Getting to zero harm is the driving motivation for the Joint Commission Center for Transforming Healthcare. Over the past year, the Center continued toward that goal by helping hospitals begin the transformation toward high reliability health care.

Our forward focus was perhaps best emphasized by the projects the Center led this year. We tackled some of the most difficult issues facing our customers today. Through the Center’s projects, we convened some of the nation’s leading hospitals and health systems to analyze, improve and change the landscape of health care as it stands now. On page 12 you will see the projects we tackled in 2013 and the results achieved. This is just one of the many ways we are focused on getting to zero harm in health care.

In 2013, the Center with the South Carolina Hospital Association launched the South Carolina Safe Care Commitment initiative, which engages hospitals throughout the state in high reliability concepts through a leadership commitment to zero harm. We are pleased to announce the expansion of the collaboration in 2014. You can read more about it on page 9.

Challenges in health care remain, and we continue to embrace them. We take pride in the progress we are making toward getting to zero harm, and we are excited about the future under the direction of Erin S. DuPree, M.D., appointed in 2013. Dr. DuPree joins us with a strong background in high reliability health care, and hands-on experience with the Center while she was at The Mount Sinai Medical Center in New York.

Thank you for joining us on this journey.
About the Center

Created in 2008, the Joint Commission Center for Transforming Healthcare aims to solve health care’s most critical safety and quality problems. The Center’s participants – some of the nation’s leading hospitals and health systems – use a systematic approach called the Joint Commission Improvement Process (JIP®) to analyze specific breakdowns in care and develop their underlying causes to develop targeted solutions that solve these complex problems. In keeping with its objective to transform health care into a high reliability industry, the Joint Commission Center shares these proven effective solutions with the more than 20,000 health care organizations and programs it accredits and certifies.

Mission statement:
The mission of the Center is to transform health care into a high reliability industry by developing highly effective, scalable solutions to health care’s most critical safety and quality problems, in collaboration with health care organizations, by disseminating the solutions widely, and by benchmarking their adoption.

2011

- Preventing Avoidable Heart Failure Hospitalizations project launched in collaboration with the South Carolina Hospital Association
- Safety Culture project launched
- National Hand Hygiene project launched
- Preventing Falls with Injury project launched

2012

- Health Affairs: “The Ongoing Quality Improvement Journey: Next Step, High Reliability”
- Preventing Falls with Injury project launched
- Reducing Sepsis Mortality project launched
- Surgical Site Infections project launched in collaboration with the American College of Surgeons
- Debrief of Hand Hygiene Targeted Solutions Tool™ project launched

2013

- South Carolina Safe Care Commitment initiative launched in collaboration with South Carolina Safe Care Hospital Association
- HRST High Reliability Self Assessment Tool® pilot testing of the High Reliability Self Assessment Tool® begins
- Mortality project launched
- Hand Hygiene project launched

2008

- Joint Commission Center for Transforming Healthcare®
- The Center is created

2009

- Hand-off Communications project launched
- Surgical Site Infections project launched in collaboration with the American College of Surgeons
- Debrief of Hand Hygiene Targeted Solutions Tool™ project launched

2010

- Leadership Advisory Council established
- Preventing Avoidable Heart Failure Hospitalizations project launched in collaboration with the South Carolina Hospital Association
- Safety Culture project launched
- National Hand Hygiene project launched

www.centerfortransforminghealthcare.org
The High Reliability Journey in Health Care

The Joint Commission began its focus on the transformation of health care into a high reliability industry in 2008. To say that we are highly passionate about high reliability would be an understatement. High reliability in health care means consistent excellence in quality and safety across all services, which is maintained over long periods of time. This includes the elimination of major quality failures. The Joint Commission has developed a high reliability framework and maturity model that describes the various stages of a hospital’s evolution to high reliability.

The journey to high reliability is evident in the work the Center has been doing since its inception. The Center is piloting an online application called the High Reliability Self-Assessment Tool™ (HRST) that will provide organizations the opportunity to assess their progress toward high reliability. The unique collaboration between the South Carolina Hospital Association and the Center is focused on progressing toward high reliability in health care.

