

FACT SHEET | MARCH 2019

[*Translated and adapted from ORS PACA]

EVIDENCE-BASED INTERVENTIONS TO ENHANCE VACCINATION RATES

Community-based interventions

Reminder and recall systems for clients

LEVEL OF EVIDENCE	
Strong evidence of effectiveness in increasing vaccination rates	
Moderate evidence of effectiveness in increasing vaccination rates	
Insufficient evidence of effectiveness in increasing vaccination rates	
Strong evidence of ineffectiveness in increasing vaccination rates	

Reminder and recall systems for clients are used to remind a target group to get vaccinated when vaccines are due (reminder) or overdue (recall). Reminder and recall systems may include messages with different content and may use different modes of communication (telephone, mail, SMS...). Messages are most often personalized and include health-promotion information that reminds people of the importance of getting vaccinated (Community Preventive Services Task Force 2015). Reminder and recall systems for clients have been implemented in different settings (rural/urban areas, etc.) and by different actors in public and private health (Jacobson et al. 2005). Information systems or vaccination registries (databases recording the entirety of vaccinations administered to patients included in the system) may be mobilized for these interventions (Groom et al. 2015).

Expected impact

Increase in vaccination rates.

Other possible impacts

There is not enough information on this question in the literature.

Review of evidence

Overview

The effectiveness of reminder and recall systems for clients in increasing vaccination rates is supported by strong scientific evidence. This evidence comes from several systematic literature reviews (Jacobson et al. 2005; Odone et al. 2015; Groom et al. 2015; Briss et al. 2000; Dubé et al. 2015a; Harvey et al. 2015; Thomas & Lorenzetti 2014). A literature review found an average percentage point change in vaccination rates of at least 6% in half of 13 studies included (Groom et al. 2015).

Effectiveness according to population subsets and vaccines

Reminder and recall systems for clients have been shown to be effective for different population groups and for different vaccines: for children (Jacobson et al. 2005; Harvey et al. 2015; Williams et al. 2011), for adults (for influenza vaccine as well as for other vaccines) (Jacobson et al. 2005), and for influenza vaccines for senior citizens (Thomas & Lorenzetti 2014).

Data from the literature is insufficient to support conclusions about the effectiveness of this measure for teenagers (Jacobson et al. 2005) and vaccine-hesitant patients or parents (Dubé et al. 2015). Results from a British study suggest that reminders by mail can be effective in increasing uptake of the measles, mumps and rubella vaccine during measles outbreaks in regions with low uptake. In this context, reminders seem to have enhanced uptake for the second dose of the vaccine, but appear to have had little impact on the first dose for older children (Le Menach et al. 2014).

Effectiveness according to means of intervention

With regards to different reminder techniques, strong scientific evidence exists for phone calls (Jacobson et al. 2005; Harvey et al. 2015) and letters or cards sent by mail (Jacobson et al. 2005; Harvey et al. 2015). For senior citizens, sending a reminder by mail, accompanied by a pamphlet, seems more effective than sending only a letter (Thomas & Lorenzetti 2014). Data in the literature is insufficient to assess the effectiveness of reminders by SMS due to a limited number of studies and contradictory results (Hofstetter et al. 2015; Niederhauser et al. 2015; Herrett et al. 2016; Odone et al. 2015).

Literature reviews show that multiple reminders are more effective than a sole reminder (Jacobson Vann & Szilagyi 2005; Briss et al. 2000). The combination of reminders/recalls to clients and reminders/recalls to providers seems also to increase the effectiveness of this measure (Jacobson et al. 2005).

Cost-effectiveness questions

Reminder and recall systems for clients are among the least costly interventions for increasing vaccination rates, in terms of cost per additional vaccinated person (Jacob et al. 2016).

Impact on inequalities

Limited scientific evidence is available regarding the impact of reminder and recall systems for clients on social inequalities. One systematic literature review has shown promising results regarding the impact of reminders by SMS, mail or telephone in reducing social inequalities in vaccination (Crocker-Buque et al. 2017).

Example

In Quebec, Canada, the implementation of a reminder/recall system for providers who administer vaccines was among the priorities included in the provincial Vaccination Promotional Plan. It plans the implementation of the reminder/recall system at the local level within health centres and medical clinics, based on a dedicated information system (Institut national de santé publique du Québec 2010).

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This study's objectives were to help actors and decision-makers identify their territory's strengths and weaknesses with the help of synthetic indicators on the state of health and its determinants (available in SIRSéPACA) and to go from observation to action, through guiding them in the choice of actions to put in place. This study built on the American experience, *County Health Rankings and Roadmaps* (www.countyhealthrankings.org).

On the choice of actions to implement, bibliographic research was undertaken using different databases (Cochrane Library, Health Evidence, The Community Guide, Medline...). This permitted the identification of three main types of interventions (interventions to increase community demand for vaccination, to enhance access to vaccine services or provider-based interventions). The effectiveness of these interventions was evaluated in accordance with the number, type and methodological quality of studies available, as well as the breadth and coherence of the results (Briss P et al. *Developing an evidence-based Guide to Community Preventive Services-methods*. Am J Prev Med 2000;18(1S):35-43).

Ten themed fact sheets oriented to the principal types of interventions in the field of vaccination were written. All documents are available on the website of the System of Regional Health Information PACA (www.sirsepaca.org).

TYPE OF INTERVENTIONS	FACT SHEETS
Interventions to increase community demand for vaccination	Client-based written education interventions when used alone Person-to-person interactions Mass media campaigns Multicomponent interventions with at least one education / information component Client incentives and rewards Reminder and recall systems for clients
Interventions to enhance access to vaccine services	Home visits
Provider-based interventions	Reminder and recall systems for providers Audit and feedback Standing orders

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