Using a Personalized Targeted Mailing to Increase Mammography Screening


Study Overview

Objective. To increase mammography use among older women noncompliant with screening and to assess the cost-effectiveness of a personalized targeted mailing intervention.

Design. Randomized, paired controlled trial.

Setting and participants. Participants were 1229 pairs of women matched on zip code, race, and urban or rural county and who were Medicare beneficiaries older than 70 years of age, living in Michigan for at least 5 years, having no significant comorbidity likely to affect screening, and no mammogram for at least 5 years. Patients assigned to the intervention received a personally addressed letter from the medical director of Michigan Medicare and materials demonstrating their lack of screening, reasons for screening, and how to be screened.

Main outcome measures. Postintervention mammography claims from November 1997 through December 1998 and the cost of the intervention.

Main results. Women who received the personalized targeted mailing were 60% more likely to receive a subsequent mammogram (8.1% in the intervention group versus 5.2% in the control group [odds ratio (OR), 1.6; P < 0.005]). Most of the intervention effect occurred among women aged 70 to 79 years (10.6% in the intervention group versus 6.5% in the control group [OR, 1.7; P < 0.02]) and occurred within 6 months. A statewide Medicare intervention in Michigan, depending on the size of the target population, would cost $108,000 to $238,000, with 3500 to 4300 additional mammograms per year at $31 to $55 per mammogram.

Conclusion. The use of a personalized targeted mailing increased mammography among long-term noncompliant Medicare beneficiaries.

Commentary

Breast cancer is the second most common cancer among women and the second leading cause of cancer death. Despite some recent controversy, the U.S. Preventive Services Task Force (USPTF) recommends screening mammography every 1 to 2 years for women aged 40 years and older [1]. Although the evidence that screening reduces breast cancer mortality is strongest for women aged 50 to 69 years, the USPSTF concluded that the evidence also is generalizable to women aged 70 years and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. Despite this recommendation, women aged 65 years and older continue to have lower rates of screening [2]. Medicare made a screening mammogram every 2 years a covered benefit in 1991 and added annual screening as a covered benefit in 1999.

This study increased mammography use among female Medicare beneficiaries who had not received a mammogram for at least 5 years with the use of a personalized targeted mailing. Although the intervention did lead to a statistically significant increase in mammography, the overall rate of mammography was very low (8.1% in the intervention group and 5.2% in the control group) during the 14-month follow-up period, raising questions about the completeness of the Medicare data. This concern about Medicare data has previously been raised, in light of the low rates of mammography use observed in Medicare claims compared with survey data [3]. The difference in estimates between the 2 sources was largely explained by errors in self-reports, missing claims, and differences in the sampled populations. Missing claims is a significant concern, since the extent to which beneficiaries receive mammograms through free programs or pay for mammograms from other sources (ie, private insurance, out of pocket) is not known. As a result, the use of Medicare claims to identify mammography will likely underestimate screening. However, despite this concern, this study showed that the use of a personalized targeted mailing intervention can increase mammography among women noncompliant with recommended screening.

Applications for Clinical Practice

The use of a personalized targeted mailing can increase mammography use among long-term noncompliant patients. This type of intervention could be used by other state
and national programs to increase screening mammography and possibly other preventive services.

—Review by Josh F. Peterson, MD, MPH

References