2018 Value Report

Mercy Quality and Patient Safety
Value Highlights

Your life is our life’s work.
Hello and thank you for taking the time to review our second annual Quality and Safety Value Report. I’m pleased to share Mercy’s progress in creating better care for the millions of people we serve each year.

The pursuit of quality and safety in health care calls us to continually improve everything we do today for better patient outcomes and to strengthen our ministry tomorrow. This year we have certainly done that, and it’s brought us to restructure our team and partner with the rest of the ministry in new ways. One significant change came as we named chief quality officers for our three communities to take a more regional approach to adopting common quality/safety activities that we know provide the best care. By combining our collective knowledge and experience, we can have a lasting impact that transcends single facilities and touches patients wherever they need care. We also continue our focus on clinical care redesign, and regulatory/accreditation compliance. Our leaders in these efforts have rich experience and are guiding their teams to ensure we are always providing the best care and serving as good stewards of our resources so we stay relevant to the communities we serve. You’ll meet these leaders in this report and learn about the work of many other team members and partners who support quality and safety throughout the ministry.

There are countless quality and safety efforts throughout Mercy helping to transform our care and distinguish us from other health systems. We were pleased to learn that Mercy was once again named a Top 5 large health system by IBM Watson Health. This is our fourth year for that distinction, and as CEO Lynn Britton mentioned recently, staying on top requires us to not only pursue excellence, but build on it. For this same reason, several of our facilities were also named by IBM Watson as Top 100 Hospitals. And ten of our hospitals just earned an ‘A’ for the spring 2018 Leapfrog Group Hospital Safety Grade. We’re always pleased with these recognitions that prove our healing ministry is touching lives in the same ways the Sisters of Mercy did for the people they served. And like them, we must be inspired to do more.

While our team is pleased to help guide the work documented in this report, it comes to life through our partnership with so many co-workers who help us standardize our care and do the right thing for every patient every time. From our work to reduce health care associated infections to our opioid control efforts, malnutrition screening and so much more, it’s your expertise and commitment that are making a difference. So I hope you’ll view the many achievements listed in the upcoming pages as your achievements.

As always, thank you for all you do to bring the healing ministry of Jesus to life in service to our patients.

Keith Starke, MD
Senior Vice President and Chief Quality Officer, Mercy

“Our desires and pursuits after perfection then, must be renewed day after day, hour after hour — we can never desist, for not to go forward in the way of perfection is to go back.”

Catherine McAuley
Mercy Quality and Safety: Purpose Statement

Mercy Quality and Safety will drive high reliability outcomes, accountability, clinical excellence and remove unnecessary variation. The effective alignment of people, processes and technology will provide the best care to our patients by eliminating harm and realizing the quadruple aim.

Quadruple Aim:
• Improve the health of populations
• Improve the provider and co-worker experience
• Improve the patient experience of care (quality and satisfaction)
• Reduce the cost of care
Senior Leader Vision

During 2018, all of us continued learning about the changing health care landscape. As baby boomers age, acuity levels, hospital volumes and complexity of care will increase, however hospitals’ reimbursement rates will continue to decrease.

Finding new ways to meet the challenge as the Sisters of Mercy before us did is increasingly important. The effective alignment of people, coordination of care and technical resources will help us achieve the quadruple aim.

Looking forward, Nursing, Quality and Safety, and Physician Specialty Councils will be finding ways to work in a more intentionally collaborative way. Leaders from these three groups look forward to even greater coordination of care for those we serve.

We’re working to effectively standardize and coordinate care teams, refine processes that integrate to form systems of care in every care setting and use technical resources. When they all come together, Mercy’s ability to provide care in a consistently reliable manner, with consistent quality outcomes, zero patient harm and outstanding service will sustain the ministry far into the future.

“A safety to me is the biggest thing and seeing it here gives me comfort.”
Family member of Mercy patient

Awards and Honors Across the Landscape: Leapfrog 2018

Leapfrog

The Leapfrog Group is a nationally recognized organization focused on fostering positive change in U.S. health care by providing transparency in hospital quality and safety performance. Leapfrog identifies top-performing acute care hospitals by awarding safety grades twice a year, based on self-reported and publicly extracted measures. In addition, a select few of the highest performing hospitals across the nation are chosen as “Top Hospitals” reflecting elite quality and safety. In fall 2018, Mercy had two facilities honored for educating consumers, corporations and health care purchasers about the quality and value of a hospital’s care — collecting, analyzing and disseminating hospital data to inform value-based purchasing to ensure consistency (linking provider reimbursement to quality and value).

Mercy’s approach to the Leapfrog survey has steadily improved over time. What once was a largely individual effort by each hospital has become a common approach to identify best practices Mercy-wide. The annual Leapfrog Summit is held to bring together Quality & Safety leads from each of Mercy’s acute care hospitals to discuss the survey, share knowledge, develop best practices and identify any barriers to success. Quality and Safety leaders provide guidance and support to ensure accurate reporting by providing standards for centralized data reporting for facilities.

As Leapfrog is continuously challenging hospitals to achieve higher standards, Mercy is also continually looking for ways to improve. Our facilities are driven not only to continue to meet Leapfrog’s expectations, but to deliver the safest care in the safest environment for our patients. “The collaborative process we follow as a ministry allows our hospitals to engage with each other and be transparent about their quality and patient safety challenges. There are many great opportunities across our ministry to work together and find the best solution for our patients and co-workers,” said Denise Williams, director of patient safety.

