

Improving the Use of Cancer Screening for Older Women

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Breast cancer is a serious disease in terms of incidence and mortality for older women. Older women are likely to receive substantial benefit from mammography because of their increased risk for the disease. However, most women older than 65 years are not getting regular mammograms. There are a number of barriers to breast screening for older women, but perhaps none is more important than the lack of a physician recommendation. Tailored programs are needed if the promise of breast cancer screening is to be realized for older women. Such programs should reflect the heterogeneity of older women. In addition, physicians must be collaborators because of their central role influence. *Cancer* 1993; 72:1084-7.

Key words: mammography, older, aging, health education.

Breast cancer is a serious disease for older women. In 1992, an estimated 180,000 women were diagnosed with breast cancer and about one-half of these women were older than 65 years.¹ Similarly, about one-half of the 6000 breast cancer deaths occurred in women older than 65 years. The risk of a woman having breast cancer develop increases with age.² Cancer is the leading cause of death for women older than 75 years, and breast cancer mortality is second only to colorectal cancer as a cause of death for this age group.³ Inadequate screening may explain why the death rate for breast cancer has increased among older women since 1975.⁴ With a growing proportion of the population older than 65 years, breast cancer will be an even more substantial health problem for older women in the future.

Older women (defined as women age 65 years and older) are the women most likely to benefit from mammography because of their increased risk of breast cancer. Paradoxically, they are the group least likely to get mammograms. The Department of Health and Human Services identified women older than 70 years as a special target for effort in the Year 2000 objectives.⁵ If the Year 2000 objectives for the nation are to be met, older women must be encouraged to participate in regular breast screening.

Mammography is recommended for women 50-74 years old, but the recommendation becomes more complex for the group of women older than 75 years, a group for which comorbidity increasingly may intervene to modify standard recommendations.⁶ Most major medical organizations, including the National Cancer Institute, American Cancer Society, and the American College of Obstetricians and Gynecologists recommend annual mammograms and clinical breast examinations for women 50-74 years of age and every 1-2 years after that, to be determined by the woman and her physician.⁷

Patterns of Mammography Use

Use of breast cancer screening seems to decrease between the ages of 65 and 70 years. The 1987 National Health Interview Survey⁸ found that 87% of women 40-65 years old, 83% of women 55-64 years old, 77% of women 65-74 years old, and 68% of women 75 years old and older reported ever having had clinical breast examinations. Mammography use showed similar declines: 42% of women 40-54 years old reported ever having had mammograms, compared with 41% of women 55-64 years old, 35% of women 65-74 years old, and 25% of those 75 years old and older. The 1990 Mammography Attitudes and Usage Study⁹ also showed that reports of ever having had mammograms decreased after the age of 60 years; 71% of women 50-59 years old, 65% of women 60-69 years old, and 56% of women 70 years old and older reported having had mammograms.

Presented at The American Cancer Society National Conference on Cancer Prevention and Early Detection, Chicago, Illinois, September 10, 1992.

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Accepted for publication March 26, 1993.

A number of regional studies confirm the decrease in mammography use with increasing age. For example, in Los Angeles, women aged 65 years and older were more likely to report never having had mammograms than were women younger than 65 years.¹⁰ Studies in New York¹¹ and Rhode Island¹² supported these findings. In North Carolina, Harris et al.¹³ found that women in their 70s had lower use rates than did women in their 40s; 37% of women in their 70s had prior mammograms, compared with 45% of women in their 60s and 52% of women in their 50s. The authors concluded that mammography programs seem to attract women who are younger and thus at lower risk for breast cancer. This raises a major concern for health policy and for those concerned with intervention. It is crucial that the barriers to mammography use for older women be understood to redress the imbalance in use.

