



Program Outcomes from a Novel Outreach Network to Increase Breast Cancer Screening Uptake in Washington, DC

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Abstract

After the COVID-19 pandemic, racial and ethnic minority groups experienced disproportionate delays in returning to breast cancer. The GW Cancer Center's Community Outreach and Engagement team developed a novel Neighborhood Health Ambassador (NHA) network to increase knowledge and access to breast cancer screening in the Washington, DC metropolitan region. First, we recruited NHAs to complete a paid 100-h Community Health Worker (CHW) training and 44-h practicum. We coached NHAs to conduct community outreach and breast cancer screening education in their neighborhoods. Second, we partnered with two community-based organizations to arrange direct screenings for Hispanic/Latina and African immigrant women. Twenty-six NHAs completed the CHW Curriculum. Nineteen NHAs completed the practicum. NHAs reached 2,189 direct beneficiaries at 108 events over a year. GW Cancer Center staff navigated 21 women to mammograms. Out-of-pocket costs were paid to allow an additional 102 uninsured women to obtain mammograms. This project piloted a community-based network to strengthen breast cancer screening in the GW Cancer Center catchment area. Creating a grassroots network of community health workers is feasible and impactful, but time-intensive. Directly partnering with longstanding community partners yielded faster screening uptake among priority groups for breast cancer screening.

Keywords Breast cancer screening · Community Health Worker · Latina · African immigrant · LGBTQI

Introduction

In 2025, an estimated 316,950 new cases of invasive breast cancer will be diagnosed in women [1]. Early detection is strongly associated with improved survival [2]. National analyses have shown that Hispanic/Latino and Non-Hispanic Black patients are more likely to present with advanced-stage disease and less likely to receive surgery or radiation than Non-Hispanic White patients, creating suboptimal health outcomes [3]. In 2022, Washington, DC's age-adjusted mammography screening prevalence was 77.0%, slightly above the U.S. age-adjusted prevalence of 76.0%, yet outcomes were highly stratified by geography and race, pointing to the need for community-engaged interventions [4, 5].

The COVID-19 pandemic interrupted access to cancer screening as health care professionals pivoted to address the acute needs of COVID-19 patients [6, 7]. This interruption exacerbated existing disparities, with post-pandemic deficits disproportionately affecting racial and ethnic minority

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groups [8]. To encourage women to get back on track with breast cancer screening and address persistent disparities, the Community Outreach and Engagement team at the GW Cancer Center implemented the Strengthening Community Reach and Equity by Engaging Neighborhoods (SCREEN) initiative. Given evidence that has demonstrated the impact of Community Health Workers (CHWs) on improved cancer screening [9–14], we trained community members, i.e., Neighborhood Health Ambassadors (NHAs), to become CHWs, and we expanded collaborations with established community organizations to improve mammography access in our region.

Methods

Participant Recruitment for NHA Network

A flyer advertising compensation (\$1500) for completion of a 144-h CHW training was distributed through local listservs, community organizations, and religious organizations. Eligibility criteria included age ≥ 18 years and interest in community health promotion. No prior public health experience was required. Interested individuals submitted applications for review by project staff.

Curriculum and Training

NHAs were required to complete a 100-h, Maryland state-approved, virtual CHW training program [15]. Figure 1 summarizes curriculum alignment with Maryland CHW core competencies. Instructors had expertise in public health, minority health, advocacy, case management, and

family medicine. A final competency exam was required to obtain a certificate of completion.

NHAs were then required to complete a 44-h supervised practicum over six months. GW Cancer Center staff provided oversight to ensure that outreach was focused on the Washington, DC metropolitan region, community-facing, and related to cancer or related chronic disease prevention.

Supplemental training sessions (community circles) addressed emergent topics such as cultural humility, teaching skills, and role modeling in their interactions with community members to encourage mammography and/or patient navigation services. Community Circles included a subject matter expert who delivered didactic content, followed by a question-and-answer period to optimize application of content to NHA practice.

