

Kaiser Permanente Baldwin Park Medical Center— Information Technology Propels Expansion of Medical Assistant Role

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ABSTRACT

Kaiser Permanente Southern California has developed an innovative tool, the Proactive Office Encounter (POE), embedded in its cutting-edge electronic health record system, HealthConnect. The POE interface prompts medical assistants and licensed vocational nurses to remind patients at the time of each encounter of opportunities for preventative and chronic care and provides the employee with standardized electronic checklists for managing and documenting these encounters. Employees receive extensive training opportunities and performance bonuses for achieving clinical strategic goals.

Setting

In 2005-6, Kaiser Permanente, the nation's largest not-for-profit health plan, made the move from paper charts to a cutting-edge electronic health record (EHR) system called HealthConnect. While this initiative improved efficiency and the quality of care, it was a monumental undertaking entailing considerable organizational change. The new technology allowed physicians to access patient records in the exam room, enter the results of patient encounters directly into patient charts and order tests and prescriptions online. The HER has decreased the amount of paper filing and record-keeping that had previously been handled by the back-office staff.

Implementation of electronic health records had some unintended consequences. While the system allowed for more up-to-date and integrated information about patients, it increased physician workload by making physicians primarily responsible for record keeping and by increasing opportunities for follow-up and patient education. Like other health care organizations, Kaiser was facing a primary care physician shortage and high rates of chronic disease which already made it difficult for physicians to provide comprehensive and cost-effective patient care in a 15-minute office visit. At the same time,

Practice Profile

Name: Kaiser Permanente Baldwin Park Medical Center

Type: Part of Kaiser Permanente, a nationwide not-for-profit health plan

Location: Baldwin Park, Los Angeles County, California

Staffing: 3,500 staff and providers, including:

- 94.2 FTE physicians
- 9.8 FTE nurse practitioners or physician assistants
- 40.9 FTE medical assistants
- 73.7 FTE licensed vocational nurses

Number of Patients: 190,435

Patient Demographics: The patient population is primarily blue-collar and 65% report high school diploma as their highest educational attainment. The majority (71%) of patients are non-white; 48% are Hispanic. A large proportion is young (30%) and the area has the highest pediatric obesity rate in California. The prevalence of diabetes is also high.

back-office staff, relieved of many of their record-keeping responsibilities, became disengaged and dissatisfied as their roles decreased in importance.

To address these issues and achieve clinical goals, KP Southern California developed the Proactive Office Encounter (POE) initiative. KP developed special templates, which were integrated into HealthConnect, to prompt staff to remind patients at the time of each encounter about opportunities for preventive and chronic care. The new technology allowed staff to better support clinicians, coordinate care, and work as part of a team to engage patients. As a result, Kaiser Permanente Southern California has realized significant improvements in a number of clinical quality performance measures.

“Over the past 5-10 years the focus for physicians has been on panel management and addressing gaps in care. The medical assistant has become a part of that panel management team.”

*-Vincenza Sorrells, MD,
Assistant Medical Director of Quality-*

Inspiration & Background

Kaiser Permanente evolved from health care programs instituted for construction, shipyard and steel mill workers for the Kaiser industrial enterprises during the Great Depression and at the start of the Second World War. Kaiser Permanente was founded based on a then novel principle -- insurers would pay medical providers a fixed sum per worker per day, allowing providers to emphasize prevention, health, and safety rather than simply addressing illness and injury.

Today, Kaiser Permanente, or KP, is the nation's largest not-for-profit health plan serving more than eight million members in nine regions in the U.S.

The Kaiser Permanente Baldwin Park Medical Center (Baldwin Park) opened in October 1998 in response to rapid growth in membership in the city of Baldwin

Park in Los Angeles County. It was the first U.S. hospital to be designed and operated cooperatively by labor and management groups in a full partnership.

Even before the electronic health record implementation, it had become increasingly difficult for physicians, who often had panels of 2,200-2,400 patients, to provide individualized care and conduct all of the necessary education, record-keeping, and follow-up care that patients needed.

