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February 18, 2011

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Attention: Michelle Colyer
Department of Health Care Services
Medi-Cal Benefits, Waiver Analysis and Rates Division
1501 Capitol Avenue
MS 4600
Sacramento, California
95899-7417

Subject: California Section 1115 Waiver – Delivery System Reform Incentive Payment Plan

On behalf of Contra Costa County, it is my pleasure to provide the California Department of Health Care Services and the Centers for Medicare and Medicaid Services (CMS) with our California Section 1115 Waiver Delivery System Reform Incentive Payment (DSRIP) Plan.

The plan is designed to support Contra Costa Regional Medical Center and Health Centers' effort in enhancing the quality of care and the health of patients and families we serve.

We view this program as foundational, ambitious, sustainable, and directly sensitive to the needs and characteristics of the communities served by Contra Costa Regional Medical Center and Health Centers. It is also deeply rooted in the intensive learning and generous sharing that will accelerate meaningful improvement.

The next five years will certainly be described as a critical turning point in our nation's history. We know this program will provide a bridge to health care reform and contribute to important knowledge for the country. We are grateful to CMS for their vision and for providing us with the opportunity to develop tools to transform the care experience of those we serve for years to come.

Please contact me at (925) 370-5100 or Anna.Roth@hsd.cccounty.us for any questions.

Thank you,

Anna M. Roth, RN, MS, MPH
Chief Executive Officer

• Contra Costa Alcohol and Other Drugs Services • Contra Costa Emergency Medical Services • Contra Costa Environmental Health • Contra Costa Health Plan •

• Contra Costa Hazardous Materials Programs • Contra Costa Mental Health • Contra Costa Public Health • Contra Costa Regional Medical Center • Contra Costa Health Centers •

Contra Costa Regional Medical Center and Health Centers Delivery System Reform Incentive Payments (DSRIP) Plan for Category 1, Category 2, and Category 4

Background:

Contra Costa Regional Medical Center and Health Centers is a 163 bed hospital system with eight ambulatory care health centers. We serve a population of approximately 100,000 individuals and provide 450,000 outpatient visit, 65,000 emergency visits, and 12,000 hospital discharges each year. We also deliver 22% of Contra Costa County's babies. Our payor mix is 45% Medicaid, 18% Medicare, 30% managed care and 7% other. We employ 450 physicians and train 39 family medicine residents. These and other clinicians provide care throughout the health system – in the Emergency Department, hospital, trauma center, hospital-based outpatient clinics, and freestanding health centers. Our 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, Contra Costa Regional Medical Center and Health Centers has developed this Delivery System Reform Incentive Payment Plan (DSRIP) to accelerate the building of an integrated approach to care that will improve the patient and caregiver experience, build a coordinated system of care, improve patient safety, reduce harm, increase preventative care services, and improve care of at-risk-populations that are most vulnerable to health problems in our communities.

Executive Summary:

In this proposal, we:

- **Identify key challenge areas that need to be addressed** in order to provide better care for patients and transition successfully to health care reform. These are descriptions of the high-level challenges, but we will be providing specific issues within each of these challenges, including the variables that are being modified and what the impact will be, throughout the proposal:

  1. There is inadequate primary care capacity to meet demand and access to timely primary care services is a significant challenge.

  2. The shortage of primary care workforce personnel in California is a critical problem, especially in safety net organizations.

  3. Half of Californians speak a language other than English as their primary language and effective communication is critical to effective health care.

  4. Health Care Disparities are likely to exist but remain unrecognized and therefore unaddressed.

  5. All patients are not necessarily receiving the right care in the right place at the right time, reflecting poorly coordinated care.

6. Although improving the patient's experience of care is an institutional priority, our ability to improve is impaired by inadequate tools and data.

7. Primary care and behavioral health care function separately.

8. Patient populations with chronic diseases have difficulty accessing health care professionals for drug information questions and patient education of their disease state.

9. Patients seeking care for Sepsis suffer high rates of morbidity and mortality.

10. Patients suffer from serious hospital acquired infections related to central lines.

11. Patients can suffer significant injuries from pressure ulcers acquired in the acute hospital care setting.

12. Pulmonary embolism resulting from deep vein thrombosis (DVT) —collectively referred to as venous thromboembolism—is the most common preventable cause of hospital death.

- **Determine four major categories of delivery system reform to address these challenges** and prepare for health care reform as outlined in the California Section 1115 Waiver Terms and Conditions:

  - Category I: **Infrastructure Development** – Investments in technology, tools and human resources that will strengthen the organization's ability to serve its population and continuously improve its services.

  - Category II: **Innovation and Redesign** – 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.

  - Category III: **Population-focused Improvement** - Investments in enhancing care delivery for the highest burden conditions in the populations served by California Public Hospitals.

  - Category IV: **Urgent Improvement in Care** – Broad dissemination of top-level interventions where there is deep evidence that major improvement in care is possible within 5 years, and that are measurable and meaningful for almost all hospital populations such as those served by the California Public Hospitals.

- **Establish a five-year implementation plan of 133 investment, improvement, and outcomes milestones**, which hold us accountable for progress on the four major categories of delivery system reform

  o Investment milestones reflect needed investment in infrastructure, resources, processes, and programs.

  o Improvement milestones demonstrate significant care transformation.

  o Outcomes milestones reflect improved clinical and process outcomes, patient experience, and ED/hospital utilization rates.

- **In order to accomplish this, we are proposing Total Possible Funding: $306.7 Million.** These dollars will support the transformation of health care delivered at Contra Costa Regional Medical Center and Health Centers. The initiatives described below are proven, evidence-based, best practices that have been shown to result in significant improvements. Our approaches are aligned with those proposed by the other designated public hospitals in California, and we will be implementing them in a coordinated fashion, including sharing lessons learned and leveraging each other's successes – particularly through our statewide partnership of the California Association of Public Hospitals and Health Systems, and its innovation affiliate, the California Health Care Safety Net Institute. In this way, the comprehensive reforms proposed will have lasting effects and result in dramatic improvements in the health care for low-income Californians, paving the road for a more successful implementation of health care reform in the state.

At the end of the five years, when we achieve the milestones we are proposing, we will have:

- Constructed two new buildings with over 60,000 sq ft of clinic space and expanded one additional clinic

- Increase the number of hours of primary care clinics

- Added an additional 2,400 clinic visits annually for primary care continuity clinics

- Reduced the time for the 'Third Next Available Appointment'

- Increase training of the primary care workforce in diverse, low-income community-based settings.

- Increased the total number of residents doing primary care training in health centers based in the community to 24 of 39 residents and achieved 3,900 additional primary care clinic visits for trainees

- Included all residents in quality improvement projects

- Expanded the Health Care Interpreter Network and provided 3,500 qualified health care interpreter encounters per month

- Incorporated the comparison of patient demographic and quality data to identify disparities

- Assigned at least 95% of eligible patients to a primary care provider within a medical home

- Spread validated patient experience surveys to the Clinic/Group CAHPS and Emergency Department Settings

- Patient Experience data for the perinatal/medical/surgical wards, Emergency Department and 4 outpatient clinics will be internally displayed

- Piloted the integration of behavioral health and primary health care

- Utilized depression and substance abuse screening tools in at least 60% of PCP Panels in behavioral health/primary care pilot programs

- Implemented a Medication Refill Process in the Ambulatory Care Setting to increase adherence to medications for at-risk populations

- Improved compliance with validated sets of interventions to reduce sepsis mortality

- Reduced Central Line Associated Bloodstream Infections (CLABSI)

- Reduced Hospital Acquired Pressure Ulcers (HAPU)

- Improved reliability for use of evidence-based protocols to reduce hospital acquired venous thromboembolism (VTE Prevention and Treatment)

DSRIP Category Plans

Below is Contra Costa Regional Medical Center and Health Centers Category 1, Category 2, Category 3 (place holder), and Category 4 Plans to demonstrate the following:

- The categories into which projects fall (overall framework)
- The orientation of projects in different categories toward common goals
- The indirect, correlated linkages that exist amongst projects across Categories 1-3
- Milestones and metrics across the years
- Measureable milestones
- The inter-relation of the projects, which taken together work to provide improved quality of care for patient populations

Category 1: Per the California Section 1115 Waiver Terms and Conditions, the purpose of Category 1: Infrastructure Development is "investments in technology, tools and human resources that will strengthen the organization's ability to serve its population and continuously improve its services." Therefore, Contra Costa Regional Medical Center and Health Center's Category 1 plan includes infrastructure development, including investment in people, places, processes and technology. This category is foundational to the success of Categories 2-3. This plan describes how the Category 1 infrastructure development will enhance capacity to conduct, measure and report on quality/performance improvement, expand access to meet demand, and enable improved care with strong emphasis on building coordinated systems that promote preventive, primary care.

