

2018 Annual Quality and Patient Safety Report

The Quality and Patient Safety program at the University of Illinois Hospital & Health Sciences System (“UI Health”) supports quality and safety improvement for UI Health’s entire scope of clinical operations including our hospital, clinics, and Mile Square Health Centers.

We also continue to partner and collaborate with UIC health sciences colleges and to pursue opportunities to align and integrate key quality and safety endeavors with other organizational priorities. Key 2018 highlights are briefly outlined below.

Quality & Patient Safety Division

Directed by UI Health’s Associate Vice Chancellor for Quality & Patient Safety and Chief Quality Officer, the Quality & Patient Safety division comprises four teams: Accreditation & Clinical Compliance, Infection Prevention & Control, Quality Performance & Improvement, and Patient Safety & Risk Management. In December 2018, the Health Information Management and Clinical Documentation Improvement teams were added to the division to enhance alignment of activities and the magnitude of collective impact.


Quality & Safety Strategy & Leadership Steering Committee

Established in early 2013, the Quality & Safety Strategy & Leadership Steering Committee (“QSSL”) continues to provide leadership, direction, and oversight to UI Health’s enterprise-wide quality and patient safety priorities, performance, and action plan. Its membership includes key clinical and operational leaders from across the clinical enterprise, the Office of the Vice Chancellor for Health Affairs, and UIC health sciences colleges.

FY19 Quality & Patient Safety Goals

In July 2018, UI Health’s Planning Construct including Goals, Initiatives, and FY19 Performance Goals were finalized. The FY19 Quality & Patient Safety priorities and performance targets have been set based on the University of Illinois Hospital and Clinics’ (UIH) historic performance as well as internal and external benchmarks. We have also worked to ensure alignment with how we are evaluated by regulatory and other rating organizations.

External Ratings: Weighting of Performance Dimensions



| | CMS Value-Based Purchasing | CMS Star Rating | US News and World Report | Leapfrog | Vizient Quality & Accountability |
|--------------------|----------------------------|-----------------|--------------------------|----------|----------------------------------|
| Safety | 25% | 22% | 5% | 50% | 25% |
| Mortality | 25% | 22% | 38% | | 25% |
| Patient Experience | 25% | 22% | | 16% | 10% |
| Readmission | | 22% | | | 8% |
| Other | 25% | 12% | 58% | 34% | 32% |

Our FY19 goals are as follows:

1. Quality:

- Reduce Sepsis Mortality Index by 20 to 33%
- Improve Postoperative Blood Clots by 20 to 50%
- Reduce 30-Day Readmission Rate by 15 to 25%
- Meet Minimum Surgery Volumes for 50% of designated surgery types
- Meet ICU Physician Staffing through Critical Care Certification requirement

2. Safety:

- Ensure Two Patient Identifier adherence exceeds 98%
- Reduce Patient Safety Events by 10 to 20%
 - Central Line-Associated Blood Stream Infections
 - Catheter-Associated Urinary Tract Infections
 - Surgical Site Infections
 - Post-Operative Deep Venous Thromboses and Pulmonary Emboli
 - Inpatient Falls Resulting in Injury
 - Hospital-Acquired Pressure Injuries
 - Medication Errors Resulting in Harm
 - Sentinel Events
- Reduce Employee Safety Events by 10 to 20%:
 - Sharps Injuries
 - Injuries from Patient and Equipment Handling
 - Slips, Trips, and Falls
 - Injuries from Physical Altercations

All improvement targets are relative to UI Health's baseline performance as of June 30, 2018. For each of these priority areas, multidisciplinary project teams and detailed project plans have been formed and implementation of those plans is continuing.

Performance is being tracked monthly by Senior Leadership and QSSL, and progress is shared broadly each month throughout UI Health.

