Abstracts Guide: Posters and Featured Projects

Boston | June 15–17
This guide will help you navigate the posters displayed onsite at VITAL2016. In this book you will find an overview of each poster and a number corresponding to the poster’s position in the Plaza Ballroom during the poster session. The poster session will showcase projects from the VITAL2016 conference posters, the 2015 Fellows Program, and Gage Award winners and honorable mentions. Authors will be available during the poster session to answer questions about their projects.

The back of the guide features other projects that do not have posters onsite. These abstracts further showcase the innovative and remarkable work that is occurring in essential hospitals across the nation.

POSTER SESSION

*Thursday, June 16 | 3:30–4:30 pm*
*Plaza Ballroom, Plaza Level*
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Prompted by an interest in improving the health of the population, enhancing the experience and outcome of the patient, and reducing the per-capita cost of care, states are implementing innovative programs to reform payment for and delivery of care.

The poster presentation will cover the practical steps in implementing a delivery system reform incentive payment (DSRIP) program and the challenges of addressing key socioeconomic barriers for more than 30,000 attributed patients. The lessons learned from effectively managing a defined population in an urban setting will be shared (Medicaid, charity care, uninsured, self-pay).

DSRIP initiatives are part of broader Section 1115 demonstration waiver programs and provide states with significant funding that can be used to support hospitals and other providers in changing how they provide care to Medicaid beneficiaries. The use of rapid performance evaluation cycles to ensure positive outcomes will be addressed.

Initiated in response to the Ebola outbreak in the summer of 2014, VCU Health's Unique Pathogens Unit (UPU) is one of two facilities in Virginia capable of caring for people diagnosed with serious communicable infectious diseases, including suspected or confirmed smallpox, Ebola, Marburg, and Lassa fever. These admissions are low-probability, high-impact events requiring significant resources and dedication.
One of the initial 35 Centers for Disease Control and Prevention (CDC)-designated Ebola Treatment Centers, the UPU initially comprised a small team from adult critical care, epidemiology, infection prevention, and emergency management departments. It has since grown to more than 120 volunteer members representing at least 35 clinical and nonclinical departments. The team is ready to stand-up a designated, self-contained, fully functional unit within four hours of notification.

The depth of the team enables VCU Health to provide emergent, acute, progressive, and intensive care in the adult, pediatric, and neonatal and obstetrical populations. The interdisciplinary team dynamic is key to VCU Health’s successful readiness and ability to provide quality medical care in the UPU. Many lessons were learned in the development of this interdisciplinary team and the collaborative efforts it took to join multiple departments and physical areas to eliminate variations in training regimens, protocols, and personal protective equipment standards.

**BOSTON MEDICAL CENTER**

Implementation of MICU Early Mobilization Protocol

**Presenter:** Avital Rech, MBA, Nurse Manager, 5W ICU and 5E MICU


The purpose of this project was to pilot an early mobility (EM) protocol created with a multidisciplinary team in two medical intensive care units (MICUs) for a six-month period, from December 2013 to May 2014; and track relevant outcomes that have been reported to benefit from EM, including ICU length of stay, nurse perceptions of early mobility, compliance with the pilot (documentation and mobilization of patients), and increase in physical therapy/occupational therapy (PT/OT) consults.

At Boston Medical Center (BMC), the approach toward EM of ICU patients had been characterized by

- variability among all ICUs;
- a lack of a standardized, multidisciplinary approach to assess and initiate a mobilization plan, and delineation of how to provide graded increase in mobility therapy; and
- a lack of a standardized method for documenting mobilization attempts and progress.
A multidisciplinary team convened and developed a process to increase early mobility in the MICUs and track compliance with the process and outcomes over a six-month period. Most of the goals were met. BMC had an overall decrease in ICU length of stay, an increase in early PT/OT consults in the ICU by more than 100 percent, and excellent RN compliance and adoption of the process of assessing and mobilizing patients in the ICU.

**BOSTON MEDICAL CENTER**

Improved Sickle Cell Pain Management in the Pediatric ED

**Presenter:** Renee Miner, RN, Staff Nurse

**Team members:** P. Kavanagh, P. Sprinz, A. Sobota, I. Izuchi, M. Champigny, K. Killius, K. Barry, M. Shurtleff, C. Defeo, J. Moses, T. Wolfgang, D. Dorfman, P. Cunningham

Children with sickle cell disease experience severe vaso-occlusive episodes requiring timely treatment with parenteral opioids. The purpose was to provide first opioid within 30 minutes of triage and streamline care using quality improvement methods.

A multidisciplinary approach and the Plan-Do-Study-Act (PDSA) cycle were used at Boston Medical Center (BMC) to improve time to first opioid pain medication (intravenous or intranasal). Secondary metrics included: administering the second IV opioid within one hour of triage; and decisions to initiate patient-controlled analgesia (PCA) and admit within two hours. Interventions included

- time-directed checklist, PCA and admission decisions;
- administering intranasal fentanyl as first opioid medication; and
- a pain medication calculator providing doses for all routes of pain medications.

BMC instituted a protocol of two intranasal fentanyl doses, then two intravenous opioid doses within one hour of triage. The checklist was modified to skip intravenous doses and transition to oral medications if pain decreased to mild or moderate after intranasal fentanyl doses.

As a result, care was streamlined. From September 2010 to April 2015, improvement was noted in three metrics: time to first opioid medication; time to second IV opioid dose; and time to PCA. Standardization of care and implementation of protocols led to increased knowledge among nurses and greatly reduced the variation in care provided to patients.
NYC HEALTH + HOSPITALS/BELLEVUE
Improving Patient Experience through Purposeful Rounding
Presenter: Imelda Merene, Director of Nursing
Team member: K. Mendez

In 2012, a pilot hourly rounding project to improve patient experience was initiated with a focus on four tenets: potty, position, pain, and patient experience. The hourly rounding was not initially sustained and the standard work around it was inconsistently followed. There was a heavy focus on documenting the rounds rather than the purpose of doing them.

In 2015, a working committee reviewed previous work and identified challenges and gaps. The team refocused its work on the purpose of the rounds and developed tools and standard work to support an improved patient experience. A standard rounding tool template allowed for specialty areas to make modifications to fit patient needs. Success focused on patient experience and safety. Established metrics included the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), hospital-acquired pressure ulcers (HAPUs), and falls. Leadership presence to support and encourage staff was employed. Issues identified during rounds were addressed. Pulse surveys and validation rounds focusing on adherence with standard work were employed. Biweekly patient experience huddles for day and night tours were facilitated by the chief nursing officer and chief medical officer to recognize improvements by teams and celebrate positive patient feedback. In 2015, there were positive improvements to HCAHPS, as well as a correlating decline in HAPUs.

BOSTON MEDICAL CENTER
Improving the Emergency Department Triage Process
Presenter: Pearl Cunningham, MBA, RN, Associate Chief Nursing Officer, Emergency Services

At Boston Medical Center, from October 2013 to April 2014, the average time from patient emergency department (ED) arrival to treatment space was 65.3 minutes for walk-in patients and 31.4 minutes for patients arriving by ambulance. The national benchmark for ED arrival to room placement was 25 minutes.

This project aimed to evaluate current processes and implement changes to improve patient care and increase patient satisfaction. A multidisciplinary team used the Lean Improvement Process to set a goal to decrease patient arrival-to-room time by 20 percent by December 2014. Existing processes were reviewed, strategies to improve were identified, and fast urgent care criteria were standardized. Education also was provided.
As a result, average arrival-to-room time for walk-in adult patients to the ED decreased from 76 to 46 minutes. Arrival-to-room time decreased from 18 to 13 minutes for adult ED patients arriving by ambulance. The average time for walk-in and ambulance patients from arrival to UC Roomed decreased from 88 to 65 minutes.

**BOSTON MEDICAL CENTER**

Increasing Workplace Safety in the Emergency Department

**Presenter:** Susan Griever, MS, NP, RN Educator, Emergency Department

**Team members:** M. Brown-Tyo, E. Anderson

Violence toward health care providers is a national issue. Staff in the Boston Medical Center emergency department (ED) felt unsafe and powerless in response to escalating patient behaviors and increased staff injuries.

A multidisciplinary workplace safety committee convened to address escalating staff injuries. The committee reviewed processes and identified strategies to improve staff safety.