Traditionally, the medical assistant (MA) role at Baldwin Park included collecting patient vital signs, rooming patients, scheduling follow-up visits and filing charts. In the early 2000's, one of the lead physicians at Baldwin Park began expanding the roles of frontline staff by having receptionists, MAs and licensed vocational nurses (LVNs) in her department check charts and remind patients when they were due for basic screenings like mammograms and pap smears. The goal was to relieve some of the pressure on providers and improve patient care. Others across the Kaiser Southern California region were independently experimenting with similar innovations.

As electronic health record implementation progressed, the potential for streamlining workflow became increasingly apparent, and administrators moved to standardize these initiatives across the region.

In 2006, the Southern California regional office hired consultants to examine the workflow at one of the Baldwin Park clinics and develop roles for all staff in closing the care gap. Care gaps are defined as preventive services and screening tests that are overdue for patients. The consultants looked at ways the new technology could be developed in tandem to facilitate this effort. A team who championed this initiative developed a Proactive Office Encounter training manual that included minimum guidelines for implementation but allowed flexibility for administrators to develop their own workflow for their departments. The regional office also developed a video on the initiative to disseminate the new model around the region.

Baldwin Park was the first Kaiser medical center to implement the Proactive Office Encounter. Baldwin Park administrators worked labor representatives to plan and implement the new initiative.

Training

In 2007, all Baldwin Park staff received training on the use of the new electronic health record system and the Proactive Office Encounter Tool. Trainers utilized the Baldwin Park computer lab for a series of 2-3 hour hands-on training sessions held during the workday. It took approximately one-month to bring staff up to speed on the basic Proactive Office Encounter functions in HealthConnect.

By 2008, Baldwin Park was implementing the POE initiative system-wide in primary care. However, administrators realized they needed at least a full-time person to monitor the POE rollout and integrate it with other Kaiser initiatives on an ongoing basis. In addition, administrators wanted to implement POE in their specialty departments. These efforts resulted in the hiring of two workforce consultants.

During the first round of formal trainings, many staff had learned to use the new electronic health record system and to understand the basic components of the POE interface, but not necessarily how to integrate them into their daily operations and clinical strategic goals.

“We had to try to find a way to make it personal for our staff, especially in our specialty departments: Creating this connection has help drive this from an initiative to a culture of how we care for our patients.”

*-Kristen Andrews,
Regional Proactive Care Lead-*

The workflow consultants were tasked with spending a week in each department to observe the department’s workflow and implementation of HealthConnect and the POE elements. The workflow consultants met with the administrators in each department to review workflow, utilization of HealthConnect and POE functions, and barriers to implementation. From there, consultants and administrators developed plans for ongoing

implementation and training individualized for each department. Workforce consultants also trained staff on a one-on-one basis as necessary.

The workflow consultants found that it was critical that frontline employees understand not only the technical aspects of using the system, but why what they were doing with the data was important.

Employees received additional training in team-building and in communicating with patients. For instance, one MA noted that she can now explain to patients *why* they need to get the follow-up she recommends rather than just giving patients the notification of clinical services needed.

Interviewees noted in retrospect that having the workflow consultants onboard at the start of the initiative would have facilitated the transition. The workflow consultants bring a regional perspective and have ready access to regional resources, including best practices being adopted elsewhere. Finally, workflow consultants have the dedicated time and background to address ongoing workflow issues.

The Proactive Office Encounter in Practice

Each MA/LVN is partnered with an individual primary care provider in the clinic setting and supports that provider in patient care. As a part of the POE, the physician and the MA or LVN develop a team agreement and goals for how they want to manage their patient panels. This allows a certain degree of customization within an otherwise standardized system and enhances communication within the team.

The Proactive Office Encounter initiative is supported by templates incorporated into the HealthConnect electronic health record system. MAs/LVNs use an automated POE checklist to identify gaps in care, and use evidence-based guidelines to discuss with patients the need for routine preventive screenings and ongoing follow-up required for chronic conditions such as high blood pressure or high cholesterol levels.¹ Care gaps are defined as preventive services and screening tests that are overdue for patients.

