

Expanding Access to Care and Improving Quality in the Mid-Atlantic States Safety-Net Clinics: Kaiser Permanente's Community Ambassador Program

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ABSTRACT

Context: As part of its longstanding commitment to improve the health of the communities it serves, Kaiser Permanente (KP) established the Community Ambassador Program (CAP) in the Mid-Atlantic States Region. The CAP places KP-employed nurse practitioners, midwives, and physician assistants to work in the safety-net clinics and to share best practices through a long-term community collaboration.

Objective: To share the early experiences of the CAP and describe the initial results of the program's impact on the safety-net clinics.

Methods: We conducted an evaluation of 18 safety-net clinics that participated in the CAP in 2012 to determine the program's early impact in expanding access to care, increasing the capacity of safety-net providers, and improving the quality of care on evidence-based measures in the year following program implementation. The safety-net clinics are comprised of federally qualified health centers, free clinics, and other community-based organizations. The clinics were asked to respond to questions regarding their evidence-based practices promoted by KP and on primary care-related utilization.

Results: The Community Ambassadors provided an estimated 32,249 encounters to 11,988 patients. Performance by the Community Ambassadors was at or near 90% for 2 adult quality measures (weight screening and tobacco use assessment). For breast cancer screenings, however, performance among the Community Ambassadors was much lower (48%).

Conclusion: The CAP demonstrated some early success in expanding access and improving quality of care on several key measures for certain subpopulations. Despite these achievements, opportunities remain for quality improvement, expanded capacity, and enhanced data reporting infrastructure.

BACKGROUND

Safety-net clinics play a pivotal role in communities by providing access to preventive and primary health care services to the medically underserved, poor, and vulnerable populations.¹ The safety net has been defined by the Institute of Medicine as providers who care for patients regardless of their ability to pay.² Safety-net providers are a heterogeneous

group and range from well-established federally qualified health centers (FQHCs) to smaller free clinics. Approximately 1100 FQHCs in the US provide care to more than 17 million patients each year, and this number is expected to grow to 30 million by 2015.^{3,4} Additionally, more than 1000 free clinics nationwide provide care to an estimated 1.8 million patients.⁵

The changing US health care landscape has placed increasing demands on safety-net providers who must cope with a more clinically complex and shifting uninsured and newly insured population.⁶ Increasing the number of primary care providers in the safety-net setting has been proposed as one strategy to improve overall population health because primary care emphasizes prevention, detection, and early treatment.⁷

Because of its longstanding commitment to improve the health of the communities it serves, Kaiser Permanente (KP) of the Mid-Atlantic States (KPMAS) established the Community Ambassador Program (CAP). KPMAS initially developed the CAP as a pilot project in 2008 to support the safety net in the communities served by KP in the Mid-Atlantic States Region. A diverse team of KPMAS staff shaped the CAP, which was modeled after a similar program in KP Southern California. The program places KP-employed nurse practitioners, midwives, and physician assistants to work in the safety-net clinics and improve the health of their (non-KP) patients, serve vulnerable populations, and share best practices. The goal of the CAP is to improve the health of the larger surrounding community within KP's footprint by expanding access to care, increasing the capacity of selected safety-net providers, and improving quality of care on evidence-based measures through a long-term collaboration.

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The specific objectives of the CAP were to match the expertise of select KPMAS staff with the identified needs of safety-net partners; to forge relationships between KPMAS and safety-net partners; to identify, to implement, and to evaluate outcomes in key areas of clinical focus; to support the clinical placement with the resources necessary to implement the program and to evaluate outcomes; to support and enrich the role of the Community Ambassadors in the field; to supplement the safety-net partnership with additional resources as needed such as training and education, grants, and expanded collaborations with KPMAS; to communicate regularly the goals, learnings, and outcomes of the program; and to identify unmet needs. Through this partnership, the Community Ambassadors were expected to export Permanente Medicine to the safety-net clinics by sharing evidence-based practices from the KP model of care as well as to contribute expertise in their area of clinical specialty. KPMAS also hoped to learn from the safety-net clinics how to better care for and to manage vulnerable populations with complex chronic conditions and challenging social needs.

The CAP initially began in 2008 with three clinicians (two nurse practitioners and one physician assistant) placed across one FQHC and two free clinics (one clinician based at each site). Although no formal data were collected from the initial pilot program in 2008, all three of the administrators of the safety-net clinics that were interviewed during the initial pilot perceived the program to be a success in improving continuity of care and in expanding access for patients with complex chronic conditions, bringing clinical expertise to the safety-net clinic partners, expanding Permanente evidence-based best medical practices, and building relationships between KP and the safety-net clinics.

