
HMA

HEALTH MANAGEMENT ASSOCIATES

*Sustainability Audit of the Contra Costa County
Regional Medical Center and Health Centers:
Stage 2 Final Report*

PRESENTED TO THE
CONTRA COSTA COUNTY ADMINISTRATOR

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*Research and Consulting in the Fields of Health and Human Services Policy, Health Economics
and Finance, Program Evaluation, Data Analysis, and Health System Restructuring*

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Executive Summary

In January 2011, the County of Contra Costa engaged Health Management Associates (HMA) to conduct a sustainability audit of the Contra Costa Health Services-operated facilities: the Contra Costa Regional Medical Center (CCRMC) and County health centers. The goals of the audit are to develop options to support the fiscal sustainability of the County's health care system and to ensure the most efficient and effective delivery of health care services to County residents that align with the implementation of health care reform.

The work of this project is divided into three stages. In Stage 1, HMA submitted an Information Memorandum with demographics and health care utilization data demographics and health care utilization data; an analysis of the current and future capacity of the County's programs, services, and facilities; a discussion of the of the Basic Health Care program; and Financial, utilization, and quality performance indicators for CCRMC and County health center. The information in the Memorandum laid the groundwork for this report.

As part of this process, HMA staff conducted site visits in January, February, and March and interviewed key informants, including staff and leadership from the Board of Supervisors, Health Services Department, CCRMC, the Contra Costa Health Plan (CCHP), County health centers, and the County Administrator's office. The HMA team also reviewed policy and financial documents related to County programs and services, analyzed data on Contra Costa's overall and target population and financial, utilization, and quality performance, and, where possible, compared the data to similar counties.

For Stage 2, HMA conducted additional interviews; reviewed additional data, including data provided by the County; conducted analysis on possible options for delivery system changes; and prepared this Preliminary Report.

Summary of Findings

Section I: Preliminary Strategic Analysis

Delivery System Opportunities

The CCHS has in place a geographically distributed primary care network that annually provides over 275,000 primary care and ancillary care visits. Primary care is primarily provided by Family Medicine physicians with a sizable number of additional visits generated by Internal Medicine and Pediatric providers. The CCHS primary care system is currently at near capacity. Provider panels are felt to be excessive and are being reevaluated for thoughtful downsizing. Patients complain of difficulty obtaining unscheduled visits to their primary care centers. Options to maximize and expand access to primary care service capacity include:

- Developing Patient-Centered Medical Homes (PCMHs) system-wide, including incorporating medical teams, care coordination for high-risk patients, and pre-visit preparation.
- Carefully scrutinizing existing primary care provider panels.
- Closely tracking primary care provider productivity until PCMHs are fully developed.
- Managing provider resources, which is integral to the provision of primary care in CCHS.

- Further expanding of evening/weekend primary care sessions.
- Proceeding with the construction of additional ambulatory care space.
- Expanding current partnerships with private and public health care providers in the County.

At 1.1 beds per 1,000 population, the County's general acute licensed inpatient hospital bed ratio is well below the national and California norms. The average length of stay (ALOS) at CCRMC for Medicine-Surgery patients is less than national and the West region length, the OB ALOS are consistent with U.S. stays, and the inpatient psychiatric stays at CCRMC are somewhat longer than the national ALOS. Providers at CCRMC indicated that, although the ALOS are quite reasonable, there are opportunities to further improve these numbers on select patients on each of the inpatient services.

Delays and capacity issues can create bottlenecks to the timely delivery of inpatient as well as outpatient care. Lack of access to specialized inpatient diagnostic procedures can contribute additional days to a patient's hospital stay, particularly on weekends and holidays. The following options can further decrease the average lengths of stay on inpatient units at CCRMC and address the reasons for one-day admissions:

- Addressing operational barriers to the timely discharge of inpatients.
- Purchasing an additional CT unit, which could expand capacity/utilization.
- Providing availability of certain invasive diagnostic procedures on weekends so as to avoid prolongation of patient hospitalizations.
- Developing formal relationships and possibly contracts with Skilled Nursing Facilities (SNF), Long Term Acute Care centers (LTAC), Institutions for Mental Disease (IMDs) and nursing homes to expedite the discharge of difficult-to-place patients who require transitional residential care.
- Developing formal relationships or contracts with home visit and home IV nurse services to expedite the discharge of inpatients from the hospital to their homes.
- Evaluating the current policy of its Mental Health Department not to readily accept the referral of patients with behavioral disorders and mental illness complicated by substance abuse.
- Thoroughly studying reasons for one-day hospitalizations and considering alternatives to hospitalization.

The Emergency Department (ED) at CCRMC is extremely busy providing nearly 60,000 annual patient visits, with the visit volume doubling since the hospital and ED were constructed in 1997. The ED and the Psychiatric Emergency Services (PES) have exceeded their physical capacities. Options for more effectively utilizing ED and PES services include:

- Identifying and renovating additional physical space adjacent to the ED.
- Providing after-hours immediate and non-urgent care available to all patients cared for by CCHS.
- Creating an Observation Unit to help decrease congestion in the ED.

- Developing procedures to notify primary care providers and centers when a patient is in the ED or is being discharged so that all required transitional care can be provided.
- Studying the barriers that keep patients from consistently obtaining medication refills and using the ED simply to obtain prescriptions.

Thirty-nine specialty services provide over 100,000 annual visits primarily at CCHS's three comprehensive care centers. There are lengthy waiting times for 25% of the specialty services that are being monitored. The actual waiting times are longer than reported because many referrals are backlogged on a waiting list before an appointment is assigned. Options to reduce waiting times include:

- Implementing an automated, rule-based specialty referral screening system that would successfully approve or deny the majority of all specialty requests.
- Evaluating the reasons and initiate process improvements actions to improve the productivity of those specialty clinics that are unable to meet established productivity standards.
- Increasing in-house specialty capacity by hiring more specialists in backlogged services and/or contracting with community specialists to provide consultations when waits become prolonged.
- Initiating an e-consult initially for backlogged specialty services.

CCHS and CCRMC have committed resources and time to the development of an extensive, ongoing quality improvement effort involving all aspects of the delivery of health services across the continuum of care.

- Efforts of CCHS and CCRMS have been nationally recognized and need to be supported at all levels of the health and County administration.

Today, the increase in demand for primary care services has resulted in a mismatch of the supply of appointments available and the demand for these appointments. This results in few appointments available to give to patients requesting appointments and long phone queues. Open access scheduling is only effective when supply and demand are essentially matched.

- If the centralized system is continued, some simplification of the scheduling process and rules is encouraged.

CCRMC and CCHS are predominantly staffed by Family Medicine providers. Many are graduates of the Family Medicine Residency program at CCRMC. CCRMC has a long standing practice of assigning Family Medicine providers to spend a portion of their work week as "registrars" on inpatient and outpatient specialty services, inpatient teaching rotations, and in the ED. They also have a significant amount of their time dedicated to busy outpatient primary care practices in CCHS health centers.

- Monitor the time commitment of the registrars to assure that these primary care providers are mainly focused on the pivotal provision of primary care.

CCRMC's Family Medicine training program is the only residency program in Contra Costa County. It is a nationally recognized and respected program and a key source of primary care providers both in CCHS

and in the entire county of Contra Costa. The presence of a training program at CCRMC and CCHS contributes to the successful recruitment and retention of the interested, quality physicians to work in CCHS.

- The Family Medicine training program should be maintained and supported.

Most non-County providers view exploring potential partnerships with CCHSD positively. There is a perception that CCHS is a unique integrated system consisting of CCRMC, the health centers, and the Contra Costa Health Plan (CCHP). However, they are integrated to each other but not to the rest of the private system. As access to care to the vulnerable population in Contra Costa County expands, a countywide, integrated approach will be increasingly critical. Options to address a countywide integrated delivery system for the vulnerable population in the County include:

- Taking the lead in exploring the concept of a Safety Net Accountable Care Organization (ACO) with key stakeholders.
- Leveraging the Access To Care Stakeholders Group to begin the discussion.

Section II: Potential Alternative Models

There are a minimum of six alternative governance structures that could address the operational and financial issues related to the financial sustainability of the CCRMC, County health centers, and the CCHP and could help improve the efficiency and cost effectiveness of delivering health care services in Contra Costa County. They are:

- Public Ownership/Private Management of Hospital
- Separate Governmental Entity
- Separate Non-Profit Entity
- Privatization
- Hospital Authority
- Health District

Section III: Human Resources and Staffing Analysis

County Medical Staff Needs

Given that the population of Contra Costa County is projected to grow by more than 350,000 people over the next 20 years and the implementation of health reform, the capacity of the CCHS primary care delivery system will need to expand to meet the growing demand.

There are critical investments in technology, tools, and human resources that will strengthen Contra Costa Health Services' (CCHS) ability to serve its population and continuously improve its services.

The data suggest that panel sizes may need to be reduced while simultaneously implementing operational efficiencies to care for those patients.

Recruitment of new providers is key to CCHS attaining its goal of increasing primary care capacity; this may become a challenge as the salaries of nearby health systems are significantly higher than that offered at CCHS with similar benefits and work hours.

CCHS is well positioned to successfully implement Patient-Centered Medical Homes (PCMH) with many of the components being piloted or existing. The transition to an electronic health record (EHR) and a more robust IT strategy will assist in this effort.

CCHS is committed to continuously improving the quality and safety of the care it delivers and there are opportunities with selected conditions in the hospital to decrease morbidity and mortality among hospitalized patients.

Health systems can expect that state and Federal programs will increasingly reward systems that measure and can demonstrate better outcomes.

Human Resource Policies and Procedures

Several organizational entities and environmental factors limit the ability of the Contra Costa County Health Services Department's (HSD) ability to recruit and retain staff as quickly as needed.

Total compensation needs to be reviewed.

The recruitment of nurses needs to be linked with physician recruitment so that newly hired physicians have the staff support when hired.

According to the Hay Report, when salaries were added to overall benefit costs, Contra Costa County had the highest Employee Total Cost of all the counties in the survey.

Benefit costs may be higher than what was presented in the Hay Report and will require additional analysis to clarify the current benefit cost.

The current wage and benefit package is more conducive to the retention of staff than to the recruitment of new staff.

Section IV: Maximizing Federal Reimbursements

The Medicaid program, in terms of funding, is a Federal-state partnership. The extent to which each party contributes varies by state and is determined by a complex formula outlined in the Federal statute. In general, the lower the average income of a state, the more the Federal government contributes compared to what the state is required to pay.

Federal maximization is generally a state strategy. In California, however, a significant funding burden falls on counties and public hospitals because of the way services have historically been structured. Contra Costa is no exception. It can be argued that the County has had more success in Federal maximization compared to other counties.

Section V: Impact of the LIHP

The extension of California's Section 1115 waiver includes provisions for the Low Income Health Program with two components: a Medicaid Coverage Expansion (MCE) for individuals under 133

percent FPL and a Health Care Coverage Initiative (HCCI) for adults with between 133 and 200 percent FPL.

Because Contra Costa County currently covers adults 18-64 with income at or below 200 percent FPL in their Low Income Health Program (LIHP) without an enrollment cap, LIHP does not create a new eligibility group. However, an increase in enrollment is anticipated.

MCIC data indicates that the County has an estimated 30,000 uninsured U.S. citizens and eligible immigrants 18-64 with income under 200 percent FPL. This indicates that the 11,000 MCE and HCCI enrollees represent a third of the potentially eligible population.

If the State approves LIHP federal match in the amount requested, the County would see an increase in federal revenues greater than the increase in county costs. The County would cover more people for a lower net cost to their base year budget.

The new waiver also changes the method by which Medi-Cal services are delivered to Seniors and Persons with Disabilities (SPD) who do not have Medicare coverage. There will be a major shift from the majority of care provided fee-for-service to SPD enrollees mandatorily enrolled with organized delivery systems such as CCHP beginning mid-2011.

