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Cancer Screening at a Federally Qualified Health Center: A qualitative study on organizational challenges in the era of health care reform

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Abstract

Background—Federally Qualified Health Centers (FQHCs) serve uninsured and minority populations, who have low cancer screening rates. The patient-centered medical home (PCMH) model aims to provide comprehensive preventive services, including cancer screening, to these populations. Little is known about organizational factors influencing the delivery of cancer screening in this context.

Methods—We conducted 18 semi-structured interviews with clinic personnel at four FQHC clinics in Washington State. All interviews were recorded and transcribed verbatim and analyzed by two bilingual coders to identify salient themes.

Results—We found that screening on-site, scheduling separate visits for preventive care, and having non-provider staff recommend and schedule screening services facilitated the delivery of cancer screening. We found work overload to be a barrier to screening.

Conclusions—To successfully implement screening strategies within the PCMH model, FQHCs must enhance facilitators and address organizational gaps in their cancer screening processes.

Keywords

cancer prevention; cancer screening; Latinos; uninsured; primary care medical home; organizational change

INTRODUCTION

Federally Qualified Health Centers (FQHCs) are oriented to serve a variety of underserved populations, a high percentage of whom are uninsured or are members of ethnic minorities,

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particularly Hispanics. Adherence to recommendations for breast, cervical, and colorectal cancer screening is low in these groups compared to insured and non-Hispanic White (NHW) populations (1). Most importantly, underuse of cancer screening services may result in delayed diagnosis, fewer treatment options, and poorer survival.

FQHCs have high patient loads, limited resources, and a preponderance of acute care. With the full implementation of the Patient Protection and Affordable Care Act by 2014, an estimated 32 million people will be newly insured and requiring health care services.(2) A growing number of health systems under pressure to provide these services efficiently will adopt the patient-centered medical home (PCMH) model.(3) Substantial literature shows this model to be associated with better health, greater work satisfaction, and reductions in health disparities.(4, 5) To be competitive in the era of health care reform, FQHCs and other primary care organizations must be accredited as PCMHs by 2016.

Despite the rising prominence of the PCMH model and its heavy emphasis on preventive services such as cancer screening, little is known about the influence of health systems' characteristics on the delivery of these services.(6-8) Some organizational features have been shown to have a major impact on rates of breast, cervical, and colorectal cancer screening. (9-11) Stone et al. (9), for example, identified three general clinic-based strategies that increased screening delivery: use of separate clinics devoted to prevention, use of a planned care visit for prevention, and designation of non-physician staff to do specific prevention activities. But none of these findings have been specific to FQHCs, and none have analyzed how these factors might influence cancer screening and care delivery in a changing environment.

Given the emphasis on preventive services in the PCMH model and the dearth of information about how the organizational context influences cancer screening services, we sought the perspectives of clinical personnel at an FQHC in Washington State on organizational-level factors that can affect the delivery of cancer care services.

METHODS

Setting

A community-based FQHC in Washington State provides comprehensive health and human services to a predominately low-income and Hispanic population. The organization operates a network of 21 medical and 14 dental clinics. More than 800 full-time-equivalent staff, including approximately 130 providers, see more than 120,000 unduplicated clients annually. In 2010, about 93% of clients had incomes below 200% of the federal poverty level, and about 91% were either uninsured or publicly insured. About 60% of the clients are Hispanic and 28% Caucasian. Immigration status data is not collected at the clinics.

Pap testing, colposcopies, pelvic exams, and preventive breast cancer services are generally performed on-site. Services for screening mammography are provided on-site through a local imaging service that uses a wheeled-in mammography unit at three clinical sites (once or twice per month), and patients are referred to a nearby breast center at the fourth site. For colorectal cancer screening, fecal occult blood testing is offered to patients on-site, and those with positive screens or who prefer screening colonoscopy are referred to a local hospital.