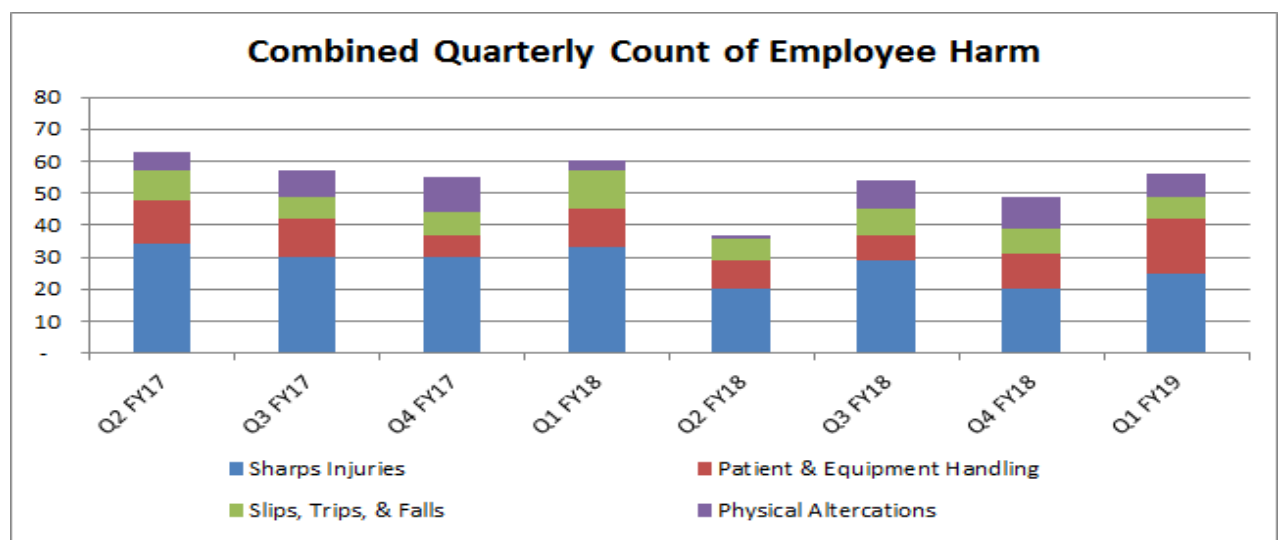
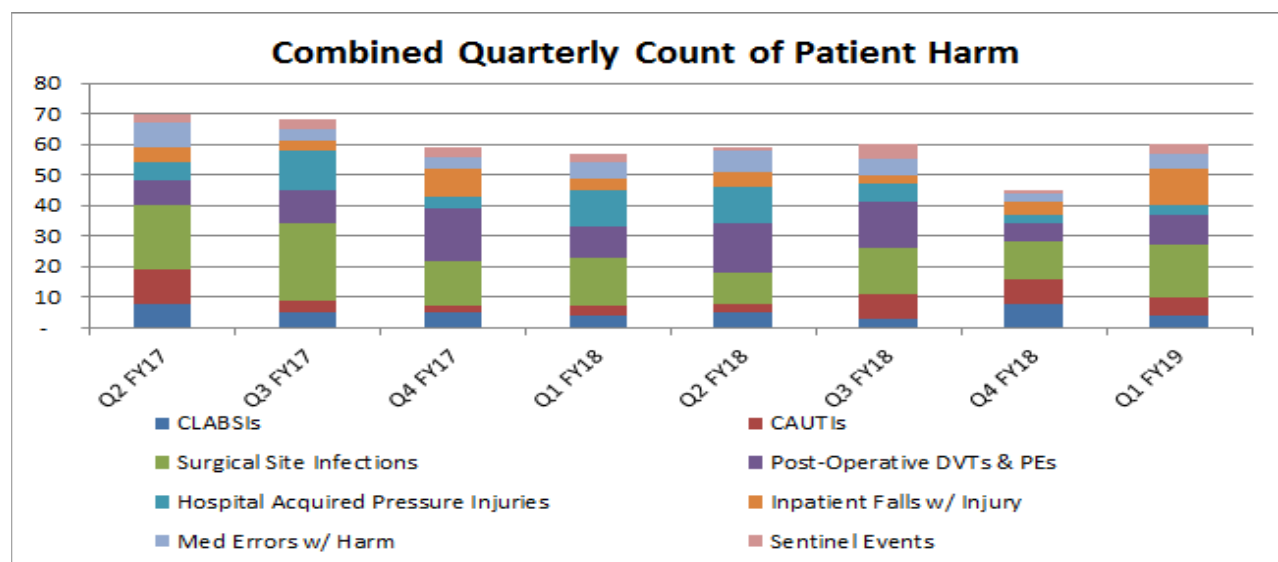
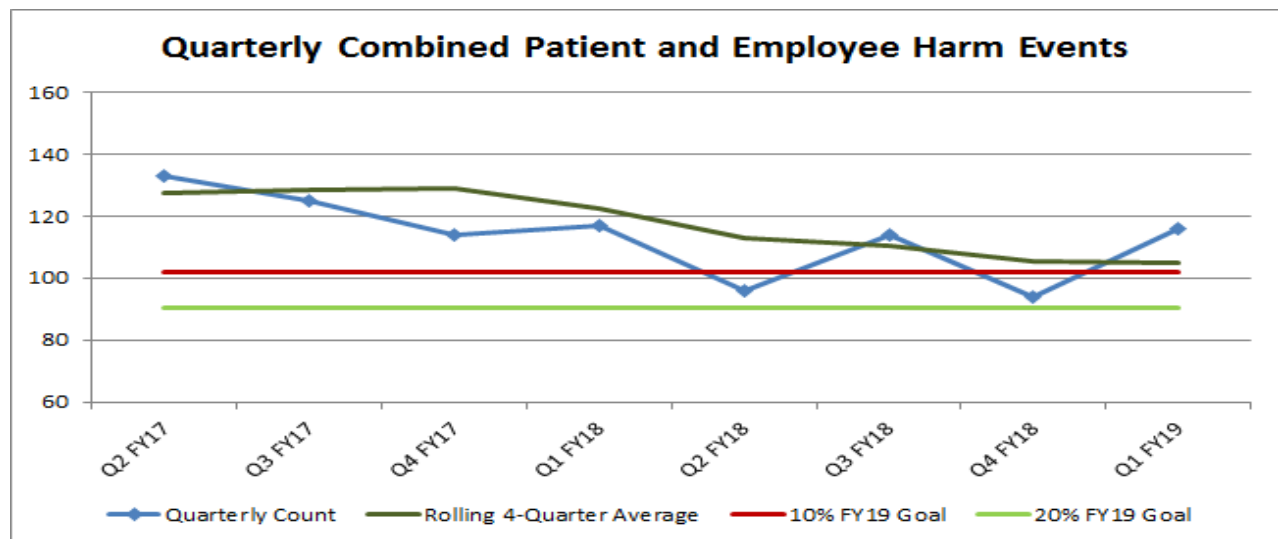
All of our teams will also be deeply engaged and actively supporting the successful development and implementation of Epic over the next 18 months.

