DONALD D. WOLFF JR.
CENTER FOR QUALITY, SAFETY, AND INNOVATION AT UPMC

Ensuring the right patient gets the right care, at the right time, in the right way...every time

Annual Report | Fiscal Year 2013

RELIABILITY
Proving Right Care Every Time

WELCOME TO THE 2012 SL. LORENZO III UPMD QUALITY AND PATIENT SAFETY SYMPOSIUM
September 21, 2012
Interprofessional Teams at UPMC Cancer Institutes: UPMC Students

2013 UPMC ‘Your Care. Our Commitment.’ Patient Experience Symposium

Your Care. Our Commitment.

UPMC CENTRAL LINE BUNDLES

Patient Blood Management
Life’s Liquid Organ

ED U-TURN TO HOME CARE
Helping your patients get home where they belong

The Beckwith Institute
Together we can make your idea a reality!

Just TALK about it!

Become an advocate for a Just Culture
Raise your hand for patient safety
• Speak up for patient safety
• Provide open and fair treatment of all employees
• Encourage learning
• Design safe systems for both patients and employees

SPREAD THE WORD NOT THE GERMS
CLEAN YOUR HANDS
Dear UPMC patients, families, and colleagues:

Amid the ever-present national and local health care transformation and its accompanying challenges, the Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC remains focused and dedicated to achieving high-quality, reliable patient care. For more than seven years, the center has collaborated with system leadership and local sites to provide education, propel innovation, and foster dissemination of evidence-based practices that save lives, reduce harm, and lower costs. Guiding our efforts is a data-driven analytic strategy that enables us to detect meaningful differences, which, in turn, allow providers, patients, and families to make more objective health care decisions with greater confidence. Shepherding that quantitative strategy is a principle of caring, one that spans our patients, our members, their loved ones, and each other.

This second annual report builds on our previous work and details projects and outcomes in Fiscal Year 2013. As you read further, you will discover the wide range of our nearly 90 initiatives, a testament to our unwavering commitment to quality of care and patient safety at UPMC.

Thank you to all who diligently contribute to the work of the center and the entire system to place UPMC health care among the best in the country. We do this for our patients who trust and rely on us every day.

Sincerely,

Tamra Minnier, RN, MSN, FACHE
Chief Quality Officer, UPMC
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Quality information, resources, and educational tools can be found on UPMC Infonet at Infonet.UPMC.com/QualityEducation.
EXECUTIVE SUMMARY

MISSION
The Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC is an enterprisewide resource that supports the transformation and improvement of patient care delivery and outcomes utilizing patient-centered cost, quality, and service metrics. We provide quality improvement leadership, education, and a support infrastructure to health professionals across UPMC. The center strives to achieve high reliability in all aspects of patient care by increasing the pace of improvement in quality and disseminating best practices throughout the organization. Our quality vision is creating an environment in which the right patient gets the right care, at the right time, in the right way... every time. In addition, this environment supports a culture of safety in which individuals feel free to speak up about errors or near misses to keep our patients safe.

OUR TEAM
The Quality Center is staffed by 50 trained professionals who provide expertise and leadership for assessing, developing, implementing, and improving care-delivery processes. In collaboration with hospital leadership and staff, they identify tools and techniques that can help solve the problems inherent in today’s health care delivery environments.

AIM/STRUCTURE
This report provides a review of the work of the Quality Center during FY13. Projects are presented by goals and outcomes and organized by core content areas, including Patient Safety; Performance Measurement and Reporting; Accelerating Improvement; Improving Patient and Family Care Experiences; Innovative Care Models for Improvement; Promoting Effective and Efficient, Evidence-Based Care and Appropriate Resource Utilization; Quality Education; and Patient Care Innovation and Shared Decision Making: The Beckwith Institute. Interspersed throughout the content areas, you will find both systemwide and local (denoted by L) projects. Driven by national quality goals, our systemwide initiatives are characterized by a willingness of many different stakeholders to come together in partnerships to achieve improvement. In complement, our local projects support the uniqueness of our varied settings, thereby acknowledging the value of individually tailored interventions and change, while at the same time recognizing the potential for the spread of excellence and best practices.

PRODUCTIVITY
FY13 has emerged as productive and rewarding. The Quality Center team actively engaged in 88 projects with notable strides in the areas of patient safety, blood management, patient satisfaction, data analytics, care coordination, and implementation of local change initiatives through The Beckwith Institute. This work spanned our hospitals, senior communities, international sites, Physician Services Division, and UPMC Health Plan.
Across the enterprise, individuals hold varied experiences and perspectives on what we do and the differences we make. The Quality Center has grown in size, maturity, and impact over the past seven years, and our team is most grateful for the opportunity to serve the UPMC community.

“At ISMETT, we highly value the collaboration with the Quality Center. When facing a complex clinical operations or quality and patient safety challenge, our first point of reference is the Quality Center team. They are comprehensive in their approach, resourceful, energetic, enthusiastic, innovative, and they get the job done.”

— Cheryl Brill, RN, MPM, FACHE, vice president, Clinical Operations, International and Commercial Services Division, and vice president and CNO, ISMETT

“After completing the six-month Quality Education Series in March 2013, Team Grilled Cheese says, ‘When you start with QUALITY (the Quality Center), you can expect to finish with Quality.’”

— Richard Hart, production manager, UPMC St. Margaret Dietary and Cafeteria

“The UPMC Quality Patient Care Committee and our entire Board of Directors are focused on providing the best possible care for our patients. Quality Care, continuous improvement, and transformative innovations are the core of our mission.”

— Marlee Myers, Esq., Chair, Quality Patient Care Committee

“The center is collaborative, respectful, and courteous... they engage, they listen, and they provide a perspective that always focuses on quality in the patient experience. Our frontline staff welcome the Quality Center staff into the Registration Department as team members, and it is a privilege to have such a solid partnership!”

— Georgina Trunzo, executive director, UPMC Presbyterian Patient Access

“As a member of the Ticket to Ride team, I was immediately impressed, not only with the Quality Center’s commitment to the well-being of the patient but also their thorough knowledge of how UPMC systems, outside of their own, operate. Because of that, in the Ticket to Ride, we created something that is constantly evolving, with patient safety always the mission.”

— Patrick Evans, transporter, UPMC Presbyterian Transportation Services

“Give them an objective and they will make sure it gets done (well). They think outside the box and have a wide range of skills, big hearts, and extraordinary knowledge. Most importantly, they are dedicated to promoting high-quality palliative care throughout the system for patients and families.”

— Robert M. Arnold, MD, Leo H. Criep Chair in Patient Care, Professor of Medicine, Chief, Section of Palliative Care and Medical Ethics and Center for Bioethics and Health Law, University of Pittsburgh and Chief Medical Officer, UPMC Palliative and Supportive Institute

“Having taken five of the quality education classes offered by the Quality Center, I have found every one of them valuable and stimulating and have learned a new piece of information that I could use immediately. It has been great to be able to access quality resources on Infonet, but the best thing has been to get to know colleagues with whom I can talk and exchange information. A vast amount of information and expertise is just a phone call away.”

— Fatemeh Hashtroudi, quality analyst and program coordinator, Community LIFE
PATIENT SAFETY

At the Donald D. Wolff Center for Quality, Safety, and Innovation at UPMC, nothing is more important than the safety of our patients. Patient safety, at its core, is indistinguishable from the delivery of reliable, evidence-based, quality care. To this end, the Quality Center guards the enterprise and partners with locally based quality teams to put in place structures and mechanisms that help us to reliably implement evidence-based practices, improve clinical processes and outcomes, and keep our patients safe. As we appreciate the potency of culture and transparency in safety efforts, some of our activities target core thinking and values while others take on a more clinical focus to reduce preventable hospital-acquired conditions, an unfortunate national burden much worse than initially thought more than a decade ago.

A JUST CULTURE

Goal
Provide education and spread principles for A Just Culture across UPMC and promote application of the A Just Culture Decision Tree to all patient safety events.

Outcomes
• Conducted ongoing A Just Culture education forums for 530 managers via local and systemwide programming.
• Developing A Just Culture Review Team Toolkit. Now in final stages of development.
• Created an Infonet site for ongoing communication and tools at Infonet.UPMC.com/AJustCulture.
• Recruited a leadership team to include administrative and human resource leaders.
• Planning the second A Just Culture planning phase, which will entail:
  > Education for employees
  > Development of local infrastructure to support A Just Culture at each hospital site
  > Establishment of performance measures
  > Application to critical events in nonclinical departments

BLOODBORNE PATHOGEN SAFETY TASK FORCE

Goal
Reduce health care worker exposure risk by minimizing or eliminating exposure incidents to bloodborne pathogens.

Outcomes
• Worked with the Bloodborne Pathogen Task Force and the Infection Prevention and Control System Committee.
  > Evaluated and updated the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard Exposure Control Plan.
  > Provided up-to-date education to appropriate staff through annual mandatory uLearn modules.
  > Reviewed and disseminated current regulatory requirements concerning bloodborne pathogens.
  > Provided support to facilities during regulatory inspections and remediation processes.

CATHETER-ASSOCIATED URINARY TRACT INFECTION (CAUTI) REDUCTION CAMPAIGN

Goal
Reduce the CAUTI standardized infection ratio (SIR) across UPMC to below 1.0.

Outcomes
• Developed a back-to-basics care campaign to reinforce the following:
  > Using back-to-basics tools, including screen savers, a one-page care information, and an updated policy and procedure
  > Performing perineal care prior to urinary catheter insertion
  > Cleaning the perineal area and catheter with antimicrobial soap daily and as needed with bowel movements
  > Assessing for catheter necessity every shift, considering alternatives, and removing as soon as possible using the nurse urinary catheter removal protocol
  > If a urinary catheter is necessary:
    - Use a STATLOCK® device to secure the catheter.
    - Keep the catheter tubing free of kinking and keep the tubing straight for flow and drainage.
    - Keep the collection bag below the level of the bladder at all times and maintain the integrity of catheter tubing connections.
  > Reduced the CAUTI SIR to less than or equal to 1.0 for 11 of the 13 UPMC hospitals. The SIR is an indirect standardization method that allows for summarizing hospital-acquired infection (HAI) experience over time across stratified data groups and compares a hospital’s rate of infection to a national standard. It is calculated by dividing the number of observed infections by the number of expected infections, which is derived from a standard population during a baseline time period, as reported by the National Healthcare Safety Network (NHSN).

CULTURE OF SAFETY SURVEY AND STEERING COMMITTEE

Goals
• Facilitate planning and administration of the 2012 Culture of Safety Survey to measure safety attitudes across the enterprise at the unit level.
• Develop the pre- and post-survey process, training, coaching, and feedback for local survey teams and the system at large.
Establish and support the Culture of Safety Steering Committee to foster best practices and provide a framework for debriefing, delivering feedback, and monitoring ongoing survey follow-up.

