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How 3 Rural Safety Net Clinics Integrate Care for Patients:

A Qualitative Case Study

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Abstract

Background—Integrated care focuses on care coordination and patient centeredness. Integrated care supports continuity of care over time, with care that is coordinated within and between settings and is responsive to patients' needs. Currently, little is known about care integration for rural patients.

Objective—To examine challenges to care integration in rural safety net clinics and strategies to address these challenges.

Research Design—Qualitative case study.

Participants—Thirty-six providers and staff from 3 rural clinics in the Safety Net Medical Home Initiative.

Methods—Interviews were analyzed using the framework method with themes organized within 3 constructs: Team Coordination and Empanelment, External Coordination and Partnerships, and Patient-centered and Community-centered Care.

Results—Participants described challenges common to safety net clinics, including limited access to specialists for Medicaid and uninsured patients, difficulty communicating with external providers, and payment models with limited support for care integration activities. Rurality compounded these challenges. Respondents reported benefits of empanelment and team-based care, and leveraged local resources to support care for patients. Rural clinics diversified roles within teams, shared responsibility for patient care, and colocated providers, as strategies to support care integration.

Conclusions—Care integration was supported by 2 fundamental changes to organize and deliver care to patients—(1) empanelment with a designated group of patients being cared for by a

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provider; and (2) a multidisciplinary team able to address rural issues. New funding and organizational initiatives of the Affordable Care Act may help to further improve care integration, although additional solutions may be necessary to address particular needs of rural communities.

Keywords

safety net clinics; rural; care integration; patient-centered care

Care integration is a multidimensional construct, one that includes elements of coordination and patient center-edness.¹ Care integration recognizes the patient as the central orientation for care. Singer and colleagues developed the Framework for Measuring Integrated Patient Care and de-fined integrated patient care as being “coordinated across professionals, facilities, and support systems; continuous over time and between visits; tailored to patients’ needs and preferences; and based on shared responsibility between patient and caregivers for optimizing health”.¹(p113)

Care integration within the American health care delivery system is fraught with challenges. Logistical and administrative aspects of coordinating care are time consuming, involve multiple sources of information from clinical and administrative sources across care settings,² often occur outside patient visits with providers,^{2,3} and require a range of tasks and activities that are not typically reimbursed.⁴ Primary care physicians often have limited knowledge of patients’ Emergency Department visits or hospital admissions and encounter problems with obtaining information after patients have seen external providers.^{5,6} Referrals from primary care to off-site–specialized medical and mental health services can also be problematic for uninsured patients and those covered by Medicaid.⁷ In light of such challenges, care integration is a critical aspect of patient care that merits attention and improvement.

Safety net clinics serve as important resources for primary care for underserved patients, including those in the rural areas.⁸ There are numerous challenges to providing comprehensive care in rural settings, where it has been argued that providers face a “perennial financial and organizational battle” to effectively coordinate care.⁹(p93) Rural residents are more likely to avoid health care compared with residents in metropolitan areas.¹⁰ Many rural families lack key resources to manage their overall health, infrequently utilize health care services, and manage multiple health care needs with limited resources.¹¹ In addition, compared with residents of urban areas, rural residents are more likely to be uninsured and report fair to poor health status.¹¹ For patients in rural areas, geographic distance compounds difficulties accessing specialty care.¹² Little is currently known about the realities of integrating care for rural patients, particularly in the safety net setting.

The Safety Net Medical Home Initiative (SNMHI) was a demonstration project and 4-year intervention supported by The Commonwealth Fund to implement and evaluate the patient-centered medical home (PCMH) in 65 safety net clinics in 5 states.¹³ The SNMHI provided an opportunity to conduct a descriptive and in-depth case study of care integration among rural safety net clinics. We aimed to learn how, in practice, rural safety net clinics integrate care for their patients. Specifically, we focused on: (1) unique challenges to care integration in rural clinics; and (2) strategies implemented in an effort to address the challenges.

METHODS

Sites were selected from clinics participating in the SNMHI. The MacColl Center for Health Care Innovation at the Group Health Research Institute and Qualis Health worked with local organizations with quality improvement expertise and participating SNMHI sites to implement the PCMH model.¹³ Among the participating organizations in the SNMHI, 12 identified themselves as rural based on their location and the extent to which they served a rural community in their patient population, with 7 Federally Qualified Health Centers (FQHCs) and 5 other types of clinics (eg, rural health clinic, academic medical center outpatient clinic, critical access hospital).