ED educators became certified instructors of crisis prevention. All staff attended crisis prevention courses. Security presence was increased throughout the department. The reporting of staff assaults was streamlined and all staff were encouraged to report incidents of threatening behavior exhibited by patients. Personal safety devices were piloted for staff to wear at work. Safety alerts were incorporated in the electronic health record system. Signs were posted with patient behavioral expectations.

After 10 months, 184 ED staff participated in crisis prevention. Reporting of violent incidents increased. Public safety involvement increased. Staff assaults decreased.

ED leadership took measures to improve staff safety. Staff were trained to position themselves for safety at all times. Communication between ED staff and security improved and increased security presence provided a safer workplace. The workplace safety group continues to incorporate staff feedback, review safety issues, and implement safety procedures to improve the safety of staff.
MARICOPA INTEGRATED HEALTH SYSTEM (MIHS)
Nontraditional Approaches to Physician Engagement in CDI
Presenter: Jean Morris, MSM, RN, Director, Quality & Care Management
Team member: V. Bruno

Maricopa Integrated Health System (MIHS), in Phoenix, has identified specialty physician rounding as an area for opportunity and has worked to close documentation gaps by providing targeted physician education and increasing clinical documentation improvement (CDI) specialist visibility.

CDI specialists at MIHS began participating in weekly rounding sessions with the surgery, internal medicine and burn units at Maricopa Medical Center (MMC). Before each rounding session, the specialists conduct concurrent reviews and identifies query opportunities. The queries then are delivered verbally during rounding, which allows residents and attending physicians to contribute feedback and allows for educational opportunities for the group.

To cultivate cross-departmental relationships, the specialists also advocate for general surgery and internal medicine physicians to attend the Physician CDI Advisor Boot Camp conference. The specialist sends out a monthly newsletter that highlights the month’s educational focuses and features images that identify trends. The specialist also performs skits that target key objectives of the newsletter to make the overall experience more enjoyable for physicians.

These two interventions have assisted in a systemwide increase of 16.1 percent in case mix index (CMI) over four years. By proactively educating physicians on documentation trends and presenting information in a captivating manner, MMC has improved key measures with limited staff resources.

ZUCKERBERG SAN FRANCISCO GENERAL HOSPITAL AND TRAUMA CENTER
Operationalizing A3s into Performance Improvement Work
Presenter: Leslie Safier, Interim Director of Performance Improvement
Team members: W. Huen, T. Williams

An A3 is a structured template for the development of improvement plans. Through the development of A3s, individuals define problems, understand root causes, consider potential solutions, and check and adjust for results. Quality management leadership at Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) developed a tactical A3 with goals to reduce the overall observed-to-expected mortality ratio, reduce instances of avoidable harm, and reduce the 30-day all-cause readmission rate.

Traditionally, department leaders would direct champions to take action to improve and teams often rushed to solutions that failed to address root causes.
This led to unsustainable improvement. Under this new framework, quality and safety champions were asked to develop operational A3s to address the goals of the tactical A3. More than 55 weekly sessions have been held with quality management leadership and operational A3 owners to share progress, invite humble and effective questions, and discuss Plan-Do-Study-Act (PDSA) cycles.

Strategic deployment of A3s at ZSFG has led to the adoption of a common approach and language for problem-solving. Between July 2015 and March 2016, more than 75 drafts of eight quality and safety operational A3s were shared throughout ZSFG, leading to significant takeaways across the organization.

**ESKENAZI HEALTH**

**Patient/Family Description of Acuity Adaptable Care Model**

**Presenter:** Jennifer Kitchens, MSN, RN, Clinical Nurse Specialist Acuity Adaptable

**Team members:** J. Fulton, L. Maze

Older hospital facilities are challenged to retrofit newer technologies into clinical settings, and patients are frequently transferred within the same care settings to meet care needs. The Acuity Adaptable Care Model (AACM) is a universal bed model that maintains patients in the same room from admission to discharge while providing staff, equipment, and other resources for the patient according to level of acuity.

A qualitative framework and method were used to analyze narrative descriptions of receiving care in an AACM. Standard content analytic procedures were used to analyze participant responses. Participants found the AACM satisfactory and preferred it to previous hospital experiences. Three interrelated themes emerged—improving relationships, increasing safety, and promoting comfort—which culminated into one overarching theme of a healing environment. By bringing care to the patient, the AACM facilitates a perception of a healing environment.

This model of care should be considered when hospital facilities are undergoing major renovation or replacement.

**BOSTON MEDICAL CENTER**

**Promoting Newborn Breastfeeding Using Human Donor Milk**

**Presenter:** Cathleen Dehn, RN, MSN, PhD, Clinical Nurse Educator

**Team members:** G. Combs, R. Humphreys, M. McMahon, L. Lambert, S. Lewis, M. Pedulla, B. Philipp, K. Smith, T. Sommer

Boston Medical Center (BMC), an inner city essential hospital with approximately 2,500 births per year, prides itself on offering “Exceptional Care without Exception.” In 1999, the hospital achieved World Health Organization (WHO)/
United Nations Children’s Fund (UNICEF) Baby-Friendly designation, becoming the first Baby-Friendly Hospital in Massachusetts and the 22nd in the nation. In 2012, although donor milk was being offered in the level III neonatal intensive care unit, its use in the mother-baby unit was unusual.

A mother-baby unit interprofessional task force developed a process algorithm with the aim to provide donor milk to the babies with a policy and translated patient education materials. To date, despite years of work and compliance with the Ten Steps to Successful Breastfeeding, the unit’s exclusive breastfeeding rate struggles to exceed 50 percent. While on the unit, 95 percent of mothers initiate breastfeeding, and 85 percent give more breast milk than formula.

Maternity leaders view donor milk as a valuable way to help meet the goal of exclusivity for six months that is set by many groups, including the American Academy of Pediatrics, Academy of Breastfeeding Medicine, and WHO.

**BOSTON MEDICAL CENTER**

Promoting Pediatric Med Fill Rates with Meds in Hand Program

**Presenter:** Karan Barry, RN, Nurse Manager Pediatric Inpatient Program and Pediatric ICU  
**Team members:** J. Hatoun, J. Moses

Medication fill rates are of concern in pediatric asthma patients in populations with a higher incidence of asthma morbidity. Patients who are not able to fill asthma prescriptions at discharge are at known risk for recurrent exacerbations. A resident-led team at Boston Medical Center (BMC) used a three-step Plan-Do-Study-Act (PDSA) cycle to improve medication fill rates for patients discharged from the pediatric inpatient floor. An interprofessional team was formed to initiate a Meds in Hand delivery process to improve the percentage of children discharged with asthma medications.

Upon the decision to discharge a child, the Meds in Hand delivery service is initiated through discussion with the family. An electronic prescription is sent to the hospital’s outpatient pharmacy. An outpatient pharmacist delivers the medication to the patient’s bedside. The nurse is able to teach proper techniques for home medication administration and reinforces the asthma action plan.

This Meds in Hand program has promoted medication filling and adherence to the discharge plan for pediatric asthma patients. During the first two years of the program, 75 percent more patients were discharged with new asthma medications. Meds in Hand now is offered to all patients discharged from the pediatric inpatient unit at BMC.
BOSTON MEDICAL CENTER

Reducing Blood Culture Contamination Rates in the ED

Presenter: Mirinda Brown-Tyo, RN, MSN, Nurse Professional Development Specialist

Boston Medical Center’s emergency department (ED) blood culture contamination rates were above the national average of less than 3 percent, and single sets of blood cultures were collected in approximately half of the cases for which blood cultures were ordered. Contamination rates ranged from 2 percent to nearly 8 percent, and the baseline data for single-set collection was between 48 and 65 percent.

This was an important initiative because there is only one opportunity to obtain interpretable blood cultures before antibiotics are given. The aims of the project were to

• decrease blood culture contamination rates to less than 3 percent;
• decrease the number of single-set collections; and
• obtain an adequate sample size of 20mL for each set of blood cultures.

In June 2014, a multidisciplinary committee was formed to review the current practice of blood culture collection, including the evaluation of contamination rates and the quality of samples drawn in the ED. The committee’s intervention included multidisciplinary education, a process poster, a standardized order set, a standardized collection process, and pre-packaged kits.

