Contra Costa Regional Medical Center
and Health Centers

Transforming Health Care:
Delivery System Reform Incentive Payment Plan (DSRIP)
Demonstration Year 8

Annual Report
October 31, 2013

Contra Costa
Regional Medical Center
& Health Centers
A Division of Contra Costa Health Services

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DSRIP DY8 Annual Report
Introduction

Contra Costa Regional Medical Center and Health Centers (CCRMC and HCs) mission is to “care for and improve the health of all people in Contra Costa County with special attention to those most vulnerable to health problems.” In working toward achieving this mission, CCRMC and HCs has embarked on an ambitious plan to expand access to care and enhance quality through a robust effort called the Delivery System Reform Incentive Payments (DSRIP) program. This report provides a year-end summary of our DSRIP activities.

There are three primary goals to DSRIP: improve population health, enhance the patient experience, and reduce/control the cost of care. In this unique state and federal joint program, public hospitals receive government funds for achieving specific performance improvement milestones. This pay-for-performance program is one component of California’s Section 1115 Medicaid waiver, which is sometimes referred to as the state’s “Bridge to Health Care Reform.”

While large-scale overhauls can take a decade or more to achieve, DSRIP, which began in November, 2010, requires that California’s 21 public hospitals reach an average of 217 milestones in five categories within five years. The categories include: Infrastructure Development; Innovation and Redesign; Population-Focused Improvement; Urgent Improvements in Care; and HIV/AIDS Transition Projects.

CCRMC and HCs’ DSRIP Overall Framework
Three years into the DSRIP program, CCRMC and HCs has met all the milestones required to date and is seeing results in these groundbreaking efforts to transform our county’s care delivery system into one that is patient-centered, evidence-based and state of the art. The DSRIP has allowed us to undertake and sustain an approach to system change that involves staff at all levels of the organization, while also including patients in a more meaningful way than ever before. As a result, we are instituting forward-thinking approaches to care delivery that we believe will lay the foundation for high quality care delivery and profound culture changes in our integrated health care delivery system for decades to come.

The DSRIP has become integral to how we promote patient safety, quality and experience of care. It requires a level of accountability and follow-through unmatched by other initiatives. It also serves as a catalyst to other related programs and projects. The DSRIP requires prioritization, accountability, goal-setting and frequent pivots and adjustments to make sure we do everything possible to achieve the agreed-upon goals. We feel the DSRIP is the beginning of a journey away from fee-for-service and towards a permanent payment system based on quality, safety and patient experience.

The road traveled thus far has not been straight and smooth, but we view the bumps encountered on the way as opportunities for shared learning within our organization, with our peer hospitals and with others outside California who are launching similar pay-for-performance Medicaid waiver programs. Notably, we have learned the importance of integrating an electronic health records system (EHR) with DSRIP activities to build a framework to support system redesign. We did encounter short-term setbacks in some data collection with the rollout of our EHR in July 2012. However, our EHR will help us achieve DSRIP milestone goals such as the collection of data to reduce disparities; better tracking of patients with chronic conditions; and patient safety alerts for the critically ill will help guide our efforts to improve care delivery and outcomes in the long-term.

We are extremely proud of our achievements in DY8. Employees worked hard to reach the 78 milestone target measures across 20 improvement projects. Oversight and accountability of each milestone project has been seen as essential in our success this year. A multidisciplinary leadership committee, chaired by the CCRMC and Health Centers Chief Executive Officer, oversees our DSRIP efforts. Members also include the Chief Nursing Officer, Chief Medical Officer, Chief Medical Informatics Officer, quality managers and other key staff. This committee meets weekly to review projects, track progress, brainstorm ideas and troubleshoot issues. As learning and improvement opportunities are identified, the oversight group also oversees the implementation and spread of best practices and lessons learned using our communication tools and learning system, such as newsletters, our intranet and the CCRMC weekly Improvement Institute.

While meeting the DSRIP performance milestones is important, the learning that is happening along the way is equally crucial to achieving sustained change. We are moving rapidly to a system that is patient-centered instead of being system-centered, and one built on teamwork rather than work conducted in silos. We look forward to continuing our journey towards a high-performance health system in the years to come.
Purpose: Make investments in technology, tools and human resources that will strengthen the organization’s ability to serve its population and continuously improve its services.

