

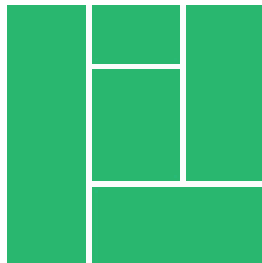
**A REPORT ON THE SECOND YEAR OF THE SAN MATEO COUNTY
ADULT COVERAGE INITIATIVE AND SYSTEMS REDESIGN FOR
ADULT MEDICINE CLINIC CARE**

Submitted to

The San Mateo County Health System

by

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Executive Summary

Since early 2008, San Mateo County has undertaken a comprehensive health systems redesign initiative to expand adult health care coverage. This effort is intended to improve access to high quality care for uninsured and underinsured adults and improve the financial sustainability of the San Mateo Medical Center (SMMC) and related delivery systems. This report summarizes the findings from the first 18 months of the Urban Institute's four-year evaluation of these efforts.

Health systems redesign in San Mateo County includes four components currently being phased in at primary and specialty care safety net clinics across the Health System and in partnership with Ravenswood Family Health Center:

- Team-based care to increase efficiency and leverage physician time through the use of other health professionals, such as nurses. Patients are seen by the same physician, nurse, and clerical staff team each time they visit a clinic.
- Disease management, primarily focusing on diabetes management, including an automated diabetes registry, group visits where diabetes patients learn about self-management, and the use of diabetes retinal cameras to do on-site screenings.
- Advanced Access scheduling to improve patient flow and reduce waiting times for appointments at select clinics. Such an approach allows more patients without an appointment to be seen.
- Electronic medical records (EMRs) to increase efficiency and coordination of care.

Some of these changes have been implemented to date. EMR implementation is the most widespread change and has been completed in all SMMC primary care safety net clinics as of the close of 2009.

Adult coverage expansions started in September 2007, when the county received a three-year grant of \$7.5 million annually from California's Medi-Cal Hospital Financing Waiver. The county used these funds to expand the public coverage program that provides coverage for uninsured adults whose income is less than 200 percent of the federal poverty level. The program was later renamed San Mateo Access and Care for Everyone Program (ACE).

The evaluation reveals strong progress along several dimensions where the redesign efforts and coverage expansions are achieving intended results:

- Focus group interviews and patient surveys show high satisfaction when care is received from safety net providers.
- Clinic staff report improved clinic operations and an increased focus on providing high quality primary care.
- ACE enrollees experience dramatic increases in having a usual source of care (48 percentage point increase) and in having a particular doctor or other health care provider they usually see at the usual source of care (51 percentage point increase).
- They also experience increases in having a doctor visit in the past 12 months (28 percentage point increase) and, for those with chronic conditions, receiving routine care for their condition (36 percentage point increase).

- ACE enrollees' improved health is reflected in a reduction in the proportion who reported having any days within the past month when their activities are limited due to physical or mental health problems (6 percentage point decrease).

Claims data from the Health Plan of San Mateo, the ACE administrator, provide additional evidence of adequate care while enrolled in ACE:

- Among those enrolling in the first year of the program, 83 percent of ACE enrollees have at least one ambulatory care visit during their first year of enrollment.
- HEDIS measures show that ACE exceeds performance standards on almost all areas of diabetes care management.

In addition, the report highlights several challenges to improving care for low-income adults. The greatest challenge facing SMMC during 2009 was a large increase in demand for services as a result of the recent recession. Enrollment in the county-sponsored coverage program, ACE, doubled between January 2008 and December 2009. During this same time frame there were limited increases in the capacity of the county's safety net clinics, resulting in long waits for clinic appointments.

The evaluation revealed several other indicators of these capacity constraints:

- Focus group participants, as well as "secret shoppers" hired by the county, report severe difficulty getting appointments.
- Clinics experienced reduced appointment availability just after implementing the EMR during 2009.
- Preventive care use was low, while the proportion of enrollees with emergency room visits was high at 41.6 percent, over two times the national rate for uninsured adults ages 18–64.

The large increase in enrollment also has strained county finances. Funding for San Mateo County from the state coverage waiver was completely used by January 2010. Since that time, the county has absorbed the cost of covering ACE enrollees, resulting in some limits in who can be enrolled.

The successes and challenges of the San Mateo County Adult Coverage Initiative provide lessons for federal, state, and local governments that seek to improve care for uninsured adults in the new era of federal health care reform. In particular, the findings from the evaluation show that merely expanding coverage is insufficient. It is also necessary to expand the supply of preventive, primary, and specialty care services, as well as to improve the quality and efficiency of services through systems redesign. In the year to come, San Mateo County will continue to provide such lessons as it further implements its systems redesign and coverage initiative.

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Introduction

Background

In early 2008, San Mateo County embarked on a path breaking “Health Systems Redesign and Adult Coverage Initiative.” This effort is intended to improve the health of county adults who rely on publicly subsidized health care, as well as to address the financial sustainability of the San Mateo Medical Center (SMMC) system. While the initiative has been officially under way for two years, leaders within the SMMC have been working for several years to achieve many of these same goals.

The initiative is designed to address the needs of lower income county residents who do not have adequate access to health care. While San Mateo County is prosperous relative to many parts of California and the United States, there are significant income disparities in the county. The 2008 Community Assessment of Health and Quality of Life (Healthy Community Collaborative of San Mateo County, 2008) notes that 16.2 percent of the county’s residents have incomes below 200 percent of the federal poverty level (FPL) (\$36,620 for a family of three in 2009), a significant increase from the proportion in 2001 (13.2 percent). The report also reveals the growing racial/ethnic diversity of the county’s population. Today (in 2010) Latinos (25.6 percent) and Asians (25.5 percent) comprise a majority of the county population, with whites and African-Americans at 42.6 percent and 3.6 percent respectively.

In 2008, 15 percent of nonelderly adults (about 67,000 people) were without health insurance in San Mateo County, an increase over previous years. In addition, the availability of job-related health insurance has been declining. This is consistent with the decline in insurance coverage statewide in California (Lavarreda et al. 2010). Likely, the rates of poverty and uninsurance have risen during the recent recession. Low income people and those without health insurance

(significantly overlapping groups) reported substantial barriers to accessing health care in the 2008 Community Assessment survey.

The major source of primary and specialty care for the uninsured, and some publicly insured, adults in the county is the safety net clinic system which includes six San Mateo Medical Center (SMMC) adult medicine clinics, several SMMC specialty clinics, and Ravenswood Family Health Center (a private community-based, federally funded “safety net” primary care clinic). Other more limited sources include two free clinics and some private providers.

For inpatient and emergency room care, the major sources of care for the uninsured are the SMMC public hospital, as well as five private nonprofit hospitals in the county¹ and Stanford University hospital in nearby Santa Clara County. An analysis of data from the California Office of Statewide Health Planning and Development (OSHPD) by the evaluation team showed that in 2007, 61.7 percent of emergency room visits for San Mateo County uninsured adults were to the SMMC with the remaining visits approximately evenly distributed across the other six hospitals. Inpatient stays for the uninsured were less concentrated at the SMMC (44.3 percent), with private hospitals absorbing a substantial burden, particularly Seton (11.6 percent), Mills-Peninsula (13.8 percent), and Stanford (14.5 percent). The SMMC, Seton, Mills-Peninsula and Stanford hospitals are also the major providers of hospital care for the adult Medi-Cal population.

The current county financial situation is—as with most jurisdictions—very difficult. At the same time that revenues are down, demand for public services and expenditures are on the rise. The county is operating with an overall structural deficit of approximately \$150 million. The County Manager established a target of reducing the county general fund subsidy to the SMMC

¹ The five private nonprofit hospitals in San Mateo County are Seton, Mills-Peninsula, Kaiser South San Francisco, Kaiser Redwood City, and Sequoia.

to \$50 million by 2013. While the Board of Supervisors removed that target earlier this year, the Fiscal Year 2010–11 budget includes a ten percent reduction in county general fund support to the SMMC.

A Blue Ribbon Task Force (BRTF) established by the County Board of Supervisors recommended in 2008 the following major goals for the systems redesign and coverage initiative:

- Increase access to care for low income adults;
- Improve the financial viability of the SMMC system;
- Leverage all partners (public and private) in providing care to the uninsured and underinsured;
- Implement seamless coordination of care across providers;
- Improve the ease of use of the safety net;
- Expand coverage to all adults (with an ultimate goal of covering 36,000–44,000 adults through the ACE program).

As a means of achieving these goals, the county began contracting with the Health Plan of San Mateo (HPSM)² to coordinate care for all those with public coverage (including ACE enrollees). This transition was fully accomplished by January 2009. The county also launched an ambitious effort to implement a redesign of care in its safety net clinics.

These efforts are well under way at the time of this writing. The initiative has faced numerous challenges, the greatest of which is a difficult financial situation attributable to the 2008–2010 recession that has simultaneously limited the county’s resources at the same time that the county faces growing demand for county-funded health services. One consequence has been an earlier-than-expected use of all the funding (\$7.5 million per year for three years) which the

² The HPSM is the county-sponsored health plan that manages care for all Medi-Cal enrollees as well as several other coverage programs (<http://www.hpsm.org>).

county received under the state's Medi-Cal waiver to cover uninsured adults. In spite of these obstacles, the county is vigorously moving forward with the initiative, as documented below.

The Evaluation of the Health Systems Design and Adult Coverage Initiative

The county contracted with the Urban Institute to conduct a four-year evaluation of the Health Systems Redesign and Adult Coverage Initiative. The evaluation³ is designed to

- (1) Assess county efforts to redesign the safety net health system; and
- (2) Evaluate the ACE (Access to Care for Everyone) coverage program.

This second annual report summarizes the findings from the first 18 months of the evaluation. A previous report (Howell et al. 2009) provides more detail on the activities of the county's Blue Ribbon Task Force that launched these efforts, and on the first six months of the initiative. The report updates those implementation findings, and presents some early findings on the impact of the initiative so far.

The evaluation findings presented in the following sections draw on both qualitative and quantitative data. Data sources include: findings from in-depth interviews in late 2009 with 28 key stakeholders⁴; waiting room observations at three clinics (Fair Oaks, main campus Innovative Care Clinic—ICC, and Willow); focus groups with ACE participants at four clinics (Daly City, Fair Oaks, main campus ICC, and Ravenswood); aggregate data from clinics on satisfaction and waiting times before and after the initiative began; data from a special survey of new and renewing ACE enrollees examining the impact of the program on their access, use of services, and health status; and, aggregate data from the Health Plan of San Mateo on use and cost of ACE services.

³ See appendix A for a list of research questions and data sources for the evaluation.

⁴ See appendix B for a list of those interviewed.

Redesigning Care at the County Safety Net Clinics

Increasingly, policymakers are recognizing that adequately addressing the needs of adults with complex medical needs is one of the major challenges for both public and private health systems (Wagner et al. 2001). This issue has taken on national and international significance recently (Dentzer 2010). Caring for such complex patients makes up a large proportion of the care provided in safety net settings. Efforts to improve the quality and efficiency of care in San Mateo County safety net clinics have been under way for some time. Clinic and medical center leadership have been very committed to the redesign process, a key factor in the success of early pilot initiatives, as well as more recent redesign efforts.

Clinic Redesign Implementation

Several tools have been developed to improve the quality and efficiency of care provided in a “patient-centered medical home,” including the following:

- Increased efficiency through team-based care, which leverages physician time using other health professionals, and improves care coordination through assignment of each patient to a single team;
- Disease management for selected highly prevalent chronic conditions (e.g., diabetes), including tracking through disease registries, increased patient education, and other strategies;
- Greater efficiency in appointment scheduling in order to reduce waiting times for appointments, time spent at the appointment, and no show rates;
- Use of Electronic Medical Records (EMRs).

Efforts are under way in San Mateo County to implement each of these four components in safety net clinics.

Team-based Care. Beginning in 2004, each San Mateo County safety net adult medicine primary care clinic participated in one or more pilot efforts to implement “team-based care.” In late 2004, using a grant from the California Health Care Foundation and internal funding, the county contracted with Roger Coleman and Associates⁵ to receive training in improving ambulatory care. This effort coincided with the participation of a number of California’s public hospitals in similar redesign projects under the auspices of the Safety Net Institute⁶ (also using the help of the Coleman group). Three SMMC adult medicine primary care clinics—Daly City, Fair Oaks, and Willow—began participating in these pilot initiatives in 2004. The main campus adult medicine clinic (now called the Innovative Care Clinic [ICC]) received similar training approximately two years later in 2006.

The Coleman redesign program at SMMC primary care clinics lasted approximately six months, and involved teams of personnel from each of the four clinics. Training focused on developing teams—made up of clinical, administrative, and supervisory staff—all of whom participated in intensive group learning sessions with Coleman trainers. All members of the patient care team, including physicians, had to be willing to change their customary work patterns in the interest of improving the patient experience. The format was tailored to the needs of the individual clinic sites, but always included certain key elements: flexible work roles; consistent patient care teams involving provider, nursing, and front desk staff; the use of walkie-talkies for communication among team members; and previewing patient charts and registration forms so that as much paperwork as possible is completed before the patient is actually in the clinic.

⁵ The Coleman group’s website contains information about its clinic redesign projects throughout the United States (<http://www.patientvisitredesign.com>).

⁶ The Safety Net Institute is affiliated with the California Association of Public Hospitals.

For example, the Daly City clinic has been functioning with team-based care for over five years, having transitioned to this care model under the Coleman redesign effort. Within their team-based care model, Daly City is emphasizing role flexibility, for example, using nurses to assess patient needs without requiring a physician visit. The Fair Oaks clinic initiated team care before the Coleman redesign (with some variations on the Coleman model). The Ravenswood Family Health Center also adopted a similar initiative over the past three years. Similar to the team-based model implemented in SMMC clinics, Ravenswood has teams (called “pods”) of individuals that know the patient, including a physician, an RN, and a member of the clerical staff.

Team-based care has not been implemented in all SMMC clinics. For example, the Willow clinic tried team-based care about five years ago, but the concept was not embraced by staff. We were told that clinic staff felt that they did not have enough personnel to adopt the model.

Disease Management. The prevalence of chronic conditions is high among the adult patients seen at the San Mateo County safety net clinics. The county has undertaken several disease management efforts that were already under way at the time the BRTF recommendations went into effect. The Daly City and Fair Oaks clinics began improving care coordination for patients with diabetes in 2004, through the Study of Effective and Efficient Diabetic Care Project (SEED). The SEED project was a collaboration between public hospitals in California, sponsored by the Safety Net Institute. The approach includes the use of an automated diabetes registry (using CDEMS software in the SMMC clinics), as well as group visits for diabetes patients that include patient education on self-management. County clinics continue to build and expand on those pilot efforts.

The disease management programs vary somewhat from clinic to clinic. For example, at the Daly City clinic the group visits are held in English, Tagalog, and Spanish, the primary languages spoken by the Daly City Clinic patient community. The Fair Oaks program has a diabetes care program which is run in conjunction with a community based organization (El Concilio of San Mateo County). Jointly they operate professional outreach services, a case management unit, and diabetes screenings. In site visits to clinics, we heard from clinic staff that group visits are a particularly successful strategy, and the ICC and Daly City clinics have recently expanded the number of group visits they offer. The Daly City, Willow and Innovative Care Clinics have also acquired diabetes retinal cameras to do on-site screenings.

These disease management programs are beginning to focus on other chronic conditions, including hypertension and obesity.

Advanced Access Scheduling. The demand for care at the San Mateo County safety net clinics is extremely high, and patients—especially new patients—must wait months for an appointment. Reportedly, this results in delayed care, missed appointments (“no shows”), and unnecessary use of emergency room services. One solution that has been tried in other places is “advanced access” appointment scheduling. Under advanced access, all patients will be seen whether they call ahead for an appointment or walk in. To accomplish this, a portion of each team’s appointment time is kept open for unscheduled patients, making it unnecessary to shuffle schedules to fit in patients who need to be seen urgently (Murray and Berwick 2003).

The “Optimizing Primary Care” initiative began in June 2007 at the Ravenswood Family Health Center, and is sponsored by the federal Health Resources and Services Administration, through a grant to the California Primary Care Association. The association provided all member community health centers in the state with technical assistance in order to help them implement

advanced access scheduling. At Ravenswood, only 30 percent of appointment time slots are scheduled for a given day, leaving much of the schedule open, with the goal of “seeing patients when they want to be seen.” Since not all patients can be seen on the day they want to be seen, an attempt is made to schedule any deferred appointments within at least 30 days of when the patient calls, preferably within two weeks. However, these procedures apply only to “established” patients. Because of limited capacity, Ravenswood is accepting very few new patients.

Both the ICC and the Daly City clinic have had a goal of implementing advanced access appointment scheduling, but neither has yet been able to implement this component. Clinic staff report that implementing advanced access correctly requires data on the number of unscheduled patients and the number of no shows for each team, in order to plan for the right amount of unscheduled time per team. However, they do not yet have enough data to measure the number of patients seen over a year by each team, statistics that are only just becoming available through implementation of the EMR.

Another approach to appointment scheduling to improve efficiency has been adopted at the Willow clinic. All new and returning patients at Willow are required to attend a mandatory orientation called the “Appointment Management Program.” The main purpose of this program is to reduce “no show” rates, which were very high prior to the program. The mandatory one hour class (held in the late afternoons/early evenings) covers the importance of attending appointments, chronic care management, establishing a relationship with a doctor, and how to complete needed paperwork. According to clinic staff, in most cases an appointment can be scheduled at the orientation for the next day or some time shortly thereafter. The clinic no show

rate dropped dramatically after this approach was implemented. Willow also operates an unscheduled urgent care clinic all day on Monday and on the afternoons of other week-days.

To address the difficulty faced by patients seeking appointments for urgent health problems at the ICC, and to avoid overuse of the SMMC emergency room, in September 2009 the county opened an urgent care clinic at the main campus site. The clinic is colocated with the surgical specialty clinic, and is open five days a week from 1 to 9 pm. It is staffed by a physician, nurse, and administrative staff person. Since opening, the clinic has operated at capacity of 25 patients per day, and has experienced 2,675 visits through March. This new clinic is providing an alternative to the emergency room for many new patients. However, while the clinic has relieved pressure on the emergency room, it has not yet had a marked impact on the length of time patients wait for appointments in primary care clinics.

Electronic Medical Record (EMR). All adult medicine clinics in the SMMC system are implementing an electronic medical record system, becoming the first public system in California to adopt such technology. The first among the county's clinics to adopt the EMR, the ICC, began transitioning to the EMR in April, 2009. The county's EMR software product is called eClinical Works (eCW). During this transition, the ICC deliberately reduced the number of scheduled appointments at the clinic, in order to allow time for provider training on the new system. For the first two weeks, the ICC functioned at 50 percent of capacity, and during the next month it operated at 75 percent of capacity. At the time of our site visit in August, the ICC was still operating somewhat below capacity.

Daly City was the second clinic in the county to implement the EMR, which went live at the clinic in May 2009. By the end of July they were back to operating at 90 percent capacity. Fair Oaks began using the EMR in June, and implementation was close to complete by our August

site visit. The Willow clinic began implementing the EMR in August. By the end of 2009, the EMR system was running in all SMMC adult medicine clinics, and implementation was beginning in the SMMC specialty clinics.

