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Public Education and Targeted Outreach to Underserved Women Through the National Breast and Cervical Cancer Early Detection Program

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Abstract

The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) was established to provide low-income, uninsured, and underinsured women access to cancer screening and diagnostic services with the goal of increasing the early detection and prevention of breast and cervical cancer. Although this is a valuable resource for women who might not have the means to get screened otherwise, providing services at no cost, by itself, does not guarantee uptake of screening services. Public education and targeted outreach facilitate the critical link between public service programs and the communities they serve. The purpose of public education and outreach in the NBCCEDP is to increase the number of women who use breast and cervical cancer screening services by raising awareness, providing education, addressing barriers, and motivating women to complete screening exams and follow-up. Effective strategies focus on helping to remove structural, physical, interpersonal, financial, and cultural barriers; educate women about

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the importance of screening and inform women about the services available to them. This article provides an overview of the importance of public education and targeted outreach activities for cancer screening through community-based programs including examples from NBCCEDP grantees that highlight successes, challenges, and solutions, encountered when conducting these types of interventions.

Keywords

education; outreach; cancer screening; breast cancer; cervical cancer

INTRODUCTION

Breast cancer is one of the most commonly diagnosed cancers among women in the United States.[1] Although advances in treatment have helped many women live long, healthy lives after a diagnosis, detecting breast cancer at early stages is imperative for long-term survival.[2] Once one of the leading causes of cancer death among women, cervical cancer has seen significant decreases in incidence and mortality because of early detection and prevention practices with Papanicolaou (Pap) testing.[3] Early detection of breast and cervical cancer, through mammography and Pap testing, respectively, has helped the medical community make significant strides in cancer prevention and control.[4] The U.S. Preventive Services Task Force provides screening recommendations for breast and cervical cancer based on scientific evidence that screening with mammography and Pap tests helps to reduce mortality from these diseases.[5] Yet there are still women not being screened. Results from the 2010 National Health Interview Survey indicate that overall about 72.4% of women in the United States get mammograms and 83% undergo Pap testing according to screening guidelines.[6]

Federal, state, and local governments, and community organizations have been working to promote and facilitate screening for breast and cervical cancer. Research shows that since 1987, screening rates for breast and cervical cancer have been increasing, possibly due to the efforts of these initiatives that target cancer prevention and control.[7] One example is the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). To improve screening among medically underserved populations, Congress authorized the Centers for Disease Control and Prevention (CDC) to develop the NBCCEDP in 1991. Since then, the NBCCEDP has been working to provide low-cost breast and cervical cancer screening and diagnostic services to low-income, uninsured, and underinsured women.[8] The NBCCEDP has provided more than 10 million mammograms and Pap tests and diagnosed thousands of breast and cervical cancers and precancerous cervical lesions.[9]

Several research studies have shown that women who are uninsured or underinsured, are older, have a lower socioeconomic status, are from racial or ethnic minority groups, or lack a usual source of care are the least likely to be appropriately screened for breast and cervical cancer.[6, 10] In addition, structural, interpersonal, financial, and cultural factors that affect adherence to breast and cervical cancer screening have been identified. These include but are not limited to lower education levels; lack of knowledge about cancer and cancer

screening; distorted perceptions of risk and susceptibility to cancer; cultural beliefs and low literacy; mistrust of doctors and the health care system; fear, worry, anxiety, and embarrassment regarding screening; concerns about screening-related pain; safety and efficacy; language and acculturation issues; lack of access and transportation issues; lack of social support from friends, family members, and medical providers for screening; and out-of-pocket costs.[11-15]

The Guide to Community Preventive Services provides recommendations on evidence-based interventions (EBIs) that are effective strategies to increase breast and cervical cancer screening.[16] Recommendations include educational and outreach activities that inform and motivate women to receive the recommended cancer screening. Small media and one-on-one education are recommended for breast and cervical cancer screening, whereas group education is recommended for breast cancer screening. All these strategies may be implemented in a variety of settings based on the target population. These same strategies, along with client reminders (for breast and cervical cancer), may also be implemented within health systems to inform and remind patients when they are due for screening.

