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Role of Community–Clinical Partnerships to Promote Cancer Screening: Lessons Learned From the National Breast and Cervical Cancer Early Detection Program

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Abstract

Community–clinical partnerships are an effective approach to connecting primary care with public health to increase disease prevention and screenings and reduce health inequities. We explore how the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) award recipients and clinic teams are using community–clinical linkages to deliver services to populations who are without access to health care and identify barriers, facilitators, and lessons that can be used to improve program implementation. We used purposive sampling to select nine state recipients of the NBCCEDP and a clinic partner for each recipient. The data collection was implemented through a multimodal approach using questionnaires, semistructured interviews, and focus groups. Partnerships between award recipients and clinic teams enhanced planning as clinics were able to optimize the use of electronic medical records to identify women who were not up to date with screening. Partnerships with community organizations, hospital systems, and academic institutions were important to increase community outreach and access to services. These partnerships offered a source of client referrals, a forum to deliver in-person education, a platform for joint dissemination activities to reach a wider audience, collaborations to provide transportation, and coverage for clinical services not available at NBCCEDP participating clinics. In conclusion, partnerships between various organizations are important to enhance planning, increase outreach, and improve access to cancer screening. Internal organizational and external support is important to identify appropriate partners, and technical assistance and training may be beneficial to maintain and optimize community partnerships to address health disparities.

We would also like to thank all the NBCCEDP award recipients and their clinic partners who participated in this study. Address correspondence to Sujha Subramanian, Implenicomics, 16192 Coastal Highway Lewes, Dover, DE 19958, USA; Sujha.subramanian@implenicomics.com.

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Supplemental Material

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Keywords

community partnerships; breast cancer; cervical cancer; early detection; screening; community outreach; health inequities

INTRODUCTION

Community–clinical partnership is an effective approach to connect primary care with public health to reduce structural barriers to screening in the community (Castillo et al., 2020; Centers for Disease Control and Prevention [CDC], 2022). These partnerships have been identified as an important construct in implementation science frameworks as they enhance the scope of interventions and programs and build community infrastructure to support the implementation of scale-up of activities to reach populations experiencing limited access to health care (Damschroder et al., 2022; Moullin et al., 2019; Valente et al., 2015). Community–clinical linkages are crucial for serving diverse populations facing barriers in receiving health care services (Zolezzi et al., 2022). Furthermore, the Community Preventive Services Task Force has several recommendations to increase community demand and access for prevention and screening services, which can be implemented through community–clinical partnerships (The Community Guide, 2023a).

The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) addresses cancer screening disparities by providing breast and cervical cancer screening and diagnostic services to women who are uninsured and underinsured and whose family income is at or below 250% of the federal poverty level (Ekwueme et al., 2014; Miller et al., 2014). To support access to timely screening, diagnosis, and treatment, the NBCCEDP offers patient navigation to address issues such as lack of transportation or language barriers. Furthermore, in addition to funding screening and diagnostic services for the eligible population, the NBCCEDP also supports strategies at the interpersonal, organizational, community, and policy levels that can influence screening. The program supports community–clinical linkages, implementation of evidence-based interventions (EBIs), and adoption of policies that improve access to breast and cervical cancer screening.

The health equity strategies of the NBCCEDP program such as “all people get the right screening at the right time for the best outcome,” highlight the potential benefits of partnerships with local organizations and stress the importance of trusted relationships and credibility between local organizations and populations of focus (CDC, 2023). Each NBCCEDP award recipient can identify the specific population of focus such as women who have never been screened for breast or cervical cancer or specific racial or ethnic minority populations who experience difficulties in receiving cancer screening. Recipients enter into contractual relationships with clinic partners to implement strategies and deliver screening to increase reach of the NBCCEDP. To align with an increased emphasis on collaboration and partnership with local communities being served, this project was developed to assess how these partnerships developed as part of the NBCCEDP are being implemented in real-world settings. Ultimately, the goal is that these partnerships allow award recipients to better

reach populations of focus and, therefore, improve health equity and reduce cancer-related disparities.

The objective of this study is to explore how NBCCEDP award recipients and clinic teams are using community–clinical linkages to expand the reach of the program, especially to increase screening among populations who are not being screened. This study will detail the specific services and resources that community partners provide to recipients and clinics to enhance outreach and increase access to breast and cervical screening and diagnostic services. Furthermore, we identify approaches to facilitate and strengthen these important partnerships to address the lack of access to cancer screening services. Findings from this study will provide insight into the technical support and trainings required by award recipients and clinic teams to optimize their partnerships with community organizations. Lessons learned can also be used to promote uptake of other preventive health services and improve access for populations that experience cancer screening disparities.