The project goal was met: Single-set collections were significantly decreased. When the correct procedure for obtaining blood cultures is followed, there is a decrease in additional testing, hospital days, and antibiotic exposure for false positives.

ERIE COUNTY MEDICAL CENTER

“Skin Heroes” Reduce Pressure Ulcers, Difference Felt by All

Presenter: Lynn Kordasiewicz, MSN, Team Leader for Skin and Wound Care
Team member: G. McPartlan

Pressure ulcers are painful, disfiguring, cutaneous injuries that can perplex clinical pathways and delay the return to wellness. More than 2.5 million people in the United States develop pressure ulcers each year, and more than $11 billion is spent treating the dilemmas annually.

Erie County Medical Center’s (ECMC) health care team is implementing unyielding forces to prevent hospital-acquired pressure ulcers to improve patient care. The team approach embraces several disciplines from the urban
hospital, rehabilitation unit, long-term care facility, and home care agency to
develop and implement best practices for managing skin integrity. The recent
collaborative effort at ECMC and its allied organizations has reduced hospital-
acquired pressure ulcers and sustained an overall 3 percent incidence per
patient days.

The front-line team at ECMC is referred to as “Skin Heroes.” It meets on a
continuum and performs quality improvement audits and product evaluations,
plans educational opportunities, and communicates on an internal blog.
Heightened awareness of skin care and best practice has led to the decline of
hospital-acquired pressure ulcers at the medical center, resulting in optimal
recovery for patients beyond the hospital stay.

RIVERSIDE UNIVERSITY HEALTH SYSTEM

Texting for Better Care: Bridging the Gap Between Visits
Presenter: Peter Lee, MD, MPH, Associate Medical Director, Western Region
Team members: J. Vargas, F. Haque, D. Dujari, K. Davis, A. Reyes

In the primary care setting, there is a struggle to ensure patients receive enough
face time with providers. In conjunction with the University of California
Riverside School of Medicine, Riverside University Health System (RUHS)
implemented a health coaching program to extend accessibility to patients.

With partners at Ellipsis Health, the health system has implemented
bidirectional texting with a health coach. They found the response to be very
positive among both patients and the health care team.

By offering another option for communicating with its care team, RUHS hopes
to improve outcomes and satisfaction. A key difference between this project
and other texting programs is that the program uses live feedback as opposed to
automated messages.

The project has three arms:

• to improve care for patients as measured both qualitatively and
  quantitatively
• to provide a meaningful clinical experience for coaches
• to produce meaningful research from the project

Preliminary research into the intervention shows a reduction in HgbA1c of 1.8
percent, with follow-up analysis showing a further 0.33 percent decrease six
months later. RUHS is collecting and analyzing other clinical measures and
further research is underway.
HARRIS HEALTH SYSTEM
Trauma-Informed Care for HIV-Positive Homeless Patients
Presenter: Nancy Miertschin, MPH, Manager, HIV Projects
Team members: S. Pasalar, T. Giordano, R. Betancourt, J. Davila, Y. Quadri, C. Flash

Substance use, mental health disorders, and unmet needs services present barriers to engagement in HIV care and improvement of HIV viral load (VL) for HIV-positive homeless patients.

Harris Health System examined whether case management based on trauma-informed care improved outcomes. This study included out-of-care HIV-infected homeless patients in Houston who were enrolled in a Health Resources and Services Administration (HRSA) Special Projects of National Significance demonstration project. At enrollment, patient housing was assessed, as were substance use, mental health issues, and other unmet needs. Outcomes measured included change in housing status, engagement in care, and suppression of VL within 12 months of enrollment, compared with pre-enrollment.

Case management based on trauma-informed care focused efforts on improving housing and accompanying patients to appointments, which represented expansion of the scope of case management typically provided to HIV-infected patients.

Among 156 patients enrolled, housing status improved by 32 percent. Ninety-three percent had received mental health services and substance abuse treatment, and 71 percent had a physician visit within six months following enrollment, compared with 39 percent having a visit within six months before enrollment. Virologic suppression improved comparably for patients, regardless of housing improvement. The study suggests case management based on trauma-informed care may yield positive results in improving management of HIV among homeless patients.
2016 GAGE AWARDS POSTERS

The Gage Awards are presented to member hospitals and health systems for creative, successful programs and activities that enhance patient care or meet community needs. These posters feature this year’s Gage Award winners and honorable mentions in the categories of population health and quality.

Population Health

Winner

UMASS MEMORIAL HEALTH CARE
Addressing Pediatric Asthma Reduces ED Visits, School Absenteeism

Team lead: Ted Kremer, MD, Clinical Associate Professor of Pediatrics, Division Director, Pediatric Pulmonary and Sleep Medicine, Vice Chair Academic Affairs
Team members: M. Lowell, C. Lapriore, N. Okike

Worcester, Massachusetts, had nearly double the state average of pediatric asthma-related emergency department (ED) visits from 2009 to 2011. In 2014, UMass Memorial Health Care used grant funding to expand a pilot program in Worcester aimed at reducing school absenteeism, hospitalizations, and ED use among children with poorly controlled asthma. The intervention also established a Pediatric Asthma Task Force that advocates for individuals living in poor housing conditions that could be asthma triggers.

Under the program, when a clinician or school nurse identifies a child as high-risk asthmatic, a community health worker conducts a home visit to determine potential asthma triggers and evaluates whether the child’s medication should be administered at school.

As of December 4, 2015, 168 home visits have been conducted, and 32 homes received legal assistance in the first year of the program to rectify potential asthma triggers. In addition, UMass Memorial has provided asthma training to 65 school nurses and clinical staff members.

After one year, annual ED visits among 64 high-risk pediatric pulmonary patients who received asthma medications at school were reduced from 93 visits to 37 visits. In the same time, school absenteeism among nine of those children fell from 127 total days missed to 78.
Opioid overdose is the No. 1 cause of accidental death in Massachusetts, surpassing motor vehicle fatalities. In 2000, the Federal Drug Addiction Treatment Act was passed, allowing physicians to prescribe buprenorphine, a medication to treat opioid dependence in a primary care setting. But access to the drug has been limited, with high demand and less than 5 percent of the country’s physicians eligible to prescribe it.

To determine whether a collaborative care model could facilitate access to treatment and effectively manage opioid dependence, Boston Medical Center (BMC) launched a program that trained nurse care managers to

- screen patients for opioid use disorders;
- support medication administration, side effects, and interactions;
- monitor induction, stabilization, maintenance, and relapse;
- integrate team-based treatment plans;
- educate patients on treatment, safety, and self-care;
- assist with medical co-morbidities; and
- integrate team-based management.

Through a state-funded grant, BMC expanded the model into community health centers across the state in 2007, creating the State Technical Assistance Treatment Expansion Office-Based Opioid Treatment Program with Buprenorphine (STATE OBOT-B).

From 2007 to 2014, the number of physicians at eligible sites who were able to prescribe buprenorphine increased by 530 percent, and the number of patients accessing the STATE OBOT-B program at any one time increased by nearly 800 percent.
Quality

Winner

PARKLAND HEALTH & HOSPITAL SYSTEM

A Model for Patient Self-Care

Team lead: Kavita Bhavan, MD, MHS, Medical Director Infectious Diseases/OPAT Clinic
Team members: F. Cerise, R. Haley, L. Brown, D. Bokinsky, D. Agrawal, C. Girod

Long stays for antimicrobial infusion at essential hospitals often occupy beds that could be used for patients who require more intensive services. Parkland Health & Hospital System established a self-administered outpatient parenteral antimicrobial therapy (S-OPAT) to help uninsured patients transition safely from hospital to home.

The idea was to provide patients the option to complete therapy at home through a program of self-efficacy and patient empowerment. Before discharge, patients received standardized training on self-administration of intravenous antibiotics. Competency was established through a standardized protocol requiring patients to demonstrate mastery of all the steps in self-administration.

Launched in 2009, the five-year project resulted in nearly 30,000 hospital bed days being saved during the first three years. Of the 1,168 patients discharged, 944 participated in S-OPAT. The 30-day readmission rate was 47 percent lower in S-OPAT patients than those in the provider-administered OPAT group.