Section VI: Preliminary Steps in Creating Patient-Centered Medical Home

Patient-Centered Medical Home (PCMH) systems of care assure that patients have a source of primary care which functions as the central point for coordinating care around the patient's needs and preferences. The medical home team, consisting of the primary care provider and supporting staff, coordinates information between all of the various caregivers, which include: the patient, family members, other non-professional caregivers, specialists, and other healthcare service providers.

Each PCMH within the system of care is patient-centered and accessible, provides a continuous healing relationship with a primary care provider, comprehensively meets patients' health care needs, coordinates the delivery of care and accomplishes all of these features with teams of individuals functioning at the top level of their license and qualifications. Quality and safety are hallmarks of a well-functioning PCMH.

Contra Costa will need to choose a particular model in order to conduct a gap analysis between the current delivery system and the goals.

Introduction

In January 2011, the Contra Costa County engaged Health Management Associates (HMA) to conduct a sustainability audit of the Contra Costa Health Services-operated facilities: the Contra Costa Regional Medical Center (CCRMC) and County health centers. The goals of the audit are to develop options to support the fiscal sustainability of the County's health care system and to ensure the most efficient and effective delivery of health care services to County residents that align with the implementation of health care reform.

The work of this project is divided into three stages. In Stage 1, HMA submitted an Information Memorandum with demographics and health care utilization data demographics and health care utilization data; an analysis of the current and future capacity of the County's programs, services, and facilities; a discussion of the of the Basic Health Care program; and Financial, utilization, and quality performance indicators for CCRMC and County health center. The information in the Memorandum laid the groundwork for this report.

In order to conduct the analysis required for the second stage of this project, HMA conducted interviews, reviewed data provided by Contra Costa Health Services (CCHS), and assessed data from external sources. The Stage 2 Report is a Preliminary Report that focuses on: 1) opportunities for improving the performance of the County's health care delivery system, including inpatient, outpatient, and the Contra Costa Health Plan (CCHP); 2) alternative governance structures that could address the operational and financial issues related to the financial sustainability of the County's health care delivery system and that could help improve the efficiency and cost effectiveness of delivering health care services to low-income and uninsured populations in the County; 3) increasing primary care capacity to care for the expected increase in the number of vulnerable patients who will be impacted by health reform; 4) the human resource functions and processes related to recruiting and retaining professional staff while in compliance with the County hiring policies; 5) an overview of strategies and programs designed to maximize Federal reimbursements to the County for health care services for Medi-Cal recipients and uninsured residents; 6) the Low Income Health Program (LIHP), a significant element from the point of view of financing the County's health care system; and finally, 7) initial options for the establishment of a "medical home system of care" that would best serve the expanding Medi-Cal population, uninsured, and other medically vulnerable residents of the County.

Stage 3

The final Stage 3 report of the sustainability audit will be presented in mid-June 2011 and will include options for the County to consider in determining the most cost-effective and efficient way to provide care for the expanding Medi-Cal population, uninsured, and other medically vulnerable residents of the County. The options will focus on governance, financing, operations, integrated care delivery, and human resources as noted below.

- Alternative governance models – Options and implications of options
- Human Resource functions – Recruitment and retention strategies related to wage and benefit package

- Labor Relations – Planning and coordinating
- Integrated care delivery – Work plan for the establishment of a Patient-Centered Medical Home “system of care”
- Health Services Department management review
- County oversight and management of health care programs
- Maximizing Federal Reimbursement – Eligibility requirements for any potential new revenue sources and an evaluation of Contra Costa County’s ability to obtain such funding
- Cost structure, which becomes more critical post-health health reform

Health Management Associates (HMA)

HMA is a consulting firm specializing in the fields of health system restructuring, with a particular focus on the safety net; health care program development; health economics and finance; program evaluation; data analysis; and health information technology and exchange. HMA is widely regarded as a leader in providing technical and analytical services to health care providers, purchasers and payers, particularly those who serve medically indigent and underserved populations. Founded in 1985, Health Management Associates has offices in Lansing, Michigan; Chicago, Illinois; Indianapolis, Indiana; Columbus, Ohio; Washington, DC; Tallahassee, Florida; Austin, Texas; Sacramento, California; New York, New York; Atlanta, Georgia; and Boston, Massachusetts.

I. Preliminary Strategic Analysis

This section presents a discussion of preliminary opportunities for improving the performance of the County's health care delivery system. It includes considerations for the County Health Services Department, CCRMC, County health centers, CCHP, and affiliated health care organizations and institutions within the County to provide a comprehensive and high-performance health care network for the County's low-income, uninsured, and medically vulnerable populations.

Introduction

As CCRMC's ability to provide inpatient care to the patient population of Contra Costa, especially those newly covered by the 1115 waiver and HCCI, is evaluated it is important to understand that there will be a number of critical changes related to service capacity needs. This will include:

- A continuous shifting of services currently provided in the inpatient setting into outpatient and ambulatory service sites
- Fewer hospital admissions per capita
- Fiscal rewards to health systems for decreasing admissions and avoiding preventable admissions and readmissions
- Care coordinating patients at the lowest, most appropriate, and least costly level of care.

To a significant degree, these changes will be driven by changes in the delivery of primary care. The PCMH is a model for this ambulatory care transformation. Although CCHS has put into place several initial elements of PCMHs, full transformation will require a dedicated, intensive effort. Implementing an initiative to transform practices into PCMHs is a complex and challenging endeavor. Evaluations of early efforts have shown that, unlike other quality improvement efforts, practices cannot rely on making isolated, incremental improvements. Rather becoming a PCMH requires a total transformation of practice organization, operations, orientation, and culture and a series of interdependent improvements. For CCHS, it will require, among other things, solving the problems with its appointment scheduling system, developing an approach to team-based care, developing systems for care transitions, and integrating mental health into primary care. Although it will not happen quickly or easily, improvements in health outcomes; cost savings; and provider, staff, and patient satisfaction through implementing PCMHs can be achieved. Implementing PCMHs brings the opportunity to explore creating a high-performing medical "neighborhood" through developing a Safety Net Accountable Care Organization (ACO).

Primary Care Capacity Expansion

The CCHS has in place a geographically distributed primary care network that annually provides over 275,000 primary care and ancillary care visits. Primary care is primarily provided by Family Medicine physicians with a sizable number of additional visits generated by Internal Medicine and Pediatric providers. Based on the active patient panels of these providers, the CCHS primary care network is responsible for at least some of the health care needs of nearly 100,000 individual patients. The CCHS

primary care system appears to be currently near or over capacity. Provider panels are felt to be excessive and are being reevaluated for thoughtful downsizing. Patients complain of difficulty obtaining unscheduled visits to their primary care centers. It is estimated that Federal health reform will enable approximately 115,000 Contra Costa residents to become eligible for either Medi-Cal or subsidized private insurance; 8,480 of these individuals are already covered by Contra Costa's HCCI and Basic Health Care (BHC) programs. CCHS needs to be prepared to expand its access to primary care if it expects to maintain its current HCCI/BHC patient population and to be positioned to provide care to a portion of the large number of Contra Costa residents who will be covered in and after 2014. The current capacity of the ambulatory system cannot be calculated without more data on the population (e.g., age, gender, chronic disease burden). Using panel sizes, the system is likely 25% or more over capacity. Using visit productivity, the system is 25% or more below capacity. The contrast of these two measures reinforces the need for delivery system redesign; the current system is bound to be unsatisfying for many patients, providers, and payers.

The following options can maximize and expand access to primary care service capacity:

- **Develop system-wide PCMHs, incorporating medical teams, care coordination for high-risk patients, and pre-visit preparation.** This will allow more effective use of CCHS's existing primary care providers. The goal of future health care delivery is not providing more visits but maximizing care and patients' health so that fewer visits may actually be needed.
- **Carefully scrutinize existing primary care provider panels.** The current methodology used to determine active panel size (i.e., 1 visit in previous 12 months) may need to be modified with a weighted severity index being used to more accurately assess panel size. This could result in the development of more realistic, right-sized panels. There could be additional capacity identified by this process, though the process is more likely to reveal a need to decrease panel sizes. On the other hand, the "right-sizing" process would endeavor to get the "right patients" (e.g., those with ambulatory sensitivity conditions) on the panels and, thereby, affect cost and quality.
- **Closely track primary care provider productivity until PCMHs are fully developed.** CCHS Ambulatory leadership already monitors provider productivity and patient show rates and uses this data to define and modify provider panels. The measure of productivity, however, needs to change from volume to value. For instance, having a patient return for an in-person visit for the refill of a stable chronic disease medicine is counted as increased productivity. Yet this medically unnecessary visit consumes resources (i.e., provider and staff time) and will too often have the negative result of an important medicine not being taken. With the development of functioning medical teams, provider productivity—in terms of delivering value—will steadily increase, but the productivity will need to be measured in a way that reveals this progress towards greater value. Controlled costs, improved quality, and a positive patient experience will need to be delivered for a prospectively defined patient panel. The capacity will be defined by the number of patients for whom this triple aim can be delivered.

- **Manage provider resources to maximize primary care sessions and patient access to their primary care provider team.** CCHS has a unique system of Family Medicine registrars, wherein primary care providers attain "champion" expertise in some aspects of specialty care with resultant decrease in the use of costly specialty consultations and an increase in the appropriateness of expensive and limited diagnostic resources. This unique system may have significant service and cost benefits. However, leadership must assure that primary care providers are mainly focused on the actual delivery of primary care. CCHS administration must also assure that unplanned provider absences are cross-covered by back-up providers
- **Further expand evening/weekend primary care sessions.** CCHS has initiated evening and weekend sessions in a number of its health centers. With the appropriate provision of support staff, further expansion of evening/weekend primary care sessions can increase patients' access to vital primary care.
- **Proceed with the construction of additional ambulatory care space in San Pablo and Concord and consider offer of expanded space for Bay Point.** This space will allow for the increased provision of primary care in the system.
- **Expand current partnerships with private and public health care providers in Contra Costa to assure that all residents of the county have optimal access to primary care.** It is impossible for CCHS by itself to provide all the needed primary care capacity, especially with the impact of health reform and the increased movement of patients into managed care. CCHS's relationship with the non-County FQHCs to enhance the care of the uninsured must be solidified, particularly in light of the fact that 41,000 Contra Costa residents will remain uninsured after health reform is fully implemented.

Inpatient Services at CCRMC

Contra Costa County currently has 1,146 general acute licensed¹ inpatient hospital beds equaling approximately 1.1 beds per 1,000 population. This is well below the national norm of 3.2 per 1,000 population and 1.9 beds per 1,000 in California.² CCRMC currently has 166 licensed and 146 available inpatient beds. Contra Costa has 10 hospitals and CCRMC generates the third highest number of annual hospital discharges (11,576 in Federal FY 2009) accounting for greater than 11% of all annual hospital discharges in the County. CCRMC is the leading provider (41%) of inpatient care to Medi-Cal covered County residents, triple the number of the next busiest hospital. CCRMC is also the main provider of inpatient care to the uninsured patient population and those covered under the Basic Health Care program and HCCI. CCRMC has an average daily occupancy rate of approximately 75%. Many days, patients wait in the Emergency Department (ED) for a Medicine-Surgery or a psychiatric bed to become available. There are times in the year when all the hospitals in Contra Costa are at full- or near-full occupancy.