METHOD

We used a multimodal approach to better understand how NBCCEDP award recipients, clinics, and community partners collaborate to reach populations experiencing health disparities. “Community partner” included any organizations that may already serve or interact with the NBCCEDP award recipient’s population of focus. The NBCCEDP award recipients who participated in this study were requested to identify all organizations that they partnered with to conduct outreach and deliver screening services. We collected quantitative data using questionnaires, conducted semistructured interviews, and hosted virtual focus groups. We used an implementation science theory-based framework, the updated Consolidated Framework for Implementation Research (CFIR), to guide construct identification and data collection (Damschroder et al., 2009, 2022).

SITE SELECTION

We used purposive sampling to select nine state recipients of the NBCCEDP. In our selection process, we included NBCCEDP recipients in the 50 states and the District of Columbia. Funded programs in the U.S. territories, U.S.-affiliated Pacific Islands, and American Indian and Alaska Native tribes or tribal organizations were excluded because they often require tailored program administration for unique populations. Recipients were selected to ensure representation across three main categories: the number of women served, the geographic region, and the presence of rural areas. CDC experts provided input on the final site selection. The site selection distribution is provided in Supplemental Appendix A.

DATA COLLECTION APPROACH

We emailed the nine selected award recipients a one-page overview and invitation for the study, including the study questions, the overall goals, and clearly defined expectations for participation in data collection. The components of data collection and participant time commitment are shown in Table 1. Immediately upon acceptance to participate, the recipients were emailed the questionnaire to complete, and each recipient was asked to

identify one representative to participate in the recipient interview and one representative from among their clinic partners to participate in the clinic representative interview. Upon completing both sets of in-depth interviews, we scheduled two focus group sessions with the recipient representatives: four participants in one focus group session and five participants in another. This study received a “not human subjects” determination by the RTI International Institutional Review Board because the focus of the interviews and focus groups was on programmatic aspects of the NBCCEDP.

Award Recipient Questionnaires

A representative from each award recipient completed the questionnaire. The representative could be the program director or another recipient staff who was familiar with the program implementation activities. This individual provided contextual information on their program’s approach to improving the delivery and reach of NBCCEDP services during the program year from July 2022 to June 2023. This information included (a) which activities the program and clinics implemented to reach eligible populations; (b) how NBCCEDP-funded activities were conducted through clinic partners; (c) what factors were facilitators or barriers to increase screening among eligible populations; and (d) who the program’s key partners have been.

To assess program activities and EBIs implemented by the selected recipients, we developed questions and response options (i.e., types of program activities and interventions) as described and defined by CDC (Annual NBCCEDP Survey, 2021). These include EBIs recommended by the Community Preventive Services Task Force (The Community Guide, 2023a). The NBCCEDP Logic Model and CFIR provided a framework from which we could delineate strategies and activities to support the delivery of breast and cervical cancer screening (Supplemental Appendix B) (CDC, 2021). The complete questionnaire is provided in supplemental materials in Supplemental Appendix C.

Recipient and Clinic Partner Interviews

We developed a detailed guide for the recipient and clinic partner interviews using the five domains outlined in the CFIR: inner setting, outer setting, implementation process, innovation characteristics, and individual characteristics. Specifically, the interview guide included questions related to activities most impactful for reaching program-eligible populations, funding sources received for implementation, approaches used to reach populations rarely or never screened for cervical cancer, and EBIs implemented to increase screening among age-eligible populations. The guide also explored facilitators and barriers to implementation, key partners for implementing interventions and strategies, and technical assistance provided to clinic partners. We used the questionnaire components to design the interview guide which ensured that the two data collection tools were complementary and could facilitate a mixed-method analysis.

The recipient interview guide was designed to be completed within 90 minutes, while the clinic partner interview guide was designed to be completed within 60 minutes given clinic time constraints and responsibilities. We tailored the interview guide to focus on the specific recipient’s activities and facilitators, based on the initial questionnaire.

The semistructured virtual interviews were conducted via Zoom between April 2023 and June 2023. All participants, selected by the award recipient or clinic partner as an appropriate representative, gave verbal consent to participate in interviews and for audio recording. Recordings were transcribed using the online Temi service for analysis, with ambiguous sections manually confirmed with the audio recording. A lead notetaker documented detailed notes during each interview and mapped participant responses to interview guide topics. A team of three study analysts met to summarize responses and develop high-level takeaways. The summaries allowed for rapid analysis of key points used to inform the recipient focus group guide.