Honorable Mention

BOSTON MEDICAL CENTER

Preventing Post-Operative Pulmonary Complications with ICOUGHSM

Team lead: Pamela Rosenkranz, RN, MEd, Director of Clinical Quality and Patient Safety, Department of Surgery
Team members: D. McAneny, B. O’Donnell, Surgery Nursing Leadership to Front Line Staff, Respiratory Therapy, Physical Therapy, Surgery Residents, Physician Assistants

Postoperative pulmonary complications (e.g., pneumonia, unplanned intubation) occur in 2.7 to 3.4 percent of patients undergoing noncardiac surgery. Such complications increase the length of a patient’s hospital stay by an average of 14 days and may result in up to $52,000 per patient in additional costs.

With a goal of improving post-operative pulmonary outcomes, Boston Medical Center (BMC) developed a pulmonary care program that incorporates comprehensive patient and family education with standardized electronic physician orders for early post-operative mobilization. The ICOUGH acronym comes from the activities it emphasizes: incentive spirometry; coughing and deep breathing; oral hygiene; understanding through patient and family education; getting out of bed at least three times each day; and head-of-bed elevation.
In the 12 months after BMC began ICOUGH, the incidence of post-operative pneumonia following non-cardiac general and vascular surgery fell from 2.6 to 1.6 percent. During the same period, the incidence of unplanned intubation at BMC fell from 2 to 1.2 percent. The program resulted in an estimated cost savings of at least $3 million over two years.

Honorable Mention

ZUCKERBERG SAN FRANCISCO GENERAL HOSPITAL AND TRAUMA CENTER AND SAN FRANCISCO HEALTH NETWORK

Expanding the Care Transitions Continuum to Reduce Readmissions

Team lead: Michelle Schneidermann, MD, Professor of Clinical Medicine
Team members: E. Davis, J. Chase, K. Oza, H. Hammer, L. Thomas

To tackle the problem of high readmission rates at the 598-bed hospital, Zuckerberg San Francisco General Hospital and Trauma Center created the Care Transitions Taskforce in 2012. The taskforce developed a care model to help ensure timely and high-quality, post-acute care for all patients discharged from the hospital. This included

- scheduling follow-up clinic visits within seven days of discharge;
- scripted email guidance from inpatient providers to outpatient providers and staff; and
- an electronic medical record discharge database to help primary care clinics track discharges.

In one year, the hospital’s 30-day readmission rate fell from 13.1 to 10.3 percent. The proportion of patients attending follow-up visits within seven days increased from 38 to 51 percent. Just 6 percent of patients who went for a follow-up were readmitted.
Managing Pain in Obstetrics

Fellows: Kenneth Garay, MD, Senior Vice President and Chief Medical Officer; Rita Smith, DNP, RN, Senior Vice President, Patient Care Services & Chief Nursing Officer

Satisfaction scores for pain management, as measured by Press Ganey, have been in the lowest quartile in obstetrics despite improvements in other satisfaction indicators for the same population. There are three main reasons for pain in this population: labor pain and discomfort, postpartum vaginal delivery discomfort, and postoperative pain related to cesarean section. Jersey City Medical Center – RWJBarnabas Health implemented consistent protocols to improve scores.

The project included convening a team of all stakeholders, including patients, nursing staff, attending and resident physicians, pharmacy staff, and the chief medical officer. Fishbone diagramming and action plans were developed to assess the existing process. Bimonthly meetings were held with excellent attendance by stakeholders to discuss data and the development and implementation of agreed upon protocols. Involved staff were educated and issues were resolved as they were identified.

Improvement in satisfaction scores was immediate and sustained, moving from the 10th percentile in July 2015 to the 99th percentile by January 2016. Overall inpatient pain management scores also improved, going from 65th to 81st percentile.

Barnabas Health will continue to monitor and reinforce the process and protocols implemented and will use the same approach to evaluate pain management in abdominal surgery and orthopedic patients.

2015 FELLOWS PROGRAM POSTERS

The 2015 Fellows Program focuses on innovative and adaptive leadership. These posters highlight the projects fellows worked on throughout the program, with an emphasis on leadership lessons. * 

* Includes posters for fellows attending VITAL2016 as of May 9, 2016.
NYC HEALTH + HOSPITALS/KINGS COUNTY

Fellows: Renuka Ananthamoorthy, MD, Chief of Psychiatry, Behavioral Health Services; Kristen Baumann, Senior Director, Organizational Innovation & Effectiveness

The “Care When and Where Patients Need It” initiative at NYC Health + Hospitals/ Kings County is focused on reducing the wait for next-available appointments in the behavioral health ambulatory setting from 33 days to fewer than five days.

Kings County has done a significant amount of improvement work to reduce the length of stay (LOS) in both the Comprehensive Psychiatric Emergency Program (CPEP) and adult inpatient services. This project will take leaders through phases I and II of the center’s work to explain how, through a combination of adaptive leadership and lean thinking, it was able to reach a goal of providing next-available appointment in fewer than five days, as well as the center’s plans to sustain this effort going forward.

UNIVERSITY HEALTH SYSTEM

Fellows: Leah Meraz, Director, Funded Programs; Virginia Mika, PhD, MPH, Executive Director, CareLink; Camerino Salazar, MS, Senior Director, Health Analytics; Carmen Sanchez, MS, Director, Clinical & Business Analytics

The project goal is to facilitate access to a primary care appointment for newly enrolled CareLink patients. This effort also provides medically vulnerable patients with the opportunity to participate in population health management strategies, as well as strengthen timeliness, delivery, and convenience of clinical preventive care.

CareLink is a financial assistance program that helps to subsidize the medical care for eligible Bexar County residents living at or below 200 percent of the federal poverty level. A review of clinical and cost data demonstrates that 3 percent of patients enrolled in CareLink account for 42 percent of the program’s costs. These data make evident that a comprehensive, yet tailored, population health management approach is required to more coherently address the health services needs of this priority population.

Data show CareLink patients were delaying care because they could not navigate the system, resulting in use of the emergency center and incurring additional costs.

Primary care provider (PCP) appointments now are made at the time of CareLink enrollment. Initial data show a decrease in emergency center visits by 69 percent and Express Med (urgent care) visits by 19 percent for newly enrolled CareLink members.

The next steps are to continue to schedule PCP appointments during CareLink enrollment and to review data at three months, six months, and 12 months to measure outcomes.
In fiscal year 2015, the UAB Hospital nurse vacancy rate increased month over month and reached a high of 9.9 percent, greater than in recent years. More UAB Hospital nursing staff were achieving advanced degrees and leaving the bedside to pursue other nursing careers. The hospital’s recruitment and retention of new graduate nurses also had decreased. In parallel, a new hospital opened in a suburban area of Birmingham and the inpatient demand for services at UAB Hospital increased to a 95 percent utilization of bed capacity. UAB Hospital encountered difficulty staffing its nursing departments to their labor productivity standards.

The hospital’s leadership team and the UAB School of Nursing collaborated to develop a phased recruitment and retention strategy for nursing. The renewed partnership with the UAB School of Nursing, new pay practices, and the engagement of new registered nurses and front-line staff all were part of the approach that stabilized UAB Hospital’s nursing staffing model in six months. As a result, UAB is reinvesting in its nursing organization through a campaign called “The Difference: UAB Nurses.”

In 2015, the winter viral respiratory season hit New Mexico hard and had a profound impact on all children’s hospitals in the southwest and intermountain regions. Bed capacity at University of New Mexico (UNM) Children’s Hospital was overwhelmed, leading to overcrowding of the pediatric emergency department (ED) and the cancellation of dozens of scheduled elective pediatric surgeries. All regional pediatric facilities were on divert. It became clear there was no clearly defined process to decompress the pediatric ED, mitigate such a bed crisis, and avoid the cancellation of elective pediatric surgeries.

Following lean methodologies, the team developed a triage algorithm and associated processes to more effectively and equitably manage acute surges in pediatric admissions. Elements included

- strategic scheduling of elective pediatric surgeries during the at-risk two-month winter season and load leveling the weekly pediatric operating room schedule;
- determination of triggers for acutely expanding bed capacity into
nontraditional locations;
- assurance of staffing and physician teams to manage the additional admissions;
- development of a clearly defined and hardwired communications chain of command during a bed crisis;
- strategic increases in respiratory equipment par levels prior to winter;
- weekly monitoring of regional positive viral samples to predict a surge in respiratory illness load; and
- development and implementation of the bed crisis algorithm.