The High Reliability Self-Assessment Tool™ (HRST) is an online application that is currently in a pilot testing phase with health care organizations through invitation from the Center. The HRST is designed to help senior leadership determine the maturity of their organization in adoption of practices that lead to high reliability within three domains: leadership, safety culture, and Robust Process Improvement® (RPI®). Upon completing the assessment, a detailed diagnostic report highlights strengths and opportunities for those organizations. By using the HRST, organizations can focus their efforts toward achieving the goal of zero harm.

South Carolina Safe Care Commitment

The Center and the South Carolina Hospital Association launched the South Carolina Safe Care Commitment in 2013. This multi-year engagement will strengthen participating hospitals’ processes, systems, and structures, leading to significant improvements in patient care. The initiative includes 21 hospitals from seven health systems located throughout South Carolina. CEOs and other executives from participating South Carolina hospitals met regularly in 2013 to collaborate on processes to move health care toward high reliability. By year end, all of the organizations completed a first administration of the HRST. By partnering with a state hospital association, the Center is effectively mobilizing health care organizations on their journey toward high reliability.
Innovation Taking us Closer to Zero

The Targeted Solutions Tool® (TST®) is an online application that encapsulates Center methods, solutions and findings. The TST® was designed to help Joint Commission accredited organizations solve some of the most persistent health care quality and safety problems. Through a step-by-step process, organizations use the TST® to measure their actual performance and identify barriers to excellent performance. The TST® then directs organizations to proven effective and customized solutions to address their performance barriers. The TST® also provides tips and guidance for sustaining an organization’s improved performance.

Through the TST®, Center solutions have made an impact very quickly. Between 2010 and 2012, the 200 hospitals that used the TST® to reduce healthcare-associated infections (HAIs) collectively prevented 25,000 HAIs, prevented 1,450 deaths, and saved $300 million-$650 million in direct medical costs.

By the end of December 2013, health care organizations who used the TST® achieved the following:

- By using the TST® module for hand hygiene, organizations have been able to improve their compliance rates to 84% from a baseline of 62%, a 35% relative improvement.
- By using the TST® module for hand-off communications, organizations have been able to achieve a 68% reduction in defective hand-offs for the sender and a 76% reduction in defective hand-offs for the receiver.
- By using the TST® module for wrong site surgery, organizations have been able to achieve a reduction in cases with risks by: 52% in scheduling; 44% in preoperative area; and 63% in the operating room.
The Center and its participants – some of the nation’s leading hospitals and health systems – use a systematic, data-driven approach to problem solving called Robust Process Improvement® or RPI®. RPI® is a set of strategies, tools, methods, and training programs adopted by many organizations, including The Joint Commission, to improve business processes. The components of the RPI® methodology—Lean, Six Sigma, and formal change management—have their roots in manufacturing. In the past decade, RPI® has been used by hospitals to achieve breakthrough improvements in patient care and clinical outcomes. RPI® has the sophistication to address persistent and long-standing, complex quality and safety problems. In keeping with its objective to transform health care into a high reliability industry, The Joint Commission shares these proven effective solutions with the more than 20,000 customers it accredits and certifies. In 2013, the Center worked on the following projects:

**Preventing Falls with Injury**

Tens of thousands of patients fall in health care facilities every year, and many of these falls result in moderate to severe injuries. These injuries can prolong hospital stays and require the patient to undergo additional treatment. An estimated 30 to 35 percent of patients who fall sustain an injury. Each of these injuries can add, on average, 6.3 days to the hospital stay. Best estimates suggest that costs for a fall with injury average about $14,000. Falls are identified by the Centers for Medicare & Medicaid Services (CMS) as an event that is preventable and should never occur. CMS has also identified “falls and trauma” on its list of Hospital Acquired Conditions (HAC) for which reimbursement will be potentially impacted, specifically for falls that result in fractures, dislocations and intracranial injuries. Approximately 11,000 fatal falls occur in the hospital annually.

