

Community engagement interventions for communicable disease control in low and lower-middle income countries: evidence from a review of systematic reviews

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Findings from the review helped to inform planning of a pilot 'community dialogue' project on antimicrobial resistance in Bangladesh.

BACKGROUND:

Infectious diseases remain a major contributor to death and disability across the globe, with a greater proportion of disease and economic burden occurring in low and lower-middle income countries (LLMIC). Progress has been made in the detection, treatment and prevention of key communicable diseases such as HIV, malaria and TB. However further work is required to meet the 2015-2030 Sustainable Development Goals (SDGs).

In the context of ID, the SDGs highlighted a need to act on emerging and neglected tropical diseases, as well as to facilitate equitable eradication of the more common infectious diseases through mechanisms such as increasing coverage of programmes to areas of poor healthcare access and to marginalised groups. The concept of 'leave no one behind' was also one of the key asks in preparation for the recent UN High Level Meeting on Universal Health Coverage.

In low and lower-middle income countries, community engagement initiatives have been described as 'critical enablers' in the response to communicable diseases (CDs). Such initiatives may be particularly important in settings where health systems are under-resourced, and the collective capacity of communities becomes a key resource in effecting behaviour change and delivering health outcomes. With regard to health equity, there is also some evidence to suggest CE may be effective in the prevention and management of CDC in marginalised groups.

However, community engagement is a complex topic, with many different delivery mechanisms and techniques; For example, 'community participation', community mobilisation' and 'community empowerment' may all be classed under the wider umbrella term of community engagement and the different concepts may have different degrees of effectiveness, in different contexts. This makes it potentially challenging for those wanting to design community engagement interventions in certain areas of communicable disease control.

We conducted an umbrella review of community engagement interventions for communicable disease control in low and lower-middle income countries to enable an overview of two large topics.

Key research questions

- Which community engagement approaches and techniques are used in communicable disease control in low and lower-middle income countries, and what is the effectiveness of these approaches?
- What are the [proposed] mechanisms by which community engagement interventions lead to improvements in communicable disease control and management?
- Which population and contextual factors influence the effectiveness of community engagement interventions for communicable disease control?

Methods

Umbrella review guidance was followed from the Joanna Briggs Institute and adapted for public health interventions. Databases were searched in 2017 to identify reviews from 2007 onwards. We included systematic reviews that: i) focussed on CE interventions; ii) involved adult community members; iii) included outcomes relevant to communicable diseases in low and lower-middle income countries. The CE interventions could be stand-alone or part of multi-component interventions and could be intended for child or adult health outcomes.

To screen studies for eligibility, we used two definitions of CE, which both had to be met:

- A) 'An umbrella term encompassing a continuum of approaches to engaging communities of place and/or interest in activities aimed at improving population health and/or reducing health inequalities' (Popay, 2006).
- b) 'The process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people' (CTSA, 2011).

Results were screened on abstract and full text by two reviewers. Data was extracted by a team of nine researchers, with two reviewers per full text review. Systematic review quality was assessed using the adapted DARE tool.