Infrastructure development is a critical component of our DSRIP Plan and CCRMC and HCs is investing in people, places, processes and technology. This category is foundational to the success of other components of our plan and will enhance the system’s capacity to conduct, measure, and report on quality/performance improvement, expand access to meet ever-growing demand, and enable improved care with a strong emphasis on building coordinated systems that promote preventive and primary care.

Improvement Project 1: Increase primary care capacity

CCRMC and HCs’ coordinated efforts to increase primary care capacity are coming to fruition. The appointment system redesign project is one where DSRIP has had a major impact on patients and providers. As of October 2013, this project has reduced the appointment unit telephone hold time by 75% over baseline. Patients now have, on average, far shorter hold times. This has resulted in not only a better patient care experience, but a greater ease of access to preventative and other primary care physician or specialist visits. Some of the strategies we used for this project include taking a fresh look at what was causing the long wait times, and then enlisting front-line workers as partners for improvement. The appointment system redesign project has reduced primary care missed appointments by 21% and raised continuity of care, allowing 1,000 more patients per month to see their primary care providers instead of an alternative provider.

Alternative care models are an important aspect of the DSRIP because these models are not billable to payers at this time. Our alternative care model, the Telephone Consultation Clinic (TCC), became available seven days per week starting in January 2013. Patients, advice nurses and physicians are enthused about this new care access model. Patients referred to the TCC report a 98.5% satisfaction rate. The system allows advice nurses to book 225 TCC visits each week, freeing up in-person visits to our clinics, regional urgent care centers and the Emergency Department.

Telephone Consultation Clinics: Advice nurses and physicians team up for phone visits

A diabetes patient is running low on a prescription medication that helps control his blood sugar levels. He is scheduled to see his primary care doctor in a few weeks but needs a medication refill within the next day. Thanks to a new program in Contra Costa County, that patient can avoid a clinic visit or a trip to the emergency room with a simple same-day phone consultation with a physician or family nurse practitioner.

The novel program, called the Telephone Consultation Clinic (TCC), began as a limited pilot in late 2011 and as of January 2013 became available seven days per week. This program recently won the 2013 CAPH/SNI Quality Leaders Top Honor award. (Cont’d next page)
We also established a Health Home improvement collaborative with guidance from the Institute for Healthcare Improvement (IHI) at five clinic sites to rapidly test how to define Health Home roles and responsibilities; reduce appointment template complexity; and offer alternative care and access models to meet patient needs. In sum, we added an additional 5,324 clinic visits and reduced the average primary care provider panel size by 15% in DY8. CCRMC and HCs uses the term “Health Home” with our patients, and the concept is based on the commonly accepted patient-centered medical home model.

The challenges we faced with this project include redesigning and integrating complex workflows in clinics and appointment units to accommodate changes and improve standardization. In addition, we found difficulty in the large-scale spread of validated innovations and improvement interventions and in collaborating and communicating across a geographically diffuse

Diane Shouse, who has been an advice nurse for nearly 15 years, describes the TCC as a great program she hopes will continue. “It is very, very comforting to know that through this program our doctors can do something for patients without them having to come in for an appointment if not needed.” Shouse says. It’s a fast and convenient way to deliver appropriate care conveniently while saving in-person appointments for patients who need them, she adds.

The way the TCC works is a patient calls into the Contra Costa Health Services advice nurse line and a registered nurse on duty determines whether the patient is eligible for a phone consultation with a physician or family nurse practitioner. Patients not eligible for a phone consultation include those with trauma injuries; experiencing shortness of breath; pregnant women; a child with a fever that has lasted more than three days; or a patient seen in-person recently whose condition is not improving.

About 75% of calls the advice nurses send to the TCC can be resolved without an in-person visit. From January to June 2013, nearly 4,000 patients were referred to the TCC. Once a patient is deemed eligible for a phone consultation, the advice nurse pulls up that patient’s electronic health record (EHR) and routes the call and EHR to the physician or family nurse practitioner accepting patient calls. Generally, there are up to 60 TCC visits available per day and those visits always fill up. All patients who receive a TCC are called back to gauge their satisfaction with a phone consultation. To date, the TCC enjoys a 98.5% satisfaction rate.

The TCC has the added benefit of helping providers who are working in the clinic to speed up in-person appointments. “It makes the clinic visit more productive,” says Patricia Munoz-Zuniga, registered nurse and telephone triage manager at CCHS. “The provider on the phone can order lab tests and then tell the patient to follow up with their physician in person. When that patient shows up for his or her appointment, the lab results are already in.”