Community | Grade
--- | ---
Springfield* | A
St. Louis* | A
Ardmore | A
Fort Smith | A
Jefferson | A
Joplin | A
Lebanon | A
Oklahoma City | A
Rogers - NWA | A
Washington | A
South | B
Ada | C
*Top Hospital 2018

"The collaborative process we follow as a ministry allows our hospitals to engage with each other and be transparent about their quality and patient safety challenges. There are many great opportunities across our ministry to work together and find the best solution for our patients and co-workers," said Denise Williams, director of patient safety.
From 2016-2019, Mercy has been named a Top 5 large health system, and a Top 15 overall health system by IBM Watson Health (formerly Truven Health Analytics). The Watson Health 15 Top Health Systems study annually identifies 15 U.S. health systems with the highest overall achievement on a balanced scorecard based on publicly available data. The scorecard focuses on four performance domains: inpatient outcomes, extended outcomes, operational efficiency and patient experience.

In 2019, three Mercy hospitals were awarded the Watson Health 100 Top Hospitals award. Awards are given based on a hospital’s performance in inpatient and extended care quality, operational efficiency, financial health and customer experience. The following Mercy hospitals have achieved this award:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Category</th>
<th>Total Year(s) Won</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercy Hospital St. Louis</td>
<td>Teaching hospital</td>
<td>7</td>
</tr>
<tr>
<td>Mercy Hospital Oklahoma City</td>
<td>Large community hospital</td>
<td>4</td>
</tr>
<tr>
<td>Mercy Hospital Northwest Arkansas</td>
<td>Medium community hospital</td>
<td>1</td>
</tr>
</tbody>
</table>

5-Star Rating

The Centers for Medicare & Medicaid Services (CMS) is a federal agency within the U.S. Department of Health and Human Services that administers the nation’s major health care programs. After a cancelled Star Release for July 2018, CMS issued a December 2018 preview of a new hospital Star Rating (officially released: February 2019). Mercy Springfield and Mercy St. Louis topped the national rating with five-star ratings. This puts them in the top 8% of hospitals. Our acute care hospitals Mercy Ardmore, El Reno, Northwest Arkansas and Washington achieved a four-star rating along with five critical access hospitals including Mercy Kingfisher, Logan County, Lincoln, Love County and Carthage.

Group Score Weighting

- Mortality: 22%
- Safety: 4%
- Timeliness: 4%
- Effectiveness: 4%
- Medical Imaging: 22%
- Readmission: 22%
- Patient Experience: 22%

Mercy performed better than our peers in these measures:

- Better survival rates.
- Fewer patient complications.
- Fewer health care associated infections.
- Lower 30-day readmission rates.
- Patients returning home sooner.
- Patients spending less time in the emergency department.
- Lower Medicare spending per beneficiary.
- Higher patient ratings.

Contractual Benefit

Many payers have followed the lead of CMS and are linking quality measure performance to reimbursement. Mercy is participating in multiple value-based contracts that impact our hospitals and our physician organization, Mercy Clinic.

These include:

- CMS Medicare Shared Savings Program (MSSP) Accountable Care Organization (ACO): A program that encourages groups of doctors, hospitals and other health care providers to come together and be held accountable for the quality, cost and experience of care of an assigned Medicare patient population.
- Medicare Advantage: A type of Medicare health plan offered by a private company that contracts with Medicare.
- Multiple commercial programs.
- Direct-to-employer programs.
In 2018 Mercy joined the High Value Healthcare Collaborative (HVHC), a provider learning network committed to improving health care value through data and collaboration.

The High Value Healthcare Collaborative has four strategic priorities:
1. CMS measure reporting
2. Best practice sharing
3. Payment modeling
4. Public-private partnerships

Membership in HVHC brings value to Mercy because it fosters shared learning with other member organizations. This has proven to be beneficial in many areas, particularly in identifying best practices for cardiovascular care and sepsis/vSepsis Care. In addition, as CMS and other payers continue to reimburse for value-based care, there is a greater need for collaboration with high performing organizations to share metrics, leverage data to understand new insights and ultimately improve the quality of care for our patients.

Another benefit is the HVHC Fellow Program. It is an inter-organizational team comprised of data analysts and data scientists who use research data to help answer important questions related to care improvement and new payment models.

Other HVHC Members include:
- Baylor Scott & White Health
- Dartmouth Hitchcock
- Hawaii Pacific Health
- Intermountain Healthcare
- Mayo Clinic
- Northwell Health
- Providence St. Joseph Health
- Sentara Healthcare

While the focus on the “Quadruple Aim” to improve community health, quality and satisfaction, cost structure and the work life of clinicians sounds daunting, it’s not impossible. Our CaRedesign initiative drives the best care for our patients through standards that optimize outcomes and minimize complications. This allows us to act in the best interest of our patients, which is core to our mission, while fulfilling the other aims.

**Clinical Pathways**

A major component of CaRedesign is the development of new clinical pathways, which are structured, multidisciplinary care plans that detail essential steps in the care of patients with a specific clinical problem. When choosing a pathway to develop, the CaRedesign team considers a number of important factors, including the potential number of patients who will benefit and the unique challenges related to managing certain conditions. The table below shows the difference in direct variable cost per case for patients who are on a clinical pathway versus those that are not, resulting in cost savings to Mercy. Although these cost savings are notable, the benefit for patients is far greater. “Our ultimate goal is to maintain our focus on creating better outcomes for our patients,” says Ursula Wright, vice president of care redesign and optimization.