Compensation for NHAs

NHAs received \$1,500 upon completion of the 100-h virtual Community Health Worker curriculum and were subsequently paid \$23–25 per hour, depending on level of prior experience, for practicum hours and direct service. Direct service consisted of NHAs identifying and educating women eligible for breast cancer screening (e.g., 40 years of age who had never gotten a mammogram or had gone over a year without a mammogram) on the importance of mammography. Efforts focused on four populations: African immigrants, African Americans, Hispanic/Latinos, and the lesbian, gay, bisexual, transgender, queer (LGBTQ+) community. NHAs were provided with a standardized outreach toolbox containing a tablecloth, free hand sanitizers and other giveaways, and printed literature on cancer prevention and early detection. Through workshops; health fairs and resource days; and tabling at community-based

Fig. 1 Community Health Worker Curriculum Topic Areas Alignment with Maryland CHW Core Competencies

Topic Areas	Maryland CHW Core Competencies
Foundations of Public Health <ul style="list-style-type: none"> ● Public Health Concepts and Approaches ● Hospitals and Healthcare Systems ● Care Coordination and System Navigation ● Improving Population Health and Health Equity ● Health Information Systems 	<ol style="list-style-type: none"> 1. Advocacy and community capacity-building skills 2. Effective oral and written communication skills 3. Understanding and Addressing Unconscious Judgments 4. Understanding of ethics and confidentiality issues 5. Knowledge of local resources and system navigation 6. Care coordination support skills 7. Teaching skills promoting healthy behavior change. 8. Outreach methods and strategies 9. Understanding of public health concepts and health literacy
Community Health Strategy <ul style="list-style-type: none"> ● Education for Healthy Behavior Change ● Advocacy and Community Capacity Building ● Outreach Methods and Strategies ● Disease Prevention and Management 	
Professionalism and Leadership <ul style="list-style-type: none"> ● Teaching Skills ● Cultural Responsiveness and Meditation ● Motivational Interviewing 	

organizations, churches, and grocery stores, NHAs asked women about history of mammography and knowledge of breast cancer screening. Community members that desired follow up provided their contact information.

Patient Navigation

Phone-based patient navigation was provided to help community members eligible and interested in screening to access mammography. Navigation activities included primarily referral to primary care for those without a medical home, direct assistance with scheduling mammograms, and transportation assistance through Uber Health [16]. Navigation continued until a screening mammogram was

secured with no unusual findings or followed by a diagnostic mammogram.

Evaluation Measures

NHAs and program personnel contributed to both process and outcome measures through outreach event reports and patient navigation call logs maintained in Smartsheet [17]. Primary measures included number of unique individuals reached at outreach events, number of people interested in screening, percentage of people interested that met U.S. Preventive Services Task Force (USPSTF) eligibility criteria for breast cancer screening, number of individuals navigated to screening, and number of completed mammograms.

Table 1 Self-reported demographics of NHAs completing community health worker curriculum (N=26)

	N	%
<i>Gender</i>		
Male	2	7.7
Female	23	88.5
Prefer not to answer	1	3.8
<i>Race</i>		
White	1	3.8
Black/African American	23	88.5
More than one race	1	3.8
Prefer not to answer	1	3.8
<i>Ethnicity</i>		
Hispanic/Latino	2	7.7
Not Hispanic/Latino	23	88.5
Missing	1	3.8
<i>Sexual orientation</i>		
Heterosexual	24	92.3
Gay or lesbian	1	3.8
Bisexual	1	3.8
<i>Primary language spoken</i>		
English	22	84.6
Amharic	2	7.7
Spanish	1	3.8
French	1	3.8
<i>Highest level of education</i>		
High school or general equivalency diploma	1	3.8
Associate's degree	1	3.8
Some college coursework completed	4	15.4
Technical or occupational certificate	1	3.8
Bachelor's degree	10	38.5
Master's degree	8	30.8
Doctorate	1	3.8
<i>Employment status</i>		
Employed full-time and working	9	34.6
Employed part-time and working	3	11.5
Not employed	10	38.5
Retired	1	3.8
Other	3	11.5

Results

NHA Cohort Characteristics

Seventy-five individuals applied for the NHA cohort, and 38 were provisionally accepted (51%), representing Washington, DC, the Maryland counties of Prince George's and Montgomery, and the Virginia county of Fairfax as well as Fairfax City, and Alexandria City. Twenty-six NHAs (68%) completed training and passed the final exam. The Table illustrates the descriptive characteristics of the trained NHA cohort. Nineteen NHAs (73%) completed all 44 required practicum hours. Twelve NHAs conducted independent outreach. Two NHAs elected to become board-certified Community Health Workers through the state of Maryland (Table 1).