The CDC encourages NBCCEDP grantees to use EBIs that are culturally appropriate and fit the needs of their target population. Grantees must consider all factors that may affect the success of the intervention. This means that thoughtful planning must occur through assessing the needs of the target population, setting realistic and achievable goals, selecting appropriate intervention strategies, considering resource needs, and incorporating an evaluation plan. To assist grantees, the CDC developed a national social ecological model to demonstrate the myriad factors that affect health outcomes (Fig. 1). To be effective, cancer screening must be coupled with activities that embrace policy, systems, and environmental change. CDC encourages grantees to implement activities that focus on individuals, organizations, communities, and policies to have an impact on the health outcomes of the targeted population. Use of widely available resources such as Research-Tested Intervention Programs[17] can provide tools that can be adapted to the needs of the population. Ideally, a comprehensive approach combining multiple evidence-based strategies is employed, which has been shown to be successful in increasing cancer screening.[18] NBCCEDP grantees use these EBIs in collaboration with their communities and partners to increase breast and cervical cancer screening by conducting public education and targeted outreach activities that focus on raising awareness, providing public and provider education, addressing barriers to screening, and motivating women to complete cancer screenings.

NBCCEDP GRANTEE EXAMPLES

This article provides examples of the public education and targeted outreach interventions conducted by the NBCCEDP grantees in partnership with organizations in their states. We provide detailed descriptions of implementation, including successes and challenges.

Utah Cancer Control Program

The Utah Cancer Control Program (UCCP) aims to increase breast and cervical cancer screening among medically underserved women ages 50-64 who are eligible to receive free program screening. To determine screening barriers, UCCP conducted a telephone survey of

619 women in the target age group who had no health insurance or inadequate insurance and lived at or below 250% of the federal poverty level to assess their knowledge of UCCP services. Of women surveyed, 48% were unaware of the available free breast and cervical cancer screening services, and only 6% of respondents had ever used them.

Based on survey results, the program created small media (ie banners, posters, rack cards, clinic signage, and direct mailing) and mass media (ie radio, television ads, print ads, and billboards) campaigns to promote the UCCP services available. The media messages were designed to eliminate misconceptions regarding program eligibility and encourage eligible women to use program services. The campaign slogan, “Testing, As Easy as One, Two, FREE,” informed women about free screening services and emphasized the ease of signing up.

The campaign was implemented over 4 months. Compared with the same period in the previous year, the program experienced a 171% increase in the number of calls inquiring about free screening services and a 20% increase in program enrollment. The increase in enrollment was attributed to the campaign because no other recruitment activities occurred at that time. Continued campaign efforts targeting low-income women help to improve cancer screening among this target population.

Ohio Breast and Cervical Cancer Project

The Ohio Breast and Cervical Cancer Project (OH BCCP) aims to recruit eligible women to the program for screening services. Toward this end, it implemented several public education and targeted outreach strategies. One example is an informational workshop conducted for medical providers, social service organizations, and other health care delivery organizations in northeastern Ohio. The workshop was conducted to inform participants about OH BCCP services, policies, eligibility criteria, and referral procedures and encourage them to refer clients to the program. The workshop, conducted in partnership with the American Cancer Society, Susan G. Komen for the Cure, and the National Cancer Institute’s Cancer Information Service, attracted approximately 80 participants. Several months later, the same workshop was repeated with providers and social service organizations across the entire state, reaching approximately 80 additional participants. The established partnerships and workshops helped to create a larger network from which to recruit women. The partnerships also allowed the OH BCCP to share information, avoid duplication of efforts, increase project efficiency, fill service gaps, and identify best practices in project management.

The OH BCCP also conducted a mass media campaign to reach women in their target audience. The campaign encouraged women, who are busy and accustomed to taking care of others instead of themselves, to take time to get screened for breast and cervical cancer. The campaign included a television commercial that aired on local and cable networks in the northeastern, northwestern, and central regions of Ohio and a concurrently running radio ad that aired on both English- and Spanish-language radio stations. The TV commercial aired 1136 times over a 3-week period, primarily on weekdays during daytime TV and evening entertainment news programs. The radio ad aired 1164 times. In addition, print ads were

placed in coupon mailers, magazines, and newspapers and on billboards, pharmacy bags, city buses, bus stops, and phone banks

Enrollment in the OH BCCP increased by approximately 4000 women statewide in the period immediately following these recruitment activities. When compared with the same period in the previous year, there was a 32% increase in enrollment associated with these activities. In northeastern Ohio specifically, where a live information session was held and the concentration of advertising was higher, a 43% increase in OH BCCP enrollment was observed.

Georgia Breast and Cervical Cancer Program

The Georgia Breast and Cervical Cancer Program (GABCCP) aims to recruit eligible women for the state screening program and to teach women about primary prevention through making positive health behavior changes. To achieve program goals, GABCCP partnered with the American Cancer Society and the University of Georgia (UGA) Cooperative Extension Service to conduct a “Cancer Cooking School.” Based on the extension service cooking school model, the 3-hour course included lessons on dietary guidelines for healthy eating, preparing healthy dishes, shopping for healthy foods, and making healthier lifestyle choices such as smoking cessation, decreased alcohol intake, and increased physical activity. Also incorporated into the curriculum was a session on breast and cervical cancer, including risk factors, screening recommendations, and the availability of free or low-cost screening services through the GABCCP. Several courses were held throughout the state and cotaught by agents from the extension service and coordinators from the GABCCP. Local programs were responsible for promoting their events and scheduling subsequent appointments at local screening facilities. To address structural barriers to attending the course, courses were held at facilities serviced by public transportation.