1. **Improvement Project: Increase Primary Care Capacity**
   - *Goal:* California has the second highest unemployment rate in the country and this has lead to millions of newly uninsured and underinsured residents. The demand for primary care visits at Contra Costa Regional Medical Center's has been growing at an unsustainable rate. Current outpatient capacity is able to serve about 450,000 patients annually. We are unable to quantify demand because we do not track the industry standard of "Third-Next Available Appointment." What we do know is the number of complaints related to access has increased over the past 12 months. Primary care capacity, resources, infrastructure, and technology are severely limited. Our goal is to be able to better treat the volume of patients who need primary care in the primary care setting, with limited wait times. In order to provide more preventive, primary, and chronic care in the primary care setting, it is critical to expand primary care capacity. This includes increased efficiencies to maximize the capacity Contra Costa Regional Medical Center already has, as well as adding capacity so that we can treat more patients. In order to do this, we propose to:
     - Establish more primary care clinics
     - Expand primary care clinic space
     - Expand primary care clinic hours
     - Develop system for primary care provider recruitment and retention
   - *Expected Result:* At least two new buildings with over 60,000 sq ft of clinic space will be constructed and expansion of one additional health center will begin and be completed. An increase in the number of primary care hours will be achieved. And at least 2,420 additional primary care continuity clinic visits will be realized. Access will also be improved for individuals to see their primary care team (percentage improvement targets will be determined after baseline is established in Year 2).
   - *Relation to Category 3 Population-Focused Improvement:* Expanded primary care capacity also feeds into the expansion of medical homes and more organized care delivery, better prevention and management of chronic conditions, integrated physical-behavioral health care, and better utilization of

health care resources. With expanded primary care capacity, more patients can have access to primary and preventive care, which increases opportunities to prevent disease and treat it early, and patients upon discharge can be scheduled for follow-up appointments and care at a primary care clinic, thereby reducing the risk and consequences of worsening health conditions.

1. Improvement Project: Increase Primary Care Capacity					
Year 1 (11/1/2010 – 06/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
1. **Milestone:** Increase number of evening clinics at two health centers. **Metric:** Documentation of new clinic schedule/hours. 2. **Milestone:** Increase number of primary care hours **Metric:** Documentation of increased hours. 3. **Milestone:** Develop plan and monitoring system to assess patient access to primary care using an industry standard of patient's access to care, e.g "Third Next-Available Appointment" <u>Metric:</u> Evidence of plan.	4. **Milestone:** Increase primary care clinic volume by expanding the number of primary care continuity clinic appointments by 600 additional clinic visits. **Metric:** Documentation of new clinic hours 5. **Milestone:** Begin new construction on 53,000 sq ft replacement health center. <u>Metric:</u> Documentation of building plan. 6. **Milestone:** Expand one clinic to add nine additional exam rooms **Metric:** Documentation of site expansion. 7. **Milestone:** Collect baseline data for "Third Next-Available Appointment" and establish improvement targets for Years 3, 4 and 5. <u>Metric:</u> Evidence of monthly access reports for 3rd Next Available Appointment	8. **Milestone:** Increase primary care clinic volume by expanding the number of primary care continuity clinic appointments by 1,200 additional clinic visits. **Metric:** Documentation of new clinic hours 9. **Milestone:** Increase Access to Primary Care by Reducing "Third Next Available Appointment" by X% or X number of days over baseline in at least one primary care clinic. Baseline to be determined in Year 2. 10. **Milestone:** Begin new construction of 7,000 sq ft Family Medicine Clinic <u>Metric:</u> Documentation of site project plans.	11. **Milestone:** Increase primary care clinic volume by expanding the number of primary care continuity clinic appointments by 1,800 additional clinic visits. **Metric:** Documentation of new clinic hours 12. **Milestone:** Increase Access to Primary Care by Reducing "Third Next Available Appointment" by X% or X number of days over baseline in at least one additional primary care clinics (2 total). Baseline to be determined in Year 2.	13. **Milestone:** Increase primary care clinic volume by expanding the number of primary care continuity clinic appointments by 2,400 additional clinic visits. **Metric:** Documentation of new clinic hours 14. **Milestone:** Increase Access to Primary Care by Reducing "Third Next Available Appointment" by X% or X number of days over baseline in at least two additional (4 total) primary care clinics. Baseline to be determined in Year 2.	• Expand Medical Homes (Cat. 2) • Redesign Primary Care (Cat. 2) • Improve Screening Rates (Cat. 3) • Improve Chronic Care Management and Outcomes (Cat. 3) • Reduce Readmissions (Cat. 3)

2. <u>**Improvement Project: Increase Training of Primary Care Workforce**</u>

- *Goal:* It is well documented that primary care providers of all disciplines are in short supply across the country and especially in safety-net health care delivery systems. Safety-net organizations are unable to offer the salary and total compensation of non safety-net health care delivery systems and therefore rely heavily on the mission for recruitment and retention purposes. Publicly sponsored health care delivery organizations in the State of California train more than 43% of all new physicians in the State and provide care to meet the needs of nearly 70% of Medicaid and uninsured patients.

   The residency program at Contra Costa County Regional Medical Center and Health Centers is highly revered with over 600 applicants per year applying for 13 Family Medicine Residency slots. A total of 40 residents are part of the health system. Historically, the Family Medicine Residency program at Contra Costa Regional Medical Center has been inpatient and specialty/procedural focused at the hospital or in clinics adjacent to the hospital. We recognize that training needs to become more decentralized with less time in the hospital and more time in the health centers based in diverse, low-income, communities. Over the next five years the residency program training in ambulatory care will shift to include more, smaller community oriented health centers that are spread throughout Contra Costa County. Residents who train at the smaller sites tend to be happier and more satisfied with their training. We will need to create positions and expand and standardize the Ambulatory Care Lead Preceptors roles and responsibilities for Family Medicine Clinic training. We know we have opportunity to improve structure, process, and outcomes in supervision for ambulatory care related training. The lead preceptor's primary role is to teach the residents in the Family Medicine Clinics. Though our program meets RCC requirements, currently the program only meets the bare minimum ratio requirements and adjustments need to be made so residents are getting the right amount of continuity clinics and seeing the right amount of chronic disease patients necessary for primary care training.

   One of our goals will be to assess the overall program to understand our current state and then develop a future state with targets in future years that can be reported to the State through this plan. Ultimately, we want to be able to have the curriculum development include robust requirements so residents learn how to care for patient populations, including preventive health, and the high risk, chronically ill, and fragile populations (e.g Hypertension, Heart Disease, Elderly, Diabetes, and Asthma). As a safety net organization and teaching facility, Contra Costa Regional Medical Center and Health Centers has the opportunity to impact the training programs to include more organized delivery care models, like our integrated delivery system, including more primary care training in continuity clinics in diverse, low-income, and community-based settings and expanding the number and role of ambulatory care Lead Preceptors. These preceptors are responsible for supervising residents and seeing patients so the experience in ambulatory care is more consistent, higher quality, and more satisfying for both residents and patients. Additionally, there are plans to expand the panel size of the residents in order to offer them more opportunity and experience working in primary care. As an organization that trains physicians, we have the unique opportunity to include primary care trainees in primary care quality improvement projects and quality assurance processes, which will be part of this plan. Improving the training program in ambulatory care will lead to more physicians choosing primary care as an option after graduation.

   In order to do this, we propose to:
   - Increase number of primary care training faculty/staff
   - Establish/expand primary care training programs
   - Update primary care training programs
   - Expand number of resident continuity clinics and panel size
   - Include primary care trainees in primary care quality improvement projects

- *Expected Result:* Hire additional Ambulatory Care Lead Preceptors. Expand and update the training of the primary care workforce by increasing the number of residents who have continuity clinics in diverse, low income community-based settings and increase the total number of residents doing primary care training in health centers based in the community to achieve 3,520 additional scheduled clinic visits. Assure that at least 24 of 39 residents will be doing primary care training in diverse, low income, community based settings. We will also expand linkages between the Safety and Performance Improvement Department and the Residency Program so 100% of all residents will be involved in quality improvement projects.
- *Relation to Category 3 Population-Focused Improvement:* Increasing the quality and quantity of training of the primary care workforce will improve the patient and caregiver experience; improve care coordination and chronic care management, ambulatory care sensitive condition readmissions, preventive health and a focus on taking care of at-risk populations like the frail elderly, diabetics, and patients with heart disease. With expanded training opportunities in health centers in the community, we will add to the future primary care workforce so more patients can have access to primary and preventive care, which increases opportunities to prevent disease and treat it early.