Qualis Health sent letters of invitation to all 12 rural organizations to describe our case study and assess their availability and interest in participating. Sites that declined to participate cited administrative changes, staff turnover, or lack of time due to administrative activities and patient care. We aimed to recruit 3–6 rural clinics, and 3 were available to participate. Clinics provided lists of potential interviewees across a range of clinical and administrative roles including: Executive Directors, Medical Directors, Physicians, Nurse Practitioners (NPs), Physician Assistants (PAs), Registered Nurses (RNs), Licensed Practical Nurses (LPNs), Medical Assistants (MAs), and other outreach and support staff. The University of Chicago Institutional Review Board approved this study.

Case study methods were used and included observation of the site (eg, location, layout, team configuration) and individual in-depth qualitative interviews with a range of staff and providers at each site over a 2-day period. An interview guide included questions across 7 care integration constructs adapted from the Framework for Measuring Integrated Patient Care¹ (Table 1):

1. Care coordination within the rural clinics.
2. Continuous familiarity with patient health and social needs over time.
3. Continuous and responsive action between clinic visits.
4. Coordination with external health care providers.
5. Care coordination with partnered external community agencies.
6. Patient-centered care.
7. Shared responsibility for care between clinic, patients, and family members (Table 1).

Interviews were audiorecorded, transcribed, and coded for key themes using NVivo qualitative data analysis software (QSR International Pty Ltd., Version 10, 2012). The theoretical perspective was interpretive and sought to understand meanings as described and understood by participants.^{14,15} To develop internal coding consistency, the first 5 transcripts were coded independently by 2 members of the study team (S.D. and K.G.), who then reviewed the coding and discussed to agreement. Remaining transcripts were reviewed independently, with subsequent meetings to discuss questions and revise coding. Finally, all interviews were coded against the final template by 1 person and verified by the second.

Analytically, the framework method was used.¹⁶ This method uses thematic analysis to derive main themes which are then placed in a matrix with responses from individual participants remaining visible throughout the analysis process. As an analytical framework, Singer et al's¹⁷ 7 care integration constructs were organized into 3 conceptually related domains: (1) Team Coordination and Empanelment (Constructs 1, 2, and 3); (2) External Coordination and Partnerships (Constructs 4 and 5); Patient-centered and (3) Community-centered Care (Constructs 6 and 7) (Table 1). Within each domain, we provide an overview of how the rural clinics' activities aligned with care integration constructs, followed by the challenges they encountered and the responses they implemented.

RESULTS

The 3 rural clinics, located in Colorado and Oregon, included a rural health center affiliated with a large community health system, a FQHC, and a rural health center with academic medical center affiliation (Table 2). Thirty-six interviews (33 in person; 3 telephone) were conducted by 2 researchers (S.D. and K.G.) between April and June 2012. Staff and providers holding similar roles were interviewed at each clinic. The average interview duration was 43 minutes.

Domain 1: Team Coordination and Empanelment

As part of the SNMHI, all clinics had introduced empanelment, the process of assigning individual patients to individual primary care providers and care teams. Providers and teams were responsible for the care of a designated group of patients and used panel data and registries to pro-actively contact and track patients by disease status and patient needs. Although team composition and structure varied between the sites, each team was led by a physician and/or PA or NP and included a range of clinical support staff such as MAs, patient facilitators, or team coordinators (Table 2). Some teams included other roles such as referral coordinators, nurses or health coaches. External to the teams, but located at each rural clinic, LPNs, behavioral health counselors, RN care managers, MA care coordinators, patient navigators, and community health workers also shared in planning and coordinating patient care. Some teams were in place before the onset of the SNMHI, although these teams had not previously been responsible for an "empaneled" group of patients. During the course of the SNMHI, teams at all 3 sites were caring for an empaneled group, and were also trying new approaches to team-based care either through designating new roles and tasks to team members (eg, expanding team roles) or bringing new roles into the team to enhance patient-centered care.

Challenges Encountered—Respondents described how some patients struggled to understand the new team structure with revised staff and provider roles. Respondents also described concerns among providers about the transition to empanelment and perceptions that high rates of provider turnover in rural communities would disrupt the continuity being sought through team-based care. The need for patients to be empaneled to a particular provider's team took time for some rural providers to accept. For example, when a clinic was the main provider in a rural community, it was reported that there was a sense that the clinic cared for the entire community before the SNMHI. In this situation, it had initially

been difficult to appreciate how empanelment (with each provider and team caring for only an identified portion of that community) would necessarily provide advantages for patient care:

In a rural area, philosophically, [it] took me a long time to get my mind around the concept of why empanelment was even really an issue, because we were taking care of 80% of the population in the area anyway. So I think it took us probably until spring of last year [intervention year 2] to really figure out as a group that empanelment was key, more in terms of disease management and how we were going to track quality issues. (Medical Director, Clinic 3)

For providers and staff, the transition to teams caring for specified patient panels involved designating team roles with specific tasks and determining the appropriate distribution of tasks across roles. It was, at times, challenging to find the distribution of work that was effective for the team, ideal for patient care, and appropriate for individual staff roles (Table 3, quote 1).