Beginning in September 2011, KPMAS expanded the CAP to 18 safety-net clinics in Washington, DC, Northern Virginia, and suburban Maryland, which in total were served by 32 mid-level clinicians (25.16 full-time equivalents [FTEs]). The

Mid-Atlantic safety-net clinics included a diverse mix of providers that comprised large FQHCs, free clinics, and other community-based clinics. The purpose of this article is to share the early experiences of the CAP and to describe the initial results of the program's impact on the safety-net clinics.

METHODS

We conducted an assessment of the 18 safety-net clinics that participated in the CAP in 2012 to determine the program's early impact in expanding health care access and improving quality of care in the year following program expansion. The types of clinics served by the Community Ambassadors included a mix of FQHCs ($n = 6$) that primarily served Medicaid patients, free clinics ($n = 4$) that served the uninsured, and other community-based clinics ($n = 8$). The community-based clinics comprised faith-based organizations (ie, Catholic charity), public-private partnerships (ie, county-sponsored community health care network, clinics dedicated to serving language minorities), specialty clinics (ie, teen and young adult reproductive health organization), and hospital-based outpatient clinics (ie, hospital-based pediatric program). Although the safety-net clinics that participated in the CAP were quite diverse in terms of the specific populations they served and types of services provided, all of the safety-net clinics had an overarching mission of caring for low-income, uninsured or underinsured, vulnerable, and underserved populations.

We asked the clinics to respond to questions regarding their improvements in care delivery and in adoption of evidence-based practices promoted by KPMAS. The clinics were also queried regarding their data collection infrastructure. We included a comments section in the assessments where the clinics could enter free text to provide any additional points that they wanted to elaborate on or to clarify. The assessments were completed by the safety-net clinic's administrative officer, medical director, or designated staff.

We also asked the clinics to report on their utilization that included the

number of unduplicated patients and encounters for primary care-related visits with a clinician (excluding behavioral health, dental, and other types of visits) at the clinic level in the year before and following implementation of the CAP. The clinics were requested to provide the counts on the basis of the subpopulation(s) (adult, pediatrics, and/or obstetrics/gynecology [Ob/Gyn]) served by their assigned Community Ambassador(s). In addition, we also requested that the clinics report on the utilization measures specifically for the Community Ambassador in 2012. Three of the non-FQHCs only collected utilization data based on their fiscal year (July through June), and four clinics were unable to disaggregate their data by subpopulation or to report for primary care visits only. Because of these aforementioned data issues, the reported counts of unduplicated patients and encounters in the following results section represent estimates. These estimates reflect data reported directly by the clinics of their closest approximation on their number of patients and utilization. In addition, one clinic that served the pediatric population was not able to report data for one of the years and was excluded from the analyses.

We also asked the safety-net clinics to report on standardized quality measures. Because the non-FQHCs and free clinics did not routinely collect standardized quality measures and had varying reporting capabilities, we asked only the FQHCs to report on the standardized quality-of-care measures. The 6 participating FQHCs were asked to submit their data on select Health Resources and Services Administration Uniform Data System quality-of-care measures and on select National Committee for Quality Assurance Healthcare Effectiveness Data and Information Set measures for hemoglobinA_{1C} testing for adult and pediatric diabetics and breast cancer screening. The FQHCs were instructed to report on the quality measures at the clinic level for the subpopulation(s) (adults, pediatrics, and/or Ob/Gyn) served by their Community Ambassador in the 2011 (pre-CAP) and 2012

(post-CAP) periods. Furthermore, the FQHCs were asked to report on the quality measures specifically for the Community Ambassador in 2012 on the basis of their panel of patients. Per the Uniform Data System guidelines, clinics could report on the Uniform Data System measures on the basis of a 70-case sample of patients. Because there was a small sample size of clinics and patients for some of the quality measures, we report data on measures for which there were at least 2 clinics and the denominator of patients was at least 100. The clinics also must have reported data for the quality metrics in both data years to be included in the analyses. The data from the clinics were completed and submitted electronically on a predefined data template.

RESULTS

Improvements in Patient Care Delivery

All 18 of the clinics responded to the CAP assessment for a 100% completion rate. Seventeen of the clinics reported that the CAP helped them to improve the delivery of patient care. For example,

4 clinics reported in the open-ended section that the CAP allowed them to extend their service to weekend or evening hours. Another two clinics reported that the CAP enabled them to increase their capacity to provide pediatric care. Also, one clinic indicated that the CAP permitted them to increase their capacity for prenatal care.