¹ OSHPD HAFD 2009 Audited Report

² www.aha.org/aha/trendwatch/2006/cb2006toc.PPT

Length of Inpatient Stays at CCRMC

The average length of stay (ALOS) at CCRMC for Medicine-Surgery patients is 3.76 days, 2.4 days for OB patients, and 8.14 days for Psychiatric Unit patients. The national Medicine-Surgery ALOS is 4.6 days and the West region of the U.S. is 4.3 days.³ The OB ALOS are consistent with U.S. stays, and the inpatient psychiatric stays at CCRMC are somewhat longer than the national ALOS of 7.1 days.⁴ (It should be noted that the unit at CCRMC is a locked unit, which may account for a higher length of stay based on a different patient mix.) Providers at CCRMC communicated that, although the ALOS are quite reasonable, there are opportunities to further improve these numbers on select patients on each of the inpatient services. 27 to 28% of all Medicine-Surgery admissions are discharged within 24 hours while 51% of Medicine and 42% of Surgery patients are discharged within 48 hours. Occasionally, stable patients on Medicine-Surgery and Psychiatric Units have excessively long lengths of stay due to delays in identifying suitable post-discharge placement facilities or services. CCRMC has only one CT scan and one MRI Unit, both of which are at near-full capacity utilization. This creates bottlenecks to the timely delivery of inpatient as well as outpatient care. Lack of access to specialized inpatient diagnostic procedures can contribute additional days to a patient's hospital stay. This is particularly a concern on weekends and holidays.

The following options can further decrease the average lengths of stay on inpatient units at CCRMC and address the reasons for one day admissions:

- **Address operational barriers to the timely discharge of inpatients.** This is an ideal project for the high-level quality improvement program at CCRMC. On some inpatient units this issue is already being studied and reviewed.
- **Purchase an additional CT unit,** which could expand capacity/utilization.
- **Provide availability of certain invasive diagnostic procedures on weekends** so as to avoid prolongation of patient hospitalizations.
- **Develop formal relationships and possibly contracts with Skilled Nursing Facilities (SNF), Long Term Acute Care centers (LTAC), Institutions for Mental Disease (IMDs) and nursing homes to expedite the discharge of difficult-to-place patients who require transitional residential care** (e.g., patients with behavior disorders, mental illnesses, substance abuse issue, homelessness, criminal records, etc.). This is particularly an issue for patients without any or without adequate health coverage. Health reform funding mechanisms will require CCRMC to develop transfer agreements to move stable patients to less expensive, more appropriate lower levels of care.
- **Develop formal relationships or contracts with home visit and home IV nurse services to expedite the discharge of inpatients from the hospital to their homes.** This is particularly a barrier to discharge for uninsured or underinsured patients.

³ www.hcup-us.ahrq.gov/reports/.../2007/hcup_partnersV2.jsp

⁴ <http://www.cdc.gov/nchs/fastats/mental.htm>

- **Evaluate the current policy of its Mental Health Department not to readily accept the referral of patients with behavioral disorders and mental illness complicated by substance abuse.** This is an occasional barrier to discharging patients from the inpatient psychiatric unit. The upcoming merger of Mental Health with Alcohol and Other Drug Services Division may prompt further discussions and actions on this issue.
- **Thoroughly study reasons for one-day hospitalizations and consider alternatives to hospitalization,** including the development of an observation unit at CCRMC.

Operating Room Services at CCRMC

CCRMC currently utilizes three hospital operating rooms (OR) for nearly all of the inpatient and ambulatory surgery provided in CCHS. A fourth OR is temporarily unused pending the completion of a utilization study of the efficiency of OR procedures. It was reported the OR utilization rate is 90%; the national goal for OR utilization is 70%. The ORs have a case cancellation or patient no-show rate of 30%. These cancellations are filled in by urgent cases that would otherwise have bumped scheduled elective or less urgent surgeries. Some of the OR cancellations are due to the existing preoperative clearance process that can result in patients having to return for up to three separate appointments to complete all pre-operative exams, education, and testing. A sizable number of the surgeries and procedures performed in the hospital ORs could be safely, more efficiently, and more cost effectively done in an outpatient surgery center or even in a clinic procedure room.

The following options can more effectively utilize the hospital operating rooms.

- **Establish a centralized, one stop pre-operative preparation and clearance clinic** at the Martinez Health Center.
- **Consider opening the fourth OR to handle all urgent and emergent surgeries.** This may require the availability of an additional OR team. This could reduce or eliminate cancelling or bumping scheduled elective cases, which is disruptive to patient care and a significant cause of patient dissatisfaction with a health care system.
- **Shift lower risk, uncomplicated surgeries and procedures to an ambulatory surgery center or a clinic procedure room.** Hospital ORs are costly units of service with extensive regulatory guidelines and oversight. Surgeries that can be safely performed in a less-intense setting should not be performed in a hospital OR.

Emergency Department Services at CCRMC

The Emergency Department (ED) at CCRMC is extremely busy providing nearly 60,000 annual patient visits. The ED visit volume has doubled since the hospital and ED were constructed in 1997. The physical space in the ED is fully utilized with designated temporary, audio-visually compromised stations in the hallways and a congested waiting room. When inpatient units are at capacity, patients awaiting admission occupy beds in the already crowded ED. Of ED visits, 30% are classified as Level 4-5 (low acuity, non-urgent). Therefore, many of these patients could be safely treated in an urgent or immediate care center, an ambulatory clinic, or a physician's office. A number of the Level 5 patients simply require

a medication refill, but they have had difficulty contacting their primary care center. Except for the ED, there is limited opportunity for uninsured or underinsured patients to access urgent care when their primary care center is closed. The ED does not routinely notify primary providers when their patients are in the ED or are being discharged from the ED. The ED also does not have access to expedited post-ED appointments to primary care providers. The Psychiatric Emergency Service (PES) houses mentally ill men and women in two very crowded spaces. One of the main reasons for a repeat visit to the PES is the failure of patients to take their medication or difficulty in obtaining medication refills.

The following options can more effectively utilize ED and PES services.

- **Identify and renovate additional physical space adjacent to the ED** to assure that care provided in these two units is maximally efficient and audio-visual privacy maintained. This is critical because the ED and the PES have exceeded their physical capacities.
- **Provide after-hours immediate and non-urgent care available to all patients cared for by CCHS.** The ED should be used only by patients with emergent or urgent conditions. This would be cost-effective and decrease the demand on the ED and can be created internally or developed through formal agreements.
- **Create an Observation Unit to help decrease congestion in the ED.** Patients waiting for admission or patients requiring short-term treatment could effectively utilize this unit, which will free up beds in the ED.
- **Develop procedures to notify primary care providers and centers when a patient is in the ED or is being discharged so that all required transitional care can be provided.** This could decrease costly re-visits to the ED for high-risk patients.
- **The CCHS quality improvement program should study the barriers that keep patients from consistently obtaining medication refills and using the ED simply to obtain prescriptions.**

Specialty Care

Thirty-nine specialty services provide over 100,000 annual visits primarily at CCHS's three comprehensive care centers. The waiting times for appointments to 23 of the 39 specialty services is monitored and reported. There are lengthy waiting times for 25% of the specialty services that are being monitored. The actual waiting times are longer than reported because many referrals are backlogged on a waiting list before an appointment is assigned. In February 2011, eight specialties had 100 to greater than 300 consultation requests parked on waiting lists. In order to minimize the waiting times and the sizes of the waiting lists, some specialty services have begun to manually screen requests for appropriateness and completion of indicated pre-visit tests. The long waits and the backlogged waiting lists indicate that a number of specialty services are at or full capacity. In 2010, only 60% of the specialty clinics attained the productivity goals established by CCHS.

The following can enhance access to specialty consultation.

- **Implement an automated, rule-based specialty referral screening system that would successfully approve or deny the majority of all specialty requests.** This auto-screening would

free clinical staff from manually reviewing requests and could diminish waits for appointments and time on waiting lists.

- **Evaluate the reasons and initiate process improvement actions to improve the productivity of those specialty clinics that are unable to meet established productivity standards.**
- **Increase in-house specialty capacity** by hiring more specialists in backlogged services and/or contracting with community specialists to provide consultations when waits become prolonged.
- **Initiate an e-consult initially for backlogged specialty services.** The implementation of the new EHR should help facilitate this process. Many specialty referrals are essentially soliciting advice on patient management that does not require a hands-on visit and can be effectively handled electronically. Specialists with high volumes of e-consult requests will need to have time reserved to provide these e-consults.

Quality Improvement Programs at CCHS and CCRMC

CCHS and CCRMC have committed resources and time to the development of an extensive, ongoing quality improvement effort involving all aspects of the delivery of health services across the continuum of care. Its leadership has attended intensive national training in quality improvement processes and programs. Staff have been selected and given fellowships in becoming "change agents" for the system. Numerous quality improvement projects have been initiated focusing on complicated areas of service.

- **Efforts of CCHS and CCRMS need to be supported at all levels of the health and County administration.** This quality program has been nationally recognized and adds value to the health care delivery system at CCRMC and CCHS and is worth the resource and time commitment of the County.

Appointment Scheduling

The centralized scheduling system was created to support open access (i.e., advanced access) scheduling. Open access scheduling functioned effectively for several years and helped improve show rates from 70% to 85%.

Today, the increase in demand for primary care services has resulted in a mismatch of the supply of appointments available and the demand for these appointments. This results in few appointments available to give to patients requesting appointments and long phone queues. Open access scheduling is only effective when supply and demand are essentially matched.

- **If the centralized system is continued, some simplification of the scheduling process and rules is encouraged.** The CCRMC CEO noted that there is a plan in place to begin a Value Stream Mapping process for this department as part of a Kaizen project, which will include participation by physicians and staff.

Family Medicine Provider Base

CCRMC and CCHS are predominantly staffed by Family Medicine providers. Many are graduates of the Family Medicine Residency program at CCRMC. CCRMC has a long standing practice of assigning Family

Medicine providers to spend a portion of their work week as "registrars" on inpatient and outpatient specialty services, on inpatient teaching rotations, and in the Emergency Department. They also have a significant amount of their time dedicated to busy outpatient primary care practices in County health centers.

Family Medicine physicians who assist specialists on inpatient units and outpatient specialty clinics acquire a significant amount of knowledge about their assigned specialty service. They become "champions" in this specialty. They provide an accessible conduit for the communication of updates to their primary care colleagues in the outpatient care centers about the care of patients with specialty conditions. They commonly assist their colleagues to determine which patients would benefit from a specialty consultation. They screen out inappropriate or unnecessary referrals freeing valuable specialty appointments for the most appropriate patients. These Family Medicine registrars provide unique clinical and cost benefits to the patients of CCHS and the health delivery system.

Ambulatory clinical and administrative leadership must consistently evaluate the primary care needs of the CCHS patient. The existence of the Family Medicine registrar system at CCRMC has notable cost implications. Family Medicine physicians are paid at significantly lower rates than specialists. If specialists (e.g., cardiologists, orthopedists, general and specialty surgeons, etc.) were hired to provide the inpatient and outpatient duties of the registrars, there would be an increase in the CCHS's salary and contract commitments.

The following change in use of Family Medicine physicians as registrars should be considered.

- **Monitor the time commitment of the registrars to assure that these primary care providers are mainly focused on the pivotal provision of primary care.**

Family Medicine Training Program

CCRMC's Family Medicine training program is the only residency program in Contra Costa County. The program has 13 residents in each of the three years of the residency. The program matches 100% of its positions with U.S. medical school graduates. Each year CCRMC and CCHS hires 33% of the training programs graduates; 68% of all the graduates since 2006 have chosen to stay in Contra Costa and serve the residents of the county.

The CCRMC Family Medicine Residency is a nationally recognized and respected program. Family Medicine programs are not formally ranked but its enviable match rate, the quality of its residents, and its status as the only residency program not only at CCRMC but in the country, has led national Family Medicine leaders to place this program in the upper echelon of Family Medicine residencies in the country. The CCRMC Family Medicine Training Program is a key source of primary care providers both in CCHS and in the entire county of Contra Costa. The loss of this training program would have an immediate and negative impact on the provision of primary care for all residents of Contra Costa County. The presence of a training program at CCRMC and CCHS contributes to the successful recruitment and retention of the interested, quality physicians to work in CCHS.