Ravenswood also has had plans to implement an Electronic Medical Record. However, the clinic has not been able to do this due to funding constraints. This opens up the possibility of having Ravenswood implement the same EMR software as the SMMC clinics, which would facilitate seamless communication between the county safety net clinics.

The ICC and Specialty Care Systems Redesign Experience in 2009. The newly named Innovative Care Clinic (ICC) has been the focus of recent clinic redesign efforts in 2009, receiving a substantial portion of the county's coverage initiative funding to implement the full primary care redesign model. The ICC is the largest of the SMMC adult medicine clinics. Following some initial delays and revised expectations, the redesigned ICC was officially launched in early 2009. To implement the redesign, the ICC hired new staff—including one physician, one nurse, one pharmacist, one medical assistant, and one clerk—and reconfigured the space to support team-based care. The staff has been organized into three teams, which entails assigning a panel of patients to a specific physician-led team that is responsible for all aspects of the patients' care including scheduling, prescribing, follow-up, referrals, and care management. Each team consists of two physicians, one nurse, two medical assistants, and one clerk. Within this structure, the non-physician staff is given additional case management and troubleshooting responsibilities. In conjunction with efforts to promote role flexibility, training is provided for nurses and medical assistants who are being asked to take on more responsibility. According to clinic leadership, feedback regarding these efforts has been positive, and the training events have been well attended.

The ICC was originally planned as a new and separate space that would require a referral from the adult medicine clinic, and would focus on a smaller panel of chronically ill patients. Due to space and staffing constraints, it was not possible to establish two separate clinics. Instead, the ICC replaced the adult medicine clinic and occupies renovated space where the adult medicine clinic was located. All adult medicine patients at the main campus clinic are now ICC patients. The clinic, in its new form, is fully operational. However, as a result of implementation of the EMR some of the progress associated with clinic redesign at the ICC has been slowed or deferred, particularly advanced access scheduling.

In our interviews with staff at other SMMC clinics, most viewed the redesign activities in 2009 to be concentrated at the ICC rather than at their clinics, since they have not received additional funds for redesign. (The exception is the EMR implementation, which occurred in all clinics in 2009.) However, as outlined above, most of the clinics have participated in at least one component of systems redesign in prior years.

The SMMC specialty clinics⁷ on the main campus are also undergoing a redesign process with funding from the Kaiser Permanente Community Benefit Program. Ravenswood is also a partner in this effort. This Specialty Care Access Initiative grant began December 2009, with a goal of improving specialty care access by reducing waiting times for appointments, decreasing waiting times at the clinic (“cycle times”), and improving staff and patient satisfaction. Coleman Associates is providing technical assistance for the initiative, which includes a plan to create patient care teams. The specialty clinics are also improving the design of the patient registration process (including placing a Community Health Advocate—CHA—in the registration area) and re-configuring the specialty care waiting room space. It is too soon to know definitively what the

⁷ Specialties include cardiology, dermatology, endocrinology, ENT, gastroenterology, general surgery, nephrology, neurology, neurosurgery, oncology, ophthalmology, orthopedics, plastic surgery, podiatry, pulmonology, rheumatology, vascular surgery, and urology.

outcomes will be from these efforts, most of which are just getting under way in early 2010, but specialty clinic staff report that no show rates and cycle times have already improved.

Access to Safety Net Clinic Care. Given the increased demand for care, our site visit respondents agreed that there are serious problems with access to care in the San Mateo safety net primary and specialty care clinics that impede the county from achieving its goals of improved access to care by fully implementing systems redesign. In particular it is very difficult for patients—especially new patients—to obtain an appointment for primary or specialty care. For example, the ICC reports having nearly 2000 people on the wait list for appointments for new patients—almost as many as all of the other county clinics combined. We were told that waiting times for new patient appointments were from four to six months at the ICC, and three months for returning patients.

This access problem was evident in the most recent “Secret Shopper” survey conducted by the Health Plan of San Mateo. When posing as an ACE patient who was requesting an appointment at each clinic, the secret shoppers were consistently turned down for an appointment in early fall 2009. The only place where they could have obtained an appointment was at the Willow clinic, where the wait was one month for the orientation and two more months for a medical appointment. (This contrasts with the information obtained from clinic staff who said appointments were more readily available.) No other clinic agreed to make an appointment for the secret shopper.

The problem is also clear in the reports of grievances to the HPSM. In the period September 1, 2008, to August 31, 2009, the plan received 16 complaints, just over one per month (which suggests generally good satisfaction overall). However, of these, 10—over half—related

to two problems: getting appointments and getting prescription refills when the patient was unable to be seen through an appointment.

These impressions of access to care problems were also highlighted in our waiting room observations. We observed generally improved flow in the waiting rooms when compared to our observations during a site visit the previous year (with shorter waiting times once a patient arrived). However, we again observed barriers to appointments. In one waiting room, a patient came directly from the emergency room, having been told to go to the clinic to make an appointment for follow-up care. The patient was turned away and told that there were no currently available appointments for new patients. (The patient was put on a waiting list.) A second example occurred in a different clinic. A patient came in to make an appointment for a pap smear; she was told to call back to make the appointment which would likely be in November. (This was in early August.) Thus, in our brief observations in three waiting rooms, we observed two situations where patients deferred needed primary care for a substantial time period.

While this problem is widely recognized, safety net primary care providers are encountering formidable challenges to improving access to appointments. One factor is the economic downturn, which is creating greater demand for safety net services. At the same time, the economy is limiting the availability of public and private charitable funds that might be used to expand space or staff. For example, plans to expand services at the Daly City clinic are on hold due to limited county funding for such efforts, and the fund-raising for an expansion at Ravenswood has been slower than expected. Another major factor is the implementation of the EMR, which temporarily reduced capacity throughout 2009, as indicated earlier.

Clinic Staff and Patient Impressions of Systems Redesign

The success of pilot redesign efforts was reflected in favorable comments by staff during our site visit interviews and clinic observations. Staff commented that improved clinic work flow caused a culture shift, encouraging them to focus more intently on providing high quality primary care to patients. In addition, the positive publicity from the initial pilot redesign initiatives generated interest in replicating the process among clinics that did not initially participate.

The SMMC staff reports that, in general, the transition to the EMR went fairly smoothly, that everyone is using it, and that staff resistance has been minimal. However, in our site visit we observed that some functionality was not yet properly up and running; the greatest challenge was felt among the medical assistants, who were not as comfortable working with computers as some other staff. For example, during clinic observations, we witnessed some frustration with regard to EMR prescription ordering functions. (Many were still working to understand the EMR process at that time.)

It is clear that the various components of the systems redesign efforts are closely intertwined, and that the EMR implementation slowed the other initiative efforts during 2009. For example, as shown later in this report, cycle times (total time between a client entering the clinic and leaving after being seen) are still high, a phenomenon attributed to the EMR implementation. Clinic staff are hopeful that the EMR implementation is now complete, and that they can turn to other aspects of systems redesign in 2010.

In order to gauge patient satisfaction with coverage and care provided in the San Mateo County health system, we conducted four focus groups in September 2009.⁸ The focus groups generated quite a bit of frank discussion regarding both appreciation for the program and

⁸ Additional feedback on the ACE program from focus groups is presented later in this report. A second round of focus groups is planned for late spring/early summer of 2010. More information on the design and recruitment for the focus groups is contained in Appendix C.

frustrations with access to care. Concerns voiced by participants varied greatly (though seemed to cluster by location—likely as a result of participants hearing and reacting to what others were concerned about).

Obtaining appointments in a timely manner was cited as a common challenge among focus group participants. Reporting four-month wait times to make an appointment, respondents agreed that urgent care appointments were not an option.

If you need an emergency appointment, like if you have the flu or something, you can forget about it!

Experiencing long wait times to get appointments at their primary care providers, respondents report being told to go to the emergency room for urgent care, or opting themselves to go to there to avoid the frustrations they experience trying to be seen at the clinic.

In my case, I go straight to the ER, like one time...I didn't bother to just call them [the clinic] because they give you a long time to wait for an appointment.

Long wait times have also functioned as a deterrent for some in seeking care. Feeling discouraged by how difficult it is to obtain an appointment, some have stopped seeking preventive care. This is consistent with the deterrents to preventive/primary care that we observed in the waiting rooms.

Focus groups reveal that most people are generally very satisfied with care received in safety net clinics, once they have an appointment. One woman offered:

I think they are very professional. My husband goes to [named a private provider]... this one is better.

Another focus group participant boasted about the attentive care she received at her primary care clinic:

My doctor and the services are excellent.... She used to call me up and find out about my condition, and then she found out that I am really not in good shape, and

she tried to call me at home and tried to follow up on my condition.... She really care[s] about my condition.

However, there were some exceptions to this generally high satisfaction. One respondent reported typically being satisfied with the care received, but recently feeling rushed, perhaps due to the increased pressure on providers to see more patients:

I have a primary doctor and she is usually good, but the last time I saw her it was just five minutes in and out. She said “I have a lot of people waiting for me.” Very rushed, didn’t even check me out.... She just wrote a prescription and said I got to go, I have people waiting.... Usually she does well, but this time it was different.

One person mentioned the “new approach” to primary care, citing phone consultations with the doctor. The respondent is generally satisfied with this, but adds skeptically:

What do they know about your health if they are not even willing to look at you?

There is less overall satisfaction with support staff than with medical staff. While some support staff stand out as particularly helpful and kind, many report being frustrated with the lack of courtesy or politeness they experience with support staff in the clinics, citing impatience and rudeness:

They are consistently rude. The counter staff has been so disrespectful to some of the people standing ... in line.

Someone added:

They look at me and say: “What do you want? What time is your appointment? You are early.” You have paid and you are sick, and you are going to get that treatment like that. That is depressing.

These less favorable comments from patients, who were generally satisfied with many aspects of their care, came during a period of severe capacity constraints as documented above.

Quantitative Data on Systems Redesign Outcomes

Clinic Productivity. Clinic productivity can be measured by the number of patient visits to the clinic in a given period of time.⁹ Table 1 shows the number of visits to each of the adult primary care and specialty care clinics in two time periods: July to December, 2008 (just before the ICC clinic redesign activities began) and July to December, 2009. As shown, the number of visits to the ICC and to the Daly City clinic went up slightly during the period, but visits to the other clinics declined, leading to an overall decline from 62,134 visits over the last six months of 2008 to 60,251 visits in the same period of 2009. This was the period in which the EMR implementation was well under way, when demand for visits was increasing through new ACE enrollment (see below), and when the H1N1 flu epidemic was placing additional strains on the system. Consequently, consistent with data presented later in the report, there were severe capacity constraints in the clinics resulting in reduced access to appointments and high unmet need for some patients.

Cycle Times and Patient Satisfaction. During the period of initial implementation of pilot systems redesign activities in several clinics, SMMC began monitoring the outcomes of these new efforts using selected quantitative measures, including cycle times and patient satisfaction.

⁹ This measure is limited, since it does not adjust for any changes over time in the number of providers or in the case mix of patients at the clinic.

Table 1
Adult Clinic Visits, San Mateo Medical Center
July-December, 2008 and July-December, 2009

Clinic	Visits 2008		Visits 2009	
	Number	Percent	Number	Percent
Primary Care:				
Coastside	1,263	2.0	1,283	2.1
Daly City	7,255	11.7	7,879	13.1
Fair Oaks	8,961	14.4	7,882	13.1
Main Campus Primary Care (now ICC)	10,920	17.6	11,823	19.6
South San Francisco	3,512	5.7	3,534	5.9
Willow	<u>9,535</u>	<u>15.5</u>	<u>7,814</u>	<u>13.0</u>
Subtotal, Primary Care	41,446	66.7	40,215	66.8
Specialty Care:				
Main Campus Medical Specialty	9,149	14.7	8,961	14.8
Main Campus, Surgical Specialty	<u>11,539</u>	<u>18.6</u>	<u>11,075</u>	<u>18.4</u>
Subtotal, Specialty Care	20,688	33.3	20,036	33.2
Total	62,134	100.0	60,251	100.0

Source: SMMC Board Reports for February 2009 and 2010

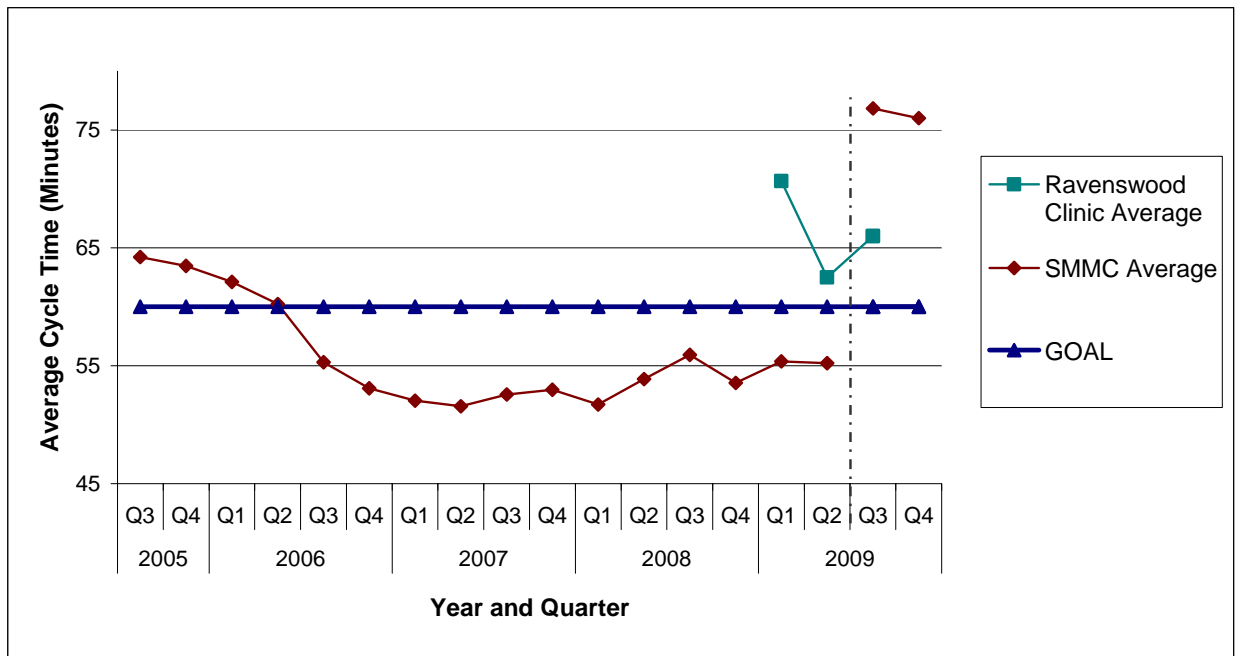
The Ravenswood clinic collects similar data.¹⁰ More recently, the SMMC specialty clinics have also been collecting data on cycle times, the length of time from a referral to a specialty clinic appointment, and no show rates. During this period there were significant changes in data collection. Prior to July 2009, all cycle time data were manually tallied; since that time all data are recorded through the EMR system. A goal of a “cycle time” (the time from when the patient registers to when the patient leaves the clinic) of 60 minutes has been established for the SMMC clinics.

Cycle time data for the SMMC primary care clinics are presented in figure 1, covering the third quarter of 2005 through 2009. The average cycle time reported for all of the SMMC clinics from the third quarter of 2005 through the second quarter of 2009 (a period when data were

¹⁰ Methods of collecting and tabulating data differ somewhat across clinics, and definitions are not entirely uniform.

tabulated manually) is at or below the goal (60 minutes). Cycle times during the third and fourth quarters of 2009, a period when the data were recorded automatically, were higher than in earlier periods of manual data collection. This jump in cycle times in late 2009 is likely due both to the change in reporting (with a downward bias in manually reported data), as well as an increase in cycle times due to increased demand on clinics and the decreased appointment capacity during implementation of the EMR.

Figure 1
Average Cycle Time at SMMC Primary Care Clinics, Q3 2005 - Q4 2009



Source: SMMC Quality of Care Committee

Note: Cycle time is the length of time from when the patient registers to when the patient leaves the clinic.

Ravenswood Family Health Center data are only available for three quarters of 2009.

Ravenswood collects cycle times one week per month using a semi-automated method with time stamps at check-in and at each stage of the appointment. During this reporting period, the Ravenswood clinic cycle time average was also substantially above the goal established for SMMC (figure 1), although somewhat lower than the SMMC average in late 2009. This shows that even with advanced access scheduling, cycle times remain high at Ravenswood.

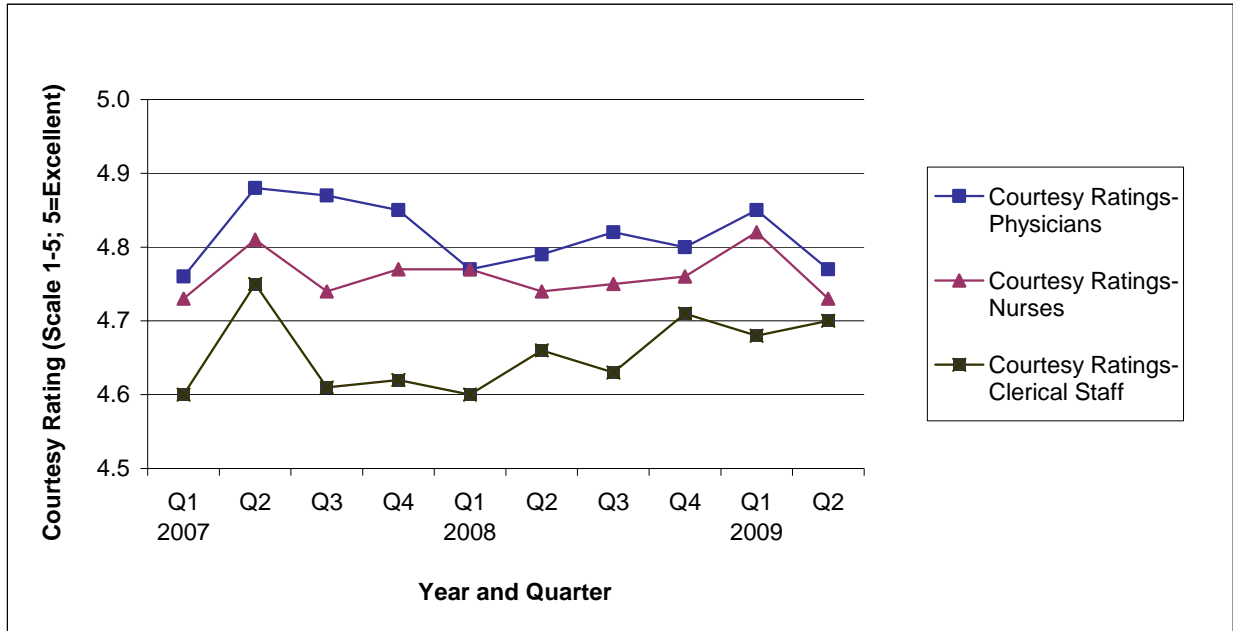
Data on patient satisfaction are collected at all SMMC clinics and at Ravenswood. Most clinics use a brief uniform survey with four questions that a sample of patients is requested to complete before they leave a clinic. The main campus ICC implemented a new patient satisfaction survey in January 2009, which captures the same basic measures as the original survey, but is more extensive. The patient satisfaction survey used by the majority of clinics focuses on the extent to which the patient found the physician, nursing, or clerical services individually courteous. The survey also asks for an overall rating of the clinic (excellent, good, OK, poor, or unacceptable). The ICC's courtesy measure solicits opinions about the staff overall and does not distinguish between types of staff. The ICC patient satisfaction survey is also given to established patients, unlike the other clinics, which distribute the surveys to both new and established patients.