For each patient visit, three stages have been identified: *Pre-Encounter*, *Office Encounter* and *Post-Encounter*.

Pre-Encounter: The MA/LVN reviews patient records prior to a visit and identifies care gaps. The original plan for the Pre-Encounter, which is still carried out in some locales, was to contact the patient one week before the visit and have the patient come in ahead of time to get necessary lab tests and screenings to prepare for the visit with the physician. At Baldwin Park, they found that patients generally would not come in to prepare ahead of the visit, so they have moved to a system of having the patient review material with the MA/LVN at the time of the visit and arrange for necessary lab tests and screenings on the same day as the visit.

Office Encounter: When the patient arrives for the visit, the MA or LVN is the first to meet with the patient and uses the POE interface to identify and conduct any necessary screenings and to identify alerts for the provider to address during the visit. The MA or LVN might, for instance, find via the POE checklist, that the patient is asthmatic. The MA or LVN would then access protocols which instruct them to ask the patient three basic screening questions such as “How often are you using your asthma inhaler?” The MA or LVN also collects and documents vital signs, tells the patient what to expect during the exam, escorts the patient to the exam room. In the exam room, the MA or LVN opens up the patient’s screen on the exam room computer and secures it so it is ready for the doctor to use with the patient.

Post-Encounter: After the visit, the MA or LVN provides the patient with a visit summary, patient education materials, prescription refills, and schedules any additional tests, laboratory work, appointments, or education the patient needs as identified by the electronic health record and/or the provider.

Panel Management: The POE was a critical practice change that facilitated panel management. HealthConnect facilitated panel management by providing easy and timely access to up-to-date patient clinical information in one place.

A special panel management screen added to HealthConnect drives this process. MAs and LVNs spend 2-3 hours each month working through a list of patients that are overdue for lab tests or appointments. The MA or LVN contacts the patients

by phone and/or email to remind them to address these gaps in care.

Monitoring & Follow-Up: Employees are reviewed using a standardized skills validation tool based on a POE Skills Inventory. Required skills include the ability to accurately document chief complaints and vitals; pull Proactive Encounter Checklists from the Proactive Care tab to view patient’s care gaps; use the POE interface to pend orders for prescription refills, labs and other tests; review medications with patients, and administer appropriate screening as necessary.

Individual employee utilization records can be pulled via HealthConnect. The department administrator, workforce consultants and lead RNs work together to identify and conduct any needed follow up with employees, serving as a coach or mentor to ensure that each employee carries out all the necessary functions. If any deficiencies are identified, staff may be assigned to trainers who can address these deficiencies.

“Prior to the POE we did not have a role in looking for patients who had gaps in care. Patients were falling through the gaps. The computer allows us to see what the patient has missed.”

-Lilia Fullen, Medical Assistant-

Resources

All resources for implementing this initiative came from the Kaiser Permanente regional office and Baldwin Park operating budgets, including printed training manuals and flyers and promotional materials, such as video-taped testimonials of success.

Approximate regional costs for implementing and sustaining this program include the following.

- Training Materials Costs (Training Modules, Patient Testimonials and POE overview videos):

\$50,000 one-time cost

- Regional Administration (Project Manager, Reporting and Data Support): \$140,000 per year
- Regional POE Meetings with local POE Leadership (Twice per Year): \$5,000 per year.

Costs for implementing the program have been reduced over time by the development of online materials and the use of DVDs in place of printed materials.

Resources required for start-up included the time of an assistant medical director and assistant medical group administrator to develop materials and train department administrators to implement these initiatives. The initial training for department administrators required about two hours of time, but the initiative requires ongoing effort from department administrators in monitoring and training staff. Staff training required two sessions of formal training at 2-3 hours per session, the time of trainers, and the use of the Medical Center's computer training facility. Workflow Consultants and department administrators provide ongoing assessment and staff training. IT staff provide ongoing support and customization of the organization's Epic-based electronic health record system, HealthConnect.

