https://doi.org/10.46344/JBINO.2025.v14i05.12

COMMUNITY ENGAGEMENT AND ADVOCACY IN BREAST CANCER PREVENTION: A PUBLIC HEALTH IMPERATIVE

*Emmanuel Ifeanyi Obeagu

Department of Biomedical and Laboratory Science, Africa University, Zimbabwe, E-mail: emmanuelobeagu@yahoo.com, obeague@africau.edu, ORCID: 0000-0002-4538-0161

ABSTRACT

Breast cancer remains a leading cause of morbidity and mortality among women worldwide, with the highest burden in low- and middle-income countries due to late diagnosis, limited healthcare access, and insufficient public awareness. Community engagement and advocacy have emerged as critical public health strategies for breast cancer prevention, translating policy into actionable interventions at the population level. This narrative review examines the role of community-driven initiatives, advocacy campaigns, and grassroots programs in promoting early detection, enhancing health literacy, and reducing disparities in outcomes. By highlighting successful models and identifying ongoing challenges, the review emphasizes the necessity of integrating community participation and advocacy into national and global cancer control frameworks to improve breast cancer prevention and health equity.

Keywords: *Breast cancer, Community engagement, Advocacy, Public health, Prevention*

Introduction

Breast cancer is the most commonly diagnosed malignancy in women and a leading cause of cancer-related mortality worldwide. In 2020 alone, more than 2.3 million new cases were reported globally, with nearly 685,000 deaths [1-2]. While high-income countries (HICs) have achieved measurable success in reducing mortality through organized screening programs, early detection, and advanced therapies, low- and middle-income countries (LMICs) continue to experience high rates of late-stage diagnosis, limited access to quality care, and disproportionately poor outcomes. These disparities highlight the urgent need for public health strategies that extend beyond clinical interventions, addressing the social, cultural, and behavioral determinants of health that influence breast cancer prevention and care [3-4].Community engagement and advocacy have emerged as critical components of a comprehensive public health approach to breast cancer [5]. Community engagement involves actively involving individuals, families, and local organizations in health education, decision-making, and service delivery, creating opportunities for women to recognize early warning signs, participate in screening, and adopt preventive behaviors. Advocacy, on the other hand, amplifies the voices of patients, survivors, and civil society, influencing policy, resource allocation, and the prioritization of breast cancer within national health agendas [6-8].

Together, these strategies address key barriers to effective breast cancer control, including limited knowledge, cultural norms, stigma, and inequities in access to care. Engagement ensures that interventions are contextually relevant, culturally sensitive, and responsive to community needs, while advocacy drives systemic change that supports sustainability and equity. This integrated approach empowers individuals and communities to participate actively in prevention efforts while ensuring that health systems and policymakers are responsive to their needs [9-10].This narrative review explores the role of community engagement and advocacy in breast cancer prevention, highlighting successful models, strategies, and challenges. It emphasizes the importance of linking grassroots participation with policy and health system initiatives, creating a framework in which community-driven actions and advocacy efforts collectively enhance early detection, improve health literacy, and reduce disparities in outcomes. By adopting such an integrated public health perspective, countries can strengthen breast cancer prevention efforts, ultimately reducing mortality and improving the quality of life for women globally.

Community Engagement in Breast Cancer Prevention

Community engagement is a cornerstone of effective public health strategies for breast cancer prevention, emphasizing the active participation of individuals, families, and local organizations in health promotion, education, and service delivery. By involving communities in the design, implementation, and evaluation of interventions, engagement strategies foster

a sense of ownership and empowerment, which in turn enhances the uptake of preventive behaviors, screening, and early treatment [11-13].In breast cancer prevention, community engagement often manifests through educational workshops, peer support networks, and outreach programs led by trained community health workers. These initiatives are particularly valuable in reaching underserved populations, such as women in rural areas or low-income communities, who face structural, financial, or cultural barriers to accessing formal healthcare services. By providing tailored information on risk factors, early warning signs, and the importance of regular screening, community engagement initiatives can promote timely health-seeking behavior and reduce delays in diagnosis [14-16].