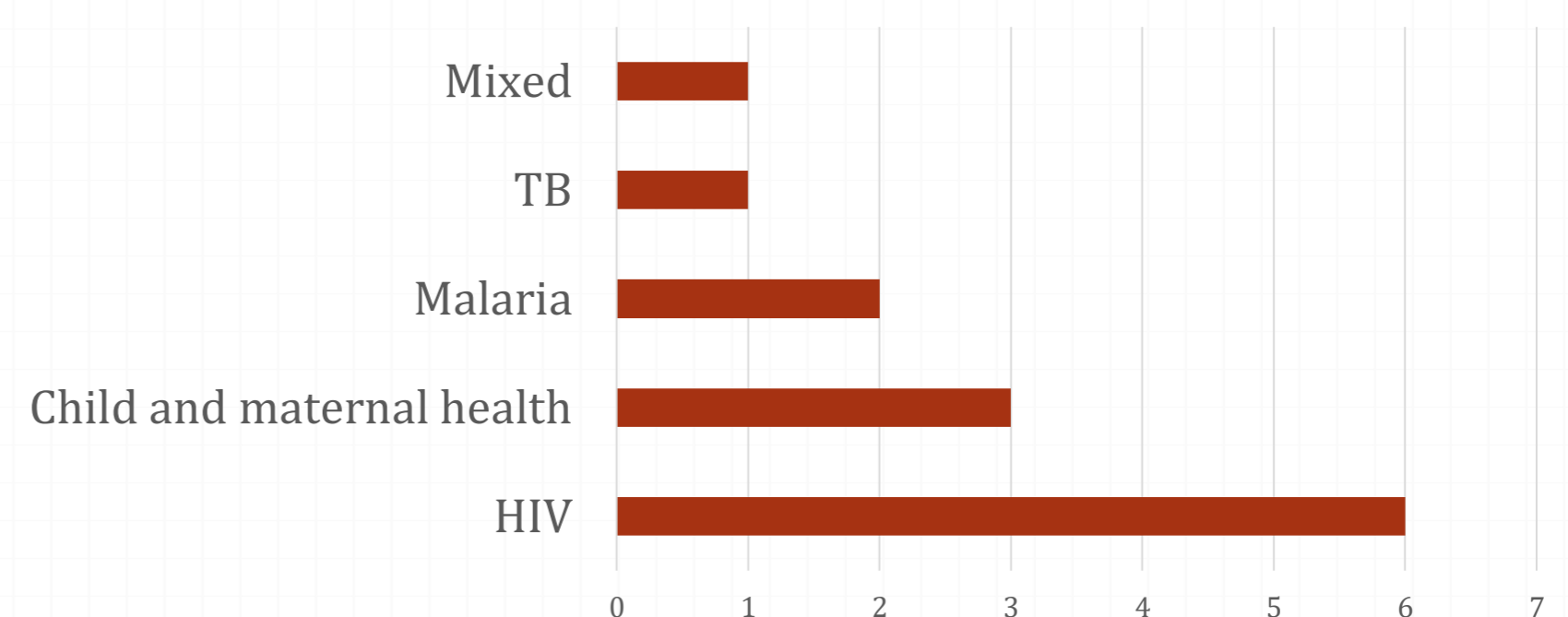
Due to the variety in review methods, quantitative results were extracted and synthesised narratively. A qualitative synthesis process enabled identification of mechanisms of effect and influencing factors. To structure our data extraction and synthesis of findings we used the MRC process evaluation model structure and definitions of intervention and implementation, mechanisms, outcomes and context.