During the course, participants received completed pre- and posttest assessments on their knowledge of healthy eating habits, healthy behaviors, and breast and cervical cancer screening. After the end of the course, women who met program eligibility criteria were invited to schedule appointments for screening at their local health departments. To serve as an incentive, participants were offered a healthy meal prepared during the course and were given coupons to present before their medical visits, which would qualify them to be entered in a drawing for a gift card from a local grocery store. Women who went on to be screened were given follow-up postcards to report changes in their diets, cooking practices, and life-styles and to assess their knowledge on mammography and Pap testing.

The extension service at UGA compiled data from the pre- and posttest surveys and the follow-up postcards, as well as program data on the number of mammograms and Pap tests administered to women recruited from the “Cancer Cooking Schools.” There were 222 women who attended a “Cancer Cooking School,” of whom 125 were eligible for the GA BCCP. Of those eligible, 80 women received a mammogram, and 50 received a Pap test. Forty of those women had never been screened or had not been screened within the past 5 years for breast or cervical cancer. This effort informed continued activities to improve health education and effect behavioral changes within targeted communities.

New York State Department of Health, Cancer Services Program

The New York State Department of Health Cancer Services Program (CSP) oversees the delivery of breast and cervical cancer screening and diagnostic services to eligible uninsured and underinsured individuals through screening programs throughout the state. The local programs develop relationships with contracted regional providers (eg, hospitals, clinics, health care providers) and community-based organizations to reach and recruit priority populations for cancer screening. The CSP provides technical assistance to their contractors to guide the planning, implementation, and evaluation of targeted outreach activities. Contractors are provided with ongoing education on the Guide to Community Preventive Services[16] evidence-based recommendations on population-level cancer screening promotion strategies including the use of small media and client reminders to increase screening rates among all age- and risk-appropriate New Yorkers. In addition, the CSP provides small media in the form of brochures, client reminder cards, posters, phone scripts, advertisements, and other materials to its contractors. It funds a toll-free phone line that is promoted on all small media products and mass media interventions that directly connects callers to local screening programs. This layered approach to public education and outreach has been an effective means of reaching underserved women for breast and cervical cancer screening.

One such example is the New York State Department of Health's "ASK ME" outreach campaign. CSP contractors received training and resources to implement this campaign in their communities. Contractors enlist local businesses, nonprofit agencies, libraries, health care facilities, beauty salons, and barber shops to locate, inform, and enroll clients in New York State's breast and cervical cancer screening program. Volunteers at participating locations wear buttons (in English or 10 other languages) and/or aprons printed with the message "Uninsured? ASK ME how to get FREE cancer screening." When asked by clients, customers, or friends, these volunteers hand out "ASK ME" information cards that include the program's eligibility criteria and the toll-free number. In many cases volunteers actively encourage and/or assist the potential client in contacting the program. Some participating locations also place window clings with the "ASK ME" message on prominent windows and/or doors. Campaign materials are available free of charge to local community volunteers.

The number of breast and cervical cancer screening clients who are screened as a result of the "ASK ME" campaign is tracked through a variety of tools, including the CSP data system. The CSP also tracks the number of volunteers and community locations implementing the campaign. Approximately 4000 clients have been screened after talking to an "ASK ME" volunteer or seeing "ASK ME" campaign materials.

New Hampshire Breast and Cervical Cancer Program

The New Hampshire Breast and Cervical Cancer Program (NHBCCP) aims to increase breast and cervical cancer screening among medically underserved women ages 50-64 in Hillsborough County. Hillsborough County, the largest and most urban county in the state, was selected to target women with low income and low education who may be in need of screening services provided by the program.

In July 2013, NHBCCP partnered with the largest newspaper in the southern part of the state to conduct a targeted small media campaign encouraging women to get screened for breast cancer. A total of 5000 households with at least 1 woman aged 45-64 and household income of $41,033-$55,000 were identified using the newspaper's distribution list. In September, households were mailed a post-card with information about the purpose of a mammogram, national screening guidelines, and how to access free screening through NHBCCP. Postcard messages were developed in collaboration with the newspaper's retail advertising department. As an incentive, postcards promised that women who responded to the mailer by November would be entered into a raffle for a gift card. The newspaper also ran an advertisement for the NHBCCP during the intervention period.