<table>
<thead>
<tr>
<th>Pathway Status</th>
<th>Case Count</th>
<th>Direct Variable Cost Per Case</th>
<th>Total Direct Variable Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off Pathway</td>
<td>34,650</td>
<td>$5,552</td>
<td>$192,368,784</td>
</tr>
<tr>
<td>On Pathway</td>
<td>61,148</td>
<td>$3,746</td>
<td>$229,042,175</td>
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</tbody>
</table>

**Specific Pathway Successes**

Colectomy: This surgical procedure has one the longest lengths of stay for inpatient surgery. Infection rates are high, and complications occur often.

<table>
<thead>
<tr>
<th>Hospital Patients on the Colectomy Pathway</th>
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<tbody>
<tr>
<td><strong>50 PERCENT</strong></td>
</tr>
<tr>
<td>Lower Mortality</td>
</tr>
<tr>
<td><strong>2.4 DAYS</strong></td>
</tr>
<tr>
<td>Shorter Stay Length</td>
</tr>
<tr>
<td><strong>$1.5K $</strong></td>
</tr>
<tr>
<td>Reduced Direct Variable Cost</td>
</tr>
</tbody>
</table>

“I have truly felt like a patient who is cared about by an entire medical team. I so appreciate Mercy!”

Mercy patient feedback
**Future State**

As a complement to clinical pathways that provide an evidence-based plan of care today, the next step in our evolution involves clinical decision support. Stanson Health is an organization that offers clinical decision support products that reduce low-value and unnecessary care by delivering real-time alerts and relevant analytics to guide and influence physician decisions. The Stanson Health suggestion engine can be integrated with the Epic electronic health record to analyze alerts and make them targeted and relevant by combining best practice standards with a patient’s record, existing care team notes and more. This approach helps caregivers be more efficient by arming them with the relevant information they need to guide patient care, with less clicks in Epic.

Stanson content and analytics services that will improve patient care and the physician experience before, during and after ordering in Epic:

**BEFORE Ordering**
- Remove or enhance low performing alerts.
- Optimize order sets and preference lists.

**DURING Ordering**
- Evidence-based alerts (best care).
- Choosing Wisely content (a project of the American Board of Internal Medicine Foundation aimed at promoting care that is supported by evidence, necessary and not supplantive).
- Best Practice Alerts to support Medicare Advantage measures.

**AFTER Ordering**
- Peer comparison feedback.
- Outlier analysis.

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**Malnutrition**

Malnutrition is a serious condition that occurs when a person’s diet does not contain the right amount of nutrients. Malnutrition goes hand in hand with eight chronic diseases and has been linked to extensive direct medical costs exceeding $15 billion annually across the nation. Patients with malnutrition are five times more likely to experience in-hospital death, but national statistics show only 7% are diagnosed and treated.

Together, Mercy Ministry and facility teams are collaborating to improve the nutritional care of our patients during the hospital stay. Research shows that early treatment of malnutrition can reduce pressure ulcer incidence, decrease length of stay, 30-day readmissions and cost of care.

Mercy’s approach through CaRedesign and evidence-based medicine has been focused on improving our identification, accurate diagnosis, treatment and documentation of malnutrition to 20% of all adult hospitalized patients. This quality improvement was initiated in Mercy Oklahoma City with the following positive results:

- Advancing the registered dietitian scope of practice and physician leadership through the medical director or nutrition and metabolic support.
- Clinical practice guidelines developed and implemented.
- Standard work created for all key disciplines including providers, dietitians, nursing and support co-workers and more.
- Nutrition and Metabolic Support Steering committee initiated for sustainment led by the medical director of nutrition and metabolic support.

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**Malnutrition Affects Clinical Outcomes**

- **PRESSURE ULCERS**
  - Twice as Likely
- **INFECTION**
  - 3X the Risk
- **FALLS**
  - 45%
- **READMISSIONS**
  - Increased Risk

Through these quality improvements, malnutrition accurate diagnosis for Mercy Oklahoma City increased in 2018 from 10.17% to 16.73%. This early success is now being shared across all other Mercy acute care facilities. This quality improvement in nutritional care is providing support to some of our most critical patients in our communities.
Diabetes Management & Glycemic Control

Identifying the Need
Diabetes is a condition that impairs the body’s ability to process blood glucose, otherwise known as blood sugar. Without ongoing and careful management, high blood glucose can lead to other serious health problems including heart disease and stroke. The work of the Mercy Diabetes Care Team (MDCT) began in fiscal year 2019. Led by Dr. Gretchen Shull, vice president of diabetes care, she and her team provide leadership and structure for diabetes programs across Mercy. The MDCT collaborates with clinicians and leaders everywhere to improve care for our thousands of diabetic patients and those at risk in our communities. Charter goals for this journey include:

Team Realignment
Generating properly trained teams to assist diabetic patients is needed. Physicians, ARNPs, nurses, dieticians, medical assistants and administrative staff must be properly trained in diabetic issues and must be used effectively to care for a population of diabetic patients.

People in Place
Mercy leadership named “glucose control” an organizational goal for FY19. The MDCT introduced this goal with a collaborative focus by visiting each community and acute care facility. Each facility was tasked with identifying a core glucose control team and creating an improvement plan.

By the end of calendar year 2018, each participating facility met the organizational goal, and routine progress calls with team leads ensure progress and action.

Glucometrics Dashboard — Revisions

Technology in Place
Since its creation in 2017, the glucometrics dashboard has been shared by glucose control facility teams throughout Mercy. For the ministry-wide approach, using this data is crucial in understanding our current state and how we can improve care. The FY19 organizational goal has garnered feedback from facility teams and major revisions to the dashboard provide a more comprehensive look at the care we are providing for our patients. Since the introduction of the organizational goal, Mercy has seen an overall decrease in the minutes to resolution of hypoglycemia (low blood sugar).