The NHA network consisted of a strong representation of NHAs identifying as Black or African American (88.5%), but a much smaller portion of NHAs identifying as Hispanic/Latino (7.7%) or LGBTQ+ (7.7%). Notably, some NHAs brought in-language support. Four of the recruited NHAs listed primary languages other than English, including Amharic, Spanish, and French (see Table 1). NHAs worked as part-time contractors, sometimes balancing their responsibilities to the SCREEN program between full-time jobs (35%) or part-time jobs (12%).

Figure 2 summarizes attrition among NHAs.

Outreach Impact

NHAs reached an estimated 2,189 direct beneficiaries at 108 events over a year. Of the 2,189 individuals reached, 240 (11%) community members provided their contact information and 216 (10%) specifically indicated interest in cancer screening. GW Cancer Center staff successfully contacted 223 of 240 community members, providing patient

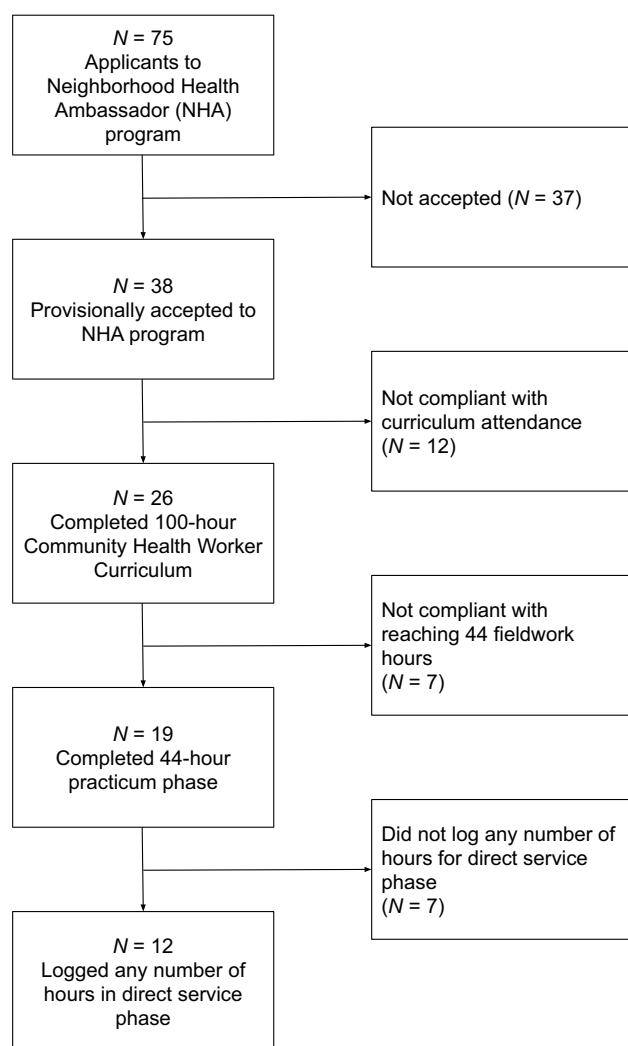


Fig. 2 Attrition Among Neighborhood Health Ambassadors

Table 2 Reach of SCREEN by metric

	N	%
<i>Direct Beneficiaries</i>		
New, unique individuals directly educated by NHAs or GW Cancer Center staff	2,189*	-
<i>Individuals with Screening Interest</i>		
People who shared their contact information and indicated interest in getting a cancer screening	216	9.9 ^a
<i>Eligible Individuals</i>		
Assigned female at birth, over 40 years of age, and had not received a mammogram within the year	44	20.4 ^a
<i>Completed Mammogram</i>		
NHA Outreach/GW Patient Navigation	21	17.1 ^b
Howard Breast Center in partnership with Nueva Vida	94	76.4 ^b
Breast Care for Washington in partnership with African Women's Awareness Association	8	6.5 ^b

*Denominator for ^ametrics; ^bdenominator for ^bmetrics

navigation in both English and Spanish. Only 44 (20%) of those contacted were eligible for screening. Seven women established a medical home within the academic research institution's primary care arm, and 21 (48%) women were successfully navigated to a completed mammogram. Six of 21 women (29%) received their mammograms from the GW Breast Imaging and Intervention Center. All five women who requested transportation assistance received free Uber Health rides to and from their mammogram appointments (Table 2).

