



# The Role of CHWs in Combatting Breast Cancer

## Health Disparities in Breast Cancer

Breast cancer is the most common cancer among American women, with the exception of skin cancer.<sup>1</sup> One in eight women in the US will develop invasive breast cancer during their lifetime.<sup>1</sup> In Michigan, breast cancer is the second leading cause of cancer deaths and the most frequently diagnosed cancer.<sup>2</sup> In the US and Michigan, racial and socioeconomic disparities exist in breast cancer mortality and screening.<sup>3</sup>

United States	Michigan
The age-adjusted mortality rate for breast cancer is higher for black women than white women (31.4 vs. 22.2 deaths per 100,000 population). <sup>3</sup>	The age-adjusted mortality rate for breast cancer is higher for black women than white women (35.9 vs. 22.9 cases per 100,000 population). <sup>3</sup>
The cause-specific survival rate among Black women is the lowest among all racial groups (78.9%). <sup>4</sup>	Black women with breast cancer face lower five-year survival rates (77%) at all stages of diagnosis than white women (90.4%) and all races (89%). <sup>3</sup>
Asian American (62%) and Hispanic (64%) and less educated women (52%) age 40+ are less likely to have had a mammogram in the past two years than White women (67%) and more educated women (75%). <sup>4</sup>	American Indian (53.5%) and Hispanic (49.9%) women aged 40+ are less likely to have had a mammogram in the past two years compared to the general population (75%). <sup>3</sup>

## Community Health Worker (CHW) Interventions

### Health Literacy

Health literacy interventions commonly address breast cancer screening among racial and socioeconomic minority groups and have been found to be both effective and cost-effective.<sup>5</sup> Interventions are typically tailored to target communities. The Kin Keeper Cancer Prevention Intervention trained female CHWs to deliver home-based education to clients and their selected female family members in English, Spanish, or Arabic.<sup>6</sup> Surveys of program enrollees were used to inform curriculum development.<sup>7</sup> Pre-post breast cancer literacy scores increased for all participants recruited.<sup>8</sup>

### Screening and Mammography

A meta-analysis of 18 studies indicated that CHW interventions are associated with a significant increase in mammography rates. Effects were strongest in medical or urban settings and when CHWs and participants were ethnically or racially similar.<sup>9</sup> In a study comparing the effect of lay health workers (LHWs) and media education to media education alone on screening rates among Vietnamese women, the LHW intervention significantly increased mammography and clinical breast examinations.<sup>10</sup>

### Health System Navigation

Patient navigation interventions commonly address screening and diagnostic follow up testing for women with abnormal screening results. The Patient Navigation Research Program at Denver Health found that the use of lay patient navigators significantly shortened time to resolution of abnormal screening tests.<sup>11</sup> A Chicago-based patient navigation program found shorter time from abnormal screening to definitive diagnosis among socioeconomically disadvantaged women.<sup>12</sup>



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Article Title	Year	Target Population	Intervention Type
<a href="#">Economic Evaluation of a Community Health Worker-Led Health Literacy Intervention to Promote Cancer Screening Among Korean American Women</a>	2015	Korean American women	Cervical cancer education; screening promotion and navigation
<a href="#">Do community health worker interventions improve rates of screening mammography in the United States? A systematic review.</a>	2011	Women age 40 and older	Systematic review of screening interventions
<a href="#">Educating Hispanic women about breast cancer prevention: evaluation of a home-based promotora-led intervention</a>	2010	Hispanic women	Breast cancer education; screening promotion
<a href="#">Breast cancer screening among Vietnamese Americans: a randomized controlled trial of lay health worker outreach</a>	2009	Vietnamese American women	Breast cancer education; screening promotion
<a href="#">Kin KeeperSM: design and baseline characteristics of a community-based randomized controlled trial promoting cancer screening in Black, Latina, and Arab women</a>	2013	Black, Latina, and Arab American women	Breast and cervical cancer education; screening promotion
<a href="#">Breast cancer and cervical cancer control program enrollees inform the kin keeper curriculum. Journal of Cancer Education : The Official Journal of the American Association for Cancer Education</a>	2009	Black, Latina, and Arab American women	Breast and cervical cancer education; screening promotion
<a href="#">Moving from theory to practice: implementing the Kin Keeper Cancer Prevention Model</a>	2009	Black, Latina, and Arab American Women	Breast and cervical cancer education; screening promotion
<a href="#">Follow-up and timeliness after an abnormal cancer screening among underserved, urban women in a patient navigation program</a>	2012	Socioeconomically disadvantaged women	Health system navigation
<a href="#">Patient navigation improves cancer diagnostic resolution: an individually randomized clinical trial in an underserved population</a>	2012	Medically underserved women	Health system navigation