Continuing Improvements and Quality & Safety Performance

The majority of our FY19 priorities were areas of focus in previous years. Wide-spread involvement and support from leaders and staff across our organization are resulting in continued measureable improvements in almost all areas, as summarized here:

| Quality & Safety Priority | CY18 Improvement (thru Nov 2018) | Improvement since 1/2013 |
|---|----------------------------------|--------------------------|
| Central Line-Associated Blood Stream Infections (CLABSIs) | 22% ▼ | 76% ▼ |
| Catheter-Associated Urinary Tract Infections (CAUTIs) | 10% ▼ | 63% ▼ |
| Surgical Site Infections (SSIs) | 29% ▼ | 27% ▼ |
| Hand Hygiene Compliance | 5% ▲ | 19% ▲ |
| Post-Operative Deep Venous Thrombosis (DVT) and Pulmonary Embolism (PE) | 4% ▼ | 58% ▼ |
| Inpatient Falls resulting in Injury | 27% ▼ | 33% ▼ |
| Hospital-Acquired Pressure Injuries | 31% ▼ | 63% ▼ |
| Medication-Related Harm | 5% ▼ | 17% ▼ |
| Employee Harm Events | 17% ▼ | 25% ▼ |
| Sepsis Mortality Index (Observed / Expected) | 1% ▲ | 10% ▼ |
| Total Inpatient Mortality Index (Observed / Expected) | 1% ▼ | 11% ▼ |