Award Recipient Focus Groups

Following the completion of interviews and preliminary analysis of detailed interview notes, the study team developed the focus group guide. The focus group questions were designed to (a) solicit feedback on emergent themes reflecting common strategies and interventions to increase screening and reach of programs, (b) probe on barriers and facilitators to implementing these strategies and interventions, (c) explore the depth and nature of community partnerships established by recipients and clinics, and (d) provide clarity on resources and support needed for technical assistance and data collection required by the program. During each focus group, a lead moderator presented common strategies and interventions, invited participants to indicate via a poll their use of each strategy or intervention, and led a discussion on the similarities and differences in approaches for implementing the strategies and interventions. In addition, the lead moderator presented the continuum of care model on types of partnerships (Figure 1) and invited participants to respond to a poll indicating their levels of partnership with their community partners and discuss the development and role of these partnerships (CDC, 2016; Himmelman, 2002). The types of partnerships, as described in Figure 1, were networking, coordinating, cooperating, collaborating, and merging. They ranged from least intensive relationships to most intensive relationships based on whether the partners exchanged information, altered activities, shared resources, enhanced each other's activities, and merged cultures. A lead notetaker took detailed notes during each focus group, and the audio recordings were transcribed using the Rev service.

QUANTITATIVE DATA ANALYSIS

The data collected via the questionnaires were summarized by producing frequencies and percentages for each response grouping. We also created graphics to visualize the findings and identify common strategies and EBIs implemented by the recipients. We generated similar descriptive statistics for poll responses from the focus group sessions. To further synthesize lessons from the feedback, we categorized the program strategies into the following categories: “enhance planning,” “increase outreach,” and “improve access.” “Enhance planning” related to activities that recipients and clinics performed to identify populations with low screening rates, geographic areas with high cancer incidence, or populations that experience late-stage cancer diagnosis. “Increase outreach” included activities to engage with women who are eligible for screening to educate them on adhering to cancer screening and diagnostic follow-up recommendations. Activities related

to “improve access” included transportation services, mobile clinics to provide care close to where women reside, and payments for services for women who are uninsured.

QUALITATIVE DATA ANALYSIS

Award recipient and clinic partner interview transcripts were uploaded to NVivo for detailed coding and analysis. We used a deductive-inductive approach to develop the codebook, first using the CFIR to develop the draft codes and then identifying any emerging themes. Two team members conducted two rounds of double coding of the award recipient interviews. The same interview was coded to test the strength of the codes and whether additional codes should be added. After the award recipient interview co-coding, two team members conducted one additional round of co-coding of the clinic partner interviews. Once the codebook was finalized, one person coded the remaining interviews (recipients and clinic partners). Once the coding was completed using NVivo, code reports for each code were exported and used to develop code summaries of key emergent themes. One person drafted code summaries for the recipients, and another prepared code summaries for the clinic partners. The team then met to discuss emerging themes and resolve disagreements through consensus. The team then held two separate discussions to triangulate the questionnaire results, the code summaries, and the focus group results. Through this triangulation process, we identified specific qualitative feedback for each program activity (including partnership development), EBI, or strategy that was evaluated using the questionnaire. We also summarized organizational characteristics at the recipient and clinic partner levels to provide background knowledge on their approach to delivering screening, program activities, and EBIs to women eligible for breast and cervical cancer screening.

RESULTS

Participating Award Recipients and Clinic Partners

Study participants included recipients and clinic representatives of the NBCCEDP programs in nine states. All participants who were invited agreed to participate. Based on the award recipient questionnaire responses, most recipients ($n = 8$) reported that their NBCCEDP-supported activities were implemented by clinic partners that offer screening and diagnostic services, along with implementing interventions and strategies to reach women eligible for breast and cervical cancer screening. Recipients described regional coordination and partnerships with neighboring states to share resources as part of their organizational structure. Clinic partners included federally qualified health centers (FQHCs) and other community health systems with individual or multiple clinics in several locations. The capacity of these clinics for screening services depended on their organization size (number of individuals served), staffing capacity, and funding sources. Organization size varied by state and region, although rural areas usually had smaller organizations.

Activities Implemented to Reach Eligible Populations

In this section, we describe the partnerships established by the respondents and the activities implemented through these partnerships to reach NBCCEDP-eligible populations based on award recipient responses to the questionnaire. Table 2 summarizes these activities grouped

into three main categories: enhance planning, increase outreach, and improve access for eligible populations. Most recipients reported implementing all the activities for each of the three categories, with a few only implementing select activities for outreach and access.

Activities to enhance planning—All award recipients indicated using public health data sources and working with partners to identify individuals eligible for services in their questionnaire responses. Although not asked explicitly, several mentioned partnering with state cancer registries to identify cancer incidence and mortality data. Award recipients also worked with clinic partners to obtain data from electronic health record systems and from records maintained by their staff to track activities such as patient navigation. Furthermore, award recipients provided technical support to the clinics and worked with them to generate data reports from their electronic medical record systems to identify women who were not up-to-date with screenings. Thus, a key partnership to enhance planning was the relationship between the award recipients and the clinics.