Using RPI®, organizations partnered with the Center to reduce the rate of patients injured in a fall by 62 percent, and the rate of patients falling was reduced by 35 percent. If this approach is used in a typical 200-bed hospital, the number of patients injured in a fall could be reduced from 117 to 45 and save approximately $1 million annually. Similarly, a 400-bed hospital could reduce falls with injury by 133 and expect to save $1.9 million annually.

Working with the Center, the participating hospitals were able to significantly reduce the total number of falls and falls with injury by creating awareness among staff, empowering patients to take an active role in their own safety, utilizing a validated fall risk assessment tool, engaging patients and their families in the fall safety program, providing purposeful hourly rounding, and engaging all hospital staff to ensure no patient walks by him/herself. These examples are some of the targeted solutions developed to address contributing factors around why patients fall.

“Working with various systems on this collaborative was the catalyst for developing interventions to improve patient care and safety that can be implemented regardless of hospital size, resources available, etc. The relationships built during the collaborative reach far beyond the timeline of the defined project to continually share challenges and innovative ideas for improvement.”

Christopher Shutts, Director, STEPPS Program, Baylor Scott & White Health, Dallas, Texas

“The Six Sigma process confirmed that fall prevention is a complex and challenging patient safety issue. The extensive data analysis of this project reinforced how important it is to know the root causes for a specific population of patients. While most interventions can be standardized, some must be adjusted throughout the patient’s stay due to changes in their condition. The nurse must think beyond fall risk assessment and implement interventions that match the patient’s need.”

Eileen Constantineau, Practice Specialist, Senior Coordinator, Barnes-Jewish Hospital, St. Louis, Missouri

“Kaiser Permanente San Diego Medical Center found partnering with the Joint Commission Center for Transforming Healthcare a very valuable experience in contributing to significant improvements in patient safety. The experience provided a structured framework around which to build our work around preventing patient falls and patient falls with injury. In addition, the sharing of strategies and best practices with other organizations has been invaluable. This collaborative is an outstanding example of health care organizations truly collaborating to move forward the work of keeping our patients safe.”

Sally Franz, Director, Medical/Surgical/Critical Care Nursing, Kaiser Permanente San Diego Medical Center
Projects Aimed at Solving the Toughest Issues

Preventing Avoidable Heart Failure Hospitalizations Project

Heart failure, a chronic disease, is the most common reason for admission to the hospital among older adults. The Center’s goal is to address why patients with heart failure periodically experience worsening of their condition to a degree that leads to hospitalization. Identifying the specific reasons for such deteriorations permitted participating hospitals to design and implement focused interventions targeted to each important cause for preventing heart failure hospitalization.

Surgical Site Infections

In August 2010, the Center launched its fourth project, which aims to reduce surgical site infections (SSI) in patients having colorectal surgery and colorectal procedures. This project was launched in collaboration with the American College of Surgeons. The ACS’s National Surgical Quality Improvement Program (NSQIP) surgical outcome data expertise is guiding the SSI project’s data collection and analysis. NSQIP data on outcomes of surgery are highly regarded by physicians as clinically valid, using detailed medical information on severity of illness and comorbidity to produce exemplary data on risk-adjusted outcomes.

Reducing Sepsis Mortality

Sepsis is the leading cause of death in hospitalized patients. Every year, 750,000 Americans are diagnosed with sepsis and of those, 220,000 die. In addition, sepsis is the most expensive disease to treat in the hospital, costing approximately $17 billion dollars annually. The Center’s goal was to reduce sepsis mortality by improving early detection and rapidly initiating the appropriate treatment. While there are multiple barriers to consistent, successful implementation of treatment, the Center participating hospitals charged with solving this problem were able to implement targeted solutions to those barriers resulting in a significant aggregate reduction in sepsis mortality. Beginning in June 2014, a new group of health care organizations will test the solutions developed by the first group of Center participating hospitals.