The organization is a contracted provider of the federal Breast, Cervical and Colon Health Program (BCCHP), which provides free breast, cervical, and colon cancer screening services for income- and age-eligible individuals in Washington State. The program also provides diagnostic follow-up and treatment services for enrolled individuals with positive screening results. (12)

Participant recruitment

We used a purposive sampling technique to recruit clinic staff from four medical clinics. We began by asking the clinic's medical director to suggest potential participants from each participating clinic. The medical director sent email invitations to physicians, nurses, managers, and non-provider staff who performed tasks related to cancer screening or who had an important role organizing and overseeing such activities. Participation was voluntary. Following the invitation, a project researcher contacted the identified staff individually to schedule an in-person or telephone interview. As interviews occurred, new participants were added according to interviewees' recommendations. Out of 21 contacts attempted, three participants could not be reached either by email or phone. None of the reached participants declined to participate.

Interview schedule

We developed a 15-item semi-structured interview schedule that addressed factors related to organizational readiness to deliver screening services, such as leadership support, organizational climate and teamwork, (13, 14) and barriers and facilitators to cervical, breast, and colorectal cancer screening (Table 1). We also conducted a short demographic survey. Interviews lasted 30 minutes to one hour and were audio-recorded, and all participants were offered $50 compensation for their time. Clinic personnel provided verbal assent to participate (telephone) or signed a consent form (in person). Interviews were conducted between April and September 2010.

Interview procedures

A bilingual physician conducted the interviews in the language of the participant's preference. All interviews were transcribed verbatim. The transcripts were uploaded to Atlas ti 6.2 for coding. Transcripts were coded by at least two coders to ensure validity. Differences in coding were discussed until consensus was reached. This study was approved by the Fred Hutchinson Cancer Research Center's Institutional Review Board and by the Health Centers' Research Committee.

Theoretical framework

The PCMH is defined in numerous ways, but the underlying assumption is that the model has similar characteristics to those of efficient primary care practices. (4, 5, 15–17) For example, a PCMH should provide access to health services that are comprehensive and long-term (as opposed to one-time acute care), delivered by a health care team in coordination with secondary and tertiary levels of care. The National Committee for Quality Assurance (NCQA) has established a set of six standards for PCMH accreditation: (18) Enhance Access/Continuity, Identify/Manage Patient Populations, Plan/Manage Care, Provide Self-Care Support/Community Resources, Track/Coordinate Care, and Measure/Improve Performance (see Table 2). We used these standards to analyze our data of organizational barriers to and facilitators of cancer screening.

Analysis

We used deductive content analysis (DCA) (19) to organize our data, an approach in which the researcher disaggregates the data into smaller units of analysis using an existing framework or theory and modifies the framework based on new knowledge emerging from the data. Using the NCQA accreditation standards as a starting point, we organized our data into a matrix to expand and redefine the existing categories. We started with the NCQA's standards for PCMH as our general categories and became increasingly specific until we had most of our codes and quotes assigned to a category. If codes were not assigned and were considered important by the researchers, new categories were created (see Table 3).

RESULTS

Eighteen participants from 4 network clinics were interviewed, including 9 physicians (4 in their capacity as managers), 5 nurses (ARNP/RN), 2 medical assistants (MA), and 2 program coordinators. The mean age was 37 years. Thirteen participants (72%) were female, 12 (66%) were non-Hispanic White, and 6 were Hispanic whites. The mean number of years in practice and at the health center was 6.5 and 5.6 years, respectively. We identified factors that facilitate or disrupt the cancer care continuum and described how they related to NCQA's PCMH standards (see Table 3).

Standard 1: Enhance Access/Continuity

Providers and clinical staff unanimously described programs that pay for screening services (i.e., BCCHP) as the most important factor influencing access to screening. Several noted that without these programs, recommending cancer screening would be almost impossible, especially given the current economic climate. The cumbersome enrollment process for these programs, along with reductions in funding for them, posed a significant challenge for our interviewees.

> "[BCCHP] is really . . . helping us accomplish these cancer screenings because if we did not have that to offer, we would be in bad shape . . . it is not cheap to have these things done."

