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Proactive Office Encounter: A Systematic Approach to Preventive and Chronic Care at Every Patient Encounter

Michael Kanter, MD
Osvaldo Martinez, MPH
Gail Lindsay, RN
Kristen Andrews
Cristine Denver, SM

Abstract

In 2007, Kaiser Permanente's (KP) Southern California Region designed and implemented a systematic in-reach program, the Proactive Office Encounter (POE), to address the growing needs of its three million patients for preventive care and management of chronic disease. The program sought staff from both primary and specialty care departments to proactively identify gaps in care and to assist physicians in closing those gaps. The POE engaged the entire health team in a proactive patient-care experience, creating standard work flows and using information technology to identify gaps in patient care. The goals were to improve consistency of preventive care and improve quality of care for chronic conditions and to improve reliability of staff support for physicians. The POE has been implemented in all outpatient settings in KP's Southern California Region's 13 medical centers and 148 medical office buildings. The program has contributed to significant improvements in key clinical quality metrics, including cancer screenings, blood pressure control, and tobacco cessation. It is now being extended into the inpatient setting and is being shared with other KP Regions.

Introduction

"The necessity of living with a limited supply of physicians in the face of increasing demand forces us to focus on the need for a medical care delivery system that utilizes scarce and costly medical manpower properly."[1] Sidney Garfield, MD, the co-founder of Kaiser Permanente (KP), wrote those words in 1970 for an article that appeared in Scientific American (reprinted in the Summer 2006 issue of *The Permanente Journal*), but they could well have been written today to describe the growing demands on primary care, particularly for preventive care and management of chronic disease.

The medical literature reports that for a primary care physician to ensure that all patients on a hypothetical panel of 2000 receive the preventive screenings and treatment of chronic diseases that they need, the primary care physician would need to devote an estimated 18 hours per day.[2,3] That being the case, it is hardly surprising that only 54.9% of adult patients receive the preventive care recommended by medical evidence.[4]

Southern California Permanente Medical Group (SCPMG) now serves more than three million KP patients, generating 12 million visits to outpatient offices with 60% of these visits occurring outside of primary care. The concept of the Proactive Office Encounter (POE) began as a question: How can we turn each of these encounters, in either primary or specialty care, into preventive screenings and care for chronic conditions?

This is a simple idea to describe, but implementing it meant a cultural shift. The POE, a regionwide in-reach program, gave ancillary staff and specialty departments more responsibility for preventive screenings and management of chronic care. To succeed, the team had to convince administrators, physicians, and staff of its potential value. Other key elements included:

- Electronic tools to identify gaps in any patient's care, regardless of which department they visited
- New work flows and training modules to proactively identify gaps in care to draw them to a physician's attention
- Reports to monitor improvement in closing gaps and to identify areas needing more support.

Michael Kanter, MD, is the Medical Director of Quality and Clinical Analysis for the Southern California Permanente Medical Group. E-mail: michael.h.kanter@kp.org.
Osvaldo Martinez, MPH, is an Assistant Medical Group Administrator for the South Bay Medical Center with the Southern California Permanente Medical Group. E-mail: osvaldo.martinez@kp.org.
Gail Lindsay, RN, is the Managing Director of Clinical Program Development for the Southern California Permanente Medical Group. E-mail: gail.x.lindsay@kp.org.
Kristen Andrews is the Proactive Care Group Lead for the Southern California Permanente Medical Group. E-mail: kristen.l.andrews@kp.org.
Cristine Denver, SM, is a Senior Communication Specialist for the Southern California Permanente Medical Group. E-mail: cristine.e.denver@kp.org.

Team members are noted in Table 1. Staff now play a more active role in patient care and the culture has changed so that specialty departments are also responsible for identifying and addressing preventive screenings and chronic care needs. Since its inception, POE has contributed to sharp improvement in the Southern California Region's clinical quality performance, including double-digit improvements in colorectal cancer screening, advice to quit smoking, and blood pressure control.