- **The Family Medicine training program should be maintained and supported.**

Partnerships/Integration with Other County Providers

Health reform will change the coverage of low-income residents in the County, and California's Section 1115 Medicaid waiver renewal provides expanded access for this population. The economic climate is making the pressure at the local level immediate and the need to design new systems essential. Health reform requires models for effectively delivering care and improving health status, not simply providing insurance coverage. Local models, built on an integrated approach, will be extremely helpful as the Country looks to assure real access to quality, efficiently-delivered health care.

Most non-County providers view exploring potential partnerships with CCHSD positively. There is a perception that CCHS is a unique integrated system consisting of CCRM, the health centers, and the CCHP. However they are integrated to each other but not to the rest of the private system. Capacity is becoming an issue for providers across the County. As access to care to the vulnerable population in Contra Costa County expands, a countywide, integrated approach to assuring patients actually have access to the right care in the right setting at the right time will be increasingly critical.

The following options can address a countywide integrated delivery system for the vulnerable population in the County.

- **Take the lead in exploring the concept of a Safety Net Accountable Care Organization (ACO) with key stakeholders.**
- **Leverage the Access To Care Stakeholders Group to begin the discussion.** This will include private hospital and health plan CEOs and other decision makers, the leadership of the non-county FQHCs, and local private physicians that are part of the group.

II. Potential Alternative Models

This section identifies six alternative governance structures that could address the operational and financial issues related to the financial sustainability of the CCRMC, County health centers, and the CCHP and could help improve the efficiency and cost effectiveness of delivering health care services in Contra Costa County.

While this phase of the sustainability audit calls for a preliminary discussion of alternative models, the Stage 3 report will include a more robust discussion of the options and implications of options for Contra Costa County. This will include an analysis of which challenges are and are not addressed by a particular option, funding impacts (if any), and key barriers or success factors.

Model 1: Public Ownership/Private Management of Hospital

This structure would involve contracting with a private organization to manage and staff the CCRMC, while the clinics and health department remain with the County. CCRMC would continue to be owned by the County and would remain a public hospital, but the private entity would have the responsibility of operating the facility under a contract with the County. This would allow CCRMC to be outside the purchasing and employment issues with which they are currently concerned but would give them the advantage of the skills of an organization where hospitals are their primary business. However, separating the CCRMC and County health centers could weaken the health system coordination overall since the County health centers are closer to traditional County operations, essential to public health, and the backbone of a well-integrated health system for vulnerable populations.

As an example, the Travis County Health and Human Services Department in Austin, Texas has used this model successfully.

Model 2: Separate Governmental Entity

CCRMC, CCHS health centers, CCHP, and the public health department could be spun off into a separate governmental entity with a Board appointed by elected officials. This would allow for a Board to concentrate on health issues alone and have a structure focused solely on the needs of the health care organization. This agency could have its own tax rate or receive a set subsidy from the County for the services provided. This keeps the advantage of integrating all the health efforts in the County and creates infrastructure attune to the needs of a health care organization.

Health and Hospital Corporation of Marion County, Indiana has established this model and Cambridge, Massachusetts had a similar structure for a time.

Model 3: Separate Non-Profit Entity

CCRMC, CCHS health centers, and CCHP could be spun off into a single 501(c) 3 with a subsidy from the County. This would preserve an intact hospital. Under such a structure, it is possible to be recognized as a public hospital for certain purposes while for all intents and purposes operating as a private hospital. It could have a subsidy that comes from a specific levy or from the general fund. Regardless of the source,

the County could give all of the money to the one entity or give some amount to others based on specific contributions they make.

Kansas City, Missouri and Truman Medical Center have successfully established these types of entities.

Model 4: Privatization

CCRMC, CCHS health centers, and CCHP could be spun off to a private entity. The money that might have been used to support the public system instead could be used to subsidize private entities for certain services or to pay for Section 17000 requirements until 2014. This would make the demands on the County budget known and predictable. This model would also envision some measurable requirement on the 501(c) 3 hospitals in the community to provide a certain amount of care to the indigent.

Milwaukee, Wisconsin and a number of counties in California follow this model. The state of Indiana did something similar with their University Hospitals by moving the ownership and operation to a private entity, Methodist Hospital (now called Indiana University Health) but is continuing to provide Intergovernmental Transfers (IGTs) for the new entity.

Model 5: Health Authority

All or any portion of the current division could be moved to a Health Authority. This is similar to some of the other structures presented and has been used in many other locations.

As an example, the Alameda County Medical Center is a Public Hospital Authority governed by a Board of Trustees appointed by the County Board of Supervisors. The Denver Health and Hospital Authority also uses this model.

Model 6: Health District

The County could form a countywide health district with a Board of Directors and CCRMC, the County health centers, and CCHP could be made part of that structure.

As an example, the Maricopa County Special Health Care District in Phoenix, Arizona, which was established in 2004.

All of these models present potentially viable alternatives for the County and have advantages and disadvantages, which will be presented in more detail in the final report. The report also will include an analysis of what the requirements of each option will be under California law.

III. Human Resources and Staffing Analysis

Subsection 1: County Medical Staff Needs

The population of Contra Costa County is projected to grow by more than 350,000 people over the next 20 years. The number of Medi-Cal enrollees and the number of individuals over 65 years old in the County are increasing. This increase will be critical for the County because both of these populations use more health care services than other groups. The table below shows significant growth in the number of Contra Costa residents covered by Medi-Cal in 2014 with implementation of the Affordable Care Act (ACA) Medicaid expansion provision. However, not all of the Medi-Cal enrollment growth will be new patients to CCRMC and the County health centers. Of the 10,600 individuals currently enrolled in the County’s Health Care Coverage Initiative (HCCI) program, those with income at or below 133 percent Federal poverty level (FPL) will move to Medi-Cal coverage in 2014. At least 80% of HCCI enrollees (8,480) are estimated to have income under 133% percent FPL.⁵ Since this group of HCCI enrollees are already in CCHP, they will not be new to the system in 2014. As a result, the estimated number of new (“2014 Movement” in Table III.1) CCHP Medi-Cal enrollees (line 2 in Table III. 1) will be 8,480 less than 50,000 resulting in just over 41,500.

Table: III.1 Contra Costa Population by Coverage Status, 2009 and Projected 2014 with ACA Implementation

	2009	%	2014 Movement		2014	%
Private Insurance	641,500	61%	63,000	**	704,500	67%
Medi-Cal w/H Families	125,000	12%	50,000	***	175,000	17%
Medicare	128,000	12%			128,000	12%
Uninsured	154,000	* 15%	(113,000)		41,000	4%
Total	1,048,500		-		1,048,500	

*The uninsured in 2009 (154,000) includes those (approximately 10,000) that are currently covered by HCCI.

**The uninsured that move to private insurance coverage in 2014 (63,000) include current HCCI enrollees with income over 133% FPL and those currently in the Basic Health Care program.

*** The uninsured who move to Medi-Cal coverage in 2014 (50,000) include current HCCI enrollees with income under 133 percent FPL.

Source: MCIC analysis March 2011.

Today, CCHS provides primary care to 98,822 individual patients in eight separate health centers. Age, medical complexity, and utilization per patient are not available for current analysis. However, based on information in the CCHS Strategic Plan, CCHS patients do have lower literacy, are more likely to be non-English speaking and have poorer health status than those at other hospitals.

The CCHS strategic plan identified four major categories of delivery system changes needed to prepare for health reform, strengthen the delivery system, enhance care, and improve outcomes. They are:

- Infrastructure development
- Innovation and redesign

⁵ A June 1, 2010 UCLA Center for Health Policy Research report titled “Interim Evaluation Report on California’s Health Care Coverage Initiative” indicates that 72% of Contra Costa HCCI enrollees have income at or below 100% FPL. The remaining 28% have incomes greater than 100% and at or below 200% FPL.

- Population focused improvement
- Urgent improvement in care

Infrastructure Development

The CCHS strategic plan identifies the following investments in technology, tools, and human resources that are necessary to strengthen the organization's ability to serve its population and continuously improve its services.

Buildings

The CCHS strategic plan includes constructing two new buildings and expanding one additional site. This is an important step in improving health center functioning. HMA's analysis showed that Bay Point, Concord, and Antioch Health Centers are outdated, crowded, and functionally very inefficient. Bay Point only has two medical exam rooms. Concord is divided into two separate two-story buildings. Antioch clinics are divided by a public corridor. The physical limitations of these sites interfere with maximal clinical efficiency. Even if the physical limitations are addressed, there are other important measures that could improve access to and delivery of services. In particular, offering extended hours will allow the existing sites to serve more patients. However, this will require hiring the appropriate numbers of additional support staff and physicians and/or nurse practitioners.

Information Technology

Plans are in place to upgrade and expand technology across CCHS with the goal of supporting and enhancing all operations of the system.

Human Resources

Panel Size

The CCHS strategic plan acknowledges that it is critical to expand primary care capacity to meet the growing demand. The present panel sizes and visits per FTE reflect little unused physician capacity in the system. In CCHS, the average panel size among primary care providers is 2,050 patients /FTE and range from 1,500 to 3,300 patients /FTE. Although it is important to note that these panels are mostly historically based rather than prospectively assigned, most national benchmarks, particularly for vulnerable populations, use panel sizes of 1200-1800. The Veteran's Administration uses a panel size target of 1,200 unique patients/FTE provider.

That said, the optimal panel size for any provider is determined by the medical complexity of the patients, age, and appropriate utilization. For example, a panel which includes a large number of women of child-bearing age may need to be smaller than 1,500 since the usual-risk woman will need 10 visits over the course of an uncomplicated pregnancy though some women may require 15 to 18 visits and some women will show up for fewer.⁶

⁶ Traditionally, low-risk pregnant women in the United States who participate in prenatal care have been scheduled for approximately 14 to 16 prenatal visits, which is the schedule recommended by the American College of Obstetricians and Gynecologists. In 1989, an expert panel convened by the United States Department of Health and Human Services proposed a reduced frequency prenatal visit schedule for low-risk, healthy women based on the timing of specific tests or events that occur

Similar to using the weighted severity index indicated in the previous section, CCHS could determine panel size using a weighting system that uses the concept of “patient-equivalents.” Under this model, every panel would contain a certain number of patient equivalents. The number of patient equivalents is an arbitrary but meaningful number based on the following question: If every patient was an average patient, for how many patients could one FTE primary care physician be accountable? For example, if for Contra Costa this were 1,500 patient equivalents that would translate into approximately three visits per year for that average patient if the following assumptions are made: 3 visits per hour, 32 hours per week, 46 weeks per year.⁷ This is very close to the number that was widely used to determine allowable costs for FQHC’s rate determination (i.e., 4,200 patient visits per year). Each patient would need to be weighted in terms of patient-equivalents. This can be done in a variety of ways but one option is with age and gender tables with additional weight added for specific chronic diseases.

When the patient panel is thus weighted, incentives for “churning” patients are minimized. The provider would have five minutes per month for a patient with a member equivalent weight of “1” (e.g., an elderly person without chronic disease or a 45 year old with diabetes) or 15 minutes per month for a patient weighted a “3” (e.g., an elderly person with multiple chronic diseases). Some of the provider’s time would be expected to be spent communicating with the patient through mechanisms other than a visit, such as telephone calls. Time would also be spent enabling other care team members to take actions for the patient (e.g. standing orders). Since this “medical home team” would be judged on the outcomes for the panel of patients rather than on the number of visits, the incentive would be to find efficient ways to deliver care.

Overly large panel sizes do not serve the patients/system well. Today, the scheduling system is dysfunctional mostly due to inadequate numbers of appointments available to meet the patient demand for care. When the most cost-effective venue is not available, patients will go without care, delay care, or are treated in more expensive and less-appropriate settings.

Provider Recruitment and Retention

Recruiting new providers is key to CCHS’s attaining its goal of increasing primary care capacity. Historically, the recruitment of qualified primary care providers to work in the CCHS has not been a significant challenge. However, salaries of nearby health systems are significantly higher than that offered at CCHS with similar benefits and work hours. This growing disparity will adversely affect both recruitment and retention of qualified providers. Signing bonuses, adjustments in base salaries and financial incentives for meeting and/or exceeding organizational goals such as quality, productivity and

in pregnancy. Available evidence shows no adverse effect on maternal or neonatal outcomes for low-risk pregnant women who follow a reduced visit schedule, making it a highly important consideration for pregnant women and their health care providers.