Domestic Outcomes
• Led a team of UPMC patient safety officers in survey preparation, which included mapping business unit work settings and identifying respondents to ensure high-quality survey data.
  > Deployed five hospital versions, a nursing home version, and a medical office version of the survey.
  > Mapped 858 distinct work settings (individual departments or groups of employees) across 32 facility entities.
• Established a communication plan to keep leadership and staff abreast of survey facts and timelines (with Corporate Communications).
• Developed custom survey questions for the UPMC Center for Inclusion.
• Deployed the survey April 30, 2012: Of the 32,267 surveys administered, 18,721 responses were received for a 58 percent overall response rate.
• The Steering Team identified two priorities: 1) handoff and transitions practices and 2) nonpunitive response to errors.
  > Conducted current state assessment of Ticket to Ride to determine sustainability.
  > Engaged Leadership Development Intensive (LDI) team to consult on handoff and transition practices and deliver a debriefing tracking tool.
• Concluded that the 2014 Culture of Safety Survey will be conducted using internal resources rather than an external vendor.

International Outcomes
ISMETT and UPMC Beacon Hospital participated in the Culture of Safety Survey.
• ISMETT
  > Presented data to leadership.
  > Started to conduct debriefing sessions in March 2013.
• UPMC Beacon Hospital
  > Completed a collation of departmental action plans intended to identify common themes and interventions among departments.
  > Developed a communication and hand-off tool.

FALL HARM PREVENTION
Goal
Reduce systemwide falls and falls with injury.

Domestic Outcomes
• Served as systemwide liaison to communicate with fall key contacts and expedite shared learning.
• Went live with fall documentation enhancements within the electronic health record May 1, 2013.
• Removed the actionable falls report and introduced the falls nursing dashboard, which allows real-time fall audit observation of documentation and real-time feedback.
• Revised patient falls policy.
• Revised uLearn module for clinical staff.
• Tracking systemwide total fall rates and fall with injury rates via run charts. Over the past fiscal year, our total fall rate is approaching a downward shift, and our falls with injury rate is showing random variation.
• Changed the Cognos Inpatient Falls Report to show detail of fall location, including falls data by unit level along with overall falls data by facility.
• Standardized fall equipment for system; replaced bed alarms with Sitter Elite™ for all facilities.
• Updated the Hospital Engagement Network (HEN) Fall Toolkit on the Fall Safety Inforet page. The audit tool assesses correct fall risk patient assessment, documentation, and intervention implementation.
• Provide systemwide fall conference calls and WebEx web conferences periodically.
• Support sharing the Fall Toolkit with international facilities, new acquisitions, and merging facilities.

International Outcomes
• UPMC Beacon Hospital and ISMETT collaborated with the Fall Harm Prevention Initiative.
• UPMC Beacon Hospital presented its findings via a poster at the National Patient Safety Conference in Ireland.

HAND HYGIENE CAMPAIGN
Goal
Promote hand hygiene as a priority and an integrated part of the UPMC culture.

Domestic Outcomes
• Launched a three-year hand hygiene campaign, starting in May 2012.
• Supported facility implementation of a local Hand Hygiene Task Force.
• Promoted hand hygiene campaign awareness through a website toolkit:
  > Digital message boards, posters, fliers, and banners
  > Hand hygiene campaign kick-off videos
  > Promotional items, including hand sanitizers, table tents, and pocket cards
• Provided hand hygiene education:
  > Hand hygiene staff education PowerPoint downloadable from the toolkit
Evidence-based research articles in the toolkit
World Health Organization (WHO) Five Moments of Care incorporated into new employee orientation and UPMC Annual Employee Competencies
- Developed patient education materials.
- Instituted monthly support calls with local task force leaders.
- Standardized the Trading Spaces Observation Tool.
- Created a web-based data collection tool that will provide a system database for hand hygiene data.
- Increased systemwide hand hygiene compliance from 63 to 80 percent.

International Outcomes
- Aggregated data and shared quarterly with the quality managers.
- UPMC Beacon Hospital compliance was 83 percent.
- ISMETT compliance was 100 percent.

HILLMAN CANCER CENTER GUARDRAIL COMPLIANCE IMPROVEMENT PROJECT
Goal
Improve Alaris® IV pump compliance at Hillman Cancer Center.

Outcomes
- Developed a computer-based training module for Alaris® IV pump use based on data obtained from compliance rounds.
- Developed a new protocol for titration of drugs on the Alaris® IV pump within the safety net of the drug library.
- Provided educational support for a computer-based training module and inservices for the new medication titration process. All registered nurses at Hillman completed the education.
- Based on repeat compliance rounds, Alaris® IV pump compliance for administration of intravenous medications increased from 46.5 to 90 percent at Hillman.
- Provided Alaris® IV pump education for all outpatient medical oncology sites within the UPMC CancerCenter network.
- Gave a poster presentation at the Infusion Nurses Society Annual Conference, Charlotte, N.C., in May 2013.

HOME INTRAVENOUS (IV) ANTIBIOTIC DISCHARGE PLAN OF CARE
Goals
- Improve communication and coordination of care across the continuum for patients discharged to home on IV antibiotics.
- Design a reliable process for identification of patients for whom IV antibiotics are ordered on discharge.
- Evaluate technological solutions for physician consultation and notification.
- Consider a relational flow sheet for antibiotic drug doses and therapeutic drug levels.
- Decrease unnecessary readmissions for antibiotic-related adverse events.

Outcomes
- Built an IV antibiotic “filter table” that is applied during the discharge medication reconciliation to capture both the patient and the prescribed medication.
- Created an IV Antibiotic Discharge Plan of Care Power Form that automatically opens within the electronic health record as an inclusive, postdischarge order. Features include:
  > Patients with IV antibiotics ordered on discharge are added to the Home Health Care Liaison eRecord Task List to finalize discharge plans.
  > The Power Form is electronically transmitted to multiple downstream providers and information systems: the “following provider” is notified via MedTrak and content is included in the Depart Clinical Summary for the primary care physician. The IV Antibiotic Discharge Plan of Care Power Form is captured in the referrals to home health agencies and infusion services. The form is also transmitted to the EpicCare Ambulatory Electronic Medical Record for outpatient management.
- An EpicCare Home IV Therapy Encounter Navigator Flow Sheet was implemented to align drug dosages and therapeutic drug levels.

HOSPITAL AND HEALTH SYSTEM ASSOCIATION OF PENNSYLVANIA (HAP) AND HOSPITAL ENGAGEMENT NETWORK (HEN) PROJECT
Goal
The Centers for Medicare and Medicaid Services Partnership for Patients initiative is a public-private partnership working to improve the quality, safety, and affordability of health care for all Americans. Through the Partnership for Patients, 26 state, regional, and national hospital system organizations serve as HENs. These organizations help identify solutions that are already working to reduce hospital-acquired conditions and share these solutions with other hospitals and health care providers. HAP was selected as a HEN. Hospitals within the state of Pennsylvania have volunteered to actively engage in the data collection and submission of hospital-acquired conditions. Involvement includes working together to implement strategies aimed at improving the quality and safety of care delivery across 10 hospital-acquired conditions (Pressure Ulcer Prevention, Preventable Readmissions, Surgical-Site Infections, Central Line-Associated Blood Stream Infections, Ventilator-Associated Pneumonia, Obstetrical Adverse Events, Venous Thromboembolism, Adverse Drug Events, Falls Prevention, and Wrong-Site Surgery).
Outcomes
• All UPMC hospitals (in this first year) have joined to actively participate in at least one project, including Readmission Reduction, Obstetrical Adverse Events, and Falls Prevention, and have agreed to submit data on all 10 projects as the program develops.

HOSPITAL-ACQUIRED PRESSURE ULCER PREVENTION: INTERRATER RELIABILITY PILOT

Goal
Evaluate the interrater reliability of the SKIN Pressure Ulcer Risk Assessment Tool to assess the degree to which different nurses make consistent estimates of pressure ulcer risk.

Outcomes
• Designed and conducted a pilot study involving one UPMC Presbyterian unit and one UPMC Shadyside unit.
• Assessed skin risk for 18 patients using 18 different pairs of nurses.
• Overall scale percent agreement was 78 percent. An adequate level of agreement is generally considered to be 70 percent in the early stages of instrument development.
• Subscale percent agreement was:
  > S (sensory impairment): 33 percent
  > K (limited mobility): 100 percent
  > I (increased moisture): 33 percent
  > N (inadequate nutrition): 73 percent
• Continuing descriptive analysis and plans for future.

INFECTION CONTROL FORUM

Goal
Establish the Infection Prevention and Control Forum to facilitate a collaborative environment for networking and education.

Outcomes
• Established membership consisting of all infection preventionists, infection control coordinators, and infection control medical directors.
• Developed a quarterly meeting timeline.
• Incorporated data presentations to facilitate systemwide discussion on hospital-associated infection (HAI) reduction.
• Established WebEx communications for members who are unable to travel to Pittsburgh.
• Focused on educational topics that are current, quality improvement-oriented, and patient-centered.
• Facilitated ongoing continuing medical education process for attendees.

INFECTION CONTROL UPMC SENIOR COMMUNITIES

Goal
Incorporate five UPMC Senior Communities infection prevention and control practitioners (IPs) into UPMC infection prevention and control practices and activities.

Outcomes
• The corporate infection control coordinator served as a resource to the UPMC Senior Communities IPs through phone conferences and email communications. The coordinator also attended UPMC Senior Communities IP meetings to provide education and support.
• Added a representative from UPMC Senior Communities to the System Infection Control Committee.
• Included the medical director; the director of quality, education and compliance; and the IPs in the quarterly IC Forum.
• Provided hand hygiene campaign resources.
• Acute Care IPs provided one-on-one mentoring to UPMC Senior Community IPs.
• Completed TheraDoc® training.

INFECTION CONTROL (IC) SYSTEM COMMITTEE

Goal
Restructure UPMC System Infection Prevention and Control.

Outcomes
• Established the System Infection Prevention and Control Forum.
• Developed the UPMC Infection Prevention and Control Map, July 2012.
• System infection prevention and control coordinators (IPs):
  > Standardize infection control policies, procedures, and guidelines.
  > Review and evaluate products.
  > Review system IC data quarterly.
  > Standardize surveillance practices.
  > Set committee goals annually.
• Infection prevention and control medical director:
  > Provides collaboration, medical direction, education, and epidemiological expertise for committee.
  > Serves as the system medical expert for infection-related inquiries, reviews, and consultation.
  > Supports the corporate infection control coordinator and data analysts at the Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC.
• Corporate infection control coordinator and quality center data analyst:
  > Evaluates system data targeting findings to discuss at system meetings.
  > Supports standardization of data capture and reporting.
  > Updates system IPs regarding regulatory changes.
  > Serves as connection to the Quality Board.
• Chief nursing officers (CNOs) adviser:
  > Serves as connection to the CNO operational leaders.
  > Attends the committee meetings and forum.
• Supply chain adviser:
  > Serves as connection to the Supply Chain and Value Analysis Team groups.
  > Facilitates new product reviews.

INFUSION BEST PRACTICE INITIATIVE

Goal
Formed a multidisciplinary team to establish and implement best infusion practices at UPMC and standardize them throughout all domestic and international UPMC sites.