Finally, care coordination was sometimes initially viewed as a technical exercise; one that could largely be accomplished through tools available within the electronic medical record (EMR) system. Although the EMR presented many useful features for tracking patient care between different within-clinic providers and staff, and also with external providers, rural respondents wanted others to appreciate the need for high-touch care coordination that required efficient and effective team members who could dedicate time to working with the EMR to connect all aspects of patient care. Even when EMR systems were in place, they were perceived as insufficient for effective within-clinic coordination of care. Individuals on the teams still needed to have designated tasks and responsibilities to support multiple approaches to care coordination (Table 3, quote 2).

Responses to Challenges—All 3 clinics emphasized the need to communicate with patients about the transition to team-based care. To help patients understand the team, providers and staff tried to make the practical aspects of team care and the roles of different team members visible to patients:

Frequently a mid-level provider sees a patient. We had a patient today with a question about the EKG. I'll go in, and say, "[Mid-level provider's name] and I have reviewed this," so [patients] know that we're working together as a team.... And that's one challenge in the medical home. It can't be stuffed down on patients from the clinic. They've got to see that it actually functionally works, and that we're working as a team. (Medical Director, Clinic 3)

Respondents reported that patients came to recognize that they were part of and cared for by a team and that the team could be a resource for a variety of medical and social issues:

We've heard that people feel like, "They know about me, I'm not just, you know, a patient there, I am part of the team." And we really try to emphasize that the patient and the coordinators and of course the provider, we're all part of a team for them, and try to make it more of that experience for them, where they can come to us for

all sorts of issues, whether it be behavioral health or just following up. (LPN, Clinic 2)

At 1 clinic, respondents recalled that not all providers and staff were initially supportive of the transition to team-based care; the leadership team was supportive, but the wider staff group had not been exposed to the ideas behind the changes. They arranged clinic-wide meetings to discuss as a group the motivations behind the transition to team-based care and the aims of improving patient care. However, respondents advised that more opportunities for communication organization-wide, and earlier in the process of change, may help other clinics embarking on similar initiatives.

As teams adjusted, team functioning and designated roles within the team were the key in providing organized and proactive care that was planned with the needs of patients in mind (Table 3, quote 3). Although EMR tools and tracking mechanisms were important for targeted and efficient care, teams came to see the value of having dedicated staff using the EMR to anticipate and plan comprehensive care at the time of clinic visits, monitor referrals, and other communication, and coordinate care (Table 3, quote 4). Respondents reported that nonphysician team members actively contributed to care continuity with patients. Team continuity with patients proved to be a benefit even in the midst of rural provider turnover and effectively reduced the burden that had previously fallen almost exclusively to providers:

Patients have consistency. That's the best thing. The patients have a line in to my staff and they know who they can talk to about certain things. For example, trying to get a referral or if a prescription is messed up, they know who they can call and talk to. They know they work with me [the NP team leader] and they know they have better access. In the end, patients feel more cared for when they know who they're calling and they know they're going to call back. (NP, Clinic 1)

Respondents also noted unique opportunities for staff on teams to interact with patients and assess their needs. For example, a NP from clinic 2 observed that the MAs seem to establish their own relationships with patients (Table 3, quote 5). She noted that sometimes patients share more of the social context of their lives with MAs, which can, in turn, help the team understand what might currently be important in a patient's life and relevant for his or her medical needs.

Domain 2: External Coordination and Partnerships

All rural sites discussed the need for improved mechanisms to exchange accurate and timely information with external providers. With patients obtaining care in multiple, often distant settings, clinics gave specific staff responsibilities for routine tracking of patients and referrals and coordinating care.