In the Centering Pregnancy model of care, groups of pregnant women with similar due dates attend two-hour prenatal visits in which they are able to network with other pregnant women, receive an assessment of their pregnancy status and education specific to their needs, as well as postnatal education including breastfeeding and contraception. Approximately 8 to 12 women attend each visit, which begin around the 12th to 16th week of pregnancy, for 10 visits. This is significantly less than the 14 to 16 recommended by ACOG. In a study done by Yale University, it was shown that participants of Centering programs reduced their risk of preterm birth by 33% and were more likely to report feeling empowered to choose health-promoting behaviors.

⁷ Per Ambulatory leadership physicians at CCHS work an average of 45 weeks per year.

patient satisfaction are all potential recruitment and retention strategies. Enabling physicians to have meaningful input into the practices is also key to retention. Additionally, improvements in operational processes will lessen provider burnout and help with retention.

Innovation and Redesign

CCHS is well positioned for a successful implementation of a Patient-Centered Medical Home. Many of the components already are being piloted or exist. The transition to EPIC and a more robust information technology (IT) strategy also will assist in this effort.

Group visits are one innovative approach being used successfully in CCHS primary care practices and are one potential way for the system to build capacity. Additional opportunities exist for expanding this approach. Although group visits do not always increase capacity, they have been shown to improve outcomes, patient self-management skills, and patient satisfaction.

Nationally, there are successful models of pharmacist-run clinics for conditions such as diabetes, hypertension, and lipid management. CCHS might consider this model to expand access, improve care, and decrease costs.

Population-Focused Improvement

CCHS's strategic plan includes substantial enhancement of the IT system. This will facilitate the identification and management of all patients, not just those who present for care. Case management, care coordination and the use of registries are all central to a highly functional patient centered medical home.

Urgent improvements in Quality and Safety

CCHS is committed to continuously improving the quality and safety of the care it delivers. The strategic plan acknowledges that there are opportunities with selected conditions to decrease morbidity and mortality among patients hospitalized at CCRMC. Efforts to address hospitalizations for Ambulatory Care Sensitive conditions such as increasing the use of asthma controllers, improving prenatal care, and medical management of congestive heart failure can lead to better outcomes, decreases in hospital care, and substantial cost savings.

While implementing an EHR is a critical first step, it does not automatically result in improvements in quality and cost. There will have to be additional and deliberate efforts made to ensure that the system is fully used and/or enhanced to improve quality and costs.

CCHS could establish a dedicated quality team, which would include physicians and actively involve senior leadership, as a strategy to increase its focus on data-driven processes and improvements in care. This could yield important benefits as State and Federal programs will increasingly reward systems that measure and demonstrate positive patient health outcomes, decrease admissions, avoid preventable admissions and readmissions, and have fewer medical errors.

Subsection 2: Recruitment and Retention Policies and Procedures

Several organizational entities and environmental factors impact the ability of the Contra Costa County Health Services Department's (HSD) ability to recruit and retain staff. As noted in the Stage 1 Report the key factors include: the human resource function, labor relations/unions, and the County hiring process.

Human Resource Function

HSD Human Resources (HR) is responsible for approximately 3,200 employees. HR is responsible for coordinating the employment processes, providing consultation to managers, and administering time sheets for payroll. Payroll is a paper-based manual process that is time consuming and challenging to administer. No electronic time and attendance system is in place at this time, but the County has engaged ADP to implement one in the future. Given the lack of an integrated time collection and management system, detailed staffing reports are neither readily available nor used by managers at HSD or by HSD HR. The County provided a list of budgeted FTEs in the system but not actual FTEs.

A Professional Services Unit (PSU) study⁸ was recently completed by an external consulting group for the overall County HR function and process. The purpose of the PSU study is to assess HR practices and policies for the PSU. Originally, HSD HR was to be excluded from the study, but it was subsequently agreed to include it, since HSD paid the additional cost to be part of it and were very interested in the outcome of the study. The study was completed in January 2011. HSD leadership considers the conclusions and recommendations in the PSU study critical implementation steps and would improve HSD HR's ability to do its job. A major part of the study was the analysis of the current processes for classification, compensation of positions, and recruitment of staff into the County. The study includes recommendations to streamline several processes in order to improve recruitment. There is a current backlog of 35 pending exams that were submitted to County HR for approval. HSD believes that the current approval process is time consuming and is keeping HSD HR from replacing vacancies in a timely fashion. It is believed that County HR replicates much of the work already done by HSD HR. Overtime and agency usage is used to meet staffing requirements resulting from vacancies and hiring delays.

HSD issues were identified beginning on page 36 of the PSU study. The following are relevant to the current process for recruiting or replacing staff at HSD:

"One of the major concerns expressed by the departments is that delays in responding to HR issues, recruitments, and list requisitions can have a significant impact on funding. If a position isn't filled, these departments can lose funding. In most cases, the jobs involved are unique to the department which is a strong argument for having the department take responsibility for HR activities within the department."

"Departments would like the authority to maintain and produce their own eligibility lists for those positions that are unique to the department. There is a strong feeling that the departments and PSU share a mutual desire to comply with County policies and regulations and

⁸ Contra Costa County – PSU Audit Review. Audit Review of Practices and Functions. Renne Sloan Holtzman Sakai LLP. Prepared by: Geoffrey Rothman, Principal Consultant, Doug Johnson, Consultant.

that added NEOGOV access would improve department access without any significant risk in complying with the same requirements the PSU works under.”

“Some departments conduct salary comparability studies for compliance with Federal regulations; however, PSU will redo the survey, which ignores the fact that both PSU and the department have a mutual objective in providing accurate and pertinent information.”

As a result of the Audit and issues raised, the following are some of the recommendations made by the consultants beginning on page 38:

Document and process tracking

- Establish consistent standards and practices.
- Utilize uniform methods and timelines for communicating with departments.
- Transparency of process and status.
- Shift more of the analytical P300 burden to the operating departments for jobs that do not have significant cross-department equity issues.

Deep class reassignments

- Utilize a streamlined review process primarily requiring approval within the operating department and limited analysis/review by PSU.

PeopleSoft access for employee data and ad-hoc reporting

- Open up access to PeopleSoft data and eliminate the need for PSU staff to be involved in ad-hoc reporting.

Classification and compensation systems and issue analysis

- Establish guidelines and standards for conducting market surveys with an effort to limit the need and use of market data for most ad-hoc analyses.
- Shift the burden of data collection to the operating departments with PSU staff serving in an advisory and review role.
- Establish updated classification plan standards, concepts, and guidelines (possibly requiring a countywide study).
- Identify compensable factors and job characteristics for consistent use in evaluating internal equity (does not require a quantified point driven system)
- Establish limits/thresholds for creating new job classifications.
- Make sure PSU staff is in the “bargaining loop” to assess impacts and issues.

Duplication of effort in classification and compensation analyses

- Shift a greater burden of effort to the operating departments and adopt an advisory consultant role with PSU staff.

List certifications

- Increase the use of NEOGOV in operating departments and shift the burden of list management for job classes that have little cross-departmental impact.

Based on HSD staff interviews and the review of the PSU Audit, HMA's assessment is that HSD cannot recruit nor replace staff as quickly as needed. There appears to be redundancy in staff effort and processes that result in delays that create additional staff costs and the loss of qualified candidates. There appears to be no ability to adjust to changing market conditions in order to compete for qualified staff. Generally speaking, at this point there is a surplus of available nurses and other health professionals; however, the need for more primary care physicians will be critical. It is important to become more nimble in order to compete for staff when shortages occur again or when the need becomes imminent.

Labor Relations/Unions

There are a total of 10 bargaining units at HSD who negotiate contracts directly with the County. HSD wages and benefits are part of these negotiations. Once negotiations are completed, the contracts go to the County Board of Supervisors for approval. Historically, the unions bargained as a coalition. The County contracts with the Industrial Distributors Employee Association (IDEA) to serve as the lead negotiator. Currently, the County has an RFP out for performing the negotiation process. There are 85 union leaders and members and five staff members representing the County in the same room at the same time. The California Nurses Association (CNA), who represents the nurses working at the HSD, and the Physicians and Dentists of Contra Costa (PDOCC), who represent physicians and dentists, no longer bargain as part of the coalition. CNA's contract is due to be renegotiated in August of this year. PDOCC has not had a signed contract for two years, and there does not appear to be a formal negotiation planned for the near term.

Very few individuals working at the HSD are not represented by Union Contracts. Only the top executives are exempt at this time. A new union representing the HSD middle management staff was formed and is ready to join the Coalition for bargaining. Projected wage reductions and projected changes to the health plan, a lower cost plan, will be matched up with lower wages and appears to have the unions and staff concerned about the upcoming negotiations.

According to the County HR Director, the HSD HR Director has a seat at the bargaining table and represents HSD's needs in the bargaining process. This position reports to the CEO of the HSD and is the primary point of contact between HSD and County HR. It was noted that while the HSD HR Director is part of the negotiating team, the position has little or no influence over what is negotiated during the process.

HSD leadership stated that the HSD needs are an afterthought when union negotiations take place. No strategic vision or alignment with HSD's business needs is planned for and represented in the negotiating process. As an example, COLAs are granted to all classifications when pay changes need to be targeted at "hard-to-recruit" classifications. There is no collective preparation or impact analysis for negotiations. The outcome is no ownership for the results; County decisions regarding benefits and compensation are made to maintain labor serenity and to create a positive public sentiment. This is not good for HSD and does not allow any flexibility for change to improve HSDs operations.

The Business Agent for Local 1 appears to be the most visible union leader of all the unions that represent staff at HSD. It was said that he has a strong local presence and that other union leadership look to him for insights when dealing with the County. The Business Agent stated that communication with HSD needs to improve. He believes that day-to-day labor relations would improve with more proactive communication with the union regarding changes that affect union membership.

HSD leadership and the County staff think that the labor relations and process is not problematic and is not adversarial.

Recruitment and Retention of Nurses and Physicians

The nurse recruiting function is performed by the former Hospital DON. She has held this position for two years but has been with the system 28 years. She is the “subject matter expert” who analyzes all applications she receives from HR and scores them for years of experience, education, by specialty, and veteran status. She then places positions on a “cert list,” either beginner, experienced, or advanced based on the score assigned. Only 10 candidates at a time can be placed on the cert list. Newly hired employees who do not pass the probation period or whose employment has been terminated go back on the list for reconsideration for up to six months. County HR only sends 10 candidates for consideration at a time. It typically takes between three to four months to hire a registered nurse (RN) due to the County rules and merit system, even though the County allows “continuous recruitment” of RNs. This means that HSD is authorized to post RN positions at all times and are not required to create vacancies for specific jobs. The biggest challenge and problem they face is when they need to justify hiring an RN with special skills for positions that are not “general” patient care-related skills.

As a result of not being able to respond to candidates quickly, they lose candidates every month. In response, HSD has created a Per Diem Pool of 250 RNs. The nurses in the Pool get experience, but don’t get jobs that provide benefits and leave after a few years. Some Pool RNs do stay because they have another job with benefits. CCHS Nursing believes that they cannot compete with Kaiser Permanente’s starting salaries. That being said, Nursing Leadership stated that RNs see CCHS as a good place to work with great benefits even though salaries are lower compared to Kaiser and other hospitals. The range for RNs is \$36.40 to \$48.00 per hour. Per Diems are \$66 per hour. Kaiser pays \$52 per hour with two years experience. The pension plan is good. There is a high level of teamwork with physicians and RNs are empowered and have a high level of autonomy. CNA just settled the Kaiser contract with a 5% increase per year for three years.