Outcomes
• The first phase focused on central line care and development of the Central Line Toolkit, a collection of standard policies, procedures, practice guidelines, and educational materials that provides UPMC nurses with standard, evidence-based resources for central line care and maintenance.
• The toolkit is available on Infonet under Education and Training.
• Deployment and education included five webinars for all domestic and international facilities.
• Go-live date was May 1, 2013.

MAGEE-WOMENS HOSPITAL OF UPMC TRIGGERS/INTERNATIONAL NORMALIZED RATIO (INR) TRIGGERS: SMARTROOM®

Goal
Support exploration of the “trigger” concept (signals for detecting likely adverse events) within the Magee-Womens Hospital of UPMC labor and delivery suite.

Outcomes
• Stephen Hasley, MD, medical director for Information Technology at Magee-Womens Hospital of UPMC (with support from Analytics, Clinical, and the Quality Center) created an algorithm to leverage existing electronic health record patient data to identify patient safety risks within the labor and delivery suite.

MULTIDOSE MEDICATION (MDM) AT DISCHARGE PROJECT

Goal
Provide a mechanism and process for transferring multidose (bulk) medications, such as insulin pens or inhalers, utilized during inpatient stays to patients at hospital discharge for their use at home.

Outcomes
• Developed a label and dispensing process to meet the requirements of federal regulations and the State Board of Pharmacy.
• Created a system policy that is approved and pending implementation until several solutions for the electronic health record documentation are built.
• Planning an insulin pen pilot at UPMC Presbyterian during fall 2013 prior to a system rollout.

PREVENTING ALARIS® IV PUMP ALARM TRIGGERS VIDEO

Goal
Provide education to UPMC nurses for strategies to reduce Alaris® IV pump alarm triggers.

Outcomes
• Developed a video concept in response to these concerns:
  > UPMC Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores for the item, The hospital environment is always quiet, showed 47.3 percent agreement, which is below the national average.
  > Alaris® IV pumps were found to be a primary cause of increased noise levels on the clinical units at UPMC facilities.
• Created a short, instructional video for uLearn demonstrating strategies for preventing Alaris IV pump alarms before they occur.
• Created a five-minute video that includes an introductory slide and an acknowledgement slide to confirm viewing.
• Distributed enrollment instructions to all UPMC domestic facilities.

REDUCING DUPLICATE PATIENT RECORDS IN REGISTRATION/SCHEDULING DATA FLOW

Goal
Assess duplicate patient record creation in hospital (MediPac) and physician (EPIC) registration systems to identify opportunities for education and elimination of the same.

Outcomes
• Developed a list of improvement opportunities by conducting:
  > Data analysis: Mined data from Enterprise Master Person Index (EMPI) and developed reporting formats to determine MediPac and EPIC duplicate trending by both human resources and automated processes.
  > Staff shadowing: Shadowed registration staff at UPMC Presbyterian Emergency Department (MediPac).
  > Deep dives: Reviewed registration screens and the process used in both platforms with staff from Enterprise Data Quality (EMPI), Registration and Scheduling, and MediPac/EPIC Application Support.
• Held biweekly meetings to detail and manage multiple process improvement efforts:
  > Redesigned screens in MediPac to simplify the registration search screen and enhance the integrity of search results.
  > Implemented guarantor search coding to allow for search against EMPI (aligned with patient search).
  > Sent monthly reports from EMPI to EPIC and MediPac operations to identify potential duplicates created by human resources (registrars and schedulers) for re-education and accountability efforts.
  > Standardized enterprise Patient Access MediPac Search policies and data entry practices, such as baby naming and punctuation conventions.
  > Enhanced MediPac booking screens to ensure collection and communication of accurate registration elements.
  > Reviewed and resolved 767 commingled charts and records as of May 2013.
  > Achieved a 17 percent reduction in duplicate records creation per month in EPIC and a 15 percent reduction in duplicate records creation per month in MediPac.
• Continued engagement is expected in FY14 to target more formal re-education efforts (annual competencies) and research of biometric capabilities at the point of registration.

RICHARD L. SIMMONS, MD, SPEAK UP FOR PATIENT SAFETY AWARD

Goal
Recognize individuals for speaking up for patient safety through an annual systemwide award that honors and perpetuates Dr. Simmons’ values of passion for patient safety. Staff from any UPMC business unit can be recognized.

Outcomes
• Established electronic nomination process.
• Presented 12 awards at the 2012 Quality Symposium.
• Included awardee names in an Extra article.

RISK AND SAFETY MANAGEMENT ALERT SYSTEM (RASMAS) PROCESS IMPROVEMENT

Goal
Maintain patient safety with timely responses to product recalls.

Outcomes
• Support the enterprise by working with Supply Chain Management and hospital patient safety officers to improve the process for using RASMAS and completing the recall reporting process.
• The product recall coordinator is working with individual facilities to streamline the reporting process and maintain a user-friendly experience.
• Provided efficient and effective solutions in two FDA recall investigations.

SPOTLIGHT ON SAFETY

Goal
Develop a systemwide electronic patient safety newsletter.

Outcomes
• Developed newsletter concept:
  > Designed to share information covering a wide range of timely patient safety topics and heighten staff awareness of strategies that can sustain improvement across the enterprise.
  > Intended for a multidisciplinary staff audience.
  > Distributed quarterly with each issue focused on a unique theme.
• Launched inaugural winter issue of Spotlight on Safety in January 2013:
  > Focused on culture of safety theme.
  > Included local and systemwide articles, a safety culture video, and varied pieces.
  > Introduced companion piece, Spotlight on Safety Alert, which will communicate ever-changing updates on safety concerns that are happening across the system.
  > Distributed to over 11,000 staff.
• Analyzed newsletter website: 4,513 total page views, 2,959 unique page views, and an average time of about one minute spent on a page.
• Published second issue, which focused on A Just Culture, in May 2013.
  > Analyzed newsletter website: 4,711 total page views, 3,388 unique page views, and an average of 1.30 minutes spent on a page.

STANDARDIZED INVASIVE PROCEDURE UNIVERSAL PROTOCOL FORM

Goal
Eliminate wrong-site invasive procedures at UPMC in interventional radiology (IR) and at the bedside.

Outcomes
• In 2012, implemented an Invasive Procedure Universal Protocol Form for IR.
  > Designed and tested with four sites.
  > Originally built in a paper format but now is also available in the electronic health record (EHR).
• In 2012 and 2013, bedside procedure key contacts from the system worked to develop a similar form for procedures performed at the bedside.
  > Tested at UPMC Mercy and UPMC St. Margaret.
• The IR and Bedside Procedures Teams combined the two forms into one.
  > Modified on paper and in the EHR.
  > Went live at all hospitals April 4, 2013.
STANDARDIZED PROCESS FOR ANESTHESIA BLOCKS

Goal
Protect the safety of patients receiving anesthesia blocks at UPMC.

Outcomes
- New systemwide policy, Anesthesia Site Block Administration HS-PT1206, provided education for anesthesia providers on how to prevent wrong-site procedures, including:
  > Time-out
  > Procedural list marking the site
  > Active participation in the time-out
- Zero wrong-site blocks in FY13.

SURGICAL CARE IMPROVEMENT PROJECT (SCIP)

Goal
100 percent compliance with all Surgical Care Improvement Project (SCIP) measures.

Outcomes
- Percent compliance across 13 measures ranged from 98 to 100 percent, with seven reaching 100 percent, three reaching 99 percent, and three reaching 98 percent.
- UPMC SCIP Card-2:
  > Developed a new report within the electronic health record (EHR) to assist with monitoring beta blocker medication administration compliance during the postoperative period (the day of surgery through postoperative day two). The report displays data from the perioperative documentation, which includes but is not limited to the procedure and surgery end time, post-op days (0, 1, and 2), most recent medication administration, and no administration communication orders.
  > The EHR team is working with our anesthesiologists to institute a mandatory field within the preoperative and intraoperative anesthesia documentation. The new action will mandate that the anesthesiologist address preoperative beta blocker administration in order to finalize documentation.
- UPMC SCIP Inf-9 Catheter Removal:
  > Developed new alerts in the EHR to remind the provider when the patient underwent surgery, that the Foley catheter is now in place, and that the patient does not have the Nurse Driven Foley Removal Protocol primed. This alert will fire after 24 hours to providers and default to a new Foley order to include the Nurse Removal Protocol or orders to remove the Foley. If the provider selects the “no” option for the Nurse Removal Protocol, an appropriate reason must be documented. This build is complete, currently in the testing phase, and expected to go into production in summer 2013.

THE JOINT COMMISSION (TJC) AND THE JOINT COMMISSION INTERNATIONAL (JCI) SUPPORT

Domestic Goal
Provide support to ensure that all UPMC hospitals successfully pass the TJC accreditation survey, which equates to a successful Centers for Medicare and Medicaid Services (CMS) deemed survey.

Domestic Outcomes
- Successful surveys in 2012:
  > UPMC Presbyterian Shadyside
  > UPMC McKeensport
  > UPMC Bedford Memorial
  > Children’s Hospital of Pittsburgh of UPMC
  > UPMC Mercy
  > ISMETT
- Successful surveys to date in 2013:
  > UPMC East
  > Magee-Womens Hospital of UPMC
  > UPMC Beacon Hospital
- Ensured ongoing readiness.
- Performed tracers.
- Facilitated information sharing between facilities.

International Goal
Support sites in preparation for the JCI visit by November 2013.

International Outcomes
- UPMC Beacon Hospital
  > New standards (fifth edition) reviewed and feedback sent through the IHAI Quality Assurance Group.
  > JCI chapters divided among leaders.
  > Gap analysis tool developed by each group for its chapters.
  > JCI prep rounds conducted regularly.
  > Email monthly JCI newsletter, focusing on specific standards (commenced March 2013), to all appropriate users.
  > On-site tracers at UPMC Beacon Hospital in June 2013, by a team member from the Quality Center.
- ISMETT
  > Submitted and received approval for the strategic improvement plans Feb. 2013.
  > The JCI Internal Compliance Committee will meet monthly to monitor progress.
**THERADOC® OVERSIGHT**

**Goal**
Standardize and provide continuous quality improvement related to the activities, connections, and pathways of the TheraDoc application for the UPMC Infection Control and Pharmacy Departments.

**Outcomes**
- UPMC Hamot is active in application.
- Completed UPMC Senior Communities authorization and education.
- Standardized hospital-acquired infection documentation in TheraDoc.
  - Established minimum documentation standards.
  - Educated all infection prevention and control coordinators.
- Upgraded to 4.5.2 version.
- Establishing standardized processes to meet new National Healthcare Safety Network (NHSN) definitions.

**UPMC FLU TASK FORCE**

**Goal**
Assist the Seasonal Influenza Vaccination Subcommittee with data collection and submission.

**Outcomes**
- Formulated the data collection process to include all National Healthcare Safety Network (NHSN) required data points.
- Collected and disseminated data to each facility to submit to NHSN.
- Audited the submission process April 30, 2013, and completed data submission to NHSN.

