

# Integrating immunisation and water, sanitation and hygiene: a holistic approach to health

Policy brief

April 2020



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Sanitation and Hygiene Applied Research for Equity

**WaterAid**

## Comprehensive diarrhoeal disease control and prevention requires inclusive and sustainable water, sanitation and hygiene (WASH) services, infrastructure and hygiene behaviours, alongside immunisation programmes. There is a strong rationale for their joint delivery as immunisation programmes reach more people than any other health intervention and serve as an important entry point to integrate WASH, with particular emphasis on hygiene behaviour change interventions.

Global guidance from the World Health Organization (WHO) emphasises that linking prevention and control efforts for diarrhoeal diseases could lead to greater health outcomes compared to single interventions, as well as improved living conditions, sanitation and access to safe water.<sup>1</sup>

The COVID-19 pandemic, as a critical example, may result in disruption to essential health services, including immunisation.<sup>2</sup> However, where essential health services are being maintained, joint delivery of immunisation and hygiene promotion would be beneficial, provided that correct infection prevention and control measures are in place.

► Mothers wash their hands before a hygiene session, Jahada, Nawalparasi, Nepal.



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### WASH

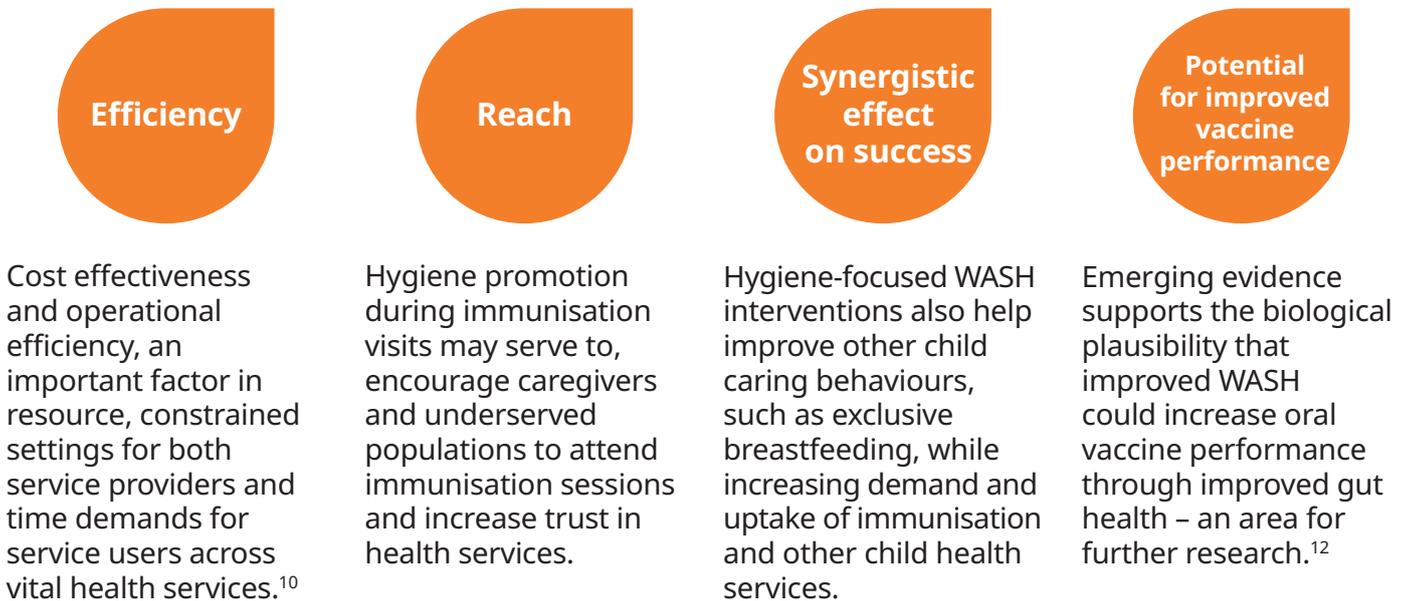
- Globally, approximately **88%** of diarrhoeal disease is caused by inadequate WASH, including poor hygiene practices.
- **58%** of total diarrhoeal deaths could be averted through safe drinking water, sanitation and hygiene.<sup>3,4,5</sup>
- Handwashing with soap has been linked to a **30–48%** reduction in risk of diarrhoea.<sup>6,7</sup>
- However, this highly effective preventative measure is estimated to occur at less than a third of key moments due to both lack of access to clean water and soap, and poor hygiene practices.<sup>8</sup>