Average Minutes to Hypoglycemic Event Resolution

Data from July - December 2018

A Patient Story
After losing his insurance and income after a government shutdown, a Mercy patient was having trouble managing his type 2 diabetes. He stopped taking certain medications and began rationing insulin, which ultimately led him to be hospitalized for several days in the ICU. Upon discharge, he was introduced to the Diabetes Bridge Clinic, a clinic offering timely and affordable care to diabetic patients after hospital discharge. It supported him for 2 months with needed medications and lab evaluations through Mercy Health Foundation funds. The bridge nurse was able to help him find financial assistance and affordable insulin and medications. Because he was able to regain control of his diabetes, he is once again self-managing his disease and continues to see a Mercy care team.

DKA/HHS and Hyperglycemia Pathway

Process in Place
Diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar syndrome (HHS) are life-threatening hyperglycemic (high blood sugar) complications that occur in patients with diabetes. In collaboration with the Clinical Performance Acceleration team, the DKA/HHS and Hyperglycemia pathways were created to standardize and provide evidence-based care for glucose control. With these pathways revised in 2018, overall performance in quality, cost and patient experience has increased tremendously because of this collaborative and standardized approach.

Increased Collaboration
The ministry team acknowledges that glucose control is no small feat and to achieve zero patient harm, it requires a collaborative, team-based approach.

The team continues to engage many departments to assist in streamlining ministry initiatives and improving overall glycemic control.
Healthcare-Associated Infections (HAIs)

Healthcare-associated infections (HAIs) are common, deadly and costly, but preventable. In 2018, as Mercy continued its journey towards high reliability, leadership recognized the need to cultivate resilience by prioritizing safety, and therefore named HAI reduction as one of its organizational goals. To achieve this goal, Mercy began examining its own practices and identified three areas of opportunity:

2. Verifying co-worker competency.
3. Establishing leadership involvement.

To help facilitate organizational change, Mercy employed several changes to address these opportunities:

- Defining and applying evidence-based best practices (1). Establishing leadership involvement (2). Verifying co-worker competency (3).

Leadership Involvement

By employing these strategies, Mercy made significant progress toward HAI reduction in calendar year 2018, as illustrated in these graphs:

**Central Line Bloodstream Infection (CLABSI)**

Mercy Acute Care Communities*

ICU (Adult, Pediatric, and Neonatal) and CMS Select Wards

**Clostridium difficile LabID Event Healthcare Facility Onset (HO)**

Mercy Acute Care Communities Inpatient Facility-Wide (excludes South)

Excludes NICU, Well-Baby Nursery, Special Care Nursery

**Catheter Associated Urinary Tract Infection (CAUTI)**

Mercy Acute Care Communities* (Adult and Pediatric) and CMS Select Wards

**Surgical Site Infection SSI Colon**

Mercy Acute Care Communities

Key Definitions:

- **Standardized Infection Rate (SIR)**: number of actual events divided by the number of predicted events.
- **C. diff**: Clostridium difficile — a potentially life-threatening bacterial infection causing a serious inflammation of the colon.
- **CAUTI**: Catheter-associated Urinary Tract Infection — infection involving any part of the urinary system associated with the presence of a urinary catheter.
- **CLABSI**: Central Line-associated Bloodstream Infection — serious infection that occurs when bacteria or virus enters the bloodstream through a central line (catheter inserted into large vein).
- **MRSA Bacteremia**: Methicillin-resistant Staphylococcus aureus bacterium that causes infections in different parts of the body that is tougher to treat than most strains due to its resistance to some commonly used antibiotics.

“*My mother’s primary care physician and her staff continue to provide excellent care for my mom. They go above and beyond what is expected.”

**Family member of Mercy patient**
Public and Regulatory Reporting

Core Measures

Compliance Highlight Sepsis:
Sepsis is the body’s overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure and death. Mercy’s continued focus and effort on managing sepsis in 2018 has significantly improved our compliance with CMS’ sepsis/septic shock “bundle” (CMS provides specific time windows for care teams to deliver certain elements of care — everything from early identification to the timing of administered antibiotics).

CaRedesign has focused efforts in Oklahoma and Springfield to begin interdisciplinary care rounds that tightly coordinate patient care. Mercy’s Virtual Care Center also launched new processes in April 2018 to better partner with bedside care teams to ensure the recommended care is provided at the right time in accordance with best practice standards.

Local care teams play a crucial role in this work as they evaluate their processes for sepsis care. These teams draw from the expertise of clinical measure specialists for sepsis, who are well acquainted with measures reported to CMS and Joint Commission, and who identify opportunities for improvement through chart review.

Regional Care

Imaging Claims-Based Measure:
Claims-based measures are calculated based on information submitted to CMS. CMS delivers the reports on performance of these measures annually. To avoid this lag in time to address opportunities, our data team has helped fill the gap by replicating the claims-based measures when appropriate. In 2018, the Quality and Safety Data team delivered on three imaging claims-based measures: Abdomen CT (OP-10), Thorax CT (OP-11) and Simultaneous Use of Brain CT and Sinus CT (OP-14).

