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Public Health National Approach to Reducing Breast and Cervical Cancer Disparities

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Abstract

Breast and cervical cancer have had disparate impact on the lives of women. The burden of breast and cervical cancer is more prominent among some racial and ethnic minority women. Providing comprehensive care to all medically underserved women is a critical element in continuing the battle to reduce cancer burden and eliminate disparities. The National Breast and Cervical Cancer Early Detection Program is the only nationally organized cancer screening program for underserved women in the United States. Its public health goal is to ensure access to high-quality screening, follow-up, and treatment services for diverse and vulnerable populations that, in turn, may reduce disparities.

Keywords

disparities; public health; breast cancer; cervical cancer; screening

INTRODUCTION

Breast and cervical cancer have had significant impact on the lives of many women. Although there has been progress to reduce the burden of breast and cervical cancer, this progress has not had the same benefit in all populations.¹ The burden of breast and cervical cancer is more prominent among some racial and ethnic minority women. For example, Hispanic women have the highest rate of developing cervical cancer compared with all other groups, whereas black women die at a much higher rate from both breast cancer and cervical cancer.² The reason for this disparity is more than just screening; it is multifocal.^{3–5} Therefore, providing a comprehensive approach to care is a critical element in continuing the battle to reduce cancer burden and eliminate disparities.

There is clear evidence that screening tests such as mammography and Papanicolaou (Pap) tests have some limitations,^{6,7} and several recent articles have questioned the value of

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routine screening for breast cancer.^{6,8,9} However, randomized controlled trials have demonstrated that breast cancer screening decreases mortality. In addition, screening is particularly important among populations who are at high risk or are rarely/never screened.^{10–13} Research has demonstrated that racial/ethnic minorities and those from lower socioeconomic backgrounds are less likely to have regular screening and more likely to be diagnosed with late-stage disease.^{14–16} It is important to expand the current debate about the effectiveness of mammography to include the important continued role of screening in helping address these disparities.

Reaching medically underserved women is a start to reducing disparities in breast and cervical cancer mortality. Over the past 20 years, the Centers for Disease Control and Prevention (CDC) has worked to decrease these disparities with its National Breast and Cervical Cancer Early Detection Program (NBCCEDP) through cooperative agreements with states, tribes, and territories to provide access to breast and cervical cancer screening, diagnostic tests, and treatment referral services to low-income women who would not otherwise have access to these services. Reducing morbidity and mortality from breast and cervical cancer goes beyond screening. It is well documented that many women do not receive needed followup or treatment services.^{17,18} Women with abnormal screening results need timely, appropriate, and high-quality followup; and those diagnosed with cancer need timely, appropriate, and high-quality treatment. The success of the NBCCEDP in developing a useful approach to quality assurance for diagnostic evaluation and treatment initiation^{19,20} can serve as a model for health care systems across the United States.

To truly reduce breast and cervical cancer morbidity and mortality, cancer care needs to be a comprehensive program that provides a continuum of care. The needs of all groups of women must be clearly defined to ensure that they get the care they need. Often, this care is individualized and opportunistic when women access the health care system. The benefits of screening are maximized when appropriate follow-up is done. Having an organized system that incorporates evidence-based interventions may help all women get access to high-quality care. The NBCCEDP has provided such an organized and comprehensive approach to breast and cervical cancer screening. It is the only national example of such an approach. Below, we describe the specific program components beyond screening used to target the undeserved population who would not otherwise have access to screening services.²

Public Education and Outreach

The NBCCEDP uses public education and outreach to increase the number of women who receive breast and cervical cancer screenings. Although the initial goal is to link the public health program to the community it serves, public education and outreach expand beyond the women served by the NBCCEDP. The grantees use population-based strategies to address individual, organizational, and environmental level factors that have an impact on screening and follow-up behavior and choices. The overall focus is to increase awareness, address barriers, and motivate all women to get appropriate screenings and improve health behaviors.