Physician panel sizes have increased even more so with the economy. Northern California Kaiser has started to recruit for more primary care physicians, and they are recruiting CCRMC Family Medicine residents and other physicians. Concern was expressed regarding CCHS ability to deliver on the mission in the current HR environment in the County. There is also concern about a compensation gap. New graduates start at \$120,000 at CCRMC and can get to \$170,000 over 15 years. Kaiser is starting new graduates at \$180,000 with a benefit package that is not that dissimilar to the County’s. But it also includes a sign-on bonus for primary care, loan repayment, and profit sharing. All CCRMC OB staff are employed. Primary care physicians are represented by PDOCC. HSD is currently recruiting for a

replacement Pathologist and has had 50 responses. HSD is also recruiting for an orthopedic physician and a podiatrist, both new positions.

Some physicians prefer to be independent contractors because they can work like employees and get more upfront money. However, they have no health care benefits, which is a problem for some. The current physician recruiter believes that the County ignores Independent Contractor designation rules and guidelines.

At this time there is no designated recruiting budget. There is one budget for HSD, and it is managed and controlled by the COO/CFO.

HSD Physician Leadership said that HSD's mission is to serve a population in the County who is in need. A self-selected group of Family Medicine physicians stay because of the mission. CCRMC is viewed as a secure place to be, isolated from financial restrictions. The average age of the medical staff is under 40 years old. The Residency program attracts very good residents. It is believed that there is a need to get salary, pension, and benefits outside of County bureaucracy. In addition, the following changes are necessary to attract and retain physicians into the future:

- Strengthen the Residency program since it is well regarded and affiliated with UC Davis. It has 600 applications for 13 spots.
- Do not furlough physicians.
- Incentivize Family Medicine clinic physicians. Possibly create a stipend within the contract.

The real competition for physicians and staff are Kaiser, John Muir, and Sutter, not other counties who the County compares benefits and pay. It is important for CCRMC compensation and benefits to match up with the true competition.

It was noted that other counties face the same competitive staffing challenges to a greater or lesser degree than what CCRMC faces. It is believed that the Pension and Retiree health plan are primarily "golden hand cuffs" and not an incentive for hiring graduating physicians. From a budget standpoint, labor costs make us "prisoners of our system" and linked to these are expensive benefits. Total compensation needs to be reviewed.

It is also important to link RN and other nursing staff recruitment with physician recruitment so that newly hired physicians have the appropriate staff support when hired.

Total Compensation

The Hay Group completed a Compensation and Benefits survey in March of 2010⁹ that utilized 2009 compensation data. The study compared compensation related programs with nine Bay Area comparison counties. The following observations regarding the Health Plan and Pension plan the County provides its employee were included in the report:

⁹ Hay Group. Contra Costa County Final Report. Custom Salary Survey & Benefits Costs Analysis. March 2010.

Contra Costa – Health Care¹⁰

- In the health care area, Contra Costa currently offers one of the most competitive health and dental plans compared to other Bay Area counties with regards to employer funding and the health and dental employee costs are among the lowest.
- Compared to the typical Bay Area county, Contra Costa funds a higher than average amount for family health care coverage (\$14,744). This high amount is a function of Contra Costa’s generous cost-sharing arrangement (98% employer/2% employee).
- Contra Costa’s employee cost-sharing percentage of 2% is well below the average of 12.9% for the other counties.
- Six of the nine counties surveyed charge the employees nothing for dental insurance while Contra Costa charges 2% of full premium.

Contra Costa – Retirement

- Contra Costa currently provides a competitive retirement program when compared to the other Bay Area counties.
 - The County offers an employer contribution of 27% of annual salary (including POB rates), which is the highest in the Bay Area.
 - The annual employee share is 3.0%, which is in the lower quartile.
- The Contra Costa plan employer cost ranks the highest in the market and provides the second highest funding level of the counties surveyed.
- Contra Costa charges employees the third lowest level of contribution.

When salaries were added to overall benefit costs, the Hay Study indicated that Contra Costa County had the highest Employee Total Cost of all the counties in the survey. Overall benefit costs were the drivers behind this.

County HR reviews of hospital classification conclude that HSD compensation is comparable with private hospitals. Analysis of HSD department payroll data indicate that benefit costs may be higher than what was presented in the Hay Report and will require additional analysis to clarify the current benefit cost. Additional stage 3 analysis will also include the following: determine cost of overtime and registry, productivity standards, and benefits costs.

It is HMA’s assessment that the current wage and benefit package is more conducive to the retention of staff than to the recruitment of new staff. The longer term, strategic implication of this approach needs to be analyzed further. An older workforce brings some stability but also some additional cost such as increased FMLA usage and higher average wages that drive up benefit costs and overall labor costs. This will be explored further in the Stage 3 Report.

¹⁰ Contra Costa County has negotiated major changes to health care cost-sharing since this survey data was collected.

IV. Maximizing Federal Reimbursements

This section provides an overview of strategies and programs designed to maximize Federal reimbursements to the County for health care services for Medi-Cal recipients and uninsured residents and Contra Costa County's existing maximization strategies. In the Stage 3 Report, HMA will provide a description of eligibility requirements for any potential new revenue sources and an evaluation of Contra Costa County's ability to obtain such funding.

The Medicaid program, in terms of funding, is a Federal-state partnership. Within limits, the Medicaid program allows for the non-Federal share of Medicaid expenditures to be made by local government entities. The extent to which each party contributes varies by state and is determined by a complex formula outlined in the Federal statute. In general, the lower the average income of a state, the more the Federal government contributes compared to what the state is required to pay.

As a general rule, states seek to adopt strategies to maximize Federal revenues. These strategies take multiple forms, including the following:

- Putting state or local services that could otherwise be funded by Medicaid under the Medicaid umbrella in order to claim Federal funds. This is a maximization strategy because the state is replacing state/local dollars with Federal dollars.
- Raising rates to providers (thus increasing the total size of payments) while funding the increase with a tax on the same providers or by using local funds to pay for these higher rates. This is a maximization strategy because more Federal funds are coming into the system without the state having to contribute more from the general fund.
- Expanding eligibility or payments through a waiver in order to draw down Federal matching funds. This is a maximization strategy because the new costs are matched by the Federal government, and states tend to do this only when there is an identifiable source of non-Federal share such as intergovernmental transfers, a new tax, or earmarked funds (e.g., funds from the various tobacco settlements).

It can be argued that the County has had more success in Federal maximization compared to other counties.

As is clear in the above explanation, Federal maximization is generally a state strategy. However, a number of states, including California, have joined forces with local entities in implementing these strategies. In California, a significant funding burden falls on counties and public hospitals because of the way services have historically been structured and the counties' responsibility for covering the indigent. Contra Costa

is no exception, and it can be argued that the County has had more success in Federal maximization compared to other counties.

One reason for this is the fact that the County has a public hospital, the CCRMC. As a public hospital, CCRMC can participate in intergovernmental transfers (IGTs) and certification of public expenditures (CPEs), both of which enable the County to leverage Federal funds as a participant in funding the

Medicaid program. In addition, as a public entity, the CCRMC can be reimbursed at cost. For uncompensated care the maximization potential is even greater because in California, unlike other states, this care is funded at 175% of cost in the Disproportionate Share Hospital (DSH) program up to the state's total DSH allotment.

Contra County has established a Federally Qualified Health Center (FQHC) for its outpatient services, providing it with the highest rate structure allowable in the Medi-Cal program, with built-in Federally required cost of living increases. Further, Contra Costa County is one of six grandfathered provider-based FQHCs, which provides an even higher rate by allowing the costs of the hospital to be allocated to the FQHC.

In addition, the County operates its own health plan, which has the majority of Medicaid enrollments in Contra Costa. While Contra Costa is at risk for the cost of services, the State is required to pay the County an actuarially-based rate that is above the cost of providing care. The health plan enrolls its members in three different networks, but the predominant one is the CCRMC and the system of County health centers. These health centers are FQHCs with a relatively high reimbursement rate. With the FQHC, the health plan is required by State and Federal law to pay its FQHC at the State rate it would pay a private physician, and the County FQHC then bills the State the difference between the plan rate and the FQHC's prospective payment rate. This means the County has leveraged its market share with its public health center status to maximize Medicaid reimbursement.

Another important strategy to maximize Federal funds, as provided under the 2005 hospital-financing waiver, was the Health Care Coverage Initiative (HCCI). This program allowed 10 counties to draw down Federal funds to support programs they would otherwise be paying for with local dollars in order to satisfy their Section 17000 obligation. As one of the 10 original counties, Contra Costa has been successful in pursuing this strategy. The Bridge to Reform waiver approved in 2010 expands this opportunity and counties can cover additional individuals under the new Federal budget neutrality construct. The County has already submitted its application. The HSD has asked for a significant expansion, as explained in the Low Income Health Program (LIHP) section. This program replaces local funds with Federal funds, thus representing a significant maximization strategy.

Other maximization strategies undertaken by the County include placing a variety of health functions under the CCRMC hospital license, including public health nursing, in order to draw down the maximum possible reimbursement. The integration of health functions under the HSD umbrella allows for such strategies to be successful.

In short, the County has done a good job of maximizing Medicaid reimbursement for health services. The County should continue to take advantage of new opportunities as they arise.

V. Impact of the LIHP

On November 2, 2010, the Centers for Medicare and Medicaid Services (CMS) approved an extension to California's Section 1115 waiver. The new waiver continues the 2005 hospital waiver and is called the "Bridge to Reform." The waiver provides about \$10 billion in Federal funds for Medi-Cal, including \$3.3 billion for the State's public hospital safety net, \$2.9 billion for coverage expansions for low-income uninsured individuals, and \$3.9 billion for uncompensated care costs. CMS is making funds available to California through a combination of mechanisms:

- Giving budget neutrality "credit" for expanding to new populations covered under the Patient Protection and Affordable Care Act (ACA), even if these expansions are not statewide and enrollees are not given a full benefit package;
- Counting savings from existing managed care waivers that are being folded into the 1115; and
- Carrying forward special pools from prior waivers, including the Selective Provider Contracting Program (SPCP), which had been folded into the 1115 waiver that was approved in 2005.

While several aspects of the waiver will benefit Contra Costa County, this section focuses on the Low Income Health Program (LIHP), a significant element from the point of view of financing the County's health care system.

Low Income Health Program

In the previous waiver, there was a capped Coverage Initiative (CI) component funded as part of the Safety Net Care Pool. Funds were constrained by Federal budget neutrality rules, with the result being that only 10 counties, including Contra Costa, could participate. The State chose these counties on a competitive basis.

The main financial benefit, from the point of view of expansion capacity and maximizing revenue, is that CMS will treat County-level expansions covering adults 19-64 who have income at or below 133 percent of the FPL as if they were part of the State plan. Because the ACA created a state plan option for expanding coverage to this population, CMS can approve this expansion without requiring budget neutrality, resulting in no cap on available Federal funding for this group. This means the amount of Federal funds flowing to the County will increase.

The CI component of the new waiver is described as two separate options: a Medicaid Coverage Expansion (MCE) and a Health Care Coverage Initiative (HCCI). Requirements for the two options are summarized in the following table.

Table V.1: Medicaid Coverage Expansion (MCE) Summary

Medicaid Coverage Expansion	
Description	Adults age 19-64, not otherwise eligible for Medicaid or CHIP, not otherwise precluded because of immigration status
Upper Income Limit	133% of the FPL, or lower at County option
Enrollment Cap Allowed?	Yes, but HCCI must be capped before MCE
Benefit Package	Core Benefits (if included in California State Plan) <ul style="list-style-type: none"> • Medical equipment and supplies • Emergency care (including transportation) • Acute inpatient hospital • Laboratory • Mental health* • Prior-authorized non-emergency medical transportation • Outpatient hospital services • Physical therapy • Physician services (including specialty care) • Podiatry • Prescription and limited non-prescription medications • Prosthetic and orthotic appliances and devices • Radiology
Additional Benefits Allowable?	Yes, with CMS approval, except excluded benefits listed below
Excluded Benefits	<ul style="list-style-type: none"> • Organ transplants • Bariatric surgery • Infertility related services

* In cases where the enrollee is diagnosed by an MCE participating provider, within their scope of practice, with a diagnosis specified in the most recent version of the Diagnostic and Statistical Manual, the enrollee must have a significant impairment in an important area of life functioning or a probability of significant deterioration in an important area of life functioning and the intervention must be reasonably calculated to significantly diminish the impairment or prevent significant deterioration.