At the regional level, Kaiser created several new positions, including a Regional Practice Care Lead who oversees the POE and other initiatives, and one to two full-time workflow consultants per medical center to sustain and promote this and other initiatives.

Challenges

Challenges included staff concerns over increased workload, integrating two electronic health record systems to accommodate the new system, and convincing departments outside of primary care to implement the new system. Finally, patients were initially confused by what some perceived as "nagging" from the reminder systems.

Workload Concerns: Administrators experienced initial resistance from some providers and staff. All groups feared an increase in workload as a result of the new initiative. In addition, some providers did not

believe that MAs/LVNs would be capable of taking on tasks such as checking for patient screenings and pending orders. Strong support from top leadership helped overcome some of these concerns and build trust, as did increasing familiarity with the new system.

Initially, the POE initiative increased the MA/LVN workload because of the learning curve. Staff had to work across two computer systems until all of the POE functions were integrated into HealthConnect, and because there were occasional "computer glitches" as the new system was developed. Consultants and administrators heard MAs and LVNs complain, "We do more than the doctors!" After the systems were integrated, operations became more streamlined. The new initiative increased the amount of time it takes to get patients "roomed" because the MA/LVN has to conduct additional screening and patient contact prior to the exam. However, MAs/LVNs grew to like the additional engagement with the patients and became adept with the new system.

Estimating downstream impact from reminding patients to schedule needed screening tests, labs and appointments proved a challenge. Some departments, such as gastroenterology and radiography, were reportedly "slammed" due to the increase in demand for tests such as colonoscopies and mammograms, which increased the wait time for these procedures. Staffing had to be increased to meet the demand. Administrators had to adjust staffing schedules and procedures for scheduling appointments to accommodate the change.

Department administrators experienced an increased workload as a result of the new system. They had to provide ongoing training and monitoring of staff within their departments to ensure that the new initiative was properly implemented.

Skills and Learning Challenges: The process of implementing the new POE initiative identified some staff learning challenges. For instance, some staff could not write coherently in proper English, which sometimes made it difficult to understand what they were inputting into the system. Administrators and consultants developed SmartPhrases and SmartText, blocks of pre-written text staff can access in the POE interface so they just have to fill in the blanks in pre-developed messages. Some staff and providers

were computer illiterate and required additional training with the Baldwin Park information technology staff to work effectively with the new system.

Specialty Departments: Specialty providers were concerned about their staff being asked to use time to remind patients to follow-up on routine tests and screening for primary care, and about staff addressing what were often sensitive issues with patients who were visiting the specialty provider for apparently unrelated health issues.

Specialty providers were also concerned about being given responsibility for ordering and receiving patient labs and exams. For example an ophthalmologist’s office might be prompted to order an overdue mammogram for a patient. Some providers in specialty departments thought that the POE should just be implemented in primary care. Workforce Consultants worked with administrators to reinforce the notion that POE was intended for the entire medical center. The workforce consultants differentiated the primary care and specialty workflows so they could develop a special protocol for the specialty departments. These protocols clarified that screening tests and exams ordered by