Community Partnerships

Between August 2024 and November 2024, seven women had completed mammograms through the SCREEN intervention. Many women at outreach events were already adherent to screening or were not eligible for screening based on USPSTF criteria. To optimize impact of SCREEN, the team partnered with two respected community-based organizations to identify uninsured women who had never had a mammogram. A grant was available to cover out-of-pocket costs for screening. Nueva Vida, long-established within the Hispanic/Latino community as a reputable non-profit supporting women's access to cancer screenings and treatment in the Mid-Atlantic region, recruited uninsured Latinas for three free mammogram days between January 16 and February 20, 2025. Similarly, GW Cancer Center funded a half-day mammogram campaign with Breast Care for Washington, a local organization that offered their radiologist and mammography suite to screen members of the African Women's Cancer Awareness Association. Additional mammograms were covered for uninsured women making appointments at Howard University Hospital's breast cancer screening clinic over the same time period.

GW Cancer Center staff navigated 21 women from the community to mammograms, and community partnerships allowed for 102 additional women to receive no-cost mammograms. In all, the SCREEN initiative made 123 mammograms possible. For 26 women (37%), this was their first mammogram. Out of the 123 total women screened, 110 (89%) were uninsured.

Of the 223 community members contacted by cancer center staff, 28 men were ineligible due to sex assigned at birth, 44 women were women already consistently getting mammograms, and 28 women were under 40 years of age. Forty-five English-speaking individuals and 14 Spanish-speaking individuals could not be reached by phone or text after initially sharing their information with an NHA or staff member.

Adverse Findings from Mammograms

Of the 21 navigated patients, two women had adverse findings from their screening mammogram and required diagnostic screening. These women were insured and had established medical homes that received their abnormal results and monitored their next steps. GW Cancer Center staff noted these individuals and periodically reminded them about scheduling follow-up imaging until screening resolution was determined.

Of the 102 uninsured women screened through community partners, five women (5%) had adverse findings requiring follow-up. Nueva Vida first obtained an in-kind clinical breast exam by a breast surgeon for each woman and, subsequently paid for all five women to receive diagnostic mammograms from various radiology locations in the Washington, DC metropolitan area. All five diagnostic mammograms were negative.

Discussion

The SCREEN program demonstrated that an NHA model can be feasibly implemented to expand outreach and promote breast cancer screening in underserved communities. While NHAs effectively engaged diverse populations and built trust, the highest mammogram completion rates were achieved through partnerships with established community-based organizations possessing robust navigation infrastructures.

NHAs have a uniquely powerful role in acting as champions for health in their own communities. As with other community-based interventions for cancer screening promotion, SCREEN focused outreach on specific racial and ethnic minority groups, including African American women, African immigrants, and Latinas [17–19]. Amharic-speaking NHAs emerged as an asset, as the Washington, DC region has the highest concentration of Ethiopian immigrants of any metropolitan area in the United States [20]. One Amharic-speaking NHA spoke with 37 women at a single event in Montgomery County, Maryland—a county with a large concentration of Ethiopian residents.

Initially, we aimed to match NHAs to community members with similar lived experiences. However, the lower proportion of NHA representatives from Hispanic/Latino or LGBTQ+ populations posed some challenges [19, 21]. GW Cancer Center staff supplemented these gaps by conducting Spanish–English bilingual outreach and scheduling Community Circles to cultivate cultural humility skills and ensure NHA success in event opportunities with lower cultural concordance.

Past research showing CHW success in advancing cancer screening has utilized full-time CHWs hired as program personnel to navigate patients, secure HIPAA authorization, and access client health data [21, 22]. In the SCREEN program, we experimented with part-time NHAs hired as consultants; thus in some respects NHAs functioned more like volunteers than employees. Without possessing the same access to systems as a full-time employee, NHAs could not access protected health information. Additionally, NHAs struggled to manage administrative needs for outreach events reporting due to external responsibilities and technological challenges. Therefore, early in the SCREEN program implementation, GW Cancer Center staff decided to conduct all patient navigation to ensure closed loop referrals for community members needing screening and diagnostic mammograms rather than expecting NHAs to provide systematic and intensive follow-up to community members.

Patient navigation was managed by two GW Cancer Center full-time staff. Results from patient navigation found ineligibility in 102 (46%) of the 223 community members who were contacted. By comparison, community partnerships emerged as faster and more successful pathways to screen women ($n = 102$).

