



3ie: your essential partner for WASH evidence

Poor water, sanitation and hygiene (WASH) conditions contribute to high rates of diarrhoeal disease, undernutrition, and acute respiratory and parasitic worm infections. UNICEF estimates that diarrhoea alone kills 480,000 children each year.¹ Beyond the serious health consequences, it can also diminish educational attainment and cause danger and stress for vulnerable populations, especially women and girls.

The International Initiative for Impact Evaluation (3ie) has been supporting the production of high-quality WASH evidence for over a decade. We believe that evidence is crucial for designing effective, gender-responsive and equity-focused programmes that help improve the lives of people living in poverty.

We are a global leader in producing policy-relevant studies in areas where there is little or no evidence on WASH programme effectiveness. They include 15 impact evaluations, 8 systematic reviews and 1 evidence gap map, covering 35 low- and middle-income countries. Our activities and services can support your work in various ways.

Highlights

Here are some of 3ie's contributions:

- Setting global WASH evidence production priorities and producing evidence maps;

- Supporting policy-relevant impact evaluations and systematic reviews;

- Improving rigour in measuring sanitation outcomes;

- Using behavioural science for increasing sanitation adoption; and

- Advocating for the generation and use of evidence at country, regional and global levels.

Setting evidence production priorities

We are well placed to fill critical knowledge gaps on the WASH needs of vulnerable and marginalised populations. From our work, we know that systematic steps still need to be taken to incorporate life cycle, sex disaggregation, gender and disability in targeting, designing and evaluating WASH programmes. Fulfilling the WASH Sustainable Development Goals will require more and better evidence for tackling menstrual hygiene management, understanding resistance to latrine pit emptying, and promoting WASH in schools.

To find out where we need more evidence, 3ie consults regularly with experts and produces evidence maps based on their priority questions. In 2018, we updated **our ground-breaking 2012 WASH evidence gap map, which identified critical interventions and outcomes where evidence was missing or insufficient.**

Our **scoping study** on latrine use in India, as well as consultative workshops, informed the scope and focus of our evidence programme in this area. **We also support formative evaluations** that test the feasibility, acceptability and scalability of interventions.

Improving rigour in measuring sanitation outcomes

Through innovative evaluation designs, we are developing more accurate ways of measuring a range of sanitation outcomes – latrine use, attitudes towards sanitation, psychosocial stress, sanitation insecurity, water insecurity and mental well-being.

Measuring latrine use, in particular, can be tricky, inaccurate and prone to bias. In generating evidence that helps promote latrine use in rural India, **we have used an innovative measurement approach** to compare latrine use measures and prevalence in similar areas using two different survey tools. This approach is enabling us to **identify better indicators for assessing the effectiveness of sanitation programmes.**



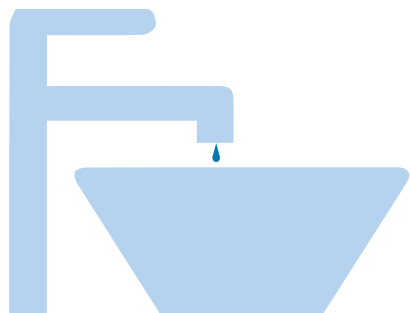
Using behavioural science to promote latrine use in rural India

Open defecation increases the risk of neonatal mortality, stunting and susceptibility to infectious diseases. Historically, sanitation programmes in India have focused on latrine construction to address this public health issue. However, we know that owning a toilet does not mean that all household members are using it. Some rural Indians still prefer defecating in the open for a variety of reasons, such as fearing the emptying of latrine pits or finding open defecation more comfortable.

With the support of the Bill & Melinda Gates Foundation, we are taking a deeper look at how behavioural science can be used to promote latrine use in rural India. Our **programme is generating evidence on cost-effective sustainable approaches to promote behaviour change in rural Bihar, Gujarat, Karnataka and Odisha.** These studies will contribute evidence on whether and how these interventions have varied in their effectiveness for men and women and across different caste and age groups. We expect the findings, due later in 2019, to inform the Indian government's sanitation policy.

What 3ie-supported evidence is revealing

Recent 3ie-supported impact evaluations and systematic reviews have examined the effectiveness of innovative WASH interventions and delved into the barriers and facilitators of uptake and use. Additionally, **our studies have demonstrated the importance of WASH in improving health and other outcomes.**



Synthesising evidence for better decision-making

A 3ie-supported systematic review on promoting handwashing and sanitation behaviour change examined which promotional approaches are effective and which implementation factors affect the success or failure of such interventions. The authors found that sanitation and hygiene messaging may improve handwashing in the short term, but it has no impact on open defecation behaviour or safe faeces disposal. An important finding for improving programming and practice is that **influencing behaviour requires a combination of different promotional approaches.**

Another 3ie-supported systematic review used a life-cycle lens to examine WASH policy, programme and project documents from 11 priority countries during the Millennium Development Goals period. It looked at the extent to which age, sex, disability and HIV status have been taken into consideration in providing services to disadvantaged and vulnerable populations. The review found that **life-cycle benefits were included more often in policies related to sanitation and hygiene than for water, although the consequences of decisions about access to water disproportionately affect women and girls.**

Evidence-informed advocacy

3ie advocates for the **generation and use of evidence at the community, country, regional and global levels.** We support research teams in producing strategic plans for engaging regularly with key stakeholders and going beyond just programme managers, government and donors to include programme participants themselves, civil society and the media.

Through our evaluation work on latrine use in India, **we are regularly engaging with national government stakeholders** to ensure they have evidence that can inform the country's sanitation policy.

We also produce policymaker-friendly reports, briefs and videos. As part of our **strategic partnership** with the Water Supply and Sanitation Collaborative Council, we tailored evidence reports and briefs for decision makers, making sure that the information was timely and useful.