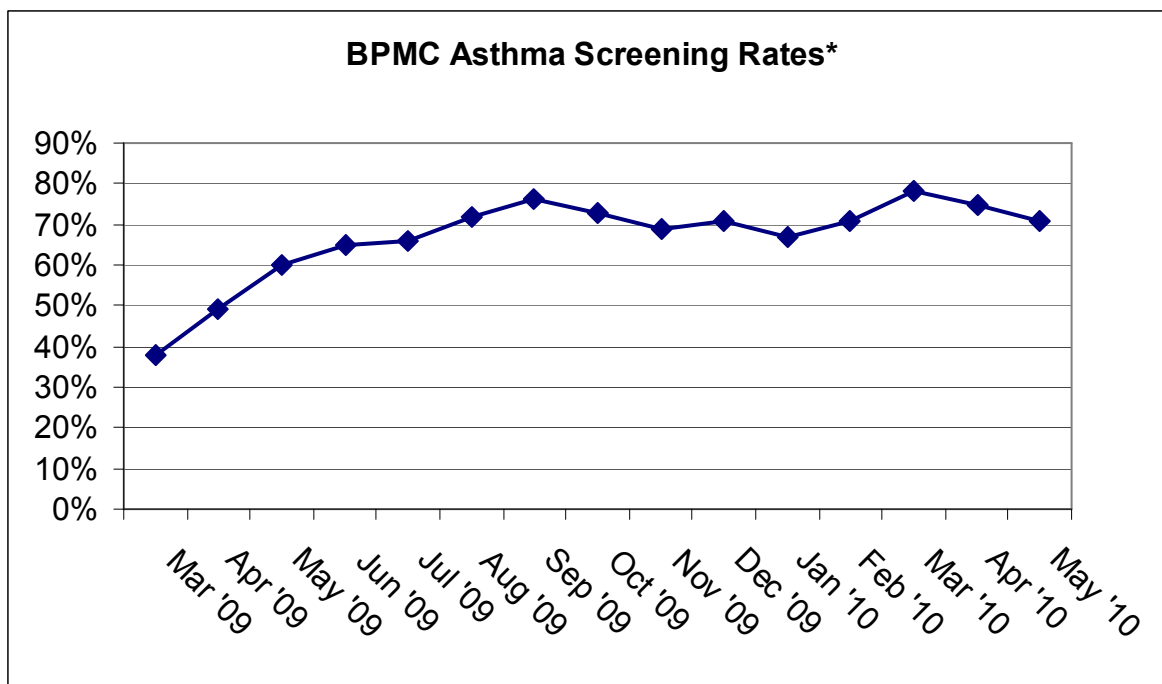
the specialty provider in order to address care gaps would be sent to the primary care provider for review.

Patients: Some patients were confused or irritated by the fact that MAs/LVNs and other front office staff had access to so much information about them and were suddenly reminding them quite vigorously about following up on their health care issues. Some of the material addressed was sensitive (weight, smoking, gynecological care). MAs/LVNs were trained to address these issues with sensitivity and to reiterate “It is our responsibility to save lives; to care about your life.” One patient with a previously uncontrolled chronic condition reportedly told an MA, “Thank you...even though you nag.” Success stories of MAs/LVNs encouraging screening tests that identified serious illness, resulting in satisfied patients and family, were highlighted in Kaiser’s local media.

Outcomes

The organization was initially interested in the benefits that the electronic health record system could provide in terms of records management. The use of the electronic health record system to assist

Figure 1. Asthma Screening Rates



* Lab and Radiology Departments Excluded

frontline staff in identifying and addressing gaps in patient care far exceeded initial expectations of the benefits of this innovation.

Clinical Outcomes: Along with other concurrent improvement initiatives, POE has contributed to a 27% increase in colon cancer screenings, a 12% increase in breast cancer screening, and an 18% improvement in cholesterol control region-wide.ⁱⁱ

Because of access to information on screening rates and outcomes, Kaiser is able to fine-tune training and implementation. For example, administrators at Baldwin Park were concerned about low asthma control screening rates. They trained MAs/LVNs to administer a series of screening questions to asthmatic patients. Screening rates increased from less than 30% at the beginning 2009 to over 70% in summer of 2010. (See Figure 1.)

Physician Workload: Once downstream issues were worked out, physicians eventually found that their workload was actually lighter because they no longer had to contact members, conduct outreach or “pend” orders for medications and tests.ⁱⁱⁱ

Organizational Culture: The initiative has had a positive impact on the culture at Baldwin Park in that it has inspired a patient-centered model of proactive care and greater communication between providers and MAs/LVNs. Frontline staff feel more satisfied and engaged as a result.

“Communication has improved, we say ‘my patients’, not just ‘the doctor’s patients’...POE brought us closer together.”