Electronic Measures:
In 2018, as in the two prior years through our partnership with Mercy Technology Services, we successfully submitted the required electronic quality measures for both the Inpatient Quality Reporting and Promoting Interoperability Program (formally known as Meaningful Use). Meaningful Use is using certified EHR technology to improve quality and safety, engage patients and families in their health care, improve care coordination and improve population and public health. Total meaningful use benefit for hospital, provider and quality this year was $19.6 million. By submitting these reports internally, Mercy saves an additional $500,000 annually in vendor costs. New in 2018, we successfully submitted electronic measures to The Joint Commission without external support.

Registries

Cardiac (Society of Thoracic Surgeons and CathPCI Registry®): Mercy continued to leverage our expertise and resources to centralize data review, which expanded coverage of Springfield registries. Centralization helps ensure data integrity and standardization across our participating communities. The Cardiac Specialty Council and local teams use the data to identify opportunities to improve, which ultimately guide them to enhance care delivery.

National Surgical Quality Improvement Program (NSQIP): After setting a strong foundation of standard work in data collection, the focus shifted in 2018 to process improvement. Hospitals identified process improvement areas of focus based on outcome results. During the Ministry NSQIP Collaborative, hospitals are reporting progress toward improvement in the following areas:

- Washington: Return to Operating Room.
- Fort Smith: Return to Operating Room; Blood Transusions.
- Jefferson: Surgical Site Infections in Orthopedic Procedures.
- Joplin: Urinary Tract Infections; Surgical Site Infections.
- Springfield: Venous Thromboembolism; Catheter Associated Urinary Tract Infections; Sepsis.
- St. Louis: Venous Thromboembolism.
- Oklahoma City: Enhanced Recovery After Surgery Colorectal; Pneumonia; Surgical Site Infection in Urology Procedures.
- Pediatric: Launching Antibiotic Stewardship Evaluation; Pneumonia.

Partnership: As a ministry, it’s important to set priorities and work toward common goals. This is exactly what happened as many teams partnered to eliminate surgical site infections following colorectal surgery. Infection Prevention, Peri-Operative Services, Pharmacy, Dietary, Anesthesia, Quality and Performance Acceleration teams worked with surgeons to re-evaluate and implement a care bundle, education and order sets for colorectal surgery. The team started with a focus on reducing infections and then expanded their work to address the complete care delivery process. The team is excited for the implementation in 2019.

Vermont Oxford Network (VON): VON is a voluntary collaboration of health care professionals working together to change the landscape of neonatal care, part of which involves analyzing and providing benchmarking data. In 2017, Mercy centralized the collection of VON data and standardized reporting across all six NICUs for both Very Low Birth Weight Babies (501-1500g babies) and Expanded (Greater than 1500g babies). In August 2018, the NICU Physician Specialty Council reviewed the first VON collaborative report and discussed the performance of all six NICUs. Providers shared opportunities for improvement and projects are already in place to improve care given to our tiniest patients.

“...as from little faults we fall into great, so by the practice of less virtues we ascend to the heroic.”

Catherine McAuley
Regulatory Leadership Restructure

In 2018, the Quality and Safety team added regional directors to provide communication and collaboration to the ministry and local communities. Having regional regulatory leaders supports consistency in meeting regulations and standards and promotes collaboration between Mercy locations and local regulatory leaders to deliver and implement best practices. The purpose of the regulatory team is to be a resource for our Mercy facilities to ensure safe and quality health services in all things great and small for those entrusted in our care.

Survey Excellence

Mock surveys are a best practice to assist hospitals and facilities in promoting and maintaining regulatory readiness. The survey process provides co-workers an opportunity to test their survey preparedness in advance of any anticipated survey. The goal of the mock survey process is to improve patient care and facilitate a successful survey experience by coaching leaders and co-workers in how to meet real survey expectations.

Over the past year we have added experts to the team to review environment of care and life safety regulations, medication management and sterile medication compounding, and all sterile processing and high-level disinfection across the ministry.

Eighteen Mercy hospitals have had a full mock survey and others are scheduled for the very near future. Two hospitals have had successful Joint Commission surveys this year. In the next eighteen months, most of our hospitals will be surveyed by The Joint Commission to achieve accreditation and deemed status with CMS.

Policy Management Program

Policies help keep our patients and co-workers safe, and when well-managed, they ensure that the organization remains in compliance with various regulatory and accrediting bodies. This year, a policy management team was formed to help coordinate the creation, communication and maintenance of all Mercy policies. This team that has introduced and implemented new software called PolicyTech to over 30 hospitals, ministry departments, clinics and outreach ministries. As part of that work, we have moved over 41,000 documents to the new platform.

This large migration of documents has also been an opportunity to standardize them with consistent naming conventions, folder structures and policy formatting. Downtime workflows are also in place for network/Internet downtime.

Co-worker input so far has been positive, with users finding PolicyTech easier to use with search tools that are faster and more streamlined. PolicyTech also offers robust audit functions and tracks policy review dates and the attestations of end users confirming they’ve read a policy.
Securing Safety, Eliminating Harm

Safety for the Patient’s Sake

Quality and Safety team members continue to make improvements to Mercy’s centralized reporting tool called SAFE (Safety, Accountability and Feedback for Everyone) – and that is helping to increase the number of events reported. Over 48,000 safety events were entered in SAFE in calendar year 2018, representing a monthly average increase of more than 550 reports. Ministry-wide, the highest reported event types consistently involve falls, medication related events, laboratory and care coordination/communication events. The SAFE system is also used to report feedback, which includes complaints, grievances and compliments. Over 9,500 of these were submitted and reviewed during calendar year 2018. Care team concerns are the top reported events in the feedback categories.