### Immunisation

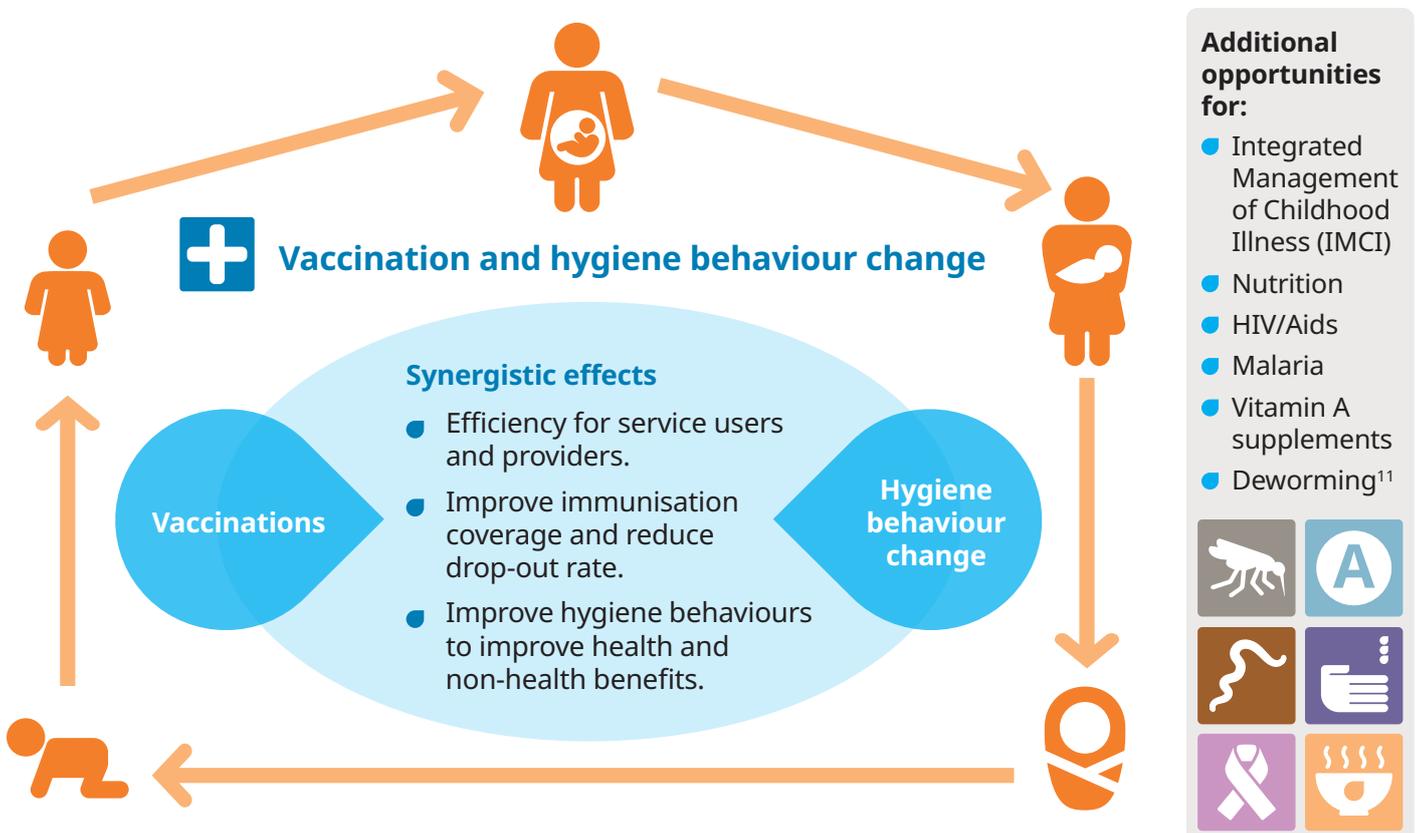
- Immunisation programmes reach more children than any other health intervention. Globally, in 2018, **86%** of children under 12 months received their full course of three doses of diphtheria, tetanus and pertussis (DTP3).<sup>9</sup>
- Coverage remains low for rotavirus vaccination with only **35%** of children receiving it by end of 2018 in the 101 countries with the vaccine.<sup>8</sup>
- Effectiveness of oral vaccines for the prevention of diarrhoeal disease is lower in many low- and middle-income contexts, where the disease burden is highest,<sup>10</sup> suggesting the additional need for other preventative measures.

## Integration of immunisation and WASH

Immunisation programmes are a well-established delivery platform. They have successfully been used as an entry point for complimentary public health interventions – including the delivery of vitamin A supplements and insecticide-treated bed nets.<sup>11</sup> Integrating WASH and context-specific hygiene behaviour change interventions during immunisation sessions could lead to a number of gains:



Integration can also present challenges to be addressed during planning, implementation and evaluation, including disaggregating the measured effect of integrated interventions, possible increases in transaction costs associated with cross-sectoral working, and the risk of overburdening health workers.