-Marisela Guevara, Medical Assistant-

Quality Improvement: The automated (EHR) component of the initiative has allowed the organization to track employee performance and coach and mentor those staff who need additional training. Department administrators can track success in patient outreach, screening procedures and use of the Proactive tab in the electronic health

record by center, department, and by individual employee.

Each care team sets its own goals for clinical care. However, rewards for improved patient outcomes are shared by all employees of the medical center. The Baldwin Park group was able to meet 73% of its clinical goals in April of 2010, tying for top place among 13 other Southern California Kaiser medical centers. Baldwin Park ranked first among Southern California Kaiser medical centers in utilization of the Proactive Office Encounter Tool, reaching an 84% utilization rate within a 30 day period. The financial bonus that was shared was shared by all staff.

MA/LVN Career Impacts

Before the POE initiative, MAs/LVNs had relatively little responsibility for patient care or contributing to organizational goals. They were not asked to focus on gaps in care and reported that “a lot would...fall through the cracks”.

Wages and Benefits: While there are no wage or salary increases associated with participation in the POE initiative, Kaiser has a pay-for-performance program for meeting clinical strategic goals. As mentioned earlier, when the medical center meets its goals, Kaiser provides shared financial bonuses to physician providers and front-line staff. Success is measured by how many patients actually follow through to get the recommended screenings—and the higher the rate, the higher the bonus. The implementation of the POE has contributed to Baldwin Park’s success in meeting these goals. The average payout per employee in 2009 was close to \$800.

Starting salaries (not including benefits) for Baldwin Park medical assistants are about 41% higher than 2009 average salaries for medical assistants, in all settings, in the LA area as reported by the Bureau of Labor Statistics. This differential may be due to the union wage effect, which is reportedly larger for Health Service Occupations, a category which includes medical assistants.^{iv}

Unionization: Baldwin Park’s staff includes about 2,500 staff members organized in a number of collective bargaining units. These unions are a part of the Coalition of Kaiser Permanente Unions, which

has partnered with Kaiser Permanente to form a Labor Management Partnership. This partnership is governed by a number of agreements that stipulate benefits, including educational benefits, and policies for addressing the impact of new technologies such as HealthConnect on employees' roles and careers. MAs and LVNs at Baldwin Park are organized through the SEIU UHW-West.

Education Programs: The Kaiser Permanente Labor Management Partnership supports educational opportunities for Kaiser employees. The SEIU promotes educational opportunities and career upgrade programs through the SEIU UHW-West & Joint Employer Education Fund. The Fund results from an annual transfer of 0.27% of gross annual payroll of Coalition-represented employees.^v

Kaiser employees in the Southern California region may accumulate a maximum of 48 paid hours per year of paid education leave for job or promotion-related educational activities.^{vi} The Trust also offers a forgivable loan program that allows participants to reduce their work schedules by up to a full day per week for class attendance in an approved nursing or health occupations program. Those employees who continue to work with their employer in an upgraded position for a year or more may have their loans forgiven.

Employees may apply for other benefits offered through the Education Fund. Academic Success courses assist employees in improving their academic skills *before* returning to college. The STEP Program provides participants with free college

credit courses and textbooks, professional career counseling, tutors and other academic support to complete pre-requisites for nursing and allied health programs.^{vii} A tuition and textbook reimbursement program offers up to \$3,000 per year for employees enrolled in eligible courses of study. Since 2006, approximately eight Baldwin Park MAs have taken advantage of these benefits to obtain an LVN degree in order to expand the scope of their duties and increase their salaries.^{viii}

Recruitment and Retention: Because of the relatively high wages and good benefits, administrators report that there are few new hires and MAs “don’t tend to leave” the organization.

Some administrators note that the trend in recent years has been to shift tasks to lower paid staff to save costs. The organization continues to explore what tasks can be taken on by MAs within their scope of practice. However, when MAs do leave those positions may be filled with LVNs because LVN-level staff can perform a number of clinical functions without additional layers of oversight. Kaiser has a strong tradition of recruiting from within the organization for newly open positions. In recent years, as LVNs have generally been moved out of inpatient units, many of them have chosen to work in outpatient clinics.