**UPMC PRESBYTERIAN LINE SAFETY VIDEO**

**Goal**
Create and disseminate a short video to demonstrate the correct transfer process for patients with invasive lines to prevent accidental dislodging.

**Outcomes**
- Based on Riskmaster reports, there were 12 serious events reported in FY12 related to invasive lines that were accidentally pulled out during the patient transfer process.
- Created a short, instructional uLearn video that demonstrates the correct transfer process for patients with invasive lines.
- Established as a mandatory requirement at UPMC Presbyterian.
- Distributed enrollment instructions for systemwide education.

**UPMC SAFE DISCHARGE REPORT**

**Goal**
Design an enterprise patient safety initiative to:
- Provide patients with valuable information at discharge to assist them with self-management of care.
- Forward valuable discharge information to the next level of care providers to continue the patient’s care.
- Reduce avoidable readmissions by providing the right information at the right time for care across the continuum.

**Outcomes**
- Improved communication between acute care and community providers caring for patients postdischarge:
  - Over 218,000* UPMC Safe Discharge Reports electronically transmitted to downstream providers for inpatients, observation patients, and patients transferred to postacute facilities (* implemented October 2010)
  - Over 20,800* UPMC Safe ED Discharge Reports sent to primary care physicians for appropriate follow-up care. Reports successfully transmitted for 93 percent of emergency department patients with an identified primary care physician. (* implemented April 2013)

**WRONG-SITE SURGERY PREVENTION**

**Goal**
Prevent wrong-site surgeries at UPMC.

**Outcomes**
- Added new automated compliance reports to the UPMC Hospital Executive Page, where hospital and system leaders, operating room managers, quality staff, and other key individuals can review aggregate results early the following month.
  - For instances in which the checklist was not completed in its entirety, a drill down that displays the following is available:
    - Patient account number
    - Surgeon name
    - Circulating nurse name
    - Operating room suite
    - Service type
    - Breakdown of compliance for each of the four segments
  - This information can be analyzed to determine why the checklist was not used completely.
- Developed system policy for Prevention of Wrong-Site Surgery HS-PT1208.
- Reported two wrong-site surgeries to date in 2013.
PERFORMANCE MEASUREMENT AND REPORTING: ACCELERATING IMPROVEMENT

Aims for improvement cannot be understood, evaluated, or realized without dedicated measurement and reporting. The Donald D. Wolff Center for Quality, Safety, and Innovation at UPMC manages databases and creates reports that help us to meet external regulatory reporting requirements, but more importantly to augment the care of our patients by analyzing data to understand if change is needed or if care process changes result in sustained improvements.

AMERICAN COLLEGE OF SURGEONS – NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (NSQIP)

Goals

- Compare general surgical outcomes at UPMC Presbyterian against national, risk-adjusted benchmarks for continued clinical quality improvement.
- Meet the Centers for Medicaid and Medicare’s (CMS) FY14 Hospital Value-Based Purchasing (HVBP) Structural Measure of participation in a systematic clinical database registry for general surgery.

Outcomes

- Successfully implemented data abstraction:
  - Automated all electronically available data for weekly submissions to the NSQIP database.
  - Continued focus on converting manual abstraction efforts to electronic automation as internal systems become available.
- Risk-adjusted benchmarks:
  - On track to reaching quota for the surgical case submissions necessary for statistically significant, risk-adjustment national comparisons.

CARDIOLOGY AND CARDIAC SURGERY ABSTRACTION AND REPORTING

Goal

Create systemwide data abstraction and reporting for cardiology and cardiac surgery procedures.

Outcomes

- Cardiology Data
  - Completed data abstraction from the patient medical record according to the definitions of the American College of Cardiology through the National Cardiovascular Data Registry (NCDR) for the following:
    - Percutaneous coronary intervention (PCI) for UPMC Presbyterian, UPMC Shadyside, and UPMC East. Data entered into Apollo Advance and harvested quarterly to NCDR.
    - Implantable cardiac defibrillators (ICD) for UPMC Presbyterian and UPMC Shadyside. Data entered into the NCDR using the web portal.
    - Action registry for ST elevated myocardial infarction (STEMI), non-ST elevated myocardial infarction (NSTEMI), and acute coronary syndrome (ACS) for only UPMC Presbyterian at this time. Data entered into NCDR through web portal. Will have action registry module in Apollo Advance in first half of 2013.
  - Review patient medical record to complete the data elements required for the Carotid Artery Stenting CMS database for UPMC Presbyterian and UPMC Shadyside only.
  - Developing a reporting format for Cardiology divisions at UPMC Presbyterian and UPMC Shadyside for the PCI data.
  - Developed a close working relationship with the Center for Quality, Outcomes, and Research (CQOR) on PCI data.
  - Working toward public reporting of 30-day readmission for PCI procedures.
- Cardiac Surgery Data
  - Completed cardiac surgery data abstraction from the patient medical record for UPMC Shadyside, UPMC Presbyterian, and UPMC Passavant according to the Society of Thoracic Surgeons (STS) definitions; entered data into an approved STS database (Lumedx/Apollo Advance) and harvested data to the National STS database at Duke Clinical Research Institute (DCRI) on a quarterly basis.
  - Use above data for quality improvement initiatives (for example, postoperative ventilator times).
  - Provide data to individual physicians as requested.
  - Developing a reporting format for Cardiothoracic Surgery.
  - Collaborating with the Cardiovascular Optimization Program (CVOP) for systemwide data integration.
  - Working to move from billing data to STS clinical data for Pennsylvania Health Care Cost Containment Council (PHC4).

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS) AND THE JOINT COMMISSION (TJC) PUBLIC REPORTING

Goal

Sustain excellent results in clinical process measure compliance for public reporting to the CMS Inpatient Quality Reporting Program (IQR), TJC Quality Check, and for a successful FY13 CMS Value-Based Purchasing Program (VBP).
Outcomes
• UPMC has sustained excellent results (at or near 100%) in the clinical process measures (also referred to as Core Measures).
• For FY13, 12 IQR clinical process measures were chosen for inclusion in the VBP program, accounting for 70% of the overall VBP score and a system gain of approximately $0.5 million.
• For FY14, 13 IQR clinical process measures were chosen for inclusion in the VBP program, accounting for 45% of the overall VBP score.
• Though the final dollar amounts have not been calculated by CMS, UPMC has again sustained excellent results in these measures.
• UPMC provided and documented the right care greater than 99% of the time (60,472 times of 60,971 opportunities).
• Detailed reviews of fallouts continue to identify process enhancements that will assist in meeting the goal of 100%.

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS) REDUCE AVOIDABLE HOSPITALIZATION USING EVIDENCE-BASED INTERVENTIONS FOR NURSING FACILITIES IN WESTERN PENNSYLVANIA (RAVEN) INITIATIVE

Goal
Develop data collection tools and reporting solutions for CMS outlined data elements.

Outcomes
• Designed telemedicine consultation surveys and forms.
• Designed geriatric and palliative confidence surveys.
• Designed an acute care transfer web tool to help identify opportunities to reduce transfers that may be preventable.
• Supported the data collection and reporting work group to continuously improve the accuracy and ease of use of various tracking tools.

CHIEF NURSING OFFICER (CNO) PORTAL PAGE

Goal
Enhance the platform that exists to harmonize nursing information.

Outcomes
• Developed a suite of reports that is housed in a central location, trends a variety of nursing metrics, and is utilized by clinicians and administrators throughout the system.
• Reports include the following elements:
  > Registered nurse, patient care technician, and care management human resource data
  > National Database of Nursing Quality Indicators (NDNQI®)
  > National Healthcare Safety Network (NHSN) infection data

HIGHMARK QUALITY BLUE FY13

Goal
Improve performance in quality and safety to achieve the maximum financial award from the Highmark QualityBLUE pay-for-performance program.
Outcomes
• Achieved the maximum financial award by providing evidence of improvement and/or meeting targets in 10 selected active initiatives, including Readmissions, Surgical Safety, Imaging Efficiency, Venous Thromboembolism Care and Prevention, Perinatal Care, Diabetes Care, Clostridium Difficile Infection (CDI), Stroke, Palliative Care, and Sepsis, and five sustainability initiatives, including Catheter-Associated Urinary Tract Infection (CAUTI), Central Line-Associated Bloodstream Infection (CLABSI), CDI, Venous Thromboembolism Prevention, and Stroke Defect-Free Care.

Examples
• CDI Prevention: Three participating UPMC facilities avoided 670 CDIs, $2.5 million in costs, and 1,270 hospital days and saved 63 lives. Two of two facilities participating in the Clostridium difficile sustainability initiative achieved the targeted infection rate.
• Surgical Safety: Ten participating facilities avoided 402 inpatient surgical site infections and $3 to $10 million in costs and saved 44 lives. As a result of the implementation of the surgical safety checklist, 7,100 complications and 469 mortalities were potentially avoided.
• Venous Thromboembolism Prevention: Two participating facilities avoided $1.8 million in costs by using pharmacological prophylaxis versus treatment of event. Five facilities participated in sustainability (challenging targets). Five of five met the deep vein thrombosis (DVT) target and three of five met the pulmonary embolism (PE) target for additional significant cost avoidance.
• Perinatal Care: Two participating facilities decreased elective inductions and avoided 380 hospital hours and $40,000 in associated additional costs, avoided $800,000 in costs related to C-sections from elective inductions, and avoided 28 to 95 surgical site infections following C-sections and $700,000 to $2.4 million in associated costs.
• The sustainability initiatives contain challenging targets for those that have previously achieved active initiative success. Other sustainability success includes: CLABSI, for which eight of eight facilities met the infection rate target; CAUTI, for which three of four facilities met the infection rate target; and Stroke Care, for which six of six facilities met the Defect-Free Care Bundle target.

HOME HEALTH FACE-TO-FACE IMPLEMENTATION
Goal
Develop a process to facilitate compliance with a new Centers for Medicare and Medicaid Services (CMS) regulation requiring documentation of a face-to-face encounter by a physician ordering home health services.

Outcomes
• Developed documentation within the electronic health record (EHR) to be completed by home care liaisons and care managers.

HOSPITAL-ACQUIRED CONDITION (HAC)/PATIENT SAFETY INDICATOR (PSI) PROJECT
Goal
Collaborate with clinical and coding staff to increase the accuracy of documentation and coding to accurately reflect a HAC.

Outcomes
• Identified opportunities for better documentation and more precise coding. The HAC/PSI project now involves case review prior to bill drop.
• Conducted an initial pilot in 2012, which resulted in a 30 percent reduction in coded HACs and a 21 percent reduction in both HACs and PSIs.
• Developed project guidelines, including a physician clarification process.
• Continued success with project results in 2013 (Medicare and Medicaid only), with a 14 percent reduction in coded HACs and PSIs.

INTENSIVE CARE UNIT (ICU) DASHBOARD
Goal
Develop a systemwide ICU dashboard with risk-adjusted outcome data and hospital-acquired infections.