Safe & Effective Use of Insulin

Consistently optimal blood glucose control in diabetic patients has been directly associated with improved patient outcomes. It follows that hospitalized patients with hyperglycemia require successful management of their blood glucose levels throughout their hospital stay. Unfortunately, many factors interfere with health care providers’ ability to achieve and maintain patients’ blood glucose results within desired target ranges. The project focuses on a variety of those factors, including diet and nutrition management, choice of types of insulin administered, insulin dosing and dosage adjustments, and the management of non-insulin medications.

Reducing C. difficile Infections

C. difficile infections (CDI) are an increasingly prevalent healthcare-associated infection (HAI) that leads to patient harm ranging from painful diarrhea to death. The Agency for Healthcare Research and Quality estimates that there were approximately 337,000 hospitalizations related to CDI during 2009. The Centers for Disease Control and Prevention (CDC) estimates that CDI-related diarrhea is linked to approximately 14,000 deaths per year. The financial impact of CDI is also staggering. There are barriers, however, to the implementation of strategies to address these opportunities. The hospitals and health systems participating in this project, which was launched in collaboration with the CDC, will focus on identifying the factors that create these barriers and developing targeted solutions designed to eliminate or reduce their impact.

Safety Culture

Trust is the foundation of a safety culture. It empowers staff to speak up about risks to patients, and to report errors and near misses, all of which drive improvement. Seven hospitals participated in tackling the barriers to identification of unsafe conditions, and finding these before they harm patients. The teams identified specific causes within the reporting cycle, which consists of awareness, reporting, triage, action and follow-up with involved staff. Actions developed to target these causes include education to enhance recognition of unsafe conditions and tools and techniques to complete the reporting loop in a structured and reliable manner.
Memorial Hermann committed to getting to zero in 2010. Key components to its success were a leadership commitment to:
- High reliability
- Changing the culture
Memorial Hermann committed to using the TST® to improve hand hygiene system-wide (12 hospitals).

The results were astounding...

“We fully attribute to the Center for Transforming Healthcare’s Hand Hygiene TST® the final drop in HAI rates to zero or near-zero system-wide. After implementing hand hygiene TST®, our hospitals began to report zeros as their most common monthly CLABSI and VAP result. Our mothers were right after all! Feel free to quote me. This actually saves lives.”

M. Michael Shabot, MD
System Chief Medical Officer
Memorial Hermann Health System

Joint Commission Hand Hygiene Center for Transforming Healthcare

System-wide HAI Reductions Using TST®

<table>
<thead>
<tr>
<th></th>
<th>Baseline (pre-TST®)</th>
<th>Control (post-TST®)</th>
<th>Relative Decrease</th>
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<tbody>
<tr>
<td>Adult ICU BSI*</td>
<td>0.80</td>
<td>0.45</td>
<td>44%</td>
</tr>
<tr>
<td>NICU BSI*</td>
<td>1.89</td>
<td>0.93</td>
<td>51%</td>
</tr>
<tr>
<td>VAP*</td>
<td>0.94</td>
<td>0.50</td>
<td>47%</td>
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</tbody>
</table>

*1 BSI per 1000 line days
*1 VAP per 100 ventilator days

Save Lives. Reduce Costs.
Spreading the Get to Zero Message

As a way to ensure Joint Commission customers and other stakeholders know about the work of the Center, we actively pursue media opportunities, speaking engagements and scholarly publications.
Our Leaders

Board of Directors

- Rebecca J. Patchin, MD, American Medical Association (Chair)
- J.B. Silver, PhD, Public Member (Treasurer)
- Mark R. Chassin, MD, FACP, MPP, MPH, President and CEO
- Craig W. Jones, FACHE, American Hospital Association
- LaMar S. McGinnis, Jr., MD, FACS, American College of Surgeons
- David Perrott, DDS, MD, MBA, FACS, American Dental Association
- David L. Bronson, MD, MACP, FRCP, Edin., American College of Physicians

The officers and staff of the Center include both Joint Commission and Center employees:

