

# Increasing Appropriate Vaccination: Client Reminder and Recall Systems

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## Task Force Finding and Rationale Statement

### Intervention Definition

Client reminder and recall interventions are used to remind members of a target population that vaccinations are due (reminders) or late (recall). Reminders and recalls differ in content and are delivered by various methods—telephone, letter, postcard, text messages, or other. Most reminder and recall notices are tailored for individual clients, and many are accompanied by educational messages about the importance of vaccination.

### Task Force Finding (May 2015)

The Community Preventive Services Task Force recommends client reminder and recall interventions based on strong evidence of effectiveness in improving vaccination rates: (1) in children, adolescents and adults; (2) in a range of settings and populations; (3) when applied at different levels of scale—from individual practice settings to entire communities; (4) across a range of intervention characteristics (e.g., reminder or recall, content, theoretical basis and method of delivery); and (5) whether used alone or with additional components.

### Rationale

#### Basis of Finding

This Task Force finding is based on evidence from a Community Guide systematic review completed in 2008 (19 studies, search period 1997-2007) combined with more recent evidence (10 studies, search period 2007-2012). Based on the combined evidence, the Task Force reaffirms its recommendation based on strong evidence of effectiveness.

Included studies showed vaccination rates increased by a median of 11 percentage points (interquartile interval [IQI]: 4 to 17 percentage points). Client reminder and recall interventions used alone resulted in a median increase of 6 percentage points (IQI: 3 to 13 percentage points; 14 studies), and interventions implemented with additional components led to a median increase of 12 percentage points (IQI: 10 to 30 percentage points; 15 studies).

#### Applicability and Generalizability Issues

The included studies evaluated the effectiveness of client reminder and recall interventions for a wide range of client and provider populations, settings, vaccinations and delivery methods. Based on the evidence, the Task Force finding should be broadly applicable to all patient populations, in both clinical and community settings, and for the range of vaccines and delivery methods.

#### Other Benefits and Harms

Client reminder and recall systems can be used for both vaccination and additional preventive care notices. No harms of the intervention were identified in the included studies or broader literature.

#### Economic Evidence

The economic review included 24 studies of client reminder and recall systems to increase vaccination rates (search period 1980 – 2012). One study each was from Denmark, New Zealand, and the U.K, three came from Canada, and the remaining studies were based in the United States. The vaccines covered were: influenza (8 studies),

influenza/pneumococcal (1 study), pneumococcal (1 study), DTP/DTaP (1 study), MMR (2 studies), tetanus (2 studies), and various childhood series (9 studies). All monetary values are presented in 2013 U.S. dollars.

The median size of intervention group was 654 (IQR: 273 to 5669, 23 studies). Interventions were implemented at a median cost per person per year of \$2.13 (IQR: \$0.96 to \$8, 23 studies) and achieved a median cost per additional person vaccinated of \$15 (IQR: \$8 to \$184, 22 studies). Evidence indicates that client reminder and recall systems can be an effective strategy to reach a large number of clients and achieve vaccinations with relatively few economic resources.

### **Considerations for Implementation**

Client reminder and recall systems can also be important, effective components of combined approaches to increase vaccination rates. Based on updated, concurrent reviews, the Task Force finds strong evidence to recommend health care system-based interventions implemented in combination and community-based interventions implemented in combination. Immunization information systems, which can also generate client reminder or recall notices provide an additional implementation option.

### **Evidence Gaps**

More research is needed on effective implementation, sustainability, and expansion of reminder and recall interventions. Future research should also examine the effectiveness of reminder and recall notices using emerging communication technologies (i.e. text message, email). Additional studies should also examine the effectiveness of client reminder and recall interventions on adolescent vaccines such as the human papilloma virus (HPV).

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

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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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