Varying methods are used for selecting patients to complete the surveys across clinics. In all cases, data are collected on a sample of patients. Some clinics are more selective in choosing the sample while others are more random. The staff member who administers the survey to the patient also varies.

Figure 2 shows, on a five-point scale, that patients appear to be relatively satisfied with the clinics overall, with some minor fluctuations from quarter to quarter. Patients tend to find

physicians most courteous. Nurses' courtesy ratings are only slightly below physicians, both hovering around 4.8 on a 5 point scale. While differences are small, clerical staff are consistently rated as the least courteous among the three groups over time.

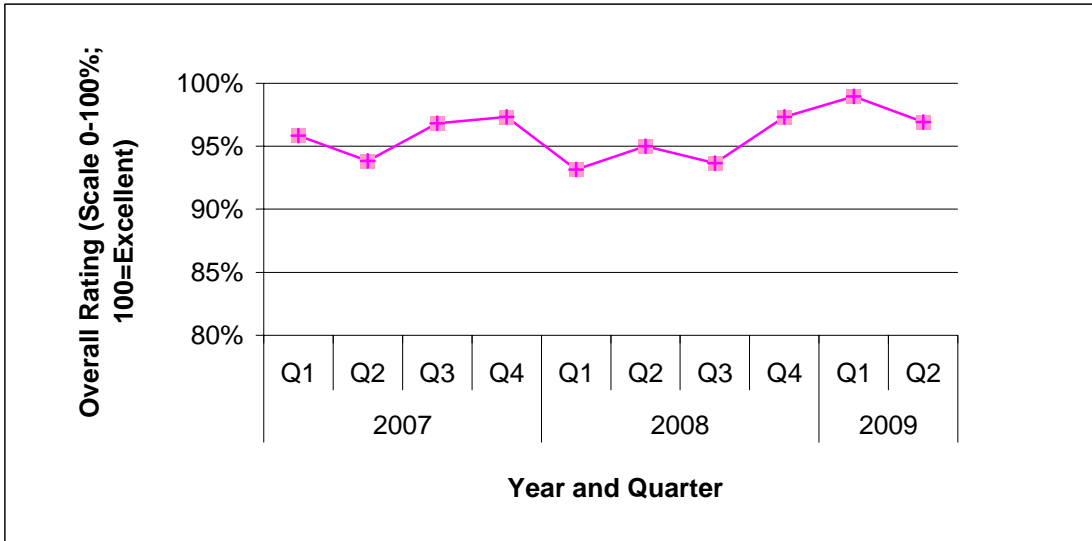
Figure 2
Patient Satisfaction with Staff in SMMC Primary Care Clinics, Q1 2007 - Q2 2009



Note: These data are an average of satisfaction data for all SMMC clinics, including the ICC.
 Source: SMMC Quality of Care Committee

Figure 3 shows the variation over time in the extent to which patients rate the care at the clinics overall as excellent or good. Most patients rate their care very highly, with some increase in early 2009 as systems redesign began at the ICC. Close to 95 percent or more of respondents rate their care as good or excellent throughout the period.

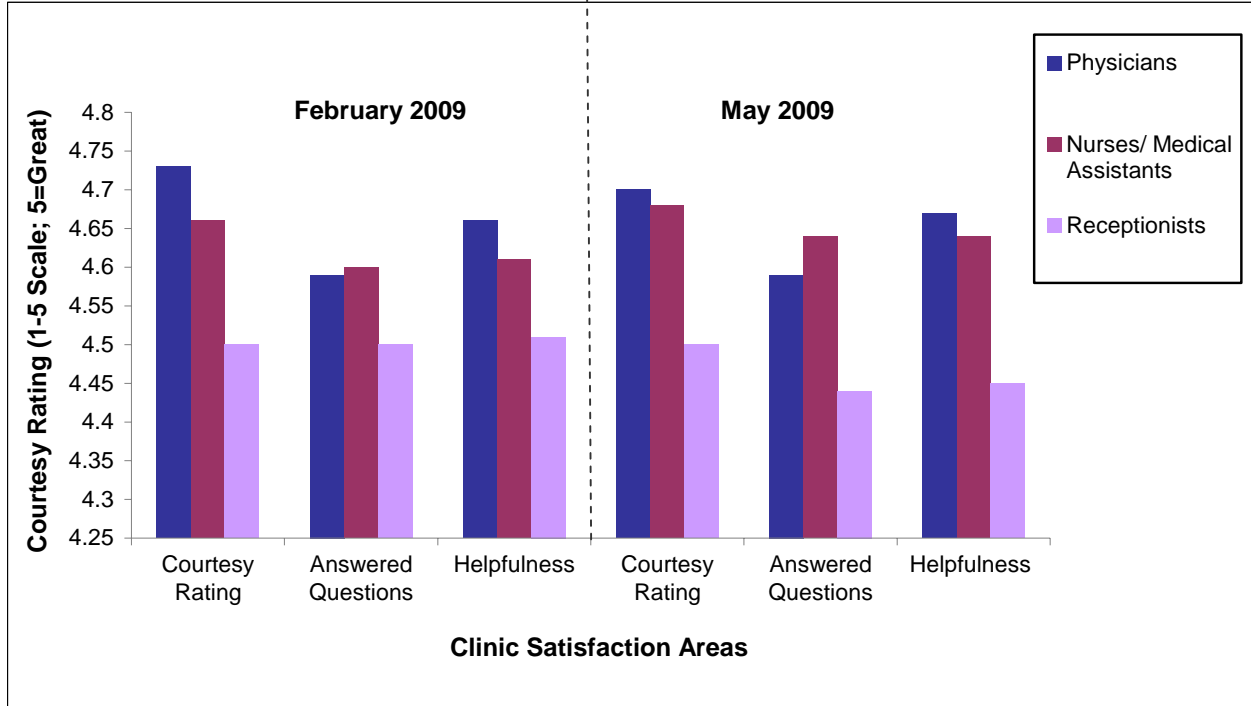
Figure 3
Percent of Patients Rating Care at SMMC Clinics as Excellent or Good
Q1 2007 - Q3 2009



Source: SMMC Quality of Care Committee

Ravenswood uses a different patient satisfaction survey with somewhat different measures. However, based on their instrument, patient satisfaction at Ravenswood also is quite high (see figure 4). Patients are asked if the physicians/nurses and medical assistants/clerical staff are doing great or good with respect to being courteous/helpful/respectful. As in the SMMC clinics, clinical staff are rated more highly than administrative staff, although differences remain slight.

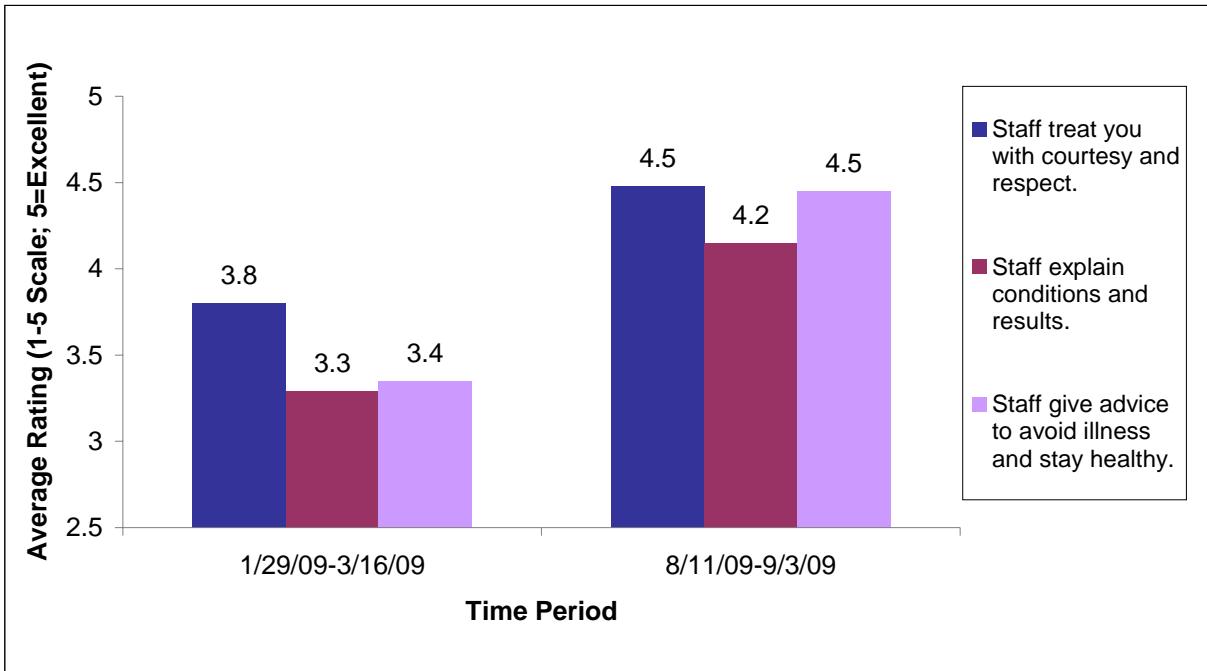
Figure 4
Ravenswood Clinic Patient Satisfaction, February and May 2009



Source: Ravenswood Family Health Center

Figure 5 shows more detail on satisfaction at the Innovative Care Clinic during 2009. Satisfaction scores are also high and rose during 2009, in spite of the strains on clinic capacity during this time. Recall that these questions are asked only of established patients, for whom access problems are not as severe.

Figure 5
Innovative Care Clinic, Patient Satisfaction Clinic Average



Source: Innovative Care Clinic

The Access and Care for Everyone (ACE) Program

ACE Program Description

San Mateo County is one of ten California counties to receive a Health Coverage Initiative grant through the state's Hospital Financing Waiver. This grant, awarded in September 2007, provides the county with \$7.5 million annually for three years, enabling coverage for low-income adults who would not otherwise qualify for public insurance. This program, named the San Mateo Access and Care for Everyone program (ACE), helps to finance the county's adult coverage initiative including some of the systems redesign activities at the ICC. While the state-wide waiver does not expire until September, 2010, the San Mateo County funding was spent by January, 2010. The county has absorbed the full cost of ACE enrollees since that time. The state has applied to extend the waiver beginning in fall, 2010. If it is approved, this will re-establish federal funding for those that qualify.

ACE replaces a portion of the county-funded coverage program called WELL, which was in place for two decades and also extends access to some whose assets exceed the former asset limit for WELL. The initial group of ACE enrollees—called “ACE” in the rest of this report—includes documented individuals, the only group that could be covered under the federal waiver. ACE enrollment began in September 2007. During the period September, 2007 to December, 2008, the WELL program remained in place and covered undocumented uninsured adults. Beginning in January, 2009 WELL was renamed “ACE County.” Eligibility rules, benefits, copayments, and care coordination are the same for both ACE and ACE County enrollees, that is for both documented and undocumented adults, respectively.

Enrollment in ACE and ACE County. The enrollment process is identical for both ACE programs, but the eligibility criteria for ACE and ACE County differ. Low-income (<200 percent

of the FPL) uninsured adults (ages 19–64), who reside in San Mateo County and are legal permanent residents or U.S. citizens, are eligible to enroll in ACE. These ACE applicants must formally submit documentation to meet the DRA (Deficit Reduction Act) test of citizenship that is applied to Medi-Cal applicants, a process that creates some barriers to enrollment for this group. ACE enrollees cannot be eligible for Medi-Cal (with or without a share of cost) and must not be enrolled in private or employer-sponsored health coverage. Currently, there is a three-month waiting period required after having had employer-sponsored coverage before becoming eligible for ACE.

ACE County does not require citizenship or permanent residence documentation for enrollment, and is open to a broader age range (e.g., the elderly). In addition, it does impose an asset test (under \$2,000 in assets), which ACE does not.

Individuals who are in the income range 200–400 percent of the FPL may qualify for the county discounted health care program. These individuals receive a 65 percent reduction in charges for county health services, in alignment with state law (AB 774) that addresses the charity care requirements for nonprofit hospitals.

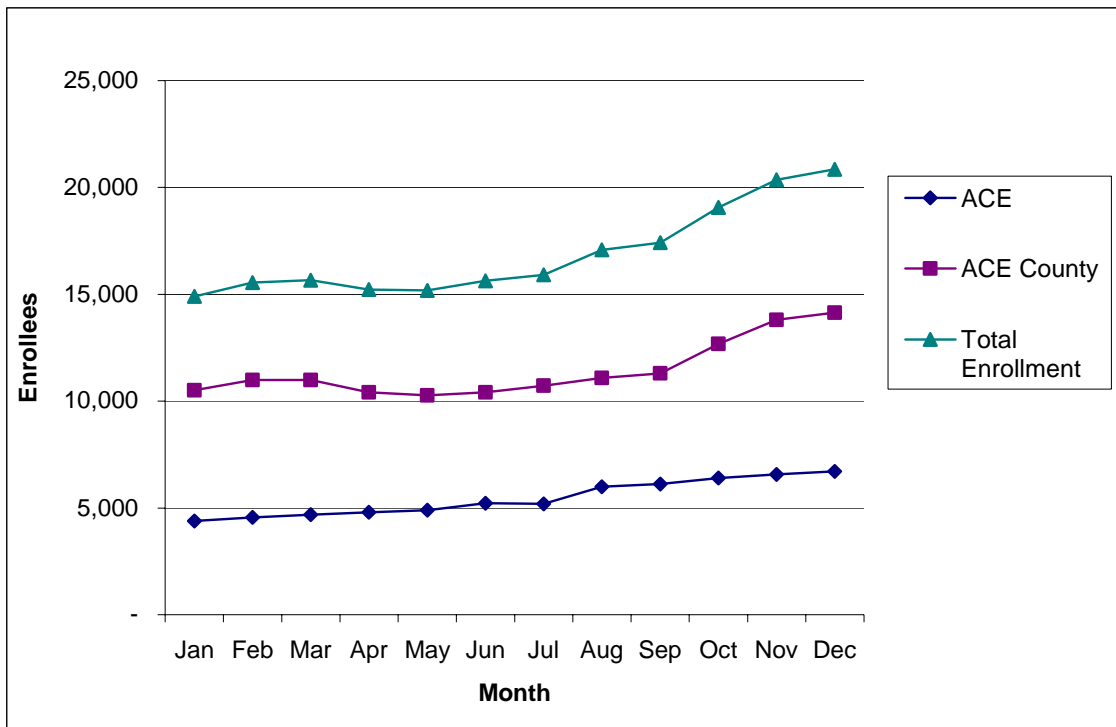
Patients are enrolled in ACE with the assistance of Community Health Advocates (CHAs). An on-line enrollment system called One-e-App, initially developed for the county's children's coverage programs, is used for enrollment in ACE and ACE County. This is done during a face-to-face session with a CHA. Each clinic (and some other sites such as free clinics and community locations) has a CHA on site to provide enrollment assistance. As part of the redesign effort, all CHAs are now centrally managed by county health system staff.

When ACE enrollment began in September 2007, the WELL (now ACE County) program had about 10,000 enrollees—a number that had been stable for some time. Enrollment in ACE

began growing rapidly, reaching about 4,000 by mid-2008. There was a concomitant (but not fully offsetting) decline in WELL enrollment to about 9,000 enrollees (Howell et al. 2009).

Figure 6 shows trends in enrollment in ACE and ACE County (renamed from WELL) throughout 2009. It shows that ACE began the year with about 4,500 enrollees and ACE County (formerly WELL) enrollment was just over 10,000 enrollees. However, as the recession deepened, enrollment in both programs climbed precipitously throughout the year, reaching 6,715 for ACE (an increase of 52.9 percent over the year) and 14,136 for ACE County (an increase of 34.5 percent). Thus enrollment in county-sponsored coverage doubled from January 2008 to December 2009.

Figure 6
ACE and ACE County Enrollment Trends in 2009



Source: Health Plan of San Mateo

This dramatic growth—without substantial increases in the supply of services for these enrollees—largely explains the prevalent access problems described above for these growing coverage groups, who are enrolled in a program with a limited network of providers. Given financial constraints, aside from the modest staffing expansions in the ICC financed by the coverage initiative grant, the SMMC system has not had the resources to increase capacity along with the increased demand.

Rapid enrollment growth has greatly increased the workload of the CHAs. Often they cannot see all clients needing help with enrollment in a day, reportedly sometimes as many as 40 people. The financial challenges facing the county and decreased philanthropic support for outreach and enrollment has necessitated reductions in CHA capacity while application numbers have increased. An electronic scheduling tool that is part of the EMR software has helped to manage this influx of clients.

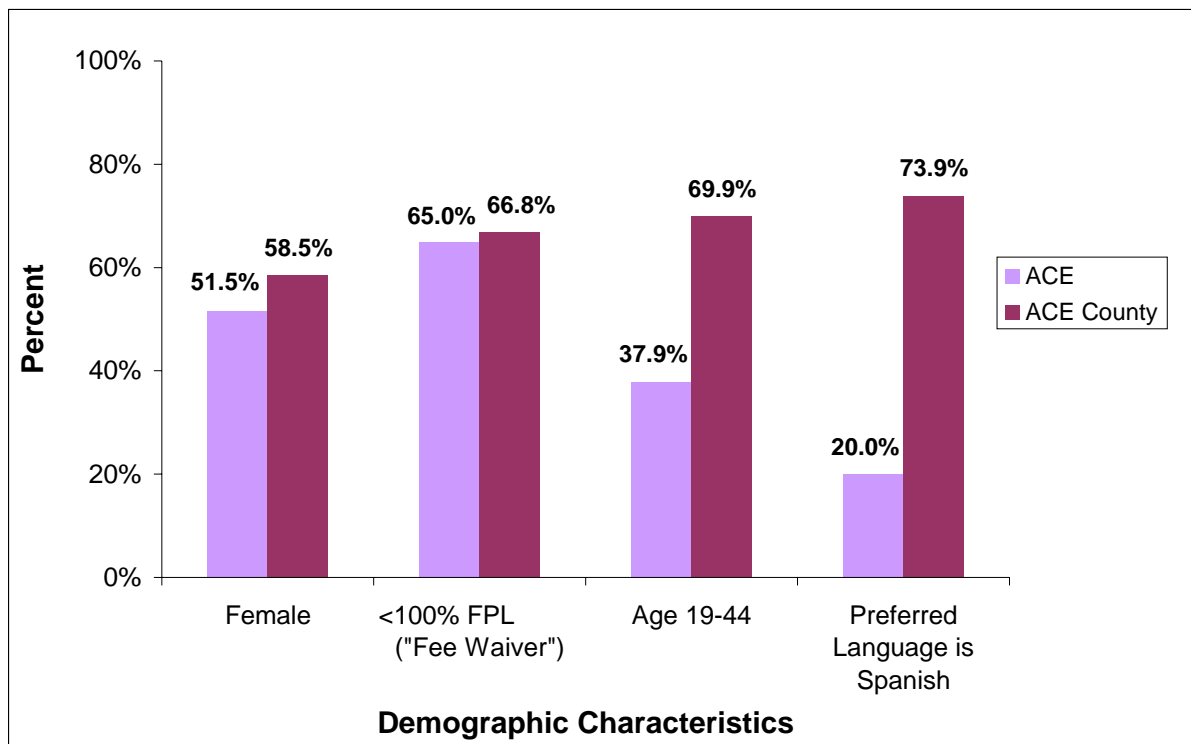
The CHAs are seeing more people who have recently lost jobs and consequently health coverage. While the situation is distressing, it has had some benefits. The CHAs perceive that the help they provide has resulted in an improved public perception of county health care services. The CHA team, too, is pursuing areas of service redesign, to streamline client waits for health coverage screening and enrollment.