Barriers to the Use of Mammography by Older Women

In the 1987 National Health Interview Survey, women older than 65 years were asked why they had not had mammograms. The most frequent responses were (1) the woman had not heard of a mammogram; (2) a mammogram was not recommended by the woman's personal physician; and (3) the woman did not know she should have a mammogram.⁸ A higher proportion of older women said they had never heard of mammograms. Most studies show that older women are less knowledgeable about breast cancer and their increased susceptibility, and they worry less about getting breast cancer.¹¹ Harris et al.¹³ identified several knowledge barriers. Older women were less likely to know that the chances for breast cancer are one in nine (actually one in ten at the time of the survey) and less likely to believe that mammograms are *better* than physical examination for breast cancer screening.¹⁴

The lack of a physician recommendation is the most important barrier for older women, and studies show that women older than 70 years are more likely to say that their physicians have not recommended mammograms.¹⁵ Burg et al.¹¹ found that older women were least likely to have visited obstetricians or gynecologists, the physicians most likely to recommend mammograms. Lack of referral to mammography seems to be most problematic among minority women, such as the Hispanic women surveyed by Richardson et al.¹⁶ Data from a study that queried physicians about their screening patterns showed that they reported screening older women less often than younger women.¹⁷

Although there are few data to prove this unequivocally, access barriers, such as distance from the radiology site, may be more problematic for older women.

Cost certainly is a barrier for some women, especially minority women, but is not perceived as a major barrier by most women¹⁸ or their physicians.^{6,8,12}

Facilitators to Mammography Use

A number of factors have been tied to mammography use, but none is more important than the presence of a physician recommendation or referral.^{6,8} Women who continue to see obstetricians or gynecologists are most likely to get referrals. Burg and Lane⁶ found that obstetricians and gynecologists are more likely to refer elderly patients for screening mammography than are family practitioners and general internists. Other facilitators include women's recognition that breast cancer incidence increases with age, knowing the guidelines, and believing that screening is worth the cost.^{14,19,20}

Results from a Trial with Older Women

During 1989–1990, a study was conducted in the Philadelphia metropolitan area to identify screening practices among women older than 65 years and to intervene to increase screening. Women in eight retirement communities in Pennsylvania and New Jersey were selected to participate, first in baseline surveys of women residing in retirement communities in Philadelphia and then in an intervention study. Women 65 years old and older were eligible to be interviewed; 616 interviews were completed, for a response rate of 82%. The results show that use of mammography remains low in women older than 65 years and especially in women at the older ages. Thirty-eight percent of women aged 65–74 years, 50% of women aged 75–79 years, and 19% of women 85 years old and older reported having had mammograms in the preceding year. Only 53% of the women reported having had a clinical breast examination within the past year.¹⁴

The most common reasons cited for not having had a mammogram were: believing it was not necessary (37%), not having a physician recommendation (23%), not experiencing any breast problems (18%), never having thought about it (12%), and deciding they did not want to have one (7%). Ninety percent of the women did not know that women older than 65 years were more likely than those younger than 65 years to have breast cancer develop. Most women who believed that early breast cancer could be cured and most who were aware of the relationship between age and cancer risk had obtained mammograms within the past 2 years.

Multivariate analyses using logistic regression showed that women whose physicians had discussed mammography with them were 29 times more likely to

have had a mammogram within the past 2 years than those whose physicians had not discussed mammography with them. The odds of having had a mammogram within the past 2 years increased with self-assessed need and decreased with the number of concerns expressed (e.g., pain, cost, or radiation). Women who had a clinical breast examination within the past year and prior personal experience with breast pathology were more than eight times more likely to have had a mammogram within the prior 2 years than were women who had neither.

In the second phase of the research, women in the eight participating retirement communities were assigned randomly to receive vouchers for reduced-cost mammograms (\$10) or to receive interventions tailored for older women. These included a tailored video and print materials to increase knowledge and reduce women's barriers, information for the woman's physician (to increase normative support), and a mobile van (to reduce access barriers), in addition to the voucher for a \$10 mammogram. At the 3-month follow-up interview, there were major, significant differences between the control and intervention groups: 45% of the intervention group women obtained a mammogram after the intervention, compared with 12% of the eligible women at control sites ($P < 0.001$). Forty-two percent of the study group women who reported no prior mammograms subsequently obtained them, compared with 6% of control group women ($P < 0.001$). Thus, it appeared that the multicomponent program resulted in a dramatic increase in mammography use among women in the experimental group.