Encounter Checklist
Generated on 04/06/2009
Patient Name:
SHOW CMSS details
MRN:
PCP:
DOB:
Day Phone:
Age: 65 yrs
Evening Phone:
Gender: F
Address:
Language SPANISH
Appointments: All Appointments between 04/07/09 and 04/14/09
Appt Date / Time | Dr. Appt with | Appt Type | Appt Location
04/14/09 01:50 PM | (M.D.) | OVR20 | FAMILY PRACTICE-LANFAM*
Missing Care Gaps
• Mammogram Due
• Colorectal Cancer Screening Due
• Dexa Due
• Pnuemovax Due
• BMI - Above Threshold
• Smoking Status – Never Asked
Recommendations
Care Gaps Due | Actions to Be Taken
Mammogram Due
• Address Mammogram care gap through POE SmartSet or Best Practice Alert in HealthConnect™
• Schedule appointment for mammogram
• Inform member of walk-in/same-day appointment or give member the phone number to book an appointment
• If exclusion is applicable, pend exclusion for provider to code through POE SmartSet or Best Practice Alert
• Pend Mammogram Patient Instructions through POE SmartSet or Best Practice
Colorectal Cancer Screening Due
• Pend iFOBT order through POE SmartSet and provide kit
• If exclusion is applicable, pend exclusion for provider to code through POE SmartSet
Bone Density Dexa Screening Due
• Pend order through POE SmartSet and arrange appointment for Dexa Screening
Pneumovax Immunization Due
• Pend order for immunization through POE SmartSet
• Administer vaccine per scope of practice and document in HealthConnect and KITS

Figure 1. Computer-screen view of a Proactive Office Encounter checklist for adult primary care.

Electronic Tools: Step 1 in the Proactive Office Encounter

Early attempts made to systematically identify and address preventive care needs were less comprehensive than the POE; for example, a few years ago, identifying needs required a manual search through a patient's chart and use of a paper checklist (the Care Management Summary Sheet) to identify preventive screenings and gaps in chronic care. The Pharmacy Analytic Services group converted the paper to an electronic checklist on its Permanente Online Interactive Network Tools (POINT) database, though it was not used consistently in all medical offices until integrated into KP HealthConnect, the electronic medical record (EMR).

The electronic POE tools provide physicians and staff with adult primary care, specialty care, and pediatric care checklists (Figure 1), which identify gaps to be addressed and recommended actions. For example, a patient due for a bone-density test or mammogram had a pending order set up and an appointment made for the required examination.

Additionally, the POE team created shortcuts known as SmartTools within KP HealthConnect to improve efficiency in the medical office. By scrolling through a list of common preventive care needs, a nurse or medical assistant can set up pending orders for screening examinations or supplies, immunizations, or laboratory tests and can select and print appropriate patient information on topics ranging from body mass index to tobacco cessation. Using "SmartPhrases," staff can document preventive or chronic care actions taken.

Early Technical Challenges

Initially, patient information in POINT and KP HealthConnect was not integrated, creating confusion and mistrust early in the implementation of the POE tool, because alerts were sometimes inaccurate or redundant. The project team worked with Pharmacy Analytics Services and the KP HealthConnect team to integrate the POINT database and the EMR.

The team added functionality to document or to set up pending orders, streamlining these processes to make the POE tool more efficient and user-friendly.