As of January 25, 2016, the processes are now in place, and the success of the mitigation plan during the 2016 season will be monitored.

UT HEALTH NORTHEAST
Turning Quality Upside Down

Fellows: Michele Bosworth, MD, Chief Quality Officer and Co-Chief Medical Information Officer; Brenda Lee, RN, MSN, Director of Healthcare Quality

UT Health Northeast’s Performance Improvement Council (PIC) consists of key members of the health system’s senior leadership. The structure of information flow through an organization is paramount in effecting change to improve quality of care. Historically, the PIC meetings would consist of a review and discussion of aggregate quality metric data for the institution, with the understanding that senior leaders would disseminate this data down to the department level, where performance improvement would occur.

Unfortunately, this model was ineffective—data did not get disseminated and performance improvement efforts were anemic. Changing this structure meant changing culture, striving toward data transparency, and providing performance improvement training. As a result, the structure was flipped. With the organizational development of service lines, quality metric dashboards also were developed for each service line. These dashboard metrics were divided into three categories: patient centeredness, clinical excellence, and patient safety. Individual service lines receive and decide on performance improvement efforts for their specific data.

Poor quality metrics that cross multiple service lines are analyzed and discussed in PIC subcommittees named for the set of metrics to which they are dedicated. The subcommittees lead up to three large-scale performance improvement projects per year. At monthly PIC meetings, work on such projects is presented to council members by the team leads, and discussion and leadership decisions for resource support and strategic planning occur. A next step in performance improvement efforts at UT Health Northeast is the development of the Healthcare Transformation Center, which provides performance improvement training.
Featured Projects
### Promising Program – New This Year!

This Gage Award category honors member hospitals for programs that demonstrate a significant opportunity to improve care.

**OLIVE VIEW-UCLA MEDICAL CENTER**  
Charting a Course through Cervical Cancer Care  
Team lead: Elizabeth Pineda, Cancer Care Navigator  
Team members: C. Holschneider, A. Carapetian, M. Amneus

Each day that chemoradiation therapy for cervical cancer is delayed, mortality increases by 1.3 percent. Yet, patients commonly face systemic barriers to receiving timely care.

A program developed by Olive View-UCLA Medical Center’s department of obstetrics and gynecology aimed to improve clinical outcomes, enhance patient care experiences, and reduce therapy delays for patients with cervical cancer. The Cervical Cancer Care Navigation Program provided a personal point of contact for patients throughout their therapeutic course who was capable of

- helping the patient overcome barriers to care; and
- serving as a bridge between the patient and the medical team.

To date, 104 cervical cancer patients have received navigated care. The percentage of patients completing primary chemoradiation within the target time frame—which is associated with improved likelihood of long-term survival—increased from 34 to 97 percent.

### Population Health

**HEALTH CARE DISTRICT OF PALM BEACH COUNTY - C. L. BRUMBACK PRIMARY CARE CLINICS**  
Colorectal Cancer Screening Project  
Team lead: Belma Andrić, MD, MPH, FQHC Primary Care Clinics Medical Director  
Team members: D. Kairys, I. Barlett, L. Hogans

The American Cancer Society recommends regular screening for colorectal cancer, but screening rates tend to be low for people with less income and low levels of education. The C. L. Brumback Primary Care Clinics created a plan to increase screenings by 10 percent for patients between ages 50 and 74.
Medical assistants were trained on ordering fecal immunochemical tests (FIT) and patients were asked to provide a stool sample while already in the clinic. Because FIT is more cost-effective than a colonoscopy, it is especially useful for uninsured patients. To increase education about FIT, multilanguage, illustrated instructions were made available to patients. The project also involved refining the referral process for insured patients.

Within 10 months of the program, the rate of patients screened increased from 37 to 67 percent. Of the 3,561 screenings ordered by physicians, 3,175 were returned.

**HENRY FORD HEALTH SYSTEM**

A Neighborhood Network for At-Risk Women

Team lead: Kimberlydawn Wisdom, MD, MS, Senior Vice President of Community Health & Equity and Chief Wellness and Diversity Officer

Team members: J. Clement, N. Dickinson, L. Hopkins-Johnson, F. Lane, C. Latimer, L. Reyes

Detroit has one of the highest infant mortality rates, at nearly 15 per 1,000 live births. This can be attributed to social health determinants, including education, employment, social isolation, social perception of females, and structural racism. Women most at risk often lack the medical and social resources they need.

To help at-risk women obtain better access to medical and social resources, the Detroit-Regional Infant Mortality Reduction Task Force, spearheaded by Henry Ford Health System, set up the Women-Inspired Neighborhood (WIN) Network in collaboration with other Detroit health systems to

- engage community health workers to link at-risk women to support services;
- provide equity training to health care professionals; and
- establish public health marketing to engage the broader community in promoting healthy pregnancies.

A total of 323 pregnant women and 1,200 nonpregnant women were enrolled in the network. As a result, none of the pregnancies resulted in preventable infant deaths, and the nonpregnant participants showed significant improvements in infant mortality awareness. The program’s social media outlets—where women are encouraged to share stories, build their support networks, and learn of existing resources—also saw a boost in traffic and engagement.
JERSEY CITY MEDICAL CENTER - RWJBARNABAS HEALTH

Wealth from Health® Incentives for Healthy Living Program

Team lead: Kwaku Gyekye, MHA, Director, Population Health

The Wealth from Health® program is an innovative self-management program that provides the opportunity of rewards to patients who have been diagnosed with one or more chronic diseases that are most sensitive to coordinated outpatient and acute care. The program uses nurses and lay navigator support to advocate for and motivate chronically ill patients using a points-driven financial rewards system enabled through partnerships with local businesses.

The program targets vulnerable patients, including: individuals with uncontrolled or poorly managed conditions; high-risk or complex patients; patients with multiple chronic conditions; patients who are noncompliant with medications or medical appointments; patients encountering challenging barriers to care; patients experiencing frequent inpatient hospitalization or emergency department visits; and individuals in need of care coordination.

The program reduced inpatient admissions by 41 percent and reduced costs by 49 percent, saving $4.9 million.

LAGUNA HONDA HOSPITAL AND REHABILITATION CENTER

Improving Lives of People with HIV/AIDS

Team lead: Sheryl Ronquillo, RN, Nurse Manager Positive Care Unit
Team members: C. Riley, S. Thompson, V. Behrman, P. Myung, J. Spencer-Davies, S. Schneider, S. Cooke, M. Santos, S. Smith, O. dela Cruz, T. Orzynski, S. Edelsberg, B. Austin, A. Hughes, C. Batten, P. Bevan, E. Lo, T. Devens, E. Garcia, Positive Care Nursing staff

The Positive Care Program at Laguna Honda Hospital and Rehabilitation Center is a 60-bed unit serving individuals with HIV/AIDS, most of whom are homeless and marginalized by society. The program provides post-acute medical and skilled nursing care. To contribute to the Joint United Nations Programme on HIV/AIDS’ policy of “Getting to Zero,” the program aims to maintain viral suppression by providing directly observed therapy (DOT). Other services include functional rehabilitation (physical therapy/occupational therapy/speech therapy), neuropsychological assessments and therapy, social work case management, activity therapy, registered dietitian services, HIV-pharmacist consultation, substance abuse treatment, pain clinic care, psychiatry and behavioral health care. State-of-the-art hepatitis C treatment also is offered and has a high success rate of cure. The program takes place in a caring, accepting, and inclusive environment.
From April to June 2015, 74 percent of the patients in the program were virally suppressed during their stay. By the end of June, 91 percent were virally suppressed. Of the 130 patients discharged from the program between July 2014 through June 2015, 49 percent were discharged to the community, 55 percent eventually returned to the program, and 10 percent died.

**UT HEALTH NORTHEAST**

**Pediatric Asthma Care through a Mobile Clinic**

**Team lead: Paul Sharkey Jr., MD, Associate Professor of Pediatrics**

**Team members: J. Aucar, N. Drennen, Z. Morales, K. Philley Starnes, N. Starkey, C. Warner**

Northeast Texas has a higher percentage of children with asthma than anywhere else in the state due to the high incidence of poverty, underserved children, and environmental triggers, such as smoking, pollution, high mold counts, and several major pollen zones converging over this area. Without proper care and self-management education, children often use emergency departments (EDs) or have to be hospitalized.

