

# Increasing Cancer Screening: One-on-One Education for Clients

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## Task Force Finding and Rationale Statement

### Intervention Definition

One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screening with the goal of informing, encouraging, and motivating them to seek recommended screening. These messages are delivered by healthcare workers or other health professionals, lay health advisors, or volunteers, and are conducted by telephone or in person in medical, community, worksite, or household settings.

These interventions can be untailed to address the overall target population or tailored with the intent to reach one specific person, based on characteristics unique to that person, related to the outcome of interest, and derived from an individual assessment. One-on-one education is often accompanied by supporting materials delivered via small media (e.g., brochures), and may also involve client reminders.

### Task Force Finding (March 2010)

The Community Preventive Services Task Force recommends the use of one-on-one education to increase screening for breast and cervical cancers on the basis of strong evidence of effectiveness. The Task Force also recommends the use of one-on-one education to increase colorectal cancer screening with fecal occult blood testing based on sufficient evidence of effectiveness. Evidence is insufficient, however, to determine the effectiveness of one-on-one education in increasing colorectal cancer screening with other tests, because only two qualifying studies assessed colonoscopy with inconsistent results, and only one qualifying study for assessed flexible sigmoidoscopy (which found no effect).

### Rationale

The Task Force finding is based on an update of a previous review. The Task Force reaffirmed the previous finding of strong evidence of effectiveness for one-on-one education interventions to increase breast cancer screening because results for studies identified in the update interval were comparable to those included in the original review. The previous finding of strong evidence of effectiveness for cervical cancer screening also was unchanged, given that no new studies of one-on-one education interventions examining cervical cancer screening outcomes were identified.

For colorectal cancer screening, the Task Force revised the finding for one-on-one education interventions for screening with fecal occult blood testing (FOBT) based on the results of three new studies combined with the two studies identified for the prior review. These five studies showed sizeable and consistently positive effects on FOBT screening (median increase in colorectal cancer screening with FOBT of 19.1 percentage points; IQI 12.9 to 25.1 percentage points). For colorectal screening with flexible sigmoidoscopy or colonoscopy however, there remains insufficient evidence to determine effectiveness because results of the two studies that assessed colonoscopy were inconsistent, and the one study that assessed flexible sigmoidoscopy found no effect.

For breast cancer, evidence across the entire body of studies reviewed as well as within multi-arm trials that explicitly compare tailored and untailed interventions (n=3 studies from the original review), suggests an increased effect of tailored one-on-one education interventions. However, questions remain about the most pertinent mediators of this effect (such as the intensity of the intervention or the type of deliverer), whether or not some populations may particularly benefit from tailored interventions, and to what extent the specific variables upon which tailoring should be based vary among different populations. More research in these areas is needed to address these questions. Evidence about any differences in effectiveness for tailored and untailed interventions for cervical and colorectal cancer

screening was limited because too few studies provided this type of information. These conclusions about the effectiveness of tailored vs. not explicitly tailored interventions pertain to one-on-one education only and do not necessarily apply to tailoring of other cancer screening interventions which may be inherently less individualized.

The review also found some evidence of an incremental benefit from implementing a one-on-one education component as part of a multicomponent intervention that includes other approaches to increasing cancer screening. Decisions about when to use such a multicomponent approach, and which specific combinations of interventions to implement, should be based on careful consideration of the specific characteristics of the target population and of the most important barriers to screening.

Findings for breast, cervical, and colorectal cancer screening (with FOBT) should apply across a range of settings and populations, provided the interventions are adapted to the target populations and delivery context. Although the interventions varied in the content of the education, the delivery approach (e.g., telephone vs. in-person), and the deliverer (e.g., medical professionals versus other educators), no clear differential effects were noted for these variables. This was due at least in part to the few numbers of studies available to examine such differences.

No other benefits and no harms of one-on-one education were identified in the reviewed literature. Furthermore, no significant barriers were identified beyond the need for resources to implement such interventions. One study, however, reported that in-person education may be more difficult to implement in rural settings due to distance and transportation needs, so alternative approaches may be more feasible in these settings.

## Publications

Sabatino SA, Lawrence B, Elder R, Mercer SL, Wilson KM, DeVinney B, Melillo S, Carvalho M, Taplin S, Bastani R, Rimer BK, Vernon SW, Melvin CL, Taylor V, Fernandez M, Glanz K, Community Preventive Services Task Force. Effectiveness of interventions to increase screening for breast, cervical, and colorectal cancers: nine updated systematic reviews for The Guide to Community Preventive Services. *Am J Prev Med* 2012;43(1):765-86.

Community Preventive Services Task Force. Updated recommendations for client- and provider-oriented interventions to increase breast, cervical, and colorectal cancer screening. *Am J Prev Med* 2012;43(1):760-4.

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## 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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