Cultural sensitivity is critical for successful engagement. In many societies, breast cancer remains associated with stigma, fear, or misinformation, which discourages women from seeking care. Community-led dialogues, facilitated by trusted local figures such as religious leaders, teachers, or breast cancer survivors, help normalize discussions about breast health, dispel myths, and reduce fear surrounding diagnosis and treatment. Peer educators and survivor networks play a dual role: serving as relatable role models and reinforcing the importance of early detection through personal experiences [17-19].Community engagement is most effective when linked to existing health systems. Training community health workers to navigate referral pathways, provide counseling, and assist with follow-up ensures that engagement translates into tangible improvements in early detection and treatment. Mobile clinics and community-based screening events have demonstrated success in extending services to populations that might otherwise remain underserved [20-21].Moreover, involving communities in decision-making processes for health interventions strengthens accountability, responsiveness, and sustainability. When local populations contribute to shaping programs, interventions are better tailored to specific social, economic, and cultural contexts, thereby improving adoption and impact [22-23].

Advocacy: Influencing Policy and Mobilizing Resources

Advocacy plays a pivotal role in breast cancer prevention by shaping policy, mobilizing resources, and raising public and governmental awareness about the importance of early detection and equitable care. While community engagement focuses on empowering individuals and local groups, advocacy elevates these voices to influence systemic change, ensuring that breast cancer becomes a recognized priority within national and global health agendas [24-25].Effective advocacy combines evidence-based data with human narratives to highlight the societal, economic, and personal impact of breast cancer. Patient advocacy groups, survivor networks, and professional associations collaborate to bring attention to gaps in screening programs, treatment accessibility, and healthcare infrastructure. By presenting compelling evidence and real-world experiences, advocates can persuade policymakers to allocate

resources, implement subsidized or free screening initiatives, and expand coverage for essential medicines and treatment services [26].

Successful advocacy campaigns often utilize multiple platforms, including public awareness events, media engagement, policy briefs, and direct stakeholder consultations. Survivor testimonies, for example, personalize statistics and create emotional resonance, encouraging policymakers and the public to act. International collaboration also strengthens advocacy efforts, as global networks such as the World Health Organization (WHO) and the Union for International Cancer Control (UICC) provide guidance, technical support, and funding for local campaigns [27-28].Advocacy not only targets policy change but also reinforces community-level interventions by linking them to systemic support. For instance, campaigns advocating for mobile screening units or decentralized cancer care centers enhance access in underserved regions, ensuring that community engagement efforts are supported by broader structural changes. Furthermore, advocacy promotes health equity by prioritizing marginalized populations, including women in rural areas, low-income groups, and socially disadvantaged communities, ensuring that prevention and care strategies address disparities in breast cancer outcomes [29-30].

Integrating Community Engagement and Advocacy

The integration of community engagement and advocacy represents a synergistic approach that strengthens breast cancer prevention efforts at both the grassroots and systemic levels. While community engagement empowers individuals and local groups to participate actively in prevention, screening, and early detection, advocacy ensures that these efforts are supported, sustained, and scaled through policy change, resource mobilization, and systemic prioritization. Together, they create a comprehensive public health strategy that addresses both social and structural determinants of breast cancer outcomes [31-32].Programs that successfully integrate engagement and advocacy often operate on multiple levels. At the community level, women are educated about breast health, participate in peer support networks, and gain the confidence to seek timely screening and treatment. Simultaneously, advocacy efforts work to ensure that these communities have access to affordable and quality care, backed by policy interventions such as subsidized screening programs, inclusion of cancer treatments in national insurance schemes, and investment in healthcare infrastructure. This dual approach ensures that knowledge and empowerment translate into actionable health outcomes [33].

