Implementing Self-Measured Blood Pressure Monitoring with Clinical Support: A Qualitative Study of Federally Qualified Health Centers

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Abstract

Context: Self-measured blood pressure monitoring (SMBP) with clinical support is effective at reducing blood pressure for people with hypertension. While strengths and challenges around SMBP are well documented, few studies describe the complexities of real-world implementation of SMBP with clinical support in the Federally Qualified Health Center (FQHC) setting.

Program: Between 2019 and 2023, the Ohio Department of Health funded the Ohio Association of Community Health Centers to manage a multi-year quality improvement (QI) project with 21 FQHCs. The project aimed to improve the identification and management of patients with hypertension, diabetes, and prediabetes. This study focuses on the activities implemented to provide SMBP support to patients with hypertension.

Implementation: FQHCs implemented clinical SMBP support using multiple roles, approaches, and resources. FQHCs established a process to identify patients eligible for SMBP support, provide blood pressure monitors, train patients on SMBP, track blood pressure readings, follow up with patients, and connect patients to resources.

Evaluation: External evaluators interviewed 13 staff within seven FQHCs from the QI project. Interviewed FQHCs were located across Ohio and represented urban, rural, suburban, and Appalachian areas. Clinical activities to support SMBP, facilitators, and barriers were identified with thematic analysis. The National Association of Community Health Centers SMBP Implementation Toolkit was used as a framework to assess SMBP activities. Facilitators included team-based care, health information technology capacity, funding for blood pressure monitors and staff time, leadership and staff support, and external support. Barriers included technology challenges, staffing shortages, low patient engagement, sustainability, and the COVID-19 pandemic.

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Discussion: This study demonstrates how FQHCs can use a variety of staff, processes, and resources to implement clinical SMBP support across a range of geographic regions. To facilitate this, FQHCs and patients may need more comprehensive insurance coverage of blood pressure monitors, reimbursement for staff time, and technology support.

Keywords

self-measured blood pressure monitoring; Federally Qualified Health Center; hypertension; blood pressure

Context

Hypertension, or high blood pressure, affects about 45% of US adults,[1] increasing their risk of heart disease and stroke.[2] Self-measured blood pressure monitoring (SMBP) is the regular measurement and recording of blood pressure (BP) by a patient outside of the clinical setting, often at home. SMBP with clinical support (i.e., patient education, lifestyle counseling, or medication management) is an effective strategy to reduce blood pressure for adults with hypertension and a cost-effective intervention to improve hypertension control.[3,4,5]

Previous research has described facilitators and barriers to implementing clinical SMBP support. Facilitators include sustainable funding, access to technical tools (i.e., electronic health record [EHR] system that connects to BP monitors), sharing best practices with other clinics, implementing treatment protocols for physicians, integrating SMBP into clinical practices, supporting cointerventions, delegating team members to conduct specific SMBP activities, and educating patients and providers about SMBP.[4,6,7,8,9,10] Financial barriers for clinics (lack of funding or reimbursement) and patients (difficulty paying for SMBP devices) are commonly cited challenges to implementing clinical support for SMBP.[4,9,10,11] Other barriers noted in the literature include lack of systems for data collection and processing, lack of staff buy-in, lack of appropriately sized BP cuffs for patients, lack of agreed-upon hypertension diagnosis standards, and patients' difficulty complying with BP monitoring schedules.[4,9,10]

Federally Qualified Health Centers (FQHCs) are designed to provide quality healthcare to medically underserved populations, such as those with low income and those from racial/ethnic minority groups.[12] FQHC patients experience higher rates of chronic conditions, including hypertension, compared to the US population.[12] These patients also face inequities in hypertension prevalence, treatment, and control, caused by a number of factors including limited access to health insurance, limited access to healthy foods and physical activity, discrimination, and mistrust of healthcare providers.[13,14,15] Studies suggest that SMBP support can be successfully adopted by FQHCs to begin reducing disparities for historically marginalized groups, although more research is needed on how to best implement SMBP in the FQHC setting.[16]

Despite existing research on clinical SMBP support in general, few studies focus on how FQHCs have implemented SMBP support activities. Thus, the current study provides an in-depth description of how seven FQHCs implemented clinical support for SMBP as part

of a larger quality improvement (QI) project in Ohio. This paper aims to inform other FQHCs and health systems on the various staff, processes, and resources that can be used to implement clinical support for SMBP across a range of FQHC settings.