2. Improvement Project: Increase Training of Primary Care Workforce					
Year 1 (11/1/2010 – 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
15. **Milestone:** Increase primary care training in Continuity Clinics in diverse/low-income, community-based settings by 120 scheduled clinic visits **Metric:** Number of scheduled continuity clinic sessions and/or trainee office visits. 16. **Milestone:** Assess the Ambulatory Care Lead Preceptor Program and assess supervision standards for resident training in the ambulatory setting **Metric:** Documentation of assessment.	17. **Milestone:** Increase primary care training in Continuity Clinics in diverse/low-income, community-based settings by 750 additional scheduled clinic visits (870 total) **Metric:** Number of scheduled continuity clinic sessions and/or trainee office visits. **Milestone:** Hire additional Ambulatory Care Lead Preceptors for Family Medicine Clinics **Metric:** Number of additional training faculty	18. **Milestone:** Increase primary care training in Continuity Clinics in diverse/low-income, community-based settings by 300 additional scheduled clinic visits (1,170 total) **Metric:** Number of scheduled continuity clinic sessions and/or trainee office visits. - **Milestone:** Include 100% of 1st year residents in quality improvement projects **Metric:** Documentation of Program and participant list.	19. **Milestone:** Increase primary care training in Continuity Clinics in diverse/low-income, community-based settings by 500 additional scheduled clinic visits (1,670 total) **Metric:** Number of scheduled continuity clinic sessions and/or trainee office visits. - **Action:** Include 100% of 1st year and 2nd year resident(s) in primary care quality improvement projects **Metric:** Documentation of Program and participant list.	20. **Milestone:** Increase primary care training in Continuity Clinics in diverse/low-income, community-based settings by 1850 additional scheduled clinic visits (3,520 total) **Metric:** Number of scheduled continuity clinic sessions and/or trainee office visits. - **Action:** Include 100% of 1st year, 2nd year, and 3rd year resident(s) in quality improvement projects **Metric:** Documentation of Program and participant list.	- Expand Medical Homes (Cat. 2) - Redesign Primary Care (Cat. 2) - Improve Screening Rates (Cat. 3) - Improve Chronic Care Management and Outcomes (Cat. 3) - Reduce Readmissions (Cat. 3)

3. Improvement Project: Enhanced Interpretation Services and Culturally Competent Care

- *Goal:* Approximately 43% of Californians speak a language other than English at home. And patients who receive care at Contra Costa Regional Medical Center and Health Centers are no exception. Nearly half speak a language other than English as their primary language. This doesn't mean they don't also speak English in the home. However, many who do speak languages other than English at home feel they are not proficient at English. At Contra Costa Regional Medical Center and Health Centers, we understand effective communication is crucial to effective health care because patients need to understand their medications, interventions, and ongoing care. Contra Costa Regional Medical Center and Health Centers have already begun work to make sure that all patients will receive equitable health care in their preferred language. This is a strategic priority because all patients should receive high-quality health care. As a safety net provider, it is a critical part of our mission to do so. Therefore, this project will improve communication between the patient and the provider so that patients can be more involved in their health care and receive more equitable health care.

  This project focuses on increasing patients' access to qualified health care interpretation in a timely manner. As a member of the Health Care Interpreter Network (HCIN), which is a cooperative of California hospitals and health care providers sharing well-trained health qualified health care interpreters through an automated video/voice call center system, we can connect within seconds to a qualified health care interpreter. When a language is not available from an interpreter at one of the HCIN hospitals, the call connects automatically to a contracted telephonic language provider. HCIN provides interpretation for 170 languages, including American Sign Language (ASL), 24/7. By pooling hospital-based staff, routing calls from video devices and telephones, and linking to external interpreting resources, HCIN enables clinicians and front-end staff at every point of patient contact to reach an interpreter on demand at a very manageable cost.

  HCIN is an advanced, cost-effective, and innovative solution to language access needs. However, we know that in our health care system the service is not always used when it should be. These "failure to utilize" situations are often related to inadequate training of personnel or insufficient or delayed access to the technology. We need to improve HCIN use among providers and staff and expand its video capacity to all medical home and specialty clinics, and inpatient areas to improve communications between patients and providers so that patients are fully involved in their care, and providers are able to fully understand their patients' health care needs.

- *Expected Result:* Train and certify additional medical interpreters. Upgrade Health Care Interpreter Network (HCIN) units. Expand health care interpretation so that patients can receive instantaneous interpretation from a qualified health care interpreter, as evidenced by at least 3,500 qualified health care interpreter encounters per month, which is the estimated approximate current need.

- *Relation to Category 3 Population-Focused Improvement:* Better communication between patients and providers can reduce medical and medication errors, help better solve health-related issues, empower patients to manage their health conditions, and reduce the possibility of complications and readmissions. Effective patient-provider communication is integral to high-quality care and a key measure of patient-centeredness and cultural competency.

3. Improvement Project: Enhance Interpretation Services and Culturally Competent Care					
Year 1 (11/1/2010 – 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
21. **Milestone:** Designate team to enhance interpretation services. **Metric:** Evidence of team	22. Develop plan to expand the use of HCIN hardware to accommodate wireless network technologies **Metric:** Evidence of plan 23. **Milestone:** Conduct a gap analysis to determine HCIN hardware and training needs for wireless network technologies **Metric:** Evidence of gap analysis. 24. **Milestone:** Provide at least 3,200 qualified health care interpreter encounters per month **Metric:** Average number of HCIN plus voice services interpreter encounters recorded per month. 25. **Milestone:** Train/certify additional medical interpreters **Metric:** Numerator: Number of trained/certified interpreters Denominator: Total number of trained/certified interpreters.	26. **Milestone:** Provide at least 3,300 qualified health care interpreter encounters per month **Metric:** Average number of HCIN plus voice services interpreter encounters recorded per month 27. **Milestone:** Expand qualified health care interpretation technology by upgrading HCIN Audio/Video Units to function on a wireless network **Metric:** Evidence of completion of installation and functionality.	28. **Milestone:** Provide at least 3,400 qualified health care interpreter encounters per month **Metric:** Average number of HCIN plus voice services interpreter encounters recorded per month	29. **Milestone:** Provide at least 3,500 qualified health care interpreter encounters per month **Metric:** Average number of HCIN plus voice services interpreter encounters recorded per month	• Reduce Readmissions (Cat. 3) • Improve Chronic Care Management and Outcomes (Cat. 3) • Improve Patient Experience of Care (Cat. 3)

4. **Improvement Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities**

- *Goal:* Contra Costa Regional Medical Center and Health Centers patients are diverse: 37% are Hispanic/Latino, 29% White, 18% African American, 12% Asian, 4% are Other, and <1% American Indian. While Contra Costa Regional Medical Center and Health Centers may presume that health care disparities might exist, we are an enterprise that believes in using data to drive quality improvement. Therefore, we believe it is imperative to stratify quality data, such as clinical outcomes and interventions, by race, ethnicity and language ("REAL data") so that we know the facts of where disparities exist. By having this knowledge, we will be able to target improvements in health care equity appropriately and effectively, and measure our progress along the way. Providing equitable care is critical to getting patients engaged in their care – every patient, regardless of who they are, deserves high quality health care. It is likely that race, ethnicity and language disparities exist both in accessing and receiving care; however, we have unreliable data by which to identify disparities. Therefore, it is our goal to develop the ability to: (1) Collect patient demographic data in a way that can be compared to quality and health outcomes data; (2) Stratify patient demographic data by outcomes to identify disparities; (3) Engage in quality improvement projects to reduce health care disparities that have been identified; (4) Through the current efforts of REAL, we will have the patient's preferred spoken language within the Epic EHR.
- *Expected Result:* Data is available to identify disparities for at least 80% of patients registered at the hospital and health centers.
- *Relation to Category 3 Population-Focused Improvement:* Reducing disparities in health care will support improved care for all Categories 1-4 projects through the provision of equitable health care.

