

# Increasing Appropriate Vaccination: Provider Reminders (2008 Archived Review)

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## Review Summary

### Intervention Definition

Provider reminder interventions inform those who administer vaccinations that individual clients are due for specific vaccinations. Techniques by which reminders are delivered vary, but can include notes prepared in advance and posted in client charts, alerts in electronic medical records, and letters sent by mail.

### Summary of Task Force Recommendations and Findings

The Community Preventive Services Task Force recommends provider reminder interventions based on strong evidence of effectiveness in improving vaccination coverage:

- In adults, adolescents, and children
- When used alone or with additional components
- Across a range of intervention characteristics (e.g., computerized or simple reminders, checklists or flowcharts)
- In a range of settings and populations

### Results of the Original and Updated Systematic Reviews

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.

### Previous Review (search period 1980–1997)

Twenty-nine intervention studies qualified for the systematic review.

- Vaccination coverage: median increase of 16 percentage points (29 studies)

### Updated Evidence (search period 1997–2007)

Nineteen additional studies were identified in the search period considered in this update. Of these, 15 studies provided common measurements of change in vaccination rates or coverage.

- Median increase in vaccination coverage:
  - Overall: 10 percentage points (15 studies)
  - Provider reminders alone: 12 percentage points (5 studies)
  - Provider reminders with additional components: 10 percentage points (10 studies)
- Reviewed studies evaluated the effectiveness of provider reminders in a range of different client and provider populations, healthcare settings, and for different vaccines.

## Task Force Finding and Rationale Statement

### Intervention Definition

Provider reminder interventions inform those who administer vaccinations that individual clients are due for specific vaccinations. Techniques by which reminders are delivered vary, but can include notes prepared in advance and posted in client charts, alerts in electronic medical records, and letters sent by mail.

### Task Force Finding (June 2008)

Provider reminders are recommended on the basis of strong evidence of effectiveness in improving vaccination coverage: (1) in adults, adolescents and children; (2) when used alone or with additional components; (3) across a range of intervention characteristics (e.g., computerized or simple reminders, checklists or flowcharts); and (4) in a range of settings and populations.

### Rationale

In 1997, the Task Force found strong evidence of effectiveness for provider reminders. Based on the findings of this 2007 update, the Task Force reaffirms their original recommendation.

Our previous review (search period 1980–1997) included 36 study arms from 29 studies with a median absolute increase in vaccination coverage of 16 percentage points (interquartile interval [IQI]: 8 to 27 percentage points). Twenty-one study arms evaluated provider reminders when implemented alone (median absolute increase of 17 percentage points), and 15 study arms examined provider reminders with additional components (median absolute increase of 16 percentage points).

The updated review (search period 1997–2007) identified 19 additional studies. Fifteen studies provided a measurement of change in vaccination coverage, with an overall median absolute increase of 10 percentage points (IQI: 6 to 24 percentage points). Five studies examined provider reminders alone with a median absolute increase of 12 percentage points (range: 1 percentage point to 38 percentage points). Ten studies examined the impact of provider reminders with additional components and observed an absolute median increase of 10 percentage points (IQI: 6 to 16 percentage points).

The reviewed studies evaluated the effectiveness of provider reminders in a range of client and provider populations and settings.

No evidence of harms regarding the use of provider reminders was identified in either the 1997 or 2007 review.

The 2007 review indicated that provider reminders remain an effective option for consideration in a wide range of clinical settings and populations. A subset of the included evidence, however, suggests that standing orders may be more effective in improving vaccination rates in both inpatient and outpatient settings than a provider reminder system.

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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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