



Handwashing and sanitation behaviour change in WASH interventions

Attention is increasingly focusing on programme design and approaches that promote water, sanitation and hygiene (WASH) behaviour change in efforts to achieve the UN Sustainable Goal 6.

By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

SDG 6.2

Several approaches have been developed over the last two decades that promote uptake of WASH interventions and sustain WASH behaviour change. While the evidence base for WASH interventions in low- and middle-income countries overall is fairly extensive, there is a gap in synthesised evidence about behaviour change approaches in WASH interventions.

The International Initiative for Impact Evaluation (3ie), in partnership with the Water Supply and Sanitation Collaborative Council, funded a systematic review to help to fill this evidence gap. It looked at which promotional approaches might change handwashing and sanitation behaviour, and which implementation factors affect the success or failure of such promotional approaches.

Highlights

- Interventions to promote sanitation and handwashing behaviour change include community-based approaches, social marketing, messaging and theory-based approaches. These may be provided alongside financing, such as loans.
- A combination of different promotional approaches is required, tailored to the particular implementation context.
- Community-based approaches and social marketing appear particularly effective in reducing open defecation and improving latrine use.
- Sanitation and hygiene messaging is not an effective way of promoting behaviour change.

Main findings

One size does not fit all.

Programme designers need to use a combination of different promotional approaches.

Programmes targeting handwashing and sanitation behaviour are complex and are based on several promotional elements that have been adapted to the local context. The review identified factors that might be relevant in the implementation of behaviour change approaches (see Figure 1).

Community-based approaches may be effective in changing handwashing and sanitation behaviour. Working in a community-based way is probably effective in reducing open defecation.

The review identified a number of influencing factors that could play a specific positive role in implementing these interventions:

- The facilitator being part of and representative of the community (e.g. a health promoter or leader);
- The attitude of the implementer or facilitator;
- The sex of the facilitator, since women and men prefer to discuss private issues with somebody of the same sex;

- Trust and clear communication between the implementer and community; and

- Creating a culture of cooperation and ownership in the community.

Social marketing approaches in combined handwashing and sanitation programmes probably improve latrine use and reduce open defecation.

However, the effect on handwashing and safe faeces disposal practices is unclear. When implementing a social marketing approach, working with the community – such as using local builders and considering consumer preferences – could be crucial. A specific barrier that may limit the effects of social marketing interventions is the use of sanitation loans. These are a slow and expensive approach that does not reach poor people and those who lack financial knowledge.

Sanitation and hygiene messaging probably improves handwashing in the short term, but has no impact on open defecation behaviour or safe faeces disposal.

With this approach, delivering messages using active learning methods seems to be key, as is using innovative and culturally sensitive messaging. In school-based interventions with children, the duration of the intervention and involving the children's parents seem to be positive influencing factors.

Further research is needed on theory-based approaches using elements of psychosocial theory.

Approaches using infrastructure promotion or public commitment seem promising, but very few rigorous studies are available.

Interpersonal communication and use of incentives might be promising promotional elements.

The methods used for communicating a certain promotional approach also play a role. Using interpersonal communication is effective in certain circumstances. Limited evidence exists on using subsidies as part of a community-based approach.

Figure 1: Effects of promotional approaches on behavioural change

BEHAVIOURAL CHANGE OUTCOMES	Intervention											
	Community-based			Marketing			Messaging			Theory-based		
	Uptake	Adherence	Longer term use	Uptake	Adherence	Longer term use	Uptake	Adherence	Longer term use	Uptake	Adherence	Longer term use
Hand-washing	Green	Green	Grey	Grey	Green	Grey	Green	Orange	Red	Orange	Green	Grey
Latrine use	Grey	Orange	Orange	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Safe faeces disposal practices	Grey	Green	Orange	Grey	Grey	Grey	Grey	Red	Red	Grey	Grey	Grey
Open defecation practices	Green	Green	Grey	Grey	Green	Grey	Red	Red	Grey	Grey	Grey	Grey