Recommendations

Although older women are at greatest risk for dying of breast cancer, they are at risk for under-using breast screening.^{8,13} Many older women also are poor or a member of a minority group, which puts them at special risk for not receiving appropriate screening for breast cancer. Action is needed to increase screening among this important group in the United States.

Programs Are Needed for Older Women

Tailored programs are needed for older women to overcome their special barriers to breast cancer screening. Green and Kreuter's²¹ Precede/Proceed model can be used to address the relevant predisposing, reinforcing, and enabling factors. Programs can address *predisposing* factors by conveying the clear message that older women are susceptible to breast cancer and need regular mammograms and clinical breast examinations. They should allay older women's fears about pain and

radiation and inform the women and their physicians about the new Medicare reimbursement policy for mammography. Such programs also should *enable* the behavior by reducing access barriers and enhancing skills, where appropriate. Finally, they should *reinforce* the behavior by providing support from family and friends and health care providers.

Programs should follow effective principles of communication and reflect the ethnic and cultural diversity of older women. Print materials should be prepared in a large, clear typeface, using a paper with adequate contrast. Our focus group data¹⁴ indicated that older women prefer photographs and materials that include intergenerational themes, that is, not older women by themselves. Repetition and reinforcement of the central messages will improve learning, which is true for any age group. Easily operationalized, action instructions may help to improve adherence. Putting information that must be remembered at the beginning or the end of print and spoken communications may facilitate comprehension and action. Programs for older women should highlight learning by doing, use reminders and rewards, and be entertaining.²²

Programs Should Reflect the Heterogeneity of Older Women

Programs should reflect functional status: one of the most important tenets to remember is that functional age is more important than chronological age. Some older adults may have hearing or vision deficits and may need more time to process information than do younger adults.²³ But others will be fully functional. Perhaps, more than for any other age group, there should be options to reflect the heterogeneity of the population (e.g., transportation for those who need it, and special consideration for women who do not hear well) but also recognition that most older women remain active and vigorous well into their older years. Poor women may need special help in negotiating the health care system, but there should be flexibility in the care offered because older women as a group encompass tremendous diversity.

Physicians Must be Collaborators

Physicians must be involved: most older women visit their physicians several times during any given year. Given the importance of a physician's recommendation to get a mammogram, *in-reach* methods are likely to be particularly important in motivating women to get mammograms.²⁴ Thus, interventions should be directed not only at women but also at physicians and their practices.

Conclusion

Far too little attention has been paid to the special needs of older women. Although they are at highest risk of dying of breast cancer, they have received too little benefit from our public education efforts. Multifocused interventions should be directed at women, their physicians, and the health care system. The results from one study presented here show that tailored interventions that seek to increase knowledge and reduce access barriers can increase mammography use by older women. Far from being uninterested in mammography, when provided the opportunity, nearly half the women in the retirement community study reported here responded by getting mammograms. Future research and practice should focus especially on minority women, rural women, poor women, and those with less than a high school education. In addition, single women are an important subgroup because they are at high risk for under-use of screening.

The American Cancer Society can exert a major leadership role in improving the breast cancer screening practices of older women. New print materials should be developed with sensitivity to the vision needs of older adults. Photographs and drawings should be designed to be realistic and appropriate renderings of the diverse lives of older women. Older volunteers should be recruited to educate their friends and neighbors. Special resources should be devoted to meeting the special needs of older, minority women. Finally, because physicians remain the most important gatekeepers for the health care of older women, they must be true collaborators in these efforts.

John F. Kennedy once said, "It is not enough for a great nation to have added new years to life. Our objective must be to add new life to those years." Increasing the proportion of older women who get regular breast screening can improve the quantity and the quality of their lives.

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