Outcomes
• Developed the data points needed for the dashboard and identified sources of data in January 2012.
  > Worked with the electronic health record team to access clinical data and the Quality Center to access patient and demographic data.
  > Worked with the Corporate Database and Cognos teams to store data and allow for custom reporting.
• Placed reports for UPMC Presbyterian ICUs into production Dec. 6, 2012.
• Completed all systemwide reports; all reports are available on the hospital executive page under each hospital.

INTERNATIONAL CARDIAC SURGERY DATABASE (ISMETT AND UPMC BEACON HOSPITAL)
Goal
Provide access to our Society of Thoracic Surgeons (STS) Adult Cardiac Surgery Database.
Outcomes
• Work has been completed for both ISMETT and UPMC Beacon Hospital to enter the cardiac surgery procedures into the STS Adult Cardiac Surgery Database.
• Issues surrounding the privacy laws of the European Union have kept UPMC Beacon Hospital from entering data during most of 2012, although staff continue to collect the data.
• These same issues apply to ISMETT, but staff enter de-identified data into our database and report on the same.
• We have begun to prepare reports for ISMETT for 2013.
• Legal and the International Department continue to be involved in the process to have ISMETT become international members of STS.
• We continue to provide support to both ISMETT and UPMC Beacon Hospital.

INTERNATIONAL DATA QUALITY AND METRICS

Goal
Compare quality data and metrics to discover variation and learn from opportunities.

Outcomes
• Collect quality data monthly.
• Compare quality data and metrics:
  > ISMETT vs. UPMC Presbyterian data.
  > UPMC Beacon Hospital vs. UPMC Passavant data.
• Show data for mortality rate, average length of stay, readmission rate, skin breakdown, ventilator-associated pneumonia (VAP) infections, central-line associated bloodstream (CLAB) infections, catheter-associated urinary tract infections (CAUTI), Clostridium Difficile infections, methicillin-resistant Staphylococcus aureus (MRSA) infections, medication errors, total patient falls, total falls with injury, sentinel events, patient satisfaction, and patient grievances.

INTERNATIONAL ISMETT AND UPMC PRESBYTERIAN SPECIALTY SPECIFIC

Goal
Continuously working to improve the way we compare ISMETT and UPMC Presbyterian data to derive the greatest value from the data.

Outcomes
• Utilize specialty-specific comparison methodology.
• Compare ISMETT and UPMC Presbyterian by physician specialty.
• Link physician specialty to diagnosis-related group: abdominal surgery, cardiac surgery, medicine, and thoracic surgery.
• Comparison groups: mortality rate, readmission rate, average length of stay, and skin breakdown by specialty for ISMETT.

INTERNATIONAL QUALITY BENCHMARKING

Goal
Assist AAMG, formerly known as the Asian Center for Liver Diseases and Transplantation, in expanding and developing their program as a Comprehensive Transplant Center to develop a quality scorecard and benchmark AAMG data with UPMC facilities in the United States, Italy, and Ireland.

Outcomes
• Collaborated with the Singapore team to establish common definitions and define indicators.
• Expect to finalize the scorecard draft and present it to AAMG.
• Focused on liver disease management, bone marrow transplant management, and other more common inpatient indicators.

LEAN MEDICAL RECORD (LMR) SECURE EMAIL TO NON-UPMC SKILLED NURSING FACILITIES (SNFS)

Goal
Extend the LMR secure email process to non-UPMC SNFs to allow for complete, accurate, and timely delivery of clinical information to the next care provider prior to patient arrival.

Outcomes
• Rolled out at the UPMC Horizon Shenango and Greenville campuses.
• Identified six non-UPMC SNFs for deployment.
• Implemented at Nugent Convalescent Home and Clepper Manor.
• Will implement at St. Paul Home in July 2013.
• Enabled accepting facilities to prepare for patient needs prior to admission.

MANUAL ABSTRACTION ELIMINATION

Goal
Eliminate manual abstraction of clinical data from the electronic health record (EHR) by developing automated and accurate solutions.

Outcomes
• Developed use case incorporating the skills of UPMC Enterprise Analytics (EA). Knowledge transfer to the EA specialists occurred related to the current quality measure specifications, data location within the EHR, and abstraction process. Validation of understanding and identification of barriers were key in process and timeline development revisions necessary for proper progression.
• Implemented a separate project to replicate Emergency Department (ED) quality measures specifications with a build to autopopulate ED data from the EHR to the vendor software, with its first successful data move. Learning from this smaller project will assist in automation and manual abstraction elimination strategies.
• Continuing a separate project to move data directly from the EHR to autopopulate to an external quality source, such as the Centers for Medicare and Medicaid Services (CMS). As UPMC has met the Stage One requirements of the CMS EHR Incentive Program (Meaningful Use) related to the Clinical Quality Measures, we continue to evaluate for ways to maximize appropriate and efficient documentation for better evidence of measure compliance. Learning and continuing with this project will assist in automation and manual abstraction elimination strategies.

PALLIATIVE AND SUPPORTIVE CARE
Goal
Evaluate the Palliative and Supportive Institute’s (PSI) hospital and nursing facility service performance, including clinical, customer, and operational metrics.

Outcomes
• Hospital Data Collection and Reporting
  > Created PSI’s hospital performance report, which outlines over 25 clinical and operational metrics.
  > Reported physician quality incentive criteria.
  > Designed and analyzed needs assessments to identify educational, programming, and service readiness needs.
  > Designed and analyzed palliative care clinician and staff self-assessment forms to identify various staff development needs.
  > Provided patient lists for patient, family, and caregiver satisfaction surveys.
  > Designed and reported referring physician and hospital staff satisfaction surveys.
• Nursing Facility Reporting
  > Identified and analyzed clinical and operational data elements to provide nursing facility performance reports.
  > Reported unplanned transfer rates from UPMC Senior Communities.
  > Developed a quality improvement web tool to help analyze hospital transfers and identify the root cause and underlying reasons for the transfer.

PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL (PHC4)
Goal
Accurately and efficiently meet state data submission requirements for use in state public reporting.

Outcomes
• Sustained and improved the online error correction process within UPMC.
• Created a UPMC process involving an automated solution for submission of PHC4 required lab data, independent of vendor software.

• Collaborated with UPMC Enterprise Pathology, Interoperability Interface Development, and Enterprise Analytics in this new process.

PHYSICIAN DOCUMENTATION IMPROVEMENT
Goal
Collaborate with a multidisciplinary team to produce a list of minimum standards needed to improve the current state of physician documentation.

Outcomes
• Focused the first phase of minimum standards on the inpatient progress notes within the electronic health record.
• Finalized inpatient progress standards in June 2013.
• Developing other standards for documentation notes, including consultations, history and physicals, and discharge summaries.
• Plan to pilot the implementation of inpatient progress note standards in summer and fall 2013.

PHYSICIAN INCENTIVES
Goal
Identify appropriate measures and develop reporting solutions to monitor physician activity and results.

Outcomes
• Worked with Physician Services Division (PSD) leadership to identify measures.
• Evaluated current baseline data and calculated appropriate targets.
• Partnered with the UPMC Legal Department to ensure measures were within proper guidelines.
• The Provider Analytics Team utilized Crimson and custom-reporting solutions to create automated and sustainable reports, allowing PSD leadership and the physicians to track the outcomes and evaluate if the performance is within expectations.
• Collaborated with PSD to discuss performance with the physicians.

QUALITY AND SAFETY WEDNESDAY
Goal
Provide biweekly quality and safety email updates to UPMC leadership and quality, safety, and regulatory staff to increase awareness of relevant and timely topics.

Outcomes
• Shared quality information to improve staff awareness across the enterprise.
• Provided a consistent stream of information from external regulatory and accrediting agencies to UPMC employees.
• Distributed updates to over 100 employees biweekly.
• Encouraged staff to share updates with colleagues.
UPMC HEALTH PLAN HOSPITAL PARTNERS PROGRAM (P4P) FY12

Goal
Improve performance in quality and safety to achieve the maximum financial award from the UPMC Health Plan Partners Program.

Outcomes
• Achieved the maximum financial award by providing complete data submission and evidence of meeting targets.
• Initiatives include Appropriateness of Care/Core Measures, Patient Satisfaction, Obstetrics/Elective Inductions, Hospital-Acquired Infections, Discharge Planning, and Emergency Department Access.

UPMC VIRTUAL PRE-OP CHART

Goal
Standardize format of order entry with evidence-based logic to guide providers, provide discrete locations for patient information that is easily accessed by all care team members, autopopulate data that has been previously entered, and give real-time status of received documentation.

Outcomes
• The Chief Medical Information Office is mapping out the resources needed to enhance the electronic health record with regard to the Pre-op Virtual Chart.
• The build will begin in the summer of 2013, with an estimated completion by spring of 2014.

IMPROVING PATIENT AND FAMILY CARE EXPERIENCES

Since the landmark 2001 Institute of Medicine's report, Crossing the Quality Chasm: A New Health System for the 21st Century, calls for health care systems to place patients and their families at the forefront of care decisions have been widely accepted but not always well-implemented. The Quality Center strives to respect patients’ and families’ values and preferences, involve them in goal-setting and care coordination, and provide the information, communication, and education they need and want.

DAY OF CONVERSATION

Goal
Support National Health Care Decision Day through our third annual Day of Conversation activity. This year the effort targeted patients in their primary care physician offices to start the conversation about advance care planning.

Outcomes
• Worked with office practices to create a toolkit of materials that would be useful to their offices. The toolkit was delivered to over 60 physician practices and includes:
  > Educational materials:
    - Pocket cards for staff on how to introduce Five Wishes and advance care planning
    - A one-page document for physicians on how to start the conversation
  > Promotion materials, such as pins and pens, for office staff
  > Waiting room materials that provide information on the importance of advance care planning:
    - Signage for the waiting rooms and exam rooms
    - Brochures on the importance and how to start the conversation
• Highlighted advance care planning on UPMC HealthTrak for one month, including a link to the brochure and a link to Five Wishes online, with the potential to reach 50,000 users.

EMERGENCY MEDICAL TREATMENT AND ACTIVE LABOR ACT (EMTALA)

Goal
Create a reliable process for meeting documentation requirements of EMTALA through the development of a systemwide solution for physicians within the electronic health record and continue to provide reliable care to anyone needing emergency health care treatment regardless of citizenship, legal status, or ability to pay.

Outcomes
• Created a new order for “transfers” out of the Emergency Department. The order triggers the EMTALA form, which is completed by the physician.
• Revised nursing documentation to improve documentation completion by separating the Nursing Emergency Department Transfer Form from Admission Transfer.
• Created and distributed an educational tool for physicians about the new process.
• Created and distributed an educational tool for nurses about the new process.

INSTITUTE FOR HEALTHCARE IMPROVEMENT (IHI) CONVERSATION PROJECT

Goal
Engage with hospitals, through a one-year national multisystem collaborative, to become conversation ready (prepared to receive and respect everyone’s end-of-life preferences) to address the advance care planning needs of our patients.