Because FQHCs are primary care facilities whose services are not integrated with other specialties, being able to provide services on-site was mentioned as a factor that influenced both patients and providers at these clinics. For Spanish-speaking patients in particular, offering on-site services allowed providers to overcome communication barriers by reducing some of the interfaces that block cancer screening in referring processes. (The availability of Spanish-speaking staff and Spanish-language educational materials was also mentioned as a facilitator to access.) Conversely, being unable to offer Pap testing and screening mammography services immediately, or having to refer patients for colonoscopies, were considered deterrents.

> "As a clinic system we need to be able to screen for breast cancer, not just referring patients, but we need to actually have our machines here."

Standard 2: Identify/Manage Patients

Our participants' opinions about reminders for cancer screening in the electronic health record (EHR) were divided. Some thought such clinical support tools were a good resource to identify potential clients in need of screening, while others cited such tools as unintuitive and cumbersome.

All clinic staff and providers mentioned the multiple health concerns of the population and the brevity of clinic visits as factors that discouraged managing patients in a comprehensive way to focus more on the acute problem at hand.

> "[W]e just don't have the time . . . [I]n a lot of community health centers, which is where we see a lot of the most disadvantaged people with no insurance who really need these programs, we only get 20 minutes to see patients."

Participants considered teamwork as key to identifying patients for cancer screening. All clinics had a morning activity called the "huddle," during which physicians, nurses, and medical assistants met to review the needs of each scheduled patient and identify available preventive services. The huddle made participants feel they were distributing resources efficiently, as well as working on team building and improving recruitment for cancer screening services.

Standard 3: Plan/Manage Care

Most participants cited the use of separate clinics devoted to prevention, and designation of non-physician staff to do specific prevention activities, as important facilitators of the cancer screening processes in their organization. Specifically, some clinics had formed health care teams comprised of a physician, a nurse practitioner, and several medical assistants and had charged the nurse practitioner to carry out all prevention activities. Some had also designated their chronic care coordinator (non-physician staff in charge of preventive activities for chronic conditions such as diabetes and asthma) to oversee cancer screening activities. In these clinics, having a separate visit and a non-physician staff member assigned to cancer screening was perceived as effective.

> "We really try to focus in on the preventive part of things because the nurse practitioners are really well trained in doing preventive care, so we find that it works really well."

Two of the four clinics had implemented a system in which a designated staff member would review a list of scheduled patients and offer them, in advance, the opportunity to access cancer screening services at the moment of their appointment. This helped participants plan for their screening services and use the office visit to get preventive services they might not otherwise have considered. This strategy was considered very effective by clinic staff and managers.

> "So for example, I say: 'I see that you are coming to the clinic, and you don't have any of your mammogram markers' . . . I do the schedule right there, so by the time they come here, they already have a mammogram scheduled."

Many providers described the screening process as provider-dependent and poorly embedded into the organizational structure. This sometimes led to missed opportunities to discuss and plan screening. Many providers mentioned that establishing clinic-based guidelines would serve to improve adherence.

Standard 4: Provide Self-Care Support/Community Resources

Some participants mentioned the transient quality of the population as a barrier to cancer screening. As these FQHCs served a high percentage of migrant populations, continuity of care was a challenge. Some community outreach was being done, such as offering cancer screening services and information at health fairs and talking about cancer screening on local community radio. In general, participants viewed these strategies as successful but time-consuming.

Standard 5: Track/Coordinate Care

Providers expressed doubts about whether and how information on screening performed outside of the clinic was tracked in the patient health record. For patients with positive screening results, several participants noted that tracking procedures were unclear, particularly for those patients who were not enrolled in BCCHP, which tracks results and reports them to the clinic. For patients with private insurance or who are not enrolled in BCCHP, less information is generally available about preventive screening or diagnostic exams completed off-site.

EHR documentation for preventive exams was considered problematic for two reasons: first, providers may inconsistently record preventive exams in the EHR, and second, many referral sites have no electronic interface, requiring the hand-entry of patient data into the EHR.