▼ ▲ Green arrows indicate improvement
 ▼ ▲ Red arrows indicate decline in performance



Accreditation & Clinical Compliance

The Accreditation & Clinical Compliance team facilitates ongoing readiness strategies to promote compliance with standards for accreditation by The Joint Commission (TJC), as well as other regulators including the Centers for Medicare and Medicaid Services (CMS) and the Illinois Department of Public Health (IDPH).

Methods utilized include risk assessments, improvement action plans, “tracers” (where patients and processes are followed through their normal course to analyze our systems of providing care, treatment, and services), team environmental rounds, staff huddles (brief regular meetings, for example at the start of each shift, where key information is shared with the entire team), policy development, an accreditation website with resources, and various education programs.

In 2018, the Accreditation team supported **numerous successful site visits** including:

- The Joint Commission Point of Care Testing (POCT) Laboratory Accreditation Survey
- The Illinois Department of Public Health (IDPH) Dialysis Recertification Survey
- Response to IDPH on Hospital compliance to Regionalized Perinatal Health Care Code
- CMS Complaint Allegation Investigations for the Neonatal Unit and Clinical Decision Unit
- Illinois Guardianship & Advocacy Commission Investigation
- Attestation for Inpatient Psychiatry Unit Exemption

In addition, Accreditation participated in **key initiatives supporting compliance standards**:

- Scoring of 100% of The Joint Commission standards in a Focused Standards Assessment, with implementation of action plans to achieve compliance
- Coordination of Patton Healthcare Consultation to perform regulatory tracers and advise on strategies to address and sustain performance
- Service as Advisory member of Medical Staff Bylaws Committee project to rewrite and enhance the Bylaws
- Redesign of the Advance Directives process to support patient rights and achieve compliance with federal and accreditation standards
- Redesign of Suicide Prevention processes for non-psychiatric units
- Creation of a team intranet site to organize resource materials of National Patient Safety Goal teams and promote communication and sharing of best practices.

Infection Prevention & Control

The Infection Prevention & Control team’s 2018 priorities included:

- Maintaining our improvements in **hand hygiene, central-line-associated blood stream infections (CLABSIs), and catheter-associated urinary tract infections (CAUTIs)**
 - CLABSI reduction efforts focused on 6W Medical Stepdown as well as 7W Organ Transplant/Surgical Intensive Care Unit
 - CAUTI reduction efforts focused on 8W Blood & Marrow Transplant unit
 - Two part-time staff were hired to improve hand hygiene compliance by providing real-time observation and feedback to clinical staff
- Continued leadership of **Surgical Site Infection multidisciplinary workgroups** with focus on:
 - Women’s Health – Abdominal and Vaginal Hysterectomy and C-Section
 - Spinal Surgery – Laminectomy

- Reducing healthcare-associated ***Clostridium difficile*** and other High Risk Organism infections
- Detailed ***analysis of each healthcare associated infection*** to identify patterns, trends, and opportunities for improvement
- Ongoing collaboration with University Health Service to eliminate ***sharps injuries and blood borne pathogen exposures***
- Continued partnership with ***procedural departments*** to ensure that all equipment is properly processed and disinfected
- Ongoing ***collaborations with leaders and staff*** to improve infection control practices and to educate patients and our workforce on key infection prevention topics
- Supporting the successful third year of our ***mandatory influenza vaccination program*** for all UI Health employees that achieved 100% compliance (6,064 out of 6,064 employees) during the 2017-2018 influenza season (October 2017 through March 2018). For the 2018-2019 season, only religious and medical exemptions are being permitted by the Illinois Department of Public Health.