Dr. Chris Farnitano, the Ambulatory Care Medical Director at Contra Costa Regional Medical Center and a family physician who is leading the effort, says the TCC is improving patient care and lowering costs. “The TCC is saving money by reducing ER visits and freeing up in-clinic visits for other patients,” Farnitano says.

Category 1 Cont’d

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environment. We enlisted front-line staff in facilitated learning sessions and rapid-improvement projects to improve engagement. Leadership defined priorities to ensure they correlate with intersecting department priorities (e.g., IT and Informatics).

**Improvement Project 2: Increase training of primary care workforce**

This project year, we ramped up our use of Family Medicine Residents (FMRs) in our community-based clinic settings, while expanding our Family Medicine Residency class. Embedding teaching faculty at every outlying location was challenging as work location preferences of the faculty did not match training location needs. To resolve this issue, we concentrated the number of continuity clinic training locations without reducing diverse/low-income community-based visits. Our Residency Program and our Ambulatory Care Division will continue to make it a priority to balance the educational needs of our residents with the needs of our outpatient population.

In addition, we included 100% of the first year FMRs into existing quality improvement projects. Their excitement in choosing the projects in which they participated created buy-in that will ensure their involvement for the balance of their residency and for future residency classes.

**Improvement Project 3: Enhance interpreter services and culturally competent care**

Because nearly half of our patients speak a language other than English as their primary language, we designated enhanced interpreter services and culturally competent care as a priority within our organization. Harnessing technology available today, we upgraded all our equipment used to connect with the Health Care Interpreter Network (HCIN) with wireless capabilities. Additionally, our new EHR, ccLink allows providers to quickly see the patient’s preferred language and need for interpreter services. This project required close collaboration with our Information Technology (IT) unit. Front-line staff and caregiver training and education on the importance of gathering patient information about preferred language was important. We also worked to make sure patients have the interpreter services they require during their visit. We used a strong collaborative process for communication while using didactic training coupled with just-in-time application of knowledge to reinforce learning.

**Improvement Project 4: Collection of accurate Race, Ethnicity and Language (REAL) data to reduce disparities**

We consider this project to be one of our most successful and exciting thus far. CCRMC and HCs serve a diverse population and are eager to gain a deeper understanding of existing disparities of care in order to target improvements, set organizational priorities, provide a higher level of care to all patients and improve outcomes. This project provides excellent opportunities for shared learning with HEDIS, a partner of the NCQA, and partners working on hospital-acquired infection rates; all-cause readmissions; diabetic wellness; interpreter services; pediatric obesity; high-risk pregnancies and appointment “no show” rate reduction. This project has experienced challenges, and with the rollout of our EHR in July 2012 we had to re-verify all REAL data for patients registered at CCRMC and HCs. We found that close collaboration with IT, standardized processes and collaboration with front-line staff to match new interventions with existing workflows to be essential to success.
**CATEGORY 2 – Innovation and Redesign**

Purpose: Make investments in new and innovative models of care delivery (e.g., Medical Homes) that have the potential to make significant, demonstrated improvements in patient experience, cost and disease management.

CCRMC and HCs innovation and redesign efforts include the piloting, testing, and spread of innovative care models. Our patient population experiences significant challenges associated with poverty, such as psychosocial barriers and multiple concurrent medical conditions, and we have worked to find innovative ways to address the needs of the patient population with extremely limited resources. CCRMC and HCs will need to further refine these innovations, test new ways of meeting the needs of our target populations, and disseminate learnings in order to spread promising practices.

**Improvement Project 5: Expand patient-centered medical homes**

We achieved a 99.26% Medical Home assignment rate in our Primary Care Provider (PCP) Central System, resulting in improved continuity of care. PCP Central is a software system developed internally that uses data-driven algorithms to automatically assign patients a PCP based on visit history, family member PCP assignment, geography, language, age and patient preference. The system scans the county’s health plan enrollment database weekly to identify full-scope Medi-Cal and Low Income Health Plan members without an assigned PCP. We upgraded the automated PCP assignment system to interface with the new EHR so that patient preferences identified within collected REAL data can be utilized for individual PCP selection. We did this by ensuring that appropriate electronic interfaces are accurate so that PCP assignment data is properly cross-referenced. Medical home assignment works best when empanelment is paired with a system to ensure continuity of care.