UT Health Northeast’s Breath of Life Mobile travels to local schools to diagnose children with asthma and provide no-cost treatment. The clinic worked with school nurses in 17 districts to identify children who would benefit from the program. One of the major goals was to help the children set and maintain a self-management plan focusing on recognizing, monitoring, and treating asthma symptoms, as well as environmental remediation where appropriate and possible. To ensure continuity of care, nurses followed up with patients to make sure they were following the care plans.

Of the 1,000 patients served by the clinic, 268 remained in the program for longer than a year. The program resulted in an 80 percent decrease in ED visits, a 90 percent decrease in hospitalizations, and a 46 percent decrease in missed school days.

**VENTURA COUNTY HEALTH CARE AGENCY**

**Diabetes Education and Care in a Group Setting**

**Team lead: Theresa Cho, MD, Director, Las Islas Diabetes Center**


Coping with diabetes in South Oxnard, an area with a particularly high prevalence of obesity and poverty, presents many challenges—lack of access to healthful food, communication and cultural barriers, and stigma.

To help patients overcome such barriers, the Ventura County Health Care Agency’s Las Islas Diabetes Clinic designed a group medical visit program that
allows them to reach more patients and consolidate the delivery of education. In a series of classes spanning six months, patients learned about diabetes self-management. The center designed a curriculum that would help patients reach their target hemoglobin (Hb) A1c level, with the aim of increasing the number of patients with HbA1c scores of less than eight by 10 percent. The center also designated students to monitor whether patients who were ordered for retinopathy screening were following through with the testing, with the goal of increasing the number of patients screened by 10 percent.

Results from the March to August 2015 class showed a 50 percent increase in patients who had A1c levels lower than seven, and a 21 percent increase in patients who had A1c levels below eight. The number of patients who had a retinal scan within the six-month period jumped from 45.8 to 91.7 percent.

VENTURA COUNTY HEALTH CARE AGENCY
Tackling COPD in the Community
Team lead: Renee Higgins, MD, CATCH Principal Investigator

Chronic obstructive pulmonary disease (COPD) is an incurable disease of the lungs that is the third-leading cause of death in the United States and fourth-leading cause of death in Ventura County. In 2014, the Ventura County Health Care Agency created the COPD Access to Community Health (CATCH) program to

• reduce costs associated with COPD treatment;
• identify and prevent COPD among Ventura County residents; and
• drive health care system transformation through implementation of evidence-based, clinical guidelines and a cost-saving payment model.

With a focus on smokers and former smokers, the program combined screening and prevention efforts with care coordination, provider incentives, and payment reform to improve health outcomes. Within the first seven months, CATCH resulted in a 28.6 percent decrease in emergency department visits among the 725 patients enrolled and a 36 percent decrease in self-reported symptoms.
ARROWHEAD REGIONAL MEDICAL CENTER
Reducing the Number of Patients with Long-Term Catheters
Team lead: Jeri Lyn Randolph, Lean Program Manager
Team members: E. Chan, L. Diaz, C. De Sangun, K. Wisenski

In April 2015, 30 percent of hemodialysis patients at Arrowhead Regional Medical Center’s outpatient dialysis clinic had long-term catheters (LTCs), defined as being in use for more than 90 days. Catheters in place for that long increase patients’ vulnerability to central line–associated blood stream infections. The clinic also faced a potential loss of more than $870,000 annually if it did not reduce the percentage of its patients with LTCs to 10 percent or less, as required by the Centers for Medicare & Medicaid Services (CMS).

The dialysis clinic began participating in a CMS quality and performance improvement initiative with other Southern California clinics and formed a multidisciplinary team that used lean methods to analyze the process and provide fast, focused improvements. The team concentrated on how to reduce the total cycle time for a patient to receive an AV Fistula catheter. At the beginning of the project, the cycle time for a patient to receive an AV fistula was between 21 and 26 weeks—more than twice the length of time permitted by CMS.

Incorporating a patient volunteer on the team provided insights to the clinic staff on how to more quickly move patients through the catheter removal process. In addition, the initiative helped to identify the need for a process by which patients with chronic kidney disease are identified earlier and provided with education on dialysis modality to better prepare them for the procedure.

As a result of the initiative, the percentage of patients in the dialysis center with LTCs fell from 30 percent in April 2015 to 5.4 percent by November 1, 2015.

BOSTON MEDICAL CENTER
Improved Handoff Procedures Remedy Communication Errors
Team lead: Nancy Gaden DNP, RN, Senior Vice President and Chief Nursing Officer
Team members: N. Lincoln, K Scanlon, K. Kremer, K. Villanova

In 2014, communication errors were identified at shift change on a cardiac interventional floor at Boston Medical Center (BMC), an inner city academic hospital that serves a large number of vulnerable patients. To address such errors, BMC implemented a three-month rapid cycle improvement project that aimed to improve patient safety and satisfaction on one target inpatient unit. The project involved two new handoff procedures:
• I-PASS, an evidence-based, standardized verbal handoff format, along with electronic health record handoff tools.
• SAFETY, a structured bedside handoff format facilitated by a checklist.

All registered nurses on the floor received video training on the new procedures and attended staff meetings to discuss the processes.

Following implementation, BMC used the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) to evaluate the project’s success related to patient experience. After implementation of the new handoff procedures, the medical center reported increased scores on several HCAHPS questions:
• “Staff do everything to help with pain” (50 percent increase)
• “Nurses listen carefully to you” (16.7 percent increase)
• Patients “rating the hospital a nine or 10” (8.3 percent increase)

In addition, the fall rate decreased 51 percent during the pilot program.

JOHN PETER SMITH HOSPITAL
A Collaborative Approach to Sepsis Care

Team lead: Lori Muhr MSN, MHSM/MHA, APRN, Sepsis Clinical Coordinator

Sepsis affects approximately 1 million patients annually and results in 250,000 deaths, according to the Society of Critical Care Medicine. To improve treatment and patient outcomes, John Peter Smith Hospital (JPS) implemented a coordinated approach to follow sepsis guidelines.

The hospital began using the systemic inflammatory response syndrome to diagnose sepsis at an early stage. Depending on a patient’s needs, a three-hour or six-hour treatment bundle was initiated by emergency department physicians.

Before this project, the mortality rate due to sepsis was 24 percent at JPS, ICU length of stay (LOS) was 5.3 days, total LOS was 14 days, and compliance to the sepsis care bundles was at 35 percent. After 30 months, the hospital’s sepsis-related mortality rate fell to 13.7 percent, ICU LOS fell to 3.9 days, total LOS dropped to 10.4 days, and compliance to the care bundles was more than 86 percent. The project has saved JPS millions of dollars and prevented the deaths of more than 68 patients.
**METROHEALTH MEDICAL CENTER**

Reducing Clostridium Difficile Infection

**Team lead:** Amy Delp, MSN, RN, Vice President of Quality, Inclusion and Diversity and Clinical Operations

**Team members:** K. Kennedy, J. Conti, C. Taylor, A. Anderson, G. Hubbard, M. Mays, N. Rabic, D. Suminski, J. Hanrahan

*Clostridium difficile (C.diff)* is a health care–associated infection that causes severe inflammation of the colon and diarrhea. A recent study by the Centers for Disease Control and Prevention found that half a million U.S. residents had *C.diff* in 2011, 29,000 of whom died within a month of being diagnosed. Recognizing the threat, MetroHealth Medical Center created a plan to reduce *C.diff* infections at the hospital and created an antimicrobial stewardship program.

The hospital’s environmental services staff was asked to implement specialized cleaning, including the use of an ultraviolet light machine, in rooms of patients with *C.diff*. Fluorescent dots made of laundry detergent were placed on commonly touched surfaces in the room, such as bedrails, bedside tables, and call lights. Following daily cleanings and discharges, surfaces were checked with a black light to make sure no dots were visible.

As a result of the project, the hospital saw a greater than 50 percent decrease in *C.diff* rates—far surpassing the goal of reducing *C.diff* by 30 percent. From July to September 2015, the rate remained at or below 0.21 cases per 1,000 patient days.