Quality Performance & Improvement

Our Quality Performance & Improvement team continues to support UI Health in three primary ways:

1. Planning, analytic support, and project management for quality priorities
2. Data collection, analysis, and reporting of required quality performance metrics to external regulatory bodies and managed care programs
3. Expansion of UI Health's "improvement capability and capacity" through clinician education, consultation with leaders and staff, and facilitation of improvement teams

During 2018, the Quality team:

- Provided guidance as well as analytic and reporting support for UI Health's participation in the ***Great Lakes Practice Transformation Network***, a CMS-funded initiative aimed at assisting clinicians to prepare for effective participation in value-based payment systems
- Continued to perform ongoing analytics and reporting support for both the ***Blue Cross Blue Shield Managed Care*** outpatient programs and the ***Hospital Improvement Innovation Network*** initiative to reduce all-cause inpatient harm
- Delivered consultative and analytics support to multiple departments, including Pediatrics, Psychiatry, the Ambulatory Clinics (focusing on Diabetes and COPD), and Nutrition, as well as analytics support to the Department of Medicine
- Provided project management and process facilitation for many of UI Health's ***Quality and Safety improvement priorities*** including our ***Reducing Sepsis Mortality*** Steering Committee and workgroup. As an example, the Quality team facilitated the development and launch of a real-time electronic Sepsis Dashboard reflecting current performance on interventions that aid early identification and treatment; unit-level reports are pushed out to leaders for active follow-up on missed opportunities. Results over the past 12 months include a 21% reduction in sepsis-related deaths.
- Continued collaborations with UI Health Information Services staff, as well as external subject matter experts, to ensure compliance with mandatory electronic reporting of a subset of quality metrics (known as ***eCQMs***) to CMS and The Joint Commission

- **Hosted the 8th Annual Quality & Safety Fair**, which saw a sustained high level of participation as in previous years. There were 30 poster submissions describing a wide variety of initiatives resulting in improvements in processes, systems, care, and outcomes. Teams from four of our health sciences schools - Medicine, Nursing, Pharmacy, and Public Health - joined dozens of UIH multidisciplinary teams in highlighting improvement work that ranged from clinical topics like improving antibiotic stewardship in the ambulatory setting via educational interventions, dramatic reduction in urinary tract infection rates among females through use of an innovative external catheter, multi-modal pain relief (avoiding use of addictive opioids) in patients experiencing Sickle Cell Crisis, and reducing 30-day readmissions and improving patient experience scores through post-discharge phone calls with follow-up interventions.
- Facilitated the **Pain Management Committee's** successful integration of the medical record system with ILPMP, a statewide database that allows physicians to check whether patients have requested opioids from multiple physicians, and implemented the PORCH website, which houses referral information for complex pain patients and helpful resources such as opioid tapering and opioid overdose prevention toolkits
- **Improved Joint Commission core measure performance** related to inpatient psychiatric patients, achieving a 28% reduction in restraint rates and a 48% reduction in seclusion rates due to implementation of Trauma Informed Care

Patient Safety & Risk Management

Our Patient Safety & Risk Management team is continuing its work to provide risk identification, assessment, consultation, education, and support to further elevate and improve the safety of UIH care processes and systems.

Risk Identification

Implementation of an updated electronic patient safety reporting system was completed in January 2017. The enhanced system provides improved data analytics and access to comparative data from other academic medical centers through our membership in a Patient Safety Organization (PSO). Participation in a PSO provides a safe table environment for discussing safety events as well as access to best practices and process improvements implemented by other leading healthcare delivery organizations.