The integration also enhances cultural relevance and sustainability. Community insights inform advocacy strategies, helping policymakers understand local barriers, beliefs, and practices that influence health-seeking behavior. For example, survivor-led advocacy campaigns can highlight specific challenges faced by women in rural or underserved regions, prompting targeted policy responses such as mobile

mammography units or decentralized oncology services. Conversely, advocacy provides communities with the tools, resources, and institutional support needed to maintain and expand engagement initiatives over time [34].Monitoring and evaluation are critical in integrated approaches. Metrics such as screening uptake, policy adoption, awareness levels, and reductions in disparities help measure the effectiveness of combined engagement and advocacy efforts. Feedback from communities ensures continuous adaptation and responsiveness, creating a dynamic cycle where community action informs advocacy, and policy change reinforces community participation[35].

Conclusion

Community engagement and advocacy are indispensable components of breast cancer prevention, forming a complementary framework that bridges individual empowerment with systemic change. Engagement initiatives educate, motivate, and empower communities to adopt preventive behaviors, participate in screening, and seek timely care, while advocacy ensures that these efforts are supported by robust policies, adequate resources, and equitable access to healthcare services.

The integration of these strategies addresses both social and structural determinants of breast cancer outcomes, promoting early detection, reducing disparities, and enhancing the sustainability of public health interventions. By fostering collaboration among communities, healthcare providers, policymakers, and civil society, breast cancer prevention can evolve from isolated interventions into a coordinated, comprehensive public health approach. Strengthening community engagement and advocacy networks is therefore a public health imperative, essential for reducing the global burden of breast cancer and improving the quality of life for women worldwide.

References

1. Arnold, M., Morgan, E., Rumgay, H., Mafra, A., Singh, D., Laversanne, M., Vignat, J., Gralow, J. R., Cardoso, F., Siesling, S., &Soerjomataram, I. (2022). Current and future burden of breast cancer: Global statistics for 2020 and 2040. *Breast (Edinburgh, Scotland)*, *66*, 15–23. https://doi.org/10.1016/j.breast.2022.08.010
2. Lei, S., Zheng, R., Zhang, S., Wang, S., Chen, R., Sun, K., Zeng, H., Zhou, J., & Wei, W. (2021). Global patterns of breast cancer incidence and mortality: A population-based cancer registry data analysis from 2000 to 2020. *Cancer communications (London, England)*, *41*(11), 1183–1194. https://doi.org/10.1002/cac2.12207
3. Obeagu E. I. (2025). N2 Neutrophils and Tumor Progression in Breast Cancer: Molecular Pathways and Implications. *Breast cancer (Dove Medical Press)*, *17*, 639–651. https://doi.org/10.2147/BCTT.S542787
4. Obeagu, E. I., &Obeagu, G. U. (2024). Exploring the profound link: Breastfeeding's impact on alleviating the burden of breast cancer - A review. *Medicine*, *103*(15), e37695. https://doi.org/10.1097/MD.0000000000037695