Activities to increase outreach—Award recipients reported that they and their clinic partners conducted activities to deliver culturally sensitive messaging, and most also offered navigation services. About a third reported using group education sessions as part of their outreach activities. Table 3 describes the purpose of the partnerships and provides a listing of the types of partners based on information gathered during the in-depth interviews with the recipients and clinic partner representatives. Partnerships were often sought with community organizations as they have cultural bonds with the communities they serve and offer referrals to clinic services. Furthermore, the community venues provided an opportunity for clinic teams to conduct tailored in-person outreach to specific groups, especially to populations who do not typically engage with the health care system to seek routine preventive health care. Partnerships also offered the opportunity to pool resources to efficiently reach a wider audience through joint communication strategies. Award recipients and clinic teams reported a range of partners, such as advocacy groups, shelters for people experiencing homelessness, churches, academic institutions, and radio stations.

Activities to improve access—The key activities implemented to support access to breast and cervical cancer screening and diagnostic services among diverse populations include providing transportation, translation services, mobile mammography, and payment for clinical services. The availability of mobile mammography was seen as a key facilitator of breast cancer screening as FQHCs often have to refer patients for these services to other facilities. When services cannot be offered closer to where people live, transportation was a main barrier to accessing services, and partner organizations that offered transportation were valued by award recipients and clinics, as highlighted in the quote below.

It's the [community organization for Pan-Asian populations] here in [city], because it's one of our priority populations . . . They also offer their own shuttle for services, which is nice. (Award Recipient)

In addition, although payments were important to improve access, respondents indicated that partnerships with local health systems were necessary for clinical services that the NBCCEDP may not cover.

[The local hospital] have a program there that women, even the ones that are eligible for our program . . . if they need other follow up [clinical services other than breast and cervical cancer screening and diagnosis]. We have teamed up with them to help provide services for [the women]. (Clinic Partner)

Type of Partners and Characteristics of the Partnerships

During the award recipient and clinic partner interviews, respondents discussed how partnerships with community organizations allowed their programs to reach specific populations of focus. In the study, partnerships were characterized along the intensity of the relationship as networking, coordinating, cooperating, collaboration, and merging. These partnerships provided direct connections to communities and expanded the reach of clinic partners into their communities. Because several respondents pointed to these partnerships as a major facilitator, the recipient focus groups included a portion dedicated to understanding how these community–clinical partnerships functioned. The results from the poll completed by focus group recipients on the types of community partnerships their program had established are presented in Figure 2. Overall, seven out of the nine respondents, eight respondents in a few instances, indicated that their partnerships spread across a wide level of engagement, from the initial level of “networking” to the second-highest level of “collaborating.” Only one program indicated that they had a partnership at the most intensive level of “merging.”

Table 4 provides examples of the partnership characteristics reported by NBCCEDP award recipients and clinic partner representatives during the in-depth interviews and focus groups. The award recipients described these partnerships as long-term relationships that can evolve over time. At the level of “Networking,” there were many examples of how award recipients and clinics were able to exchange information to expand outreach and improve the delivery of screening services. For example, community organizations assisted with tailoring resources for outreach and provided venues to share information about breast and cervical cancer screening. Some recipients described more formal arrangements including one who described a regular conference with local tribal nations to discuss breast and cervical cancer screenings and share information. In terms of moving to the next level of “Coordination” and altering activities, recipients described how partnerships allowed clinics and community organizations to jointly work to modify their activities to accommodate the needs of the community, based on the information and insight gained from working together. Furthermore, some of the partnerships evolved into sharing resources and moving to the next level of “Cooperating.” A frequently shared approach was when clinic partners provided health care services while community organizations offered marketing and outreach networks. One recipient described how partnerships helped them understand best practices for implementing EBIs in their own clinics. They also described how the partnership began with information exchange and evolved into specific collaborations. Partnerships at the level of “Collaboration” were reported by several participants, and they reported enhancing each other’s capacity by developing joint communication materials and conducting shared outreach. Furthermore, in one instance, the highest level of “Merging” occurred when two organizations integrated and brought providers and community health workers together to enhance synergies.