Quality Improvement Project

Through the Centers for Disease Control and Prevention 1815 cooperative agreement, Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease, and Stroke, the Ohio Department of Health (ODH) implemented a multi-year QI project to improve the identification and management of patients with hypertension, diabetes, and prediabetes. Between 2019 and 2023, ODH funded the Ohio Association of Community Health Centers (OACHC) to implement the QI project with two cohorts of FQHCs. Cohort 1 included 11 FQHCs that implemented the project from October 2019 to June 2022 (extended due to the COVID-19 pandemic) and Cohort 2 included 10 FQHCs that implemented the project from July 2021 to June 2023. The 21 FQHCs were spread throughout the state and served a total of 418 093 patients.

This QI project consisted of six strategies to improve care for patients with hypertension, diabetes, and prediabetes. Four of the strategies were related to the current study and included the following: 1) increase the identification of patients with undiagnosed hypertension, 2) increase the number of patients with hypertension in control, 3) establish or expand medication therapy management services, and 4) connect patients with community resources to address social determinants of health needs. The remaining two strategies focused on patients with diabetes and prediabetes. FQHCs attended monthly meetings led by OACHC and received one-on-one technical assistance, resources, and support to implement QI project activities. FQHCs also submitted quarterly data from their EHR system, which OACHC used to monitor progress, identify potential issues, and tailor their technical assistance. Five of the 21 FQHCs received additional funding from the Health Resources and Services Administration (HRSA) to support SMBP activities, which complemented the work of the QI project.[17]

Methods

In April and May 2022, external evaluators interviewed a sample of seven FQHCs from Cohort 1 of the QI project. Interviews were only conducted with FQHCs from Cohort 1 because Cohort 2 FQHCs were in their first year of implementation at the time of the interviews. Outside of the interviews, all FQHCs completed annual surveys on project implementation, facilitators, and barriers. The seven interviewed FQHCs were selected because they had established SMBP support processes and represented a range of geographic regions, including urban, rural, suburban, and Appalachian (Table 1). A total of 13 staff were interviewed about their FQHC's activities to support SMBP and facilitators and barriers to their efforts. The interviewed staff led or co-led the QI project for their FQHC and represented a range of roles, including quality managers, data analysts, clinical pharmacists, care coordinators, and dietitians. The interviews were conducted via video on Zoom and recorded with permission from participants. Interviews ranged from

16–35 minutes. Each FQHC received a $25 e-gift card incentive after the interview. Sample interview questions are provided in Table 2.

The interview recordings were transcribed, and each transcript was reviewed by the evaluators and participants for accuracy. The evaluators developed an initial codebook based on the interview questions and added new codes as themes emerged in the data.[18] Qualitative analysis of the interview transcripts was conducted using NVivo[19] software. The **National Association of Community Health Centers (NACHC)** SMBP Implementation Toolkit was used as a framework to assess SMBP support activities among the interviewed FQHCs.[20] Each participant received a written summary of their FQHC's SMBP support activities to review and provide feedback. This study was an evaluation and was thus exempt from review by an Institutional Review Board.

Results

Clinical SMBP support activities

The headings below represent steps from the NACHC SMBP Implementation Toolkit. This section provides a detailed description of how the FQHCs implemented each step (see Table 3 for interview quotes around implementation and Table 4 for activities by FQHC).

SMBP scope—The seven FQHCs that were interviewed began their SMBP support implementation by determining the SMBP scope for their organization, including the goals and population(s) of focus. For most of the FQHCs, the goal was to help patients at high risk achieve BP control. Several FQHCs identified multiple priority populations, but patients with uncontrolled hypertension were the most common population of focus (five FQHCs). Three FQHCs focused on patients with elevated blood pressure and two focused on patients newly diagnosed with hypertension. One FQHC started by focusing on patients with uncontrolled hypertension but later expanded to all patients with hypertension.

Home BP monitors—Next, FQHCs established a process to connect patients with a home BP monitor. Many patients were enrolled in Medicaid, which covered BP monitors in Ohio at the time of the QI project. Other patients obtained monitors through private or other insurance coverage, grant funding, or paying out of pocket. At one FQHC, patients could purchase discounted BP monitors at an onsite pharmacy. Two FQHCs offered monitors to patients whose insurance did not cover one, with one FQHC using external grant funding to pay for the monitors and the other offering a BP monitor loaner program funded by a HRSA grant.[17] At six of the FQHCs, clinical staff provided patients with a Bluetooth-enabled monitor, although only four FQHCs were able to receive BP data electronically. One FQHC offered both EHR-integrated monitors (i.e., monitors that could send data directly to the EHR system) and non-integrated monitors, and patients could choose which they preferred.