Collaborate with us to improve WASH evidence and outcomes

We believe evidence is crucial for achieving equitable, inclusive and sustainable development in WASH. **3ie welcomes collaboration with organisations working to increase the production and use of high-quality evidence** that helps reduce barriers to the use of WASH technologies and practices. Through productive partnerships and strategic collaborations, we can accelerate progress towards achieving the goal of equitable access to and use of water and sanitation for all.

Selected 3ie-supported studies in WASH

Impact evaluations

Clasen, T, Boisson, S, Routray, P, Torondel, B, Bell, M, Cumming, O, Ensink, J, Freeman, M, Jenkins, M, Odagiri, M, Ray, S, Sinha, A, Suar, M and Schmidt, W, 2015. *Effectiveness of a rural sanitation programme on diarrhoea, soil-transmitted helminth infection and child malnutrition in India*, *3ie Impact Evaluation Report 38*. New Delhi: International Initiative for Impact Evaluation (3ie).

Díaz, JJ and Andrade, R, 2015. *An exploration of the impact of water and sanitation on child health in Peru*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Guiteras, R, Jannat, K, Levine, D and Polley, T, 2015. *Testing disgust- and shame-based safe water and handwashing promotion in Urban Dhaka, Bangladesh*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Ahuja, A, Grataudour, C, Hoffmann, V, Jakiela, P, Lapeyre, R, Null, C, Rostapshova, O and Sheely, R, 2015. *Chlorine dispensers in Kenya: scaling for results*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Yantio, DY, 2015. *Impact of water supply and sanitation on diarrhoea prevalence among children under the age of five: evidence from Cameroon*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Begum, S, Ahmed, M and Sen, B, 2013. *Impact of water and sanitation interventions on childhood diarrhea: evidence from Bangladesh*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Capuno, JJ, Tan, C and Fabella, V, 2013. *Do piped water and flush toilets prevent child diarrhea in rural Philippines?*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Roushdy, R, Sieverding, M and Radwan, H, 2013. *The impact of water supply and sanitation on child health: evidence from Egypt*, *3ie Grantee Final Report*. New Delhi: International Initiative for Impact Evaluation (3ie).

Systematic reviews

Annamalai, TR, Narayanan, S, Devkar, G, Kumar, VS, Devaraj, R, Ayyangar, A and Mahalingam, A, 2017. *Incorporating the life cycle approach into WASH policies and programmes: A systematic review*, *3ie Systematic Review 35*. London: International Initiative for Impact Evaluation (3ie).

De Buck, E, Van Remoortel, H, Hannes, K, Govender, T, Naidoo, S, Avau, B, Vande Veegaete, A, Musekiwa, A, Lutje, V, 2017. *Promoting handwashing and sanitation behaviour change in low- and middle-income countries: a mixed-method systematic review*, *3ie Systematic Review 36*. London: International Initiative for Impact Evaluation (3ie).

Benjamin-Chung, J, Abedin, J, Berger, D, Clark, A, Falcao, L, Jimenez, V, Konagaya, E, Tran, D, Arnold, B, Hubbard, A, Luby, S, Miguel, E and Colford, J, 2015. *The identification and measurement of health-related spillovers in impact evaluations: a systematic review*, *3ie Systematic Review 22*. London: International Initiative for Impact Evaluation (3ie).

Hulland, K, Martin, N, Dreibelbis, R, DeBruicker Valient, J and Winch, P, 2015. *What factors affect sustained adoption of safe water, hygiene and sanitation technologies?*, *3ie Systematic Review Summary 2*. London: International Initiative for Impact Evaluation (3ie).

Yates, T, Allen, J, Leandre Joseph, M and Lantagne, D, 2017. *Short-term WASH interventions in emergency responses in low- and middle-income countries*, *3ie Systematic Review Summary 8*. London: International Initiative for Impact Evaluation (3ie).

Turley, R, Saith, R, Bhan, N, Rehfuess, E and Carter, B, 2013. *Slum upgrading strategies and their effects on health and socio-economic outcomes: a systematic review*, *3ie Systematic Review 13*. London: International Initiative for Impact Evaluation (3ie).

Null, C, Hombrados, JG, Kremer, M, Meeks, R, Miguel, E and Peterson Zwane, A, 2012. *Willingness to pay for cleaner water in less developed countries: systematic review of experimental evidence*, *3ie Systematic Review 6*. London: International Initiative for Impact Evaluation (3ie).

Waddington, H, Snilstveit, S, White, H and Fewtrell, L, 2009. *Water, sanitation and hygiene interventions to combat childhood diarrhoea in developing countries*, *3ie Systematic Review 1*. London: International Initiative for Impact Evaluation (3ie).

Evidence gap map

3ie, 2018. *Water, Sanitation and Hygiene evidence gap map: 2018 update*, London: International Initiative for Impact Evaluation (3ie).

Scoping paper

Lahiri, S, Yegbemey, RN, Goel, N, Mathew, L and Puri, J, 2017. *Promoting latrine use in India*, *3ie Scoping Paper 8*. New Delhi: International Initiative for Impact Evaluation (3ie).

Endnotes

¹UNICEF, 2018. Diarrhoeal disease – current status and progress.

The International Initiative for Impact Evaluation (3ie) is a global leader in funding, producing, assuring the quality of and synthesising rigorous evidence. We support studies and reviews that examine what works, for whom, why and at what cost in low- and middle-income countries. We are also a global advocate for the generation and use of quality evidence in development decision-making. 3ie is a membership organisation with a global network of members and key partners. We promote evidence-informed equitable, inclusive and sustainable development.

For more information, contact us at info@3ieimpact.org.