The demographic characteristics of ACE and ACE County enrollees in late 2009 are shown in figure 7. A slight majority of both groups is female, and about two-thirds of both groups are below 100 percent of the federal poverty level (and thus are exempt from cost sharing). However, the ACE and ACE County enrollees differ in age, with the ACE County group being much younger, with about two-thirds between 19 and 44 (in contrast to only a third of ACE

enrollees in that younger age group). In addition, only a fifth of ACE enrollees have Spanish as their preferred language while about three-quarters of ACE County enrollees prefer Spanish.

A map of the distribution of enrollees across the county is provided in figure 8, which also shows the location of the seven primary care safety net clinics. All of the clinics are located in or very near the zip codes with the highest number of ACE and ACE County enrollees.

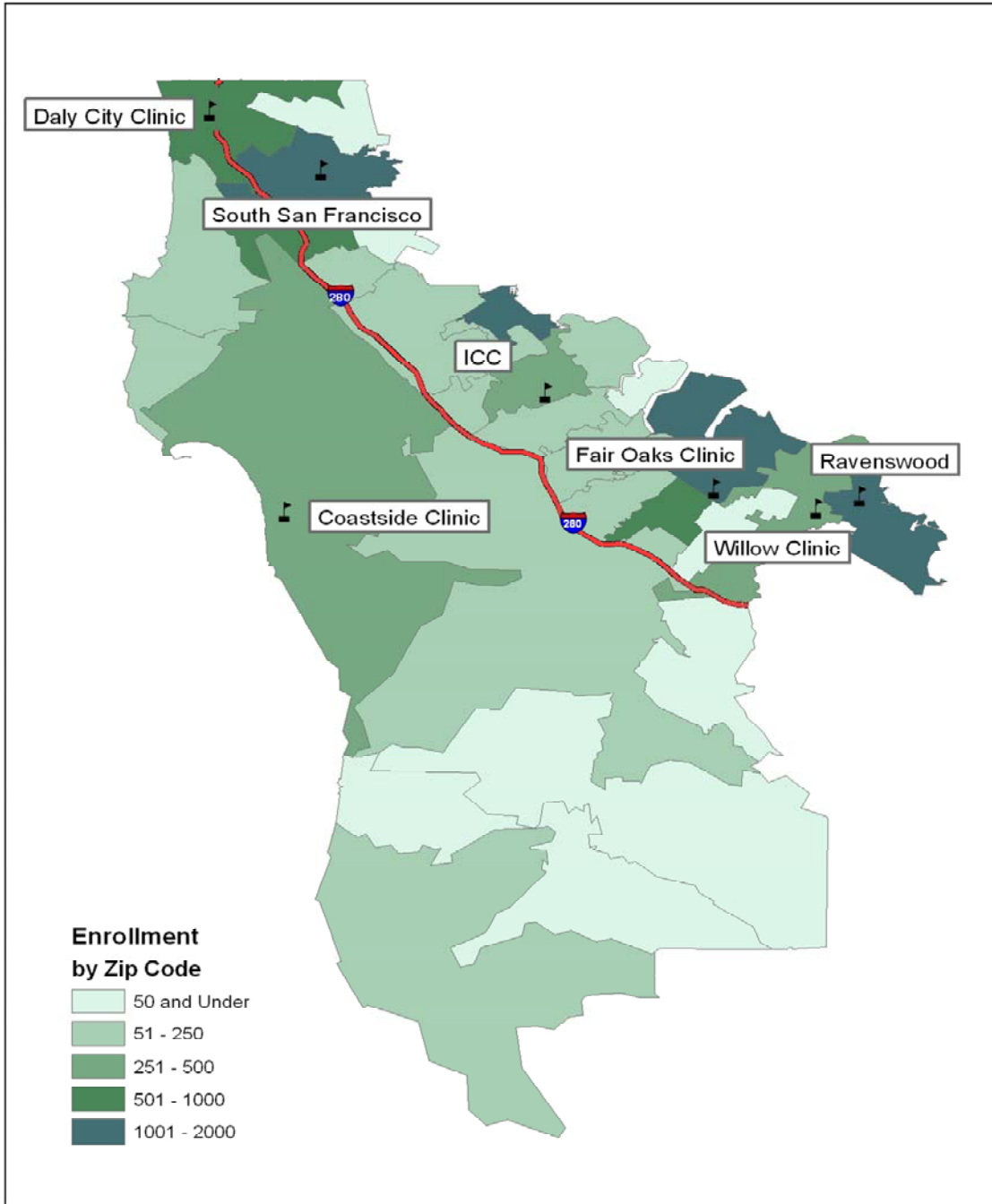
Figure 7
Demographic Characteristics of ACE and ACE County Enrollees
October-December 2009



Note: Includes a cross-section of all persons enrolled in ACE and ACE County during October-December, 2009.

Source: Health Plan of San Mateo

Figure 8
Geographic Distribution of ACE and ACE County Enrollees, 2009



Source: San Mateo County One-e-App data for ACE/ACE County Enrollees, 2009

Covered Services. Covered services for both ACE and ACE County programs are identical and quite comprehensive, including primary care; specialty care; emergency room visits; inpatient stays; and prescription drugs. Dental care is not covered, except for emergencies, nor are long term care or specialty mental health services.

Cost Sharing. Enrollees are required to share in the cost of care. However, ACE and ACE County enrollees who are below 100 percent of the FPL are exempt from premiums and copayments. For those subject to cost sharing, there is an enrollment fee of \$240 per year. Enrollees are given the option of making enrollment fee payments in monthly installments or paying the fee in full and receiving three \$10 vouchers to offset copayments. Copayments include \$40 for an emergency room visit; \$10 for an outpatient visit if paid at the time of the visit; \$20 if billed for an outpatient visit; and \$7 for a prescription. Copayments for inpatient services are higher, \$300 per hospitalization and ambulatory surgery procedure. The program has a maximum out-of-pocket cost of \$1000.

Provider Network. From its inception, the purpose of WELL, ACE, and ACE County has been to coordinate care for patients served by the SMMC system (including care at the inpatient hospital, the emergency room, and the SMMC clinics). In January 2009, this network was expanded to include the Ravenswood Family Health Center.¹¹ All individuals who enroll must receive care from this network; care outside the network is not covered without prior approval. The limited provider network has made it difficult to expand capacity to serve the growing ACE and ACE County population. The county is working with some private providers to provide free or discounted care, particularly specialty care. These include plans to have private providers offer primary care, obstetrical care, specialty services not provided at the SMMC, and tertiary

¹¹ Ravenswood's role in providing care for ACE patients was initially small, due to capacity and funding constraints. It has recently expanded its role substantially by accepting new ACE patients at its Belle Haven site.

hospital services. For example, Palo Alto Medical Foundation and Kaiser Permanente are each covering primary care (including pharmacy) for 300 and 397 uninsured patients respectively, and several private hospitals are offering certain negotiated specialty care and hospital services. The county is considering developing a publication that recognizes these private providers' roles in meeting the needs of the underserved.

Third Party Administration through the Health Plan of San Mateo (HPSM). The county contracts with the Health Plan of San Mateo (HPSM) to administer care for ACE and ACE County enrollees. HPSM leadership describes their goal as dedicated to ensuring that they bring value to the program as its "third party administrator." One important achievement to this end includes the improved ability to track ACE program costs, which the county was not fully equipped to do under the WELL program. In addition, since HPSM also administers Medi-Cal, the plan is to identify patients who qualify for Medi-Cal but are currently enrolled in ACE or ACE County. HPSM has not yet implemented the type of utilization management that they use in other programs (for example, identifying high frequency emergency room users), but they plan to do so in the near future.

HPSM extended privileges to use its nurse advice line to ACE enrollees in January 2009. The monthly call volume has ranged from 564 to 998 over the past year. Before HPSM formally granted access to the advice line for ACE patients, many called and were not turned away. There remained some confusion at the time of our site visit, however, among some CHAs who were still under the impression the advice line was not intended for ACE recipients.

The plan is not at risk for the cost of care, but takes responsibility for tracking and reporting on costs, completing quality of care reports, and educating enrollees on benefits. The plan receives funds from the county and pay providers at Medi-Cal rates. The county pays HPSM a

monthly administrative fee for each enrollee; the growth in enrollment has meant that the county has exceeded its initial projections for this expense. HPSM and the county amended the agreement in late 2009 to structure the arrangement as a tiered and fixed administrative fee.

Primary Care and Pharmacy Providers. ACE enrollees are required to establish a primary care provider at one of the SMMC clinics or at Ravenswood Family Health Center. Each clinic is linked to a specific pharmacy from which their patients can fill prescriptions. This arrangement ensures 340b pricing, which allows qualifying providers to purchase drugs for outpatient use at substantially reduced rates—approximately 20 percent below the Medi-Cal price.

Patient Satisfaction with the ACE Program

During the four focus groups described earlier, ACE enrollees were asked about their perceptions of the ACE coverage programs. Responses were generally very positive. Most participants find ACE coverage to be affordable, and are quite appreciative of the county's effort to provide health coverage for the uninsured. The ACE satisfaction findings from the focus groups can be grouped into three categories: (1) enrollment; (2) access/utilization; and (3) cost sharing.

Enrollment. Focus group participants learn about the ACE program in many different ways. Most participants hear about it by word of mouth, often from friends or relatives. Some are encouraged to apply when seeking medical care, for example during a clinic or emergency room visit. Some hear about the program in other ways, for example from information at a public library. Few respondents report experiencing barriers to enrollment. Application assistants always speak the preferred language of enrollees, and their help is greatly appreciated by clients. One focus group participant commented:

They try to make things easier for us.

Immigration status does not appear to be a concern among enrollees, indicating a reasonable level of trust between immigrants and their application assistants.

A concern voiced repeatedly by respondents involves late receipt of their ACE membership cards. This may inhibit them from receiving services. Several reported feeling that they cannot legitimately access their benefits until they have a card in hand.

I went back and asked them when am I going to get my card? I said it had been six or seven months already and I still haven't received it. I called numerous times about it, and I said when should I expect to receive my card?.... I still haven't received one, so if I get sick, what am I supposed to show them?

One respondent, also troubled by a lack of ACE documentation, commented:

I don't go to the doctor's nearly as much as I used to, and part of it is because of the wait and the treatment. But I haven't even gotten my card yet. So if I got sick, what do you want me to do?.... I would love to go to the doctor and get at least a check up or something.

Others were more certain of their enrollment status, despite not having a card. One participant offered:

I never got the card, but I know that I'm still in the program.

These concerns regarding the legitimacy in seeking care without a card varied by site. This may be attributable to communication differences during the application process, or administrative practices at specific clinics.

Use of Health Services. We queried focus group participants about health care utilization prior to enrolling in the ACE program, and how it has changed with ACE enrollment. Most focus group participants had no insurance prior to ACE enrollment. These individuals particularly appreciate the preventive health care covered under ACE, and other aspects of the program associated with care management, such as reminder calls and the nurse advice line. One person lauded the preventive approach:

You get a free flu shot and they keep giving you the right medicine even though it is generic. They are promoting health because even though you are not sick you are being asked to come in to have your follow up. Generally speaking, all aspects of a person's health are being looked at. They are so concerned about human dignity.

Many previously uninsured participants indicate that prior to enrolling they would typically seek health care at the emergency room when they needed it, “even for little problems.” Others, who had private insurance or Medi-Cal previously, report being less likely to seek care under ACE now due to problems getting appointments.

There [are] times when I get really sick and if I had my old insurance where I could go into the doctor and get seen and get my medicine and things were a lot easier, oh yes, I would go. But I know how hard it is now to get seen and I think – if I don't feel like I am going to die, I am not going to go there.... I think a lot of people are just like that. They don't want to go because they realize how much trouble it is going to be if they do go.

These complaints are consistent with HPSM reports that some enrollees have had to go to the emergency room just to get a prescription filled, resulting in a \$40 copayment. (These barriers are being addressed by the new urgent care center near the emergency room.)

Most focus group participants report using the emergency services at the San Mateo Medical Center. Some expressed confusion regarding whether they could go to emergency rooms other than the SMMC, which is not a covered benefit under ACE and ACE County.

I found out that we could have been going to [named private hospital] all this time. I am still not sure about that. When you ask the administrative staff they say: “don't ask me.” Who should we ask?

Repeatedly, focus group participants extol the affordability of the ACE program's pharmacy benefits (providing a service for which they formerly paid out of pocket). However, there is dissatisfaction with the inconvenience of being able to go to only one pharmacy. This requirement comes from the fact that San Mateo County incurs large savings through participation in the federal 340b pharmacy program, which results in deep discounts. However there are only four 340b pharmacies in the county, which are located at the SMMC and at

Ravenswood Family Health Center, as well as two independent pharmacies that contract with SMMC.

In addition, several people also expressed dissatisfaction with short hours and language barriers at the pharmacies. (This is the only service for which language barriers appear to be a problem for ACE enrollees.) In addition, some reported long wait times for filling prescriptions.

At the pharmacy, there is only one person that speaks Spanish, but she is rarely there. When she is not there, there is an American that talks [a little Spanish], but he doesn't help. They're there yelling at you, you turn in your prescription and paperwork doing hand signals.....

Pharmacy location also is a concern of several participants. For some, the pharmacy they are required to use is quite far from where they live, and therefore inconvenient. Others mentioned a recent pharmacy switch that came as a surprise.

They didn't tell me it changed; there just was a different address that I didn't notice. Instead of South San Francisco, it is in San Mateo.

Cost Sharing. Many focus group participants are beneficiaries of the fee waiver option within the ACE program. These enrollees, who are not subject to cost sharing, are particularly appreciative of the generous benefits ACE offers. (Some recently shifted from the cost-sharing to fee waiver program due to job loss or other changes in their financial circumstances.)

Among those who have cost-sharing requirements, some report struggling to afford their copayments, while others think that the small amounts required for copays and the ability to pay the annual fee in installments makes the costs affordable. When asked, some paying respondents offered that they would be willing to pay more to ensure the existence of the program, up to \$300 annually, as long as they could continue to pay the annual fee in installments.

In certain cases, willingness to pay more was contingent on a perceived improvement in quality and access. One participant said:

I don't mind paying the \$250 [annual fee] or \$20 copayments; however, I would like to see more politeness and better treatment when you go in. You make an appointment and wait three months and you show up and they start treating you like you are an animal or something like that.

This is consistent with reports from the Health Plan of San Mateo staff, who report that clients are frustrated when they have paid their annual fee and are unable to get an appointment. Preventive care seems to be unrealizable for many of these patients. The option to request a refund if no services are accessed within a year remains available to ACE patients, and many have requested their money back because they were not able to get services.

In sum, findings from the focus groups indicate that—while there are a few service-oriented complaints—the ACE program is well-regarded. Nearly all respond that they would recommend the program to friends and family. The current annual fee seems fair to most cost-sharing program participants, provided that they can continue to pay in installments. Furthermore, there is strong appreciation for the county's efforts to help provide health coverage for a vulnerable population. Intentions to renew their membership are universal. Many voice concern that the program might go away, and acknowledge gratefully that ACE is their only opportunity for health coverage. The main problems concern access to appointments within the limited ACE network of providers. This is consistent with similar findings documented elsewhere in this report.

Quantitative Data on ACE Outcomes

The ACE and ACE County programs were designed to improve access to health care for uninsured adults in San Mateo County. By providing health coverage through these programs to more adults, the county expects to increase the likelihood that new enrollees will have a usual

source of health care and have their health needs addressed. This, in turn, should improve their health and functioning.

One-e-App Survey. In order to assess the impact of the ACE and ACE County programs on these outcomes, we compared the health care experiences after enrollment in the program to experiences prior to enrolling while uninsured. This research design follows that used in prior studies of public health coverage expansions (Kenney 2007; Howell et al. 2008). Renewal applicants serve as the “treatment group,” a group that has been enrolled in ACE for a year. Using an innovative survey as part of the enrollment and renewal process for ACE,¹² they are asked about their health care experiences during the prior 12 months enrolled in ACE or ACE County. Individuals who are just enrolling in ACE or ACE County are the comparison group, providing information on their health care experiences in the prior year while they were uninsured.

The survey is imbedded in the One-e-App online application system for public health coverage programs in San Mateo County. Between April and September of 2009,¹³ thirteen additional questions on access to care, use of services, unmet need, and health status were asked as part of the One-e-App process. Approximately 5,000 nonelderly adults applying for or renewing ACE or ACE County enrollment were asked these questions at the end of the application process. We present findings as regression-adjusted percentages, based on regressions that control for observed differences in the demographic and socioeconomic characteristics of the initial and renewal applicants.¹⁴

¹² For more detailed information on methods used to collect and analyze the data from San Mateo County, see appendix C.

¹³ The survey will be repeated in April–September, 2009.

¹⁴ As shown in appendix C, the findings presented in the text that are based on regression-adjusted differences are very similar to the patterns found in the unadjusted means.

In spite of the severe access problems for ACE enrollees documented earlier in this report (primarily difficulties getting appointments for care in the county safety net clinics), figures 9 through 12 suggest that enrollment in ACE/ACE County led to substantial improvements in access to care for these previously uninsured individuals. Moreover, the programs seem to be improving the health and functioning of enrollees.