Outcomes
• Collaborated via monthly web calls with the national multidisciplinary team to identify best practice information related to starting conversations about patients’ wishes for end-of-life planning and share tests of change and results. This work has been partially funded by The Beckwith Institute.
> Shared information that included planning and deployment of both year 3 of the UPMC Day of Conversation and the PARTNER program.

> Participated in orchestrated testing and provided feedback on the Conversation Starter Kit, an advance care planning tool created by Ellen Goodman, co-founder of the Conversation Project and Pulitzer Prize winner. This entailed two meetings with a core group of employees providing information on starting the conversation, sending them out to have the conversation, and reconvening several weeks later to gather feedback on the starter kit and to discuss their experiences.

**PARTNER PROGRAM (PAIRING RE-ENGINEERED INTENSIVE CARE UNIT TEAMS WITH NURSE-DRIVEN EDUCATION AND OUTREACH)**

**Goal**
Improve family and care team communications for patients with advanced critical illness through a protocolized, team-based intervention.

**Outcomes**
- Conducted two-day core skill training for the UPMC St. Margaret Intervention Team on critical conversations, managing emotions, and family support strategies. Successfully used actors in the family role-playing situations.
- Will deploy active intervention in five system ICUs (UPMC St. Margaret, UPMC McKeesport, UPMC Presbyterian, UPMC Montefiore, and UPMC Passavant) over the next 12 months, using a stepped wedge design.
- Deployed at UPMC St. Margaret in January 2013 and enrolled 39 patients and conducted 66 family meetings by the end of FY13.
- Funded a nurse position for deploying the PARTNER program intervention.
- Developed a brochure to introduce the program to families and a Question Prompt List to elicit families’ questions in preparation for the family and care team meeting.
- Developed a “Family Meeting” tab in the electronic health record to document conversations and care goals.
- Developing a plan to spread a scaled-down version of the PARTNER program to all system ICUs.

**PATIENT EXPERIENCE DISCHARGE PHONE CALLS PILOT AT UPMC MCKEESPORT AND UPMC ST. MARGARET**

**Goal**
Improve service recovery for higher Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores and reduce readmissions.

**Outcomes**
- Launched project May 1, 2013.
- Resolved over 100 clinical alerts and 30 service alerts.
- Observed that several patients raised questions about medications as well as what to do once they were home.
- In response to 15 patients not having follow-up appointments, we developed a process in which central scheduling takes responsibility for setting up the follow-up appointment.
- Closely monitoring the program’s impact on HCAHPS scores and readmissions; no data available yet.
- Received a 65 percent response rate, which the National Research Corporation identifies as higher than the national average.

**PATIENT EXPERIENCE HOSPITAL CONSUMER ASSESSMENT OF HEALTHCARE PROVIDERS AND SYSTEMS (HCAHPS) TELEPHONE SURVEYS AT UPMC NORTHWEST**

**Goal**
Change the mode of surveying at UPMC Northwest to telephone instead of paper to determine if the new mode will improve HCAHPS scores.

**Outcomes**
- Live mode change since April 1, 2013.
- Monitoring returns to confirm score improvement.
- The Centers for Medicare and Medicaid Services (CMS) will perform a mode adjustment (downward) of these scores.
- Early data show that value-based purchasing points earned using this mode of surveying are slightly higher than points earned using the paper mode.

**PATIENT EXPERIENCE SURVEYING**

**Goal**
Expand the breadth of surveying the patient experience across UPMC.

**Outcomes**
- Sent approximately 1,200,000 surveys to more than 900 medical practices, all inpatient sites, Emergency Departments, ambulatory surgery sites, and cancer centers.
- Expanded the survey process to include nearly all outpatient areas.
- All medical practices adopted e-survey as the only mode of collecting responses.

**PATIENT EXPERIENCE TELEROUNDING**

**Goal**
Develop a survey to assess patient satisfaction with telemedicine care.

**Outcomes**
- Developed three telemedicine surveys (short telemedicine version, long telemedicine version, and telerounding).
  > Designed to assess satisfaction with remote care provided, ease of scheduling appointment, and technology.
Designed to gauge how much drive time was saved and if family members who could not otherwise be present for the appointment were able to be present.

Designed to be administered using iPad technology and the Patient Impact Survey platform.

- Developed surveys for telemedicine clinics at UPMC Northwest, UPMC Horizon, and UPMC Bedford Memorial.
- Surveys went live at UPMC Northwest and UPMC Bedford.
- Clinical and information technology (IT) staff were trained on survey administration and result viewing.
- Surveys continue to be used to assess satisfaction. Ideally, our telemedicine survey will become the standard for all clients of Press Ganey and Associates Inc.

SECTION 504, THE AMERICANS WITH DISABILITIES ACT, AND EDUCATION REFORM

Goal

Outcomes
- Every hospital identified a 504 coordinator as required.
- Held systemwide 504 coordinator orientation in March 2013.
- Began education of all clinical staff (100 percent) at every hospital on what Section 504 means to them.
- Began facilitation of all hospitals implementing a standard 504 grievance policy.

UPMC HEART AND VASCULAR INSTITUTE (HVI) PATIENT EDUCATION

Goal
Optimize patient and family expectations with the cardiac surgical experience:

- Enhance and expand the existing hard copy materials to include multimedia delivery of information.
- Engage patients and families in the process through cognitive learning and facilitating emotional connections with former patients by way of testimonials in the video.

Outcomes
- Developed the UPMC Heart Surgery: What to Expect book to provide key information on preparing for surgery, the hospital experience, and recovery at home.
- Produced an educational video featuring six former patients sharing personal experiences and offering their encouragement and support.
- Uploaded the video to the UPMC Patient Education website and the UPMC YouTube site, with an upload to the Patient Education television network pending. DVDs are available for patients without computer resources.

UPMC ‘YOUR CARE. OUR COMMITMENT.’ PATIENT EXPERIENCE SYMPOSIUM

Goal
Provide forum for local leaders and staff to share knowledge about improving the patient experience.

Outcomes
- Over 300 attendees at the live presentation held at the Herberman Conference Center at UPMC.
- Exceptionally positive feedback about the event.
- National speaker Paul Ryan, chief executive officer, Press Ganey and Associates Inc., discussed the impact and high correlation of employee engagement to the patient experience.
- Local speakers included Tami Minnier, chief quality officer, UPMC; Will Cook, president, UPMC Mercy; Marybeth Jenkins, chief operating officer, UPMC Health Plan; and Candi Castleberry-Singleton, chief inclusion and diversity officer, UPMC, who shared the UPMC employee engagement results as well as UPMC’s strategy to improve the employee experience.
- Posted Paul Ryan’s keynote speech on Infonet.

INNOVATIVE CARE MODELS FOR IMPROVEMENT

The Donald D. Wolff Center for Quality, Safety, and Innovation at UPMC shares a vision for advancing knowledge and practice through innovative care models. These new care models seek to improve the quality of care for our patients and their families and better meet their needs every time. The future of quality improvement brightens as we recognize the indisputable role of innovation.

CARE COORDINATION AND TRANSITIONS MODEL

Goal
Improve the coordination of care that is focused on discharge planning (to home or a postacute setting) by defining a new model of care and improving processes within the context of the model.

Outcomes
- Held a two-day rapid improvement event (RIE) with 30 UPMC Presbyterian staff. RIE outcomes included a design for a new model of care and several redesigned work processes.
- Tested and refined the model for three months on one UPMC Presbyterian medicine unit.
- Spread the model to three more medicine units at UPMC Montefiore in April 2013.
• Included the following in the change package:
  > Lean care team
  > Daily rounds in patient rooms by the lean care team
  > Afternoon huddle by lean care team
  > Highly specified pharmacy support
  > Development of clinical leader role
  > Shifting of several tasks to most appropriate role
  > Adoption of the electronic health record medication list for teaching
  > Postdischarge calls to all discharged patients
  > Central scheduling calls to discharged patients to schedule appointments
  > Formal processes for expediting discharges

EMERGENCY DEPARTMENT (ED) U-TURN PROGRAM

Goal
Provide reliable follow-up care in patients’ homes within 24 hours of discharge from the ED through a collaborative health care program between the UPMC Visiting Nurses Association (VNA) and UPMC EDs. The program aims to:

• Increase physician confidence levels in home care services
• Decrease the number of patients admitted under a hospital “observation” status
• Increase patient compliance with medications and care plans
• Improve in-home safety for patients at risk for falls
• Prevent unplanned readmissions

Outcomes
• A team of key organizational stakeholders designed the pilot.
  > Piloted the program at UPMC Presbyterian and UPMC Shadyside EDs.
  > Defined standard work flow and role definitions.
  > Provided inservice education for key stakeholders.
  > Developed a communication campaign and project implementation tools.
• 67 patients were referred to ED U-Turn from pilot sites between Oct. 15, 2012, and Dec. 31, 2012.
• 94 percent of referred patients were seen within the target of 24 hour follow-up, with a mean of 19 hours and a range of four to 29 hours.
• 15 percent of referred patients would have qualified as “readmission” if admitted.
• 43 percent of referred patients were members of UPMC payer products.
• Program is now available for spread to UPMC EDs.
• UPMC Mercy pilot and implementation is targeted for fall 2013.

RELIEABLE ROUNDER/VARIABLE ROUNDER (RR/VR) CARE MODEL

Goal
Implement the RR/VR model across all UPMC nursing units (with the exception of obstetric and intensive care units). The model assigns the work of nursing assistants and patient care technicians based on the predictability of the work to ensure reliability of care, prevent hospital-acquired infections, and contribute positively to patient and staff satisfaction.

Outcomes
• Held workshop in August 2012 on data collection, spread to off-shifts, and the development of contingency plans.
• Designed and held patient care technician/nursing assistant conference in Fall 2012, in collaboration with Magee-Womens Hospital of UPMC.
• Provide quarterly “report cards” to pilot units on nine outcome measures and process measures submitted by sites.
• Chief Nursing Officers (CNOs) established goal of spread completion by May 1, 2013.
• Redesigned RR/VR section of CNO dashboard to reflect Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Responsiveness of Staff item percent agreement as the measure of success of the model after May 1, 2013.
• CNO team currently addressing staffing, recruitment, and retention issues.

PROMOTING EFFECTIVE AND EFFICIENT, EVIDENCE-BASED CARE AND APPROPRIATE RESOURCE UTILIZATION

Across the United States, dangerous gaps exist between the health care that individuals should receive and the care that they actually do receive. These variations in care may bring about striking costs in both quality and quantity of life as well as dollars. The Quality Center leads various initiatives to curtail the problems of overuse, underuse, and misuse of health care and bring more effective and efficient care to our patients.

CARDIOVASCULAR OPTIMIZATION PROGRAM (CVOP)

Goal
Improve morbidity and mortality for cardiovascular surgery patients by achieving three stars through the Society of Thoracic Surgeons composite quality report for all UPMC programs.

