Community engagement interventions can improve immunisation outcomes

What is the aim of this systematic review?
This systematic review examines the effectiveness and cost-effectiveness of community engagement interventions on outcomes related to childhood immunisation in low- and middle-income countries. The studies included in this review are spread across 19 LMICs.

What is this review about?
Immunisation is one of the most cost-effective interventions to prevent and control life-threatening infectious diseases. Nonetheless, rates of routine vaccination of children in LMICs are strikingly low. This systematic review examines the effectiveness and cost-effectiveness of community engagement interventions on outcomes related to childhood immunisation in LMICs.

In this review, community engagement refers to engagement in the design and/or implementation of the intervention, and as the intervention itself (engagement is embedded).

The review also identifies contextual, design and implementation features that may be associated with effectiveness.

What studies are included?
The review synthesises evidence from 61 impact evaluations and 47 associated qualitative studies, as well as 69 project documents, across 19 countries. The cost-effectiveness synthesis is based on 14 of the 61 impact evaluations which have the required combination of cost and effectiveness data.

What are the main findings of this review?
Community engagement interventions have a small but significant positive effect on all primary immunisation outcomes related to coverage and their timeliness. Sensitivity analyses excluding high risk of bias studies showed that the effect was slightly larger and still statistically significant for almost all the primary outcomes. The effects were also uniform across geographies and baseline immunisation rates.

Among the different types of community engagement interventions, the review finds that engagement as the intervention (embedded community engagement), which involves creation...
of community buy-in or development of new community-based structures, had consistent positive effects on more primary vaccination coverage outcomes than the others.

Qualitative evidence indicates that appropriate intervention design – including building in community engagement features, addressing common contextual barriers of immunisation and leveraging facilitators, and accounting for existing implementation constraints and practicalities – are associated with intervention success.

The median intervention cost per treated child per vaccine dose (excluding the cost of vaccines) to increase absolute immunisation coverage by one percent was US$2.30.

What do the findings of this review mean?

Positive effects of these interventions can be expected across a variety of settings. Some engagement approaches appear to be more effective than others. The review provides evidence that features such as holding community dialogues or involving community leaders, and non-community engagement features such as local supportive supervision and incentives to healthcare workers or caregivers are effective strategies across a wide range of settings and should therefore be integrated into these interventions.

Wherever possible, contextual barriers to immunisation, such as social norms and weak health systems, should be accounted for in the design of interventions. Existing contextual facilitators for immunisation, such as good existing health systems or high maternal education, could be leveraged for increasing intervention impacts. Important implementation pre-conditions, such as regular internet service or sufficient staffing, should be assessed and established before implementation or addressed through the design itself. Close monitoring of intervention implementation along with a good understanding of context is important to help make modifications in case of unexpected challenges, such as political instability.

For improved understanding of causal mechanisms and resultant lessons, researchers should prioritise better reporting of interventions, more rounded analyses through mixed-methods evaluations of why the interventions worked, and greater focus on intermediate outcomes. Also, researchers should collect high-quality, comparable data on the cost of the intervention.