Challenges Encountered—Respondents described the paucity of specialists in rural areas and the substantial travel time often required for patients to obtain specialty care in distant cities. In response to geographical barriers to accessing care among rural patients, the rural teams recognized that planning for patient care should also take into account transportation and travel time (Table 3, quote 6). Respondents reported rural patient-level barriers to obtaining care at distant providers also included poverty and insurance status

(Table 3, quote 7). Sometimes the closest specialist was just across the nearby state border, but was inaccessible due to insurance requirements that the patient obtain care from within-state providers. In other cases, the only available specialist was 5 hours away due to a lack of proximate specialists who would accept patients with Medicaid:

If the patient does not have insurance or is only on the indigent care program there are certain doctors that will not take [the patient] and there are certain doctors that won't take Medicaid and there are certain doctors that won't take Medicare when it come to specialists. That makes it difficult for us to try and get [appointments] because a lot of time it takes several phone calls. So sometimes you can try 6–7 doctors before you find one that will actually accept that patient. And it's changing —“we no longer accept Medicaid”—“we've reached our Medicaid for the year”—“we've maxed out on that.” Or those patients are being scheduled out 4 to 6 months out. If they did have insurance you could get them scheduled within the month. So there are problems that come that that are completely out of our control and out of our hand in getting that taken care of. There's all sorts of barriers. (Quality Improvement Coordinator, Clinic 1)

Finally, respondents also reported reluctance among rural patients to seek assistance at local county mental health agencies, due to the stigma or wait times for appointments. A behavioral health provider from clinic 2 explained that the 1 county mental health provider was often overrun with patients; new patients experienced delays waiting for appointments or were not able to obtain frequent appointments due to the demand for services.

Responses to Challenges—To respond to difficulty with access to specialists, rural clinics created agreements with specialists to set up visiting clinic days to provide specialty care on site at the rural clinic. In addition, 1 clinic formed a partnership with distant oncology services to have a nurse navigator available onsite to assist patients as they prepared to seek care. A “warm handoff” (the process of introducing the patient during a primary care office visit) linked patients with a colocated nurse navigator before they obtained care with distant oncology services (Table 3, quote 8). Respondents described how they leveraged various resources to improve transportation options for patients both locally and with distant specialists, including agreements with local transportation services, gas vouchers, or staff who could discuss public transportation options or other medical transport services with patients (Table 3, quote 9).

Respondents reported that working with a behavioral health provider colocated within the rural clinic improved the likelihood that patients would establish contact with mental health services:

I'm here to offer the piece of integrated care that's the behavioral health side so they have easy access to somebody. If a provider has a patient in the room who is struggling with mental health it's kind of nice having me around so they can actually ask me to meet the patient right then and there. My field has a horrible stigma unfortunately so it's nice to put a face with a name rather than just referring them without that face. It seems to make people feel a little more comfortable about

the idea of mental health. It's part of what we call the 'warm hand-off' for mental health consultation. (Integrated Care Clinician, Clinic 1)

Clinic 3 helped to establish a multidisciplinary community resource team to improve communication and coordination between the primary care provider and external mental health provider (Table 3, quote 10). The community resource team consisted of providers and staff from the rural primary care clinic, external mental health providers, rural patients with mental health needs and their families, and in some cases, individuals from other health or social service agencies who were also involved in the patient's care:

I went to a community resource team meeting the other day. As we were reviewing I am realizing that the medication we were talking about was not on his meds list here. That was good information to find out. I realized all the doctors he was seeing. We didn't know everybody he was going to because we weren't receiving information. Now we have this relationship with outside sources and we are able to know more about what's going on with patients and help them. It's a huge difference. (MA Care Coordinator, Clinic 3)

Domain 3: Patient-centered and Community-centered Care

Patient-centered care can be conceptualized as a partnership among health care providers, patients, and their families to ensure patients' wants, needs, and preferences are respected and that patients have the necessary education and support to make decisions and participate in their own care.¹⁷ Patient-centered care can include different elements of patient engagement, at levels of direct care, organizational design, governance, and policy making.¹⁸ Through diversified team roles, staff in this study provided patient-centered care through direct patient care activities such as goal-setting, behavioral counseling, and patient self-management support. Health coaches assisted patients with tasks that were difficult to accomplish within the time constraints of a typical patient visit with a provider, and assessed patients' needs for resources, provided goal-setting support, and partnered with patients to improve health. Certain roles, such as health coaches, were part of teams before the onset of the SNMHI; other roles, such as team coordinators or referral coordinators, were tested and implemented during the course of the SNMHI. Ultimately, clinics were striving for team composition that was beneficial for rural patient care and also sustainable for the teams themselves, both financially and in terms of the distribution of work across roles.

Challenges Encountered—New team composition and expanded staff roles supported care coordination and allowed for patient-centered care. However, some roles took time to integrate into the team or clinic, and providers and staff struggled to draw upon the skills of new team members. It was important to demonstrate the value of these new roles and the potential benefits for patient care (Table 3, quote 11). The current fee-for-service payment structure for patient care and services resulted in challenges to sustaining some team roles (Table 3, quote 12). Roles within the team with a primary focus on care coordination or patient education presented the most challenges for retention and long-term sustainability.