Outcomes
• Developed new order sets and management guidelines for preoperative, immediate postoperative, and transfer to step-down unit to improve patient care.
• Within the electronic health record, order sets are currently in place at UPMC Presbyterian; implementation at other UPMC sites will occur during the summer of 2013.
• The order sets standardize preoperative and postoperative care by:
  > Decreasing beta blocker usage prior to surgery.
  > Weaning of ventilators less than six hours postsurgery with a rapid weaning protocol.
  > Promoting early activity of patients within four hours of extubation.
  > Using chest physiotherapy and secretion clearance devices.
  > Implementing a revised glucose management protocol.
• Early outcomes for UPMC Presbyterian:
  > Overall composite score outcomes have improved 3.5 percentage points compared to the prior fiscal year.
  > Avoidance of mortality has improved 1.3 percentage points compared to the prior fiscal year.
  > Avoidance of mortality has improved 5.6 percentage points compared to the prior fiscal year.

CHILDREN’S HOSPITAL OF PITTSBURGH OF UPMC
MAGNETIC RESONANCE IMAGING (MRI)

Goal
Performed a current state assessment of department operations to identify opportunities for improving efficiencies in the MRI Department.

Outcomes
• Developed a list of improvement opportunities by conducting staff shadowing, deep dives, personal interviews, and offering a suggestion box.
• Identified seven domains of opportunity: care coordination, communication, facilities and equipment, patient flow, process, scheduling, training, and competency.
• Administered a survey to allow staff to rank the opportunities, and the top three areas identified were communication throughout the department, patient flow processes, and scheduling practices.
• Continued engagement with the Quality Center for process improvement.

CONTRACT MANAGEMENT

Goal
Support the enterprise with the centralization of over 100 patient care related contracts and the amending of UPMC hospital global agreements to incorporate hospital performance expectations in accordance with The Joint Commission’s regulations on contractual management of services.

Outcomes
• Incorporated performance expectations for each of the hospital-based departments (Anesthesiology, Emergency Medicine, Pathology, and Radiology) into FY13 financial schedules of the global agreements.
• Identified and centrally distributed the global agreements for services considered to be “directly related to patient care” across the enterprise.

CRIMSON

Goal
Develop a streamlined physician performance tool to assist in the understanding and analysis of variation in care, quality outcomes, and utilization patterns.

Outcomes
• Utilized to monitor the outcomes and volumes associated with clinical pathway development.
• Leveraged as the corporate solution for ongoing professional practice evaluation (OPPE), saving hundreds of man-hours by eliminating the need for manual reporting.
• Used as the primary tool to report physician incentive measures.
• Allows for quick interpretation of utilization patterns.
• Deployed at 16 hospitals.
• Conducted 13 user-acceptance trainings.
• Conducted 120 training sessions.
• 917 total users, including clinical chairs, chiefs of departments, executives, quality directors, and administrators across the system.

HYSTERECTOMY CLINICAL PATHWAY

Goals
• Reduce hysterectomy procedure variation and improve patient outcomes by guiding surgeons through an evidence-based algorithm.
• Promote a culture of transparency by providing cost and quality data to surgeons.
• Improve the patient experience though the continuum of care by fostering an environment of shared decision making and standardized education.

Outcomes
• Provided surgeons with their operating room instrument case cards and a case card analysis that compares them with their peers.
• Identified quality data, such as complication rates, infection rates, and length of stay metrics, to be included with pathway adherence measures.
• Formed a subcommittee to investigate the patient experience, education, and shared decision making.
LUNG TRANSPLANT RETREAT

Goals
• Provide the best patient experience for those with advanced lung disease by delivering excellent patient-centered care with an emphasis on superior outcomes, innovation, and education.
• Explore improvement opportunities in five focused areas:
  > Education (patient, family, and staff)
  > Pretransplant evaluation process
  > In-hospital transplant care
  > Discharge planning and posthospital care to rehab or skilled facilities
  > Long-term transplant care

Outcomes
• Sponsored a group ideation event on Jan. 18, 2013, for over 140 cross-setting, cross-functional staff caring for patients with advanced lung disease.
  > Formed five work teams with designated medical and operational leaders and charged each team with one of the focused areas.
  > Developed oversight infrastructure to provide overall direction.
• Coached work teams toward developing effective strategies to meet established goals.

MAGEE-WOMENS HOSPITAL OF UPMC RADIOLOGY INPATIENT ADD-ON MANAGEMENT

Goal
Design and operationalize a process that efficiently manages inpatient flow within the department and provides patients, families, and nurses with an approximate time in which patients will be transported for their ultrasound procedure in Radiology.

Outcomes
• Redesigned the outpatient scheduling template to accommodate additional add-on and inpatient slots.
  > Operationalized the process for scheduling inpatient ultrasound procedures with two pilot units.
  > Developed a step-by-step pilot guide that identified staff roles and responsibilities.
  > Provided inservice sessions during morning huddles on the pilot units.
  > Administered patient satisfaction surveys for patients who were scheduled for ultrasound testing.
    > 100 percent agreed that knowing the time that they would be taken for testing was helpful.
• Redesigned the inpatient handoff process to improve face-to-face, Ticket to Ride compliance.
• Created an aesthetically pleasing inpatient holding area to improve the patient experience. Improvements included updated lighting, fresh paint, pictures, and soft music to provide a patient waiting space that is similar to other waiting areas at Magee-Womens Hospital.
• Measured outcomes:
  > 35 percent reduction in ultrasound technologist total overtime hours (68 hours to 44 hours).
  > 47 percent reduction in transporter mean wait time for patient readiness for transport (7.3 minutes to 3.9 minutes). Transporters saved an average of 40 minutes per day in wait time.
  > Reductions in the range of time from patient arrival to procedure start (0–65 minutes to 0–36 minutes).
  > 50 percent reduction in the mean overall procedural time (14 minutes to seven minutes).
  > Improved reliability of face-to-face compliance for patient handoff from 30 percent before redesign to 100 percent after redesign.

REDUCING HOSPITAL READMISSIONS

Goal
Reduce hospital readmissions below national Centers for Medicare and Medicaid Service (CMS) benchmarks.

Outcomes
• Created a new chronic obstructive pulmonary disease (COPD) one-page handout and book. Reduced the book to include key educational content and adjusted it to align with the content in COPD discharge instructions.
• Updated the congestive heart failure (CHF) order set module to precheck the following items:
  > Cardiopulmonary rehabilitation consult for teaching
  > Home care order with telemonitoring as appropriate
• Tested CHF simulated game coach to improve education around core self-management concepts:
  > Setting up follow-up appointment with family doctor and knowing when to report symptoms
  > Daily weighing and knowing when to alert family doctor about weight gain
  > Taking medications as prescribed and reporting any unusual symptoms to family doctor
• Completed pilot testing at UPMC Mercy; 75 percent of the pilot group (n=20) showed gains in knowledge compared to only 38 percent of the usual care group (n=21).
• Created new education section in the electronic health record for easier documentation and helping nursing staff to determine needed education content for Clinical Outcome in Routine Evaluation (CORE) measures.
• Identified a new focus for FY14: Preventing Failed Discharges. This initiative will focus on preventing readmissions within seven days of discharge. The Failed Discharge Bundle includes:
  > Identifying high-risk patients
  > Completing comprehensive medication reconciliation
> Scheduling follow-up primary physician appointments
> Providing improved handoff to the next level of care
> Completing follow-up phone calls

THE PATIENT BLOOD MANAGEMENT (PBM) PROGRAM OF UPMC

Goal (Primary)
Collaborate with local UPMC transfusion committees to coordinate organizational quality and safety transfusion initiatives and promote innovative transfusion solutions. The PBM program supports a strategic six-point plan to promote evidence-based transfusion practices, thereby improving patient safety and quality. The six points are:

• Implement evidence-based transfusion triggers.
• Minimize blood product wastage.
• Promote preoperative anemia optimization.
• Limit iatrogenic blood loss.
• Provide education awareness and auditing for physicians and offer patients educational programs and tools to make informed transfusion decisions.
• Promote accredited intraoperative autotransfusion (cell salvage).

Outcome
Achieved a 13.5 percent reduction in blood product procurement from FY12 to FY13 across UPMC.

Goal
Implement transfusion criteria rationale to support evidence-based transfusion indications.

Outcomes
• Developed a clinical decision support tool within the computerized provider order entry (CPOE) of the electronic health record that allows providers to select an appropriate transfusion rationale.
• Developed CPOE monthly reports that provide details for blood product orders.
• Saved approximately 100 hours in FY13 by eliminating manual abstraction related to physician transfusion variances assessment.
• Achieved reductions in non-evidence-based transfusions by embedding transfusion guidelines within the physician blood order entry system. As a result of heeding the alerts (for out of guideline orders), 17 percent of RBC and 21 percent of platelet alerted orders were averted.

Goal
Raise preoperative anemia awareness and promote timely performance of hemoglobin analysis 14 to 45 days prior to surgical procedure date.

Outcomes
• Developed multimodal educational tools for health care providers and patients:
  > Promotional brochure (electronic and paper format) for health care providers titled Preoperative Anemia Correction: A Winning Strategy for Physicians and Patients
  > Educational brochure for patients titled Patient Blood Management: Your Care. Our Commitment.
• Published physician-to-physician podcast messaging to promote preoperative anemia correction.
• Developed electronic alerts to inform the surgeon and primary care physician (PCP) of preoperative patients who meet anemia criteria.
  > Expanded physician and PCP anemia alerting via dbMotion.
  > Aligned EpicCare Ambulatory Electronic Health Record order sets with hemoglobin testing guidelines of 14 to 45 days.
• Aligned existing organizational preoperative guidelines:
  > Anesthesia guidelines
  > Blood bank Hollister banding
  > Print-on-demand preoperative forms
• Participated in Quality BLUE P4P Program Surgical Safety in FY13.
  > Ten UPMC hospitals participated.
  > Eight of the 10 hospitals earned points (1 to 2 points) for achieving an adequate percentage of elective surgical patients that were screened for preoperative anemia within 14 to 45 days of surgery.

TOTAL JOINT REPLACEMENT CLINICAL PATHWAY

Goals
• Reduce practice variation through alignment of best practices and evidence-based guidelines for hip and knee replacement surgery along the continuum of care.
• Standardize patient and family education across all orthopaedic programs.

Outcomes
• Designed a clinical pathway from the initial surgical consultation to the inpatient surgical experience and through completion of outpatient rehabilitation goals.
  > Identified best practice guidelines for management of pain and anticoagulation.
  > Standardized antibiotic administration.
  > Established strategies for day-of-surgery physical therapy evaluation and early mobilization.
• Developed a universal total joint replacement postoperative order set to support the clinical pathway and promote adherence.
Collaborated with the Electronic Health Record Team to build a comprehensive Total Joint Replacement PowerPlan.

- Established a deployment and education plan for the first phase of programs at UPMC Shadyside, UPMC St. Margaret, UPMC East, UPMC Mercy, and Magee-Womens Hospital of UPMC.
- Developed the Shared Expectations Tool for physicians, patients, and families to better understand anticipated outcomes. Testing is under way at the University of Pittsburgh Physicians Shadyside practice.
- Analyzed available vendor and existing internal materials to define the content for standardized enterprise patient and family total joint replacement education.