Infection Prevention

One of the key components of a highly reliable organization is establishing a culture of safety. A culture of safety requires teamwork and effective communication. Mercy created a HAI Reduction Communication/Decision Flow map (shown below) to establish channels of communication between the different functions and departments that work to reduce healthcare-associated infections (HAIs) and eliminate patient harm.

Data-Driven Insight

Mercy is fortunate to have a wealth of data at our disposal. But in its raw form, and generated from many sources, the true challenge is how to transform it into meaningful, actionable information. When successful, data insight helps to drive high reliability outcomes, provide accountability, identify unnecessary variation and ensure clinical excellence.

This access to information is critical as data shapes our perspectives and informs our decisions. Ultimately, the right information presented to the right team at the right time can be a catalyst for delivering differentiated performance.

From Hospital-Based to Initiative-Based Measures

Our focus on standardizing and improving quality across Mercy requires looking at data through a different lens. Now, we’re more often establishing metrics and measuring our collective performance on ministry-wide initiatives. A few examples include:

- Malnutrition (identification and subsequent care coordination)
- HAI reduction
- Patient falls per 1000 patient days (created a single application to do this)
- Mortality and readmissions across the system
- Performance benchmarking
- vSepsis
- Hypo and hyper glycemia (glucometrics)
- Transitioned Mercy South to our systems for inclusion in these measures

Ambulatory Support

We’ve also expanded our focus to support outpatient care. Some initiatives include:

- Quality measures for ACO/Medicare Advantage (aligning program measures with physicians)
- Human papillomavirus (HPV) vaccination utilization rate
- Population health measures
- Encounter Guide
- Accountable Individual Mercy Standards (AIMS) Quality Measures
Mercy Performance Dashboard

Quality and safety data in health care can be very complex with little standardization. At the same time, the industry move to value-based care fuels the need for all health care organizations to have standard performance metrics, so they can be compared against each other and evaluated for their relative effectiveness in delivering value to patients, payers and more. To meet this aspiration, Quality and Safety created a unified data visualization structure, the Mercy Performance dashboard.

This dashboard provides rapid analysis of current performance, identifies growth opportunities and helps Mercy leaders navigate quality and safety challenges across many care environments.

As an example, the dashboard screen below reports Mercy’s performance in several measures it routinely reports to CMS or other organizations including average length of stay (ALOS), healthcare-associated infections (HAI), postoperative sepsis rate (PSI 13) and readmission/mortality rates.

**ALOS**
- FYTD19: 4.41
- CMS VBP Goal: 4.452
- 2016 Rate: 0.40%
- Most Recent CMS Data: February 2019

**HAI - All Mercy**
- 2019: 5.03
- Most Recent HAI Data: February 2019

**PSI 13**
- Most Recent PSI Data: February 2019
- 2017: 0.28%

**Medicare Readmissions and Mortality**
- Year Ending January 2019
- Variances from Top 10% Benchmark

**Mercy Kids**

Mercy Kids’ quality and safety efforts are integrated with those of the ministry, with a focus on defining, monitoring and improving the care of children in all Mercy hospital-based, outpatient, emergency and ambulatory care settings and facilities.

The Mercy Kids leadership team supports a service line-oriented approach unique within Mercy.

**Success Looks Like**
- Development, implementation and monitoring of adherence to a clinical practice guideline addressing appropriate use of inhaled nitric oxide.
  - **Outcome**: Support of appropriate use, reduction in inappropriate off-label use and greater than $1M in cost savings over the period of two fiscal years.

  - Sharing expertise of neonatal clinical dietitian at Mercy Children’s Hospital-St. Louis implemented evidence-based feeding protocols for premature infants.
  - **Outcome**: Consistent feeding practices for premature neonates leading to more rapid growth, decrease in incidence of necrotizing enterocolitis (a life-threatening complication of inappropriate feeding) and greater adherence to an enterprise infant formula contract.

  - Initiated immunization practice standards regarding HPV vaccine.
  - **Outcome**: There were 4,100 more HPV vaccines administered in Mercy Clinic offices in FY19 than FY18 with projected improvement to clinic financial portfolio greater than $33K.

  - Established adherence to the American Academy of Pediatrics bronchiolitis guidelines.
  - **Outcome**: Realized a 50% reduction in inappropriate respiratory panel laboratory testing, projecting cost savings greater than $65K.

**Medicare Readmission and Mortality**
- Year Ending January 2019
- Variances from Top 10% Benchmark
Quality and Safety Stewardship and Vision for the Future

Where We Are Going

Patient Safety Reporting
We enhanced safety reporting through the following efforts:
• Optimization of the SAFE reporting tool and process to promote complete and accurate reporting.
• Improvement and standardization of post-event follow-up and intervention.
• Communication and engagement of key ministry-wide teams to foster an improved culture of sharing and learning from safety events.

Reducing Inpatient Readmissions
• Hospital readmissions penalties will approach $5 million next year for Mercy.
• An interdisciplinary task force is working to ensure Mercy is best positioned to re-engineer the inpatient and discharge process to mitigate unnecessary readmissions.
• The task force is also looking at ways to enhance post-acute care for patients to help increase communication and collaboration during transitions of care.

Opioid Stewardship
• Mercy established the Controlled Substances Stewardship Committee to oversee opioid stewardship and create a Mercy-wide approach to the management of opioids.
• In 2018, the committee’s work included:
  o Reviewing prescribing practices.
  o Reviewing opioid prescribing guidelines.
  o Submitting a proposal for Epic/PDMP integration.
  o Reviewing opioid related regulatory requirements.
  o Prioritizing implementation of opioid stewardship clinical decision support within Epic.