I have seen it [the team system] develop and I have seen it grow. I feel like It's gotten only stronger and it's serving everyone—the provider, the team, patient. In terms of changes with economics and how reimbursement is going to change in the

future.... and what resources we're going to have? It could definitely jeopardize that [team system]. Even with the changes that have been happening and the different roles that have been taken on, it feels like people are still pretty committed to make it work. But it's still early days with some of these changes. (NP, Clinic 2)

Respondents from clinic 1 aimed to find ways to meet the needs of their patients but to also be a resource for health promotion in the community at large. The Executive Director from clinic 1 questioned, "Is the client the community or is the client the patient? It has to be both—but where do you put the emphasis?" There was a tension between wanting to help established patients with preventive health resources, while also serving as a resource for the wider community.

Responses to Challenges—With time, participants reported that the teams recognized the value of new roles for patient-centered care. For example, health coaches could meet with patients to discuss goal-setting or provide individualized self-management support (Table 3, quote 13). Providers observed how they could share responsibility for patient care with other staff which supported comprehensive care for their patients:

It's total care. I look back and I cared for people and I made them well. But I didn't make them better because I didn't have the back-up and I didn't have the time.
(Medical Director, Clinic 1)

Staff departures or changes in grant funding for specific roles such as health coaches had already necessitated some shifts in some team roles or structure. Teams understood that they could not necessarily be attached to their current composition and needed to remain open to new ideas regarding team structure or roles, even though these changes were difficult at times (Table 3, quote 14).

Clinic 1 demonstrated a particular commitment to community-centered care through linkage to programs and resources for health promotion. They developed a variety of classes, support groups, and exercise programs for patients and community members at large. In addition, the clinic worked with a local community center to provide discounted entry rates for patients to use the exercise facility. These clinic-initiated resources were useful due to the scarcity of health promotion resources and programs in rural areas (Table 3, quote 15).

DISCUSSION

Below, we summarize the findings from each care integration domain and highlight ways in which new programs and health policies may support the strategies identified in this study. We also describe aspects of care integration that will require ongoing innovation and support. Although the Patient Protection and Affordable Care Act (ACA) has several provisions that offer promising opportunities for states and providers to test new models to organize, deliver, and fund primary care, rural areas may require additional strategies to support accessible and highly coordinated care.

With regard to Team Coordination and Empanelment, each clinic adapted their internal systems for organizing and delivering care to provide proactive and timely patient care. Clinics aimed to determine viable team-based models of care that were appropriate for

individual staff roles, effective for patient care, and financially sustainable for staffing; team configurations required several iterations, or adjustment to roles. Empanelment and team-based care created a foundation for providers and staff to organize comprehensive care for the whole patient and to share care for designated groups of patients. The considerable team-based services were reported (and observed) to exceed the care that primary care providers can provide while working alone in time-limited patient consultations, without the support of a team.¹¹ Providers and staff had a sense of providing “total care” for patients and teams felt informed about their patients’ health, health care, and social needs. Over time, staff came to be recognized by patients as being part of “their team” as staff often provided continuity for teams. Importantly, the team configurations in our study suggest that care integration does not have to follow a single team model or approach. Under current fee-for-service models, key elements of integrated care provided by staff (such as MAs, referral coordinators, community health workers, and health coaches) are not reimbursed. All 3 clinics raised concerns about the financial viability of sustaining staff in these roles. To deal with funding or reimbursement constraints, our rural safety net clinics reconfigured teams to retain team structures and sustain patient-centered care activities; nevertheless, the long-term viability of some roles within teams appeared tenuous. Without accompanying changes to payment models, rural providers who wish to provide the interdisciplinary care anticipated by the ACA may have limited capacity to do so under current fee-for-service reimbursement models and in light of rural workforce issues.⁹ There are components of the ACA which may support team-based care. For example, the ACA includes a provision for Medicaid Health Homes, where designated providers would work with teams to coordinate medical, behavioral health, and social support services among Medicaid beneficiaries with chronic conditions. In addition, the ACA authorizes several system reforms that may test and improve care integration through new health care delivery and payment models which emphasize shared care for patient populations, such as Accountable Care Organizations (ACOs).¹⁹ ACOs are composed of groups of providers who work together to share responsibility for the overall cost and quality of care for a defined patient population. ACOs may offer new opportunities to address the health care needs of rural patients and provide a piece of the solution to address longstanding problems with care integration.²⁰ However, rural areas are currently less likely to be served by ACOs²¹ and little is known about how the ACO model may meet the needs of rural health clinics.²⁰ As ACOs are established, particular attention should be focused on the specific needs of rural communities.^{20–22}

