

Increasing Appropriate Vaccination: Community-Wide Education When Used Alone (2010 Archived Review)

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Review Summary

Intervention Definition

Community-wide education provides information to most or all of a target population in a geographic area. Information is disseminated with the goal of informing, encouraging, and motivating individuals to seek recommended vaccinations. Content generally focuses on vaccination risks and benefits, as well as where and when vaccinations can be obtained.

Approaches may include:

- Person-to-person interactions
- Community mobilization
- Mass or small media

These interventions may also provide information to vaccination providers in the community.

Summary of Task Force Recommendations and Findings

The Community Preventive Services Task Force concludes there is insufficient evidence to determine the effectiveness of community-wide education when implemented alone in increasing vaccination rates or reducing rates of vaccine preventable illness.

Evidence is considered to be insufficient because the included studies demonstrate inconsistent results. The Task Force finding also reflects concerns about the applicability of evidence from the study communities to the broader range of communities in the United States where improvements in vaccination rates are needed.

Community-wide education is commonly implemented in combination with additional interventions. Based on a separate review, the Task Force found strong evidence of effectiveness for community-based interventions implemented in combination to increase vaccination rates. This recommendation provides guidance on ways to implement community-wide education in combination with other interventions.

Results from the Systematic Review

The Task Force finding is based on evidence from a Community Guide systematic review published in 2000 (search period 1980-1997) combined with more recent evidence (search period 1997-2009). The systematic review was conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice, and policy related to increasing appropriate vaccination. This finding updates and replaces the previous Task Force finding on Community-Wide Education When Used Alone.

Six studies qualified for this review (one from the previous review and five from the more recent search). Most of the evaluated interventions used more than one strategy to deliver educational messages (such as large and small media with community mobilization). Three of the included studies were conducted outside the United States (Finland, Australia, and Switzerland), and four focused on vaccinations for adults.

Across the studies, results were inconsistent.

- Overall vaccination rates: median increase of 6 percentage points (range: 0.4 to 12.2 percentage points; 4 studies, 6 study arms).

- Evaluations of mass media campaigns also showed improvements in vaccination rates but the studies used different measures (2 studies).
- The two most effective interventions were conducted in urban immigrant communities with unique characteristics and may not be generalizable to a broader range of communities.

Economic Evidence

An economic review of this intervention was not conducted because the Task Force did not have enough information to determine if the intervention works.

Task Force Finding and Rationale Statement

Intervention Definition

Community-wide education provides information to most or all of a target population in a geographic area. Information is disseminated with the goal of informing, encouraging, and motivating individuals to seek recommended vaccinations. Content generally focuses on vaccination risks and benefits, as well as where and when vaccinations can be obtained. Approaches may include person-to-person interactions, community mobilization, and mass or small media. These interventions may also provide information to vaccination providers in the community.

Task Force Finding (March 2010)

The Community Preventive Services Task Force concludes there is insufficient evidence to determine the effectiveness of community-wide education when implemented alone in increasing vaccination rates or reducing rates of vaccine preventable illness. Evidence is considered to be insufficient because the included studies demonstrate inconsistent results. The Task Force finding also reflects concerns about the applicability of evidence from the study communities to the broader range of communities in the United States where improvements in vaccination rates are needed.

Rationale

Based on the results of this systematic review update, the Task Force finding remains unchanged in 2010. Although six studies were included in this updated review, the evidence on effectiveness remains insufficient to determine whether or not these interventions, when implemented alone, are an effective strategy for most communities.

The Task Force considered evidence from six studies with eight study arms. Among the studies providing a common measure of change in vaccination rates (4 studies with six arms) the median absolute change was an increase of 6 percentage points (range of values: 0.4 percentage points to 12.2 percentage points). In the other two studies, mass media activities were evaluated. In a targeted community in Australia, pneumococcal vaccines dispatched to service providers increased over the period of a mass media campaign, while in Finland, a mass media campaign briefly increased MMR vaccine receipt for children 6 years of age, but not for younger children.

One U.S. study observed moderate increases in vaccination rates for hepatitis B vaccine following intensive community-wide educational efforts in two Vietnamese-American communities. Characteristics of these study communities which may have contributed to the effectiveness of the intervention include: (1) popular Vietnamese-language media, (2) established Vietnamese service organizations, and (3) culturally appropriate strategies and materials.

The Task Force identified no evidence on additional benefits, potential harms, or barriers to the implementation of these interventions.

Community-wide education is commonly implemented in combination with additional interventions (such as efforts to expand and enhance access to vaccinations) to increase vaccination rates and reduce vaccine-preventable diseases. In another review, the Task Force found strong evidence of effectiveness for community-based interventions implemented in combination to increase vaccination rates. Five of the included studies for this review involved community-wide education in the combination of interventions. Although the Task Force found insufficient evidence to determine the effectiveness of community-wide education as a standalone intervention, their recommendation of community-based interventions implemented in combination provides guidance to program planners and decision makers on alternative ways of implementing an effective set of interventions that includes community-wide education.

Although the Task Force considers the available evidence as insufficient to determine the effectiveness of community-wide education when implemented alone, one study suggests that these interventions may be considered for some communities. The Task Force considers the applicability of these approaches to other communities, and for other vaccines, as important questions for future research.

The Task Force acknowledges an important role for mass media (and the potential role of new media such as Twitter©) in disseminating information to large audiences and in shaping public attitudes and behaviors. The Task Force notes the increasing use of promotional campaigns (including direct-to-consumer mass and small media advertising) by vaccine manufacturers for new vaccines. Although incorporating the limited available evidence on impact of private sector marketing campaigns on vaccine uptake was beyond the scope of this review, the Task Force considered the applicability of marketing experiences to public health efforts to improve vaccination rates in communities. Community-wide educational efforts may have greater impact when used to inform members of the community about new vaccines (such as HPV), or new recommendations (such as the universal recommendation for seasonal influenza), and in situations of public health urgency (such as the H1N1 pandemic). The effectiveness of community-wide education to increase vaccination rates in these circumstances remains an important issue for further evaluation research.

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.

Document last updated April 19, 2016