# Recommendations

## Local

### Context-specific implementation

- Develop context-specific integrated intervention packages drawing on national guidelines and global resources.
- Align integrated programmes with existing immunisation and WASH networks and activities.
- Train health workers in integrated delivery, including hygiene behaviour change.
- Monitor and evaluate the effect of integrated interventions.

## National

### Cross-ministerial planning and resource allocation

- Pledge cross-ministerial political commitment for integrated delivery of preventative measures.
- Integrate national guidelines through collaboration across sectors.
- Allocate financial support to integration efforts, including training health workers.
- Align integrated efforts with existing health and prevention activities particularly quality Universal Health Coverage (UHC).

## Global

### Joint advocacy for integrated programming

- Develop actionable global guidance on integration to translate into national action plans and support national government to implement.
- Use centralised global advisory groups to monitor, evaluate and guide efforts.
- Reform funding models to enable integrated delivery of WASH and other health interventions, including immunisation programmes, and move away from siloed funding streams.



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◀ Pramila Sharma, 19, washing her daughter's hands. Jajarkot, Nepal.

## Integration case study

### Integrating hygiene promotion through the immunisation programme in Nepal – from pilot to transition to scale.

Nepal has a high prevalence of diarrhoeal disease which often stems from poor coverage and low quality of water and sanitation services, and lack of good hygiene practices. Noticing a window of opportunity, researchers from WaterAid and the London School of Hygiene and Tropical Medicine (LSHTM) undertook a scoping study to assess how feasible and acceptable it would be to incorporate hygiene behaviour change with the country's already successful immunisation programme. The hope was that this would lead to a reduction in the incidence of diarrhoea and the programme could be implemented at a national scale.

An initial scoping study<sup>13</sup> showed strong support for integrating hygiene promotion with immunisation and that the challenge was how to proceed, rather than whether to proceed. Using the Behaviour Centred Design approach<sup>14</sup> and learning from the in-country behaviour change intervention trials,<sup>15</sup> a pilot intervention – named 'Ideal Family' with a slogan: 'Clean Family, Happy Family' – was designed, implemented and evaluated in four districts from February 2016 to March 2017. Around 35,000 mothers and guardians of young children (under one year) were exposed to the hygiene intervention at least five times while attending a vaccination visit. The hygiene intervention package was delivered through games, storytelling, competitions, visual reminders, cues/nudges, public rewards, hand-washing rituals and other techniques. The key hygiene behaviours targeted were exclusive breastfeeding, handwashing with soap, food hygiene, faeces management and water/milk treatment. This initiative explored whether integrating hygiene into immunisation could strengthen the vaccination programme, improve behaviours, build the capacity of female community health volunteers (FCHVs) and health workers, and offer a sustained mechanism for integration.

▼ One of the mothers participating during the session at Mohammadpur, Bardiya, Nepal.



Evaluation of the pilot showed that the intervention improved all key hygiene behaviours – increasing from 2% before the study to 53% one year after implementation. The project also increased immunisation coverage and led to a 10% decrease in diarrhoea prevalence in those who took part in the pilot. Based on the successes of the pilot, the Ministry of Health and Population (Family welfare and child health division) and other stakeholders, including WaterAid, agreed that a nationwide scale-up should go ahead. The integration of hygiene promotion with immunisation has been scheduled to coincide with the introduction of the rotavirus vaccine to national vaccination programmes in May/June 2020 (although this might be delayed due to the COVID-19 pandemic). This programme will aim to reach 650,000 mothers and guardians of children under 15 months at least seven times each year. Rotavirus causes severe diarrhoea and it is hoped the introduction of hygiene promotion with this vaccine will help to maximise the benefits of the vaccine, in addition to protecting children from other enteric diseases through improving hygiene behaviours.

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## List of participants

- Centre for Infectious Disease Research Zambia (CIDRZ)
- Government of Nepal
- Johns Hopkins University
- JSI Research and Training Institute (JSI)
- Médecins sans frontières (MSF)
- SHARE
- The London School of Hygiene & Tropical Medicine
- WaterAid
- Wellcome Trust
- SCI Foundation
- Global Task Force for Cholera Control (GTFCC)
- WHO



WaterAid/ Mani Karmacharya

▲ A baby waits with her mother for immunisation after a hygiene session at Dumkibaas Health Post, Dumkibaas, Nawalparasi, Nepal.

  
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