Standard 6: Measure/ Improve Performance

Physicians in our study mentioned conferences, providers' meetings, health-related websites, and CME credits as ways to stay up to date with cancer screening guidelines and practices. No other organizational strategies to measure performance were mentioned as barriers to or facilitators of cancer screening.

Other Challenges

Limited funding for preventive services, combined with incentives to provide acute care, were thought to deter cancer screening.

> "There are lots of economic pressures that push us to the numbers and some that press for the quality of the services, and we are under that constant pressure."

DISCUSSION

Our study aimed to identify factors influencing cancer screening at FQHCs, where a large share of low-income Hispanics and other underserved populations receive primary care in the context of the PCMH model. Our findings suggest that recommendations for cancer screening are not always systematized. Providers and clinic staff sometimes felt overwhelmed by the volume of their practices and the multiple health concerns affecting their patients. Lack of a systematic tracking system made recommendation and results reporting challenging. Effective use of EHRs in cancer screening was described as useful yet difficult to achieve. Nevertheless, these FQHCs leveraged their unique characteristics to strengthen their cancer screening processes. Federal aid programs were described as particularly helpful in these settings, as were on-site screening services, Spanish-speaking staff, having a team that can delegate responsibilities, and separate visits for preventive care.

Toward a Patient-Centered Medical Home

While we expect to see widespread implementation of the PCMH model in the coming years, it will be no easy task for a number of reasons. First, it will require a favorable organizational climate, featuring strong leaders with cohesive and efficient health teams that can guide each patient through the full range of health care services. Under the PCMH model, roles within health care teams are redefined, with non-provider staff in particular broadening their scope of practice. Work practices already in place in these FQHCs, such as the huddle and the presence of a chronic/preventive care coordinator, have proven useful in PCMH adoption at other organizations (17).

As FQHCs work to optimize staffing and work practices under the PCMH model, technological tools must also be enhanced. We found that EHRs are crucial in identifying/ managing care, which is one of NCQA's accreditation criteria for PCMH organizations. Our findings suggest that because EHRs can be useful but also challenging, it is important to create user-friendly computer interfaces, design comprehensive preventive algorithms, and provide ongoing training.

Another challenge for FQHCs in implementing the PCMH model is how to serve undocumented, uninsured minorities in an era of sharply limited resources. These groups make up a high percentage of patients seeking care at FQHCs and, because of their undocumented status, will not be covered by the provisions of health care reform. (20) Our results suggest that FQHCs rely heavily on federal aid programs to provide cancer care services for the uninsured. With budgets for such programs under increasing constraints, other aid programs and payment options will become even more necessary for these vulnerable populations.

Finally, FQHCs are still dealing with a lack of incentives for preventive services. Currently, most federal incentives are allocated as fee for service, where the emphasis has been focused on access to acute treatment and procedures. But with the Patient Protection and Affordable Care Act, more incentives will be tied to the delivery of preventive care services. Clinics will be required to report their preventive care exams through standard Uniform Data System and Healthcare Effectiveness Data and Information Set measures. (3, 21)

Even though literature has shown financial incentives to be effective in changing health care professionals' behaviors, (22) there is limited information on the effectiveness of incentives in quality of care and patient outcomes. Regarding cancer screening in primary care, incentives seem to have moderate effectiveness. In a Cochrane review of three studies assessing cervical and mammography screening, only cervical cancer screening rates improved in two of the studies (23). More research will be needed to evaluate the use of financial incentives to encourage cancer screening practices.

Limitations

The purposeful sampling of participants could have led to the inclusion of individuals who may have been the most committed to or interested in cancer screening. Nevertheless, as our goal was to retrieve in-depth information about organizational factors influencing cancer screening in a FQHC setting, we considered it appropriate to let the organization identify their informants. Our findings are not meant to be generalizable to a wider population. Also, as a result of using a snowball technique to approach key informants first recommended by the medical director, our participants included only clinical staff. We acknowledge that the perspectives of other potentially important staff members, such as front desk or other administrative staff, are not present in our study.