5. Wheeler, S. B., Reeder-Hayes, K. E., & Carey, L. A. (2013). Disparities in breast cancer treatment and outcomes: biological, social, and health system determinants and opportunities for research. *The oncologist*, *18*(9), 986–993. https://doi.org/10.1634/theoncologist.2013-0243
6. Obeagu, E. I., &Obeagu, G. U. (2024). Lymphocyte infiltration in breast cancer: A promising prognostic indicator. *Medicine*, *103*(49), e40845. https://doi.org/10.1097/MD.0000000000040845
7. Obeagu, E. I., &Obeagu, G. U. (2024). Exploring neutrophil functionality in breast cancer progression: A review. *Medicine*, *103*(13), e37654. https://doi.org/10.1097/MD.0000000000037654
8. Bradley, C. J., Kitchen, S., Bhatia, S., Bynum, J., Darien, G., Lichtenfeld, J. L., Oyer, R., Shulman, L. N., & Sheldon, L. K. (2022). Policies and Practices to Address Cancer's Long-Term Adverse Consequences. *Journal of the National Cancer Institute*, *114*(8), 1065–1071. https://doi.org/10.1093/jnci/djac086
9. Obeagu E. I. (2025). Neutrophil-driven tumor inflammation in breast cancer: Pathways and therapeutic implications: A narrative review. *Medicine*, *104*(25), e43024. https://doi.org/10.1097/MD.0000000000043024
10. Gbenonsi, G. Y., Martini, J., &Mahieu, C. (2024). An analytical framework for breast cancer public policies in Sub-Saharan Africa: results from a comprehensive literature review and an adapted policy Delphi. *BMC public health*, *24*(1), 1535. https://doi.org/10.1186/s12889-024-18937-5
11. Espina, C., Soerjomataram, I., Forman, D., & Martín-Moreno, J. M. (2018). Cancer prevention policy in the EU: Best practices are now well recognised; no reason for countries to lag behind. *Journal of cancer policy*, *18*, 40–51. https://doi.org/10.1016/j.jcpo.2018.09.001
12. Obeagu E. I. (2025). The selenium paradox friend or foe in breast cancer? *Annals of medicine and surgery (2012)*, *87*(9), 5569–5577. https://doi.org/10.1097/MS9.0000000000003464
13. Obeagu, E. I., &Obeagu, G. U. (2025). Revolutionizing breast cancer monitoring: emerging hematocrit-based metrics - a narrative review. *Annals of medicine and surgery (2012)*, *87*(6), 3327–3338. https://doi.org/10.1097/MS9.0000000000003020
14. Shetty M. K. (2010). Screening for breast cancer with mammography: current status and an overview. *Indian journal of surgical oncology*, *1*(3), 218–223. https://doi.org/10.1007/s13193-010-0014-x
15. Ponce-Chazarri, L., Ponce-Blandón, J. A., Immordino, P., Giordano, A., & Morales, F. (2023). Barriers to Breast Cancer-Screening Adherence in Vulnerable Populations. *Cancers*, *15*(3), 604. https://doi.org/10.3390/cancers15030604
16. Obeagu E. I. (2025). The nutritional equation: decoding diet's influence on breast cancer risk and progression - a perspective. *Annals of medicine and surgery (2012)*, *87*(9), 5528–5534. https://doi.org/10.1097/MS9.0000000000003612

17. Gbenonsi, G. Y., Martini, J., &Mahieu, C. (2024). An analytical framework for breast cancer public policies in Sub-Saharan Africa: results from a comprehensive literature review and an adapted policy Delphi. *BMC public health*, *24*(1), 1535. https://doi.org/10.1186/s12889-024-18937-5
18. Obeagu, E. I., &MaibougeTanko, M. S. (2025). Iron metabolism in breast cancer: mechanisms and therapeutic implications: a narrative review. *Annals of medicine and surgery (2012)*, *87*(6), 3403–3409. https://doi.org/10.1097/MS9.0000000000003173
19. Wilkinson, L., &Gathani, T. (2022). Understanding breast cancer as a global health concern. *The British journal of radiology*, *95*(1130), 20211033. https://doi.org/10.1259/bjr.20211033
20. Obeagu E. I. (2025). Thromboinflammatory pathways in breast cancer: clinical and molecular insights into venous thromboembolism risk - a narrative review. *Annals of medicine and surgery (2012)*, *87*(9), 5822–5828. https://doi.org/10.1097/MS9.0000000000003644
21. Kitaw, T. A., Tilahun, B. D., Zemariam, A. B., Getie, A., Bizuayehu, M. A., & Haile, R. N. (2025). The financial toxicity of cancer: unveiling global burden and risk factors - a systematic review and meta-analysis. *BMJ global health*, *10*(2), e017133. https://doi.org/10.1136/bmjgh-2024-017133
22. Obeagu, E. I., &Obeagu, G. U. (2024). Predictive models and biomarkers for survival in stage III breast cancer: a review of clinical applications and future directions. *Annals of medicine and surgery (2012)*, *86*(10), 5980–5987. https://doi.org/10.1097/MS9.0000000000002517
23. Bhatia, S., Landier, W., Paskett, E. D., Peters, K. B., Merrill, J. K., Phillips, J., &Osarogiagbon, R. U. (2022). Rural-Urban Disparities in Cancer Outcomes: Opportunities for Future Research. *Journal of the National Cancer Institute*, *114*(7), 940–952. https://doi.org/10.1093/jnci/djac030
24. Malope, S. D., Norris, S. A., & Joffe, M. (2024). Culture, community, and cancer: understandings of breast cancer from a non-lived experience among women living in Soweto. *BMC women's health*, *24*(1), 594. https://doi.org/10.1186/s12905-024-03431-2
25. Sítima, G., Galhardo-Branco, C., & Reis-Pina, P. (2024). Equity of access to palliative care: a scoping review. *International journal for equity in health*, *23*(1), 248. https://doi.org/10.1186/s12939-024-02321-1
26. Kreuter, M. W., Thompson, T., McQueen, A., & Garg, R. (2021). Addressing Social Needs in Health Care Settings: Evidence, Challenges, and Opportunities for Public Health. *Annual review of public health*, *42*, 329–344. https://doi.org/10.1146/annurev-publhealth-090419-102204
27. Aslam, A., Mustafa, A. G., Hussnain, A., Saeed, H., Nazar, F., Amjad, M., Mahmood, A., Afzal, A., Fatima, A., &Alkhalidi, D. K. (2024). Assessing Awareness, Attitude, and Practices of Breast Cancer Screening and Prevention Among General Public and Physicians in Pakistan: A Nation With the Highest Breast Cancer Incidence in Asia. *International journal of breast cancer*, *2024*, 2128388. https://doi.org/10.1155/2024/2128388