Article abstracts available by clicking the hyperlinked article titles above; full citations are below

- American Cancer Society. *Breast Cancer - Detailed Guide.*; 2015. <http://www.cancer.org/acs/groups/cid/documents/webcontent/003090-pdf.pdf>. Accessed August 17, 2015.
- Facts About Breast Cancer.*; 2014. [http://www.michigan.gov/documents/mdch/BreastCaFactSheet2014\\_461397\\_7.pdf](http://www.michigan.gov/documents/mdch/BreastCaFactSheet2014_461397_7.pdf). Accessed August 10, 2015.
- Michigan Public Health Institute and Michigan Department of Community Health. The Cancer Burden In Michigan: Selected Statistics 1993-2011. *Report.* [https://www.michigan.gov/documents/mdch/Ca\\_burden\\_MI\\_select\\_stats\\_1993-2011\\_371092\\_7.pdf](https://www.michigan.gov/documents/mdch/Ca_burden_MI_select_stats_1993-2011_371092_7.pdf). Accessed July 13, 2015.
- Breast Cancer Facts and Figures 2013-2014. <http://www.cancer.org/acs/groups/content/@research/documents/document/acspc-042725.pdf>. Accessed August 10, 2015.
- Schuster AL, Frick KD, Huh B-Y, Kim KB, Kim M, Han H-R. Economic evaluation of a community health worker-led health literacy intervention to promote cancer screening among Korean American women. *J Health Care Poor Underserved.* 2015;26(2):431-440. doi:10.1353/hpu.2015.0050.
- Williams KP, Roman L, Meghea CI, Penner L, Hammad A, Gardiner J. Kin KeeperSM: design and baseline characteristics of a community-based randomized controlled trial promoting cancer screening in Black, Latina, and Arab women. *Contemp Clin Trials.* 2013;34(2):312-319. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3594085&tool=pmcentrez&rendertype=abstract>. Accessed May 28, 2015.
- Williams KP, Mabiso A, Jackson TL, Lawshe DC, Maurer J. Breast cancer and cervical cancer control program enrollees inform the kin keeper curriculum. *J Cancer Educ.* 2009;24(4):257-260. <http://www.ncbi.nlm.nih.gov/pubmed/19838881>. Accessed May 28, 2015.
- Williams KP, Mullan PB, Todem D. Moving from theory to practice: implementing the Kin Keeper Cancer Prevention Model. *Health Educ Res.* 2009;24(2):343-356. <http://www.ncbi.nlm.nih.gov/pubmed/18515265>. Accessed May 28, 2015.
- Wells KJ, Luque JS, Miladinovic B, et al. Do community health worker interventions improve rates of screening mammography in the United States? A systematic review. *Cancer Epidemiol Biomarkers Prev.* 2011;20(8):1580-1598. doi:10.1158/1055-9965.EPI-11-0276.
- Nguyen TT, Le G, Nguyen T, et al. Breast cancer screening among Vietnamese Americans: a randomized controlled trial of lay health worker outreach. *Am J Prev Med.* 2009;37(4):306-313. <http://www.sciencedirect.com/science/article/pii/S0749379709004188>. Accessed May 28, 2015.
- Raich PC, Whitley EM, Thorland W, Valverde P, Fairclough D. Patient navigation improves cancer diagnostic resolution: an individually randomized clinical trial in an underserved population. *Cancer Epidemiol Biomarkers Prev.* 2012;21(10):1629-1638. <http://cebp.aacrjournals.org/content/21/10/1629.short>. Accessed May 18, 2015.
- Markossian TW, Darnell JS, Calhoun EA. Follow-up and timeliness after an abnormal cancer screening among underserved, urban women in a patient navigation program. *Cancer Epidemiol Biomarkers Prev.* 2012;21(10):1691-1700. <http://cebp.aacrjournals.org/content/21/10/1691.short>. Accessed May 18, 2015.