Table 1. Proactive Office Encounter team members

Proactive Office Encounter team members	Job title
Kristen Andrews	Proactive care group lead
Christopher Baek, MBA, PharmD	Project manager
Robert Blair, MPH	Medical Group administrator
Terry Bream, RN	Manager, ambulatory clinical practice
Mark Eastman, MD	Proactive care physician lead
Sylvia Everroad	Regional Medical Group administrator
Amanda Hauser DeHaven, MPH	Project Manager, SCPMG regional operations
Joyce Johnson, RN-BC, PhD	Regional Director, education and research
Chris Jones, RN	Senior management consultant
Gail Lindsay, RN	Managing Director, clinical program development
Michael Kanter, MD	Regional Medical Director of quality and clinical analysis
Osvaldo Martinez, MPH	Assistant Medical Group administrator
Paul Minardi, MD	Regional Medical Director of operations
Diana Moulder	Business analyst, pharmacy analytical services
Monica Padilla	Staff specialist, SCPMG regional operations
Christine Ruygrok, RN	Managing Director, business optimization
SCPMG Medical Directors	
SCPMG Medical Group administrators	
SCPMG POE area leads	
SCPMG work flow consultants	
Kurt VanRiper, PharmD	Director, Pharmacy Analytical Services
Ralph Vogel, PhD	Practice Leader

POE = Proactive Office Encounter; SCPMG = Southern California Permanente Medical Group.

Table 2. Standard work flows for all office visits

Setting or task category	Actions to take
Daily preparations	• If not acquainted, introduce yourself to the physician and ask if there are any special work flow requests. • Huddle with physician during early part of the shift to plan the day. • Anticipate the needs of the physician for every office visit. • Stock examination rooms daily. Confirm that examination-room equipment is working properly. • Room patients in a timely manner so that physicians can start on time. • Obtain and review the physician preference list for additional physician-preferred work flows.
Rooming a patient	• Enter chief complaint(s), with comments. • Enter vital information: blood pressure, pulse, respiratory rate, temperature, weight and height, exercise vitals, last known menstrual period for females ages 11–65 years. • Verify/edit tobacco history and provide local information for tobacco cessation. • Recheck elevated blood pressures and enter the second reading as "New Set of Vitals." • Complete Interpretation Services Questionnaire as needed. • Review allergies and enter any newly reported allergies or adverse reactions in the "Allergy" tab. • **New patients:** Enter past medical and surgical history, social history, and family history in KP HealthConnect. • Select the preferred pharmacy, including outside pharmacy if relevant. • Review medications with patient and place a red check mark next to active medications—do *not* click "Reviewed." • Set up pending refill requests using the reorder edit tool. • If an active medication is not in KP HealthConnect, gather the exact name, dose, and directions and set up a pending order in the "Orders" area. • Click the "Proactive Care" tab and advise the patient of any care gaps and the process for resolving the gaps. • Use the POE SmartSet to set up pending orders for POE Care Gaps, exclusion codes, and patient instructions. • Address any Best Practice Alerts that pop up. • Set up pending orders for Point-of-Care Tests, immunizations, and nursing procedures. • Perform any specialty-specific work flows. • Document POE tasks in the "Nursing Notes" section using the **.proactive** or **.pedsproactive** Smart Phrase.
Patient forms	• Do *not* give blank patient forms to physicians for completion. • Have patients complete their portion of forms, including medical/surgical/social history, medications, allergies, and the context or reason for the form. • Complete the physician's name, office address, phone number, Drug Enforcement Administration and medical license numbers, and vitals or other patient information, if relevant. • Forward patient forms to the insurance department after visit, as appropriate.
Preparing a patient	• Ensure that the patient is appropriately undressed, gowned, and prepared for the examination on the basis of the chief complaint. • Prepare needed supplies and instruments in advance, on the basis of the chief complaint. • Review and carry out any specialty-specific guidelines for patient preparation.
Performing ordered procedures	• Administer immunizations, injections, medications, and nursing procedures per physician orders. • Medical assistant to obtain medication verification by a licensed nurse or clinician for all medications and immunizations. • Input immunization information into the Kaiser Immunization Tracking System and KP HealthConnect. • Record results of Point-of-Care Tests using "Enter/Edit Results" tool.
Discharging a patient	• Schedule appointments as directed by the physician, using the Direct Booking Process if applicable. • Complete durable medical equipment orders as instructed by the physician. • Set up a pending e-Referral at physician's request. • Complete and print Activity Rx forms per physician's instructions. • Print After-Visit Summary and review patient instructions and follow-up appointments with patient. • Complete additional forms and documents as directed.