Enrollees were asked four questions that are used to measure access to care:

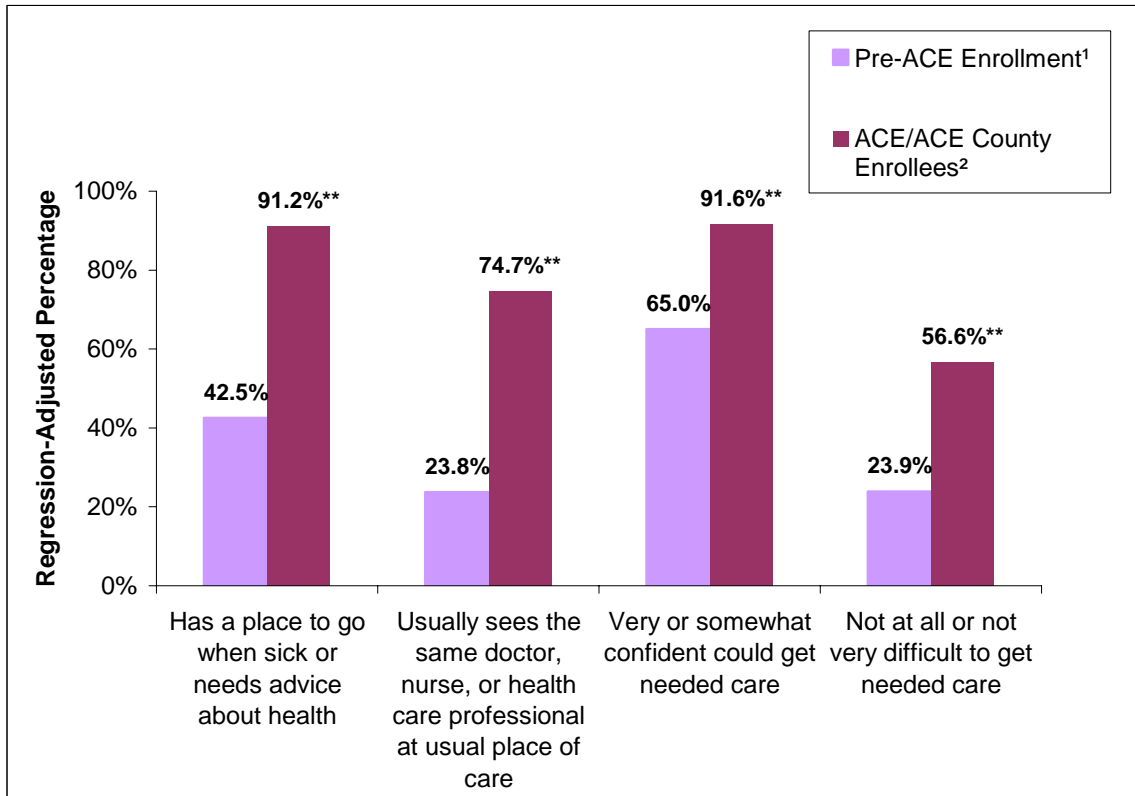
- Is there a place that you usually go to when you are sick or need advice about your health?
- Do you usually see the same doctor, nurse or other health care professionals when you go to this place?
- During the past 12 months, how confident were you that you could get health care if you needed it—very confident, somewhat confident, not very confident, not at all confident?
- Overall, how difficult is it for you to get medical care when you need it—very difficult, somewhat difficult, not very difficult, or not at all difficult?

As measured by their answers to these questions, enrollees in ACE and ACE County experience dramatic, statistically significant increases in access to care after being continuously enrolled for one year. Nearly all enrollees have a place to go when they are sick or need advice about their health, compared to less than half while uninsured (figure 9). These effects for adults are stronger than the effects for children measured in the evaluation of the San Mateo County Healthy Kids program (Howell et al., 2008). The percent of children with a usual source of care increases from 59.4 to 89.1 percent after new coverage, while for adults the increase is from 42.5 to 91.2 percent.

Once they have a usual source of care, the ACE program also improves continuity of care for enrollees. The majority of enrollees (74.7 percent) have a person or group of health professionals they usually see at their usual place of care (figure 9). Only 23.8 percent of the uninsured group

indicated the same. This finding may reflect the efforts that the county has made to adopt team-based care.

Figure 9
Impact of ACE/ACE County Enrollment on Access to Care



**Significantly different from uninsured, $p < 0.01$, two-tailed test; the estimates are adjusted for differences in the demographic, health, and socioeconomic characteristics of the two groups.

Notes: 1) Based on the experiences that uninsured ACE/ACE County applicants had prior to enrolling.

2) Based on the experiences that ACE/ACE County re-enrollees had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County enrollees, 2009

Enrollees also express that this improved access to a usual source of care improves their confidence in getting care. Nearly all (91.6 percent) enrollees indicate that they are very or somewhat confident they can get health care when they need it, compared to 65.0 percent of enrollees while they are uninsured (figure 9).

Many of those enrolled for a year do experience difficulties getting needed care, although over half of enrollees (56.6 percent) say it is not at all or not very difficult to get care that they need. This compares to 23.9 percent of uninsured individuals. According to this measure, enrollment in ACE or ACE County doubled individuals' ability to get needed health care.

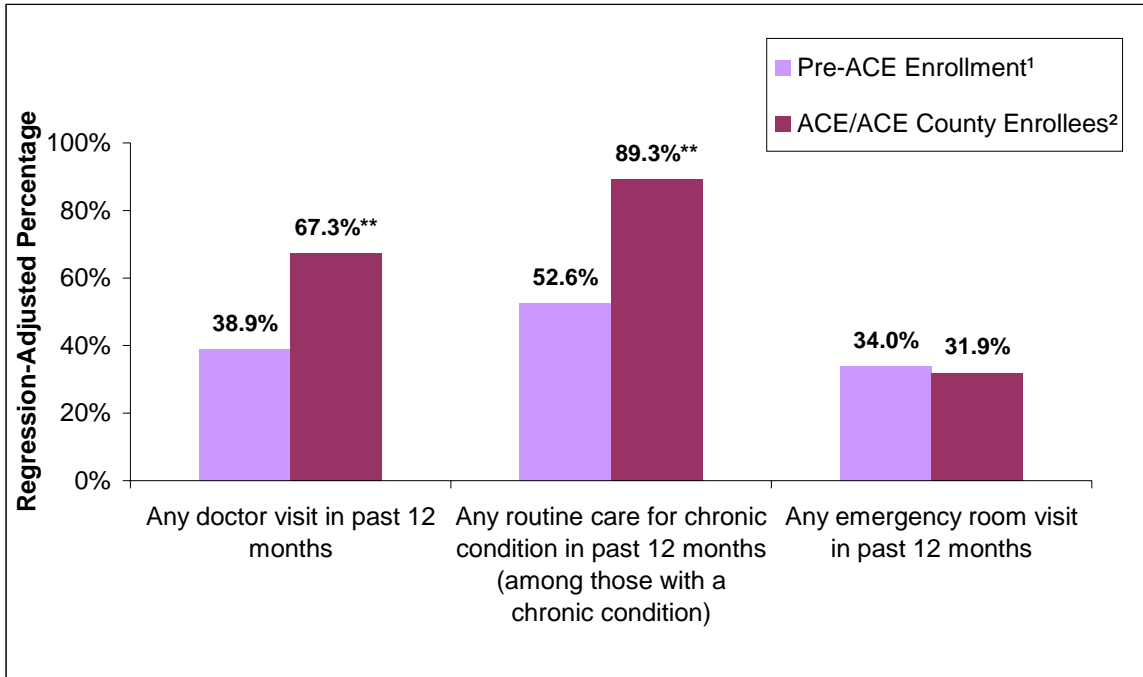
These positive results from the ACE program are in spite of the access problems reported earlier in the report. However, the need for improvements remains, since almost half still find it difficult to get needed care.

Compared to the group who are uninsured, enrollees in ACE and ACE County are 1.7 times more likely to have received care from a doctor in the past 12 months. Among those enrolled for a full year, 67.3 percent report a doctor visit in the past 12 months, compared to only 38.9 percent of new enrollees in the previous year while they were uninsured (figure 10).

The gains in treatment for chronic conditions are even more impressive. Nearly 90 percent of enrollees with at least one chronic condition say that they received routine care for their condition in the past 12 months, compared to 52.6 percent of the uninsured with chronic conditions (figure 10).

However, these gains in ambulatory care are not enough to cause a substantial decline in emergency room care. The rate of emergency room use over the past 12 months remains high for ACE/ACE County enrollees at 31.9 percent, only slightly below the proportion of uninsured individuals reporting an emergency room visit (34.0 percent; figure 10). These rates of ambulatory care and emergency room use are lower than those reported below using HPSM data.

Figure 10
Impact of ACE/ACE County Enrollment on Use of Services



**Significantly different from uninsured, $p < 0.01$, two-tailed test; the estimates are adjusted for differences in the demographic, health, and socioeconomic characteristics of the two groups.

- Notes: 1) Based on the experiences that uninsured ACE/ACE County applicants had prior to enrolling.
 2) Based on the experiences that ACE/ACE County re-enrollees had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County enrollees, 2009

There were geographic differences among enrollees in use of services. ACE/ACE County enrollees living in the mid-county region were less likely to have had a doctor visit in the past 12 months (55 percent of mid-county enrollees compared to 71–72 percent of enrollees in the other regions) or to have had routine care for their chronic condition (85 percent of mid-county enrollees compared to 88–94 percent of enrollees in the other regions—data not shown).¹⁵ This information is consistent with qualitative findings from the evaluation, particularly the finding

¹⁵ These results come from analysis that used only ACE/ACE County re-enrollees.

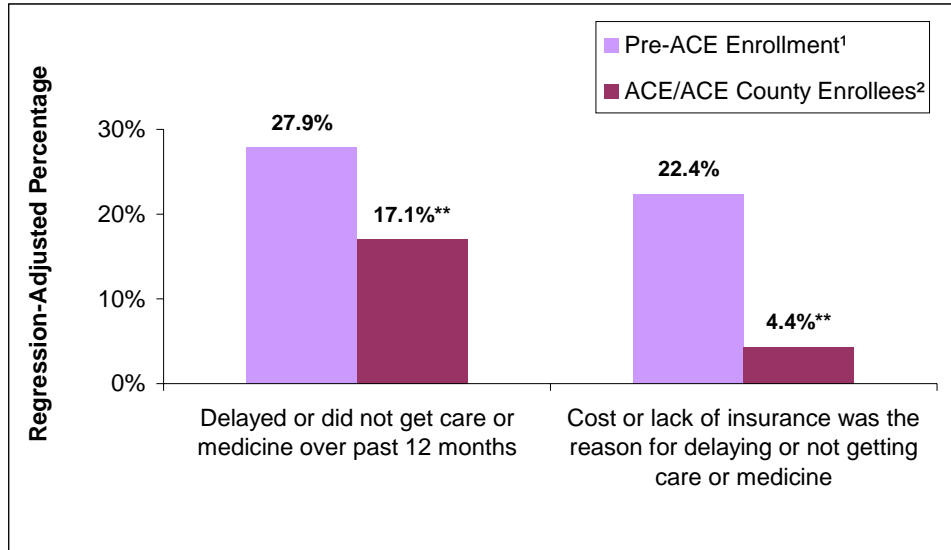
that the waiting list at the ICC (the only county clinic in the mid-county region) is two times that for any other county clinic

Consistent with the observed increases in access to care and use of services, enrollees in ACE and ACE County experience significant decreases in unmet need. In the 12 months prior to renewing coverage, 17.1 percent of enrollees report delaying or not getting needed medical care or prescription medicines. While this is still high, it is substantially below the 27.9 percent of the uninsured who report delaying or missing needed care (figure 11). Enrollment in ACE or ACE County also dramatically decreased enrollees' probability of having unmet need due to cost or lack of insurance. Only 4.4 percent of all enrollees report having unmet medical needs for this reason, compared to 22.4 percent of all uninsured individuals (figure 11).¹⁶

The improvements in access to care and use of services following enrollment in ACE and ACE County programs appear to pay off in terms of enrollees' level of functioning. Those enrolled for a year are significantly less likely to experience at least one day in the past month when their activities were limited, compared to those newly enrolling (13.0 percent compared to 19.1 percent, respectively—figure 12).

¹⁶ The evaluation question on cost as a reason for unmet need was added to the One-e-App later than the other questions. Therefore, results for this outcome reflect a smaller sample than was used for the rest of the analysis.

Figure 11
Impact of ACE/ACE County Enrollment on Unmet Health Needs



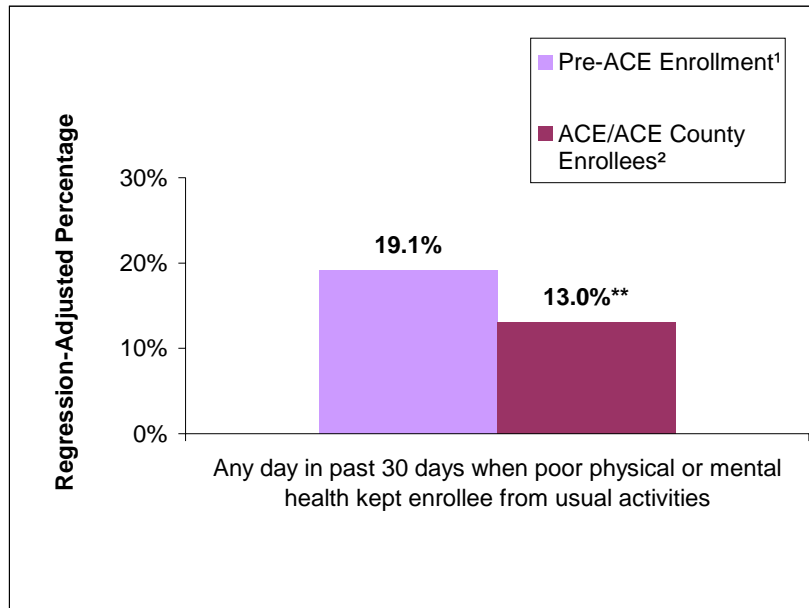
**Significantly different from uninsured, $p < 0.01$, two-tailed test; the estimates are adjusted for differences in the demographic, health, and socioeconomic characteristics of the two groups.

Notes: 1) Based on the experiences that uninsured ACE/ACE County applicants had prior to enrolling.

2) Based on the experiences that ACE/ACE County re-enrollees had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County Enrollees, 2009

Figure 12
Impact of ACE/ACE County Enrollment on Activity Limitation



**Significantly different from uninsured, $p < 0.01$, two-tailed test; the estimates are adjusted for differences in the demographic, health, and socioeconomic characteristics of the two groups.

Notes: 1) Based on the experiences that uninsured ACE/ACE County applicants had prior to enrolling.

2) Based on the experiences that ACE/ACE County re-enrollees had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County enrollees, 2009

Results from a survey conducted by the Kaiser Family Foundation of Healthy San Francisco enrollees provide a useful benchmark for these outcome measures, affirming the finding that a public coverage program targeted at low-income adults, many of whom are undocumented immigrants, can achieve high levels of access to care (Kaiser Family Foundation 2009).¹⁷ In that survey, 86 percent of enrollees had a usual source of care, compared to 91.2 percent of enrollees in our analysis of ACE/ACE County. The Kaiser Family Foundation survey also showed that 60 percent of Healthy San Francisco enrollees had a regular doctor or nurse at their usual place of care, compared to 74.7 percent of ACE/ACE County enrollees in our analysis. While ACE/ACE County enrollees were more likely to report having a usual source of care and to have a regular doctor relative to Healthy San Francisco enrollees, ACE enrollees were less likely to report a doctor visit in the prior year.

In San Francisco, 88 percent of enrollees reported at least one doctor visit in the past year, compared to 67.3 percent of San Mateo County's ACE/ACE County enrollees. Methodological differences in the survey may explain some of these differences between the counties.

Like the ACE/ACE County enrollees, Healthy San Francisco enrollees' increased access to care did not keep them from using the emergency room. In the Kaiser Family Foundation survey, 29 percent of participants had an emergency room visit in the past year.

Use and Cost of ACE Services in the First Year of Enrollment. As additional measures of access to care, we obtained data from the Health Plan of San Mateo for those who enrolled in ACE during the first year of the program and who remained continuously enrolled for the year following enrollment. This group enrolled during the period September 2007 through August

¹⁷ The Kaiser Family Foundation survey examined individuals who had been enrolled for at least four months (including those who had been enrolled for over a year). Their sample is not fully comparable to our sample of ACE/ACE County enrollees (who had been enrolled in ACE or ACE County for 12 months before responding to the survey).

2008. In this first year of the program, all ACE enrollees were eligible for the federal waiver and thus were citizens or legal residents. The group differs from One-e-App survey enrollees who enrolled about a year later and included both ACE and ACE County enrollees. Demographically they were very similar to the ACE enrollees (in contrast to ACE County enrollees) shown earlier in figure 7.

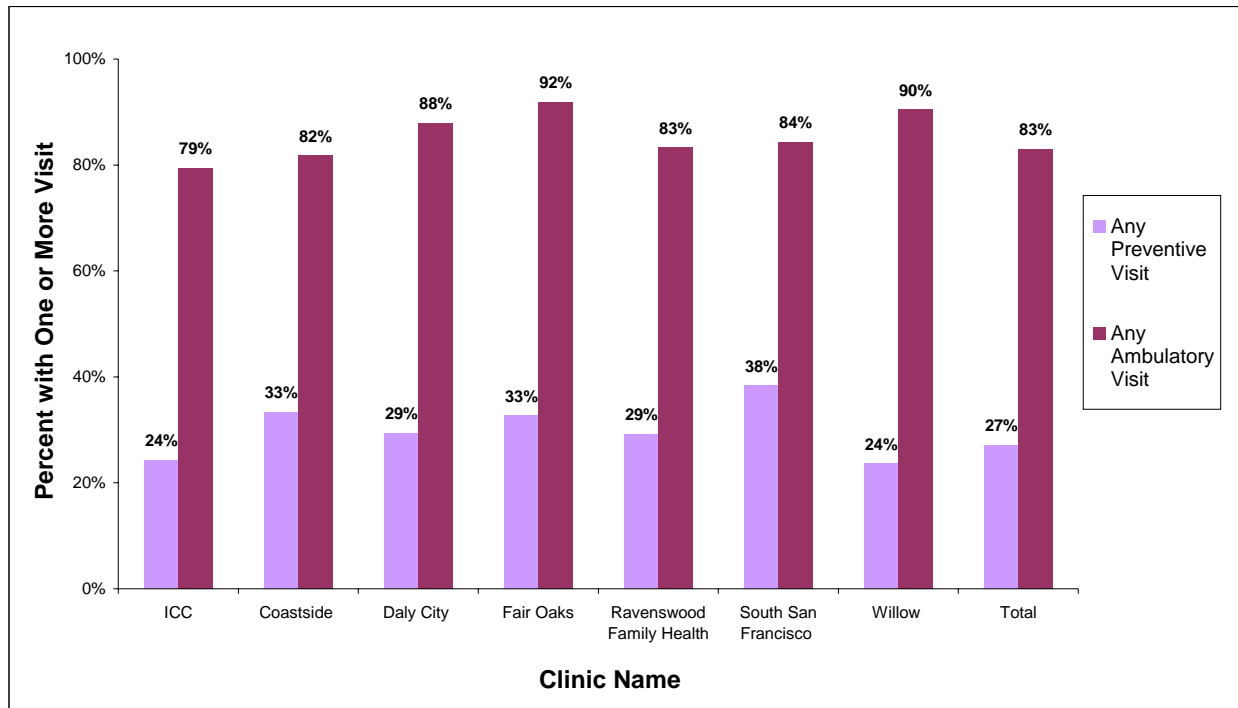
Each ACE enrollee must select a clinic as a primary care provider (PCP). Table 2 shows the PCPs for this initial group of ACE enrollees. Only about 18 percent of all primary care visits within the SMMC primary care system are to the ICC (see table 1)—these are visits for all payor sources, not just ACE. However, data from HPSM show that, during the same time period, a majority of ACE enrollees (52.7 percent) selected the ICC as their ACE primary care provider. There are several possible reasons for this disparity. It is possible that the CHAs on the main campus were more active in enrolling individuals into ACE during this early phase. It also could be that the main campus primary care site is selected more often by individuals who use other services at the main campus, such as the emergency room, inpatient care, and specialty clinic care. In any case, it is not surprising that the ICC was experiencing particularly severe access issues during this period when they were implementing many new systems reform initiatives, and while they were beginning to serve many new ACE enrollees.

