

Cancer Prevention and Control, Client-Oriented Screening Interventions: Mass Media – Breast Cancer (2008 Archived Review)

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Review Summary

Intervention Definition

Mass media, including television, radio, newspaper, magazines, and billboards, can educate and motivate people to be screened for cancer. These sources can be used alone or in combination with other approaches, such as client reminders. The cancer screening review assessed the effectiveness of mass media when used alone.

Summary of Task Force Finding

The Community Preventive Services Task Force finds insufficient evidence to determine the effectiveness of mass media when used alone in increasing screening rates for breast cancer because no studies qualified for review.

The Task Force has related findings for mass media specific to the following:

- [Cervical cancer](#) (insufficient evidence)
- [Colorectal cancers](#) (insufficient evidence)

Results from the Systematic Review

Breast Cancer

No studies qualified for the systematic review.

These findings were based on a systematic review of all available studies, conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice and policy related to cancer prevention and control.

Publications

Baron RC, Rimer BK, Breslow RA, et al. [Client-directed interventions to increase community demand for breast, cervical, and colorectal cancer screening: a systematic review](#) [www.thecommunityguide.org/cancer/screening/client-oriented/Cancer2008_ClientDirected_Demand.pdf]. *Am J Prev Med* 2008;35(1S): S34-55.

Task Force on Community Preventive Services. [Recommendations for client- and provider-directed interventions to increase breast, cervical, and colorectal cancer screening](#) [www.thecommunityguide.org/cancer/screening/client-oriented/Cancer2008_TaskForceRecs.pdf]. *Am J Prev Med* 2008;35(1S): S21-5.

The following Task Force finding and supporting materials are for mass media interventions to increase breast, cervical, and colorectal cancer screening.

Task Force Finding

Intervention Definition

Mass media—including television, radio, newspapers, magazines, and billboards—are used to communicate educational and motivational information in community or larger scale intervention campaigns.

Task Force Finding (July 2008)*

A review of available scientific evidence identified only two qualifying studies evaluating the use of mass media alone to promote cervical cancer screening. No studies were found evaluating its use to promote breast or colorectal cancer screening. The qualifying studies reported positive findings but had some methodological limitations. Therefore, evidence is insufficient to determine the effectiveness of mass media alone in increasing screening for breast, cervical, or colorectal cancer.

*From the following publication:

Task Force on Community Preventive Services. [Recommendations for client- and provider-directed interventions to increase breast, cervical, and colorectal cancer screening](http://www.thecommunityguide.org/cancer/screening/client-oriented/Cancer2008_TaskForceRecs.pdf) [www.thecommunityguide.org/cancer/screening/client-oriented/Cancer2008_TaskForceRecs.pdf]. *Am J Prev Med* 2008;35(1S): S21-5.

Supporting Materials

Analytic Framework

See Figure 1 on page S36 of Baron RC, Rimer BK, Breslow RA, et al. [Client-directed interventions to increase community demand for breast, cervical, and colorectal cancer screening: a systematic review](#) [www.thecommunityguide.org/cancer/screening/client-oriented/Cancer2008_ClientDirected_Demand.pdf]. *Am J Prev Med* 2008;35(1S): S34-55.

Evidence Gaps

What are Evidence Gaps?

Each Community Preventive Services Task Force (Task Force) review identifies critical evidence gaps—areas where information is lacking. Evidence gaps can exist whether or not a recommendation is made. In cases when the Task Force finds insufficient evidence to determine whether an intervention strategy works, evidence gaps encourage researchers and program evaluators to conduct more effectiveness studies. When the Task Force recommends an intervention, evidence gaps highlight missing information that would help users determine if the intervention could meet their particular needs. For example, evidence may be needed to determine where the intervention will work, with which populations, how much it will cost to implement, whether it will provide adequate return on investment, or how users should structure or deliver the intervention to ensure effectiveness. Finally, evidence may be missing for outcomes different from those on which the Task Force recommendation is based.

Identified Evidence Gaps

General:

- Are these interventions potentially effective in increasing screening of these cancer sites?
- Are some incentives (e.g., ones of greater cash value or of greater appeal) more effective than others?
- Do these interventions result in other positive or negative changes in healthcare services (e.g., blood pressure monitoring or adult immunization) or health behaviors (e.g., smoking or physical activity)?
- Could incentives become a barrier to developing routine recommended screening practices or reducing patient autonomy in decision making?