Quality Assurance/Quality Improvement

The NBCCEDP uses quality-assurance and quality-improvement processes to ensure that all women receive high-quality and appropriate screening services. The CDC has developed a set of quality indicators by which the delivery of services is measured. Clinical and service delivery data are collected and compared with predetermined performance benchmarks. When indicated, steps are put into place to help providers meet acceptable quality standards. By using quality-assurance processes, the NBCCEDP grantees can maximize the quality of patient screening, diagnostic services, and follow-up care.

Case Management and Patient Navigation

The NBCCEDP provides case management and patient navigation services to assist women in obtaining needed services. All grantees maintain a network of providers and partnerships with health care delivery organizations to facilitate timely access to screening and diagnostic services. Both case management and patient navigation help women overcome barriers to services so that follow-up, treatment referral, and treatment initiation are obtained without excessive delays. This assistance includes helping women get screening appointments, understand their screening results, undergo appropriate diagnostic testing, and receive referrals for treatment services, if needed.

Professional Development

Professional development activities are implemented to improve clinical outcomes. The NBCCEDP provides professional development to ensure that participating providers are current on evidence-based clinical standards regarding breast and cervical cancer screening and diagnosis and are following women who have abnormal screening results. Focus of the program has been on the use of evidence-based interventions to increase breast and cervical cancer screening and to develop the capacity to deliver education and training to program providers. This helps grantees improve clinical practice outcomes and increase screening rates.

Data Management and Evaluation

Grantees provide biennial reports of patient demographics and clinical data to the CDC. The data go through a rigorous process of submission, quality checks, and feedback reporting. The CDC and the grantees use these data for quality assurance and quality improvement, program evaluation, and program policy development. Data are an integral part of the CDC's performance management system to ensure high-quality services. This data management and evaluation process can be a useful model for other clinical service delivery programs.

Partnerships

To ensure the delivery of quality screening and diagnostic services to those who need them, the NBCCEDP maintains key partnerships at both the national and local levels. These partners have been instrumental in the success of this program. For instance, working with health care systems, community-based organizations, religious groups, and coalitions expands the reach of the program to identify those hard-to-reach women who may be most

at risk. Furthermore, these partnerships have enhanced awareness among women, informed policies, provided professional development, and supported screening activities. Whether educating, motivating, or helping to reduce structural barriers, partnerships have influenced the effectiveness of the program to serve its target population.

The NBCCEDP is the only nationally organized cancer screening program for underserved women in the United States. Public health is well equipped to ensure access to high-quality screening, follow-up, and treatment services for diverse and vulnerable populations that, in turn, may reduce disparities. This supplement of *Cancer* contains a series of articles that describes the comprehensive, multifocal approach of the NBCCEDP for providing breast and cervical cancer screening and diagnostic services. This is the first time that details on the individual program components have been published, including state examples of successful component interventions.