To assess program success, NHBCCP recorded the number of phone calls received in response to the mailing. As of December 2013, the program had received calls from 5 women in response to the campaign. This was not the return on investment that the program had hoped to receive. However, the program seized the opportunity to learn lessons from the project.

There were several challenges. First, there was no way to know if postcards mailed to households were read by women in the target audience. Postcards were sent to households, not to individuals. Further, messages were not tested with members of the target audience, so they may not have resonated with readers. Finally, the program was unable to conduct pre- and posttests because of limited financial resources and the mailing list was to households and not specific individuals, which prevented the program from recontacting specific individuals who may have received the initial mailing. As a result, the true impact of the campaign on women's screening knowledge, attitudes, and behaviors could not be assessed, particularly for women who may have sought screening outside the program. The program has determined that future small media campaigns will 1) include messages tested with the target audience, 2) be organized through providers with access to women known to be in the target audience, 3) target specifically women who fall outside screening guidelines, and (4) include a more rigorous evaluation component.

DISCUSSION

The removal of financial and access barriers to screening alone may not be sufficient to get many women screened for cancer, especially women from minority or underserved populations. Although a large part of the purpose of the NBCCEDP is to provide clinical services to uninsured or underinsured women, grantees are also tasked with increasing public awareness and educating women about breast and cervical cancer screening. They use intervention activities similar to those described in this article. The public education and targeted outreach activities of NBCCEDP grantees not only serve as a means to get women screened through the program but also to educate and raise awareness throughout the community.

Although this article focused on detailed grantee examples, in 2008, the Prevention Research Center at Emory University conducted a survey of outreach and recruitment activities that were conducted across NBCCEDP grantees to assess the range of activities

conducted and to determine the extent to which grantees were implementing evidence-based activities.[19] Grantees were asked to report categories of recruitment activities (ie, small media, one-on-one education, client reminders, access enhancing strategies, and cost reduction), level of fidelity in implementing these strategies, and level of training for the outreach and recruitment coordinator. Frequently reported recruitment activities included creating and disseminating educational materials, conducting one-on one and group education, mass media campaigns, conducting special events, and sending out screening invitations or reminders. The study found that the goals of most grantees were to increase the number of women enrolled in the program, screen more women from target populations, and increase the number of women who are rescreened. Approximately two-thirds of the activities were reportedly evidence-based interventions (EBIs). Many grantees reported partnering with community-based organizations for these recruitment activities and a need for increased capacity and knowledge to identify EBIs. These activities provide a critical link between the grantee and the communities they serve.

The grantee examples highlighted in this article all used multiple approaches to educate and increase screening in their communities. Many grantees created partnerships with a variety of organizations in their communities to leverage expertise and resources, expand their capabilities and reach, and build a stronger infrastructure for outreach, education, and recruitment activities. Although each of the activities has its strengths, grantees often experience significant challenges when implementing EBIs. Challenges include the ability to adapt EBIs for the target audience, developing culturally relevant materials, lack of evaluation capacity, limited staff to focus on public education and targeted outreach efforts, and limitation of resources because of the program's legislative requirement limiting the percentage of federal funding that can be spent on all nonscreening activities.[20]

Public education and targeted outreach strategies should be evidence-based, informed by community needs, executed in collaboration with partnerships, community based, culturally appropriate, and a combination of multiple interventions. In addition, planning for evaluation before implementation can help to enhance program planning and increase the likelihood of desired outcomes. This assessment can inform the program if outcomes are being achieved and if modifications are needed. The grantee examples provided in this article may serve as a model for best practices and lessons learned on implementing public education and targeted outreach strategies to increase appropriate breast and cervical cancer screening.

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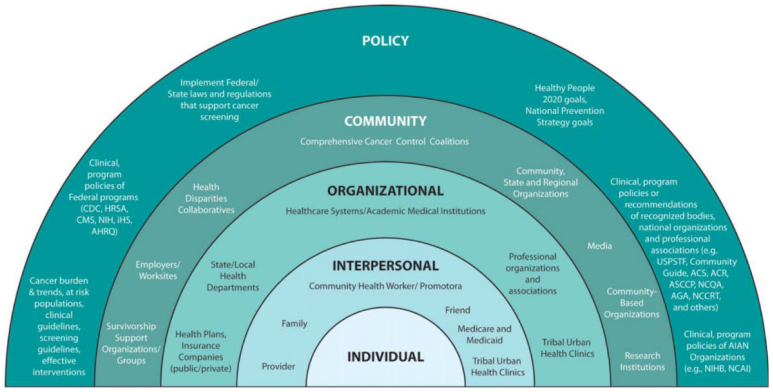

Figure 1.
National Breast and Cervical Cancer Early Detection Program social ecological model