Limited access to specialty care in rural communities presented numerous challenges for patients, including delayed access to care and burdensome travel to distant providers; therefore, clinics sought ways to improve External Coordination and Partnerships. To help patients navigate barriers to care with external providers, clinics sought various solutions including transportation assistance, colocated behavioral health providers and nurse navigator, visiting clinic days from distant specialists, and a multidisciplinary community resource team to work with external providers. The approaches described by our study clinics to facilitate access to specialty care provide some insight into how to improve access for patients. Challenges of care integration such as poor access to specialists for Medicaid and uninsured patients are often shared by safety net clinics across both rural and urban settings.^{8,23} Our study demonstrates how geographic isolation and provider scarcity appear

to compound the challenges for the rural clinics. Compared with the urban population, a larger proportion of the rural population is anticipated to be eligible for subsidies to assist with insurance premiums in the health insurance exchanges created by the ACA, due to income levels and current lack of insurance.²⁴ Despite these new options for access to health insurance, many patients with Medicaid and their primary care providers may face ongoing challenges to securing needed care in rural settings, particularly with specialists. The ACA does not explicitly address the likely increased demand for specialty care that may come from those who are newly insured by Medicaid.²⁵ The ACA also includes funding for demonstration projects to evaluate new delivery system and payment models, many of which provide incentives for providers to coordinate and integrate care for vulnerable populations. For example, provisions such as the Medicaid Global Payment System Demonstration Project provide opportunities to test alternative payment approaches for safety net providers based on the quality and coordination of care, rather than volume of services.¹⁹ Given the challenges identified by staff and providers in our study, clinics in rural areas may benefit from state care coordination initiatives, particularly within the Medicaid program. However, our findings suggest that patients from rural areas encounter specific complexities with navigating within-state providers and services, as rural patients often lack access to proximate within-state providers. Certain challenges, such as travel time to providers and limited access to specialists in rural areas, are not amenable to easy resolution. Findings from our study suggest that additional solutions are needed to improve access to specialty care, and new strategies must be planned with the rural context in mind.

Finally, clinics in this study employed several strategies to improve patient-centered and community-centered care. Changes to staff roles and tasks allowed clinics to expand their breadth of patient and community-centered activities, ranging from individual self-management support to multidisciplinary community resource team meetings with external mental health and social service providers. There are several provisions within the ACA which may provide more sustainable models to organize and coordinate primary care services across a range of providers.²³ For example, safety net providers such as rural health centers and FQHCs may participate in community-based collaborative care networks, which provide integrated care networks and comprehensive care for low-income populations.⁹ In addition, a recent report on 6 state initiatives to promote or coordinate care in rural areas describes ways in which several states are organizing statewide and regional efforts to coordinate care.²⁶ For example, Vermont uses a public-private primary care initiative to develop a community health team model to provide more intensive care coordination and support to higher needs patients.²⁶ Although the clinics in this study implemented their own team-based strategies to address patient-centered and community-centered care, collaborative care networks and state initiatives which specifically address rural areas would bolster rural efforts to coordinate care and communicate across a range of providers and resources.

A strength of this study is the focus on insights into the practical approaches to care integration within clinics in rural communities. Future research investigating differences and shared challenges of care integration in urban and rural safety net clinics would also be worthwhile, particularly as patient-centered care models, such as the PCMH, are implemented more widely. Although this study involved only 3 sites, a wide range of

providers and staff were interviewed at each of the 3 clinics; interviewees were not restricted to providers or senior management alone; we are unaware of other studies of care integration in rural clinics that have included such multidisciplinary experiences and perspectives. The breadth of staff roles and perspectives allowed us to identify the value that staff placed upon their responsibilities for care integration as part of a team working with a panel of patients. A limitation of our study is the absence of findings from patients themselves about their experiences of care integration as inclusion of patient perspectives directly in this case study was not possible. Future research surveying patient experiences of care integration is encouraged.¹

In conclusion, our study describes how, in practice, providers in rural areas address the known challenges of serving patients in safety net clinics. Although the ACA offers promising approaches to support and improve care integration, the unique needs of rural patients may require ongoing attention. New organizational initiatives and funding mechanisms within the ACA may help relieve concerns about developing and sustaining highly integrated care in rural areas. However, additional rural-specific solutions are needed to ensure enduring support for integrated care in rural communities.