**Improvement Project 6: Patient experience of care**

We met baseline performance measures on patient experience in the Emergency Department, and one adult and pediatric outpatient clinic with our vendor National Research Corporation (NRC), Picker Clinician and Groups CAHPS (CG-CAPHS). One challenge we encountered was raising awareness with front line staff regarding patient experience data by providing the survey results in a timely fashion. We now display current patient experience information visually on inpatient units, in the ED, in the health centers and via electronic dashboard so that data is easily accessible by patients and staff. Connecting patient satisfaction results to daily workflow activities for staff raised awareness of patient needs and identified opportunities for improvement. In addition, empowering improvement teams to utilize patient experience data helps drive change and a multimedia approach to sharing patient experience information is vital to reaching all staff at all locations.

**Improvement Project 7: Integrating physical and behavioral healthcare**

This project will have a significant impact on patient outcomes and the health of the people we serve in our community. It addresses a longstanding issue in our community: how to get behavioral health services to people who need it but who would not otherwise seek it out or who are not acute enough to come into our Psychiatric Emergency Services (PES) Department.
In DY8, we successfully tested two innovative models for delivering and improving primary care in the setting of the medical home model: behavioral health integration into a primary care setting and primary care integration into an established behavioral health clinic. We selected, tested and developed assessment tools and workflows for identification and treatment of mild to moderate depression. At least 22% of the patients in the pilot panel were screened. We also constructed a 3,000 square-foot integrated primary care clinic in Concord, scheduled to open November 2013. This clinic will serve up to 2,000 patients currently being seen in the Concord Adult Mental Health Clinic. Co-location of services decreases the need for additional visits to patients needing both mental health and primary care. To complete these projects, we used electronic data collection for quick PDSA testing. Other strategies included:

- Leveraging existing group visits for stress management to include groups on easing anxiety and depression.

- Standardizing workflows using a validated assessment tool (SBIRT) to screen and risk-stratify patients for referral to treatment.

**Improvement Project 8: Conduct medication management**

CCRMC and HCs completed pilot testing of the Medication Refill Clinic at one outlying Health Center. The pilot process was spread to two additional primary clinic sites: the Martinez Health Center and the West County Health Center in San Pablo. Zero percent of the patients had an elevation of Hgb beyond FDA approved rates and zero percent of the patients had a thromboembolic event. We are now expanding medication refill services to other clinics. We have found that managing high risk medications through pharmacy-led interventions can help minimize adverse outcomes for patients by providing education and medication monitoring.
CATEGORY 3 – Population-Focused Improvement

Purpose: Make investments in enhancing care delivery for the 5-10 highest burden (morbidity, cost, prevalence, etc.) conditions in public hospital systems for the population in question. Examples of such initiatives drawn from the hospitals’ initial proposals are: A. Improved Diabetes Care Management and Outcomes; B. Improved Chronic Care Management and Outcomes; C. Reduction of Readmissions; and D. Improved Quality (with attention to reliability and effectiveness, and targeted to particular conditions or high-burden problems).

Through creating systems to track and measure health outcomes, we are working to improve our community’s health as a whole. We have been able to obtain baselines in measures and begin the process of identifying and addressing deficiencies. The Category 3 reporting projects provide staff time to focus on quality improvement by automating data collection methods. Our DSRIP data dashboard tracks our progress and is it is available within our new EHR for front-line clinicians. Improvement projects 9 through 12 also create an infrastructure that broadens capabilities of our patient-centered health home. Some of the challenges we faced with this category are accurately and reliably measuring patient care experience; obtaining expertise and resources required in data collection methodology and setting standard documentation processes. We are mindful that we must move towards a more robust automated data collection and reporting system and raise staff awareness that real-time data is at their fingertips. Additionally, we want to accurately measure the delivery of equitable care to reduce disparities.

Some strategies to address these challenges include using a validated instrument to collect patient care experience information; and setting up teams to set documentation standards. We also developed standard work during the intake process to gather REAL data and include REAL data in our reports to better identify care gaps.

As we gather more data and implement different tools to improve access we anticipate improvement in our measures. Having clinics spread throughout the county, representing varied demographics we anticipate the necessity of having varying approaches. Transparent and accessible data is a key driver of change. Other measures such as performance improvement should follow the same methodology. We should continue to find methods available in real-time. Automated reporting is a more arduous task than anticipated.