Table 2
Primary Care Providers Assigned to Persons
Enrolled in ACE Between September, 2007- August, 2008

Primary Care Provider	N	Percent
Coastside	66	1.6
Daly City	671	16.4
Fair Oaks	367	9.0
Innovative Care Clinic	2,157	52.7
Ravenswood	120	2.9
South San Francisco	326	8.0
Willow	262	6.4
Unassigned	123	3.0
Total	4,092	100.0

Figure 13 shows the percent of this early ACE cohort who had any ambulatory and preventive care visits during their first year of enrollment. While access to appointments was difficult during this period, over 80 percent of enrollees had at least one ambulatory care visit. This varied from about 80 percent at the ICC to over 90 percent at Fair Oaks. This rate of ambulatory care visits is closer to the rate of visits reported in the Kaiser Healthy San Francisco survey, and substantially higher than reported in the San Mateo County One-e-App survey.

Figure 13
Preventive and Ambulatory Visits by Clinic PCP, ACE Enrollees
September 2007 - August 2008



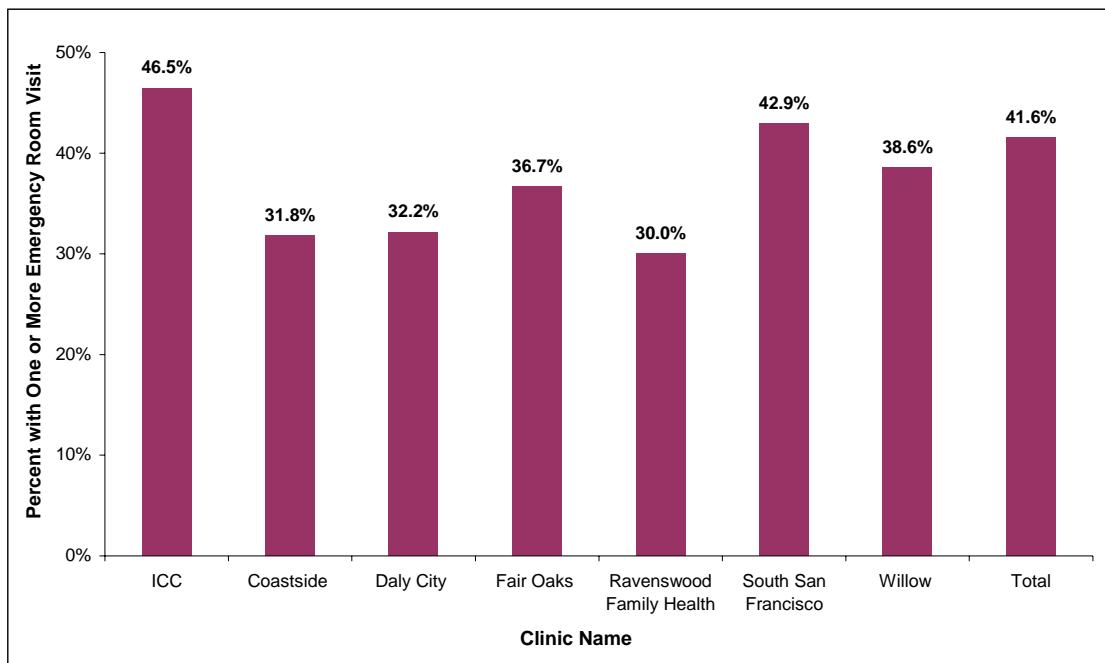
Note: Includes all services in the year following enrollment for those enrolling in Sept. 2007 - Aug. 2008
 Source: Health Plan of San Mateo

It is possible that poor recall of visits by survey respondents (especially those visits that occurred many months before) may have led to underreporting of such visits in the One-e-App Survey. In any case, these recall issues would apply equally to new enrollees and those renewing coverage.

Use of preventive care (for example, check-ups) was low, however (figure 13).¹⁸ Less than 40 percent have a preventive care visit during their first year of enrollment, regardless of the PCP. While not all adults need a preventive visit each year, during the first year of enrollment in a new health plan or to a new primary care provider, such a visit is necessary to assess patient needs. The limited use of preventive care is consistent with the qualitative findings that access to preventive care is very limited.

Figure 14 shows that a large portion, just over 40 percent, of ACE enrollees have at least one emergency room visit in the year following enrollment, even higher than the rate reported in the One-e-App survey. This also is over twice the rate for uninsured adults ages 18–64 years of age nationally, 18.9 percent in 2006 (U.S. Department of Health and Human Services 2009).

Figure 14
Use of Emergency Room Care by Clinic PCP, ACE Enrollees
September 2007 - August 2008

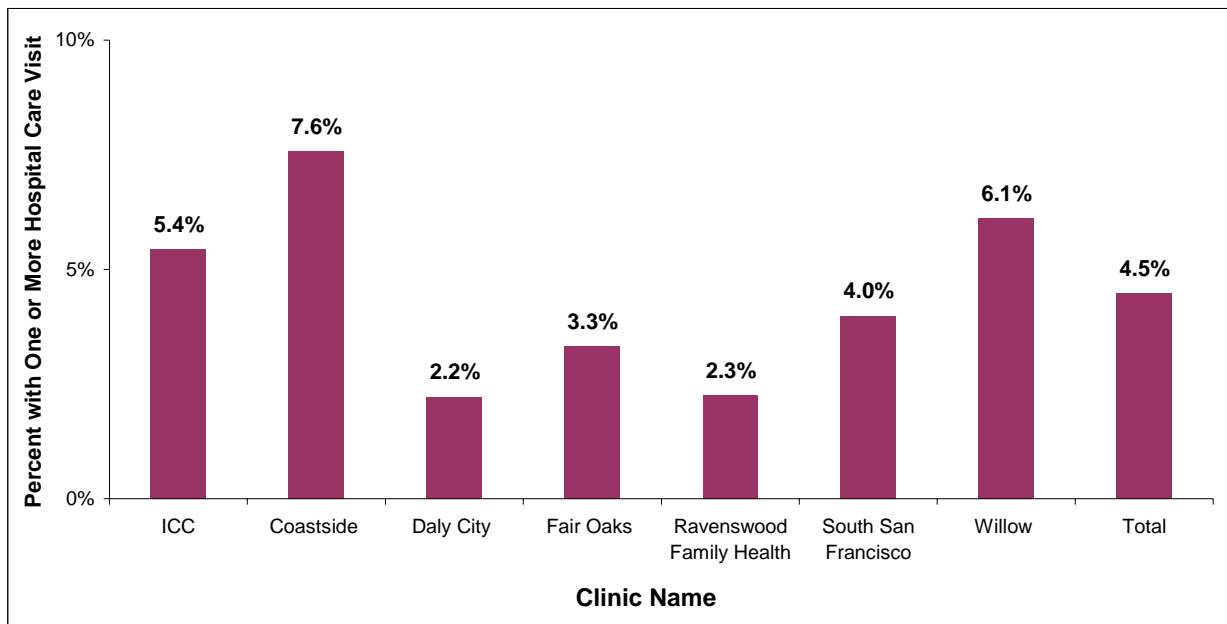


Note: Includes all services in the year following enrollment for those enrolling in Sept. 2007 - Aug. 2008
 Source: Health Plan of San Mateo

¹⁸ Our measure of preventive care uses codes for preventive services to identify a preventive care visit. It is likely that many chronically ill patients receive preventive care services (for example, advice and counseling on nutrition and smoking) that are not coded separately on encounter records. Thus, our measure of preventive care underreports preventive care services.

In contrast, use of hospital services is low for this group, with less than 5 percent of enrollees having a hospitalization at the SMMC in the year (figure 15). This rate varies substantially across PCPs, from 2.2 percent for Daly City clinic patients to 7.6 percent for Coastside clinic patients. In addition, the hospitalization rate excludes use of hospitals other than the SMMC, since such stays are not covered by ACE.

Figure 15
Use of Hospital Care by Clinic PCP, ACE Enrollees
September 2007 - August 2008



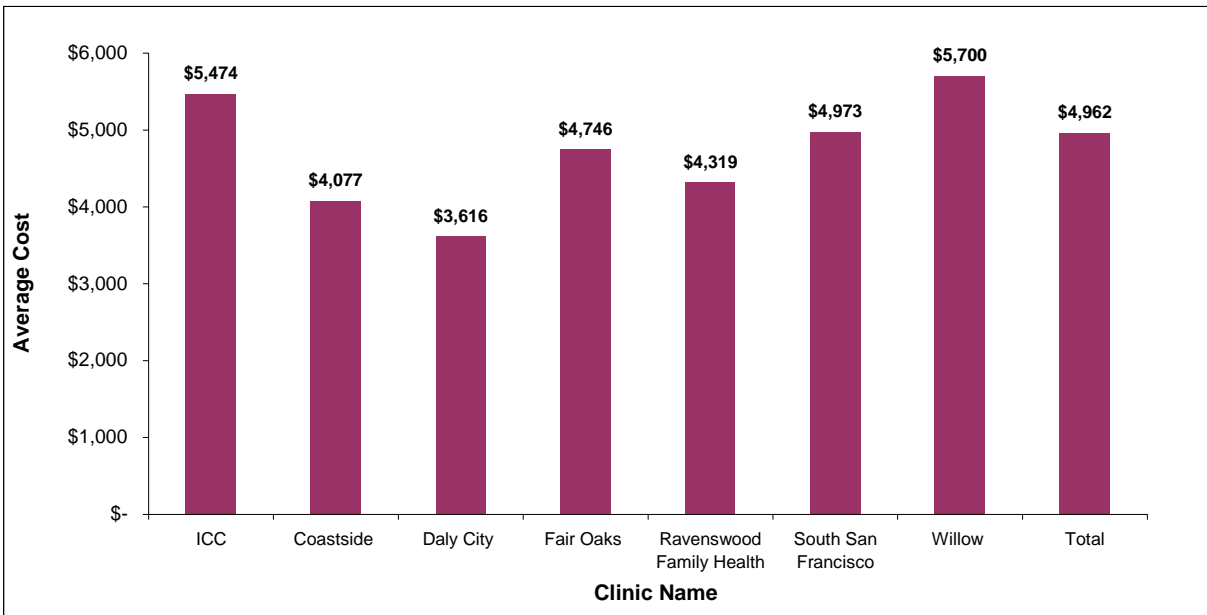
Note: Includes all services in the year following enrollment for those enrolling in Sept. 2007 - Aug. 2008
 Source: Health Plan of San Mateo

The cost of services for ACE enrollees is difficult to measure, because several types of services that these enrollees receive are excluded from the claims/encounter records received by the HPSM. These exclusions are: hospital inpatient and emergency room services outside the SMMC; mental health services; and pharmacy services. The first two types of services (services in hospitals other than SMMC and mental health services) are not covered under ACE. Most

pharmacy services (for 340b pharmacies) are billed under a separate mechanism; those claims do not flow through the HPSM.

With these limitations in mind, we see (figure 16) that the average charges per person (using only the claims reported to the HPSM, and excluding the costs outlined above) was approximately \$5,000 per person for the year (or about \$415 per member per month). While these charges are close to that reported for the average person in the United States—\$5,711 in 2007 (Kaiser Family Foundation 2007)—given that it excludes substantial hospital, mental health, and pharmacy cost it is clear that the individuals covered under the first year of the ACE program are a relatively high resource using population. It should be noted that the distribution of charges per person per clinic PCP does not adjust for differences in underlying illness burden among the patients.

Figure 16
Average Annual Total Charges per Person by Clinic PCP, ACE Enrollees
September 2007 - August 2008



Note: Includes all services in the year following enrollment for those enrolling in Sept. 2007 - Aug. 2008
Source: Health Plan of San Mateo

Table 3 shows how these charges are distributed across types of services. A majority (51.5 percent) are for the care provided during clinic visits. The other two large cost components are hospital services (21.1 percent) and emergency room visits (18.2 percent).

Table 3
Average Annual ACE Charges per Person by Type of Service
Persons Enrolled in September, 2007- August, 2008

Type of Service	Average Annual Cost per Person	
	Amount	Percent
Clinic Visits	\$2,556	51.5
Emergency Room Visits	\$903	18.2
Hospital Services	\$1,046	21.1
Prescriptions	\$246	5.0
Laboratory and Radiology	\$95	1.9
Other	\$116	2.3
Total	\$4,962	100.0%

Notes: 1) Includes services in the year following enrollment for those enrolling between September 2007-August 2008
2) Excludes charges for non-SMMC hospitals, mental health services, and for 304b pharmacy services.
Source: Health Plan of San Mateo

Quality of Care for ACE Enrollees with Diabetes. To measure quality of care for diabetes patients, the Health Plan of San Mateo collects selected HEDIS measures for ACE enrollees using an NCQA certified vendor. The results for 2008, shown in table 4, are impressive and provide another indication that most ACE patients who are able to access care are receiving excellent care. The table shows that HEDIS[®] results for the ACE population meet or exceed the performance standard in most measured aspect of diabetes care management, including:

- HbA1c testing;
- LDL-C screening;
- LDL-C control (<100);
- Diabetic nephropathy monitoring.

These HEDIS results provide yet another indication that, once enrolled and receiving care at a PCP, ACE patients receive high quality care from their providers.

Table 4
ACE HEDIS® 2008 Report Card

Measure¹	HPSM ACE Score	Benchmark²
Hemoglobin A1c (HbA1c) tested	90.9	88.8
HbA1c uncontrolled (>9.0%) (a lower score indicates better performance)	34.4	≤32.4
HbA1c controlled (<8.0%)	53.5	NE
Eye exam (retinal) performed	62.6	67.6
LDL-C screened	86.0	81.8
LDL-C controlled (<100 mg/dL)	49.2	42.6
Nephropathy monitored	85.4	85.4
Blood pressure controlled (<130/80 mm Hg)	46.5	NE
Blood pressure controlled (<140/90 mm Hg)	66.3	NE

¹ Measures the percentage of members ages 18–75 with diabetes (type 1 and type 2) who met each of the listed criteria.

² The benchmarks are the Medi-Cal high performance levels. NE indicates measures where the high performance level is not established.

Source: Health Plan of San Mateo

Conclusions

This report presents a wide range of findings from the second year of the evaluation of the San Mateo County Systems Redesign and Adult Coverage Initiative. The findings build on those in the first annual report, and confirm that county partners are actively implementing the two components of the initiative (systems redesign and coverage expansion), despite the difficult economic climate and the consequent growing demand for services.

The major systems redesign implementation success during 2009 was the implementation of an Electronic Medical Record (EMR) in all six of the SMMC adult primary care clinics. This is a key component of systems redesign, and should—over time—provide more accurate data to facilitate implementing other components such as advanced access. Implementation of the EMR is currently under way for the SMMC specialty clinics as well. Unfortunately Ravenswood clinic could not implement its EMR, due to resource constraints. This, however, does provide the possible opportunity to implement the same software (eClinicalWorks) at Ravenswood as has been adopted by the SMMC clinics and/or plan for a system that can interface with the SMMC system.

The resource demands of the EMR implementation—combined with increased clinic demand associated with growing enrollment in ACE and ACE County—slowed the implementation of other systems redesign components, such as advanced access. Only the ICC—using funds from the federal waiver—was able to increase staff and modify their space in order to serve additional patients. Other clinics—most of which have adopted some systems redesign components in previous years—did not take on new systems redesign activities other than EMR implementation in 2009.

The ACE and ACE County programs continued to expand enrollment throughout 2009. Enrollment doubled in these two programs combined over the period 2008–2009, a period during which the capacity of the delivery system serving this new caseload did not change substantially.

In spite of these severe capacity constraints, the data from this year's evaluation show strong positive effects of the initiative. These include the following:

- Greatly increased access to care after formal enrollment in the ACE/ACE County program, and when compared to the time clients are uninsured.
- Relatively high use of services when enrolled, in spite of severe difficulties for some individuals (particularly new patients) in getting appointments.
- High satisfaction with the care provided in the safety net system once a patient is seen by their provider.
- Good quality of care, as shown by both key informant and patient impressions, as well as good diabetes care outcomes.

While this picture is very positive, there are several less positive findings that deserve consideration as the county moves forward with the initiative. The most prominent of these is the access problem created by the capacity constraint in the county system. All sources of information—both qualitative and quantitative—point to the potential problems created by this capacity constraint. We were told that it is impossible to get timely appointments in any of the county clinics, and we observed that patients defer needed preventive and primary care for this reason. In addition, the costs of this are high, since emergency room use is very high, and clients told us that they usually go to the emergency room when they cannot get appointments for urgent conditions. The implementation of an urgent care clinic will, hopefully, ease some of the overuse of the emergency room in the coming year.

San Mateo County, like all California counties, is facing significant budget shortfalls due to declining revenues from the state government as well as declining local tax income. This

situation has made the critical goal of improving the financial viability of the SMMC system especially challenging.

Other problems that emerged from this year's evaluation include the following issues:

- While clients are generally very satisfied overall, they are substantially less satisfied with some clerical staff in the clinics, suggesting some need for improvement in patient relationship skills.
- While our measure of preventive care is imperfect and underreports preventive care, it appears that the use of preventive care is lower than desirable. In their full year following initial enrollment, only about 1/5 of enrollees have a preventive visit. While not all adults should be seen for preventive care each year, all should be seen for a screening visit when enrolled for the first time.
- Unmet health need among ACE/ACE County enrollees, though lower than that reported while uninsured, remains high at 17 percent, with most of the unmet need due to issues that are not related to cost (likely reflecting access barriers).
- The cost of care is high and enrollment is growing. These factors, combined with the lack of near-term federal/state financing, means that the county's goal of improved financial sustainability remains a still-distant hope.

These findings underscore the ongoing challenges of providing health care to a chronically ill and underserved population, under severe financial and capacity constraints.

When comparing our findings to the goals set out by the BRTF, we see the following results:

1. Increase access to care for low income adults: **Substantial progress, but capacity constraints limit success.**
2. Improve the financial viability of the SMMC system: **Substantial progress, because of the federal waiver, but gains are offset by increased demand for services and a lack of federal funding in 2010.**
3. Leverage all partners (public and private) to provide care to the uninsured and underinsured: **Some progress. Private providers are beginning to increase care to the uninsured and underinsured, but there is a continued need for increased capacity.**
4. Implement seamless coordination of care across providers: **Substantial progress through the implementation of the EMR.**

5. Improve the ease of use of the safety net: **Substantial progress, particularly through use of HPSM management strategies, but difficulties obtaining appointments continue.**
6. Expand coverage to all adults by maximizing coverage under existing public programs including Medi-Cal and ACE: **Substantial progress with doubling of enrollment in coverage programs in two years.**

Thus the county has made substantial progress, but further progress will hinge on increasing the capacity to provide timely preventive and primary care (either by expanding provider capacity through increasing the number of provider sites (public or private), by increasing the staff and space at existing clinics, or by increasing the efficiency of clinics). In addition, the county must sustain the already-successful efforts to continue implementing all the components of systems redesign across all county clinics. In particular, it will be critical to improve the process of scheduling appointments and to lower wait times for appointments.

In summary, despite growing demands on the system and corresponding budget shortfalls, the county has made important strides in increasing access to care for low income adults and providing high quality care to those enrolled in county coverage programs. The redesign process continues to focus increased attention on the patient experience, a concept that is central to the medical home model. The culture of accountability that is encouraged by data gathering and self-examination has prepared San Mateo's clinics to become true "Primary Care Providers" or "medical homes." By taking on this process and sustaining it through difficult financial times, the county provides a model for other local communities that wish to better serve low income, uninsured residents.

