflection and/or a story
2. Hold Reliability Huddles
3. Cultivate individual reliability practices
4. Develop team skills and attitudes
5. Make it safe for people to speak up

1. Receive and provide feedback thoughtfully (Appreciation, Coaching, Evaluation)
2. Round to influence
3. Apply Just Culture principles to processes and people
4. Identify and manage key processes to promote reliability

To learn more, visit sharpnet.sharp.com/HRO.
Figure 8: Sharp HealthCare HRO Skills For All

At Sharp HealthCare, it is our vision to be the best place to work, practice medicine and receive care. We are committed to achieving zero defects and zero harm to employees, physicians, and patients and their families. Mutual respect is the cornerstone to ensuring zero defects and zero harm, as reflected in the foundational tools of The Sharp Experience Behavior Standards, Must Haves and AIDET.

<table>
<thead>
<tr>
<th>I commit every day to:</th>
<th>Practice:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay attention to detail</td>
<td>1. STAR (Stop, Think, Act, Review)</td>
</tr>
<tr>
<td></td>
<td>2. Cross-monitoring</td>
</tr>
<tr>
<td>Communicate clearly</td>
<td>1. Closed loop communication</td>
</tr>
<tr>
<td></td>
<td>2. SBAR (Situation, Background, Assessment, Recommendation)</td>
</tr>
<tr>
<td>Use critical thinking</td>
<td>1. Know why and comply</td>
</tr>
<tr>
<td></td>
<td>2. A questioning attitude</td>
</tr>
<tr>
<td></td>
<td>3. Validate and Verify</td>
</tr>
<tr>
<td>Speak up for safety and reliability</td>
<td>1. Making it safe to speak up</td>
</tr>
<tr>
<td></td>
<td>2. Asking a clarifying question</td>
</tr>
<tr>
<td></td>
<td>3. CUS (Concerned, Uncomfortable, Stop)</td>
</tr>
<tr>
<td>Learn and improve as a team</td>
<td>1. Reliability Huddles and Debriefs</td>
</tr>
<tr>
<td></td>
<td>2. Ownership for reporting issues and offering solutions</td>
</tr>
<tr>
<td></td>
<td>3. Receiving and giving thoughtful feedback</td>
</tr>
<tr>
<td></td>
<td>4. Standard Work and process improvement tools</td>
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</tbody>
</table>

To learn more, visit sharpnet.sharp.com/HRO

HRO skills for zero defects and zero harm. CORP/3633038 ©2016 SHC
Figure 9: Number of New Belts Trained in Lean Six Sigma

<table>
<thead>
<tr>
<th>Year</th>
<th>Yellow Belt</th>
<th>Green Belt</th>
<th>Daily Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>127</td>
<td>17</td>
<td>N/A</td>
</tr>
<tr>
<td>2016</td>
<td>958</td>
<td>39</td>
<td>N/A</td>
</tr>
<tr>
<td>2017</td>
<td>602</td>
<td>46</td>
<td>N/A</td>
</tr>
<tr>
<td>2018 (as of 5/18)</td>
<td>149</td>
<td>34</td>
<td>31</td>
</tr>
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Figure 10: HPIs Safety Event Classification System

Safety Event Classification Levels of Harm

<table>
<thead>
<tr>
<th>Code</th>
<th>Level of Harm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSE 1</td>
<td>Death</td>
<td>A deviation in GAPS resulting in death. An injury resulting in critical, life-threatening harm with no expected change in clinical status, includes events resulting in permanent loss of organ, limb, or vital physiologic or neurologic function.</td>
</tr>
<tr>
<td>SSE 2</td>
<td>Severe Permanent Harm</td>
<td>A deviation in GAPS resulting in significant harm with no expected change in clinical condition yet sufficiently severe to impact activities of daily living or business functioning, includes events that result in permanent reduction in physiologic reserve, disfiguration, and impaired or aided sense or function.</td>
</tr>
<tr>
<td>SSE 3</td>
<td>Moderate Permanent Harm</td>
<td>A deviation in GAPS resulting in significant harm lasting for a limited time, requires a higher level of care monitoring or an additional minor procedure or treatment to resolve the condition.</td>
</tr>
<tr>
<td>SSE 4</td>
<td>Severe Temporary Harm</td>
<td>A deviation in GAPS resulting in significant harm lasting for a limited time, requires a higher level of care monitoring or an additional minor procedure or treatment to resolve the condition.</td>
</tr>
<tr>
<td>SSE 5</td>
<td>Moderate Temporary Harm</td>
<td>A deviation in GAPS resulting in significant harm lasting for a limited time, requires a higher level of care monitoring or an additional minor procedure or treatment to resolve the condition.</td>
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</table>
Figure 11: CARE Program

CARE Program
(Cause Analysis, Response and Evaluation)
Figure 12: High Reliability Integration with Lean Six Sigma:

**Sharp HRO Leader Skills**
- Start meetings with a reflection and/or a story
- Hold Reliability Huddles
- Cultivate individual reliability practices
- Make it safe for people to speak up
- Round to influence
- Apply Just Culture principles

**Lean Six Sigma / HRO Skills**
- Develop team skills and attitudes
- Receive and provide thoughtful feedback
- Identify and manage key processes
- Display results for key goals and measures
- Engage the team through the use of learning boards
- Standard Work
- A3 Problem Solving
- Share and learn from successes and failures

**Lean Six Sigma**
- DMAIC
- Daily Management System
- Eliminate Waste /SS
- Effective Meeting Facilitation
- Change Acceleration Process (CAP)

Figure 13: High Reliability Integration with TeamSTEPPS:

**Sharp HRO Skills**
- STAR
- Know why and comply
- A questioning attitude
- Validate and Verify
- Make it safe to speak up
- Ask a clarifying question
- Ownership for reporting issues and offering solutions
- Standard Work and process improvement tools