As part of our ICD-10 implementation, we plan to use Clinical Documentation Improvement (CDI) efforts to spread standardization of documentation throughout the EHR and improve reporting.

The creation of DSRIP dashboard enabled us to develop a framework of sharing outcomes which we are now leveraging to create other dashboards such as ambulatory care dashboard, whole system measures, ED dashboard, and performance indicators.
Purpose: Make urgent improvements in quality and safety in care that: 1) have a promised impact on the patient population, 2) have a strong evidence base and 3) are meaningful to California’s Public Hospital Systems.

Our work in this category is saving lives and reducing harm. CCRMC and HCs is committed to providing patients with the highest quality, safest medical care by using data to drive its improvement efforts. This includes the rapid implementation of evidence-based interventions aimed at conditions and events that have significant morbidity and mortality within our patient population.

We have four projects in this category – Severe Sepsis Detection and Management; Central Line Associated Bloodstream Infections (CLABSI); Hospital Acquired Pressure Ulcer Prevention (HAPU); and Venous Thromboembolism Prevention and Treatment (VTE). Our efforts in all four projects are putting us on the path of a safer environment for our patients. Among our successes so far:

- Saved lives and reduced harm (from DY7)
  - Sepsis mortality reduced by 6.6%
  - HAPU prevalence reduced by 22.4%
  - CLABSI-ICU rate maintained at 0.0%

Easing suffering from pressure ulcers

Ronnie Bussey knew about the dangers of bedsores because he spent six years working as a nurse aid at a health care facility in San Francisco during his youth. But the 63-year-old never imagined he would experience them himself.

Then, in January 2013, after slowly losing the ability to walk, Bussey ended up in the emergency room at Contra Costa Regional Medical Center in Martinez with dangerous sores on his back and feet that required surgery and more than eight months of rehabilitation.

Bussey benefitted from the hospital’s rigorous program to eliminate bedsores – known in healthcare as hospital-acquired pressure ulcers, HAPU. The bedsore on Bussey’s back went to the bone and required surgery to remove the necrotic tissue. During his long road to recovery, he participated in a holistic program to heal his wounds.

The HAPU program at CCRMC includes the adoption of a standard skin assessment tool; dedicated prevention champions on all units; safety huddles at each shift change to transfer knowledge about at-risk patients; frequent skin assessments by trained nurses; a focus on improving patient mobility; and a nutrition program. Patients who have pressure ulcers or who are at-risk of developing them also have special air beds that aid in frequent repositioning.

Bussey, a former cook and R&B singer, said he is pleased with the care he received at the hospital. “They got me up and moving every day,” he says, ticking off a long list of names of caregivers who he got to know during his stay. “They tried to make me stronger and build up my resistance.”

Bussey’s recovery was complicated by the fact that he is diabetic – a condition he has had since he was in his 20s. People with diabetes are at higher risk of skin conditions and infections. Bussey, a Medi-Cal patient, was transferred to a skilled nursing facility in August 2013 and hopes to go home to live with his son and his grandchildren soon. He also is working with a physical therapist to improve his mobility and perhaps walk again. “You can’t lose hope,” he says.
Introducing and adopting standard work practices have been an important component of our Category 4 projects. We positioned a quality and Lean specialist to facilitate standardized work with front-line staff, and we use protocols and order sets to drive standardization. Improvements in data collection methodology – such as validated measurement criteria and automated reports – have increased reliability in protocols. We work to improve communications channels, including creating a “visibility room” where current data and charts are shared plus data posted on units.

We have learned that dedicated project champions keep driving improvement and interdisciplinary teams facilitate shared learning. For instance, our dedicated sepsis nurse program has given select nurses the authority to educate other nurses and residents about the importance of aggressive treatment of severe sepsis within the first hour of detection. We use our existing education structure and external collaborative opportunities to spread improvement concepts, including our Improvement Institute, America’s Essential Hospitals (formerly National Association of Public Hospitals and Health Systems), Target BSI (Bloodstream Infections), Cal Noc, the Integrated Nurse Leadership Program, webinars and tip sheets.