SMBP patient identification—Through the QI project, Azara Healthcare was contracted to create a custom population health dashboard for the FQHCs, which could be used to identify patients who may be eligible for SMBP support.[21] However, only five of the interviewed FQHCs mentioned using EHR reports or alerts to identify eligible patients. The two remaining FQHCs did not explain why they were not using the dashboard in this

way. One FQHC monitored Azara reports and proactively scheduled SMBP appointments for patients who met eligibility criteria. Providers also identified patients eligible for SMBP support during office visits for six of the FQHCs, often in combination with other identification processes.

SMBP recommendation & referrals—Once patients were identified as eligible, staff recommended SMBP and referred them to SMBP support. Referral processes varied by FQHC and included providers sending referrals to other staff (e.g., through the EHR system) or scheduling appointments with other staff during patient visits. At one FQHC, patients could schedule an SMBP appointment on their own after the provider visit. Another FQHC referred patients to their internal Hypertension Clinic that was open two days a month to provide support with SMBP and medication management. Patients were referred to the Hypertension Clinic during office visits, when visiting the emergency department with elevated BP, and through flyers when picking up hypertension medications in the pharmacy.

Key SMBP staff & SMBP training—FQHCs utilized staff in a variety of roles to provide SMBP support, with most FQHCs identifying one or two key roles to implement all activities. For most of the FQHCs, the SMBP support tasks were added to existing staff roles during the QI project. Specific roles leading SMBP support included care managers or coordinators, clinical pharmacists, behavioral health providers, staff from an internal wellness program (dietitians, nurse), and staff from the Hypertension Clinic (clinical pharmacist, nurse). One FQHC had a team of four clinical pharmacists that worked in the clinics several days a week and provided ongoing SMBP education to clinical staff.

In addition to showing patients how to take their BP and use their BP monitor, staff provided other types of SMBP support. At three FQHCs, staff helped patients set up BP tracking apps on their phones, three FQHCs provided paper BP logs, two provided education about their SMBP programs, and two provided other educational materials. One FQHC created a policy to educate patients on steps to take and who to contact when their BP becomes uncontrolled (i.e., office visit vs. emergency department). Several FQHCs expanded staff roles in other ways, as well. For example, two FQHCs modified existing roles (care coordinator, quality improvement staff) to focus more on population health. New duties included reviewing quality improvement data, identifying patients with uncontrolled hypertension in the EHR system, discussing patient needs with providers, and conducting patient outreach.

SMBP outreach support & follow-up—Follow-up care was generally triggered by new diagnoses of hypertension, consistently high BP, sudden increases in BP, or patients not recording their BP readings. Four FQHCs had systems in place to proactively follow up with patients based on their BP readings, while the other three did not discuss follow-up protocols in detail. Three FQHCs mentioned using phone calls, text messages, or telehealth visits for follow-up; the other four did not specify follow-up modes. For most FQHCs, the staff who provided initial SMBP training were responsible for follow-up. At one FQHC, the care manager was able to schedule appointments directly with the patient's provider if needed. Clinical pharmacists provided additional SMBP support in some capacity across all FQHCs (e.g., medication review, enrolling patients in SMBP program).

SMBP data management—FQHCs used various methods to track patients' BP readings, with several FQHCs mentioning multiple data management strategies. Four FQHCs received data from an app on patients' phones, three utilized paper logs, and four used verbal updates from patients to providers during visits. Three FQHCs had the capability to receive BP data directly in the EHR from patients' phones and automatically alert the care team when a patient's BP was elevated. However, only two FQHCs were using this feature at the time of the interviews. The third FQHC was not utilizing this feature because many of their patients' phones were not compatible with their EHR system. Instead, patients reported BP readings during provider visits. At one FQHC, the care manager monitored an email inbox to which patients could send BP data from their tracking apps; this data was then manually added to the EHR. Three FQHCs provided limited detail on their data management policies.

Community linkages—A majority of FQHCs referred patients to internal staff and programs for additional support, rather than referring to external programs. Three FQHCs supported patients with nutrition and physical activity via internal dietitians, wellness programs, or produce prescription programs. For example, one FQHC had a patient wellness program that offered individual and group support on nutrition and exercise, along with a free 12-week fitness center membership. Four FQHCs utilized community health workers (CHWs) or linkage coordinators to connect patients to other community resources. In addition, one FQHC offered curbside BP checks to patients outside of appointments.