**NYC HEALTH + HOSPITALS**

HHC ACO Saves Medicare Dollars, Improves Quality

**Team lead:** Ross Wilson, MD, Senior Vice President and Corporate Chief Medical Officer

**Team members:** N. Stine, M. Cunningham, S. Cirilo, J. Haven, J. Turi

Health care delivery and payment models are undergoing radical redesign efforts focusing on the provision of high-quality, lower-cost care. Over the next few years, a significant portion of Medicare and Medicaid payments will become tied to value, and health systems that care for the vulnerable will be particularly pressed to demonstrate success in this new payment landscape, as subsidies for care of uninsured individuals are reduced.

To that end, NYC Health + Hospitals joined other physicians groups in 2013 to form a subsidiary nonprofit accountable care organization (ACO) that participates in the Medicare Shared Savings Program (MSSP). An analysis of Medicare claims data indicated that the greatest opportunity for the HHC ACO to improve the health of its target population was to reduce emergency department (ED) visits and inpatient admissions.
The ACO was among the top-performing ACOs in the nation in 2013 and 2014, demonstrating that better connecting patients to robust primary care and supporting care coordination can significantly reduce ED visits and inpatient admissions. HHC ACO had an overall quality score in the 76th percentile and was among just 15 percent of MSSP ACOs to generate savings in both 2013 and 2014, saving Medicare $7.2 million and $7.1 million, respectively.

NYC HEALTH + HOSPITALS/KINGS COUNTY
Transforming Lives through Diabetes Education

Team lead: Suzette Williams, RN, MSN, Coordinator of Diabetes Education Program

Diabetes disproportionately affects low-income and minority families in New York City, with one in nine people reported to be living with the disease in 2013. Research shows that patient self-efficacy is a cornerstone of diabetes care, so NYC Health + Hospitals/Kings County created an educational curriculum to teach about symptoms and management.

Goals of the program, which consists of six weekly sessions, included helping patients to

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Accommodations were available for patients with limited English proficiency, low education, and low health literacy. The hospital also extended screenings and education to families, support persons, and the community.

Before the six weekly classes, the hospital found that 37 percent of the patients enrolled in the program had blood pressure levels less than 140/90, 46 percent had A1c levels above nine, and 29 percent had low-density lipoprotein cholesterol (LDL) levels below 100. After graduating, 55 percent of participants had blood pressure lower than 140/90, 24 percent had A1c levels above nine, and 67 percent had LDL levels below 100. The hospital has seen a boost in enrollment and referrals since the inception of a nurse referral project in 2014–2015. Two more classes per week will be added to accommodate the growing interest.
WOMEN & INFANTS HOSPITAL OF RHODE ISLAND
Taking Steps to Improve Breastfeeding Outcomes
Team lead: Cynthia Zembo, RN, Lactation Consultant

The benefits of breastfeeding and their impact on decreasing racial health disparities are well documented. Centers for Disease Control and Prevention (CDC) data show that Rhode Island had the lowest breastfeeding rates in New England in 2012. In addition, state Department of Health data show that while 80 percent of women at Women & Infants Hospital of Rhode Island intended to breastfeed that year, more than 60 percent of newborns at the hospital were fed formula before discharge.

With paradigm shifts focusing on health and wellness, breastfeeding has become even more important. To that end, Women & Infants Hospital implemented the World Health Organization’s (WHO) 10 Steps to Successful Breastfeeding. Under the initiative, all staff were trained to competently
  • avoid the use of bottle nipples and pacifiers;
  • avoid unnecessary formula use;
  • educate pregnant women about breastfeeding;
  • feed newborns according to feeding cues;
  • help mothers breastfeed comfortably;
  • keep mothers and infants together through their hospital stay; and
  • refer mothers to post-discharge breastfeeding support.

As a result of the initiative, the rate of infants at the hospital who were exclusively breastfed doubled. In addition, Women & Infants Hospital became the second-largest birthing facility in the United States to achieve designation by WHO as a Baby-Friendly Hospital.
2015 FELLOWS PROGRAM

CARE NEW ENGLAND HEALTH SYSTEM

Getting Off of the Dance Floor and onto the Balcony: Butler Hospital Partial Redesign Project

Fellow: Mary Marran, MS, MBA, Vice President

The transition from volume to value-based care requires cost-effective services to be designed in more innovative ways. Butler Hospital, an acute psychiatric hospital in Providence, Rhode Island, has embarked on a partial hospital program redesign project to more effectively align services with the population health objectives of its parent organization, Care New England Health System. The goal is to move from an outdated private practice model to an interdisciplinary team approach that reduces costs and improves quality.

This redesign has presented significant leadership challenges as it dramatically changes how physicians, nurses, and licensed clinical staff interact in the context of providing care. The interplay of the speed of change and the engagement of stakeholders in this process has revealed leadership challenges that have required careful navigation. Despite successfully reducing pharmacy costs, increasing physician-to-patient ratios and reducing group size, the process of change was and continues to be a careful one.

This project demonstrates how change, if not carefully navigated, can be the source of perceived threats to stakeholders, which can paralyze progress. This poster provides an overview of the problem, a description of project objectives and outcomes, and the pertinent leadership challenges and lessons learned.

CONTRA COSTA REGIONAL MEDICAL CENTER

Reducing the Use of High-Cost Imaging for Low Back Pain and Screening DEXA Scans

Fellows: Gabriela Sullivan, MD, Specialty Medical Director; Timothy Thompson-Cook, MBA, Chief Operations Officer

Contra Costa Regional Medical Center (CCRMC) cares for vulnerable people in the San Francisco Bay Area. Like many public health systems, it is challenged to provide optimal, evidence-based care with limited resources. Choosing Wisely is an initiative by the American Board of Internal Medicine to identify commonly used tests or procedures that should be questioned or discussed. This initiative caught the medical center’s attention, as it promotes important conversations about the judicious use of resources.
CCRMC staff chose to focus on two of the 15 recommendations from the American Academy of Family Physicians that related to imaging studies. Once they gathered the data on these metrics from organizational use patterns, they identified targets for improvements and embarked on an educational campaign for patients and providers. This included screensavers, posters, pamphlets, and brochures. Staff also surveyed providers about Choosing Wisely awareness overall and the imaging recommendations in particular.

CCRMC will resurvey providers quarterly and query the data again in 90 days to assess compliance with its stated targets for the two metrics. The medical center’s other goal is to spur awareness and conversations between providers and patients about Choosing Wisely’s other recommendations.

**COOK COUNTY HEALTH & HOSPITALS SYSTEM**

**There’s No Place Like Home: Transitioning from Medical Apartments to Medical Home Ownership**

**Fellows: Krishna Das, MD, Chief Quality Officer; Irene Marks, MS, RN, Director of Quality, Ambulatory Services**

The Cook County Health & Hospitals System has a goal to implement the patient-centered medical home (PCMH) model of care at its 15 primary care facilities—this project revealed both technical and adaptive challenges to doing so.

Core elements of the model require a collaborative, team-based approach and accountability for health care delivery among front-line workers and facility leaders, which was a cultural transformation from the existing environment. These challenges included service line “silos,” lack of local leadership, and few, if any, meetings between medical, nursing, and administrative leaders, which all had to be addressed to achieve the system’s goal. A four-phase approach was used to introduce specific milestones and construct the homes:

- Phase I—lay the foundation
- Phase II—framing and structure
- Phase III—insulate
- Phase IV—finishing touches

Local and regional leaders were engaged to develop site-specific workflows for each milestone. A criteria-based tracer tool was developed to monitor and evaluate compliance. Local and regional leaders were charged with providing monthly and quarterly oversight in their respective areas. A PCMH dashboard was created to track ongoing compliance with reporting milestones. The systematic rollout format made it feasible for the local leaders to work collaboratively on smaller projects (technical challenges), and the collective reporting format allowed these leadership teams to collectively take accountability for the project (adaptive challenge).
GRADY HEALTH SYSTEM
Nowhere to Go: Georgia Dome Accident Exposed City Wide ED Diversion Problem
Fellows: Hany Atallah, MD, Chief and Medical Director of Emergency Medicine; Ben Mckeeby, SVP/CIO

Hospitals in Atlanta are on diversion frequently and lack standardization in diversion criteria and thresholds, which creates challenges for patient access to critical services, especially in mass casualty incidents. The goal of Grady Health System’s project is to develop an objective, citywide diversion system that will better balance patient flow to health systems and improve access to care and surge capacity.