UPMC EAST ASSESSMENT

Goal
Perform a current state assessment of focused department operations, including Emergency Department (ED) patient flow, interventional procedural suite scheduling, and the inpatient depart process, to identify opportunities for improvement.

Outcomes
- Developed a list of improvement opportunities by shadowing ED staff and patients, Environmental Services (EVS), interventional procedural schedulers, and inpatient nurses.
- Made the following recommendations:
  > 34 action items related to ED communication, role clarity, equipment, patient care, patient flow, and EVS practices
  > 10 action items regarding Lab point-of-care testing in the ED
  > 16 action items to improve interventional procedure scheduling practices
- Provided a summary of 12 patient discharge observations, detailing communication and timing practices between the physician, nurse, case manager, and social worker as well as barriers impacting efficient patient discharge.

UPMC PASSAVANT EMERGENCY DEPARTMENT (ED)/LABORATORY (LAB) FLOW

Goal
Perform current state assessment of UPMC Passavant ED specimen collection, labeling, and transport to identify opportunities for improvement.

Outcomes
- Conducted an ED/Lab current state assessment.
  > Interviewed ED technicians, health care unit clerks (HUCs), registered nurses, clinicians, physicians, lab director, lab quality assurance coordinator, and specimen processors.
  > Met with Information Services Division (ISD) corporate Sunquest team regarding collection and review of Sunquest turnaround time data.
  > Observed ED specimen collection, handling and transport, and lab sample receipt and preparation for analysis.
- Constructed the ED/Lab specimen timeline and flow to present to ED and Lab leadership.
- Documented UPMC system hospitals’ ED/Lab collection and labeling practices for reference and comparison (with Lab ISD).
- Presented findings and recommendations to the team April 22, 2013:
  > Conduct a feasibility study for establishing satellite testing in the ED.
  > Establish a protocol for the health care unit clerk (HUC) to use for handoff of pending specimens or orders.
  > Evaluate the use of and reduce the number of extra tubes collected to reduce waste.
  > Establish periodic specimen collection training and competency checks to ensure quality and reduce redraws.
  > Label specimens once, as close to the bedside as possible.

UPMC SENECA PLACE OPTIMIZING REHABILITATION SERVICES

Goal
Identify opportunities to streamline and coordinate patients’ on-time arrival for physical therapy at Seneca Place.

Outcomes
- Standardized a process for the multidisciplinary team to follow for transporting patients to physical therapy, including a definition of being “on time” and a time frame for meeting goals.
- Sustained an improved process, ensuring that the percent of patients arriving on time met or exceeded the goal of 90 percent compliance throughout this fiscal year.
- Packaged a spread plan toolkit for five UPMC skilled nursing facilities.
- Presented for use in the UPMC Case Mix Index (CMI) and the Minimum Data Set.
QUALITY EDUCATION

The relatively new disciplines of health care quality and patient safety have emerged as central to the development of exceptional health care and require acquisition of substantive knowledge and skills. The Donald D. Wolff Center for Quality, Safety, and Innovation at UPMC embraces the need to educate the current and next generation of frontline staff, quality improvement innovators, and patient safety leaders, and recognizes that effectively attacking health care errors requires new mental models, skill sets, and training.

JUST-IN-TIME CLASSES

Goal
Provide easy-to-access, on-demand education on key quality concepts to frontline staff and managers across the system.

Outcomes
• Completed development of and launched five new Just-in-Time second-level classes for a total of 10 one- to two-hour classes.
• Educated on 10 course topics:
  > Quality 101
  > Legos: Lessons of Lean
  > Plan Do Study Act Cycles
  > Data: Measurement, Variation, and Analysis
  > 5S
  > Assessing Your Current State
  > Reliability
  > Human Factors Design
  > Engaging Staff in Change
  > Implementing Sustainable Change
• Taught 109 classes in FY13, spanning close to 2,000 individuals, with many attending more than one class.
  > Offered 29 classes centrally.
  > Offered 110 on-site classes.
• Hospitals offering on-site classes included UPMC Bedford Memorial, Children’s Hospital of Pittsburgh of UPMC, Magee-Womens Hospital of UPMC, UPMC Hamot, UPMC Mercy, UPMC St. Margaret, ISMETT (by WebEx), UPMC Northwest, UPMC Passavant, UPMC East, and UPMC Presbyterian.
• Other business units offering on-site classes included Visiting RNs, UPMC Senior Communities, UPMC Health Plan, Physician Services Division, SWAT RNs, and a variety of corporate groups.
• Surveyed a sample of 862 participants. Of the 320 responses, 80.8 percent reported that they changed their improvement efforts as a result of the classes.

NURSE PLANNER

Goal
Meet requirements to award nursing continuing education (CE) credits for programming provided by the Donald D. Wolff Jr. Center for Quality, Safety, and Innovation at UPMC.

Outcomes
• Awarded nursing CE contact hours for Reliable/Variable Rounder Care Model Workshop, PARTNER Program training, and a Skeptical Thinking Workshop providing 3.7, 14.0, and 2.0 contact hours, respectively.
• Collaborated with the Center for Continuing Education in Health Sciences to award continuing medical education and nursing continuing education credit for three A Just Culture Forums and the Patient Experience Symposium, providing 8 and 3.7 contact hours, respectively.

QUALITY BOARD MEMBER EDUCATION

Goal
Educate systemwide and local hospital board members on key quality concepts and systemwide quality improvement efforts to increase board understanding of and support for quality. Best practice evidence suggests that engaged and informed boards have an important impact on the success of quality efforts.

Outcomes
• Provided a 90-minute quality orientation and packet of readings on key quality concepts to all new members of the systemwide board Quality Patient Care Committee (QPCC).
• Invited all members of all hospitals’ QPCCs to a three-hour education session based on the Institute for Healthcare Improvement Boards on Board program; attendance rates for all facilities were high.

QUALITY EDUCATION SERIES

Goal
Teach in-depth quality improvement concepts to a cadre of clinical and operational leaders through a six-month program in which staff implement a real-world improvement project and learn skills they can use for future improvement efforts.

• Posted the PowerPoint presentations and tools used in the Just-in-Time classes on Infonet to encourage all staff at UPMC to enhance their knowledge of quality improvement and encourage the utilization of quality improvement tools in the system.
Outcomes
• Combined five classroom sessions about improvement theories and methodologies with real-world work on a local improvement project to form the course. Classes were taught by UPMC clinical and operational leaders with improvement expertise. Students started with an improvement project idea and, during the course of the series, learned how to frame their problem, assess their current state, collect and present data to show change, assemble a team, design and execute tests of change, operationalize results for their leaders, and spread and sustain their changes.

• Conducted the third UPMC Quality Education Series from October 2012 through March 2013, with 23 participants from 17 different hospitals and business units.

• Continue to receive universally positive participant reviews. More people applied for the third series than we could accommodate, leading to the addition of a spring 2013 series with 13 participants.

• Posted the PowerPoint presentations and tools used in the Quality Education Series on Infonet to encourage all staff at UPMC to enhance their knowledge of quality improvement and encourage utilization of quality improvement tools in the system.

QUALITY SYMPOSIUM
Goal
Provide a forum for national and local expert speakers to share leading-edge quality improvement knowledge with a systemwide audience.

Outcomes
• Content
  > The 2012 Dr. Loren Roth UPMC Quality and Patient Safety Symposium, “Providing Excellent Care Every Time,” highlighted reliability science and techniques for applying it to local work.
  
  > National speaker Mark Chassin, MD, president, The Joint Commission (TJC), discussed national thinking about the importance of reliability and the related work of TJC. Roger Resar, MD, senior fellow, Institute for Healthcare Improvement, addressed specific and tangible strategies that staff can use to move toward high reliability.
  
  > Local speakers included Steven Handler, MD, who presented on reducing medicine errors; Karen Schaffer-Platt and Diane Zilko, who discussed their discharge-planning initiative within the Physician Services Division; and Deborah Kaczynski, who presented on UPMC Mercy’s work in improving hospitalwide flow.
  
  > Domestic and international quality initiatives were highlighted in poster presentations.
  
• Staff Reached
  > Attended by over 300 people at a live presentation in the Herberman Conference Center.

> Offered a live webstreaming option for remote hospitals, including UPMC St. Margaret, ISMETT, UPMC Hamot, UPMC Bedford Memorial, UPMC Horizon, and UPMC Beacon Hospital.

> Posted symposium videos on UPMC Infonet after completion of the Quality Symposium to allow more staff to access the information. The Quality Symposium page received 1,483 page views and 1,227 unique page views, with an average time spent on the page of just over five minutes.

UPMC PASSAVANT EMERGENCY DEPARTMENT (ED) LEAN/LEGOS CLASSES
Goal
Support UPMC Passavant ED’s goal to educate all staff in lean theory through lecture and Legos activity.

Outcomes
• Supported the ED director’s work to move the entire ED staff through a six-hour class on lean theory, Legos, and patient satisfaction from January 2012 through May 2013.

• Taught in six classes and provided instruction on lean methodology and Legos activity.
PATIENT CARE INNOVATION AND SHARED DECISION MAKING: THE BECKWITH INSTITUTE

At UPMC, The Beckwith Institute is dedicated to significantly improving patient care. It provides funding in the form of grants for the investigation and deployment of innovative, relevant, cost-effective, and paradigm-changing clinical process improvements. By providing grants, The Beckwith Institute supports the implementation of impactful change.

THE BECKWITH INSTITUTE

Goal
Provide grant funding through two systemwide programs for the investigation and deployment of innovative, cost-effective, and paradigm-changing clinical process improvements to improve patient care.

Outcomes
• The Beckwith Institute’s Frontline Innovation Program
  > Developed a funding program ($10,000 cap) focused on making advancements in all areas that affect the patient experience, including but not limited to the following:
    - Improving patient care at the bedside
    - Increasing efficiency of care and reducing care variations
    - Enhancing clinical leadership skills
    - Aligning point-of-care relationships and processes to support effective quality and safety cultures
    - Supporting the deployment of palliative care at a clinical level, including education strategies and clinical practice change
  >Received 37 applications and awarded six grants to UPMC frontline staff.

• The Beckwith Institute’s Clinical Transformation Program
  > Created a funding program ($25,000 cap) to pioneer new approaches to clinical processes that focus on improving patient outcomes through groundbreaking innovation, particularly in the area of patient-clinician engagement.
  > Supported efforts to better the patient and family interface with UPMC care teams by doing the following:
    - Designing and implementing tools and processes that will prepare care team members, including physicians, to accept and work with patients as “partners” in environments of Shared Decision Making
    - Promoting techniques that make it easier for patients to take care of themselves, for families to partner in caring for patients, and for families to establish patient and family expectations
    - Emphasizing process redesign and innovation that is future focused
    - Improving patient care, outcomes, and efficiency while controlling the costs of health care delivery
    - Incorporating technology that is applicable across diverse patient populations
  >Received 83 letters of intent, 34 applications, and awarded six grants to UPMC staff.
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