4. Improvement Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities					
Year 1 (11/1/2010 – 06/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 - 6/30/2013)	Year 4 (7/1/2012 - 6/30/2013)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
30. **Milestone:** Develop REAL data template for the hospitals and health centers and integrate it into the data warehouse. **Metric:** Evidence of REAL data template and data warehouse integration 31. **Milestone:** Train at least 100 hospital and health centers registration staff on the collection of consistent, valid, and reliable data **Metric:** Number of staff trained 32. **Milestone:** Collect accurate REAL data fields as structured data for at least 20% of patients registered at	33. **Milestone:** Collect accurate REAL data fields as structured data for at least 40% of patients registered at the hospital and health centers **Metric:** Numerator: Number of unique patients registered with designated REAL data fields Denominator: Number of total unique patients registered	34. **Milestone:** Collect accurate REAL data fields as structured data for at least 60% of patients registered at the hospital and health centers **Metric:** Numerator: Number of unique patients registered with designated REAL data fields Denominator: Number of total unique patients registered	35. **Milestone:** Collect accurate REAL data fields as structured data for at least 70% of patients registered at the hospital and health centers **Metric:** Numerator: Number of unique patients registered with designated REAL data fields Denominator: Number of total unique patients registered	36. **Milestone:** Collect accurate REAL data fields as structured data for at least 80% of patients registered at the hospital and health centers **Metric:** Numerator: Number of unique patients registered with designated REAL data fields Denominator: Number of total unique patients 37. **Milestone:** Perform REAL data analysis and identify at least 2 specific health care disparities **Metric**: Report the results	• Reduce Readmissions (Cat. 3) • Improve Screening Rates (Cat. 3) • Improve Chronic Care Management and Outcomes (Cat. 3) • Expand Medical Homes (Cat. 2) • Redesign Primary Care (Cat. 2)

4. Improvement Project: Collection of Accurate Race, Ethnicity, and Language (REAL) Data to Reduce Disparities					
Year 1 (11/1/2010 – 06/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 - 6/30/2013)	Year 4 (7/1/2012 - 6/30/2013)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
the hospital and health centers **Metric:** <u>Numerator:</u> Number of unique patients registered with designated REAL data fields <u>Denominator:</u> Number of total unique patients registered				of the analysis and provide documentation of the work plan, including timelines to address and reduce the disparities.	

Category 2

Per the Waiver Terms and Conditions, the purpose of Category 2 Innovation and Redesign is "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." Therefore, Contra Costa Regional Medical Center and Health Centers plan's for Category 2 includes the piloting, testing, and spreading of innovative care models. Contra Costa Regional Medical Center and Health Center's patient population experiences significant challenges associated with poverty, such as psychosocial barriers to health and multiple concurrent medical conditions and has had to get very creative to address the needs of the patient population with extremely limited resources. Contra Costa 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.

5. Improvement Project: Expand Medical Homes

- *Goal:* Over the next five years, Contra Costa Regional Medical Center and Health Centers will establish a "home base" for patients. A Primary Care Medical Home, where patients have a health care team that is tailored to the patient's health care needs, coordinates the patient's care, and proactively provides preventive, primary, routine and chronic care, so that patients may see their health improve, rely less on emergency department care, and incur fewer avoidable hospital stays, as well as have a more satisfied overall patient experience.

    We are also fortunate to have a Knox-Keene Health Plan in this county through the Contra Costa Health Plan (CCHP). In conjunction with CCHP we will develop a plan to assign Full Scope Medi-Cal and Low Income Health Plan individuals enrolled or managed by the County's Knox-Keene Health Plan to primary care providers within a medical home to coordinate health care needs, increase access to primary and preventive services and provide a continuum of care. The plan will include assignment of at least 95% of eligible patients to medical homes and include information technology to track the assignment of patients and an electronic medical record to maintain the patient's health record in the medical home. Our goal is to make sure the medical home model is embedded within our care delivery model so that all patients can receive the right care in the right place at the right time.

Creating medical homes is a strategic priority for Contra Costa Regional Medical Center and Health Centers because by providing more patients with coordinated care services grounded in their primary care medical homes, patients can stay healthier, thereby reducing avoidable ED visits, admissions, and readmissions. Over the next five years, we expect to expand and relocate many new primary care clinic sites, our hope is to pilot many components of what we believe should be spread and sustained throughout all primary care clinics. This initiative will include comprehensive clinic redesign.

For example, staff includes nutritionists, social workers, community health workers and therapists. Services include group visits, case management, telephone outreach and home-health care. Team communication methods are in-person, via conference calls and other methods, including email and written reports. Contra Costa Regional Medical Center is just beginning to pilot the medical home model and will spread it throughout the hospital system over the next five years. Right now, some primary care clinics are utilizing some components of these models, but not necessarily all. And though we have many patients assigned to a primary care physician, there is inconsistency and variation to scheduling patients with their designated care team or primary doctor. We know from past experience the current model for scheduling primary care appointments will need to change as we move forward with the primary care medical home model.

- *Expected Result:* A primary care medical home model will be piloted in at least three health centers and at least 95% of Full Scope Medi-Cal and Low Income Health Plan individuals enrolled or managed by the County's Knox-Keen Health Plan will be assigned to primary care providers. And new patients assigned to medical homes will receive their first appointment in a timely manner. Care teams will actively manage their patient panel so that patients are reminded of services needed and receive coordinated care rooted in a primary care setting. And patients will know the professionals on their care team and establish trusting, ongoing relationships to reinforce a continuity of care.
- *Relation to Category 3 Population-Focused Improvement:* By spreading the medical home model to primary care clinics will enable us to assign individuals to a primary care provider and improve the patient's experience, outcomes and cost of health care.

5. Improvement Project: Expand Medical Homes					
Year 1 (11/1/2010 – 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
38. **Milestone**: Develop a plan, in conjunction with the Contra Costa Health Plan, to assign patients to primary care teams serving as medical homes to coordinate patients' health care needs. Metric: Evidence of completion. 39. **Milestone**: Implement a system where at least 80% of Full	40. **Milestone**: Implement a system where at least 85% of Full Scope Medi-Cal and Low Income Health Plan individuals are assigned to a primary care provider within a medical home **Metric:** Numerator: Number of Full Scope Medi-Cal and	41. **Milestone**: Implement a system where at least 90% of Full Scope Medi-Cal and Low Income Health Plan individuals are assigned to a primary care provider within a medical home **Metric:** Numerator: Number of Full Scope Medi-Cal and	42. **Milestone**: Implement a system where at least 95% of Full Scope Medi-Cal and Low Income Health Plan individuals are assigned to a primary care provider within a medical home . **Metric:** Numerator: Number of	43. **Milestone**: Sustain a system where at least 95% Full Scope Medi-Cal and Low Income Health Plan individuals are assigned to a primary care provider within a medical home **Metric:**	• Improve Preventive Screening Rates (Cat. 3) • Improve Chronic Care Outcomes (Cat. 3) • Reduce Readmissions (Cat. 3)

Scope Medi-Cal and Low Income Health Plan individuals are assigned to a primary care provider within a medical home **Metric:** <u>Numerator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals assigned to a primary care provider <u>Denominator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals	Low Income Health Plan individuals assigned to a primary care provider <u>Denominator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals	Low Income Health Plan individuals assigned to a primary care provider <u>Denominator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals	Full Scope Medi-Cal and Low Income Health Plan individuals assigned to a primary care provider <u>Denominator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals	<u>Numerator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals assigned to a primary care provider <u>Denominator:</u> Number of Full Scope Medi-Cal and Low Income Health Plan individuals 44. **Milestone:** Report shared learning of the medical home model, and any findings related to impact on improved health, experience and cost.	

6. Improvement Project: Patient Experience of Care

- *Goal:* Although improving the patient's experience of care is an institutional priority; our ability to improve is impaired by inadequate tools and data. Contra Costa Regional Medical Center and Health Center's commitment to improving the patient's experience of care is embedded in its overall strategic plan. Some areas such as the medical/surgical and perinatal ward utilize well validated patient surveys from NRC PICKER Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS). Other units and areas such as the Emergency Department and Outpatient Clinics use homegrown survey tools that make it difficult to compare and improve performance. We intend to increase the organization's capacity to improve patients' experience of care and their satisfaction with the care provided. This will be accomplished by implementing new tools to measure the patients' experience and satisfaction. In addition, internal display and sharing of data will give staff the tools and information necessary to improve the experience
- *Expected Results:* NRC PICKER CG-CAHPS survey tools will be spread to the Emergency Department and outpatient clinics. Baseline performance will be measured in the Emergency Department and at least 3 adult primary care clinics and 3 pediatric clinics. Performance data from the medical/surgical ward, Perinatal, Emergency Department and four outpatient clinics will be internally displayed in order to promote performance improvement.
- *Relation to Category 3 Population-Focused Improvement:* Improved patient experience of care improves our ability to better prevent and manage chronic conditions in partnership with our patients. With improved patient experience, our patients likely have better access to care and are better able to be engaged in and take shared responsibility with staff and providers for managing chronic conditions and improving chronic disease outcomes.