DISCUSSION

In this article, we synthesize feedback from NBCCEDP award recipients and clinic teams on their approaches to reaching NBCCEDP-eligible women to provide screening services and the role of partnerships in engaging these women. The award recipients and clinic partners identified and described several key program activities that were important to enhance planning, increase outreach, and improve access to care. The recipients and clinic partners work collaboratively to establish the partnerships, and the information gathered from both groups of respondents showed a high level of concordance. All award recipients indicated that they use data-driven approaches to identify their populations of focus, such as using cancer registry data to identify small areas with relatively high late-stage breast and cervical cancer diagnoses, but they also emphasized the need to work with clinic partners' electronic medical record systems to identify those not up-to-date with screening and those with abnormal findings who do not return for follow-up care (Conderino et al., 2022). The partnerships established between the award recipients and the clinic partners were important to identify existing clinic clients who needed screening services.

To increase outreach to individuals in the community, the most common outreach approaches were delivering culturally appropriate messaging and offering telephone-based or in-person navigation. Community partnerships were necessary to deliver culturally sensitive messages and to engage populations without access to health care. These partnerships expanded the reach of clinics to identify the population of focus. Many programs reported a high level of cooperation and collaboration with the partners including exchanging information, altering activities, and sharing resources. The important role played by community partners in breast and cervical cancer screening outreach has been previously described (Levano et al., 2014). The findings in this article highlight that it is important to identify partners who are intimately engaged with the women in communities of interest and that these are often long-term relationships. These results are consistent with the recommendations from the Community Preventive Services Task Force on the importance of community health workers and patient navigators in increasing cancer screening (The Community Guide, 2021, 2023b). Furthermore, new partnerships may be beneficial when there are changes in the population of focus, as different community organizations may be better positioned to offer support for different groups of women eligible for screening.

Frequent approaches used to improve access were the provision of transportation, translation services, and mobile mammography. Partnerships with local community organizations that offer transport services were reported as a key facilitator to provide access to populations that lack transportation (e.g., individuals who are not securely housed) (Hughes et al., 2020). Furthermore, although most of the award recipients indicated that payments for screening and diagnostic services for people who are uninsured were important, they clearly articulated the importance of relationships with local health systems and hospitals. An important takeaway from this feedback is that payment is required to cover women who are uninsured or underinsured but what is also important are clinical partners who are willing and able to provide the required services. Previous research has shown that Medicaid enrollees, for instance, have more difficulty obtaining appointments compared with privately

insured individuals (Hsiang et al., 2019), and women who do not have health insurance and are eligible for NBCCEDP-covered services likely face similar challenges.

A key finding is that there is no one-size-fits-all type of partnership model and that the highest level of “merging,” defined as operating as one entity with blended roles and culture, is not required for partnerships to be valuable. In fact, organizations can identify approaches to broaden their reach and synergies to increase efficiencies at various levels and intensities of partnership. One natural partnership that was often reported was between clinics and local community organizations, such as food banks and shelters for people experiencing homelessness, as coordination between these organizations allowed for opportunities to address social risk factors that negatively affect populations of focus and limit their use of screening and other health care services. Partnerships do not have to be limited to one-to-one relationships and can encompass linkages between multiple organizations (Brandt et al., 2015). For example, consortium-type partnerships can exist between clinics, community organizations, and academic institutions to jointly leverage resources available across these institutions to address health disparities in their adjacent communities. Furthermore, partnerships with other programs can offer synergies (Subramanian et al., 2022), and several recipients reported working with other chronic disease programs to improve reach by using joint or integrated outreach strategies. Given that program priorities and population of focus can change over time, we anticipate that partnership models must be flexible to allow for changes over time as organizations evolve. Thus, decoupling of partnerships may be beneficial. De-implementation, defined as a discontinuation of a practice, strategy, or intervention that is no longer appropriate or effective, has been acknowledged as a key concept in implementation science. A similar systematic approach can be helpful to end partnerships with a positive outlook when planned milestones are reached and new relationships are needed to address emerging priorities (Norton & Chambers, 2020).

Prior research on community implementation approaches offers important lessons on potential facilitators and barriers to conducting program activities through partnerships. Leadership support is often cited as an important facilitator for implementing interventions and strategies, and is also likely important for building partnerships (Nathan et al., 2023). Another potential facilitator is the presence of champions in the organizations seeking to establish partnerships as substantial commitment of time is often required to work through both the informal and formal channels (Santos et al., 2022; Sharma et al., 2021). One key barrier to maintaining partnerships could be the high staff turnover often experienced by safety net clinics (National Association of Community Health Centers, 2022). Partnerships are built over time, and the lack of continuity among staff can negatively impact ongoing relationships (Dennis et al., 2015). Potential approaches to mitigate this challenge could include avoiding single points of contact and prioritizing multiple and multilevel relationships across organizations and working with care teams at clinics. Another potential barrier is the lack of resources dedicated to partnership building and sustainment (Kavanagh et al., 2022; Olmos-Ochoa et al., 2021). For example, identifying community partners can be challenging and time consuming and creating repositories of potential partners for clinic providers, patient navigators, and community health workers would be helpful. Furthermore, implementation teams may benefit from training on how to initiate and maintain partnerships with community organizations. Availability of continuous

training opportunities has been previously reported as an important component of quality improvement processes (Katz & Wandersman, 2016).