Quality & Safety Administrative Fellowship
• Since its inception in 2016, the Administrative Fellowship program has helped develop young leaders in health care by offering experiential learning through the completion of projects in the many disciplines of quality and safety.
• This year, we received 58 applications and offered two positions for this highly competitive program.

Expanding the Depth and Increasing the Clinical Expertise of Data Analytics
• Expanding partnerships across Mercy, with focus beyond inpatient care.
• Partnering with MTS to determine how to use other existing tools. Added nurses and other clinicians with technical backgrounds to teams.

Emergency Preparedness
• Mercy developed a department of Emergency Operations in July of 2018 to integrate our 687 facilities to efficiently plan, respond to and recover from all types of risks.
• The 29 hospitals have been divided into six groups to more efficiently develop plans and provide immediate support during incidents.
• An Emergency Operations Center will bring senior Mercy leaders and task forces together to manage catastrophic health incidents.
• All hospitals now have a mass notification system that provides warnings and alerts to our co-workers. The Mercy Emergency Operations Center will also use this mass notification system to communicate with hospitals.

Initiative | Estimated Annual Benefit
--- | ---
HAI Cost Avoidance | Central Line Bloodstream Infection (CLABSI) $1,420,234 Clostridium difficile (C. diff) $3,351,645
Internally Developed Tools | Glycemic Control Dashboard $50,000 Mercy Performance Dashboard $500,000 Electronic Clinical Quality Measures $500,000
DKA/HHS and Hyperglycemia Pathways Savings | $666,753
Meaningful Use | Hospital $11,399,762 Provider $5,000,000 Quality $3,200,000
Total Benefit | $26,088,394

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Provider | $5,000,000
Quality | $3,200,000
Total Benefit | $26,088,394
Friends of Quality and Safety Award

The purpose of this award is to recognize co-workers outside of Quality and Safety who are truly living Mercy’s mission by supporting clinical excellence. These co-workers treat everyone with dignity and justice.

They use their talents and resources to steward the ministry by working toward high reliability. They serve by anticipating our needs and collaborate with us using a bias for action to get things done. They are innovative in their approach and overall a joy to work with.

The inaugural award recipient of 2018 was Joy Abu-Shanab, a clinical pharmacist and manager of clinical services at Mercy Hospital St. Louis. She was nominated by the Clinical Performance Acceleration (CPA) team for her exceptional work on order set and pathway initiatives.

Marie Collins Hespén, director of clinical performance acceleration, describes why Joy was awarded this honor: “Joy consistently applies principles of evidence-based medicine and order set governance when leading and participating in CPA meetings with teams of providers and clinicians. She is a proponent of standardization of workflows and formularies across the ministry to ensure safe, quality patient care. Joy understands various workflows, maintains excellent relationships with clinicians across the ministry, is well-respected and sought out for her thoughtful insight, is knowledgeable in local/regional formularies and drug pricing across the ministry, and frequently seeks out expert opinion as needed.”

2018 MLT Innovation Hall

Innovation Hall

Innovation Hall is part of Mercy’s fall Ministry Leadership Team (MLT) meeting, which focuses on innovation throughout the ministry. Co-workers from every community come together to showcase their efforts designed to improve patient care and drive performance.

In October 2018, more than 120 teams presented their work to attendees. Projects included those to advance and support patient experience, co-worker/provider experience, cost and efficiency, and quality and safety. The top three innovators in each category were chosen to orally present their team’s work.

 Winners from each category were chosen by a panel of judges, and conference attendees chose the “Innovation Award” winner from all projects submitted. In addition, Mercy’s leaders in Mission & Integration chose a project that highlighted a strong commitment to community to receive the “Community Excellence Award.” And for the first time, Mercy Research presented an award for “Researcher of the Year.”
2018 Innovation Hall Winners and Honorees

**Patient Experience**
*Improving Patient Experience: Contact Center Experience Transformation — Mercy Virtual*
Author: Pallavi Chandak

**Rapid Response Clinic**
Focused on Flu Epidemic — Mercy Fort Smith
Authors: Steve Gebhart; Sean Baker, DO; Michael Nolewajka

**Virtual Technology to Enhance Communication in the NICU — Mercy St. Louis**
Authors: Alison Cufman, MD; Meghan Haycraft; Wes Hoeffken; Dan Weidman; Parth Zaveri

**Co-worker/Provider Experience**
*The Preceptor to Mentor Program at Mercy Hospital St. Louis: A Fellowship Strategic Team Initiative — Mercy St. Louis*
Authors: Becky Allen, Mary Bekebrede, Julie Brooks, Elizabeth Gillam, Heather Miller, Bethany Westlake

**Journey to Centralized Laboratory Customer Service — Mercy Ministry Office**
Authors: Jennifer Reichert, Steven Maas, Matthew Bauman

**Mercy Virtual Connect — Mercy Virtual**
Author: Ashok Palagiri, MD; Brian Miller, MD; Asim Thakore; Tracy Schulz; Meri Young; Adale Metscher; Joe Kline; Maryann Copenhaver

**Cost and Efficiency**
*Health Leads: Addressing Social Determinants of Health in the Primary Care Clinic Setting — Mercy Jefferson*
Author: Chrissy Oberle

**GIG Service Line Prioritization-Mercy Ministry Office**
Authors: Clare Ciaccio, Colleen Durawski, Chandra Mowl, Leah Shea

**Mercy Kids Connect: Coordinated Service-oriented Access to Kids Care Results in Growth — Mercy Ministry Office**
Authors: Elizabeth Kubik; Joseph Kahn, MD