Satisfaction & Aspirations: MA and LVN staff are reportedly more satisfied as a result of participating in the POE initiative.

“The Union and the Employer agree that offering and promoting educational and training opportunities can prove to be a benefit to both the Employee and the Employer...the availability of appropriate training which enhances career mobility and provides avenues for Employee growth and development is desirable for both parties. The Employer shall make every reasonable effort to meet personnel needs by way of internal promotion and career development, and shall consider waiving work experience requirements for individuals who complete career development programs.”

*-UHW-West/Kaiser Permanente Northern and Southern California
2005 Collective Bargaining Agreement 2005-*

Administrators make every effort to acknowledge MA and LVN contributions in both internal and external publications. Staff report that the opportunity to work more closely with the provider as a team and to engage with patients and contribute to patient health outcomes is a powerful incentive. Many MAs/LVNs are from the neighborhoods Baldwin Park serves and hence have a cultural connection to the patients for whom they care. MAs and LVNs report that patients will often give them information that they are reticent to share with their physician.

Skills: Consultants who work closely with MAs and LVNs on this initiative observed that after in-depth training, staff are reaching clinical and efficiency goals faster. MAs and LVNs report that they understand patient needs, medical issues, and the reasons for tracking outcomes better. The organization conducts an annual employee survey called “PeoplePulse”. From 2008 to 2009, administrators found that the number of employees agreeing with the statement “I have a good understanding of steps taken to reach goals” increased by 10%, and that the number of employees agreeing with the statement, “I know my departments goals” increased by 18%.

Future Plans

KP is piloting the POE in the inpatient setting (PIE or Proactive Inpatient Encounter) and investigating the possibility of implementing POE in Pharmacy. It is conducting an analysis of pre-encounter automatic reminder calls to members due for labs and looking at adding more care gap alerts to the system. Baldwin Park administrators and workflow consultants are exploring ways to utilize support staff in managing physician’s in-baskets to further relieve physician workloads and speed access to care.

Replication and Lessons Learned

Baldwin Park fields a number of requests for information and presentations on HealthConnect and the Proactive Office Encounter. As of June 2010, the POE was only been fully established in the Southern California region. Implementation and training began in Georgia in May 2010, will soon be started in Hawaii, and then be taken nationwide. Other groups such as local community clinics are also interested in adopting parts of this initiative.

The following are some key conditions for replication that were listed by initiative champions:

- Having an established and reliable *electronic health record system* to identify and track gaps in care, follow-up and patient outcomes is essential. The success of this initiative is fueled by the POE checklist tool.
- *Workflow analysis* is vital to identifying tasks that can be shifted to non-physician staff in order to save money and to improve patient screening, outreach and care.
- *The support of top management* was instrumental to overcoming resistance to change. Leadership helped to transmit to all staff the importance to the organization of adopting this initiative. One administrator summarized the program, “It began as an initiative, now it is a part of our culture.”
- *Provider buy-in* is also vital to effective implementation. Department administrators were required to partner with a physician leader in implementing the POE in each department, and this, in conjunction with top management support, facilitated the acceptance of the initiative.

KP Southern California was able to implement large-scale technological and cultural change to improve patient outcomes and efficiency. Access to resources and willingness to innovate allowed it to make these changes relatively quickly. Part of this success has to do with the development of an electronic health record system and standardized protocols that allow frontline staff to participate more fully in reaching organizational goals, while maintaining room for flexibility so that implementation can be tailored to fit the needs of individual departments and physician/support staff teams.

Notes

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- iii. "Pending" refers to a process whereby staff use HealthConnect to select and order a suggested screen or test for a patient. The POE checklist identifies patients that have preventive screening care gaps and the staff, after viewing the checklist, use a comprehensive online tool which stages the order in the EMR for the provider to review and sign off on.
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