There are a few limitations that should be considered in interpreting the findings. We collected data from a subset of NBCCEDP award recipients and clinic partners. Therefore, this may not be representative of all award recipients and their clinic partners. Furthermore, we did not explore the process steps in implementing the activities and partnerships; thus, the intensity of these efforts and their effectiveness could differ among the programs. In addition, the study did not distinguish potential differences between the implementation of breast cancer and cervical cancer screening and diagnostic services.

Overall, we found that using different modalities of data collection used, the questionnaires, the semistructured interviews, and the focus groups reinforced the key themes identified and were complementary approaches that allowed in-depth exploration of the partnership approaches. The consistency in themes identified provides added confidence in the findings.

The NBCCEDP award recipients and clinic partners have established strong working relationships with community organizations to implement program activities to increase breast and cervical cancer services. These partnerships offer important lessons to health promotion practitioners to enhance planning, increase outreach, and improve access to services. A key finding is that community partners are essential for engaging with populations of focus and delivering culturally sensitive messaging to increase reach of the program. The community partners can support clinical teams to plan and implement targeted outreach activities and provide the venue to engage with populations of focus in a non-clinical setting. These partnerships can also help clinic-based navigators to address social needs of patients as community partners may provide transportation and translation services.

We found that the type and intensity of the partnerships can vary. The model of partnership between community and clinical organizations should be based on the appropriate level of interaction required to accomplish shared objectives and may evolve over time. It is important to invest in training staff so that they have the skillset needed develop and maintain partnerships, and often, team-based models may be required to ensure continuity when there is high staff turnover. Partnerships between community and clinical organizations require significant time commitment to initiate and sustain but this is an essential strategy to increase the reach and improve access to health care services for population who experience disparities.

Our assessment of the partnership model utilized by NBCCEDP award recipients and clinic partners has highlighted several areas for future research. First, there is limited guidance on the type of training and technical assistance that would be most beneficial for program staff to enhance their capacity to establish and maintain efficient partnerships. Developing and testing training approaches will be a valuable contribution to the field of implementation science. Second, partnerships require substantial investment of staff time, and there is no comprehensive assessment of the cost of planning, initiating, and maintaining partnerships. Understanding the cost and resource needs is essential to plan for the investment required

both in the short term and long term for effective partnerships. Third, research is required to identify best practices for de-implementing partnerships or reframing partner roles as changes in the population of focus or other program components occur over time.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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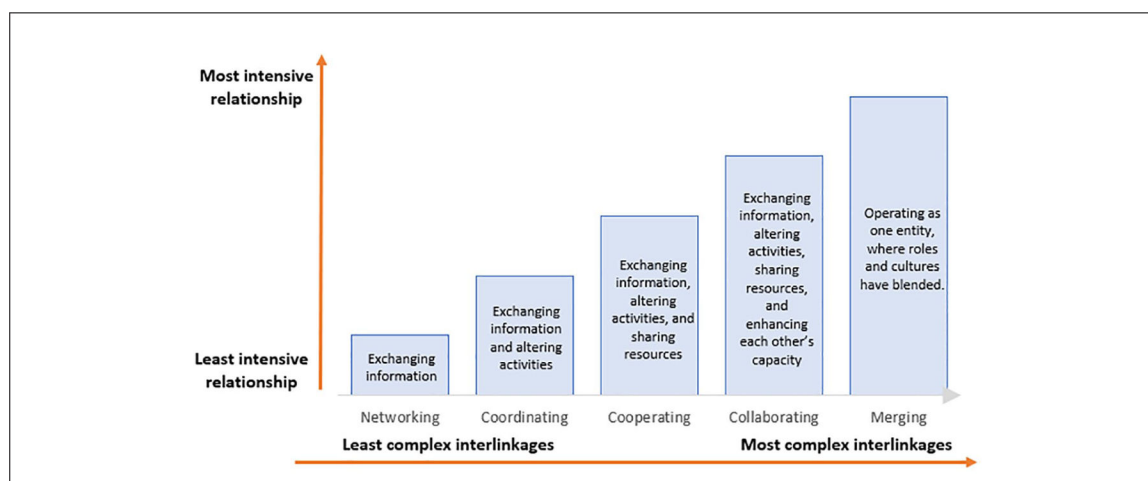


FIGURE 1. Description of Partnerships Among Community-Focused Organizations
Note. Based on Himmelman (2002).