- Green [Intervention] probably improves or reduces [behavioural change outcome] (moderate quality or certainty evidence)
- Orange [Intervention] may improve or reduce [behavioural change outcome] (low quality or certainty evidence)
- Red [Intervention] probably makes little or no difference to [behavioural change outcome] (moderate quality or certainty evidence)
- Light Orange [Intervention] may make little or no difference to [behavioural change outcome] (low quality or certainty evidence)
- Grey We are uncertain whether [intervention] improves or reduces [behavioural change outcome] as the quality or certainty of the evidence has been assessed as very low
- Dark Grey Effect of [intervention] unknown because know of only limited evidence (from 1 study available)



USAID/Pakistan

Implications for policy and programming

Overall, promotional approaches aimed at handwashing and sanitation behaviour change can be effective in improving handwashing with soap, latrine use, safe faeces disposal and open defecation. The review mainly identified implications for programming. For policymaking, the evidence reconfirms the importance of supporting combinations of programming approaches to achieve effective behaviour change results. The review confirms that innovative methods, such as community-led total sanitation and social marketing, may be particularly effective in changing behaviours around latrine use and open defecation practices. In contrast, common methods based on health messaging are simply not effective.

The following elements of behaviour promotion are effective when designed into programming:

- Involving the community in the different stages of programme design and implementation, which improves the tangible actions taken by community members;
- Using social marketing elements in combined handwashing and sanitation programmes, such as determining people-centred needs, stimulating demand for handwashing and sanitation options, delivering desired outcomes more effectively and efficiently than competitors, working with local builders and other entrepreneurs, and considering consumer preferences and desires;
- Adding elements from psychosocial, social cognitive and behaviour change theories to the programme design, and social cognitive and theoretical elements to handwashing promotional approaches; and
- Using interpersonal communication as part of the communication strategy. Studies that use one-way communication in sanitation and hygiene messaging do not seem able to achieve long-term effects on handwashing and latrine use, safe faeces disposal and open defecation.

Implications for future research

More in-depth formative research during the assessment phase, including identifying influencing factors, seems to be a critical step to improve the selection of effective promotional elements in programmes aiming at behaviour change for sanitation and handwashing. There is an urgent need to have a more uniform method of measuring water, sanitation and hygiene behaviour outcomes. It will also help improve the findings and quality of synthesis studies of the effects of promotional approaches. In addition, it is important to test barriers and facilitators identified in this review further, alongside quantitative analyses of promotional approaches. In particular, more rigorous research would be valuable on the use of subsidies and incentives as part of community-based approaches.



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What is a systematic review?

3ie-funded systematic reviews use rigorous and transparent methods to identify, appraise and synthesise all of the relevant studies to address a specific review question. Review authors search for published and unpublished studies and use a theory-based approach to say what evidence may be generalised and what is more context specific. The result is an unbiased assessment of what works, for whom and why.

About the systematic review

This brief is based on *Promoting handwashing and sanitation behaviour change in low- and middle-income countries: A mixed-method systematic review*, 3ie Systematic Review 36 by Emmy De Buck, Hans Van Remoortel, Karin Hannes, Thashlin Govender, Selvan Naidoo, Bert Avau, Axel Vandeveegaete, Alfred Musekiwa, Vittoria Lutje, Margaret Cargo, Hans-Joachim Mosler, Philippe Vandekerckhove and Taryn Young.

It synthesises evidence from 42 quantitative studies on the effectiveness of behaviour change approaches and 28 qualitative studies on the implementation of such programmes. The Water Supply and Sanitation Collaborative Council funded the review in partnership with 3ie, and the Belgian Red Cross and the Effective Health Care Research Consortium provided additional co-funding.



The International Initiative for Impact Evaluation (3ie) is an international grant-making NGO promoting evidence-informed development policies and programmes. We are the global leader in funding, producing and synthesising high-quality evidence of what works, for whom, why and at what cost. We believe that high-quality and policy-relevant evidence will help make development more effective and improve people's lives.

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