KP = Kaiser Permanente; POE = Proactive Office Encounter.

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Methods

Developing and Implementing New Work Flows: Step 2 in the Proactive Office Encounter

Information technology alone is not sufficient to transform the approach to preventive and chronic care. A standardized structure of work flows and processes was built to address individual care gaps in every outpatient setting (Table 2), to increase efficiency and to improve the reliability and consistency of staff support for physicians.

The POE includes three main components, detailed in the next section (Figure 2).

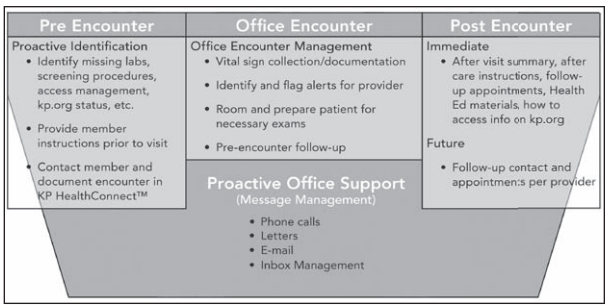

Figure 2. Summary of main components of the Proactive Office Encounter.

Before an Encounter (Pre Encounter)

Before a patient comes in, a medical assistant or nurse reviews the patient's record to identify needed laboratory tests and health screenings, and to determine whether the patient is registered with KP.org, which gives the patient online access to most laboratory results, prescription and immunization status, and the opportunity to e-mail the physician's office.

During an Encounter (Office Encounter)

In the office, the nurse or medical assistant follows a standard workflow (Figure 3) that includes reviewing and updating documentation of the patient's chief complaint, vital signs, physical activity levels, medications, allergies, and preferred pharmacy. The nurse or medical assistant then:

- identifies gaps in care using decision-support tools
- sets up any necessary pending orders and/or exclusion codes for the clinician
- flags needed screenings and/or uncontrolled conditions for the clinician to discuss during the visit
- prepares the patient and examination room for procedures (eg, Papanicolaou test, diabetic foot examination, etc), and
- assists the clinician through the process.

After an Encounter (Post Encounter)

Immediately after the visit, the medical assistant or nurse ensures that the patient receives information to obtain preventive screenings or to address health issues, including providing an after-visit summary, after-care instructions, health education materials, information on accessing KP.org, and follow-up appointments or referrals. In addition, the patient may be contacted after the visit at the clinician's direction.

Managing the Change

Because the POE represented a cultural shift, it therefore required a comprehensive change in management

KAISER PERMANENTE®

SCPOE0002 - Workflow Efficiency Report Pediatrics - Back Office Staff

Medical Center: [redacted] **MEDICAL CENTER AREA**
Medical Office Building: [redacted] **MEDICAL OFFICES U**
Specialty: Pediatrics
Date Range: 8/17/2009 to 8/21/2009

Specialty Totals for: Pediatrics

Pediatrics : POE Report 8/17/2009 to 8/21/2009	
Total Visits	241
Nursing Note Created for Visit	238
Medication Review Button Selected	38
Tobacco Verification Button Selected	233
Allergy Review Button Selected	238
AVS Printed for Visit	192
CHAT Questionnaire	0/0
Vitals	
Temperature	239
Pulse	71/79
Weight	240
Blood Pressure - Succesful/Opportunities	71/72
Height - Succesful/Opportunities	152/170
Head Circumference - Succesful/Opportunities	0/0
O2 Sat - Succesful/Opportunities	8/13
LMP - Succesful/Opportunities	40/40

Figure 3. Computer-screen view of Proactive Office Encounter work-flow efficiency for pediatrics.

approach. In 2007, the POE team widely presented the concept to internal audiences, including Medical Directors, Chiefs, nonphysician administrative leaders, and department managers.