The evaluation findings demonstrate clearly that patients who are being seen by the San Mateo County safety net clinics are receiving high quality care with which they are

overwhelmingly satisfied. While access remains a challenge, those who are able to receive consistent care are clearly benefitting from the coverage initiative and redesign efforts.

San Mateo County's experiences with systems redesign and expanded coverage have important implications for health reform and expanded coverage for uninsured adults nationally.

The most prominent lessons are the following:

- Providing coverage does not assure access to care. Expanded enrollment requires expanded services. A lack of such expansion will lead to lower-than-optimal use of preventive/primary care and high emergency room use.
- Expanded coverage should be combined with a strengthened and redesigned health care safety net for primary and specialty care. Such changes can lead to high quality care within a safety net system.
- New adult enrollees who were previously uninsured are likely to have high health care needs and be costly to serve.
- A strong commitment from all levels of the health care system is needed to redesign the safety net system and improve care for the low income uninsured adults.

We look forward to documenting the county's continued progress and the effects of the initiative in our evaluation during the coming year. In particular, it will be critical to observe whether the capacity constraints are relieved by economic improvements in the county and improved efficiency from systems redesign efforts, or whether more innovations are needed to fully address the BRTF goals.

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APPENDICES

APPENDIX A

EVALUATION QUESTIONS AND DATA SOURCES

	Case Study	Main Campus/ICC Data	Cross-Clinic Data	HPSM Encounter Data	One-e-App Data
Research Questions					
What is being done under the systems redesign? What changes have been made to the enrollment and service delivery system for low income adults?	P				
Who is served by the systems redesign? How has the composition of enrollees changed over time?		P		P	S
What services do clients receive? What are the trends over time?	S	P		P	S
What is the quality of care in redesigned clinics?	S	P	P		
Are clients satisfied with the redesigned program and its services?	S		P		
Are providers and other key stakeholders satisfied with the systems redesign?	P				
What is the impact of the systems redesign on access to care and use of medical services?	S	P	S	S	P
Does the system redesign have an impact on the health status of clients?		P			P

APPENDIX B

LIST OF THOSE INTERVIEWED DURING SITE VISIT OF AUGUST, 2009

Name of Interviewee		Title	Organization
Maya	Altman	Executive Director	HPSM
Jeanette	Aviles	Medical Director & Primary Care Medical Director	SMMC, Fair Oaks Clinic
Faz	Bashi	Management Analyst	SMMC
Luisa	Buada	Chief Executive Officer	Ravenswood Family Health Center
Laurie	Bauer	Compliance, Quality and Risk Mgmt Officer	Ravenswood Family Health Center
Toni	Butler	Clinic Manager	SMMC, Willow Clinic
Jaime	Chavarria	Associate Medical Director	Ravenswood Family Health Center
Rosemary	Chavez	CHA	SMMC, Fair Oaks Clinic
Martha	Dorn	Medical Director	SMMC, Willow Clinic
Susan	Ehrlich	CEO	SMMC
Rob	Fleming	Clinic Manager	SMMC, Innovative Care Clinic
Linda	Franco	Deputy Director of Ambulatory Services	SMMC
Jean	Fraser	Chief	Health System
Mary	Giammona	Medical Director	HPSM
CJ	Kunnappilly	Chief Quality Officer & Acting Chief Medical Officer	SMMC
Jonathan	Lee	Medical Director	SMMC, Daly City Clinic
Cathy	Lemkuhl	Clinic Manager	SMMC, Daly City Clinic
Claudia	Lopez	Patient Access Manager	SMMC
Jonathan	Mesinger	Clinic Manager	SMMC, Fair Oaks Clinic
Cindy	Moon	Project Manager	HPSM
Isabel	Perez	CHA	SMMC, Willow Clinic
Sosefina	Pita	Supervisor	Children's Health Initiative
Audrey	Ramberg	Consultant	County Manager's Office
Ron	Robinson	Director of Finance and Admin.	HPSM
Vicky	Shih	Senior Health Statistician	HPSM
Jagruti	Shukla	Medical Director	SMMC, Innovative Care Clinic
Srija	Srinivasan	Special Assistant to the County Manager	Health System
Yvonne	Sylden	Clinic Manager	Medical and Surgical Specialty Clinics

APPENDIX C

DESCRIPTION OF EVALUATION DATA SOURCES

Case Study

Focus Groups. The first round of focus groups, held in September 2009, recruited ACE enrollees from the Innovative Care Clinic, the Daly City Clinic, the Ravenswood Family Health Center and the Fair Oaks Clinic. Potential participant names were selected at random by the Health Plan of San Mateo using the following criteria: ACE enrollment, language preference, and primary care provider (clinic). CHAs conducted initial recruitment phone calls, and 12–15 willing participants per clinic were contacted by our subcontractor, JBS International (formerly Aguirre International), to confirm interest and provide additional details about time and location of focus groups. Participants were paid a \$50 honorarium as well as childcare and transportation stipends. A light meal was served during the group, and a self-administered questionnaire was distributed at the end of the group to collect demographic information from participants. Group attendance ranged from 6 to 11 participants.

Focus groups with participants from the Fair Oaks Clinic and the Ravenswood Family Health Center were conducted in Spanish, and groups from the Innovative Care Clinic and Daly City Clinic were conducted in English. All groups were mixed gender, though women were overrepresented in three out of four groups. Verbal consent was requested at the start of each group, and participants were given permission to leave if they were not comfortable. They would be paid the honorarium regardless of whether or not they chose to stay; no participants chose to leave.

Interviews and Clinic Observations. The second year case study, including 28 key informant interviews and 3 clinic observations, was conducted in late July 2009. Key informants included San Mateo County and Ravenswood clinic managers, medical directors, and CHAs, as well as HPSM staff and SMMC leadership. A one hour appointment with interviewees was scheduled in advance of our visit. One or two members of the evaluation team were present for each interview. Verbal consent was requested, and hand written notes were taken during the interview.

Two interview protocols were developed: one for clinic staff and one for other key informants. Protocols were tailored slightly to be relevant to each specific discussion. All protocols were shared with SMMC staff in advance of our trip for feedback, and were approved by the Urban Institute IRB.

Clinic observations also followed a standardized protocol that the evaluation team developed, and sought to characterize the clinic waiting room based on the environment, the crowd, and the courtesy of staff. We followed patients as best we could, noting the times they entered the waiting room, and when they were called back to be seen. We observed the waiting room at the ICC this year as well as last year since it is the site of the most intensive intervention. We also observed the waiting rooms at the Fair Oaks and Willow Clinics, which we were not able to observe during the 2008 site visit.

Main Campus/ICC Clinic Data

One component of the evaluation uses a pre-post framework to examine changes in selected outcomes from clinic redesign activities for patients served at the Main Campus Innovative Care Clinic (ICC). As documented in the body of the report, redesign initiatives at the ICC during 2008 and 2009 included hiring additional staff, implementing the electronic medical record, and dividing new and existing staff into three patient teams with each patient assigned to one team. The ICC also implemented and expanded their diabetes management initiatives, including collecting and tracking clinical measures, patient education in group classes, and enhanced screening for diabetic eye disease.

In order to evaluate the effectiveness of this redesign, we will compare two cohorts of individuals: a group of individuals newly enrolled in county coverage programs between April and September 2006, before most redesign activities, and a second group newly enrolled between April and September 2009, after the clinic redesign was well under way. We will compare outcomes using one year of claims/encounter data following enrollment in WELL or ACE, for both cohorts, in order to determine whether there are differences in characteristics (including diagnoses), utilization, continuity of care, and charges between the two cohorts. We will also conduct subgroup analyses, to determine whether some groups are more affected by the redesign than others, particularly patients with diabetes.

In order to conduct these analyses, a file documenting the experience of the baseline cohort has been constructed. The file draws on two separate data bases: the One-e-App on-line enrollment system, which was used to identify the cohort according to when they enrolled in the WELL program between April and September 2006. This data source also provided demographic and income information obtained at enrollment. There were 3415 individuals who were enrolled in WELL during this time period. These individuals were matched to one year of post-enrollment encounter data from the county's Invision system, which tracks encounters for the SMMC clinics, emergency room, and inpatient hospital. The data from these two data sources were matched according to the following hierarchy: first level, exact match on Social Security number (N=1091); second level, match on first name, last name, DOB, and gender using the Oracle Soundex function which allows for typos and some misspellings (N=1945). This is 88.9 percent of the individuals identified in the One-e-App system.

An analysis file was constructed of data for 646 individuals who were newly enrolled in WELL during the study period and who were seen in the Main Campus/ ICC primary care clinic at least one time during their first year of enrollment; patients who were only seen in the Main Campus specialty clinics, emergency room, or inpatient facility were excluded. Variables contained in the analysis file are shown in appendix table 1.

Table 1
Variables Contained in the 2006 Clinic Analysis File

Continuity of Care Variables	
<i>Variable Description</i>	<i>Variable Name</i>
Frequency of visits to most frequently seen primary care provider to frequency of all primary care visits	ContCare_ratio
Number of primary care providers seen	No_AttendingProviders
Number of primary care clinics visited	No_Clinics

Demographics	
<i>Variable Description</i>	<i>Variable Name</i>
Scrambled Patient Identifier	Patient_Identifier
Age Group	Age_Group
Age	age
Race/ ethnicity	Race_Ethnicity
Primary Language	language
Gender	Sex
Zip Code	Zip
Total Assets for everyone on application	app_assets
Total Income for everyone on application	sum_of_app_gross_income
Number of adults on application	app_adult_members
Number of children on application	app_child_members
Citizenship/ legal status	legal_status
Date of enrollment	Ins_eff_dt1

Place of Service Variables	
<i>Variable Description</i>	<i>Variable Name</i>
Number of primary care visits- ICC	MC_Primary
Number of primary care preventive visits- ICC	MC_Primary_Preventive
Total primary care charges- MC clinic	MainCampus_PCcharges
Number of primary care visits- Coastside clinic	Coastside_Primary
Number of primary care preventive visits- Coastside clinic	Coastside_Primary_Preventive
Total primary care charges- Coastside clinic	Coastside_charges
Number of primary care visits- Daly city clinic	DalyCity_Primary
Number of primary care preventive visits- Daly city clinic	DalyCity_Primary_Preventive
Total primary care charges- Daly city clinic	DalyCity_Primarycharges
Number of primary care visits- Fair Oaks clinic	FairOaks_Primary
Number of primary care preventive visits- Fair Oaks clinic	FairOaks_Primary_Preventive
Total primary care charges- Fair Oaks clinic	FairOaks_Primarycharges
Number of primary care visits- SSF clinic	SSF_Primary
Number of primary care preventive visits- SSF clinic	SSF_Primary_Preventive
Total primary care charges- SSF clinic	SSF_primarycharges
Number of primary care visits- Willow clinic	Willow_Primary
Total primary care charges- Willow clinic	Willow_Primarycharges
Number of primary care visits- Other facility	Other_Primary
Number of primary care preventive visits- Other facility	Other_Primary_Preventive
Total primary care charges- Other facility	Other_Primarycharges
Number of inpatient stays- SMMC	MainCampus_inpatientcharges
Total inpatient charges- SMMC	Inpatient
Number of specialty visits- ICC clinic	MC_Specialty
Total specialty charges- MC clinic	MainCampus_specialtycharges
Number of specialty visits- other clinics	Other_Specialty
Total specialty charges- other clinics	Other_Specialtycharges
Total visits with laboratory claim	Laboratory
Total visits with laboratory claim (preventive)	Laboratory_Preventive
Total charges for laboratory claims	Laboratory_charges
Total ER visits	Emergency
Total ER charges	Emergency_charges
Total visits with a Radiology claim	Radiology
Total visits with a Radiology claim (preventive)	Radiology_Preventive
Total Radiology charges	Radiology_charges
Total other visits	Other_Service
Total other charges	Other_charges

Primary Diagnosis Variables	
<i>Variable Description</i>	<i>Variable Name</i>
Total charges for care related to intestinal infectious disease	IntestinalInfecDisease_charges
Total charges for care related to tuberculosis	Tuberculosis_charges
Total charges for care related to other infectious or parasitic disease	OtherInfectiousDisease_charges
Total charges for care related to cancer/ neoplasms	Cancer_charges
Total charges for care related to diabetes	Diabetes_charges
Total charges for care related to gout	GoutandOther_charges
Total charges for care related to lipid disorders	LipidDisorder_charges
Total charges for care related to other endocrine/ nutritional/ metabolic immune disorders	OtherEndocrine_charges
Total charges for care related to diseases of the blood	Blooddisease_charges
Total charges for care related to mental illness	MentallIllness_charges
Total charges for care related to substance abuse	SubstanceAbuse_charges
Total charges for care related to the nervous system	OtherDiseaseNervousSys_charges
Total charges for care related to diseases of the eye	Eyedisease_charges
Total charges for care related to the sensory organs	SensoryOrganDisease_charges
Total charges for care related to hypertension	Hypertension_charges
Total charges for care related to other diseases of the circulatory system	OtherCirculatory_charges
Total charges for care related to pneumonia	Pneumonia_charges
Total charges for care related to acute bronchitis	Bronchitis_charges
Total charges for care related to asthma	Asthma_charges
Total charges for care related to other respiratory disorders	Otherrespiratory_charges
Total charges for care related to mouth/ tooth disorders	MouthTooth_charges
Total charges for care related to gastritis and other stomach disorders	gastritisstom_charges
Total charges for care related to disease of the pancreas	PancreaseDisease_charges
Total charges for care related to other digestive disorders	OtherDigestivedis_charges
Total charges for care related to urinary tract infections	UrinaryTract_charges
Total charges for care related to other diseases of the genitourinary system	Genitourinary_charges
Total charges for care related to pregnancy	Pregnancy_charges
Total charges for care related to cellulitis	Cellulitis_charges
Total charges for care related to other skin disorders	Otherskin_charges
Total charges for care related to arthritis	Arthritis_charges
Total charges for care related to musculoskeletal disorders	Musculoskeletal_charges
Total charges for care related to congenital abnormalities and perinatal conditions	CongenitalPerinatal_charges
Total charges for care related to symptoms/ ill-defined conditions	SymptomsIllDefined_charges
Total charges for care related to injury and poisoning	InjuryPoisoning_charges
Total charges for each person	Total_Charges

Tables 2–4 provide some descriptive data from an initial analysis of data for this baseline cohort. The final report for the evaluation will provide a multivariate analysis of changes in outcomes for the two cohorts.

Table 2
Demographic Profile of WELL Clinic Patients Ages 19-64 at the ICC
April-September, 2006

	N	Percent
Age		
19-24	50	7.7
25-29	60	9.3
30-34	48	7.4
35-39	56	8.7
40-44	62	9.6
45-49	105	16.3
50-54	95	14.7
55-59	97	15.0
60-64	73	11.3
Race/Ethnicity		
Hispanic	358	55.4
White	112	17.3
Asian/Pacific Islander/Hawaiian	98	15.2
Black or African-American	20	3.1
Native American	11	1.7
Other	47	7.3
Primary Language		
English	331	51.2
Spanish	289	44.7
Other	26	4.0
Gender		
Female	376	58.2
Male	270	41.8
Citizenship		
Citizen	244	37.8
Legal resident	95	14.7
Undocumented	307	47.5
Income and Assets		
Average Monthly Income	480	\$1,188
Average Assets	413	\$584
Total Population	646	100.0%

Source: SMMC Clinic Data

Table 3
Number of Annual Visits to SMMC Primary Care Clinics
ICC Patients Enrolled in WELL in April - September, 2009

Type of Care	Number of Visits	Number of Average Visits per Person
Primary Care		
Main Campus ICC	2,177	3.37
Coastside	25	0.04
Daly City	25	0.04
Fair Oaks	17	0.03
South San Francisco	33	0.05
Willow	6	0.01
Other	3	0.00
Subtotal, Primary Care	2,286	3.54
Specialty Care		
Main Campus (Medical and Surgical Specialty)	1,995	3.09
Other Clinics	106	0.16
Subtotal, Specialty Care	2,101	3.25
Total	4,387	6.79

Source: SMMC Clinic Data System

Table 4
Average Annual Charges per Person by Type of Service
ICC Patients Enrolled in WELL in April - September, 2009

Type of Care	Average Charges per Person
Primary Care	
Main Campus ICC	\$768
Coastside	\$26
Daly City	\$6
Fair Oaks	\$4
South San Francisco	\$7
Willow	\$1
Other Primary Care	\$1
Specialty Care	
Main Campus (Medical and Surgical Specialty)	\$869
Other Specialty Care	\$18
Emergency Room	\$482
Inpatient	\$567
Laboratory	\$445
Radiology	\$600
Other	\$19
Total	\$3,811

Source: SMMC Clinic Data System

Aggregate Cross-Clinic Data

To track selected outcomes from Systems Redesign activities, we collected and analyzed data from San Mateo Medical Center clinics (SMMC) and the Ravenswood Family Health Center. We requested clinics to provide data they were already collecting on cycle times and patient satisfaction. We present data on cycle times and patient satisfaction trends starting in 2005 (for cycle times) and 2007 (for patient satisfaction).

“Cycle time” is defined uniformly across clinics as the time from when the patient registers to when the patient leaves the clinic. However, the methods the clinics use to collect this information vary. For example, for SMMC clinics, prior to July 2009, all cycle time data were manually tallied, usually by front desk staff; since that time all data are recorded through the new Electronic Medical Record system. Ravenswood collects cycle time data one week per month using a semi-automated method with time stamps at check-in and at each stage of the appointment.

Definitions of patient satisfaction are more variable. Most SMMC clinics use a brief uniform survey with four questions that a sample of patients is requested to complete before they leave a clinic. This patient satisfaction survey used by the majority of clinics focuses on the extent to which the patient found the physician, nursing, or clerical services individually courteous. The survey also asks for an overall rating of the clinic (excellent, good, OK, poor, or unacceptable). The Main Campus ICC implemented a new patient satisfaction survey in January 2009, which captures the same basic measures as the original survey, but is more extensive. The ICC’s courtesy measure solicits opinions about the staff overall and does not distinguish between types of staff. The ICC patient satisfaction survey is also given to established patients, unlike the other clinics, which distribute the surveys to both new and established patients. Varying methods are used for selecting patients to complete the surveys across clinics. In all cases, data are collected on a sample of patients. Some clinics are more selective in choosing the sample while others are more random. The staff who administers the survey to the patient also varies. Ravenswood uses a different patient satisfaction survey with somewhat different measures, but the questions are not radically different.

Health Plan of San Mateo Data

The Health Plan of San Mateo (HPSM) administers several health coverage programs, including ACE and, more recently, ACE County. As part of the administrative process, HPSM receives claims/encounter records for all ACE and ACE County enrollees. These records include patient demographics, diagnoses, procedure codes, and Primary Care Provider information.

For this report, HPSM staff produced aggregate tables summarizing utilization and charges for all individuals newly enrolled in ACE during the period September 2007 through August 2008, and who remained continuously enrolled for one full year. The data include all services covered by ACE during the full year following enrollment. The HPSM did not administer the ACE County (or WELL) program during this period, so the data in the report include only ACE enrollees, that is adults ages 19–64 who had documented immigration status.

ACE does not cover most emergency room visits or hospitalizations at hospitals other than the San Mateo Medical Center. Other excluded services include dental services and specialty mental health services. While pharmacy services are covered, most are administered through another mechanism and are excluded from the HPSM tabulations. Thus, the HPSM tabulations provide only a partial view of all health care for ACE enrollees.