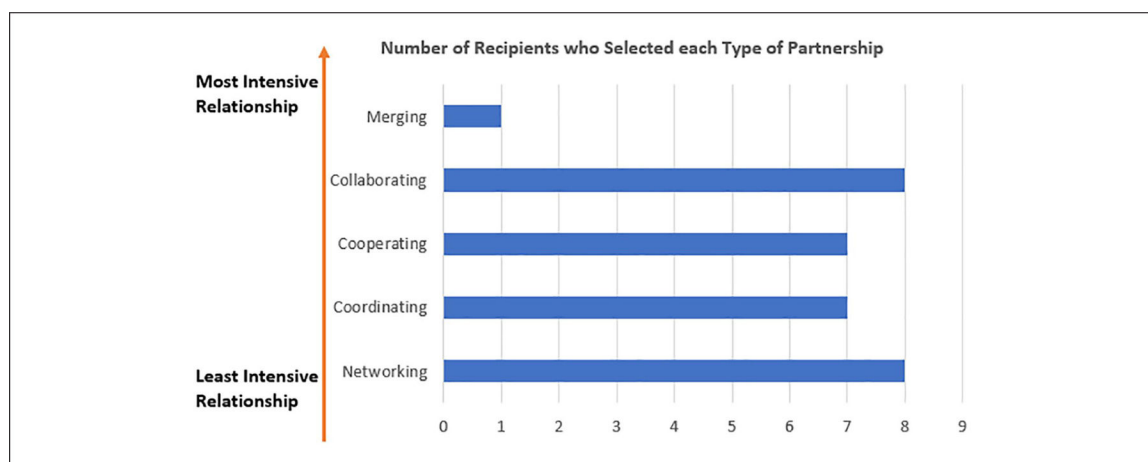


FIGURE 2. Number of Partnerships by Level of Intensity of Relationships

Source. Summary of poll conducted during focus group with recipients.

TABLE 1
Overview of Data Collection Components, Sample Size, and Time Commitment

Objective of data collection	Source of data	Sample size and respondent	Time commitment
To collect details on program strategies, partners, and evidence-based intervention implemented by recipients and clinic partners to reach population of focus and deliver breast and cervical cancer screening.	Questionnaire	Nine award recipients	20–30 minutes by the award recipient representative
To identify and evaluate organizational level barriers and facilitators to implement EBI to improve reach of the program and increase breast and cervical cancer screening.	In-depth interviews	Nine award recipients	90-minute call with a award recipient representative (e.g., program director and lead coordinator)
To explore details on screening and EBIs by clinics along with facilitators and barriers to implementing these program strategies.	In-depth interviews	Nine clinic partner representatives	45- to 60-minute call with clinic partner representative (e.g., quality improvement manager)
To discuss key themes from the questionnaire and in-depth interviews, and further review partnership models.	Focus groups	Nine award recipients	60-minute virtual focus group with the award recipient representative

TABLE 2
Activities Implemented to Enhance Planning, Increase Outreach, and Improve Access by NBCCEDP Award Recipients and Clinic Partners

Enhance planning	Increase outreach	Improve access
Use public health data to identify program-eligible populations: 100% (<i>n</i> = 9)	Deliver culturally appropriate messaging (e.g., media, patient materials, and in-person communication): 100% (<i>n</i> = 9)	Provide transportation assistance (e.g., gas cards, bus passes, and shuttle): 100% (<i>n</i> = 9)
Work with partners to identify individuals and assess eligibility for services: 100% (<i>n</i> = 9)	Provide telephone-based navigation services: 89% (<i>n</i> = 8) Provide in-person navigation services: 78% (<i>n</i> = 7) Offer group education sessions: 67% (<i>n</i> = 6)	Provide translators or translation services in the clinics: 89% (<i>n</i> = 8) Provide mobile mammography services: 89% (<i>n</i> = 8) Provide payment for screening and diagnostic services to individuals who are uninsured or underinsured: 89% (<i>n</i> = 8)

Source. Summary of recipient questionnaire responses.