6. Improvement Project: Patient Experience of Care					
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
45. **Milestone:** Develop a plan to regularly display patient experience data and provide updates to staff on the efforts underway to improve the experience of patients and their families **Metric:**	46. **Milestone:** Expand use of NRC PICKER Patient Experience of Care surveys into ambulatory and Emergency Department Settings. **Metric:** Implementation of Survey. 47. **Milestone**: Display quarterly patient experience data for inpatient medical/surgical and	48. **Milestone**: Establish Baseline Performance in Emergency Department **Metric:** Report Baseline Data 49. **Milestone:** Establish Baseline Performance in at least one adult outpatient clinic and one pediatric clinics Metric: Report Baseline Data 50. **Milestone:** Display quarterly patient experience data for	51. **Milestone:** Establish Baseline Performance in at least two adult outpatient clinics and two pediatric clinics (total of four clinics) **Metric:** Report Baseline Data 52. **Milestone: :** Display quarterly patient experience data for at least one adult	53. **Milestone:** Establish Baseline Performance in at least three adult outpatient clinics and three pediatric clinics (total of six clinics) **Metric:** Report Baseline Data 54. **Milestone**: Display quarterly patient experience data for two adult outpatient	• All Improvement Projects (Categories 1 – 4)

Documentation of plan	perinatal units Metric: Documentation of data display and dissemination	Emergency Department **Metric:** Documentation o f data display and dissemination	outpatient clinic and one pediatric clinic **Metric:** Documentation o f data display and dissemination	clinics and two pediatric clinics (total of four clinics) **Metric:** Documentation of data display and dissemination	

7. Improvement Project: Integrate Physical and Behavioral Health Care

- *Goal:* Primary care and Mental Health function separately and are viewed as neither related nor interdependent. This results in behavioral health patients missing out on their primary care needs and primary care patients not being treated for mild-to-moderate mental health needs. Better integration between primary and behavioral health care will help more appropriately address these patient's health care needs. As a result, behavioral health conditions can be better diagnosed in primary care settings, medication errors can be reduced, improvements can be made in patient's health outcomes, and utilization of avoidable emergency department and hospital services can be reduced.

- *Expected Results:* Pilot the integration of physical and behavioral health such that 60% of pilot PCP panels seen will be screened for depression and substance abuse.

- *Relation to Category 3 Population-Focused Improvement*: This improvement project links with improving chronic care management and outcomes, expanding the medical home model, improving the patient's experience, reducing readmissions, and improving the care of at-risk populations.

7. Improvement Project: Integrate Physical and Behavioral Health Care					
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
55. **Milestone**: Develop models that bring behavioral health services into primary care and bring primary care to the seriously mentally ill population **Metric**:	56. **Milestone:** Pilot integrating physical and behavioral health at one health center. **Metric:** Evidence of implementation of critical components	58. **Milestone:** Screen 15% of Pilot PCP Panels seen using depression and substance abuse screens **Metric:** Numerator: Number of targeted patients seen in the behavioral health in primary care pilot clinic screened for	60. **Milestone:** Screen 30% of Pilot PCP Panels seen using depression and substance abuse screens **Metric:** Numerator: Number of targeted patients seen in	61. **Milestone:** Screen 60% of Pilot PCP Panels seen using depression and substance abuse screens **Metric:** Numerator: Number of targeted patients seen in the behavioral health in	• Improve Chronic Care Management and Outcomes (Cat. 3) • Expand Medical Homes (Cat 2) • Redesign Primary Care (Cat 2) • Improve the Care

| Documentation of models and establishment of core relationships | 57. **Milestone:** Begin construction on the co-located Concord Adult Mental Health-Integrated Primary Care Building **Metric:** Evidence from site work plan documentation

59. **Milestone:** Begin construction on new 3,000 sq ft co-located primary care/mental health clinic **Metric:** Site work plan documentation | depression or substance abuse Denominator: Total number of patients seen in the pilot clinic | the behavioral health in primary care pilot clinic screened for depression or substance abuse Denominator: Total number of patients seen in the pilot clinic | primary care pilot clinic screened for depression or substance abuse Denominator: Total number of patients seen in the pilot clinic | of At-risk populations (Cat 3) • Improve the Patient's Experience of Care (Cat 3) • Reduce Readmissions (Cat 3) |
|---|---|---|---|---|---|

8. **Improvement Project: Conduct Medication Management**
   - *Goal:* Implement a Medication Refill Process In the Ambulatory Care Setting: Establish an optimal chronic disease state management in the ambulatory care setting at Contra Costa Regional Medical Center and Health Centers by increasing patient access to healthcare professionals managing patients' medications in a pharmaco-economically correct fashion. The plan includes chronic disease state management through Pharmacy supported standardized protocols, easy medication refill process, easier patient access to a healthcare professional for any/all drug information questions, and improved patient education of their targeted chronic disease state. The above is a strategic priority in the ambulatory care setting, as all patients should receive high quality of care. In this project we are focusing on overall system improvement, while containing the cost, using pharmacists as the best resource for not only patient specific medication management plans but also a an asset to other healthcare disciplines at the clinic level.

   - *Expected Result:* Better clinical outcomes due to improved disease state management for selected at-risk populations (e.g. hypertension, heart disease, diabetes, etc...). Increase adherence to the medication refill process in the Ambulatory Care Setting by enrolled patients who have selected conditions/diagnoses. Targeted percent increase to be determined during Year 3 baseline for improvements in years four and five.

   - *Relation to Category 3 Population-Focused Improvement*: This category links strongly with reducing readmissions, improving quality and Safety, Reducing Harm from Medical Errors, Improving Patient Experience, and Redesign for Cost Containment.

8. Improvement Project: Implement a Medication Refill Process in the Ambulatory Care Setting					
Year 1 (11/1/2010 – 06/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)	Other Category Projects This Project Feeds Into
Allocation ($M):					
62. **Milestone:** Assess patient need for implementation of a medication refill process in the ambulatory care setting. **Metric:** Documentation of assessment.	63. **Milestone:** Select a primary disease target state and pilot a Medication Refill Process in one ambulatory care health center. **Metric:** Evidence of pilot.	64. **Milestone:** Measure baseline for the number of patients enrolled/ referred to the Medication Refill Clinic who adheres to the medication refill process. **Metric:** Numerator: Number of patients who adhere to the medication refill process Denominator: Number of patients enrolled/referred to the Medication Refill Clinic.	65. **Milestone:** Expand pilot program to one additional health center **Metric:** Documentation of program expansion. 66. **Milestone:** Increase by X% over baseline for adherence to the medication refill process by enrolled patients in the medication refill clinic (X% increase determined in Yr 3) **Metric:** Numerator: Number of patients who adhere to the medication refill process Denominator: Number of patients enrolled/referred to the Medication Refill Clinic.	67. **Milestone:** Assess need for expansion of Medication Refill Process to cover additional disease states and/or health centers **Metric:** Completion of assessment 68. **Milestone:** Increase by X% over baseline for adherence to the medication refill process by enrolled patients in the medication refill clinic (X% increase determined in Yr 3) **Metric:** Numerator: Number of patients who adhere to the medication refill process Denominator: Number of patients enrolled/referred to the Medication Refill Clinic.	• Reduce Readmissions (Cat. 3) • Improve Quality (Cat. 3) • Improve Patient Experience (Cat. 2) • Redesign for Cost Containment (Cat. 2)

Category 3

Per the California Section 1115 Waiver Terms and Conditions, the purpose of Category 3: Population-focused Improvement is "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)." Per instruction from CMS, plans for this category will be completed in the future. This is a place holder for category 3 until that time.