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TABLE 1

Summary of 3 Domains, 7 Care Integration Constructs, and Activities

Domain	Care Integration Construct*	Activities From the Rural Clinics to Illustrate Care Integration Constructs
Domain 1: Team Coordination and Empanelment	Care coordination within the rural clinics	Created a foundation for care coordination through team-based care and empanelment
	Continuous familiarity with patient health and social needs over time	Assessed and understood patients' social context as important for effective care coordination (eg, teams assessed patient-level barriers such as transportation)
	Continuous, responsive action between clinic visits	Tracked patient data with the Electronic Medical Record; used designated team roles to leverage effective care coordination before, between, and after visits
Domain 2: External Coordination and Partnerships	Coordination with external health care providers	Partnered with specialists to hold onsite visiting specialist appointments in the primary care setting
	Care coordination with partnered external community agencies	Colocated staff from other agencies within the clinic; encouraged interagency multidisciplinary meetings (including patients and family)
Domain 3: Patient- centered and Community- centered Care	Patient-centered care	Expanded options for patient-centered care such as goal-setting, motivational interviewing, self- management support available through diversified team roles
	Shared responsibility for care between clinic, patients, family members, and community	Created resources, classes, programs for health promotion for patients, families, and the community at large

* Adapted from the Framework for Measuring Integrated Patient Care.

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TABLE 2

Overview of the Three Rural Safety Net Clinics, Participants, and Team Composition

Type of Clinic	Participants (n)	Team Structure		
Federally Qualified Health Center	Executive Director, Operations Officer, Medical Director, Medical Operations Supervisor, Quality Improvement Coordinator (n = 2), Physician Assistant, Family Nurse Practitioner/Diabetes Educator, Patient Facilitator, Certified Diabetes Educator, Health Coach (n = 2), Community Health Worker, Patient Navigator, Integrated Care Clinician; (n = 15)	Patient Facilitator	Physician or Nurse Practitioner or Physician Assistant Patient Facilitator Health Coach	Patient Facilitator
Rural Health Clinic with Academic Medical Center Affiliation	Team Coordinator, Medical Director, Physician Assistant, Nurse Practitioner, Licensed Practical Nurse/Care Manager (n = 2), Social Worker/Behavioral Health Consultant, Referral Coordinator, Medical Assistant, Practice Manager, Clinic Supervisor; (n = 11)	Physician Medical Assistant	Nurse Practitioner or Physician Assistant Medical Assistant Team Coordinator	
Rural Health Clinic with larger health system affiliation	Site Manager, Medical Assistant/Care Coordinator, Registered Nurse/Care Manager, Registered Nurse/Nursing Director, Information Technology/Medical Home Coordinator, Nurse Navigator, Quality Improvement/Physician, Patient Referral Administrator, Medical Director, Referral Coordinator; (n = 10)	Physician Medical Assistant	Physician Medical Assistant Registered Nurse Referral Coordinator	Nurse Practitioner or Physician Assistant Medical Assistant

TABLE 3

Illustrative Quotes for Integrated Care Domains

Domain 1: Empanelment Coordination

Challenges:

1. *I'm working on the team coordinators, a new position. My goal is to get them all in the same workflow, knowing what they are supposed to be doing and not supposed to be doing. I want them to know that they are taken care of and be comfortable in their job. They should be doing a lot of the front office work for their team. They're not supposed to be scrubbing the charts, the MAs are supposed to be doing that. It's been a huge adjustment for the clinic since our workflow has changed. (Clinic Supervisor, Clinic 2)*

2. *...with [the health system] and this new EMR system, they feel that we really are not going to need somebody to do referrals because within the EMR they feel that referrals are going to be taken care of. What I have been trying to help others understand is that [care coordination] is taking that one step further. [It] is more than making appointments and making sure that records are sent. It's facilitating patients getting to that appointment, verifying that the records have been received, make sure that insurance is on board, that the provider takes their insurance, do they have transportation, financial resources, and making sure everything is tracked for that appointment. (RN, Clinic 3)*

3. *The MAs have about 15 minutes built in...to review all medications and the reason for the [patient] visit and then to look and screen for any potential needs or refills that are coming up. If someone comes in for a cold, the hope is—if they need a diabetes medication refill—you also have time to look and see when their last labs were done, make sure everything is appropriate for that refill, make sure there are no problems, and talk about diabetes. A visit for a cold might turn into a cold visit [with] a diabetes follow up visit. Now, you would not let someone fall through the cracks... [and] have helped them not have multiple visits in short succession for something that could be handled that day. (PA, Clinic 2)*

Responses to challenges:

