

Increasing Appropriate Vaccination: Provider Education When Used Alone

Task Force Finding and Rationale Statement

Intervention Definition

Provider education when used alone aims to increase providers' knowledge or change their attitudes about vaccinations. Techniques by which information is delivered can include: written materials, videos, lectures, continuing medical education programs, computer-assisted instruction, and distance-based training.

Task Force Finding (May 2015)

The Community Preventive Services Task Force finds insufficient evidence to determine the effectiveness of provider education interventions when implemented alone in improving vaccination rates or reducing vaccine-preventable illness. Evidence is considered insufficient because the six identified studies observed changes in vaccination rates that were both small in magnitude and inconsistent.

Rationale

Basis of Finding

This Task Force finding is based on evidence from a Community Guide systematic review completed in 2010 (5 studies with 6 study arms, search period 1980-2009) combined with more recent evidence (1 study, search period 2009-2012). Based on the combined evidence, the Task Force reaffirms its finding of insufficient effectiveness.

The Task Force review included six studies that provided seven measurements of change in vaccination rates. The overall median absolute increase in vaccination rates was 4 percentage points (interquartile interval: 2 to 4 percentage points), however none of the study effect estimates were statistically significant, and results were inconsistent across the small body of evidence.

Other Benefits and Harms

The Task Force identified no specific evidence on benefits or harms of provider education interventions.

Considerations of Implementation

The Task Force identified, but did not consider in this review, an emerging body of evidence on the education of vaccination providers on the process of quality improvement. Education about quality improvement with the goal of reducing missed opportunities for vaccination and increasing vaccination rates was considered as a distinct intervention from provider education focused on vaccines and vaccinations.

Provider education can be one component of an effective, combined approach to increase vaccination rates. Based on strong evidence of effectiveness identified in updated reviews, the Task Force recommends [health care system-based interventions implemented in combination](#) and [community-based interventions implemented in combination](#).

Evidence Gaps

Despite the common and continued use of provider education interventions alone, there are few published studies on their effectiveness.

One potential area for continued intervention research is provider education regarding new vaccines and expanded recommendations for specific vaccinations. As vaccine recommendations and schedules from the Advisory Committee on Immunization Practices continue to evolve, the potential effectiveness of provider education in increasing or improving the implementation of new recommendations warrants continued research.

None of the included studies assessed the effectiveness of provider education through distance-based training. Newer educational approaches might increase opportunities for vaccination providers to both share and learn from the experiences of peers and experts in the field.

The data presented here are preliminary and are subject to change as the systematic review goes through the scientific peer review process.

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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