The first PSO Feedback Report comparing UIH's 2017 patient safety event data with other academic medical centers was received in August. Opportunities identified in the Report to focus patient safety initiatives and related process improvements include care coordination and communication related to against medical advice (AMA) discharges and patient hand offs during care transitions. Other potential areas of focus include events involving access to care and medication safety. The findings of the Report are currently under review by the Medical Staff Review Board (MSRB) and the QSSL. Based on evaluation of the Report's findings, these committees will recommend patient safety priorities to medical staff and administrative leadership.

Risk Management Consultation and Education

The Patient Safety & Risk Management team provides 24/7 coverage for consultation with clinical and operational leaders and staff. Additionally, senior risk managers are assigned to clinical service lines and attend quality improvement efforts, mortality and morbidity reviews, and staff meetings at both the enterprise and unit/service level to address risk issues and provide risk-focused education. The Patient Safety & Risk Management internal website facilitates access to additional resources and information on safety and risk topics for all UI Health staff and clinicians.

Two enterprise-wide process changes led by the Risk team in 2018 include informed consent redesign and surgical and procedural time-outs. Consent redesign addressed informing patients if their surgeon may perform overlapping surgery in the operating room. For all non-operating room areas, an abbreviated version of the informed consent document was implemented. The informed consent redesign addresses potential regulatory noncompliance issues such as surgical laterality, use of interpreters, and surgical team participants. Similarly, the procedural time-out redesign involved enterprise-wide engagement of hospital staff. Ongoing monitoring of both processes demonstrates significant improvement in compliance and care processes.

Risk Management Assessment

The Patient Safety & Risk Management team provides ongoing assessment of high-risk areas for UIH and helps facilitate comprehensive reviews when potential patterns emerge. The Obstetrics Task Force convened in early 2017, in response to a comprehensive risk assessment, recently completed its work plan and has been replaced by an Obstetrics Steering Committee. The Senior Director of Risk serves on this committee, and the Risk team continues to facilitate policy and procedure development, process redesigns, and achievement of specific improvements such as door to provider time in the Obstetrics Emergency Room. Similarly, the Risk team is continuing to support risk- and safety-related improvements identified in a comprehensive review of our Child & Adolescent Treatment Unit that was completed in late 2017.

Patient Safety Services

Evaluating the safety of our care processes and systems includes the investigation of patient safety events and sentinel events – patient safety events that result in death, permanent harm, or severe temporary harm. Using an evaluation process aimed at determining the root causes of patient safety events, the Patient Safety & Risk Management team formally investigated 47 patient events from January through November 2018, 13 of which were deemed sentinel events. The most commonly occurring contributing factors identified as part of the root cause analysis were the lack of standardized workflows, variations in practice, and inadequate communication.

The following significant patient safety events occurred and were evaluated in 2018 (sentinel events are asterisked):

- Bioburden reaching the patient (3)
- Contaminated surgical tray
- Elopement of a psychiatric patient from the Emergency Department
- Fire in a surgical or procedural area (2)*
- Imaging procedure performed on the wrong patient (2)

- Inappropriate sexual contact complaint (3)
- IV infusion pump malfunction resulting in medication overdose
- Medication error with death*
- Medication error with severe temporary harm*
- Patient fall resulting in harm (6)*
- Patient monitoring in the GI lab (staffing and scheduling issues)
- Radiation therapy to wrong body area*
- Significant Physician care complaint (2)
- Suicide attempt by a patient on the Child and Adolescent Treatment Unit*
- Unintended retained foreign object following an invasive procedure*
- Workplace violence – assault of employee (2)
- Wrong site needle localization*

Evaluation of these patient safety events has led to identification and implementation of improved processes and systems. These include standardized work flows, definition of standard work to reduce process variation, policy and procedure development and revision, work schedules to accommodate patient acuity, equipment upgrades, and staff education.

The Patient Safety & Risk Management team facilitates full disclosure to our patients and families when harm occurs. Team members provide coaching to clinicians preparing for communications with patients and families; they also attend and facilitate patient and family meetings involving communication of adverse events as requested. In addition, the team activates peer-to-peer support for clinicians who have been involved in or affected by patient harm events.