Table V.2: Health Care Coverage Initiative (HCCI) Summary

Health Care Coverage Initiative	
Description	Adults age 19-64, not otherwise eligible for Medicaid or CHIP, not otherwise precluded because of immigration status
Lower/Upper Income Limit	Between MCE (if offered) and 200% of the FPL, or lower at County option
Enrollment Cap Allowed?	Yes
Benefit Package	Core Benefits (if included in California State Plan) <ul style="list-style-type: none"> • Medical equipment and supplies • Emergency care (not including transportation) • Acute inpatient hospital • Laboratory • Outpatient hospital services • Physical therapy • Physician services (not including specialty care) • Prescription and limited non-prescription medications • Prosthetic and orthotic appliances and devices • Radiology
Additional Benefits Allowable?	Yes, with CMS approval, except excluded benefits listed below
Excluded Benefits	<ul style="list-style-type: none"> • Organ transplants • Bariatric surgery • Infertility related services

Impact on Contra Costa

Contra Costa submitted its LIHP application to the State on February 14, 2011. In this application, the County describes plans for implementing MCE and HCCI. Because the County currently covers adults 18-64 years with income at or below 200 percent FPL in their LIHP without an enrollment cap, this waiver provision does not create a new eligibility group. However, an increase in enrollment is anticipated. The County's LIHP application to the State indicates an expected HCCI enrollment increase of 18% during the first program year, 10% growth in program year 2, and 5% growth each in year 3 and 4.

Table V.3: Estimated LIHP Enrollees by Program Year (PY)

Average Monthly Enrollment	MCE 0-133% FPL	HCCI 133-200% FPL	Total	% Growth
11/1/10	8,200	3,000	11,200	
PY 1 11/10 to 10/11	9,714	3,500	13,214	18.0%
PY 2 11/11 to 10/12	10,685	3,850	14,535	10.0%
PY 3 11/12 to 10/13	11,220	4,042	15,262	5.0%
PY 4 11/13 to 10/14	11,781	4,245	16,026	5.0%

Source: Contra Costa County Low Income Health Program Application dated January 25, 2011.

While the County's projected enrollment growth during the first three years appears aggressive without a major outreach effort, MCIC¹¹ data indicates that the County has an estimated 30,000 uninsured U.S. citizens and eligible immigrants 18-64 years with income under 200% FPL. This indicates that the 11,000 MCE and HCCI enrollees (as of November 2010) represent a third of the potentially eligible population. By the end of the third program year, in late 2013, Health Benefit Exchange outreach and information to the general population about the individual mandate will likely encourage many unenrolled persons in this population to choose to enroll in Medicaid or the Exchange.

The County Application shows total expenditures by program year of \$103 million for the first year (ending October 31, 2011), \$113.4 million, for the second year (ending October 31, 2012), \$119 million for the third year (ending October 31, 2013) and \$125 million for the fourth year (ending October 31, 2014). The County estimates an average per member per month cost of \$650 for the four program years. The applications' enrollment and cost estimates are summarized in the following tables.

¹¹ Metropolitan Chicago Information Center (www.MCIC.org). In the first report, MCIC provided geographic allocations to counties and zip codes based on state-level 2008-2009 US Census Current Population Survey (CPS) Annual Social and Economic Supplements data adjusted by the Urban Institute and the Kaiser Commission on Medicaid and the Uninsured to more accurately reflect poverty level calculations. Estimates reflected state Medicaid enrollment totals as reported by state Medicaid agencies. Estimates also reflected data from the Department of Homeland Security to correct for the undercount associated with citizenship status and to accurately represent the undocumented resident population who are ineligible for Medicaid or coverage through Health Benefit Exchanges.

Table V.4: Program Year 1 Enrollment and Cost Estimates

Month	MCE	HCCI	Combined	PMPM	Capitation
Nov-10	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Dec-10	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Jan-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Feb-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Mar-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Apr-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
May-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Jun-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Jul-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Aug-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Sep-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Oct-11	9,714	3,500	13,214	\$ 650.00	\$8,589,100
Year 1	9,714	3,500	13,214		\$103,069,200

Table V.5: Program Year 2 Enrollment and Cost Estimates

Month	MCE	HCCI	Combined	PMPM	Capitation
Nov-11	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Dec-11	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Jan-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Feb-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Mar-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Apr-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
May-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Jun-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Jul-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Aug-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Sep-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Oct-12	10,685	3,850	14,535	\$ 650.00	\$9,447,750
Year 2	10,685	3,850	14,535		\$113,373,000

Table V.6: Program Year 3 Enrollment and Cost Estimates

Month	MCE	HCCI	Combined	PMPM	Capitation
Nov-12	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Dec-12	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Jan-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Feb-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Mar-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Apr-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
May-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Jun-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Jul-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Aug-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Sep-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Oct-13	11,220	4,042	15,262	\$ 650.00	\$9,920,300
Year 2	11,220	4,042	15,262		\$119,043,600

Table V.7: Program Year 4 Enrollment and Cost Estimates

Month	MCE	HCCI	Combined	PMPM	Capitation
Nov-13	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Dec-13	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Jan-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Feb-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Mar-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Apr-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
May-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Jun-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Jul-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Aug-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Sep-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Oct-14	11,781	4,245	16,026	\$ 650.00	\$10,416,900
Year 2	11,781	4,245	16,026		\$125,002,800

Currently, the County receives \$15.25 million per year in Federal match on the HCCI program. With a 50% Federal match rate, this results in match on the first \$30.5 million of County HCCI spending under the old waiver. County funds support all spending over this amount. The new waiver allows for uncapped match on MCE expenditures. In addition, the County requested Federal funds for HCCI spending that assumes 50% Federal match for all spending. The state has not yet awarded funds to Contra Costa for the HCCI portion of the new waiver program. If Federal match on HCCI spending is approved as the County requested, the County would receive 50% Federal match on all LIHP spending. The County Fiscal Year 2011-2012 budget's \$40 million increase in Federal LIHP funds appears to assume

match on all LIHP spending. As shown in the next table, the County would be able to cover more people for less cost to their budget compared to the base year. This positive variance ranges from \$20.6 million in year one to \$9.7 million in year four.

Table V.8: LIHP Spending and Federal Match Estimates, Dollars in Millions

	Ave. Mo Enrollment	PMPM	Annual Spending	Chg From Base	Federal Funds	Chg From Base	Net Change
LIHP Base	11,200	\$ 650.00	\$ 87.4		\$ 15.3		
LIHP PY 1	13,214	\$ 650.00	\$ 103.1	\$ 15.7	\$ 51.5	\$ 36.3	\$ 20.6
LIHP PY 2	14,535	\$ 650.00	\$ 113.4	\$ 26.0	\$ 56.7	\$ 41.4	\$ 15.4
LIHP PY 3	15,262	\$ 650.00	\$ 119.0	\$ 31.6	\$ 59.5	\$ 44.3	\$ 12.7
LIHP PY 4	16,026	\$ 650.00	\$ 125.0	\$ 37.6	\$ 62.5	\$ 47.3	\$ 9.7

One significant change in the new waiver program is the requirement that county LIHPs reimburse out of network providers for emergency services at 30% of the Medi-Cal rate for those services. Although a significant policy change, this may not be a significant cost increase, since 30% of Medi-Cal is probably less than the cost CCRMC would incur to provide this care.

From a clinical perspective, the County’s plans to implement LIHP waiver provisions will require additional primary care provider capacity to serve the enrollment growth of 18%.

The County’s LIHP application requests a retroactive effective date of November 1, 2010. Additional program aspects contained in the County’s application include:

- A closed MCO provider network with mental health services through CCHP.
- MCE income eligibility of 133% of the FPL.
- HCCI income eligibility of 133-200% of the FPL.
- Expected enrollment caps triggered when HCCI spending hits \$33 million and, after that, when MCE spending reaches \$92 million.
- No retroactive eligibility.
- In addition to minimum core benefits, dental emergency services will be provided to MCE and HCCI enrollees in year one.
- Beginning in year two, add-on mental health services will be included for HCCI enrollees.
- A primary care provider to enrollee ratio of 1:1900 for both programs with a network of 131 primary care providers and 3,017 specialty care providers.
- Cost-based MCE and HCCI payments funded with Certified Public Expenditures (CPEs) for the first year. Actuarially sound rates funded with IGTs will be used for FY 2012 and beyond.

Seniors and Persons with Disabilities

The new waiver also changes the method by which Medi-Cal services are delivered to Seniors and Persons with Disabilities (SPD) who do not have Medicare coverage. SPD care is currently provided fee-for-service (FFS) to the majority of enrollees in Contra Costa. In Calendar Year 2008, 11,366 of the

County's 15,725 SPD enrollees had FFS coverage with the remaining 4,359 in managed care.¹² Beginning mid-2011, FFS SPD enrollees will be mandatorily enrolled with organized delivery systems such as CCHP.

The Contra Costa Health Plan (CCHP) is preparing to enroll the county's SPD population. Of the 15,725¹³ that were enrolled in calendar year 2008, the County's budget provides for 7,830 to choose CCHP. SPDs without Medicare coverage will have a choice between CCHP and Anthem Blue Cross. Those that do not choose a plan will be auto-enrolled into one of the plans.

Prospective Role of CCHP

The Contra Costa Health Plan (CCHP) will grow in importance as provisions of the new section 1115 waiver are implemented over the following months. As explained above, enrollment is expected to increase both for the LIHP and also because enrollment of the SPD population in managed care will now be mandatory. In addition, the changes to Medicaid in 2014 will bring even more Medicaid eligibles into the picture as well as more individuals who will be purchasing insurance through the Exchange. This means that the CCHP has to be prepared both for an increase in covered lives as well as a change in the type of population served.

In many respects, the most significant short-term challenge is the enrollment of the SPD population. As stated, this population is predominantly served in the FFS program, although some SPDs are already enrolled in CCHP. Looking ahead to the mandatory enrollment requirement, CCHP expects 80 percent of those who choose a plan to choose CCHP, and they expect to get all default enrollments based on quality scores. Of the SPDs who will be mandatory under the waiver, 64% of them already have established relationships with providers in the CCHP networks, including both County physicians and contracted physicians. The CCHP is endeavoring to include other providers into the network in order to better serve the potential SPD population.

While the LIHP will represent an enrollment increase for the LIHP population, there really are no issues related to comparison or competition with other health plans and/or networks. This is because the only plan available to LIHP enrollees will be the CCHP. However, HMA considers it imperative that the CCHP think of itself as competing with other plans for future enrollees after 2014. When the Federal Medicaid expansion takes place, the County will no longer be able to restrict enrollment to the CCHP. If California keeps Medi-Cal enrollees in a two-plan model, CCHP will be competing with Blue Cross for individuals who would have otherwise been in the MCE. Individuals in the HCCI would be receiving subsidies to purchase coverage on the exchange, so there will be multiple plans to choose from. If MCE and HCCI enrollees' experiences with CCHP are less than ideal, this may lead to a migration away from CCHP in the future.

¹² Medi-Cal Acuity Study – Seniors and Persons with Disabilities, Mercer for the California HealthCare Foundation, September 28, 2010.

¹³ Medi-Cal Acuity Study - Seniors and Persons with Disabilities, Mercer for the California HealthCare Foundation, September 28, 2010.

VI. Preliminary Steps in Creating Patient-Centered Medical Homes

This section presents initial options for the establishment of a “medical home system of care” that would best serve the expanding Medi-Cal population, uninsured, and other medically vulnerable residents of the County.