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Category 4
Per the Waiver Terms and Conditions, the purpose of Category 4: Urgent Improvement in Quality and Safety is to make urgent improvements in care that: 1) have a promised impact on the patient population, 2) has a strong evidence base and 3) is meaningful to California's Public Hospital Systems. Therefore, Contra Costa Regional Medical Center and Health Centers' Category 4 includes the rapid implementation of evidence based interventions aimed at conditions and events that have significant morbidity and mortality within our patient population. Contra Costa Regional Medical Center and Health Centers is committed to providing its patients with the highest quality, safest medical care by using data to drive its improvement efforts.

A: Required Interventions
Intervention #1: Improve Severe Sepsis Detection and Management

Key Challenge: Reducing harm or death to patients seeking care due to sepsis.
There are as many sepsis deaths each year as heart attacks (215,000 or 9.3% of all deaths). Sepsis kills more than breast, colon, pancreatic, and prostate cancer combined. Sepsis can harm and kill patients if not treated quickly and increases ICU length of stay and its associated costs. While and after receiving hospital services, challenges remain regarding the provision of safe, high-quality health care. Furthermore, it is critical to avoid causing harm or death to patients seeking care. Currently, approximately a quarter of patients with severe sepsis or septic shock die in public hospitals. Contra Costa Regional Medical Center (CCRMC) joined the Integrated Nurse Leadership Program (INLP) Cohort on Sepsis Mortality Reduction Project in November 2009 with nine other participating hospitals in the Greater San Francisco Bay Area. Because CCRMC has participated in this collaborative, we have been collecting data since July 2009 for continuous quality improvement purposes. However, we need to refine our data collection processes to ensure the highest reliability and validity for reporting purposes to CAPH, the State of California, and the Centers for Medicare and Medicaid Services. Therefore, we are proposing to develop a standard structure and reliable data collection processes to establish a true baseline data for the Sepsis Resuscitation Bundle and Sepsis Mortality Rate beginning January 1, 2011 and ending December 31, 2011 (Year 1) and then set our targets for years 2, 3, 4, and 5.

Based on historical data that has been collected for continuous quality improvement purposes and not external reporting purposes, our sepsis mortality rate for 2009 was 19% (47/247). See graph to right.
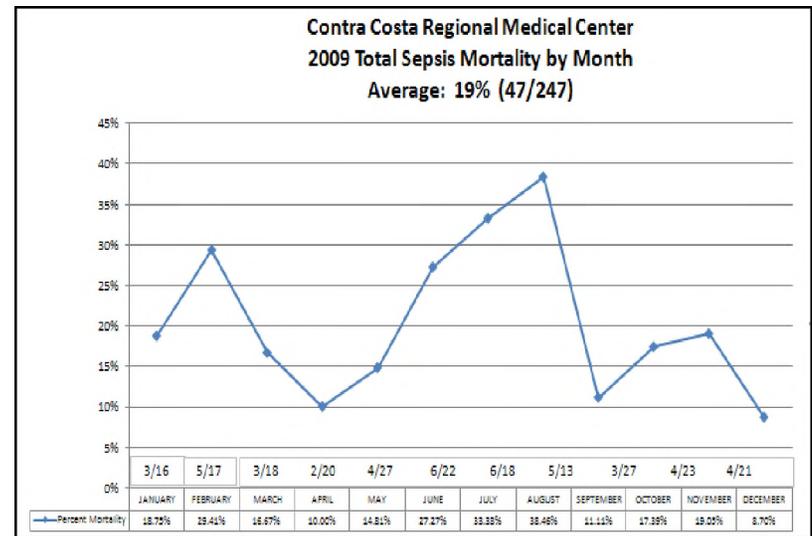
The four-component Sepsis Resuscitation Bundle baseline has also been collected for continuous quality improvement purposes and not external reporting. Our historical data for the bundle has been collected from May 2010 through December 2010 with a rate of 50% compliance for the 'perfect care' composite. See graph to right.

Major Delivery System Solution: Reduce avoidable harm or deaths due to severe sepsis to patients receiving inpatient services.

In support of our commitment to continuous quality improvement so that patients receive the safest and highest quality health care possible, we propose to make improvements in care provided to patients. We propose to improve severe sepsis detection and management to reduce unnecessary death and harm attributable to sepsis. Our interventions and improved processes are based upon evidence-based improvement models. This includes implementing both the Sepsis Management and Resuscitation Bundle. Contra Costa Regional Medical will continue to collaborate with the INLP cohort at least through April 2013, which is two years after the completion of the program. And continue to partner with the nine other collaborative hospitals, including three public hospital systems in the Bay Area. Evidence-based models for continuous quality improvement will be used as the basis for accelerating change through multidisciplinary improvement activities.

Multidisciplinary teams will work with the Laboratory Department to achieve a blood draw to lactate result within 20 minutes. This will require additional lab staff to utilize on the inpatient units. Also, respiratory therapy has arterial blood gas that could be replaced with machines that also have a module to analyze for lactate results. This would relieve some of the burden of laboratory staff.

An area of opportunity is also evidenced by focusing on the learning physician (residents) compliance with bundles. There appears to be a spike in mortality during the months of July, August, and September when new residents arrive. Contra Costa Regional Medical Center has 39 residents and accepts 13 new residents every July.

The Pharmacy department will also partner with the Multidisciplinary Sepsis team on standardizing antibiotics order sets called (Antibiotic Gram) for sepsis patients. Also, Pharmacy will investigate every late antibiotic. Historically, a late antibiotic has generally been due to the physician ordering it late.
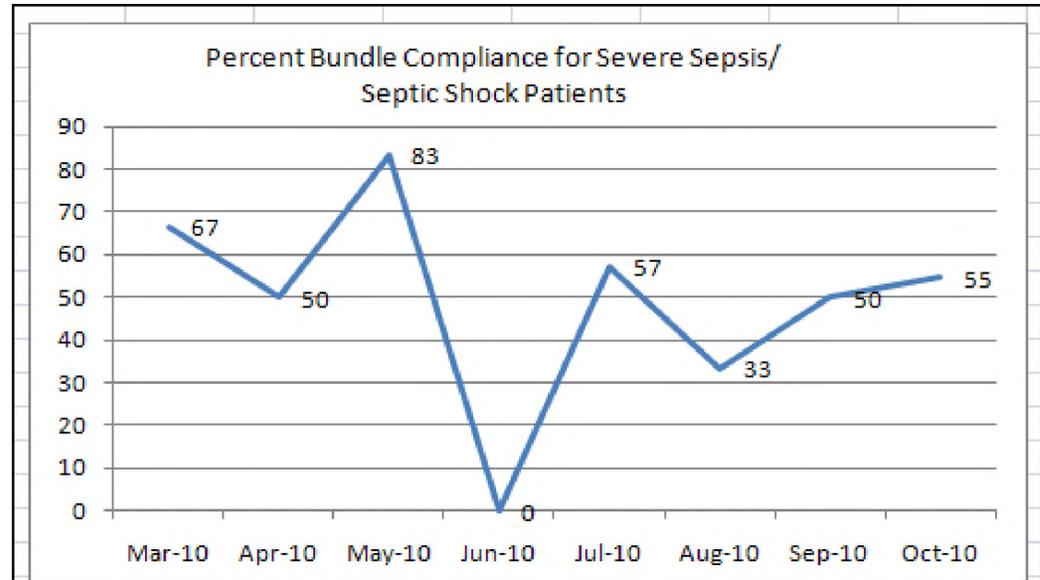
As part of the INLP Collaborative, we have learned that Intermountain Health Care (IHC) was able to achieve 70% bundle compliance after working on Sepsis for six years. This is how we are benchmarking our resuscitation bundle compliance. IHC was also able to reduce Sepsis mortality by 50% during that time frame. Because we have already been working on the Sepsis Mortality Reduction Project, we will be able to measure Sepsis mortality data beginning in year one and throughout the five year milestones, with reporting to the State of California beginning in year three.