Additionally, the CAP allowed clinics to provide new or enhanced clinical services, including the ability to provide on-site colposcopies (n = 2) and expand gynecology services (n = 5), such as breast exams and pap smears that were previously referred out. Furthermore, 14 of the clinics reported that the CAP allowed them to increase their capacity to offer same day appointments.

Adoption of Evidence-Based Practices

Several of the Community Ambassadors reported that they adopted evidence-based practices that were promoted at KPMAS. For example, the Community Ambassadors at three of the clinics reported that they implemented the A-L-L (aspirin, lisinopril,

and lipid-lowering) medications program for patients with diabetic mellitus to reduce cardiovascular risk. The Community Ambassadors at two clinics reported that they implemented hypertension control protocols and immunization programs (ie, pneumonia, hepatitis B). In addition, the Community Ambassador at one clinic developed a pilot project to integrate behavioral health with primary care through a partnership with the county primary care coalition.

Access to Care and Quality of Care

Among the participating safety-net clinics, the Community Ambassadors provided care to the adult population 18 years and older (n = 12 clinics), pediatric population birth to age 17 years (n = 4 clinics), and Ob/Gyn patients age 24 to 69 years (n = 5 clinics). The clinics could have served more than one subpopulation type.

At the clinic level, the overall change in the estimated number of unduplicated patients served by the safety-net clinics from pre- to post-CAP implementation increased by approximately 5% for adults and 11% for pediatric patients. However, the number of Ob/Gyn patients was relatively stable between years (-2%). On the basis of the number of patient encounters, the adult population was nearly unchanged (-1%), but there was a substantial increase in the number of pediatric (11%) and Ob/Gyn (6%) encounters (Table 1).

In 2012, the Community Ambassadors provided an estimated 14,571 encounters to 5287 adult patients, 5028 encounters to 1981 pediatric patients, and 12,650 encounters to 4720 Ob/Gyn patients (Table 2). This translates into an estimated 1191 encounters per FTE Community Ambassador for the adult population, 1047 encounters per FTE Community Ambassador for the pediatric population, and 1561 encounters per FTE Community Ambassador for the Ob/Gyn population. These counts represent an underestimation, however, because 5 of the clinics did not have the capability to report data at the provider level and were excluded from the provider-level analyses.

Table 1. Estimated number of unduplicated patients and primary care encounters served by the safety-net clinics by subpopulation, 2011-2012^a

Subpopulation	No. of clinics	Unduplicated patients		Change (%)	No. of encounters		Change (%)
		2011	2012		2011	2012	
No. of adult patients (≥ 18 years) ^b	12	49,232	51,787	5.2	176,811	174,732	-1.2
No. of pediatric patients (0-17 years) ^c	4	9193	10,167	10.6	24,061	26,724	11.1
No. of Ob/Gyn patients (24-69 years)	5	23,445	22,911	-2.3	78,835	83,625	6.1

^a For three clinics, data are available for fiscal year only. Data are only included for clinics that provided results for both years.

^b Data are available for overall clinic population only for four clinics (clinics are unable to stratify by age) and are included with the adult population.

^c Data include nurse-only and behavioral health visits for one of the clinics in 2011. Ob/Gyn = obstetrics/gynecology.

Table 2. Estimated number of unduplicated patients and primary care encounters served by the community ambassador by subpopulation, 2012^a

Subpopulation	No. of clinics	Unduplicated patients	No. of encounters	No. of encounters per patient
No. of adult patients (≥ 18 years) ^b	5	5287	14,571	2.8
No. of pediatric patients (0-17 years)	3	1981	5028	2.5
No. of Ob/Gyn patients (24-69 years)	6	4720	12,650	2.7

^a For three clinics, data are available for fiscal year only.

^b Data are available for entire population only for four clinics (clinics are unable to stratify by age) and are included with the adult population.

Ob/Gyn = obstetrics/gynecology.

From the quality-of-care process measures based on data from the FQHCs, the clinics performed close to or more than 90% for adult asthma therapy and adult weight screening in 2012. Additionally, the largest improvements in quality over time were made for adult weight screening (37% increase) and adult tobacco use assessment (24% increase). Smaller improvements in quality were made for cervical cancer screening (7% increase) and breast cancer screening among women (11% increase). However, the clinics' performance decreased between years for adult smoking cessation intervention (-11%) and modestly declined for adult hypertension control (-3%) (Table 3).