Facilitators and barriers

FQHCs mentioned multiple facilitators and barriers to implementing clinical support for SMBP, many of which aligned with the published literature.[4,15,6,8,9,10] Table 5 provides sample interview quotes for the key facilitators and barriers from this study. A common facilitator for the FQHCs was team-based care, which involved incorporating SMBP tasks into existing staff roles (i.e., care managers, clinical pharmacists) and utilizing other internal programs (i.e., wellness programs) and staff (i.e., dietitians, CHWs) to provide additional support to patients. Almost all FQHCs mentioned health information technology capacity as a facilitator in moving the SMBP support activities forward. Examples of technology included EHR tools, the custom population health dashboard, BP app integration, electronic referral systems, and text message reminders. Funding from the QI project and other grants helped facilitate SMBP support by paying for BP monitors and software, staff time, and educational materials. Several FQHCs discussed how internal support from leadership and staff facilitated the expansion of SMBP activities. Examples of internal support included holding monthly meetings to review quality metrics and inviting leadership to attend, engaging staff in decision-making, clinical staff advocating to expand EHR system capacity, and gaining support from the executive team to add SMBP duties to existing clinical roles. FQHCs also highlighted the importance of external support in implementing these activities, particularly the monthly meetings, resources, and opportunities to connect with other FQHCs that were provided through the QI project.

Technology limitations were a barrier to supporting patients with SMBP, especially around receiving BP data in the EHR. Reasons for this included lack of compatibility between patient phones and EHR systems, patient difficulty using the app, patients not owning

smartphones or switching phones often, and unreliable home internet access. All FQHCs reported staffing shortages as a barrier to implementing SMBP support. They mentioned vacancies in specific roles (i.e., care managers, medical assistants, nurses), difficulty hiring new staff, and competing clinical priorities limiting staff capacity for patient follow-up and outreach. Several FQHCs discussed challenges around engaging patients in SMBP, reporting low attendance at SMBP appointments and declining participation over time. Three FQHCs were beginning to address this barrier at the time of the study by implementing text message programs to reach and engage patients. Sustainability of SMBP activities after the QI project ended was also a concern for the FQHCs, and they anticipated the need for future funding to cover integrated BP monitors and staff time. In addition, as this project coincided with the height of the COVID-19 pandemic, a couple FQHCs described how the pandemic disrupted their progress on SMBP support implementation.

Discussion

FQHCs can use a variety of staff roles and processes to implement clinical support for SMBP. In this study, FQHCs used care managers/coordinators, clinical pharmacists, nurses, medical providers, behavioral health providers, and dietitians to provide this support. Each FQHC developed a slightly different process, demonstrating multiple ways that clinics can follow the NACHC SMBP Implementation Toolkit.[20] FQHCs and other health systems looking to implement clinical support for SMBP should consider modifying existing roles or team structures to include SMBP tasks. Utilizing roles like care managers, clinical pharmacists, or CHWs may be more efficient than hiring new staff or creating new programs.[7,22,23,24] Text message programs can also add capacity for SMBP support without requiring additional staff time.[25,26]

FQHCs may face financial barriers to implementing clinical SMBP support. The FQHCs from this study received funding from the QI project to implement activities, but such funding is not always available and may not be sufficient for long-term implementation. Common financial barriers in the literature include a lack of ongoing funding, insufficient reimbursement for clinical staff time, limited insurance coverage for monitors, and other financial costs for patients.[4,9,10,11,22,27] Additional funding may be needed to establish and maintain a BP monitor loaner program, purchase BP monitoring software, or develop educational materials.[9,10,22] To gain internal buy-in and allocate financial resources for SMBP support roles and equipment, staff can engage FQHC leadership in QI initiatives and promote the potential health impact and return on investment for the FQHC.[5] To increase sustainability, staff may also explore how SMBP support can help FQHCs meet organizational goals around QI and population health. These types of strategies often require ongoing staff and leadership champions.[28]

SMBP technology continues to present barriers for staff and patients. Although most FQHCs in this study provided patients with Bluetooth-enabled BP monitors, only two were receiving data directly in the EHR at the time of the interviews. This was due to phone, app, and EHR limitations and has been described in the literature previously.[22,27] Patient barriers such as difficulty using the app, unreliable internet access, and not owning a smartphone were also reported in the interviews and align with prior studies.[10,22] To address these issues,

health system leadership and public health leaders should advocate for more streamlined mobile phone integration with EHR systems and provide funding to develop technical solutions.[22,27] Other support could include funding staff positions to help patients overcome technological barriers (e.g., care managers, CHWs).[22]

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Implications for policy and practice

- Even with limited resources, FQHCs and other health systems can implement clinical support for SMBP by expanding the roles of existing staff, such as care managers and clinical pharmacists. They can provide additional support to patients with hypertension through internal wellness programs, dietitians, CHWs, and referrals to community resources.