Officers

- Mark R. Chassin, MD, FACP, MPP, MPH, President and CEO
- Anne Marie Benedicto, MPH, MPP, Vice President of Operations
- Harold J. Bressler, General Counsel
- Erin S. DuPree, MD, FACOG, Chief Medical Officer and Vice President
- Ana Pujols McKee, MD, Executive Vice President and Chief Medical Officer
- Paige A. Rodgers, CPA, MBA, Chief Financial Officer
- Margaret VanAmringe, MHS, Executive Vice President, Public Policy and Government Relations

Staff

- Kelly Barnes, MS, Project Lead, Black Belt
- Elise Becher, MD, MA, Black Belt
- John Cullinan, Director, Application Development and Data Analysis
- Amy Fritz, Project Lead, Black Belt
- Ziad Karam, MPH, Outreach Coordinator
- Jan Kendrick, MA, Director of Business Operations, Master Change Agent
- Donise Musheno, RN, MS, CPHQ, Project Lead, Black Belt
- Klaus Nether, MT(ASCP)SV, Solutions Development Director, Master Black Belt
- Brian Patterson, Project Lead, Black Belt
- Coleen Smith, RN, MBA, CPHQ, High Reliability Initiatives Director, Black Belt
- Sara Sutter, MBA, Corporate & Foundation Development Manager
- Teena Wilson, Outreach Director, Master Change Agent
## Financial Data

**FOR THE FISCAL YEAR ENDING DECEMBER 31, 2013**

### USE OF FUNDS

<table>
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<th>Services</th>
<th>Amount</th>
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<tr>
<td>Targeted solutions for patient safety</td>
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<td>Solutions for high reliability health care</td>
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<tr>
<td>Fund Development</td>
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<tr>
<td>Management and General</td>
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### SOURCE OF FUNDS

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<th>Source</th>
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<td>Public Support</td>
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<tr>
<td>Investment Earnings</td>
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<tr>
<td>Funding from The Joint Commission</td>
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<tr>
<td>Endowment funding</td>
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<tr>
<td>Other program &amp; operating funding</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$8,870,347</strong></td>
</tr>
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**INCREASE IN TOTAL NET ASSETS**

$5,307,264
Participating Health Care Organizations

Participating organizations work closely with the Center to help create solutions that are disseminated broadly and impact health care globally. Participating organizations have a commitment to RPI® and competency in applying the methods and tools to improve their internal operational and clinical care processes. In addition, participating organizations have demonstrated that they can create an organizational culture that is conducive to supporting and motivating staff to aspire to excellence. Participating organizations share data and project-related materials with the Center. The participating organizations are key to the efforts of the Center in the transformation of the health care industry.

Atlantic Health System  The Johns Hopkins Hospital
Barnes-Jewish Hospital Kaiser Permanente
Baylor Scott & White Health Mayo Clinic
Baylor Scott & White Health Memorial Hermann Health System
Cedars-Sinai Health System New York-Presbyterian Hospital
Cleveland Clinic North Shore-Long Island Jewish Health System
Cedars-Sinai Health System Northwestern Memorial Hospital
Exempla Healthcare OSF Saint Francis Medical Center
Fairview Health Services Partners HealthCare System
Floyd Medical Center Sharp HealthCare
Froedert Hospital Stanford Hospital & Clinics
Froedert Hospital Texas Health Resources
Intermountain Healthcare Trinity Health
Intermountain Healthcare VA Connecticut Healthcare System
Intermountain Healthcare Virtua
Intermountain Healthcare Wake Forest Baptist Health

Corporate Donors

The Center seeks the support of external funding partners so that it can develop and spread patient safety and health care quality solutions to health care organizations across the United States. Current and past supporters of the Center include: American Hospital Association, BD, Cardinal Health, Ecolab, GE Healthcare, GlaxoSmithKline, GOJO Industries, Inc., and Medline Industries.

American Hospital Association
BD
Cardinal Health
Ecolab
GOJO Industries
GlaxoSmithKline
GE Healthcare
Medline Industries

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