At the Community Ambassador level, performance was at or near 90% for two adult quality measures (weight screening and tobacco use assessment) in 2012. This compares with a 45% and 74% performance on the same Uniform Data System measures, respectively, by FQHCs in the state of Maryland overall. Performance for adult tobacco use screening, adult hypertension control, and cervical cancer screening were higher among the patients seen by the Community Ambassador than by the safety-net clinics in general. The Community Ambassador performance for

adult hypertension control was higher than the clinics' performance (73% vs 64%) and performance by FQHCs in the state of Maryland (61%). For breast cancer screenings, performance among the Community Ambassadors was much lower (48%) (Tables 3 and 4).

DISCUSSION

On the basis of this early evaluation, the leadership of the participating clinics considered the CAP to be a valuable support in the Mid-Atlantic States Region. The clinics were overwhelmingly satisfied with their participation in the CAP. In some cases, this program also helped the safety-net clinics to improve patient care delivery by extending their service hours, expanding programs, increasing capacity, and improving patient satisfaction. Additionally, the CAP allowed the clinics to increase access to care for specific subpopulations, as well as to improve the quality of care on certain key quality measures.

Although the Community Ambassadors provided nearly 1000 encounters per FTE for each of the subpopulations served, this was much lower than the target of approximately 4000 encounters per clinician. Several reasons for the lower-than-expected productivity include an underreporting of clinician

encounters by the clinics, a high no-show rate of patients, electronic medical record (EMR) implementation that decreased the number of available appointment slots during this transition period, treating more complex patients who required longer visits, more procedure-based encounters by some Community Ambassadors, insufficient patient volume at a few clinics, and some initial learning by the clinics on how to best incorporate their Community Ambassadors into the clinic workflow. On the basis of these findings, there is a potential for increased capacity by the Community Ambassadors.

In terms of improving quality of care, the largest improvements were made for adult weight screening, adult tobacco use assessment, and breast cancer screening among women. Despite these achievements, opportunities for quality improvement remain. For example, performance by the clinics and Community Ambassadors for breast cancer screening and adult hypertension control were much lower than the other quality measures. These represent areas of focus for targeted quality improvements.

... 4 clinics reported in the open-ended section that the CAP allowed them to extend their service to weekend or evening hours.

Table 3. Federally qualified health center clinic-level performance on select quality measures, 2011-2012^a

Quality measure	No. of clinics	2011			2012			Change (%)
		Performance (%)	Denominator of patients	MD UDS performance (%)	Performance (%)	Denominator of patients	MD UDS performance (%)	
Adult weight screening and follow-up (≥ 18 years) ^b	2	63	140	40	100	8731	45	36.8
Adult tobacco use assessment (≥ 18 years) ^b	3	51	4620	83	75	19,788	74	24.3
Adult tobacco cessation intervention (≥ 18 years) ^b	2	74	140	54	63	140	52	-11.4
Adult asthma therapy (18-40 years) ^b	2	89	238	86	89	171	74	-0.2
Adult hypertension control (18-85 years) ^b	2	68	140	64	64	5556	61	-3.4
Cervical cancer screening among women (24-69 years) ^b	5	56	8663	65	63	13,394	59	7.2
Breast cancer screening among women (40-69 years) ^c	5	36	7569	NA	47	10,645	NA	11.4

^a Per UDS guidelines, denominator of patients may be based on a sample of patients.

^b Based on the UDS measure definitions.

^c Based on the Healthcare Effectiveness and Data Information Set measure definitions.

MD = Maryland; UDS = Uniform Data System.

Table 4. Federally qualified health center Community Ambassador-level performance on select quality measures, 2012^a

Quality measure	No. of clinics	Performance (%)	Denominator of patients
Adult weight screening and follow-up (≥ 18 years) ^b	2	90	3202
Adult tobacco use assessment (≥ 18 years) ^b	3	88	2533
Adult hypertension control (18-85 years) ^b	2	73	645
Cervical cancer screening among women (24-69 years) ^b	5	80	3952
Breast cancer screening among women (40-69 years) ^c	4	48	2246

^a Per Uniform Data System guidelines, denominator of patients may be based on a sample of patients.

^b Based on the Uniform Data System measure definitions.

^c Based on the Healthcare Effectiveness and Data Information Set measure definitions.