One challenge was ensuring that tasks remained within the scope of practice for medical assistants and nurses. They identified physicians and administrators who could serve as POE team leads at the local level.

The team also developed extensive training materials for both preventive screenings and management of chronic conditions. Participants learned to use the tools and to perform new tasks, for example, communication tips about sensitive patient issues, such as weight. It also provided instructions on how to prepare the patient and the examination room for specific procedures, such as a diabetic foot examination.

Persuading people to work in a new way meant

engaging them emotionally. To demonstrate the difference that nonphysician staff can make identifying care gaps, the POE team worked with California's Multimedia Department to produce videos of patients telling how an early screening made a difference in their lives. The videos, which have since been shown in internal meetings and are available on KP's Intranet, included patients' physicians and key staff (including receptionists, medical assistants, and nurses).

Persuading people to work in a new way meant engaging them emotionally.

By the end of 2007, all primary care offices trained for the POE. The following year, specialty care staff trained on a streamlined version of the program. In 2009, staff in Urgent Care and Emergency Departments (ED) used work flows for the POE. Those concepts now extend to inpatient settings, with four pilot studies underway.

Results

Measuring Improvement: Step 3 in the Proactive Office Encounter

SCPMG measured the program's success by tracking Healthcare Effectiveness Data and Information Set results on a bimonthly basis. In addition, SCPMG developed a new set of reports (dubbed "Successful Opportunities") to measure improvements specific to the POE (Table 3). These reports monitor the frequency of care gaps closure within 30 days of an appointment, including lead, chlamydia, and osteoporosis screening (dual energy x-ray absorptiometry, or DEXA); pneumococcal immunizations; documentation of height and weight to capture body mass index; asthma questionnaire completion; and health education class attendance. These reports are e-mailed to regional leaders, medical center leaders, and local POE leads for identification of strengths and areas for improvement. Specialists in SCPMG have some of their at-risk moneys contingent on their performance on the Successful Opportunities Report. This has been an important step in getting the specialists involved in the POE.

The conclusions drawn from the analysis of these data reveal increased success in closing care gaps at every opportunity resulting in a 2% to 18.5% range of improvement in clinical quality for the conditions of diabetes, cancer, immunization, blood pressure, and smoking (Table 4).

Future Potential for the Proactive Office Encounter

In the outpatient setting, the POE allowed a shift from a reactive care-delivery model to one that is consistently proactive in addressing preventive and chronic care needs. Because SCPMG is part of an integrated system that includes Kaiser Foundation Health Plan and

Table 3. Proactive Office Encounter: successful opportunity care gap targets met for July 2009[a]

Percentage of:	Medical Center 1	Medical Center 2	Medical Center 3	Medical Center 4	Medical Center 5	Medical Center 6	Medical Center 7	Medical Center 8	Medical Center 9	Medical Center 10	Medical Center 11	Medical Center 12	Medical Center 13
HbA_{1c}	55	58	57	61	62	63	64	49	56	59	54	53	56
Microalbumin	35	33	36	45	39	45	42	36	40	38	39	35	36
LDL	43	40	43	46	46	45	44	39	44	43	41	37	43
Mammograms	34	31	33	30	24	31	28	26	34	29	27	29	32
Papanicolaou test	56	54	55	51	57	56	57	55	55	52	49	54	60
DEXA	18	16	25	23	15	21	15	18	19	30	18	26	15
Pneumovax	20	15	25	21	20	27	24	21	18	24	18	22	14
Retinal screening	18	28	36	31	23	30	37	34	32	30	23	36	38
BMI	93	91	92	81	95	94	88	81	89	91	88	88	83
Smoking	42	51	45	50	59	61	74	53	34	50	50	54	58
Chlamydia	49	52	64	48	60	61	58	53	53	60	49	59	48
Health education	2	3	4	3	3	2	4	5	4	4	2	6	2
Asthma questionnaire	18	35	65	45	61	45	29	27	26	36	43	46	13

