



Using Evidence for Public Health Decision Making:

Screening for Breast, Cervical and Colorectal Cancer

Community Guide Slide Modules

This presentation is designed to be used with overview slide sets available at: www.thecommunityguide.org

1. The Community Guide: A Brief Overview
 - o How the Community Guide is developed under guidance of the Task Force on Community Preventive Services
2. The Community Guide: Systematic Reviews to Inform Task Force Recommendations
 - o Description of the Community Guide methods and how the Task Force uses information to form recommendations

The focus of this presentation is “Using Evidence for Public Health Decision Making: Screening for Breast, Cervical and Colorectal Cancer”

Introduction

- This slide presentation summarizes [findings of the Task Force on Community Preventive Services](#) (Task Force) for a set of systematic reviews on the effectiveness of interventions to increase screening for breast, cervical, and colorectal cancers
- Breast, cervical, and colorectal cancer sites were selected, because:
 - ◆ There is convincing scientific evidence that cancer screening improves health outcomes
 - ◆ The [U.S. Preventive Services Task Force](#) recommends screening for these cancer sites

Why Does the Community Guide Address Cancer Screening?

- Cancer is the second leading cause of death in the U.S., killing more than 553,000 Americans per year
- Cancer-related health care and lost productivity in the U.S. cost \$189.5 billion in 2003
- Reducing the number of new cancer cases, illness, disability and death caused by cancer, are stated national health goals

What Interventions were Reviewed?

- Interventions designed to alter client behavior (client-oriented)
 - ◆ Interventions to increase screening through
 - Community access
 - Community demand
- Interventions designed to increase provider delivery of screening services (provider-oriented)

What Questions Does the Task Force Ask about Interventions?

- Does it work?
 - ◆ How well?
 - ◆ For whom?
 - ◆ Under what circumstances is it appropriate?
- What does it cost?
- Are there barriers to its use?
- Are there any harms?
- Are there any unanticipated outcomes?

What Do the Findings Mean?

- **Recommended**– strong or sufficient evidence that the intervention is effective
- **Recommended Against**– strong or sufficient evidence that the intervention is harmful or not effective
- **Insufficient Evidence** – the available studies do not provide sufficient evidence to determine if the intervention is, or is not, effective

What Do the Findings Mean?

Strong and sufficient evidence judgments reflect:

- The number of available studies
- The research design of those studies
- The quality with which those studies were executed, and
- The overall magnitude of the effects (size of the outcome)

What Does “Insufficient Evidence” Mean?

- Insufficient evidence means that additional research is needed to determine whether or not the intervention is effective
- In some cases there are not enough studies to draw firm conclusions
- In other cases, the available studies have inconsistent findings
- This does **NOT** mean that the intervention does not work

Part A: Client-Oriented Interventions to Increase Cancer Screening

Client-Oriented Screening Interventions Summary Table

Community Demand	Breast	Cervical	Colorectal
Client reminders	Recommended	Recommended	Recommended
Client incentives (alone)	Insufficient Evidence	Insufficient Evidence	Insufficient Evidence
Small media	Recommended	Recommended	Recommended
Mass media (alone)	Insufficient Evidence	Insufficient Evidence	Insufficient Evidence
Group education	Recommended	Insufficient Evidence	Insufficient Evidence
One-on-one education	Recommended	Recommended	Insufficient Evidence

Client-Oriented Interventions Summary Table (con't.)

Community Access	Breast	Cervical	Colorectal
Reducing structural barriers	Recommended	Insufficient Evidence	Recommended
Reducing out-of-pocket costs	Recommended	Insufficient Evidence	Insufficient Evidence



Client Reminders

- Client reminders are printed or telephone communications that tell people they are due (reminder) or late (recall) for screening
- Some client reminders only tell people that screening is due or late, while others also include:
 - Information about indications for screening
 - Benefits of screening
 - Ways to overcome barriers to screening
 - Help with appointment scheduling

Client Reminders: Recommendations & Findings

The Task Force recommends interventions that use client reminders based on evidence of their effectiveness in increasing:

- Breast cancer screening by mammography (strong evidence)
- Cervical cancer screening by Pap test (strong evidence)
- Colorectal cancer screening by fecal occult blood testing (FOBT) (sufficient evidence)

Client Reminders: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of using client reminders to increase:

- ◆ Colorectal cancer screening by flexible sigmoidoscopy, colonoscopy, or double contrast barium enema

Client Incentives

- Client incentives are small, noncoercive rewards (cash or coupons) to encourage cancer screening
- Based on the assumption that, if offered a modest reward, clients will:
 - Seek cancer screening for themselves
 - Encourage others to seek screening
- Can be offered in combination with client reminders or educational interventions

Client Incentives: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of client incentives when used alone in increasing screening for breast, cervical or colorectal cancer.