- Most FQHCs in this study were able to provide patients with Bluetooth-enabled BP monitors; however, the FQHCs faced multiple barriers to receiving patient BP data directly in the EHR. Other barriers included staffing shortages, low patient engagement, sustainability, and the COVID-19 pandemic. To expand clinical support for SMBP, FQHCs and patients need technical solutions to streamline EHR integration with BP monitors, stronger insurance reimbursement for staff time, and sustainable funding. FQHCs should also explore strategies to keep patients engaged in SMBP, such as text message reminders.

- To obtain internal buy-in and financial investment in clinical SMBP support, FQHCs should identify clinical champions, engage leadership in QI efforts, and promote the health and financial benefits of SMBP support for their patients and health system.

Table 1.

Characteristics of interviewed FQHCs

FQHC	Geographic areas served	Number of counties served	Number of patients with hypertension[a]	Number of interview participants
Center A	Suburban	3	306	2
Center B[b]	Urban	1	1,884	2
Center C	Rural	1	4,215	2
Center D	Urban & rural	7	3,909	1
Center E[b]	Urban	4	1,784	2
Center F	Rural / Appalachian	4	8,091	3
Center G	Urban	1	2,077	1
Total		**21**	**22,266**	**13**

Abbreviations: FQHC, Federally Qualified Health Center

[a]This represents the number of patients with a hypertension diagnosis from 4/1/22 – 6/30/22.

[b]These FQHCs received additional funding from the Health Resources and Services Administration to support self-measured blood pressure monitoring.

Table 2.

Sample interview questions

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1. What is your FQHC currently doing to support patients with hypertension to measure their blood pressure at home?

2. What does your referral process look like?

3. What services are provided to patients?

4. What type of follow-up is offered?

5. What type of data is tracked?

6. What challenges does your FQHC face in supporting patients to self-monitor their blood pressure?

7. Does your FQHC receive any additional funding for hypertension initiatives outside of this QI project? If so, please explain.

8. To what extent do you think your FQHC will continue the hypertension activities implemented through this QI project after it ends? How will they be sustained?

9. What challenges might your FQHC face to continue these hypertension activities after the QI project ends?

10. What might help support the continuation of these hypertension activities after the QI project ends?

Abbreviations: FQHC, Federally Qualified Health Center; QI, quality improvement

Table 3.

SMBP support activities and interview quotes

SMBP support activities	Interview quotes
SMBP scope	"…we can't see all of our high blood pressure patients because that's like 600 people…but we do try to see those ones that are either newly diagnosed or [are] having a hard time controlling their blood pressure." – Center A
Home BP monitors	"If they don't have a cuff, then they have the opportunity to get them from us for a much-reduced cost." – Center D
SMBP patient identification	"… we identify through either a visit or…say they're starting on new blood pressure medicine and then [the provider] would tell the care manager, 'Hey, I think that this would be an opportune person for remote patient monitoring.'" – Center F
SMBP recommendation & referrals	"We have an internal referral flag that shows up if our patients are hypertensive, and then our providers will talk to the patient and do a warm handoff, if they think they're a good fit for [SMBP support]" – Center G
Key SMBP staff & SMBP training	"The clinical pharmacist is in there for about 20, 30 minutes doing a whole care plan, medication review, making recommendations on medication changes. If there's barriers, what are those barriers and successes for that patient? And then going out, communicating that with their [provider]." – Center C "…the care manager will provide them with a blood pressure cuff. Then they're going to show them how to use it." – Center A
SMBP outreach support & follow-up	"…we also have [an] alert set, so if there are high blood pressure [readings]… we see them right away… then those can also be sent to the provider right away. And then, if a patient hasn't checked their blood pressure in more than a week, we do reach out with a phone call" – Center B
SMBP data management	"…they're encouraged to check their blood pressure at least twice a day, three days a week. And then, those averages are sent over to the provider every two weeks if there's a medication change, and then monthly after that." – Center B
Community linkages	"We also have the Food Rx[a] program…[for] patients with a particular payer group, but we're looking at how we could expand it to other patients… we also have the meal kit that they get once a month… to try to get them cooking with healthy food" – Center E

Abbreviations: SMBP, self-measured blood pressure monitoring; BP, blood pressure

[a] Food Rx is a produce prescription program.