CONCLUSION

While the PCMH model has been proven to help deliver comprehensive health services to underserved populations, FQHCs face challenges in implementing this model. As the prevention-focused PCMH model continues to spread, it is essential to identify and address organizational factors influencing preventive cancer services at these health care delivery organizations. Further research is needed on the impact of federal aid programs on cancer screening in clinics that serve predominantly underserved patients, as well as the impact of health care reform laws and incentives in cancer screening at FQHCs.

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Table 1

The interview guide.

I. Related to Organizational readiness for change
1. What would you say are the clinic's main health priorities?
2. Describe how cancer screening is a priority for the mission of the clinic?
3. What does your clinic do to stay current on cancer screening guidelines?
4. Do you think your clinic needs to implement new strategies to cancer screening regarding breast, cervical and/or colorectal cancer? What resources are currently available?
5. Who decides what are the best interventions/services for the patients? If you had a specific idea you wanted to promote, how would it be addressed?
6. How would you feel about participating in the implementation of a cancer-screening intervention at your clinic? Where could you contribute? Who would have to get involved? What would you need? Do you think you would receive it from management?
7. How would a cancer-screening program impact your personal practice?
8. What does the clinic do to encourage team work and collaboration? Do you feel an active member of a team?
9. What staff do you consider to be part of your team?
10. Have you heard about the new breast cancer screening guidelines? How did you hear about them? What do you think about the guidelines? Have you adopted them? How?
II. Related to Organizational facilitators and barriers to cancer screening.
11. I am going to ask you about 3 types of cancer: Breast, cervical and colorectal cancer: For each type, can you tell me what kind of cancer screening services does this health care facility provide and how do patients access it?
12. What is it about cancer screening that makes it easy/difficult to recommend it to your patients? Can you specify for breast, cervical and colorectal cancer?
13. Think about a situation when you recommended cancer screening and a situation when you didn't: What do you think were the most influential factors in these decisions?
14. Do you feel talking about cancer screening affects your patient/provider relationship? How?
15. When you recommend screening to a person. Can you follow up on your recommendation? Who does the follow up?

Table 2

Summary of NCQA PCMH 2011 Standards

Enhance Access/Continuity	• Patients have access to culturally and linguistically appropriate routine/urgent care and clinical advice during and after office hours • The practice provides electronic access • Patients may select a clinician • The focus is on team-based care with trained staff
Identify/Manage Patient Populations	•The practice collects demographic and clinical data for population management • The practice assesses and documents patient risk factors • The practice identifies patients for proactive and point-of-care reminders
Plan/Manage Care	• The practice identifies patients with specific conditions, including high-risk or complex care needs and conditions related to health behaviors, mental health or substance abuse problems • Care management emphasizes: -Pre-visit planning -Assessing patient progress toward treatment goals -Addressing patient barriers to treatment goals • The practice reconciles patient medications at visits and post-hospitalization • The practice uses e-prescribing
Provide Self-Care Support/ Community Resources	•The practice assesses patient/family self-management abilities • The practice works with patient/family to develop a self-care plan and provide tools and resources, including community resources • Practice clinicians counsel patients on healthy behaviors • The practice assesses and provides or arranges for mental health/substanceabuse treatment
Track/Coordinate Care	• The practice tracks, follows-up on and coordinates tests, referrals and care at other facilities (e.g., hospitals) • The practice follows up with discharged patients
Measure/Improve Performance	•The practice uses performance and patient experience data to continuously improve • The practice tracks utilization measures such as rates of hospitalizations and ER visits • The practice identifies vulnerable patient populations • The practice demonstrates improved performance

Table 3

Extract of Categorization Matrix and quotes used during analysis.