Through the CAP, KP has experienced a bidirectional learning opportunity. KP has been able to nurture relationships with the safety-net clinics, learn more about the unique challenges of safety-net patients, and gain a better understanding of the safety-net clinic practices, challenges, and innovations. For instance, the Community Ambassadors indicated that they had to do more with less because they did not have access to KP's resources. As a result, they needed to identify community resources for services such as specialty care for patients without the ability to pay. The Community Ambassadors also noted that they had to deal with treating a much more complicated patient population with challenging social needs. This experience allowed the Community Ambassadors to learn more about social services available in the community and how to treat a wider range of medical conditions that they had never previously dealt with at KP.

In return for their CAP participation, the safety-net clinics have been able to gain more clinicians in their clinic, leverage grant funding opportunities, receive technical assistance, obtain project resources, and acquire KP's expertise. As an example, the Community Ambassadors helped two clinics to pursue grant resources for a school-based health clinic and a breast cancer initiative. The Community Ambassadors also helped to connect the clinics to local coalitions and best practices-related resources. Furthermore, the Community Ambassadors

have helped to implement evidence-based practices such as the A-L-L (aspirin, lisinopril, and lipid-lowering) cardiovascular risk reduction program for patients with diabetes, hypertension control protocols, and routine immunizations at several clinics.

Although the CAP has been viewed largely as an initial success, it was not without some particular challenges. Some of the challenges to the early program implementation were malpractice coverage, contracts with the clinics, and limited space in the clinics to accommodate the Community Ambassadors. In addition, the initial pairing of clinics and Community Ambassadors did not always work and there was limited data collection capacity. Another important challenge was that of overcoming language barriers with the lack of resources in the clinic setting. For example, one clinic reported that its patient population spoke more than five different languages.

The CAP evaluation also encountered some data limitations. As previously mentioned, the safety-net clinics had varying reporting capabilities that made uniform data collection difficult. Several of the clinics, the free clinics in particular, did not have an EMR infrastructure. Because of this issue, the clinics without EMR capabilities were unable to report data at the clinician level or for the calendar year. In addition, these clinics were not able to stratify their data by subpopulation or disaggregate nurse-only and behavioral health visits from primary care visits.

Furthermore, because the non-FQHCs are not required to routinely collect information on standardized quality measures, the sample of clinics that reported on these measures was restricted to the FQHCs. Among the FQHCs that reported on the quality measures, the data were unreliable or unavailable for some of the measures and there was a small sample size of clinics and patients. As part of future CAP participation, all clinics will be required to report on standardized utilization and quality measures so that comparisons across clinics can be made.

There were also a number of issues with regard to the clinics' productivity during the evaluation period that affected utilization. For example, several clinics were in the process of implementing their EMR, which resulted in decreased productivity. Furthermore, three clinics reported that they lost several clinicians and grant funding during this timeframe that resulted in a net decrease in the number of patients and encounters. In several of the clinics, the Community Ambassador was the only consistent clinician because other clinicians were volunteer staff or left because of budget cuts. For example, one clinic stated that they experienced a budget cut from the county and lost a full-time physician as a result. The KP Community Ambassadors were able to fill this void, which had an impact in treating the uninsured and underserved in this particular community. The CAP allowed these clinics to sustain their operations and continue to serve their patient population during this challenging period. Although going into the program, KP did not intend to fill the gap of clinicians because of budget shortfalls, this was the case in a few circumstances.

CONCLUSION

KP's CAP has demonstrated some early success in expanding access to care for certain subpopulations and improving quality on several key measures for diverse populations in the Mid-Atlantic States safety-net clinics. However, opportunities for expanded capacity and quality improvement remain. There are also data reporting challenges in clinics

without EMR capabilities and information technology infrastructure that need to be addressed.

Some future directions of the CAP include a continued emphasis on tracking and measuring changes to patient health outcomes by focusing on additional quality measures that are most relevant and feasible given the capabilities of the data systems of the safety-net clinics. This emphasis will allow the CAP to continue to determine whether the program is having a measurable impact in improving long-term patient outcomes. ❖

Disclosure Statement

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

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Public Health

Throughout human history, the major problems of health that men have faced have been concerned with community life, for instance, the control of transmissible disease, the control and improvement of the physical environment (sanitation), the provision of water and food of good quality and in sufficient supply, the provision of medical care, and the relief of disability and destitution. The relative emphasis placed on each of these problems has varied from time to time, but they are all closely related, and from them has come public health as we know it today.

— George Rosen, MD, 1910-1977, American physician, public health administrator, journal editor, and medical historian