4. *I make sure that stuff is running smooth in my [team], which include[s] 2 MDs and 2 MAs. I check their schedules, check their inboxes, make sure everything is being distributed accordingly, and see what needs to be reviewed or assigned. I do referrals for my teams, so that gets taken care of and expedited. We reach out to our patients when they are due for a follow up. We keep a list and that lets us know when they are due. (Team Coordinator, Clinic 2)*

5. *They [MAs] get to establish a relationship with the patient. I think they look forward to seeing them again and patients get to talk about different things than they share with me [a NP]. They [discuss] a little bit more social stuff that MAs then communicate with us. It helped us have a better idea of what's going on with patients, their lives, the greater context of what's happening with them. (NP, Clinic 2)*

Domain 2: External Coordination and Partnerships

Challenges:

6. *The closest endocrinologist is in [town two hours' drive one-way] and they're swamped. Nephrology services are difficult. We have a unit here that does dialysis, but the patient has to go up to [town] for their first appointment. And for elderly patients it's really difficult. We have a cardiologist here three days a month—so thank God for that man—but to get anything done you have to go up to [city three hours' drive one-way]. (Family Nurse Practitioner, Clinic 1)*

7. *It's a high rate of unemployment. There used to be a huge logging industry but that's gone away. ... There is not a lot of work here. It's really low income. You get a lot of financial assistance needs. We get pregnant women that can't seem to make appointments because they don't have transportation. (MA Care Coordinator, Clinic 3)*

Responses to challenges

8. *Your ability to do a warm handoff, where it is face to face, where the doctor says, "I'd like you to meet our nurse navigator", that's where you have your most successful relationships. To pick up the phone and say, "So your doctor told me to give you a call, I hear you've just been diagnosed with cancer." That doesn't go as well. Those relationships are not nearly as solid from the beginning, they take time to establish.*

9. *I'll also help people out with getting transportation to [distant] medical appointments. It's really overwhelming for them, so we'll work together—here's the bus you take, here's where the transfer is. Or, sometimes they'll have medical transport and they just need help setting that up because they don't even realize they have it. So [I'm] just kind of making sure that they can get to the appointments that they need to. (Behavioral Health Consultant, Clinic 2)*

10. *Before... everything was kind of disconnected. We'd send the patient with a referral to the local mental health agency but then we'd never get notes back. This has been an ongoing process and finally we met with the right person and she was like, yeah—we need to do this [community resource team]. It's been very successful. The idea came from us approaching them saying we need to do something to coordinate care because we're not getting notes and obviously you're not getting notes. (Practice Manager, Clinic 3)*

Domain 3: Patient-centered and Community-centered Care

Challenges:

11. *It is trial and error because it's a little different for every team. The health coaches work a little differently so I think a lot of it is just establishing a routine with your team. And understanding from providers and staff that a patient doesn't have to ask to see a health coach—[a patient] may be thinking of weight loss but can't bring it up—and if they're given that opportunity maybe they'll talk about it. So much goes on outside of what we know here that isn't in the chart. Initially it was the provider who would try to just determine who we could see but now it is a little more open. Once they saw the benefits for their patients they responded positively. It's just being able to demonstrate the value—that kind of helped. (Health Coach 1, Clinic 1)*

12. *Funding of course is a part of sustainability. Health coaches do not generate any income...they are an added service and people might say 'I don't get this in any other place in town and I like this supportive role' but they are not billing for any encounter. A lot of health coaches are grant funded. That helps a little bit, but how sustainable is the model? It is a hard question.* (Certified Diabetes Educator, Clinic 1)

Responses to challenges:

13. *At the end of a patient visit we print off their plan or their summary. If we have a patient who is waiting, I'll go in and introduce myself, see if they're working on something, let them know I'm there to partner in their care. Then after their visit, once the doctor has completed their plan, I take it in to them. If I haven't gotten the chance to meet that patient, that's my chance when I can go in and present them with their summary and talk with them- if they have any self-management goals, if they have a goal for their health and work with them.* (Health Coach 2, Clinic 1)

14. *So recently two of our LPNs left for various reasons. [We] switched up the model a little bit.... we decided maybe we'd have all the LPNs work for all the clinic instead of teams—so we have some way [for staff] to cross-pollinate the teams.* (Practice Manager, Clinic 2)

15. *One part of the health coaches' job is to record patient barriers to health. A lack of resources and financial barriers were really big for our patients. We live in one of the poorest parts of our state and have a high poverty rate. We've created partnerships with the local public exercise facilities for our community. They both felt that their prices were pretty reasonable but they were comparing with a large urban center. We were able to create a program where we had punch cards to get patients started, and discount rates for annual passes—50% off for our patients. Over 6000 individual visits from our patients—so quite an opportunity.* (Health Coach 1, Clinic 1)