Mass Media

Given the inherent expense of mass media interventions and costs already expended in efforts to answer remaining questions, it may be prudent to seek answers in lessons gleaned from studies of other health topics. What separate effects, if any, do mass media and other major components contribute to overall effectiveness of multicomponent media approaches to increase screening for breast, cervical, and colorectal cancers?

- What are the minimal and optimal component duration, dose, and intensity requirements for these approaches to be effective?
- Does effectiveness differ by mass media channel (e.g., TV, radio, billboard) for a given population or setting?
- What combinations of mass media and other interventions are optimal to increase a given cancer screening behavior or to reach particular target groups, such as low-income, ethnic, or minority populations?

Summary Evidence Table

Author (Pub year), Study Period, Intervention	Design, Category, Execution	Study Location, Setting type Population Description	Interventions Studied, Comparison, and Number of Participants	Outcome/Effect Size and Statistical Significance
Byles 1994 (1989) Mass media, alone	Design: Non-random (Group) Design Category: Greatest suitability Execution: Fair	New South Wales, Australia; Postal areas in rural locality, country town, major rural centre; Women aged 18-70, race/ethnicity, SES not reported Baseline screening status: 46.9% to 75.8% in all 9 regions BUT we reported effect measure of women who reported not having had a PAP in the past 3 years.	1. TV campaign only (30 second ad 12 times over 3 days at peak viewing time) <i>versus</i> 3. Usual care N I=1001 C=not reported	Completed Pap determined by Health Insurance Commission claims Relative change (post intervention for women with no record of Pap in 3 yrs) Country towns 1 versus 3 = 20.4 pct (0.285) Rural Centers 1 versus 3 = 47.6 pct (<.0001)
Howe, 2002 (2000-2001) Mass media, alone (TV series)	Design: Before/After Design Category: least suitable Execution: Fair	Lancashire and Greater Manchester zones, UK; community; Women >25 with previously normal Pap test eligible for cervical screening in nine Health Authorities; population not well described	1. TV soap opera about a woman diagnosed with cervical cancer (aired 25 April – 17 June 2001) <i>versus</i> 2. Pre-intervention records for comparison N=not reported (show has approx 13 million viewers)	Completed Pap determined by medical record audit Relative Change 1 versus 2 = 21.3 pct (NR)

Search Strategy

The following outlines the search strategy used for reviews of these interventions to increase breast, cervical, and colorectal cancer screening: *Client Reminders (archived); Client Incentives (archived); Mass Media Targeting Clients (archived); Small Media Targeting Clients; Group Education for Clients (archived); One-on-One Education for Clients (archived); Reducing Structural Barriers for Clients (archived); Reducing Client Out-of-Pocket Costs (archived); Provider Assessment and Feedback (archived); Provider Incentives (archived).*

To establish the evidence base the team searched five computerized databases from the earliest entries in each through November 2004: MEDLINE, database of the National Library of Medicine (from 1966); the Cumulative Index to Nursing and Allied Health database (CINAHL, from 1982); the Chronic Disease Prevention database (CDP, Cancer Prevention and Control subfield, from 1988); PsycINFO (from 1967); and the Cochrane Library databases. Medical subject headings (MeSH) searched (including all subheadings) are shown below. The team also scanned bibliographies from key articles and solicited other citations from other team members and subject-matter experts. Conference abstracts were not included because, according to Community Guide criteria, they generally do not provide enough information to assess study validity and to address the research questions.

The search identified over 9000 citations whose titles and abstracts were screened for potential relevance to interventions and outcomes of interest; of these, 580 articles were retrieved for full-text review.

Search terms used in five electronic databases to find studies for inclusion in the systematic reviews of cancer screening. Searches were conducted to find all studies of cancer screening including those specific to screening for breast, cervical, or colorectal cancer.

General

Neoplasms—combined with any of the following headings:

Early detection
Mass screening
Multiphasic screening
Preventive health services
Screening

Breast cancer

Breast neoplasms
Mammography

Cervical cancer

Cervical intraepithelial neoplasia
(Uterine) cervical neoplasms
Cervix dysplasia
Vaginal smears

Colorectal cancer

Colonic neoplasms
Colorectal neoplasms
Occult blood
Sigmoid neoplasms
Sigmoidoscopy

From: Baron RC, Rimer BK, Coates RJ, et al. Methods for conducting systematic reviews of evidence on effectiveness and economic efficiency of interventions to increase screening for breast, cervical, and colorectal cancers. *Am J Prev Med* 2008;35(1S):26-33.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

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