Table 4.

SMBP support activities by FQHC

	Center A	Center B	Center C	Center D	Center E	Center F	Center G
SMBP scope	Newly diagnosed, uncontrolled	Uncontrolled	Uncontrolled, elevated BP	Uncontrolled	All hypertension	Uncontrolled, elevated BP	Newly diagnosed, elevated BP
Home BP monitors	Both Bluetooth-enabled and non-integrated[a]	Bluetooth-enabled, BP monitor loaner program	Bluetooth-enabled but not connected to EHR	Offered at pharmacies for discount, non-integrated[a]	Bluetooth-enabled	Bluetooth-enabled	Bluetooth-enabled but not connected to EHR
SMBP patient identification	EHR reports, provider identification	EHR reports, provider identification	Provider identification, self-referral	EHR reports	EHR reports, provider identification	Provider identification	EHR alerts, provider identification
SMBP recommendation & referrals	Refer to care manager	Patient schedules SMBP appointment	Refer to clinical pharmacist, self-enroll in Hypertension Clinic	Refer to behavioral health provider	Refer to care manager	Provider schedules SMBP appointment	Refer to wellness program
Key SMBP staff & SMBP training	Care managers	Care coordinator	Hypertension Clinic staff (clinical pharmacist, nurse)	Behavioral health providers, clinical pharmacist team	Care manager	Care managers, clinical pharmacist	Wellness program staff (dietitians, nurse)
SMBP outreach support & follow-up	Care managers follow up	Care coordinator follows up via phone	Providers follow up at visit	Behavioral health providers follow up via phone or telehealth	Care manager follows up	Care managers follow up via phone	Wellness program staff follow up
SMBP data management	Phone app, paper logs, verbal updates	Phone app	Paper logs, verbal updates	Paper logs, verbal updates	Phone app	Phone app	Verbal updates
Community linkages	Clinical pharmacist, CHW, curbside BP checks	Clinical pharmacist	CHW	CHWs	Clinical pharmacist, dietitian, Food Rx[b]	Wellness program	Clinical pharmacist, linkage coordinator, wellness program

Abbreviations: SMBP, self-measured blood pressure monitoring; FQHC, Federally Qualified Health Center; BP, blood pressure; EHR, electronic health record; CHW, community health worker.

[a]Non-integrated = monitor that cannot send BP data directly to the EHR system.

[b]Food Rx is a produce prescription program.

Table 5.

Facilitators, barriers, and interview quotes

Facilitators	Interview quotes
Team-based care	"We have the Hypertension Care Manager... [who] provides education and she goes through the barriers, helps the patient identify barriers to care... [and] set some goals" – Center E
Health information technology capacity	"One of the things with Azara[a], we can make cohorts of people… who are in this project and compare them with people who aren't, things like that. And so we have seen a lot of progress" – Center E
Funding	"We purchased the software and a large number of [blood pressure] cuffs. So... we couldn't have done it without the grant, so to speak. We couldn't have launched it without the grant." – Center B
Leadership and staff support	"It's really supported by the entire executive team that this is a model [of] care that we're committed to, because we know it's really producing some very good outcomes." – Center F
External support	"OACHC has been amazing... [there have] been meetings about telehealth and remote monitoring... Hearing from other FQHCs and what they're doing has been so helpful through the process." – Center A
Barriers	**Interview quotes**
Technology challenges	"…we [stopped] that integration piece of it because it created way more issues than it was solving. It was making our patients not use it at all, rather than use it sporadically." – Center G
Staffing shortages	"Staffing is always going to be a barrier. I think that we're probably not alone in FQHCs and other healthcare facilities keeping the same staff. It's a long process to train people and get everybody ready." – Center B
Low patient engagement	"And then there's a high no-show rate too. So even if I do get them scheduled, a lot of times they don't show up." – Center A
Sustainability	"I think financial support for reimbursement from the insurance payers [at] the state level…would be huge [for sustainability]." – Center C
COVID-19 pandemic	"I think that COVID may still be a side effect, so to speak, in our staffing issues. I think that it's just a lag from COVID…I don't think we're through that yet." – Center D

Abbreviations: OACHC, Ohio Association of Community Health Centers; FQHCs, Federally Qualified Health Centers

[a]This refers to the custom population health dashboard developed for the Quality Improvement Project.