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REFERENCES

1. Jemal A, Simard EP, Dorell C, et al. Annual Report to the Nation on the Status of Cancer, 1975–2009, featuring the burden and trends in human papillomavirus (HPV)-associated cancers and HPV vaccination coverage levels. *J Natl Cancer Inst.* 2013; 105:175–201. [PubMed: 23297039]
2. US Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; US Cancer Statistics Working Group. [Accessed October 10, 2013] United States Cancer Statistics: 1999–2009 Incidence and Mortality Web-Based Report. Available at: <http://apps.nccd.cdc.gov/uscs/index.aspx>
3. Centers for Disease Control and Prevention. Vital signs: racial disparities in breast cancer severity—United States, 2005–2009. *MMWR Morb Mortal Wkly Rep.* 2012; 61:922–926. [PubMed: 23151952]
4. Silber JH, Rosenbaum PR, Clark AS, et al. Characteristics associated with differences in survival among black and white women with breast cancer. *JAMA.* 2013; 310:389–397. [PubMed: 23917289]
5. Downs LS, Smith JS, Scarinci I, Flowers L, Parham G. The disparity of cervical cancer in diverse populations. *Gynecol Oncol.* 2008; 109(2 suppl.):S22–S30. [PubMed: 18482555]
6. Bleyer A, Welch HG. Effect of 3 decades of screening mammography on breast-cancer incidence. *N Engl J Med.* 2012; 367:1998–2005. [PubMed: 23171096]
7. Saslow D, Solomon D, Lawson HW, et al. American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology screening guidelines for the prevention and early detection of cervical cancer. *CA Cancer J Clin.* 2012; 62:147–172. [PubMed: 22422631]
8. Esserman L, Shieh Y, Thompson I. Rethinking screening for breast cancer and prostate cancer. *JAMA.* 2009; 302:1685–1692. [PubMed: 19843904]
9. Miller AB. Overdiagnosis of breast cancer. *Int J Cancer.* 2013; 133:2511–2511. [PubMed: 23716268]
10. Nelson HD, Tyne K, Naik A, et al. Screening for breast cancer: an update for the US Preventive Services Task Force. *Ann Intern Med.* 2009; 151:727–737. [PubMed: 19920273]

11. Committee on Practice Bulletins-Gynecology. ACOG Practice Bulletin No. 131: screening for cervical cancer. *Obstet Gynecol.* 2012; 120:1222–1238. [PubMed: 23090560]
12. Schopper D, Wolf C. How effective are breast cancer screening programmes by mammography? Review of the current evidence. *Eur J Cancer.* 2009; 45:1916–1923. [PubMed: 19398327]
13. Cancer Research UK, Independent UK Panel on Breast Cancer Screening. The Benefits and Harms of Breast Cancer Screening: An Independent Review. 2012. Available at: http://www.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@hea/documents/generalcontent/ibsr-fullreport.pdf.
14. Taplin SH, Ichikawa L, Yood MU, et al. Reason for late-stage breast cancer: absence of screening or detection, or breakdown in followup? *J Natl Cancer Inst.* 2004; 96:1518–1527. [PubMed: 15494602]
15. Grabler P, Dupuy D, Rai J, Bernstein S, Ansell D. Regular screening mammography before the diagnosis of breast cancer reduces black:- white breast cancer differences and modifies negative biological prognostic factors. *Breast Cancer Res Treat.* 2012; 135:549–553. [PubMed: 22886477]
16. Smith-Bindman R, Miglioretti DL, Lurie N, et al. Does utilization of screening mammography explain racial and ethnic differences in breast cancer? *Ann Intern Med.* 2006; 144:541–553. [PubMed: 16618951]
17. Shavers VL, Brown ML. Racial and ethnic disparities in the receipt of cancer treatment. *J Natl Cancer Inst.* 2002; 94:334–357. [PubMed: 11880473]
18. Fiscella K, Humiston S, Hendren S, et al. Eliminating disparities in cancer screening and follow-up of abnormal results: what will it take? *J Health Care Poor Underserved.* 2011; 22:83–100. [PubMed: 21317508]
19. Richardson LC, Royalty J, Howe W, Helsel W, Kammerer W, Benard VB. Timeliness of breast cancer diagnosis and initiation of treatment in the National Breast and Cervical Cancer Early Detection Program, 1996–2005. *Am J Public Health.* 2010; 100:1769–1776. [PubMed: 20019308]
20. Benard VB, Howe W, Royalty J, Helsel W, Kammerer W, Richardson LC. Timeliness of cervical cancer diagnosis and initiation of treatment in the National Breast and Cervical Cancer Early Detection Program. *J Womens Health (Larchmt).* 2012; 21:776–782. [PubMed: 22506920]
21. The National Breast and Cervical Cancer Early Detection Program (NBCCEDP). [Accessed October 16, 2013] The NBCCEDP Conceptual Framework. Available at: <http://www.cdc.gov/cancer/nbccedp/concept.htm>