Partnerships Established by Award Recipients and Clinic Partners to Increase Outreach

TABLE 3

Purpose of partnership	Type of partner
Clinics often partnered with community organizations, who can deliver culturally appropriate messaging, to provide referrals for clinic services as these organizations are trusted and have strong connections with the local community. These partners, though, may differ in their ability to verify NBCCEDP program eligibility. <i>Note that, I wouldn't say that [community organization] don't know the eligibility criteria. I think it's just that, you know, they're small, you know, small entity that doesn't really have the time or the resources . . . So they refer them to us. (Clinic Partner)</i>	Variety of community organizations that serve the population of focus, for example, Hispanic persons and African Americans persons
Recipient and clinic staff expand reach by using venues and meeting points of community organizations to conduct outreach activities and education events. <i>So we tend to do outreach where patients are, who may not be coming in. So for example, we go to soup kitchens, kind of community service organizations and provide outreach for them. (Clinic Partner)</i> <i>And then they also attend fairs in the community. You know, there may be different events where they go, and they promote the BCCP program (Clinic Partner)</i> <i>That is, you know, done primarily by our outreach manager and then by our outreach contractors . . . I got invited to go to the [State] Black Caucus event, and so that was a group education event. (Award Recipient)</i> <i>A lot of Latin communities, the church is the center of their community, so I marketed churches. A lot of them had social outreach people, so I reached them, and some of [the churches] here also have clinics. (Award Recipient)</i>	Shelters for people experiencing homelessness; soup kitchens; aftercare programs; community centers; churches; State health department
Respondents report leveraging resources across multiple partners to reach a wider audience efficiently. <i>It's called [health equity organization] and they provide clinical breast exam training to nurses. And so they predominantly work with the Native American and Black populations. So I just went to a training on Saturday. And they're in partnership with the [same medical college]. So together, just trying to increase our outreach to the Black community (Clinic Partner)</i>	Academic institutions; training organization
Respondents have worked with media outlets to get the message out to a broader audience. <i>We actually have a Latin Hispanic radio station here. And we did an interview with them, in which I had a translator, so it was done in English and Spanish. So . . . I would answer, and then one of my coworkers, who is a translator, would answer everything in Spanish too. (Clinic Partner)</i>	Radio stations

Source. Synthesis of information gathered in interviews with recipients and clinic partner representations.

TABLE 4

Description of Relationship by Type of Partnership

Type of partnership	Partnership characteristics	Example quotes
Networking	Exchanging information	<i>It's a requirement of their contract for all of our local coordinating units to be doing what we call community clinical linkage events. And one that has been very successful is working with our [regional food bank]. Every county has a day set aside where the food truck comes, and our local coordinating units coordinators have the ability to set up a table, walk the cars, talk about our program, provide information. (Award Recipient)</i> <i>the tribal nations have what they call the [Name] Conference once a year . . . And they give our program . . . the first day . . . and it's like everybody's reminded, "Oh yeah, that first day, that first afternoon, that's all for the Well Woman program to talk about breast and cervical cancer screening, the importance." We have speakers. I mean, it's a wonderful, wonderful, wonderful collaboration. (Award Recipient)</i>
Coordinating	Exchanging information and altering activities	<i>They enroll women, and then we have the ability to follow these women and assist. . . . And we're doing that in multiple settings and it's been very successful in being able to work together, alter those activities that they've been doing so they're more in line with what we need . . . (Award Recipient)</i> <i>[What types of partnerships have been instrumental?] Well, I was going to say with health fairs, because the clinics and community health workers were really, I think, coordinating together to go out to the different health fairs. (Award Recipient)</i>
Cooperating	Exchanging information, altering activities, and sharing resources	<i>We do work with some community organizations. They look at providing the information. They bring in our priority populations, they share resources, they allow our local coordinators to be a part of [their] events. (Award Recipient)</i> <i>Our community partner [partner organization], it's sort of an ideal partnership we have with them . . . any resources we don't have, they have. . . . And I would say that that's sort of the ideal model to have a community partner nonprofit that works alongside with you. (Clinic Partner)</i>
Collaborating	Exchanging information, altering activities, sharing resources, and enhancing each other's capacity	<i>I've reached out to the [medical college] to discuss ways or to discuss the possibility of a co-branded trifold or brochure that we can give out. So, you know, instead of having, you know, information from multiple entities, let's consolidate our efforts and our resources, and then we can give out this piece of information that says . . . these are the healthcare providers you want to hear from. And together, this is the information we want you to know about breast and cervical cancer. (Clinic Partner)</i> <i>I was going to say that we started out networking with the colorectal cancer program, and we've moved on now to collaborating with them . . . it was really critical because they had experience and they had already some clinics that were involved with it that were familiar with EBIs. (Award Recipient)</i>
Merging	Operating as one entity, where roles and culture are blended	<i>So that was how we're contracting with individual healthcare providers and then also with, essentially, their community health workers. We don't have a community health worker network in [State]. So those folks, so those are the merging ones. (Award Recipient)</i>

Source. Synthesis of information from interviews and focus groups with recipients, and interviews with clinic partner representatives.