28. Alrosan, A. Z., Alwidyan, T., Heilat, G. B., Rataan, A. O., Madae'en, S., Alrosan, K., Awwad, F. S., & Ali, T. (2025). Knowledge and awareness of breast cancer signs and symptoms among Jordanian women. *Future science OA*, *11*(1), 2510871. https://doi.org/10.1080/20565623.2025.2510871
29. Turkson-Ocran, R. N., Nkimbeng, M., Erol, D., Hwang, D. A., Aryitey, A. A., & Hughes, V. (2022). Strategies for Providing Culturally Sensitive Care to Diverse Populations. *Journal of Christian nursing : a quarterly publication of Nurses Christian Fellowship*, *39*(1), 16–21. https://doi.org/10.1097/CNJ.0000000000000900
30. Wakefield, M. A., Loken, B., &Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *Lancet (London, England)*, *376*(9748), 1261–1271. https://doi.org/10.1016/S0140-6736(10)60809-4
31. AlMutawah, K., Taqi, G., Radhwan, S., AlMutairi, A., AlHussainan, A., Faraj, M., &AlBaloul, A. H. (2025). Knowledge and awareness of breast cancer symptoms, risk factors, and screening barriers among women in Kuwait: a cross-sectional study. *BMC women's health*, *25*(1), 448. https://doi.org/10.1186/s12905-025-03994-8
32. Gbenonsi, G. Y., Martini, J., &Mahieu, C. (2024). An analytical framework for breast cancer public policies in Sub-Saharan Africa: results from a comprehensive literature review and an adapted policy Delphi. *BMC public health*, *24*(1), 1535. https://doi.org/10.1186/s12889-024-18937-5
33. Al Hasan, S. M., Bennett, D. L., &Toriola, A. T. (2025). Screening programmes and breast cancer mortality: an observational study of 194 countries. *Bulletin of the World Health Organization*, *103*(8), 470–483. https://doi.org/10.2471/BLT.24.292529
34. Iqbal J. (2025). Women-Centric Breast Cancer Care in Low- and Middle-Income Countries: Challenges, Solutions, and a Roadmap for Equity. *Cancer control : journal of the Moffitt Cancer Center*, *32*, 10732748251378804. https://doi.org/10.1177/10732748251378804
35. Caldwell, H. A. T., Yusuf, J., Carrea, C., Conrad, P., Embrett, M., Fierlbeck, K., Hajizadeh, M., Kirk, S. F. L., Rothfus, M., Sampalli, T., Sim, S. M., Tomblin Murphy, G., & Williams, L. (2024). Strategies and indicators to integrate health equity in health service and delivery systems in high-income countries: a scoping review. *JBI evidence synthesis*, *22*(6), 949–1070. https://doi.org/10.11124/JBIES-23-00051