HEALTH CARE DISTRICT OF PALM BEACH COUNTY
Increasing Rates of Colorectal Cancer Screening
Fellow: Belma Andrić, MD, MPH, FQHC Medical Director

In 2014, the C. L. Brumback Primary Care Clinics, federally qualified health centers with eight locations, received a $50,000 Walgreen Co. grant for colorectal cancer (CRC) screening through the American Cancer Society. The goal was to increase the CRC screening rate from 37 to 47 percent in one year for patients ages 50 to 74.

Interventions implemented included: robust patient navigation; staff education on screening protocols (the “Open Access Colonoscopy” protocol allows the clinics to prep patients for colonoscopies in-house); new standing order procedures; electronic health record optimization; multilingual illustrated patient instructions for fecal immunochemical test (FIT) collection; innovative techniques for increased patient compliance; improved colonoscopy referral processes for insured patients; and identification of an access point for uninsured patients to get colonoscopies.

From January 1 to November 1, 2015, the clinics screened 67 percent of patients, or 4,414 of 6,572. The clinics’ primary care providers (PCPs) ordered 3,561 FIT collections. Of those, 3,175 were returned and 216 were abnormal, of which 52 were uninsured patients. Of those 52 uninsured patients, 35 received colonoscopies performed by the general surgeon at the county’s public hospital, Lakeside Medical Center; one was diagnosed with colon cancer. Fifty polyps were removed and 10 were highly dysplastic. Leadership learned that transparency drives change and quality improvement, but PCP collaboration is critical for success.
HENNEPIN COUNTY MEDICAL CENTER
Expanding Clinic Hours to Meet Patient Needs: A Win-Win?
Fellows: Christopher George, RN, Senior Director Primary Care; Jeffrey Morken, MD, Senior Medical Director of Ambulatory Specialty Care Service

Health care access is expanding into nontraditional hours (evening and weekends). Hennepin County Medical Center (HCMC) sought to increase targeted primary care and specialty care clinic access during these expanded hours. The medical center identified six primary care clinics and two specialty clinics (orthopedics and ophthalmology) for expanded hours. HCMC first aligned goals with the department chiefs and messaged the providers. Next, staffing levels were expanded for clinic staff and support services and these expanded hours were marketed.

By offering patients a chance to be seen when they want to be seen, HCMC realized a 7.1 percent increase in patients seen with commercial insurance, a 6.2 percent decrease in patients seen with a government payer source, and a decrease at most clinics in no-show rates during the expanded hours.

Future efforts will include eliciting providers’ response to working nontraditional hours and performing a more robust financial analysis to determine the cost of care versus the revenue generated. Also, HCMC would like to explore other options to expand access (e.g. telehealth).

Leadership lessons included the need to properly engage stakeholders, align providers and operations, and manage resistance to adoption in some areas.

NYC HEALTH + HOSPITALS
Leading in a Time of Change—One System, United in Purpose
Fellows: John Jurenko, Senior Assistant Vice President, Intergovernmental Relations; Ivelisse Mendez-Justiniano, MBA, MS, Assistant Vice President, Workforce Development

This project focused on the transformation of workforce development from a tactical, reactive entity to a strategic partner in NYC Health + Hospitals’ transformation into a health care system. The main success factor in this transformation is the shift in paradigm from employees viewing themselves as belonging to one specific work site to viewing themselves as part of a larger health care system. The first step in achieving this was to focus on the workforce as a strategic priority. Second, the hospital added a systemwide new employee orientation program so the onboarding process was no longer just facility-specific. New employees were welcomed and oriented to the system by the NYC Health + Hospitals president and senior officers. Furthermore, a leadership academy was developed to teach leaders at all levels how to improve operational and strategic skill sets and provide a supportive environment to their staff. All cohorts within
the leadership academy and new employee orientation were designed with systemwide participation in each session. These were the initial steps of a five-year plan. Still to come is standardizing of messages and transformation of training department structures throughout the system.

NYC HEALTH + HOSPITALS/CONEY ISLAND
Enhancing the Patient Experience through Employee Engagement
Fellow: Jordana Bailey, MBA, MSS, Associate Executive Director

In accordance with NYC Health + Hospitals’ systemwide vision, all outpatient clinical practices must achieve a 93 percent or higher patient satisfaction score by 2020. For Coney Island Hospital to align with this vision, it focused immediately on a first quarter 2015 patient satisfaction score of 75 percent in outpatient ambulatory care practices.

Hospital staff began to drill down on the two main areas of opportunity: nursing (adaptive challenge) and moving through the visit (technical challenge). They developed an interdisciplinary, patient-centered ambulatory care practice team focused on improving the patient experience, patient satisfaction, and access to care through employee engagement initiatives.

Through these initiatives, Coney Island Hospital ranked first in the health system by the end of December 2015 for patient satisfaction scores for outpatient ambulatory care. The initiatives also enhanced employee engagement.

TAMPA GENERAL HOSPITAL
Great Data Gives LIFE to Quality: Development of a Multidisciplinary Neonatal Mortality Review System
Fellow: Laura Haubner, MD, VP, Chief Quality Officer

At Tampa General Hospital, neonatal mortality was higher than Vizient, despite a better-than-benchmark performance in a national neonatal registry. The hospital utilized an Agency for Healthcare Research and Quality project toolkit to develop a systematic process to review 100 percent of neonatal deaths for improvement opportunities. A multidisciplinary review process aimed to: improve documentation and coding to ensure an accurate reflection of risk of mortality; and decrease preventable causes of neonatal mortality.

The project was given a 10-month timeline, but was completed in eight months. Detailed task assignment to team members with target completion dates and implementation dates of each practice kept the project on schedule for a formal neonatal mortality review on September 9, 2015. The project enabled swift improvement in Vizient performance as compared with medial mortality O/E ratio. This was achieved primarily through documentation improvement.
and reduction of mortality ratio by 50 percent in nine months. It also resulted in efficient and actionable structured mortality for opportunities in care improvement is now recurring and enabling care redesign in the neonatal intensive care unit.

**UW MEDICINE**

Mobility is Medicine! Changing the Culture of Mobility

Fellows: Drew Lo, Performance Improvement Director; Johanna Wood, MS, Manager, Acute and Burn Rehab Therapy

Prolonged immobility during hospitalization is harmful to patients and the health care system, as it leads to adverse outcomes, including increased medical complications, longer stays, and readmissions. The goal was to increase mobilization in a resource-responsible way and to change the culture of mobility from physical therapists “PT” to “all staff.”

In a multiphase design, front-line mobility champions were identified for each unit. These champions were educated about benefits of mobility and trained on safe patient handling. Monthly champion meetings helped guide them in leading a culture change in their units. New protocols were designed to help nurses appropriately progress mobility and establish triggers for therapy consults. Therapists helped support effort through brief daily mobility rounds, and a new Rehab Mobility Tech (HA) position was established to better support complex mobility in the intensive care unit.

As a result, four units and one acute floor have rolled out progressive mobility. Five additional floors are in process, with a final three floors pending later this year. Initial pilot results show increased mobility and patient satisfaction, decreased medical complications and shorter length of stay, and significant impact on falls and staff injury.

**WVU MEDICINE**

Improving OR Efficiency: Time is Money, Money is Time

Fellow: Manuel Vallejo Jr., MD, DMD, Professor and Chair, Department of Anesthesiology

On September 8, 2015, the anesthesiology department at West Virginia University introduced a computerized “anesthesia ready” time of 7:30 am to measure first-case operating room (OR) on-time starts. OR first-case starts and OR utilization rates were measured daily, weekly, and monthly. An operations committee held weekly and monthly meetings to review OR first-case starts and utilization rates and to create a scheduling task force steering committee involving anesthesia, surgery, and nursing stakeholders.
The goal was to increase on-time, first-case OR starts and OR utilization rates to 80 percent by March 1, 2016. OR first-case starts went from 78.8 to 88.2 percent, which was a significant improvement (P < 0.001). However, OR utilization only went from 57.2 percent to 58.6 percent. The department will continue to maintain OR first-case starts greater than 80 percent and work on the goal of obtaining an OR utilization rate greater than 80 percent through the methods described above.
**VITAL 2017 Call for Proposals**
Applications open Tuesday, September 6
vital.essentialhospitals.org

**2017 Gage Awards**
Applications open Monday, October 3
gageawards.essentialhospitals.org

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