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

Comprehensive diarrhoeal disease control and prevention requires inclusive and sustainable water, sanitation and hygiene (WASH) services 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 entry point to integrate WASH – with particular emphasis on hygiene behaviour change. 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.\(^1\)

The COVID-19 pandemic, as a critical example, may result in disruption to essential health services, including immunisation.\(^2\) 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.

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

### Immunisation
- Programmes reach more children globally than any other health intervention. **86%** of children under 12 months received three doses of diphtheria, tetanus and pertussis as of 2018.\(^9\)
- Coverage remains low for rotavirus vaccination with only **35%** of children receiving it by end of 2018 in the 101 countries with the vaccine.\(^9\)
- Effectiveness of oral vaccines for prevention of diarrhoeal disease is lower in many low and middle-income contexts where disease burden is highest.\(^10\)

### 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.\(^11\) Integrating WASH and context-specific hygiene behaviour change interventions during immunisation sessions could lead to a number of gains:

**Efficiency**
- Cost effectiveness and operational efficiency – an important factor in resource-constrained settings.\(^10\)

**Reach**
- Hygiene promotion during immunisation visits may serve to encourage caregivers and underserved populations to attend immunisation sessions.

**Synergistic effect on success**
- Hygiene-focused WASH interventions help improve other child caring behaviours and increase demand for immunisation and child health services.

**Potential for improved vaccine performance**
- Emerging evidence supports the biological plausibility that improved WASH could increase oral vaccine performance through improved gut health – an area for further research.\(^12\)
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.
- Monitor and evaluate the effect of integrated interventions.

National
Cross-ministerial planning and resource allocation
- Pledge cross-ministerial political commitment.
- Integrate national guidelines.
- Allocate financial support to integration efforts, including training health workers.
- Align integrated efforts with existing health and prevention activities, particularly Universal Health Coverage (UHC).

Global
Joint advocacy for integrated programming
- Develop actionable global guidance on integration to translate into national action plans.
- 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.

List of participants: WHO, Government of Nepal, JSI Research and Training Institute (JSI), Johns Hopkins University, Centre for Infectious Disease Research Zambia (CIDRZ), Médecins Sans Frontières (MSF), Wellcome Trust, Global Task Force for Cholera Control (GTFCC), SCI Foundation, SHARE, WaterAid, London School of Hygiene and Tropical Medicine.

Additional opportunities for:
- Integrated Management of Childhood Illness (IMCI)
- Nutrition
- HIV/AIDS
- Malaria
- Vitamin A supplements
- Deworming

Synergistic effects
- Efficiency for service users and providers.
- Improve immunisation coverage and reduce drop-out rate.
- Improve hygiene behaviours to improve health and non-health benefits.

Vaccination and hygiene behaviour change


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