



Can communication interventions improve childhood vaccination uptake and what are the implications for health systems? Findings from two systematic reviews

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Scope of the COMMVAC reviews



To INFORM or EDUCATE:

Make people aware of the logistics, meaning and relevance of vaccination

REVIEW 1

Delivery mechanism: FACE TO FACE interventions

- Are interactive and adaptable
- Allow for two-way dialogue
- May be particularly useful for people with low literacy levels

Directed at PARENTS / CAREGIVERS

Target parents who do not know why vaccination is important, do not understand how, where or when to get their children vaccinated, disagree with vaccination as a public health measure, or have concerns about vaccine safety

REVIEW 2

Delivery mechanisms: any, including printed materials; electronic media; large-scale media such as newspaper, and radio; face-to-face communication with groups of people

COMMUNITY directed:

- Interventions directed at a geographic area *or* directed to groups of people who share at least one common characteristic
- Targeted community members (the general public), including parents, community leaders etc.

REVIEW 1

Do face to face interventions for informing or educating parents improve childhood vaccination knowledge and uptake?

Results of a Cochrane systematic review

Studies



- Study design
 - 6 randomised controlled trials (RCTs) and 1 cluster RCT
- Settings
 - HIC: Australia (2 studies), Canada, United States
 - LMIC: Pakistan (2 studies), Nepal
 - Mix of home and clinic
- Children and vaccines
 - Children under 5 or 6 (school age)
 - Any WHO recommended routine early childhood vaccine (HPV excluded)
- Participants
 - 2978 participants across 7 studies
 - Groups or individual parents, expectant parents or other guardians
 - 3 studies targeted high-risk mothers (drug users, adolescents, low SES)
- Interventions
 - Face to face communication for parents to inform or educate about early childhood vaccination
 - Intervention not combined with any other intervention (e.g. reminders, improved access)
 - Mix of single and multi-session interventions

Outcomes



- Primary outcomes
 - Vaccination status of child (*measured by most studies*)
 - Parents' knowledge or understanding of vaccination (*measured by some studies*)
- Secondary outcomes
 - Parents' intention to vaccinate child (*measured by no studies*)
 - Parents' experience of the intervention (*measured by no studies*)
 - Cost of implementing the intervention (*measured by one study*)
 - Adverse effects of intervention (*measured by no studies*)

Summary of findings



Face to face strategies, compared to routine immunisation practices:

May lead to little or no difference in either immunisation rates or parent knowledge and understanding of vaccination. The evidence was low to very low quality for these outcomes.

Only one study measured cost

No studies measured other outcomes

- The results of this review are limited by the small number of included studies, small number of outcomes measured and problems with the way the researchers decided who should receive the intervention and with the way outcomes were assessed.



REVIEW 2

What are the effects of community-directed interventions for informing or educating about early childhood vaccination?

Results of a Cochrane systematic review

Methods – criteria for considering studies for the review



- Study types: RCTs, quasi-RCTs, ITS studies, CBAs
- Types of participants:
 - Interventions that targeted community members (the general public), including parents, caregivers, community leaders etc.
 - Excluded interventions that targeted individuals directly, and were not community directed
- Types of interventions:
 - Community-directed interventions intended to inform and/or educate about vaccination in children ≤ 6 years
- Outcomes:
 - Similar to other review
 - Primary: Knowledge or understanding of vaccination; vaccination status of child

Studies – 2 cluster RCTs identified



	Intervention	Comparison
cRCT, India (Pandey 2007)	Public meetings to disseminate information on health and education services to which households were entitled, and village governance requirements	No intervention (routine care)
cRCT, Pakistan (Andersson 2009)	Evidence based group discussions, including of the costs and benefits of childhood vaccination	Routine health education with health education alone.

Summary of findings



Community-directed interventions, compared to routine immunisation practices:

May improve knowledge of vaccination among participants, and their attitudes towards vaccination (1 study)

May lead to little or no difference in participants' involvement in decision making (1 study)

May lead to little or no difference in receipt of >1 vaccination, although the confidence interval includes an important increase (2 studies)

May improve the uptake of measles and DPT vaccines (2 studies)

Neither study assessed knowledge among participants of vaccine service delivery; participants' confidence in their vaccination decision; or adverse effects

Both studies included some data on the cost of the intervention

Relevance of the reviews for low- and middle-income countries



- The impacts of these interventions may differ for populations with low literacy rates or limited access to printed or online materials.
- The absolute effects of these interventions in a particular setting will depend on baseline vaccination rates
- In areas with scarce resources, these interventions could be incorporated into other health promotion activities rather than implemented as ‘stand-alone’ activities
- Further studies measuring knowledge as well as vaccine uptake should be done to clarify the pathways through which these different kinds of interventions to inform and educate work
- Further rigorous studies are also needed of other widely utilized community-directed interventions for vaccination communication, such as mass media

Further considerations



- Complex interventions such as these are challenging to evaluate in trials
- Variation (setting, interventions, populations, outcomes) makes evidence synthesis in this area difficult
- Core outcomes could streamline future research

References: 'face to face' review



SYSTEMATIC REVIEW

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References: 'community-directed' review



SYSTEMATIC REVIEW

Full review in preparation

Review protocol: Saeterdal I, Glenton C, Austvoll-Dahlgren A, Munabi-Babigumira S, Lewin S. Community-directed interventions for informing and/or educating about early childhood vaccination (Protocol). *Cochrane Database of Systematic Reviews* 2012, Issue 11. Art. No.: CD010232.

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