

# Review: 5 community based recruitment strategies increase women's attendance at mammography screening appointments

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**QUESTION:** Which strategies increase participation rates among women invited to community breast cancer screening activities or mammography programmes?

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## Data sources

Published and unpublished trials were identified by searching Medline (1966–2000), Central Cochrane Controlled Trials Register (issue 1, 2000), and EMBASE/Excerpta Medica (1988–99); searching the Eufref Network database to identify reports and letters to the European Screening Breast Cancer Program's coordinators; reviewing reference lists of relevant studies and meta-analyses; and contacting authors.

## Study selection

Randomised or clinical controlled trials were included if they assessed the effect of a strategy or combination of strategies for recruiting women into community breast screening activities or programmes compared with no active intervention, and women were identified from population databases.

## Data extraction

Data were extracted on methods (duration, loss to follow up, intention to treat analysis, and comparability of groups), participant characteristics, interventions, and outcomes. Main outcome was attendance at an appointment for a mammogram within 12 months of intervention. No specific scale was used to assess study quality.

## Main results

70 randomised controlled trials (59 articles) met the initial inclusion criteria; 46 were excluded because the control group appeared to have been exposed to an intervention, 8 because the denominator for estimating attendance rates was unknown, and 2 because the groups were not comparable. Thus, 14 trials were included in the analysis. A single letter of invitation (5 studies, n = 4166), educational material sent by post (1 study, n = 545), an invitation letter plus a phone call (3 studies, n = 1490), an individual phone call of invitation (2 studies, n = 4035), and training activities plus reminders (1 study, n = 2064) increased attendance at a mammography appointment within 12 months (table). A single letter also increased attendance within 24 months (1 study, n = 380). A letter of invitation plus educational material (1 study, n = 220) and home visits (2 studies, n = 848) did not affect attendance within 12 months.

## Conclusions

Among women invited to community breast cancer screening activities or mammography programmes, 5 strategies increase attendance at mammography appointments: a single letter of invitation, educational material sent by post, an invitation letter plus a phone

call, an individual phone call of invitation, and training activities plus reminders. A letter of invitation plus educational material and home visits do not affect attendance.

*Community based recruitment strategies v no active intervention (control) to increase attendance at mammography screening appointments within 12 months\**

Screening strategy	Intervention	Control	RBI (95% CI)	NNT (CI)
Single letter	33%	23%	37% (25 to 51)	11 (9 to 15)
Educational material by post	77%	54%	42% (25 to 62)	5 (4 to 7)
Invitation letter plus phone call	43%	25%	78% (54 to 106)	6 (5 to 7)
Invitation phone call	45%	29%	54% (40 to 70)	7 (6 to 8)
Training activities plus reminders	9%	4%	142% (68 to 247)	19 (14 to 32)

\*Abbreviations defined in glossary; RBI, NNT, and CI calculated from data in article.

## COMMENTARY

Breast cancer comprises 18% of all cancers in women, and the associated morbidity and mortality are substantial.<sup>1</sup> At present, early detection and treatment are the major means for controlling breast cancer mortality. In Western countries, the use of annual mammography among women 50–69 years of age is a widespread practice for early detection. As the authors of this review point out, one of the requirements of any community screening programme is a high participation rate. This systematic review by Bonfill *et al* evaluates the effectiveness of interventions designed to increase community participation in breast cancer screening programmes. The findings will be of interest to nurses working in oncology settings, cancer prevention services, and screening programmes, and those working as direct care providers or in management and planning positions.

The authors did a comprehensive search for studies and restricted inclusion to randomised or controlled clinical trials in which the control group was not exposed to any active intervention, and in which study groups were comparable. Because separate meta-analyses were done for different recruitment strategies, the relative effectiveness of specific interventions can be examined. The authors concluded that higher participation rates could be achieved with breast cancer screening invitations that are not merged with other screening activities. Furthermore, the restriction of studies to population based samples increases the generalisability of the findings. Meta-analyses of interventions specifically targeted to women aged 50–69 years would have been helpful, given the mandate in many countries to screen this particular age group. Further research should compare effective interventions to one another, and evaluate combinations of effective interventions, the cost effectiveness of interventions, and women's satisfaction with the strategies. Issues such as equity and psychosocial factors that promote or discourage screening behaviours should be studied.<sup>2,3</sup> This additional information could facilitate the development of targeted interventions for individuals most likely in need of help.

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