[a] Data source: Permanente Online Interactive Network Tools (POE Reports). Successful Opportunity for each gap identified as a resulting test or procedure 30 days after appointment.
Gray = POE Successful Opportunity rates are now as follows: retinal, Pneumovax, chlamydia, and DEXA at ≥25% per POE care gap identified. Diabetes Management health education departments at 10%. HbA_{1c}, microalbumin, LDL, mammograms, Papanicolaou test, asthma, and smoking at ≥40% per POE care gap identified. BMI department at a rate of ≥80% per POE care gap identified.
White = POE Successful Opportunity target not met.
BMI = body mass index; BP = blood pressure; DEXA = dual energy x-ray absorptiometry; LDL = low-density lipoprotein cholesterol; POE = Proactive Office Encounter.

Table 4. Improvements on key quality measures since implementation of the Proactive Office Encounter

Clinical strategic goal	2006	2007	2008	2009, through 2nd quarter	Percentage improved (2006–2009)
Diabetes lipid screening (profile) performed	88.6	91	90.4	90.6	2
Influenza immunization rate (members age ≥65 years)	60.2	62	62	62.5	2.3
Breast cancer screening (patients ages 52–69 years)	85.6	88.1	88.7	88.3	2.7
Diabetes glycated HbA_{1c} testing	88.8	90.8	91.2	92	3.2
Cervical cancer screening	82	85.6	86.6	85.7	3.7
Diabetes blood pressure control <140/90 mm Hg	76.1	74	79.5	82.6	6.5
Diabetes eye examination (retinal) performed	61.6	56.3	66.5	70.9	9.3
Controlling high blood pressure (patients ages 18–85 years)	70.4	72.8	79.6	82.6	12.2
Advising smokers to quit—January 2009	53	69	68	70	17
Colorectal cancer screening	52.5	65.5	69.7	71	18.5

Hospitals, there are more opportunities to expand and embed this approach throughout the organization where patients may seek care, from appointment call centers to hospital discharge.

In the near future, SCPMG intends to implement the POE in pharmacy and inpatient settings. Deployment in EDs and urgent-care settings is already in progress. Pre-encounter automated telephone calls were also piloted in 2008 and were deployed throughout SCPMG by year end. Automated pre-encounter calls target patients with HbA_{1c}, lipid, and/or microalbumin laboratory care gaps and ask that they complete the necessary tests before their office visit to maximize their encounter with their clinician.

Implementing a proactive approach to care also involves continual improvement to the work flows already developed and requires refining the outpatient encounter with specialty-specific work flows, which are in development, for obstetrics, oncology, and nephrology.

With modification of the work flow training materials for SCPMG, other KP Regions could adopt a similar proactive approach, because other Regions have access to the same KP HealthConnect functionality and SmartTools required to support proactive care. Fully implementing this would require processes and structures for staff and physicians to use those electronic tools to close care gaps. That will require a comprehensive change in management approach, including a communication strategy and an extensive training program. More information and educational videos, job aides, and reference sheets are available from: http://proactivecare.kp.org.

KP's Hawaii Region is now adopting a proactive care approach, embracing principles of the POE. In KP's Mid-Atlantic Region, an ophthalmologist who saw an 82-year-old patient ordered a DEXA scan, which showed osteoporosis (Janice M Beaverson, MD, personal communication, March 2010).[a] There is much external interest, including in community clinics in Southern California and professional and national health organizations.

Conclusion

The project's impact has been widespread and positive, changing the organization's culture and providing a powerful tool for physician's, staff, and patients. Proactive care is now an expectation of care delivery. Barriers encountered by the team were overcome through a collaborative approach, which involved labor partners, physicians, and leaders in the implementation from the early stages. Correlation data show a positive impact on the delivery of quality care. ❖

[a] Janice Beaverson, MD, Associate Medical Director, Quality and Health Management for the Mid-Atlantic Permanente Medical Group, Rockville, MA.

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

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