Small Media

- Videos or printed communications (such as letters, brochures, leaflets, pamphlets, flyers, or newsletters) that:
 - ❑ Are distributed from healthcare systems or other community settings
 - ❑ Convey educational or motivational information to promote cancer screening in target populations
- Small media interventions may contain messages that can:
 - ❑ Describe screening tests and procedures
 - ❑ Provide reasons for and benefits of screening
 - ❑ Suggest ways to overcome barriers to screening

Audience for Small Media

Small media messages can:

- Address a general target population (untailored messages)
- Address unique circumstances and characteristics of specific individuals that are identified through assessments (tailored messages)

Small Media: Recommendations & Findings

The Task Force *recommends* interventions that use small media based on evidence of their effectiveness in increasing:

- ◆ Breast cancer screening by mammography (strong evidence)
- ◆ Cervical cancer screening by Pap test (strong evidence)
- ◆ Colorectal cancer screening by fecal occult blood testing (FOBT) (strong evidence)

Small Media: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of using small media to increase:

- ◆ Colorectal cancer screening by flexible sigmoidoscopy, colonoscopy, or double contrast barium enema

Mass media interventions

In these interventions, mass media including television, radio, newspaper, magazines, and billboards are used to communicate educational and motivational information in community-wide or larger scale campaigns.

Mass Media: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of mass media when used alone in increasing screening rates for breast, cervical or colorectal cancer.

Group education

- Provides information about the reasons for and benefits of cancer screening and ways to overcome barriers to screening
- Lecture or interactive format; may include motivational components

Group Education

- A trained layperson or a health educator uses slide presentations and/or role modeling to inform, encourage, and motivate attendees to participate in cancer screenings
- Can be given to a variety of groups, in different settings, by different types of educators with different backgrounds and styles, and can include various topics

Group Education: Recommendations & Findings

The Task Force on Community Preventive Services recommends group education for the purpose of increasing breast cancer screening on the basis of sufficient evidence that these interventions are effective in increasing screening for breast cancer.

There is insufficient evidence, however, to determine the effectiveness of group education in increasing screening for cervical cancer and colorectal cancer, based on small numbers of studies with methodologic limitations and inconsistent findings.

One-on-one Education

- Communication of information to individual clients by telephone or through face-to-face encounters, conducted by a healthcare or allied health professional (e.g., health educator) or by a lay health advisor or volunteer
- Clients receive the information in clinical settings, homes, or local gathering places

One-on-one Education

- Can be supplemented by the use of:
 - Brochures
 - Informational letters
 - Reminders (printed or telephone)
- The education content can:
 - Address a general target population (untailored messages)
 - Address unique circumstances and characteristics of specific individuals that are identified through assessments (tailored messages)

One-on-one Education: Recommendations & Findings

The Task Force recommends interventions that include one-on-one education based on evidence of its effectiveness in increasing:

- ◆ Breast cancer screening by mammography (strong evidence)
- ◆ Cervical cancer screening by Pap test (strong evidence)

One-on-one Education: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of one-on-one education to increase colorectal cancer screening by fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy, or double contrast barium enema.

Reducing Structural Barriers

- Activities (other than economic) that make it easier for people to access preventive services in a clinical or nonclinical setting
- Barriers may include location, distance, hours of operation, lack of daycare for dependents, navigation through the medical system, appointment scheduling, language, culture, work schedule, phone calls, and postage

Reducing Structural Barriers

- Based on the idea that making access to screening easier will increase demand for, and use of, screening
- Examples include:
 - Reducing **time or distance** to delivery setting
 - Modifying **hours** of service to meet client needs
 - Offering services in alternative, nonclinical **settings** (e.g., mobile vans)
 - Eliminating or simplifying **administrative procedures** (e.g., scheduling help, transportation, translation)
 - Providing **secondary support**, such as education or ways to reduce out-of-pocket costs

Reducing Structural Barriers: Recommendations & Findings

The Task Force recommends interventions that reduce structural barriers based on evidence of their effectiveness in increasing:

- ◆ Breast cancer screening by mammography (strong evidence)
- ◆ Colorectal cancer screening by fecal occult blood test (FOBT) (strong evidence)

Reducing Structural Barriers: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of reducing structural barriers to increase:

- ◆ Cervical cancer screening by Pap test
- ◆ Colorectal cancer screening by flexible sigmoidoscopy, colonoscopy, or double contrast barium enema

Reducing Out-of-Pocket Costs

- These interventions reduce the costs paid by clients for screening services
- These interventions can include:
 - ❑ Providing vouchers to pay part of the fee for screening tests
 - ❑ Reducing co-payments for screening tests
 - ❑ Reimbursing clients or clinics for completed screenings
 - ❑ Changing the cost of federal or state insurance coverage