Enhance Access/Continuity	Breast Cervical and Colorectal health Program (BCCHP)	I mean that is really a program (BCCHP) that is helping us accomplish these cancer screenings because if we did not have that to offer, we would be in bad shape because it is not cheap to have these things done.
	No / unknown health care coverage	...So you have to figure it out, is this patient covered for this? Or should I not even ask because it's going to take too long to find out.
	In clinic opportunity	"...As a clinic system we need to be able to screen for breast cancer, not just referring patients, but we need to actually have our machines here
	Spanish speaking staff and information	They are quite accessible. They have interpreters. When interpreters are not available it is noticed. The patients appear more anxious, but usually the day of the mammogram they explain of any findings and it's really helpful.
Identify/Manage Patient Populations	Automating screening (through the EMR)	We also have a system (EMR), which helps us to work on prevention. For example, if a patient is due for a pap smear, when the date comes...OK, "now is time for you to come" It's great because every single provider can see it and recommend to their patients. "When our EMR opens up, the first thing that comes up on the patients chart is the Preventive Health Maintenance screen (...) And, what I see in reality is that the first thing that we do is we close that screen so that we can get to the next screen"
	No time / high demand	(...) That is the problem with primary care is that in many clinics not all, but, in a lot of community health centers, which is were we see a lot of the most disadvantaged people with no insurance who really need these programs, we only get 20 minutes to see patients.
	Team work/Huddle	"In the morning, right before work, we get together and see the schedules. And see the people on the schedules individually, and start placing people with the things that they may need...So, we are trying to, kind of, make the visit efficient"
Plan/Manage Care	Unclear screening protocol	"Sometimes you feel that it's on your shoulders, you know, you feel bad because you are not telling everybody to get their Paps..."
	Unclear screening guidelines	What has been hard for us is there are so many different guidelines, and different people go by different guidelines so we, as an organization I think we haven't made a policy that we are definitely going by one.
	Unburdening provider/non medical staff	A lot of that (screening process) happens at the front desk or at the level of the medical assistant when the patient is being taken in from the waiting rom. A lot of things happen at that point and before the provider sees the patient.
	Separate visit for preventive care	"...We've been trying to change that by having nurse practitioners. And so the nurse practitioners work alongside the physicians and their role is to, um, do a lot of that preventative medicine that often times we don't get a chance to do. So I think one of the goals is that if we remind, remind a person: "Listen, you need a pap," or, "You're due for your mammogram, why don't you make an appointment today with my, with the nurse practitioner I work with? She has an opening."
	Pilot project for mammography screening	We're having someone to look at the schedule for everybody, for example, that 's scheduled to come today and meet the demographic requirements, Look at their charts and see if they've had breast cancer screening addressed. Meaning that if the patient declined it, well that's... they declined it, But if they haven't, then calling the patient, reminding them and doing follow-up calls to see if they got it

Provide Self-Care Support/ Community resources	Community outreach	(About their radio show) Ah. About an hour yeah, about an hour, And I talk about, you know, all the different screening.... and the program, and, because I'm so busy, I just found a volunteer that's gonna be able to pick that up for me and do the show so I'm very excited about that.
	Transient population	But the thing is that they leave, and often times it takes them many more months to come back in. Or when they finally do decide to come in they already have another complaint. You know?
Track/Coordinate Care	Need for referral in off site screening	With colonoscopy it is a different story, I feel like I need more information from them. Most of the time, I hear the patient decided not to go.
	Relationship with referring sites	“The only problem is that we need more feedback from GE (Gastroenterology). Often patients have a colonoscopy and we don't have any record of them having a colonoscopy” Oh, for mammograms it's easy...Our Breast Care Center actually takes care of most of it. They are veryproactive and they will call us to make sure if they need a biopsy that has to be done right now.
	Unclear tracking system	“The BCHP program does centrally track. They say what is the follow-up associated with this suspicious finding. They require that documentation. But right now we do not have a centralized system to be sure they have followed-up” And the problem is, with all the systems, including the EMR, this is no different. You can do a Pap smear butif you don't register it on the “Apple” and say you did it, then you don't get credit for doing it.
Measure/Improve Performance	Quality Improvement	As far as educating providers and staff? We do, every week the providers meet to discuss the updates on guidelines on various health conditions, could be diabetes or different things.