

EARLY DETECTION AND SCREENING FOR BREAST CANCER

CATHY COLEMAN

OBJECTIVE: *To review the history, current status, and future trends related to breast cancer screening.*

DATA SOURCES: *Peer-reviewed articles, web sites, and textbooks.*

CONCLUSION: *Breast cancer remains a complex, heterogeneous disease. Serial screening with mammography is the most effective method to detect early stage disease and decrease mortality. Although politics and economics may inhibit organized mammography screening programs in many countries, the judicious use of proficient clinical and self-breast examination can also identify small tumors leading to reduced morbidity.*

IMPLICATIONS FOR NURSING PRACTICE: *Oncology nurses have exciting opportunities to lead, facilitate, and advocate for delivery of high-quality screening services targeting individuals and communities. A practical approach is needed to translate the complexities and controversies surrounding breast cancer screening into improved care outcomes.*

KEY WORDS: *breast cancer, screening, early stage, quality, breast centers, advocacy.*

Cathy Coleman, DNP, MSN, PHN, OCN[®], CPHQ, CNL:
Assistant Professor, University of San Francisco School
of Nursing and Health Professions, San Francisco, CA.

Address correspondence to Cathy Coleman, DNP,
MSN, PHN, OCN[®], CPHQ, CNL, University of San
Francisco School of Nursing and Health Professions,
2130 Fulton Street, San Francisco, CA 94117. e-mail:
cmcoleman2@usfca.edu

© 2017 Elsevier Inc. All rights reserved.
0749-2081

<http://dx.doi.org/10.1016/j.soncn.2017.02.009>

The future is hopeful for the public, professionals, and interdisciplinary teams as multifaceted progress continues to reveal new insights in carcinogenesis, genomics, tumor biology, translational research, and quality improvement from prevention to palliation and survivorship for cancer care.¹⁻⁸ Oncology nurses are on the front line of care delivery across settings; they also assert a strong leadership voice to advocate for improvements in academic education, patient care, and health care policy.⁹⁻¹⁵ Breast cancer and, in particular, screening for this disease, has been a topic fraught with controversy and confusion based on conflicting national guidelines.¹⁶⁻²⁹

The bottom line in screening for breast cancer today is tumor size – a critical determinant of outcome.³⁰⁻⁴¹ This article describes the burden of breast cancer worldwide, the rationale for screening, relevant historical context, and core methods of secondary prevention. An array of educational and organizational resources is also provided to support early disease detection through local, national, and international organizations.

THE WORLDWIDE BURDEN OF BREAST CANCER

Breast cancer remains a universally challenging public health problem. In the United States (US), 255,180 new cases of invasive cancer are estimated to occur (252,710 in women and 2,470 in men) during 2017.⁴² In addition, an estimated 63,410 cases of non-invasive, in situ breast cancer will be newly diagnosed.⁴² Estimated deaths include 40,610 for women and 460 in men.⁴² From 1989 to 2012, death rates from breast cancer fell 36% in the US, resulting in 249,000 fewer deaths.⁴³ Black women are more likely to die from breast cancer (31 deaths per 100,000 people) followed by white women (21.9), American Indian/Alaska Native (15), Hispanic (14.5) or Asian/Pacific Islanders (11.4).^{43,44} The probability of developing invasive breast cancer in US females based on age groups from birth to 49 years is one in 52; 50 to 59 (one in 44); 60 to 69 (one in 29); and greater than or 70 (one in 15).⁴³ The overall lifetime risk is 12% or one in eight.⁴³ Finally, there are more than 3.1 million women surviving breast cancer in the US.⁴⁴

INTERNATIONAL TRENDS

In 2012, breast cancer was the most frequently diagnosed female cancer worldwide and accounted for 25% or 1.7 million new cases, with 53% occurring in economically developing countries.^{45,46} Those countries represent 82% of the world population.⁴⁶ Breast cancer incidence rates continue to increase in all countries except a few high-income countries, with mortality decreasing in many high-income countries and increasing in low- and middle-income countries. Currently, more than half of new breast cancer diagnoses and 62% of cancer deaths occur because of presentation of advanced cancer in low- to middle-income countries.⁴⁷

Incidence rates vary nearly 4-fold across different regions,⁴⁵ with a rate of 27 per 100,000 in Middle

Africa and Eastern Asia to 92 per 100,000 in North America. Worldwide, there are more than 5,200,000 breast cancer 5-year survivors.⁴⁶ In 2012, Asian countries represented 59% of the global population and had the largest burden of breast cancer, with 39% new cases, 44% of deaths, and 37% of the world's 5-year survivors.⁴⁶ Northern America, representing 5% of the world population (US and Canada) had 15% of all new cases, 9% of deaths, and 17% of 5-year survivors.⁴⁶ Because of more advanced disease, African countries (15% of world population) had 8% of new cases, 12% of breast cancer deaths, and only 7% 5-year survivors.⁴⁶ Survival rates at 5 years are more than 85% in the US, Canada, Australia, Israel, Brazil, and northern/western European countries. Early stage I and II disease detection is more common in China, the UK, USA, Canada, and Denmark. Survival rates of 60% or lower occur in developing countries such as India, Algeria, South Africa, and Mongolia. Stage III or IV disease occurs commonly in Nigeria (77%), Libya (66%), and Malaysia (56%). Many factors account for delayed detection and diagnosis. These may include inadequate local or national health care systems or infrastructure; poor access to adequate screening, diagnosis, or treatment facilities or cancer specialists; social or cultural barriers such as stigma, embarrassment, fear, or cancer fatalism.⁴⁶

By 2030, the total number of breast cancer cases per year worldwide is expected to reach 2.4 million, with anticipated increases in economically disadvantaged countries.⁴⁷ Clearly, the global priorities and disparities surrounding the public health burden of cancer and breast cancer persist today.^{46,48-52} However, progress is evident after decades of investment in time, money, leadership, advocacy, hard work, and volunteer power.⁵³ Fortunately, many governmental, industrial, and non-profit organizations have begun partnering to advance progress in technology transfer, capacity building, professional training, public education, social services, and culturally appropriate outreach, and to facilitate access to research trials.⁴⁶⁻⁵⁴ Because of the collaborative efforts of the Institute of Medicine, Center for Disease Control and Prevention,^{54,55} and other organizations in the US and worldwide, action-oriented planning and implementation of specialized cancer control programs, navigation services, and research studies have led to increasing quality of comprehensive breast cancer care⁵⁶⁻⁶⁷ (see conceptual framework in [Figure 1](#)). Professional nurses have been involved at all levels of leadership and care delivery in many of these organizations.

Download English Version:

<https://daneshyari.com/en/article/5571546>

Download Persian Version:

<https://daneshyari.com/article/5571546>

[Daneshyari.com](https://daneshyari.com)