The number of applicants to the NHA program exceeded allotted slots, demonstrating the opportunity's desirability as a paid certification program. However, at each phase of the program, some NHAs did not fulfill the requirements. Twelve of 38 NHAs (32%) were unable to complete the 100-h Community Health Worker Curriculum, as the 10-week intensive course required four weekly synchronous sessions for three hours each. In the practicum phase, seven of 26 NHAs (27%) could not make 44 h within the six-month allotted time period. In the direct service phase, NHAs were not required to meet a certain threshold of hours, but were paid for the hours they worked independently to identify eligible women from their community. Although 19 NHAs fully completed classroom and fieldwork training to enter the phase of direct service, only 12 NHAs logged any number of outreach hours.

Partner organizations emerged as a successful way to screen large numbers of women during mammogram campaign days. Part of the success of the mammogram campaigns at Nueva Vida and Howard University's breast cancer screening clinic was due to the strong patient navigation infrastructure built into these organizations. A full-time staff member at Nueva Vida worked tirelessly to fill the slots of the mammogram campaign with eligible, uninsured Latinas using multiple interactions to guarantee attendance.

Guaranteeing attendance to scheduled appointments is always important, but especially pertinent after the new US Executive Administration in 2025 intensified enforcement actions by US Immigration and Customs Enforcement

(ICE) alongside executive orders, inflammatory rhetoric, and threats of mass deportation of immigrant communities [23]. Health care providers have reported rising no-show rates and appointment cancellations in 2025 and attributed these to patients' fear of ICE [24]. This is consistent with the reports from Nueva Vida staff, who heard many patients express fear about potentially encountering immigration enforcement if they attended their scheduled mammogram appointment. Despite this palpable fear, Nueva Vida staff ensured that eligible women were present to fill all clinic slots on all campaign days.

An institutional commitment to financially sustaining the NHA program post-grant was a critical element of continued community trust. Due to unexpected sociopolitical factors that constrained academic medical settings in early 2025, in lieu of operational funds, we leveraged funding for an existing prevention study to maintain the NHA network and align work with outreach for prevention activities. In addition, we integrated two NHA representatives into the GW Cancer Center Community Action Council, the advising body for Community Outreach and Engagement, to ensure ongoing representation of NHA views in cancer center strategic planning going forward.

Lessons Learned

Lessons learned included: 1) at least six months was required to lay the foundation of the infrastructure for the program, inclusive of solidifying the curriculum and delivery of the curriculum; 2) numerous sessions were critical to on-board NHAs as vendors within the university system; 3) full-time community outreach staff were needed to guide NHAs to relevant events and to provide direct navigation for clinical follow up; 4) while broad capacity building through NHA training was a success, we found that expecting NHAs to conduct in depth follow up, such as intensive navigation, was unrealistic; 5) trusted partnerships with community-based organizations were critical to successful recruitment of community members for screening; and 6) despite leadership support, sustainability was challenging given sociopolitical changes that affected assumed institutional resources.

Limitations

Our retention of NHAs was limited due to the dosage of the curriculum. A second call for applications was required after a portion of those invited to the program declined based on the extensive hours required for training. After the classroom training, we overestimated the ability of community members to identify events independently without GW Cancer Center staff support. Further, we found that trained

NHAs required ongoing reinforcement and networking through Community Circle sessions.

GW staff were unable to contact 17 (9%) of the 240 community members who provided their contact information. It is possible that some of these 17 missed individuals may have been eligible for breast cancer screening.

Our evaluation of our NHA network was limited by counts of reach and adherence to required follow-up. Nevertheless, we were able to describe outcomes from a multi-component campaign to assist women in returning to breast cancer screening after the acute period of the pandemic.

Conclusions

Developing an NHA network to advance cancer center outreach and engagement goals is feasible and impactful, but time-intensive. NHAs required active mentoring, guidance, and ongoing support to coordinate outreach presence for health education. Full-time staff at the GW Cancer Center actively facilitated NHA connections to planned community events and navigated interested community to mammography. Close partnerships with trusted and professionally-staffed community organizations were the most efficient and effective strategy in reaching community members for breast cancer screening.

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Declarations

Conflict of interest MPC, SS, CCG, HS, JB, and BM report grant funding from Gilead (PI: Pratt-Chapman). JEB and SFW report no interests relevant to the content of this article.

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