Some of the challenges we faced on Category 4 projects included unexplained variation in practice and a heightened need for standard workflows. We also encountered some difficulty finding dedicated time for improvement teamwork. We are working to improve our documentation and make it more standardized to meet project needs as well as develop validated and reliable reports to drive improvement. We also recognize the importance of creating real-time improvement advisors on the front lines.

Communicating number of lives saved and reduction of harm from our interventions is a powerful motivator in engaging front line staff in improvement work. Additionally, our unit champions program has led to increased staff awareness of real-time unit performance on improvement measures, best practices, and improved communication among staff and team members. Our HAPU unit champions have been critical to implementing standard protocols and reducing the incidence of hospital-acquired pressure ulcers. Group learning has been an important step in team building and laying the foundation for project ownership and efficient and action-oriented meetings have led to improved team member satisfaction and engagement.

Keeping the patient in the forefront of daily improvement efforts has led to life-saving interventions. Testing/conducting PDSAs are integral to improving our delivery of care. Best practices need to be tested in a variety of environments to assure success. We need to keep measurement consistent and automate where possible and include IT as an essential member of improvement teams.

Dedicated sepsis nurse program improving patient odds

Stevani Verducci has been an emergency room nurse for six years and starting in May 2013 she took on a new role – designated sepsis nurse.

The designated sepsis nurse program is a new component to Contra Costa Regional Medical Center’s aggressive response to sepsis, a potentially life-threatening complication from infection.

Designated sepsis nurses at CCRMC lead rapid response to patients diagnosed with sepsis and work to educate their peers to treat patients using evidence-based protocols. As a result, the sepsis mortality rate at CCRMC is falling to an all-time low.

Nurses love having the opportunity to take a leadership role when treating severely ill patients, Verducci says. “They are very excited about it,” she says of her peers.

Sepsis is a leading cause of deaths in hospitals. CCRMC sees many cases because it can arise from common infections including urinary tract infections, wounds and respiratory infections like pneumonia.

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Early and aggressive treatment of sepsis using evidence-based practices improves the chance of survival, national research shows. That’s why nurse training is so important, says Kim Hauer, quality manager at CCRMC. “The reason we need to involve line staff is they are the ones doing the work,” Hauer says. “The reason this is effective is because line staff buy into the program.”

Emergency Department nurses are especially crucial members of the response team because 84% of all patients with sepsis at CCRMC present through the ED, Hauer adds.

Every patient is screened for sepsis upon arrival at CCRMC, and admitted patients on all units are screened every 12 hours. If patients have two or more signs of Systemic Inflammatory Response Syndrome (SIRS) they are deemed as positive for sepsis. Signs of SIRS include heart rate greater than 90 beats per minute; temperature greater than 101.4 degrees or less than 96.8 degrees Fahrenheit; and white blood cell count greater than 12,000 or less than 4,000 with actual or potential sources of infection.

Patients who screen positive for sepsis and meet other criteria for severe sepsis require immediate and aggressive treatment. In these cases, the designated sepsis nurse works on duty with the bedside nurse to administer a “sepsis perfect care bundle.” The sepsis bundle includes giving two liters of saline; drawing blood cultures; alerting the lead physician to order the first antibiotic and administering that antibiotic.

Educating and training other nurses and front-line clinicians about the sepsis bundle is an important component to the designated sepsis nurse program. Verducci conducts a chart review of patients every other week. She combs through septic patient records to make sure they received optimal care. Then she talks to the nurses who treated those patients about ways to improve care and to make sure the protocol is understood.

“Nurses are very receptive to peer review,” says Verducci. “They have a lot of patients and they move very fast so they like being able to take the time and review what happened.”

The mortality rate for sepsis at CCRMC from January to June 2013 was about 9%, compared to a baseline in January 2009 of 18%.

Physicians at CCRMC are pleased with the dedicated sepsis nurse program. “We’ve been very successful in making this a nurse-initiated process,” says Dr. Neil Jayasekera, an emergency department physician at CCRMC and sepsis team member.
CATEGORY 5 – HIV Transition Projects

Purpose: 1) improve coordination and delivery of wrap around services that support client engagement and retention in medical care, 2) improve clinical quality and health outcomes for HIV positive clients and 3) improve information exchange between CCRMC and HCs and our Public Health Division.

To cultivate an exemplary standard of care for our HIV chronic illness patients, three projects were chosen to address the systemic changes needed for improvement: tightening our linkages with the Ryan White system of care; installation and development of clinical data system tools including automated reminders; and best practices notices to assist with tracking various measures.