**TeamSTEPPS / HRO Skills**
- Cross-Monitoring
- Closed loop communication
- SBAR
- CUS
- Reliability Huddles and Debriefs
- Receiving and giving thoughtful feedback

**TeamSTEPPS Skills**
- Situation Monitoring*
- STEP
- Briefs
- I'M SAFE checklist*
- Task Assistance*
- Advocacy and Assertion*
- Two-Challenge Rule
- DESC Script
- Collaboration*
- Call-Out
- Handoffs*

*Concept Incorporated into HRO training
March: **Mutual Respect**
Mutually respectful behavior is the cornerstone to achieving zero harm and zero defects, and it demonstrates that we value each other.
- I treat others the way I want to be treated.
- I communicate with words and actions that convey respect for others.
- I focus on the issue, not the person, when I have a conflict with someone.
- I recognize that I am responsible for my words and actions.
- I ensure my comments or actions produce zero harm and zero defects.
- I create an environment that is free from bullying and hostility.
- I speak up when I observe disrespectful behavior.

July: **Courteous Communication**
Body language, tone and word choice reflect respect for everyone at all times.
- I communicate with courtesy and clarity, ensuring dignity and mutual respect in all verbal and nonverbal communication.
- I commit to being in the moment and to actively listen with purpose and curiosity, receiving and providing thoughtful feedback.
- I call patients, family members and team members by their preferred names.
- I am open to receiving messages of different opinions and acknowledge differences respectfully.
- I always use “please” and “thank you,” and end encounters courteously.

August: **Teamwork**
Team members share a common vision: to make Sharp the best place to work, practice medicine and receive care.
- I build up my team, sharing in our successes and failures.
- I share information and ideas freely and never make assumptions.
- I recognize that we all have areas of expertise.
- I resolve conflicts promptly and directly with those involved.
- I praise in public and respectfully coach in private.

October: **Zero Harm**
Sharp HealthCare is committed to ensuring a safe environment to achieve zero harm to employees, our patients and their families.
- I take ownership for safety concerns, whether they are environmental, clinical or behavioral.
- I always speak up to resolve harm and prevent defects.
- I report potential safety concerns immediately.
- I use proper tools and equipment and do not take shortcuts that compromise safety.
- I follow policies and procedures that are designed to keep everyone safe.
- Serious Safety Event: A deviation in generally accepted performance standards resulting in moderate to severe patient harm or death.
- Improvement efforts noted represent start dates
- The increase in events in 2017 was expected as it represents an improved ability to recognize and classify moderate to severe harm.
- The goal is zero; however, the HPI client base best-in-class is reported at 0.2 which serves as the interim target.
Workers’ Compensation
Serious Injury Frequency

Every 2.3 days
in FY 18 (Thru Q2) a Sharp employee experienced a serious injury;
compared to every 1.2 days in FY 14.

Sharp System - Serious Injury Frequency (in days)*
Improved | No Change | Regressed

FY 2014 FY 2015 FY 2016 FY 2017 FY 2018
1.2 1.6 1.7 1.9 2.3

Serious Injury every 2.3 days
### Significant changes to Culture of Safety Survey results:

<table>
<thead>
<tr>
<th>Most improved dimension:</th>
<th>2016</th>
<th>2017</th>
<th>Benchmark:</th>
<th>Improvement from 2016-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-punitive response to errors</td>
<td>44% favorable</td>
<td>48% favorable</td>
<td>Between 25th-50th percentile</td>
<td>4%</td>
</tr>
<tr>
<td>Mistakes have led to positive changes here</td>
<td>69% favorable</td>
<td>73% favorable</td>
<td>Between 75th-90th percentile</td>
<td>4%</td>
</tr>
</tbody>
</table>

Both of these improvements point to a better understanding of human fallibility and the need to view our mistakes as opportunities to learn and understand what went wrong so that we can make meaningful changes, likely attributable to some degree to the HRO training and focus.

### Figure 18: Sharp HRO Implementation Structure

- **System HRO Steering**
- **HRO Action Teams**
- **Existing Work Groups, Committees, and Teams**
  - Hospitals HRO Implementation Teams (6)
  - Medical Groups HRO Implementation Teams (2)
  - SHP HRO Implementation Team
  - System Services HRO Implementation Team
Figure 19: Sharp’s HRO Intranet Webpage

High Reliability Organization

"While safety has always been a priority, it has been incorporated under our Quality and People Pillars and in all of our values. We believe it is imperative that we call out Safety separately to increase our organizational attention and focus to further engage all of us to become the safest health care system in the universe. To that end, we are on a journey to become a High Reliability Organization."

- Mike Murphy, President and CEO of Sharp HealthCare

What is a High Reliability Organization?

High Reliability Organizations operate under complex conditions with high potential for error / harm yet are exceptionally consistent in preventing those occurrences due to their reliable systems and processes.

Why is the Sharp HRO journey important?

Lack of reliability contributes to medical errors, inconsistent quality and inefficiencies that negatively impact our patients, their families, visitors, physicians and employees.

What is Sharp committing to on this journey?

Sharp is committed to ensuring highly reliable systems, structures and processes to achieve zero defects and zero harm to employees, physicians, patients and their families.
Appendix B: Images

High reliability strategy recommendations presented to 77 staff, 33 physicians, and 98 leaders. More than 600 pages of feedback received.

Daily Management System in action at Sharp Chula Vista.

SRS Physician Yellow Belt Training
13 March 2018
Appendix C: References

7. Lucian Leape Institute. 2013 Through the Eyes of the Workforce: Creating joy, meaning and safer health care. NPSF.
8. RCA²: Improving Root Cause Analysis and Action to Prevent Harm. 2016. NPSF