**Quality and Safety**
*Ministry-Wide Patient Blood Management Efforts Positively Impact Transfusion Metrics — Mercy St. Louis*
Authors: Emily Schindler, MD; Kim Skinner; Sheila Tod; Will Sistrunk, MD

**Mercy Opens Free COPD Education Center to Help the Community Breathe Easier — Mercy Washington**
Author: Kelly Bain, MD

**Interdisciplinary Approach to Immediate Use Steam Sterilization Reduction — Mercy Washington**
Authors: Amelia Payne, Cayla Wallace

**Community Excellence Award**
vKids Engagement: In-Home Virtual Care of Medically Complex Children — Mercy St. Louis
Authors: Alison Cufman, MD; Ann Wilson; Cheryl Graves; Parth Zaveri; Meghan Haycraft

**Most Innovative Award**
Virtual Technology to Enhance Communication in the NICU — Mercy St. Louis
Authors: Amy McLean; Brandi Buzzetta; Alison Cufman, MD; Meghan Haycraft; Wes Hoeffken; Dan Weidman; Parth Zaveri

**2018 Researcher of the Year**
Farid Sadaka, MD — Mercy St. Louis

**Community**
Excellence Award

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**Quality and Safety Community Benefit**

St. Louis Area Foodbank
Mercy Quality and Safety co-workers assisted in sorting, boxing and repackaging food for families and seniors in need in the St. Louis area.

Operation Christmas Child
Mercy co-workers donated shoeboxes full of toys, hygiene items and school supplies for the Samaritan’s Purse Operation Christmas Child program. These shoeboxes are shipped to local churches in more than 100 countries where they are distributed to young boys and girls in need.

Wreaths Across America
Just before Christmas, Mercy co-workers helped Jefferson Barracks National Cemetery remember and honor our veterans by laying remembrance wreaths on the graves of our country’s fallen heroes.

Maryland Heights Fall Service Day
Volunteers from the Quality and Safety department assisted the elderly and disabled with raking leaves, pulling weeds and other miscellaneous yard work during the fall season.

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**Additional Service Projects**

- Saint Augustine Wellston Center Thrift Store Volunteer
- Christmas Giving Tree
- Sparrow’s Nest Volunteer
- City of Saint Louis Food Outreach
- Mercy Kids Food Drive for Ronald McDonald House
- Quarterly Virtual Food Drives
- Friday Jeans Donation ($1,068)

*Denotes winner
The Quality Committee of the Board assists the Mercy Health Ministry Board of Directors by providing oversight for clinical quality and safety across all Mercy venues of care. The Committee discusses key topics and makes recommendations related to areas that impact Mercy’s ability to achieve exceptional clinical quality and safety including inpatient, ambulatory, post-acute, subacute, mental and behavioral care and spiritual care as elements of holistic care excellence, in a manner that furthers the mission and purpose of Mercy.

Members of the Committee:

Lynn Britton (Ex-Officio)  
President and CEO, Mercy

Sister Mary Jeremy Buckman  
Professor Emeritus and Volunteer  
Mercy Center

Sister Mary Chabanel Finnegan, RSM  
Ethicist, Catherine’s Manor

Chris DeRienzo, MD  
Chief Medical Officer  
Cardinal Analytix

Patricia Folcarelli, RN, PhD  
Vice President, Health Care Quality  
Beth Israel Deaconess Medical Center

John Harvey, MD  
President, Oklahoma Heart Hospital

Patti Harvey, RN, MPH, CPHQ  
SVP, Quality, Regulatory & Clinical Operations Support  
Kaiser Foundation Health Plan

Steve Littlejohn  
Principal

Timothy I. Morgenthaler, MD  
(Chair)  
Division of Pulmonary and Critical Care Medicine, Mayo Clinic

David Pratt (Ex-Officio)  
Rex Realty Co.

David G. Schulke  
Health Quality Strategies

Michael Shabot, MD  
Executive Vice President, Chief Clinical Officer, Memorial Hermann Healthcare System

Steven L. Solomon MD, FACP, FIDSA  
RADIM, Asst. SG (Ret), U.S. Public Health Service, Global Public Health Consulting, LLC

Terri-Anne Bone  
Chief Quality Officer-West, Mercy

Robert M. Cavagnol, MD  
President, Mercy Clinic-Springfield

Vicki Good  
Chief Quality Officer-Central, Mercy

Marc Gunter, MD  
President, Mercy Clinic

Kathryn Nelson  
Chief Quality Officer-East, Mercy

Gavin Helton, MD  
President, Mercy Virtual – Clinical Integration

Joseph Kahn, MD  
President, Mercy Kids

Jon Lakamp, PharmD, BCPS  
Vice President, Pharmacy, Mercy

Mike McCurry  
Executive Vice President and COO, Mercy

Fred McQueary, MD  
President, Ambulatory Care/Chief Clinical Officer, Mercy

Betty Jo Rocchio  
Chief Nursing Optimization Officer, Mercy

James T. Rogers, MD  
Vice President, Adult Primary Care, Mercy Clinic

Keith Starke, MD  
Senior Vice President/Chief Quality Officer, Mercy

Jon Vitiello  
Senior Vice President, Financial Operations and Analytics, Mercy

Robyn Weilbacher  
Chief Nursing Officer, Mercy Hospital St. Louis

Phillip Wheeler  
Senior Vice President/General Counsel, Mercy

“We should be as the compass that goes round its circle without stirring from its center — our center is God, from whom all our actions should spring as from their source.”

Catherine McAuley
Thank you for a successful year.