In early 2011, HPSM will repeat the analysis for a new cohort of individuals enrolling in ACE during September 2008 through August 2009, as well as for ACE County enrollees who enrolled in January 2009 through August 2009. (HPSM began administering ACE County in January 2009). In addition, the HPSM will tabulate longitudinal use and cost data for ACE enrollees who remained enrolled for two years. These tabulations will allow for sub-group analyses of those with chronic conditions, in particular diabetes and hypertension.

One-e-App Data and Analysis

Data Collection. The One-e-App is an on-line application system used for applying for many public programs in San Mateo County, including WELL (now ACE County) and ACE. The core One-e-App instrument used to determine eligibility for a number of public programs includes approximately 50 questions on demographics, employment, income, and assets. This instrument, which is also used to determine eligibility for other programs such as Healthy Kids, Healthy Families, Medi-Cal, and the Discounted Health Care Program, is filled out by an application assistor employed by the county who reads the questions aloud to the applicant and enters his or her responses.

We added a number of questions to the One-e-App aimed at providing information about the health care access and use experiences of ACE and ACE County enrollees before and after they enrolled in the program. This information provides information on the impact of the two programs.

In selecting the questions and the question wording, we considered the time available (no more than 10 minutes of the application assistor's time at the end of the enrollment session). In addition, to include questions which had been validated and for which there would be comparison data, we chose questions from a number of national and local surveys including the following: the National Health Interview Survey, the Medical Expenditure Panel Survey, the Kaiser Low Income Survey, the Federally Mandated CHIP evaluation survey, the California Health Interview Survey, the San Mateo Health and Quality of Life Survey, and similar evaluation questions added to the One-e-App in Fresno and San Francisco. We also conducted a literature search of research on the effects of insurance coverage on the health care experiences of adults with chronic conditions to identify key access and use indicators for this study. The findings from this analysis were communicated to the County August 1, 2008 (Kenney and Klein 2008).

Appendix Exhibit 1 contains the questions that were included in the application for the evaluation. These final evaluation questions were programmed into the One-e-App by a key staff member from the county. The program was then checked by this staff member as well as a member of the evaluation team in order to ensure that the question wording and response choices were displayed correctly and that the additional questions were included in the intended applications (i.e., nonelderly adults applying to ACE or ACE County) and excluded from others.

The evaluation questionnaire was piloted by several application assistors in early 2009. Following this pilot, revisions were made based on the application assistors' feedback to make the questionnaire more user-friendly and easier to administer in the context of the One-e-App application process.

Training for the full group of application assistors was conducted in mid March by a member of the evaluation team as well as the key staff member who coordinated this component of the evaluation at the County level. The training was based on a training manual that was produced by the evaluation team and included instructions on how to ask and fill in each evaluation question, accompanied by screenshots (Manual for Completing Evaluation Questions in One-e-App 2009).

The additional evaluation questions were incorporated as part of One-e-App applications beginning on March 23, 2009. The questions were administered in English or Spanish to any adult who was present and applying to ACE or ACE County. In situations where two adults from the same family applied for coverage, but only one was present, only the present adult was asked to respond to the survey. For this reason, our survey under-represents enrollees in families where both adults are enrolled in coverage. Of nonelderly adults applying for coverage through ACE or ACE County from March 23 through September 30, 17.4 percent were not present at the time of application (appendix table 1). Based on the demographic information available through the core One-e-App questions, individuals who were not present were more likely to be male, Spanish-speaking, and undocumented compared to those who were present. They were also more likely to be married and to have children.

A set of revisions were incorporated into the evaluation questions in June 2009 in response to feedback received after the full group of application assistors began to administer the survey questions. Appendix Exhibit 1 contains the final questionnaire. Two questions from the original questionnaire were deleted (and those data were not analyzed), a question on cost as a reason for unmet need was added (Question 7), and the wording for Questions 2, 3, 6, and 8 questions was revised slightly. (The first questionnaire is available upon request.)

Among individuals who were present at the time of application, 89.3 percent responded to the evaluation questionnaire. Nonresponse among those who were present did not appear to be as much of a source of bias. However, nonrespondents were more likely to be Asian/Pacific Islander/Native Hawaiian, married, or applying in July, August, or September compared to respondents. Item nonresponse ranged from 1.05 percent (for the question on emergency room use) to 7.1 percent (for the question on chronic conditions).

Analysis. We analyzed data for nonelderly adults who met the following criteria:

- Submitted an application from March 23, 2009 through September 30, 2009 to ACE or ACE County and who were subsequently enrolled or reenrolled in either program
- Were present and responded to the evaluation questionnaire.

We further limited our analysis sample to individuals who could be identified as either initial enrollees who had previously been uninsured, or established enrollees who had been in ACE or ACE County for the previous 12 months. The estimated impact of

program enrollment was derived by comparing the experiences that enrollees had while they were covered under the program to the experiences that that enrollees had prior to enrolling. Our treatment group of established enrollees was defined as individuals who indicated that they been on ACE or ACE County for the 12 months prior to the interview for whom the enrollment information provided by the county also indicated that they had been enrolled previously. Our comparison group of initial enrollees was defined as individuals who said that they had been uninsured before enrolling in ACE or ACE County for whom the enrollment information provided by the county also indicated that they had not been enrolled in either program. We did not include information for individuals who could not be cleanly identified as initial or established enrollees (although we did sensitivity analysis with this group which is discussed below) and we used only the first survey for the small number (149) of individuals who completed more than one survey in the data.

Outcome variables came from the evaluation questionnaire, while most control variables came from the standard One-e-App questions. Appendix table 2 shows raw means for the control variables. There were significant differences between initial and renewal enrollees in many domains. Renewal enrollees were more likely to be Hispanic, non-English speaking, and undocumented than initial enrollees. Renewal enrollees were also in somewhat worse health than initial enrollees, and they were more likely to have one or more chronic conditions.

In order to control for these differences between the two groups, we ran a logistic regression model defined as follows:

$$\ln(P_i/1 - P_i) = b_1 + b_2\text{Renewal} + b_kX,$$

where P_i is equal to the probability that the outcome i equals 1; Renewal indicates that the individual is a renewal enrollee and X is a vector of control variables, defined for each of the categories seen in appendix table 2.

For each outcome variable, we used the estimates from this regression model to calculate regression-adjusted percentages. These regression-adjusted percentages are the outcomes that would exist if all enrollees had the demographic characteristics of renewal enrollees. We compared these regression-adjusted means to the unadjusted raw means for these outcome variables (appendix table 3). Emergency room use was the only outcome for which the significance level changed based on the regression adjustment. For the other outcomes, the means and significance levels on the differences were very similar regardless of the regression adjustment.

We performed several sensitivity analyses, which showed our results to be very robust. The direction and significance of all of our impact estimates remained the same whether we used logistic regression or ordinary least squares. We also estimated separate regressions for key subgroups: ACE enrollees, ACE County enrollees, undocumented individuals, Spanish-speakers, and individuals with any chronic condition. Findings from these analyses also followed the patterns seen in our overall sample.

Several limitations apply to the analysis. First, we did not perform any re-weighting to account for response bias. Second, the definition of our variable for renewal enrollees relies partly on self-reported data which could introduce measurement error. Additionally, although we know that individuals contained in our sample of initial enrollees were not enrolled in ACE or ACE County over the prior year, we cannot be sure that they did not have private coverage at some point during that time. Because waiting lists now exist at several clinics, it is possible that individuals enrolling more recently do not achieve as great of gains in access to care as those experienced by our sample of renewal enrollees. To the extent that this is the case, our impact findings could overstate the gains in access to care and use of services experienced for individuals enrolling in ACE and ACE County more recently.

Because this research is not based on a randomized design, differences between initial and renewal enrollees could arise from changes in the unobserved characteristics of individuals enrolled in ACE and ACE County over time, or from differences between individuals who enroll but do not renew, versus those who do renew. Finally, if enrollment in ACE or ACE County was triggered by a period of health that is worse than usual for any given individual, they may have experienced some type of reduction in unmet health needs and an improvement in their health and functioning even had they not enrolled in ACE or ACE County—the so-called regression to the mean phenomenon.

While it is impossible to completely rule out bias resulting from regression to the mean, we did perform two alternative analyses that lend confidence to the validity of our impact estimates. The first analysis used the enrollee's change in health status over the past 12 months as a control variable. For almost all outcomes, this analysis yielded impacts with the same direction and significance as findings from our core model. The second analysis used the same covariates as our core model but was limited to individuals who said their health remained about the same over the past 12 months. Again, results for almost all outcomes yielded impacts with the same direction and significance as our core model.

From April through September 2010, the evaluation questions will be fielded again as part of the One-e-App so that data for an additional cohort of enrollees can be collected. It is expected that some of the individuals included in the current analysis as initial enrollees will renew their enrollment this year which will allow us to use these enrollees' responses to the evaluation questions in 2009 and 2010 to estimate longitudinal effects of enrollment in ACE and ACE County.

Appendix Exhibit 1
Evaluation Questionnaire
Revised version: Fielded 6/16/09–9/30/09

The next questions are about your recent health and health care experiences. Your answers will help us improve health coverage in San Mateo County. Your answers will not be shared with your doctor or health care provider and will not affect your eligibility for health insurance coverage.

- 1. INSTRUCTION TO APPLICATION ASSISTOR: The name of each adult eligible for ACE or ACE County (WELL) is listed below. Please select each adult and choose the response that indicates whether the person is present and what language the survey is being conducted in. For the remaining survey questions, please only select and ask the questions for the ACE/ACE County adults who are PRESENT and skip any other adult listed. If there is only one adult eligible for ACE/ACE County and this person is NOT present, you will need to select “refused” for each question in order to proceed beyond the survey.**

PRESENT and answering survey in Spanish or English
PRESENT and answering survey in another language through a translator
PRESENT and unable to answer survey because translation is not available
PRESENT and declining to answer the survey
NOT PRESENT

- 2. During the past 12 months, how confident were you that you could get health care if you needed it – very confident, somewhat confident, not very confident, not at all confident?**

Very confident
Somewhat confident
Not very confident
Not at all confident
Don't know
Refused
Declined survey

3. Overall, how difficult is it for you to get medical care when you need it – very difficult, somewhat difficult, not very difficult, or not at all difficult?

- Very difficult
- Somewhat difficult
- Not very difficult
- Not at all difficult
- Don't Know
- Refused
- Declined survey

4. Is there a place that you USUALLY go to when you are sick or need advice about your health?

[If the individual answers “Yes,” ask “What is the name of that place?”

If the individual names more than one place, ask “Where do you go most often?”

If the individual’s response does not fit into one of the response choices, select “Other” and type the response in the text box that appears.]

- 39th Avenue (SMMC) Adult Primary Care Clinic
- Coastside Health Center
- Fair Oaks Adult Clinic
- Mike Nevin (Daly City) Health Center
- Ravenswood Family Health Center-Belle Haven
- Ravenswood Family Health Center-East Palo Alto
- Samaritan House
- South San Francisco Health Center
- Willow Clinic
- SMMC Emergency Room
- Other Emergency Room
- No Place
- Other _____
- Don't Know
- Refused
- Declined survey

5. [Ask this question only if the individual has a place he/she goes when sick or needing advice about health. Otherwise, choose “Not Applicable (does not have a usual place of care).”]

Do you usually see the same doctor, nurse or other health care professionals when you go to this place?

Yes
No
Not Applicable (does not have a usual place of care)
Don't Know
Refused
Declined survey

6. **During the past 12 months, did you either delay getting care or not get a medicine that a doctor prescribed for you?**

Yes
No
Don't Know
Refused
Declined survey

7. [Ask this question only if the individual delayed getting care or did not get a prescription. Otherwise, choose “Not Applicable.”]

Was cost or lack of insurance a reason why you delayed getting care or did not get the prescription?

Yes
No
Not Applicable (did not delay care or not get a medicine)
Don't Know
Refused
Declined survey

8. Other than overnight stays in the hospital or trips to an emergency room, have you seen a doctor, nurse or other health care professional during the past 12 months?

- Yes
- No
- Don't Know
- Refused
- Declined survey

9. During the past 12 months, how many times have you received care in a hospital emergency room?

[Prompt the individual: "If you cannot remember the exact number of times, your best guess is fine."]

- 0 times
- 1 time
- 2 times
- 3 times
- 4 times
- 5 to 9 times
- 10 to 14 times
- More than 15 times
- Don't Know
- Refused
- Declined survey

10. In general, is your current health excellent, very good, good, fair, or poor?

- Excellent
- Very Good
- Good
- Fair
- Poor
- Don't Know
- Refused
- Declined survey

11. Compared with 12 months ago, is your health better, worse, or about the same?

Better
Worse
About the same
Don't Know
Refused
Declined survey

12. How many days during the past 30 days did poor physical or mental health keep you from doing your usual activities?

[Prompt the individual: "If you cannot remember the exact number of days, your best guess is fine."]

0 days
1 day
2 days
3 days
4 days
5 days
6–10 days
11–15 days
16–20 days
21–25 days
26–30 days
Don't Know
Refused
Declined survey

13. Now I'd like to ask you about whether you have ongoing health conditions for which you need to be monitored regularly or for which you often need medical care.

Do you have:

[Read each response choice aloud, and fill in the checkbox for each condition the applicant has been diagnosed with. Do not read aloud "Don't Know," "Refused" or "Declined," but select one of these options if appropriate.

If the individual's response does not fit into one of the response choices, select "Other" and type the response in the text box that appears.]

Arthritis, rheumatism, or rheumatoid arthritis
Asthma, emphysema, chronic bronchitis, or other lung disease
Diabetes or high blood sugar
Heart failure or heart attack, angina, or other heart condition
High cholesterol
High blood pressure or hypertension
Liver disease
Depression
No chronic condition
Other _____
Don't Know
Refused
Declined survey

14. [Ask this question ONCE if the respondent has any ongoing health conditions. Otherwise, choose "Not Applicable (no chronic condition)."]

During the past 12 months, did you receive routine care (such as checking blood pressure) for these health condition(s) from a doctor, nurse, or other health professional? Please include routine and/or preventive care you received during any visit.

Yes
No
Not Applicable (no chronic condition)
Don't Know
Refused
Declined survey

15. During the past 12 months, was there any time that you did not have any health insurance or coverage?

[Read response choices aloud, except for “Don’t Know,” “Refused” and “Declined.”]

Yes, there was a time that I did not have health insurance or coverage during the past 12 months.

No, I was enrolled in ACE for the past 12 months.

No, I was enrolled in ACE County (WELL) for the past 12 months.

No, I had other health insurance or coverage during the past 12 months.

Don’t Know

Refused

Declined survey

**Appendix Table 1
Reasons for Response and Non-response to One-e-App Questionnaire**

	Number	Percent
PRESENT and answering survey in Spanish or English	7,326	66.9
PRESENT and answering survey in another language through a translator	121	1.1
PRESENT and declining to answer the survey	813	7.4
PRESENT and unable to answer survey because translation is not available	83	0.8
NOT PRESENT	1,909	17.4
No Selection	701	6.4
Total	10,953	100.0

Source: San Mateo County One-e-App data for ACE/ACE County Enrollees ages 19–64 who applied 3/23/09–9/30/09

Appendix Table 2
Raw means for regression covariates

	Pre-ACE Enrollment¹	ACE/ACE County Enrollees²
Month application was submitted	(Percent)	
March	3.9	3.7
April	17.0	16.9
May	18.2	16.2
June	19.5	19.7
July	17.6	18.3
August	13.2	18.6**
September	10.7	6.7**
Age		
19	1.5	0.1**
20-24	18.8	4.9**
25-29	15.1	8.9**
30-34	11.4	10.3
35-39	9.9	11.5
40-44	9.4	12.3**
45-49	10.2	12.6**
50-54	9.4	11.9**
55-59	8.0	14.9**
60-64	6.4	12.7**
Gender		
Female	51.1	69.9**
Male	48.9	30.2**
Race/Ethnicity		
Hispanic	55.7	62.9**
Asian/Pacific Islander/Native Hawaiian	15.7	16.4
Black or African American	4.5	1.4**
Other non-white	0.2	0.9**
White	18.6	11.8**
Unknown	5.4	6.7
Primary language spoken		
English	59.7	34.9**
Other	40.3	65.1**
Citizenship status		
Citizen	41.3	25.3**
Legal Resident	11.8	14.6**
Undocumented	47.0	60.0**
Marital Status		
Married	20.7	34.5**
Other	79.3	65.6**

Appendix Table 2 (continued)

	Pre-ACE Enrollment ¹	ACE/ACE County Enrollees ²
Number of children in household	(Percent)	
At least one	16.9	33.4**
None	83.1	66.6**
Employment status		
Employed for at least 100 hours per month	15.5	20.8**
Employed for less than 100 hours per month OR Unemployed	84.5	79.2**
Family income		
\$0	36.7	24.9**
\$1 to \$1000	26.5	28.2
Greater than \$1000	36.8	46.8**
Family assets		
\$0	14.1	20.1**
\$1 to \$1000	29.4	33.7**
Greater than \$1000	8.4	9.9
Unknown	48.0	36.3**
Area of Residency		
North County	33.0	35.3
Mid County	22.1	26.0**
South County	41.6	35.2**
Coastside	3.4	3.5
Number of chronic conditions		
None	67.0	52.3**
One	16.7	24.4**
More than one	7.8	17.9**
Unknown	8.5	5.4**
Current health status		
Excellent	5.5	4.7
Very Good	21.7	18.9*
Good	45.1	44.1
Fair	21.2	27.8**
Poor	6.6	4.6**
N	2,630	2,302

*Significantly different from uninsured, p<0.05, two-tailed test

**Significantly different from uninsured, p<0.01, two-tailed test

Notes: 1) Uninsured ACE/ACE County enrollees who responded to the survey based on their experiences prior to enrolling.

2) ACE/ACE County renewers who responded to the survey based on the experiences they had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County Enrollees ages 19–64 who applied 3/23/09–9/30/09

Appendix Table 3
Raw means for outcome variables

	Pre-ACE Enrollment¹	ACE/ACE County Enrollees²
	(Percent)	
Has a place to go when sick or needs advice about health	38.4	91.2**
Usually sees the same doctor, nurse, or health care professional at usual place of care	19.4	74.7**
Very or somewhat confident could get needed care	64.5	91.6**
Not at all or not very difficult to get needed care	22.8	56.6**
Any doctor visit in past 12 months	36.9	67.3**
Any routine care for chronic condition in past 12 months (among those with a chronic condition)	52.4	89.3**
Any emergency room visit in past 12 months	36.5	31.9**
Delayed or did not get care or medicine over past 12 months	28.8	17.1**
Cost or lack of insurance was the reason for delaying or not getting care or medicine	23.8	4.4**
Any day in past 30 days when poor physical or mental health kept enrollee from usual activities	20.8	13.0**
N	2,630	2,302

**Significantly different from uninsured, p<0.01, two-tailed test

Notes: 1) Based on the experiences that uninsured ACE/ACE County applicants had prior to enrolling.

2) Based on the experiences that ACE/ACE County re-enrollees had after enrolling in ACE/ACE County.

Source: San Mateo County One-e-App data for ACE/ACE County Enrollees ages 19–64 who applied 3/23/09–9/30/09