Safety Committee

The Safety Committee is a multi-disciplinary committee whose charge includes improving patient safety through implementing The Joint Commission's National Patient Safety Goals (NPSGs) and other hospital safety initiatives. The focus of the NPSGs includes: clinical alarm management; medication reconciliation; preventing surgical errors; preventing patient identification errors; improving prevention of blood clots; communicating critical test results; improving medication labeling in surgery and procedures; infectious disease prevention; and suicide screening and prevention. Additional hospital safety initiatives overseen by this Committee include drug diversion, workplace violence, sharps injuries, rapid response teams, and environment of care. The Safety Committee reports annually to the Medical Staff Executive Committee and quarterly to the Senior Executive team.

Culture of Safety Action Plan and Survey

Our Culture of Safety Survey was administered in March 2018, demonstrating improvements in all categories in both our Inpatient and Ambulatory settings from our last survey in September 2016. 80 new team-based Action Plans were created, and UIH's Senior Executive team created an organization-wide Culture of Safety Action Plan that aligns with our overall UI Health Planning Construct, Goals, and Priorities. The next Culture of Safety Survey will be administered in Fall 2019.

Participation in National Programs

The Director of Patient Safety & Risk Management serves as Chair of the Academic Medical Centers Risk Network for Vizient, a healthcare member organization comprised largely of academic medical centers whose goals include improving patient safety. This year, in addition to planning and presenting at the annual Risk Management Network meeting, the Director presented at two Vizient national programs on the topic of drug diversion.

Peer Review Program Development

In support of a physician-led initiative to implement a multi-specialty peer review program, the Risk team has partnered with the office of the Chief Medical Officer (CMO), Medical Staff elected leadership, and the Medical Staff Office to develop a care review system that recognizes physician excellence as well as opportunities for improvements. The initiative is also supported with the assistance of Greeley Consulting, a physician led company specializing in peer review and medical staff credentialing redesign. Five physician enterprise metrics were developed along with a phased roll-up of indicators that will be validated by each of the 22 medical staff departments. Other important work completed in 2018 includes development of a peer review policy, procedure, and charter, Medical Staff Bylaws revisions, and the structure and staffing plan for the Physician Excellence department. The Physician Excellence department will be led by the Senior Director of Risk, with reporting alignment for this function to the CMO. The Physician Excellence Review Committee (PERC) will formally begin meeting in January 2019; each of the 22 medical staff departments has a designated representative on the PERC.

Supporting our Education and Research Missions

Our Quality & Patient Safety teams continue to provide support, consultation, and facilitation for the important body of work that collectively comprises UI Health's performance improvement journey. Some examples include the following:

- We are partnering with the College of Medicine to ensure successful implementation of the new Association of American Medical Colleges (AAMC) Entrustable Professional Activities (EPAs), primarily EPA13: Identify system failures and contribute to a culture of safety and improvement.
- We redesigned and deliver all course content on Quality and Patient Safety for the School of Public Health's Masters in Healthcare Administration (MHA) and Executive MHA programs.
- We advised the College of Nursing on its Bachelor of Science in Nursing and Doctorate of Nursing Practice curriculum revisions, including the development of Quality and Patient Safety courses that we help teach.
- We developed and deliver a Quality in Health and Healthcare course for the College of Medicine's Department of Medical Education.
- Our leaders and staff also continue to provide frequent classroom training for undergraduate and graduate programs at most of our health sciences colleges.
- We continue to offer training to leaders and staff throughout our hospital and clinics on Improvement Methodology and basic improvement tools and techniques.
- A Leadership Book Club established in 2015 continues to serve as a forum for leaders across departments and disciplines to learn together and support each other through the challenges and successes of our efforts to improve care and outcomes at UI Health.

- We are currently partnering with the department of Graduate Medical Education, Program Directors, and attending physicians with expertise in improvement methodology on a standardized Quality Improvement curriculum for residents and fellows.