The Public Health and the Ambulatory Care divisions collaborated on the project plan and definition of roles for the Health Home Coordinators (LVNs). This employee group has received initial training on job specifications. Recurrent training will be provided until embedded in daily standard work. We also accomplished the first steps in building an automated system interface, defining the data elements and completing mapping between ARIES and our EHR system, ccLink.

Our key HIV provider committee established a set of best practice alerts. HIV/AIDS case managers participated in discussions on workflow modifications to respond to alerts. Clinical strategy conversations between Public Health HIV program manager and Ambulatory Care Medical Director helped minimize variation in care standards. Additionally, the data dashboard, accessible by all staff, has been established for HIV measures. Core and optional performance targets have been set to measure consistency of HIV care.

One challenge we faced was defining the roles of LVN health home coordinators and establishing standard workflows with providers that create buy-in to the envisioned model of HIV care. We addressed this by providing training to all health home coordinators in standard work practices and providing cross-training to mitigate the effect of staff absences.

Establishing a real-time electronic data interface between CCHS’ clinical EHR and the State’s Public Health ARIES system was also a challenge. The benefit of interfacing ARIES and CCHS databases is the ability to target vulnerable individuals quickly and to find gaps in their care. This results in fewer
errors and time freed up for clinic activities. We completed the extraction of data from the EHR based on ARIES’ data mapping specifications and reconciled paper and electronic records to establish an appropriate baseline for each measure.

This year we achieved an HIV provider committee agreement on the initial group of best practice alerts; designed ccLink snapshot page for HIV alerts; and are continuing to design and implement functional workbench reports for efficient care delivery. Establishing metrics and targets to measure care globally and providing access to those metrics for all staff will allow areas of improvement in care to be identified quickly and timely interventions to be put into place.

Educating outpatient coders on HIV diagnosis codes and the impact of accurate data collection on HIV care delivery was also vital. Our newly created data platform, which monitors HIV metrics monthly, will assist our organization on overall HIV care performance.

Establishing a set of best practices by the providers themselves creates greater buy-in. Other IT interventions such as real-time reports and improvements to patient “snapshot” EHR pages will provide population-based as well as patient-specific assessments for HIV care for physician and health home coordinators.

### Moving Forward

Contra Costa Regional Medical Center and Health Centers is transforming the way we provide care to those we serve through system redesign. We are beginning to see the results of our efforts through improved patient safety, access and experience, as well as a greater focus on population health. The DSRIP program is critical to making this work possible and permanent. Ongoing support is needed to continue these efforts as health care reform is implemented at the local level and access to high quality, low-cost care becomes a reality for all Americans.

### Summary of DPH System’s Participation in Shared Learning

Contra Costa Regional Medical Center and Health Centers (CCRMC and HCs) has experienced great strides in our improvement work this demonstration year. We have engaged in rich discussion and sharing both internally between our improvement teams and externally with our health care partners. Shared learning is an important component to the DSRIP. Our quest to find new approaches to challenges in patient care has led us to seek out a variety of partnerships and allies from which we can glean and assimilate ideas for clinical improvement. Some of these are as follows:

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America’s Essential Hospitals (AEH, formerly the National Association of Public Hospitals and Health Systems)

CCRMC invited AEH for a 3-day, intensive training cohort for our Category 4 projects, but expanded the training beyond those project teams to leverage AEH’s knowledge in leading improvement work. All improvement teams were invited to the general education sessions that were designed to encourage the teams in their improvement journeys and to provide advice on breaking through project barriers, and offer direction on PDSA planning and patient safety culture.

In addition, the AEH provides a number of our improvement teams coaching, virtual training and opportunities to share best practices. Our Hospital Acquired Pressure Ulcer (HAPU) improvement team was recently honored for best practice findings, particularly regarding the IHI’s 4-Eyes Skin Assessment, in a national AEH webinar and their work published in the AEH’s national newsletter as well.

IHI

CCRMC and HCs have recently partnered with the Institute for Healthcare Improvement (IHI) to improve care for our patients within our Ambulatory Care system. The project known as Ambulatory Care Redesign (ACR) is an ambitious effort to improve how we deliver outpatient care by blending best practices with optimal care for the best patient outcomes. This year-long mission, which began in May 2013, will bring the IHI’s expertise to front-line staff to learn about improvement tools, and share design ideas and best practices.

