
How Not to Get Lost in Translation

Implementing the Recommendations and Identifying Research Gaps

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Introduction

This supplement to the *American Journal of Preventive Medicine* reports on a series of systematic evidence reviews and presents recommendations¹ for interventions designed to increase demand for, access to, and provider referral and delivery of screening for breast, cervical, and colorectal cancer. Three types of strategies are recommended to *increase community demand for screening*: client reminders; small media (e.g., printed materials and videos); and one-on-one education provided in person or by telephone. To *increase community access*, reducing structural barriers and reducing out-of-pocket costs are recommended; and provider assessment and feedback are recommended to *increase provider referral and delivery*. The evidence reviews found insufficient evidence to recommend mass media alone, group education, and client or provider incentives.

These reviews complement systematic evidence reviews published by the U.S. Preventive Services Task Force (USPSTF) in 2002 and 2003.² The USPSTF reviews the evidence for efficacy of clinical preventive services; in the case of cancer screening, the focus is on the reduction of mortality from cancer, as a result of detecting cancer in an early stage when it is most curable. The Task Force on Community Preventive Services (the Task Force) conducted reviews of studies that focus on interventions to increase the uptake of screening and its delivery in healthcare systems.¹ The distinction between the work of the USPSTF and the Task Force is important, yet it may seem subtle to many readers, as both expert panels produce *evidence reviews*. The present reviews address *how efficacious screening services can be effectively implemented* to benefit communities and populations.

The value of this set of systematic reviews and the resulting recommendations of the Task Force will be realized in two complementary activities: (1) adoption of effective interventions in communities and health

care practice, and (2) stimulating research to fill gaps identified in the review and to evaluate additional interventions in new contexts. This Commentary highlights these two types of next steps, and offers examples of dilemmas and issues warranting attention.

Translating Evidence-Based Recommendations into Practice

Translation of research findings into practice is now a major investment of federal health research agencies. While “bench to bedside” translational research (or Type-1 translation) gains momentum, it is Type-2 translation that concerns prevention researchers and public health workers. Type-2 translation aims to enhance adoption of effective programs and practices in communities.³ This needs to be done with sufficient fidelity to assure the success of evidence-based strategies outside controlled research environments, and with an eye toward long-term sustainability or institutionalization. We need to be sure that effective interventions do not get lost in translation, and offer three examples from our work as practice-oriented community health researchers.

Reducing Health Disparities: Are Evidence-Based Strategies Being Used?

The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) aims to meet the needs of low-income, uninsured women for mammography and cervical cancer screening.⁴ A new federally funded demonstration program was recently begun to encourage colorectal cancer screening in low-income, uninsured men and women.⁵ The NBCCEDP reaches hundreds of thousands of women each year, but still serves only a small proportion of those who are eligible.⁴ This type of program is an ideal opportunity to use evidence-based strategies to reduce health disparities, but there are important obstacles to surmount. One is the issue of capacity of the programs to deliver screening, and another involves how to institutionalize the use of evidence-based and efficient strategies. Both these issues will continue to challenge the NBCCEDP and developing colorectal cancer screening programs.

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Developing Comprehensive Community-Based Approaches to Increase CRC Screening Using Evidence-Based Strategies—An Exemplary Program in Progress

Comprehensive approaches that implement multiple proven intervention strategies that are mutually reinforcing have been shown to effectively accelerate the adoption and sustainability of single evidence-based interventions and to increase the likelihood of their impact on populations. For example, comprehensive tobacco prevention and control programs that include pricing policies, enforcement of laws to restrict minors' access to tobacco, support for cessation counseling and pharmacotherapy, tobacco-free environments, small and mass media, and system supports have been recommended⁶ and, where implemented with fidelity, proven successful.⁷ The currently recommended menu of strategies for improving breast, colorectal and cervical cancer screening is a good fit with this type of approach.

Researchers at University of North Carolina–Chapel Hill have received funding from National Cancer Institute (NCI) to undertake a community-based participatory research project to improve colorectal cancer screening that includes: (1) interventions to reduce structural barriers to participation in colorectal cancer screening among minority and uninsured adults over the age of 50; and (2) community-built coalitions, or “CRC (colorectal cancer) Safety Nets,” committed to ensuring guideline-compliant, community-wide, coordinated fecal occult blood test (FOBT) distribution, collection and results notification and access to appropriate follow-up of abnormal test results regardless of ability to pay. As part of the intervention, proven approaches such as one-on-one counseling on the need for colorectal cancer screening, provider assessment and feedback, reducing out-of-pocket costs and removing structural barriers to colorectal cancer screening are being implemented to address real and perceived barriers to colorectal cancer screening, safety net construction and participation. Evaluation of the implementation of this comprehensive approach includes assessing feasibility and operational aspects of implementing a CRC Safety Net and a formative evaluation of participant perceptions about their participation in the program and the use of FOBT. By demonstrating that it is possible to expand participation in screening and build system capacity, this project aims to increase consumer demand for, and community access to, colorectal cancer screening, to improve service quality from the viewpoint of both provider and patient and in the long term, to reduce colorectal cancer incidence and mortality.

Sustainability of Intervention Systems

Sustainability is a critical challenge in translating evidence-based interventions (EBI) into practice. Implementation requires at a minimum, coordination among a

network of participants, and as an ideal, full collaboration. If we are to expect full implementation of EBI, we need to assess system capacity for delivery of the EBI, including resources, partnership potential and readiness for change. Without this nod to sustainability and concurrent development of mutually leveraged partnerships, we will not achieve sustainable support systems to increase rates of adoption.

Research Gaps and Issues: Context and Changing Times

The large volume of cancer screening research summarized in these evidence reviews points the way toward the next generation of applied cancer screening research. Here we highlight two issues that warrant special attention as the research continues to evolve: research context and generalizability, and the changing times.

Research Context and Generalizing Across Screening Types and Settings

The systematic reviews in this supplement are based on careful examination of many individual studies and draw conclusions for various categories of interventions and three types of cancer screening (breast, cervical, colorectal). However, placing evidence-based interventions in context requires looking beyond the domain of screening for a specific type of cancer to see how these interventions have been used, and to what effect, for other health issues.⁸ Interpretation of the evidence can be obscured by an (unproven) assumption that findings are only applicable within the limited setting where research was conducted, and only for the cancer type that was studied.

Examples of strategies that have been evaluated for many health concerns include reminders, outreach visits to clinicians, and provider assessment and feedback. A metric for assessing when the weight of evidence for these interventions exists across health issues should be sufficient for recommending: (1) that they be undertaken for any cancer, whether tested for that cancer or not, (2) that they be incorporated into comprehensive approaches to cancer screening and (3) that efficacy trials of these single interventions either be curtailed or justified on the basis of some inherent or theoretical reason for suspecting that they might not work in a specific instance.

The Times Are Changing

The primary literature included in this set of systematic reviews covers more than three decades, up to November 2004. During the time period of the research included, there were dramatic changes in medical technology, screening-related health policy, and public

attitudes toward cancer and its early detection. More changes are unfolding each year.⁵ The lack of evidence for CRC screening modalities other than FOBT is a clear gap. We suggest that the evidence be re-examined through 2008 in the near future. Further research on screening promotion interventions has been published since 2004. New research in a wide range of settings is in progress, especially to encourage CRC screening.⁹

Thus, it is important that this excellent collection of systematic reviews be taken as a beacon to translate accumulated evidence into community practice and a call to action for continuing research and updating the literature. With this combination of activities and collaborations across interest groups, cancer screening will achieve its promise of saving lives and reducing suffering.

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