Results

Review characteristics

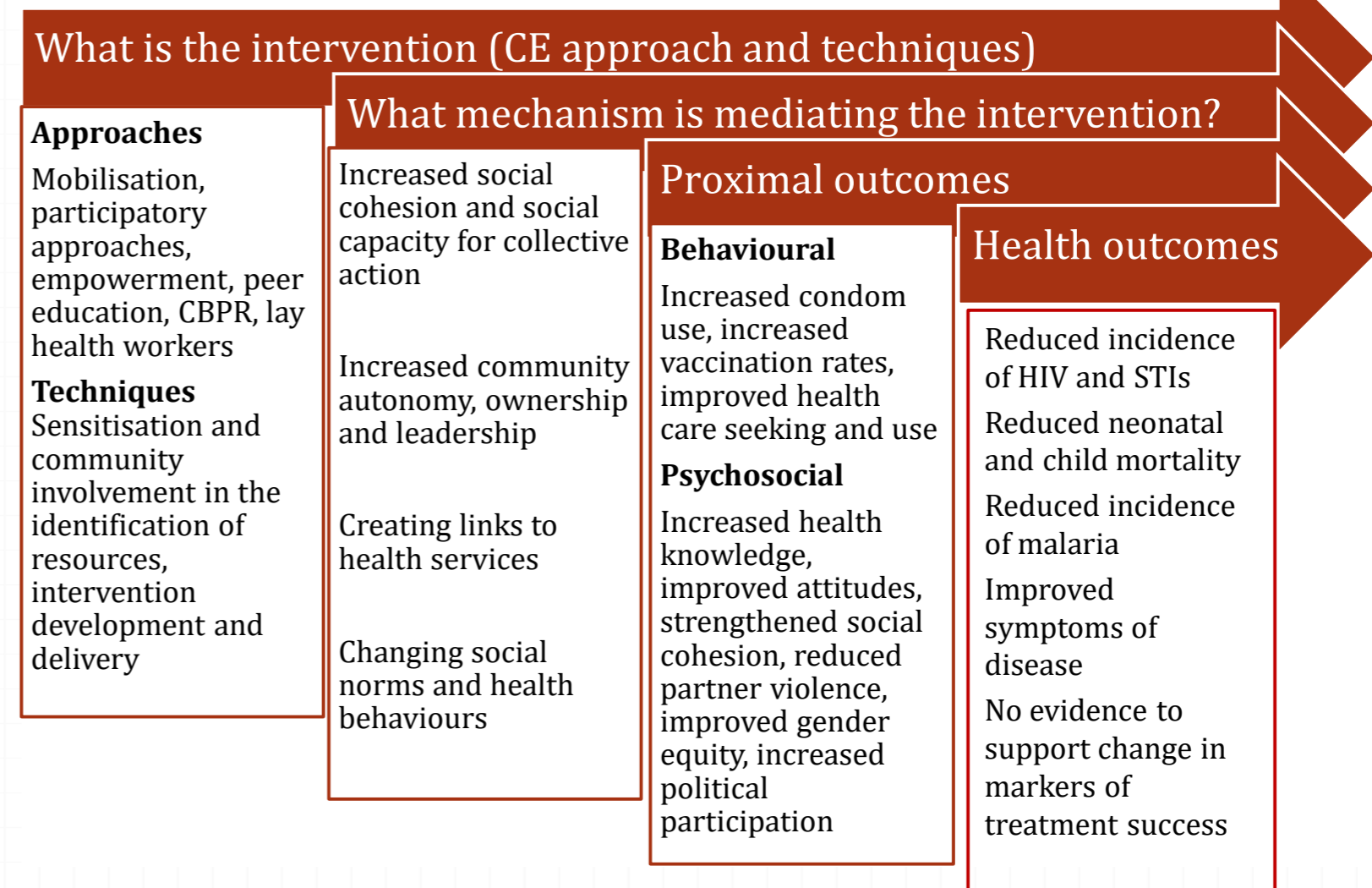
Thirteen systematic reviews of medium-to-high quality were identified between June and July 2017. The primary studies were undertaken within 50 different LLMICs, with India being the most common setting (9 reviews included Indian studies) followed by Tanzania (8) and Uganda (7). Target populations varied across reviews and included the general population, people at high risk of CDs, people living with CDs and women of reproductive age. Quality of the primary studies within the reviews was more varied and often poor where it was reported.

Communicable disease focus in systematic reviews of community engagement interventions (n=13)



A commonly used technique in community engagement interventions for communicable disease control was the involvement of community members in intervention delivery

Synthesis of results showing intervention characteristics, mechanisms and outcomes.



Influencing factors for success: disease level (eg disease prevalence), community level (eg existing social structure) and wider factors eg socio-political context. Increased success of interventions in marginalised groups with higher collective identity

General principles to increase effectiveness: shared leadership, context specific approaches, intensity and coverage of the intervention.

Child and maternal health outcomes

- A high quality meta-analysis showed significantly reduced neonatal mortality following women's participatory learning and action groups; This was partly attributed to increased health seeking and improved hygiene.
- A small number of primary studies supported a significant reduction in childhood fever or malaria prevalence. One study showed a significant reduction in child deaths due to malaria following an eight stage CE intervention.
- Of five studies measuring the impact of community health worker programme on rates of diarrhoea, four showed significantly reduced rates of diarrhoea in infants or children, two using educational approaches, one through breastfeeding promotion and one through the promotion of Kangaroo care.

Conclusions

Community engagement interventions may be effective in supporting CDC in LLMIC, particularly in aspects of child health and in marginalised groups living with HIV. Careful design of CE interventions appropriate to context, disease and community is vital.