Intervention #1: Improve Severe Sepsis Detection and Management				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
69. **Milestone:** Designate a multidisciplinary team to improve Severe Sepsis Detection and Management	70. **Milestone:** Implement the Sepsis Resuscitation Bundle, as evidenced by participation in and data collection through the INLP reducing sepsis mortality collaborative 71. **Milestone:** Report at least 6 months of data collection on Sepsis Resuscitation Bundle to SNI for purposes of establishing the baseline and setting benchmarks. 72. **Milestone:** Report the Sepsis Resuscitation Bundle results to the State.	73. **Milestone:** Achieve X% compliance with Sepsis Resuscitation Bundle, where "X" will be determined in Year 2 based on baseline data. 74. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 75. **Milestone:** Report Sepsis Resuscitation Bundle and Sepsis Mortality results to the State.	76. **Milestone:** Achieve X% compliance with Sepsis Resuscitation Bundle, where "X" will be determined in Year 2 based on baseline data. 77. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 78. **Milestone:** Report results to the State.	79. **Milestone:** Achieve X% compliance with Sepsis Resuscitation Bundle, where "X" will be determined in Year 2 based on baseline data. 80. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 81. **Milestone:** Report results to the State.

A. Required Interventions *(Continued)*:
Intervention #2: Central Line-Associated Bloodstream Infection (CLABSI) Infection Prevention

Key Challenge: Preventing infections to reduce the risk of dying and harm from getting other infections.

Patients who require central lines are usually critically ill. If an infection develops with these patients, they are at great risk of dying. Preventing infections reduces the risk of dying, as well as the risk of getting other infections. It also reduces the time patients spend in the hospital. The Agency for Health Care Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), and the Joint Commission (TJC), have published standards, guidelines, goals, requirements and policies to reduce the risks associated with central lines. Additionally, there are financial implications in the form of expense reductions due to decreased cost in treating infections and decreased length of stay. Additionally, there may be increased costs due to use of supplies for all insertions if previously not used consistently. Furthermore, it is critical to avoid causing harm or death to patients seeking care.

Based on historical data that has been collected for continuous quality improvement purposes and reported through the National Healthcare Safety Network (NHSN), we had one central-line associated blood stream infection during calendar year 2010. It occurred during the month of April on a Med/Surg Unit. We do not currently collect reliable compliance data with the Central Line Bundle. Those processes will be established during our baseline performance measurement. Contra Costa Regional Medical Center's Central Line Associated Blood Stream Infection Rate reported to NHSN for 2009 is 0.9/1000 Central Line Days. The 2010 data is not yet available. Our key measures will be: 1. Central Line Bloods Stream Infections per 1000 Central Line Days; 2. Compliance with the Central Line Data. Data will be reported to NHSN, CAPH/SNI and the State of California.

Major Delivery System Solution: Reduce avoidable harm or deaths and costs of care due to central-line associated blood stream infections.

In support of our commitment to continuous quality improvement so that patients receive the safest and highest quality health care possible, we propose to make improvements in care provided to patients. We propose to reduce avoidable harm or deaths due to central-line associated blood stream infections. Our interventions and improved processes are from nationally recognized evidence-based guidelines recommended for central lines.

Intervention #2: Central Line-Associated Bloodstream Infection (CLABSI) Infection Prevention				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
82. **Milestone**: Designate a multidisciplinary Central Line-Associated Bloodstream Infection (CLABSI) Infection Prevention Team	83. **Milestone:** Implement the Central Line Insertion Practices (CLIP), as evidenced by standardized NHSN reporting. 84. **Milestone:** Report at least 6 months of data collection on CLIP to SNI for purposes of establishing the baseline and setting benchmarks. 85. **Milestone:** Report at least 6 months of data collection on CLABSI to SNI for purposes of establishing the baseline and setting benchmarks. 86. **Milestone:** Report CLIP results to the State.	87. **Milestone:** Achieve X% compliance with CLIP, where "X" will be determined in Year 2 based on baseline data. 88. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 89. **Milestone:** Report CLIP and CLABSI results to the State.	90. **Milestone:** Achieve X% compliance with CLIP, where "X" will be determined in Year 2 based on baseline data. 91. **Milestone:** Reduce Central Line Bloodstream Infections by X%, where "X" will be determined in Year 2 based on baseline data. 92. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 93. **Milestone:** Report CLIP and CLABSI results to the State.	94. **Milestone:** Achieve X% compliance with CLIP, where "X" will be determined in Year 2 based on baseline data. 95. **Milestone:** Reduce Central Line Bloodstream Infections by X%, where "X" will be determined in Year 2 based on baseline data. 96. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 97. **Milestone:** Report CLIP and CLABSI results to the State.

B. Choose 2 From the Following Menu Set of Interventions:

Intervention #3: Surgical Complications Core Processes (SCIP)

Intervention #3: Surgical Complications Core Processes (SCIP)				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Surgical Complications Core Processes is NOT a selected intervention by Contra Costa Regional Medical Center and Health Centers				

Intervention #4: Hospital-Acquired Pressure Ulcer Prevention

Key Challenge: Preventing Hospital-Acquired Pressure Ulcers
Patients and families are aware that pressure ulcers are painful and slow to heal, and are often seen as an indication of poor quality care. When care givers practice the best care every time, patients can avoid suffering. If a pressure ulcer develops, patients are at increased risk and suffering. Pressure ulcers can increase the time patients spend in the hospital. The Agency for Health Care Research and Quality (AHRQ), the Centers for Medicare and Medicaid Services (CMS), and the Joint Commission (TJC), have published standards, guidelines, goals, requirements and policies to prevent pressure ulcers from developing or worsening if they are present on admission. Additionally, there are financial implications in the form of expense reductions due to decreased cost of pressure ulcer treatment, decreased cost per inpatient case, and litigation events. Furthermore, it is critical to avoid causing harm to patients seeking care.

Contra Costa Regional Medical Center has been collecting reliable and valid prevalence data on hospital acquired pressure ulcers since July 2007 through participation in the Collaborative Alliance for Nursing Outcomes (CalNOC). During the 3rd Quarter of 2007, our performance was 8.0% of patients with Hospital Acquired Pressure Ulcers Category II, III, IV, and unstageable. Since that time our performance has bounced around a mean of 3.3%. Based on historical data that has been collected for continuous quality improvement purposes and external reporting purposes, our baseline rate for comparative purposes with other California Hospitals is 3.2% (Oct 2009 – Sep 2010). We are currently ranked in the lowest quartile of performance when compared to 207 other hospitals in California that represent 90% of the beds in the State. We are ranked #162 out of 207. The top quartile of California hospitals perform at or below 1.1%. We are also the lowest performing hospital in Contra Costa County. This performance is unacceptable to us and that is why we have selected this as an urgent improvement in care intervention. Our current trended data is shown in the graph to the right.

Major Delivery System Solution: Reduce hospital acquired pressure ulcers
In support of our commitment to continuous quality improvement so that patients receive the safest and highest quality health care possible, we propose to make improvements in care provided to patients. We propose to reduce hospital acquired pressure ulcer prevalence to 1.1% or less. Our interventions and improved processes are based upon nationally recognized evidence-based guidelines for pressure ulcer Prevention. We will reliably implement standardized processes to prevent pressure ulcers to reach our goal. Those standardized processes may include:
- Conduct a skin assessment upon admission for all patients
  - Perform an admission risk assessment on every patient
  - Include reliable, detailed skin assessment for all patients
- Reassess risk for all patients daily
  - Use a standardized tool to assess risk for all patients, at all levels of care
  - Use visual cues to identify patients at risk, such as stickers on charts, logos on door and on the chart, etc.
  - Standardize interventions for at-risk patients

- Inspect skin daily
  - Standardize documentation tools to ensure details of assessment are documented consistently
  - Develop a process for daily skin assessment, and allow staff to develop a standard time of day to assess and document skin assessment.
  - Ensure that all staff are consistent with skin inspection and documentation standards
- Manage moisture on skin
  - Develop a process (such as hourly rounds) for ensuring that patients are clean and dry.
  - Standardize skin care products, utilizing products that wick away or block moisture.
  - Use tools to ensure that appropriate supplies and products are at the bedside of at-risk patients (e.g., a skin care kit that includes supplies to clean patients, change pads, skin care products, etc.).
- Optimize nutrition and hydration
  - Develop a reliable process to consult the dietician when nutritional elements contribute to risk.
  - Ensure fluid balance by providing fluids and supplements as appropriate
- Minimize pressure
  - Ensure a reliable process for redistributing pressure (e.g. use a turn clock as a reminder to staff, implement turn rounds, etc.).
  - Triage use of pressure redistributing beds and mattresses.