Reducing Out-of-Pocket Costs

These interventions are based on the idea that reducing the cost of screening will increase:

- Demand for and use of the services
- Repeat cancer screening
- Likelihood of clients following the recommended cancer screening schedule

Reducing Out-of-Pocket Costs: Recommendations & Findings

The Task Force *recommends* interventions that reduce out-of-pocket costs to clients based on evidence of effectiveness in increasing:

- ◆ Breast cancer screening by mammography (sufficient evidence)

Reducing Out-of-Pocket Costs: Recommendation & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of reducing out-of-pocket costs to increase:

- ◆ Cervical cancer screening by Pap test
- ◆ Colorectal cancer screening by fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy, or double contrast barium enema

Part B: Provider-Oriented Interventions to Increase Cancer Screening

Provider-Oriented Interventions Summary Table

Type of Intervention	Finding
Provider assessment and feedback	Recommended
Provider incentives	Insufficient Evidence
Provider reminders/recall	Recommended

Provider Assessment and Feedback

- The intervention goal is to increase delivery of appropriate cancer screening services
- Provider assessment and feedback interventions:
 - Evaluate frequency of delivery or offerings of a screening service to clients (assessment)
 - Present providers with information about their performance in providing screening services (feedback)
 - Feedback may be for a group of providers (e.g., mean performance for a practice) or an individual provider, and may be compared with a goal or standard

Provider Assessment and Feedback: Recommendations & Findings

The Task Force **recommends** interventions that include provider assessment & feedback based on evidence of their effectiveness in increasing:

- ◆ Breast cancer screening by mammography (sufficient evidence)
- ◆ Cervical cancer screening by Pap test, (sufficient evidence)
- ◆ Colorectal cancer screening by fecal occult blood test (FOBT) (sufficient evidence)

Provider Assessment and Feedback: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of using provider assessment and feedback to increase:

- ◆ Colorectal cancer screening by flexible sigmoidoscopy, colonoscopy, or double contrast barium enema

Provider Incentives

- Provider incentives are direct or indirect rewards that motivate providers to perform or to refer their patients for cancer screening
- Rewards are usually monetary, but may include nonmonetary incentives, such as continuing medical education credit
- Because provider incentives often depend on some form of assessment, an assessment component, with or without feedback, may be included in the intervention

Provider Incentives: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of provider incentives in increasing screening rates for:

- ◆ Breast
- ◆ Cervical
- ◆ Colorectal cancer

Provider Reminder/Recall System

- Provider reminder/recall systems (provider reminders) inform health care providers that patients or clients are:
 - Due (reminder), or
 - Overdue (recall)for specific cancer screening tests

Provider Reminder/Recall System

- Reminders may be:
 - Generated electronically or manually delivered in client charts, by computer, mail, or other means, or noted in client charts to initiate in-person discussion
 - Can vary in format and content (notation, flow chart, electronic message, or checklist)
 - Reminders can occur before, during, or after a scheduled visit

Provider Reminder/Recall System: Recommendations & Findings

The Task Force *recommends* provider reminder systems based on strong evidence of their effectiveness in increasing:

- ◆ Breast cancer screening by mammography (strong evidence)
- ◆ Cervical cancer screening by Pap test, (strong evidence)
- ◆ Colorectal cancer screening by fecal occult blood test (FOBT) and flexible sigmoidoscopy (strong evidence)

Provider Reminder/Recall System: Recommendations & Findings

The Task Force concluded there was *insufficient evidence* to determine the effectiveness of using provider reminders to increase:

- ◆ Colorectal cancer screening by colonoscopy or double contrast barium enema

Where to Find More Information

Task Force findings and recommendations on screening for breast, cervical and colorectal cancer:

www.thecommunityguide.org/cancer

References

- Baron RC, Rimer BK, Coates RJ, et al. Client-directed interventions to increase community access to breast, cervical, and colorectal cancer screening: a systematic review. *Am J Prev Med* 2008;35(1S):56-66.
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- Sabatino SA, Habarta N, Baron RC. Interventions to increase recommendation and delivery of screening for breast, cervical, and colorectal cancers by healthcare providers: systematic reviews of provider assessment and feedback and provider incentives. *Am J Prev Med* 2008;35(1S):67-74.
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- Breslow RA, Rimer BK, Baron RC, et al. Introducing the Community Guide's reviews of evidence on interventions to increase screening for breast, cervical, and colorectal cancers. *Am J Prev Med* 2008;35(1S):14-20.



Visit the Community Guide Web site and find out what works to promote health and safety in your community. Learn about:

- Evidence-based Task Force findings and recommendations
- Systematic review methods
- Interventions on 18 public health topic areas
- How to use the Community Guide
- And more!

www.thecommunityguide.org