Introduction

Patient-Centered Medical Home (PCMH) systems of care assure that patients have a source of primary care which functions as the central point for coordinating care around the patient’s needs and preferences. The medical home team, consisting of the primary care provider and supporting staff, coordinates information among all of the various caregivers, including the patient, family members, other non-professional caregivers, specialists, and other health care service providers. Each PCMH within the system of care is patient-centered and accessible, provides a continuous healing relationship with a primary care provider, comprehensively meets patients’ total health care needs, coordinates the delivery of care, and accomplishes all of these features with teams of individuals functioning at the top level of their license and qualifications. Quality and safety are hallmarks of a well-functioning PCMH.

The PCMH is a key building block of an Accountable Care Organization (ACO), which is intended to deliver on the Triple Aim¹⁴ of improved outcomes across a population, lower overall cost, and a better patient experience. An ACO ought to deliver care more efficiently. Efficiency, however, is not an attribute per se of the PCMH but rather is an intended outcome. Although improved quality and outcomes have been demonstrated when implementing PCMH, at least for underserved populations,¹⁵ cost savings are not a proven outcome.

PCMH Models

There are various PCMH constructs, each intended to make these core attributes more granular and these specific constructs often add extra components to the medical home. Examples for CCHS to consider include:

Joint Principles of the PCMH

The Joint Principles of the PCMH have been endorsed by the American Academy of Family Physicians, the American Academy of Pediatrics, the American College of Physicians, and the American Osteopathic Association.¹⁶ These seven principles are:

- A Personal physician
- Physician directed medical practice
- Whole person orientation
- Care that is coordinated and/or integrated

¹⁴ The Triple Aim: Care, Health, And Cost. Donald M. Berwick, Thomas W. Nolan and John Whittington, *Health Affairs*, 27, no. 3 (2008): 759-769.

¹⁵ Stuart Guterman, Stephen C. Schoenbaum, M.D., M.P.H., Karen Davis, Ph.D., Cathy Schoen, M.S., Anne-Marie J. Audet, M.D., M.Sc., Kristof Stremikis, M.P.P., and Mark A. Zezza, Ph.D. High Performance Accountable Care: Building on Success and Learning from Experience. April 14, 2011. The Commonwealth Fund sgx@cmwf.org.

¹⁶ <http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home>

- Quality and safety
- Enhanced access
- Payment that appropriately recognizes the added value provided to patients who have a PCMH

National Committee for Quality Assurance PCMH Recognition Program

National Committee for Quality Assurance (NCQA) has a PCMH recognition program¹⁷ that assesses health centers and practices against three levels of PCMH standards. In 2011, NCQA revised the PCMH standards for 2011 to elevate the level of accountability and emphasize the patient-centered and team-based care aspects of care. The revised standards for accreditation as a PCMH include the following:

- Access and Continuity
- Identify and Manage Patient Populations
- Plan and Manage Care
- Self-Management Support
- Track and Coordinate Care
- Performance Measurement and Quality Improvement

Joint Commission's Primary Care Home Option

The Joint Commission is developing a Primary Care Home option for accreditation.¹⁸ Standards are being developed which will complement their existing Ambulatory Care Accreditation Program.

Safety Net Medical Home Initiative

Beginning in April 2009, the Commonwealth Fund, Qualis Health, and MacColl Institute for Healthcare Innovation at the Group Health Research Institute are in the process of implementing a Safety Net Medical Home Initiative¹⁹ for safety net primary care health centers to become PCMHs. The pilot continues through April 2013. While this initiative did not develop a mechanism to certify PCMHs, it does serve as a model for transforming safety net health care delivery. The Initiative calls for partnerships between safety net providers and community stakeholders to work together towards a new model of primary care delivery that is recognized and rewarded for its holistic approach to patient care. Policy activation is critical in this transformation, and all partners in this Initiative are expected to participate in Medicaid and other policy reform efforts in their respective regions. Thus far the Initiative's efforts have made a difference in quality outcomes for safety net populations.

PCMH Payment

Various states have defined the features of a PCMH for payment mechanisms under Medicaid. This is generally done through a per member per month payment for primary care case management

¹⁷ The Primary Care Development Corporation has developed a how-to manual for safety net providers to apply for and obtain NCQA's PCMH recognition. http://www.pcdcny.org/index.cfm?organization_id=128§ion_id=2047&page_id=8777

¹⁸ www.jointcommission.org/accreditation/pchi

¹⁹ Safety Net Medical Home Initiative. Transforming Safety Net Clinics into Patient Centered Medical Homes. www.qhmedicalhome.org/safety-net

Next Steps

Contra Costa will need to choose a particular model and then conduct a gap analysis between the current delivery system and the goals of the model.

Contra Costa will also need to decide if capacity exists to provide all populations with the PCMH model of care. Although the benefits of this model of care are clear and nearly self-evident, it is also true that higher risk populations will benefit to a greater degree. Contra Costa may decide that for certain lower-risk populations, episodic care will be delivered without a continuous relationship with a medical home team. The episodic model may make sense for young, healthy patients who are likely to be seen less than once a year. Alternatively, CCHS may decide to provide a PCMH to all patients who use or are assigned to the CCHS but “weight” the patients so that the young, healthy patients cause less “crowd out” on the panels. These choices will be discussed in more detail in the next phase of the report.

Contra Costa’s outpatient practices have begun the process of establishing PCMH practices. Examples of attaining features of a PCMH include:

- Patients are seen by the same provider over time, creating an environment for continuous healing relationships and defining a historical panel.
- Providers are notified when their patients are admitted and discharged from CCRMC.
- Electronic access is available across the system to radiology and laboratory results and medication profiles.
- EHR implementation across the system is in the planning stage.
- Dictated CCRMC and ED notes are available across the system.
- A nurse advice line with the capability of scheduling appointments and providing lab results is available 24/7.
- The ambulatory setting has a home grown registry for patients with diabetes.
- Traditional primary care is being integrated with mental health services in a pilot project at Concord.

The table below summarizes the further transitions CCHS will need to make to realize the benefit of PCMH system of care.

Table VI.1: Critical Transitions from Current Care to PCMH Care

Current Care	PCMH Care
My patients are those who have made appointments to see me.	Our patients are those who are in a panel, assigned to our PCMH.
Patients' chief complaints or the reasons for visit determine care.	We systematically assess all our patients' health needs to plan care.
Care is determined by today's problem and time available today.	Care is determined by a proactive plan to meet patient needs, often without visits.
Care varies by scheduled time and the memory or skill of the doctor.	Care is standardized according to evidence-base guidelines.
Patients are responsible for coordinating their own care.	A prepared team of professionals coordinates all patients' care.
I know I deliver high quality care because I am well trained.	We measure our quality and make rapid changes to improve it.
Acute care is delivered in the next available appointment or through walk-in procedures with long waits.	Acute care is delivered through open access mechanisms and non-visit contacts.
It's up to the patient to tell us what happened to them.	We track tests and consultations and follow-up after ED and hospital.
Clinic operations center on meeting the physician's needs.	A multidisciplinary team works at the top of our licenses to serve patients.

Building on the present strengths and the organizational goals of CCHS, potential high yield areas to address might include:

- Assure all stakeholders have a thorough understanding of the capabilities and weaknesses of the EPIC EHR.
 - EPIC has a module for FQHCs. Does CCHS intend to use this module?
 - Can EPIC deliver reliable electronic population health management functions (patient registry functions)?
 - How difficult will it be to capture patient specific measures? Can it track patients' quality measures throughout the health system?
 - Does it have built-in Clinical Decision Support tools or automated alerts for needed care?
- Ensure that panel assignment to a medical home team is connected to operations throughout the system (e.g. third party assignment of patients such as managed care assignments, scheduling, quality measure reporting, business rules for outreach, etc.)
- Develop robust population health management capabilities (typically accomplished through the use of a patient registry) that are interfaced with EPIC (minimal data entry and minimal need for provider to access two electronic systems).

- Create passive (i.e., automatic) notification to medical home teams of ED visits and hospital discharges.
- Develop system wide quality measures and goals for case management such as coronary artery disease, diabetes, ADHD, well-child care, and prenatal care.
- Develop care management roles and technology-supported activities for case management that will drive the attainment of the quality goals (e.g. software that will pull in lab data and create a list of patients with diabetes for outreach who have not had an lipid panel in over a year).
- Strengthen the medical home team to include additional case management and care coordination.
- Provide after-hours access in non-ED settings for all patients.
- Further integrate primary care and mental health integration.

Conclusion

Based on HMA's review, the County has been very creative in terms of identifying and maximizing funding related to its CCRMC, the County health centers, and other providers. In fact, there are few if any counties in California that have been more creative within the rules and leveraged county investment to the greatest extent possible. There are a number of initiatives still moving forward in response to the latest waiver, and it is evident from HMA's interviews of key informants that the County is knowledgeable of the opportunities and taking the appropriate steps to take full advantage of those opportunities.

Over time, the County has achieved a vertically integrated system that is very comparable to what the latest national health reform is hoping to foster. The pieces are in place to have a seamless system of care for vulnerable populations that provides the right care at the right place at the right time. The system relies heavily on Family Medicine and on expanding their scope of service based on additional training and experience. This would be expected to yield a cost-effective medical system. The addition of integrating the more traditional health department areas into the CCRMC and the County health centers has yielded good results in terms of funding and collaboration. HMA will continue to look at mental health for opportunities to support better integration with physical health, while acknowledging that such integration is made challenging by the how services are funded in California.

In the future, it is doubtful that a public system will be able to meet all the needs of the vulnerable populations without at least some assistance from the private sector. As an example, San Francisco has developed a collaborative approach that is beneficial for all parties involved. We will continue to review the collaborations—both those already in existence and those that are planned—in order to understand opportunities for Contra Costa County.

A fully integrated system must have the ability to continually push towards excellence. The tension involved in private physicians, hospitals, health plans, and advocates working together, while at times creating some inefficiency, can promote excellence through the process of partners challenging each other. We need to continue to explore with Contra Costa how they maintain the drive for excellence and transparency in a somewhat closed system.

Finally, the system is reviewing opportunities related to their planned installation of EPIC, electronic health record (EHR) system, in an expedited manner; the use of a closed unit for psychiatric care or expanded obstetrical service; and some unused surgical rooms. HMA will further examine these areas to understand the potential revenue impact.

With the expansion of Medi-Cal and the launch of Health Insurance Benefit Exchanges in 2014, a majority of residents will have coverage, and the Contra Costa system is generally well positioned with FQHCs, a health plan, etc. to deliver cost-effective, high-quality health care. As we move toward the completion of Stage 3, HMA will further explore the cost structure as this will become more critical post-health reform when most people will have coverage.

In mid-June, HMA will submit the third and final report to Contra Costa County. The Stage 3 Report will include:

- A final work plan for implementing a “medical home system of care.”
- A management review of Health Services Department programs that identifies options for structural, organizational, and program changes to contain costs and maximize return on County investments
- An evaluation of alternative governance structures that could enhance the County’s ability to provide appropriate, accessible, and effective health care services to its customers
- An evaluation of local labor market conditions, medical staff recruitment and retention strategies, labor agreements, and the use of contracted vendors and options to ensure access to appropriate and effective medical services at the least cost to the County
- Options for changes in the County’s current procedures for data collection and analysis and in the use of performance indicators, program outcomes, and customer satisfaction reports that will enhance the County’s oversight and management of its health care programs and support sustainability.
- Recommendations for changes and/or enhancements to the County’s organizational capacity and policies that would enhance the County’s oversight and management of its health care programs and support sustainability.

Appendix A: Acknowledgements

HMA wishes to acknowledge the support and participation of numerous individuals in the preparation of this report. Persons interviewed included representatives of the Health Services Division, County government, health care providers from all parts of the county, and labor. The time spent, information provided, and ideas generated were invaluable in assisting HMA.

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