Intervention #4: Hospital-Acquired Pressure Ulcer Prevention				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
98. **Milestone**: Designate a multidisciplinary Hospital-Acquired Pressure Ulcer Prevention Team	99. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 100. **Milestone:** Report hospital-acquired pressure ulcer prevalence results to the State.	101. **Milestone:** Achieve hospital-acquired pressure ulcer prevalence of less than **3.6%.** 102. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals.	104. **Milestone:** Achieve hospital-acquired pressure ulcer prevalence of less than **2.6%.** 105. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public	107. **Milestone:** Achieve hospital-acquired pressure ulcer prevalence of less than **1.1%.** 108. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across

Intervention #4: Hospital-Acquired Pressure Ulcer Prevention				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
		103. **Milestone:** Report hospital-acquired pressure ulcer prevalence results to the State.	hospitals. 106. **Milestone:** Report hospital-acquired pressure ulcer prevalence results to the State.	the California public hospitals. 109. **Milestone:** Report hospital-acquired pressure ulcer prevalence results to the State.

Intervention #5: Stroke Management

Intervention #5: Stroke Management				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Stroke Management is NOT a selected intervention by Contra Costa Regional Medical Center and Health Centers				

Intervention #6: Venous Thromboembolism (VTE) Prevention and Treatment

Key Challenge: Preventing Hospital Acquired Venous Thromboembolism and Improving Treatment

Pulmonary embolism resulting from deep vein thrombosis (DVT) — collectively referred to as VTE — is the most common preventable cause of hospital death. Yet hospitalized medical and surgical patients routinely have multiple risk factors for VTE, making the risk for VTE nearly universal among inpatients. The Agency for Healthcare Research and Quality calls thromboprophylaxis against VTE the "number one patient safety practice." And the American Public Health Association has stated that the "disconnect between evidence and execution as it relates to DVT prevention amounts to a public health crisis."

This very serious complication can often be prevented by checking patients for risk of blood clots and then taking steps to prevent them. Reducing VTE decreases the chances of readmissions to hospitals, serious complications, and deaths. The Agency for Health Care Research and Quality (AHRQ), the Centers for Medicare and Medicaid Services (CMS), the National Priorities Partnership (NPP), the National Quality Forum, and the Joint Commission (TJC), have published standards, guidelines, goals, requirements and policies to prevent hospital acquired venous thromboembolism. Additionally, there are financial implications in the form of expense reductions due to decreased cost of prevention of complications and associated increase in length of stay. However, Pharmacy Department expenses can also increase due to increased use of prophylaxis. Furthermore, it is critical to avoid causing harm and death to patients seeking care.

Contra Costa Regional Medical Center does not currently collect data on the Venous Thromboembolism (VTE) Prevention and Treatment measures based on the National Inpatient Hospital Quality Measures. However, we are proposing to begin to collect the data for this measure set as part of the Category IV Urgent Improvement in Quality and Safety. There are currently only 47 hospitals in the entire United States collecting and submitting data for public reporting purposes on the VTE National Hospital Inpatient Quality Measures and only six hospitals in California publicly reporting VTE performance data. The current national measures (version 3.3) are listed below:

Set Measure ID #	Measure Short Name
VTE-1	Venous Thromboembolism Prophylaxis
VTE-2	Intensive Care Unit Venous Thromboembolism Prophylaxis
VTE-3	Venous Thromboembolism Patients with Anticoagulation Overlap Therapy
VTE-4	Venous Thromboembolism Patients Receiving Unfractionated Heparin with Dosages/Platelet Count Monitoring by Protocol
VTE-5	Venous Thromboembolism Discharge Instructions
VTE-6	Incidence of Potentially-Preventable Venous Thromboembolism

Contra Costa Regional Medical Center and Health Centers has determined that the following number of patients fall within the population that would be impacted through reliable implementation of VTE Care and Prevention. The volume for each of the measures is listed in the table to the right. The number of stroke patients who would benefit from improved VTE Prophylaxis, is also listed. In 2010, over 6,500 inpatients would benefit from prophylaxis against VTE.

Year	STK	VTE - 1, 2	VTE -3, 4, 5	VTE - 6
2006	70	6315	43	20
2007	53	5873	50	18
2008	63	6385	59	34
2009	64	6562	86	48
2010	65	6579	80	40

Major Delivery System Solution: Reduce hospital acquired venous thromboembolism and deliver reliable treatment

In support of our commitment to continuous quality improvement so that patients receive the safest and highest quality health care possible, we propose to make improvements in care provided to patients. We propose to improve the reliable delivery of VTE Care and Prevention by establishing risk assessment, prevention, and links to treatment for this complication of hospital care. Standardized processes for these interventions include:

- Assess all patients on admission for venous thromboembolism(VTE) risk
- Provide appropriate VTE prophylaxis, including pharmaceutical and mechanical approaches based on national guidelines.

Intervention #6: Venous Thromboembolism (VTE) Prevention and Treatment				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
110. **Milestone:** Designate a multidisciplinary Venous Thromboembolism (VTE) Prevention and Treatment Team	111. **Milestone:** Report at least 6 months of data collection on the VTE management process measures to SNI for purposes of establishing the baseline and setting benchmarks. 112.**Milestone:** Report the 5 VTE process measures data to the	113.**Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission by X, where "X" will be determined in Year 2 based on baseline data.	120. **Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission by X, where "X" will be determined in Year 2 based on baseline data.	127. **Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission by X, where "X" will be determined in Year 2 based on baseline data.

Intervention #6: Venous Thromboembolism (VTE) Prevention and Treatment				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
	State.	114. **Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after the initial admission (or transfer) to the Intensive Care Unit (ICU) or surgery end date for surgeries that start the day of or the day after ICU admission (or transfer) by X, where "X" will be determined in Year 2 based on baseline data.	121. **Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after the initial admission (or transfer) to the Intensive Care Unit (ICU) or surgery end date for surgeries that start the day of or the day after ICU admission (or transfer) by X, where "X" will be determined in Year 2 based on baseline data.	128. **Milestone:** Increase the rate of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after the initial admission (or transfer) to the Intensive Care Unit (ICU) or surgery end date for surgeries that start the day of or the day after ICU admission (or transfer) by X, where "X" will be determined in Year 2 based on baseline data.
		115. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received an overlap of parenteral (intravenous [IV] or subcutaneous [subcu]) anticoagulation and warfarin therapy by X, where "X" will be determined in Year 2 based on baseline data.	122. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received an overlap of parenteral (intravenous [IV] or subcutaneous [subcu]) anticoagulation and warfarin therapy by X, where "X" will be determined in Year 2 based on baseline data.	129. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received an overlap of parenteral (intravenous [IV] or subcutaneous [subcu]) anticoagulation and warfarin therapy by X, where "X" will be determined in Year 2 based on baseline data.
		116. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received intravenous (IV) UFH therapy dosages AND had their platelet counts monitored using defined parameters such as a nomogram or protocol by X, where "X" will be determined in Year 2 based on baseline data.	123. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received intravenous (IV) UFH therapy dosages AND had their platelet counts monitored using defined parameters such as a nomogram or protocol by X, where "X" will be determined in Year 2 based on baseline data.	130. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE who received intravenous (IV) UFH therapy dosages AND had their platelet counts monitored using defined parameters such as a nomogram or protocol by X, where "X" will be determined in Year 2 based on baseline data.

Intervention #6: Venous Thromboembolism (VTE) Prevention and Treatment				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Allocation ($M):				
		117. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions by X, where "X" will be determined in Year 2 based on baseline data. 118. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 119. **Milestone:** Report the 5 VTE process measures results to the State.	124. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions by X, where "X" will be determined in Year 2 based on baseline data. 125. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 126. **Milestone:** Report the 5 VTE process measures and incidence of potentially-preventable VTE data to the State.	131. **Milestone:** Increase the rate of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions by X, where "X" will be determined in Year 2 based on baseline data. 132. **Milestone:** Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. 133. **Milestone:** Report the 5 VTE process measures and incidence of potentially-preventable VTE data to the State.

Intervention #7: Falls with Injury Prevention

Intervention #7: Falls with Injury Prevention				
Year 1 (11/1/2010 - 6/30/2011)	Year 2 (7/1/2011 – 6/30/2012)	Year 3 (7/1/2012 – 6/30/2013)	Year 4 (7/1/2013 – 6/30/2014)	Year 5 (7/1/2014 – 6/30/2015)
Contra Costa Regional Medical Center and Health Centers is Precluded from Selecting this Intervention Due to Current Top Performance (see below)				

Trend Report with Control Limits by Total Facility – Monthly
Injury Falls per 1000 Pt Days
From MARCH 2008 To DECEMBER 2010
147 – Contra Costa Regional Medical Center : Total Facility