Integrated Nurse Leadership Program (INLP)

Two of our improvement teams, Sepsis and HAPU, have been active participants in the Bay Area Integrated Nurse Leadership Program (INLP), an organization funded by the Gordon and Betty Moore Foundation. The INLP hopes to transform the hospital work environment and improve nurse-related patient outcomes through the development of nurse professionalism and enhancement of nurses’ capacity to create and lead sustainable systems change.

Each of the respective INLP collaboratives provides the opportunity to share what they have learned within our institution to create better care for the patient and to learn from other health systems. For example, our sepsis team created a successful screening tool from shared ideas and adopted UC Davis’ practice of initiating two IV sites on patients identified with sepsis.

Improvement Institute at CCRMC and HCs

The CCRMC and HCs has implemented the Improvement Institute, a weekly forum for improvement teams to meet for information sharing and training on various aspects of improvement work. Topics include report writing, PDSA documentation, and resistance to change along with practical approaches to overcome issues typical to improvement activity. Improvement team members and Unit Champions are encouraged to incorporate what they have learned into practice and to seek the buy-in and the assistance of front line staff.

This forum also creates a platform for shared learning between teams particularly regarding PDSA successes and has had the effect of reinforcing the value of reaching out to other DPHs on shared learning.

The Improvement Institute will become mobile in the near future by going directly to where the front-line staff work, in both the inpatient and outpatient settings, instead of pulling them from their daily work to sit in a classroom. We believe that this will create greater opportunity to incorporate improvement training and practices since the training will be where the improvement work needs to occur.

Interpreter Services

In March 2013, our Interpreter Services Director spoke at the Eighth National Conference on Quality Health Care for Culturally Diverse Populations in Oakland, California. Topics discussed included state and national reform efforts, social determinants of health and
innovative technology information management and outreach. Policymakers, practitioners, researchers and advocates for health equity noted the powerful bearing on which a video interpreter network has on addressing the nuances in providing care to a variety of cultures.

On a breakout panel with two peers, our Director shared the positive impact of innovative technology in achieving equitable health care service in our health system. Conversations continued outside this session with other local healthcare partners (Kaiser Permanente and John Muir Medical Center) on shared projects and with other organizations interested in what were are doing with Health Care Interpreters Network (HCIN).

During the year, members of the HCIN regularly collaborate on topics such as interpreter standards and continuing education needs. In addition, the Monterey Institute for Technology and Education of Monterey, CA, was integral in providing assistance in developing our own training program for qualifying interpreters to join HCIN.

Patient Experience

CCRMC and HCs Chief Executive Officer, along with our family member partner and chair of Behavioral Healthcare Partnership, led two sessions at the Institute for Patient- and Family-Centered Care’s conference on Partnership for Quality & Safety in April 2013. During these conference sessions, they were able to share our organization’s involvement in leading change regarding the patient experience in conjunction with our community partners and in partnering particularly on improving behavioral health care at CCRMC. The conversations and sharing with attendees were rich and the stories powerful reminders that putting the patient first can lead to systemic change that would not be likely otherwise.

HIV Transition Care

The Alameda/Contra Costa County HIV Planning Council, a local HIV funding consortium, meets periodically to inform local constituents of future service activity. Contra Costa Health Services’ HIV Program Manager shares with this group regarding practices of care that have been found to be successful in our organization and on the impact of that care on our patients. In addition, she evaluates the practices of care in the community shared by others to inform future best practices.

Other Shared Learning

Our Central Line Acquired Bloodstream Infection (CLABSI) team participates in Target BSIs (Blood Stream Infections) educational webinars and passes up-to-date, evidence-based infection prevention on catheter-associated infection to other members of the team.

Listservs from various clinical improvement practice organizations such as the California Hospital Association’s Hospital Engagement Network and the California Association of Public Hospitals’ Safety Net Institute, are being leveraged to glean current best practices and to learn what trials have been successful and which ones have not worked. This communication vehicle allows for rapid sharing of information and thought-provoking email discussions between providers.

Establishing relationships with other public hospitals have also been a valuable resource in sharing practices and policies. Our Venous Thromboembolism (VTE) team, in particular, participated in a conference call with Kern Medical Center in Bakersfield, CA that included discussion on education of staff, small patient populations for care, methods of improving compliance, and nursing protocol for ordering SCD treatment.